ORIGINAL ARTICLE

The Effect of Online Acceptance and Commitment Therapy and Family Psychoeducation Therapy on Personal and Social Performances and Treatment Compliance for Schizophrenia Clients with the Risk of Behavioral Violence and Hallucinations in Community

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ABSTRACT

Background: Schizophrenia is a condition of mental disorder that is characterized by positive and negative symptoms. Among these positive symptoms is the risk of violent behavior and hallucinations.

Aim: To determine the effect of online acceptance and commitment therapy and family psychoeducation therapy on personal and social performance and treatment compliance for schizophrenia clients with the risk of violent behavior and hallucinations.

Methods: This study implemented an operational research design. The sampling technique used was purposive sampling with 48 patients. The data analysis used the Wilcoxon test and the Friedman test.

Results: The results of this study indicated that there is an influence of nursing practice, acceptance and commitment therapy, and family psychoeducation therapy on personal and social performance and treatment compliance for clients with the risk of violent behavior and hallucinations with p-value of 0,000.

Conclusion: Therefore, the implementation of schizophrenia client nursing practice with the risk of violent behavior and hallucinations can be provided according to the standard of nursing care with generalist nursing practice and added to the ACT and FPE specialist nursing practice.

Keywords: Acceptance and Commitment Therapy, Family Psychoeducation Therapy, Hallucinations, Treatment Compliance, Personal and Social Performance, Risk of Violent Behavior

INTRODUCTION

Mental health is still an important aspect in the world considering its high prevalence. There are more than 60 million people in the world diagnosed with bipolar disorder, 47.5 million people with dementia, 35 million people with depression, and 21 million schizophrenics¹. In Indonesia, in 2018 the prevalence of schizophrenia has increased by 0.18% of the total population of Indonesia². The incidence of schizophrenia in Indonesia is still quite high.

The high incidence of schizophrenia needs special attention in its management. Therefore, the access of clients and families to health service utilization is still quite high. Clients and families take advantage of health services because they require management to prevent and overcome the problem of anger and the risk of suicide in schizophrenic clients.³ Management of schizophrenia in the hospital is needed by both clients and families to overcome the clients' mental health problems.

This condition is not much different from Indonesia, that schizophrenic clients and families also require high care. There are many clients who are often hospitalized. The reason of 60% clients treated in hospitals is because they do not have the ability to independently solve the problems they experience⁴. Clients and families take advantage of health services with the aim of solving problems and prevent the worsening condition of schizophrenic clients.

Schizophrenia is a severe mental disorder characterized by disorders of thought patterns, delusions,

hallucinations, and behaviors.⁵ Schizophrenic clients can experience a variety of symptoms, both positive and negative. Among the positive signs that the client often experiences is the risk of violent behavior and hallucinations.

Violent behavior is a maladaptive response to unstable emotions. Violent behavior of schizophrenic clients occurs when clients experience low self-esteem, anxiety, fear, and social rejection so that clients isolate themselves from social relationships⁶. Further social isolation can lead to hallucinations.

Hallucination can trigger violent behavior because clients hear voices containing commands to carry out violent behavior⁷. The incidence of hallucination in schizophrenic clients reaches 70%⁸. The causes of hallucination include the client's inability to deal with a stressor, recognize, and control the hallucination themselves⁹. Hallucination and the risk of violent behavior, if cannot be handled, can have a wider impact on the clients.

The felt impact can be in the form of a decrease in life functions and quality of life⁶. Schizophrenic clients will find it difficult to carry out the functions of the client's personal and social life so that they can exacerbate the symptoms they experience¹⁰. Clients will also experience decreased ability to work, study, and maintain personal relationships. This can have a wider impact, namely a decrease in the quality of life so that it needs to be handled appropriately. Treatment of clients with the risk of violent behavior and hallucination can be provided by nurses to increase the clients' ability to control the risk of violent behavior and hallucination. Clients who have the ability to control the risk of violent behavior can improve life functions¹¹. In addition, the nursing action measures given are also aimed at improving the quality of life, independence, and work productivity to reduce the recurrence rate. Schizophrenic clients have a higher risk of experiencing recurrence, namely 44.1% compared to clients with bipolar disorder (22.7%).¹² The recurrence prevalence of schizop.

The recurrence prevalence of schizophrenic clients occurs in the 1-5 years 40-92% after an acute episode.¹³ Previous research stated that 33.3-34% of schizophrenic clients would relapse six months after hospitalization.¹⁴ Factors that cause relapse include withdrawal from drugs, patient factors, and family factors or social support.¹⁵

The results of the practice of the mental nursing care course at Bogor City in dr.H Marzoeki Mahdi Hospital in December 2019 showed that 169 schizophrenic clients had been given nursing care. As many as 76.3% of clients experienced hallucination problems and 68.6% had problems with the risk of violent behavior. The recurrence rate was obtained by 70.4% of clients experiencing recurrence and 76.3% due to drug withdrawal. The clients were admitted to the hospital because 76.3% of the complaints heard the voice and 68.6% of them became angry and endangered the environment. Based on these data, it shows that the prevalence of the risk of recurring violent behavior and hallucination due to drug withdrawal is still high, so it is necessary to get comprehensive and measurable mental nursing care.

Online specialist mental nursing care was provided for six weeks from 18 May - 26 June 2020. The number of clients treated was 57 clients. Based on this number, 48 of them had problems with the risk of violent behavior and hallucination. All clients with problems with the risk of violent behavior and hallucination were involved in the writing of this specialist's final paper.

Some mental nursing care for clients at risk of violent behavior and hallucination has been widely used. The application of nursing care standards for clients with the risk of violent behavior and hallucination is proven to help clients control the risk of violent behavior and hallucination.^{16,17} Yunalia & Etika's research (2019) and A.Rezan, Çeçen, Erogul, & Zengel (2009) also stated that asertive training can improve assertive communication skills in adolescents with aggressive behavior^{18,19}. The research results of Wahyuni, Keliat, Yusron, Susanti (2011) also showed that giving thought and behavior therapy can reduce hallucination in schizophrenic clients²⁰. This means that in addition to nursing actions, specialist nursing actions can also help overcome the problem of risk of violent behavior and hallucination.

Other mental nursing actions can also be given to schizophrenic clients with a risk of violent behavior and hallucination. Acceptance and Commitment Therapy (ACT) can be given to clients to increase acceptance and commitment of schizophrenic clients, especially those with the risk of violent behavior and hallucination. Acceptance and commitment therapy has been shown to be effective in increasing acceptance, attention, and openness of schizophrenic clients,²¹ reducing symptoms of angry and violent behavior^{22,23} and improving affective and social aspects of clients with hallucination²⁴. Acceptance and commitment therapy is proven to be effective for clients with the risk of violent behavior and hallucination. Acceptance and commitment therapy provided with Family Psychoeducation Therapy (FPE) can also reduce signs and symptoms of risk of violent behavior from cognitive, affective, physiological, and social behavior aspects of clients in controlling emotions, as well as the ability of families to care for clients²⁵.

The researchers gave ACT and FPE therapy on the risk of violent behavior and hallucination during the specialist psychiatric nursing clinic practice. The practice of specialist psychiatric nursing clinic was carried out online on patients who have been hospitalized from the hospital. This was carried out due to the COVID-19 pandemic and at the same time as an effort to implement a continuous care program from hospital to home that is integrated in the independent practice of mental nursing. Nursing care for clients with the risk of violent behavior and hallucination is given comprehensively to help clients restore the integrity of the client's condition in biopsychososiocultural aspect. The researchers seek to provide ACT and FPE online by telephone, chat, and video call methods to ensure clients still get optimal nursing care when they are at home.

Based on some of these problems and the implementation of specialist mental nursing care practices online, the researchers will report the results of the practice, especially for clients at risk of violent behavior and hallucination given acceptance and commitment therapy and family psychoeducation therapy and its effects on personal and social skills and treatment compliance with clients. This specialist final work aims to determine the effect of online acceptance and commitment therapy and family psychoeducation therapy on personal and social appearances and treatment adherence to schiozfrenic clients with the risk of violent behavior and hallucination.

MATERIALS AND METHODS

The writing of this specialist final scientific paper uses operational research design. It consists of six stages of implementation, namely (1) Observing the problem (observing the problem, namely the assessment/scanning of the clients); (2) Analyzing and defining the problem (analyze and find problems based on scanning results, determine nursing diagnoses, namely the risk of violent behavior and hallucination); (3) Developing a model (develop a model including the selection of appropriate therapy); (4) Selecting appropriate data input (selecting data to be measured, namely personal and social appearance as well as client medication compliance); (5) Providing a solution and testing its reasonableness (the solution is the implementation of nursing action for nurses, Acceptance and Commitment Therapy and Family Psychoeducation Therapy); (6) Implementing the solution (implement the solution). The sampling technique used in this specialist's final scientific paper was purposive sampling with a total of 48 patients. The data collection process is summarized in the scheme 1. Data analysis

used Wilcoxon test and Friedman test. This research has passed the ethics test from fon ui by number SK-

150/UN2.F12.D1.2.1/ETIK2020.

Scheme 1. Data collection process

Client	Meeting 1	Meeting 2	Meeting 3-4	Meeting 5-7	Meeting 8
RPK da Hall	Pretest TKN+ACT 1	ACT 2	Postest 2 FPE 1-2	FPE 3-5	FPE 6 Postest 2

RESULTS

Client Characteristics: Client characteristics are assessed based on age, sex, education, occupation, and marrital status. More detailed client characteristics are shown in table 1 and table 2.

Table 1 explained that schizophrenic clients who experienced the most risk of violent behavior were those at 38 years old with an average age of 36.79 years. Clients were in the age range of 18 years to 68 years.

Table 2 above explained that 75% of schizophrenic clients who experienced the risk of violent behavior and hallucination were men, 35.4% was at elementary school education, 64.6% did not work, and 52.1% was unmarried.

Predisposing Factors and Precipitation: Predisposing and precipitation factors consist of biological, psychological, and socio-cultural factors. The following are the predisposing factors and precipitation presented in Tables 3 and 4.

Table 3 showed that the highest biological predisposing factor that causes schizophrenic clients to experience the risk of violent behavior and hallucination was a history of previous mental disorders (72.9%). The psychological and socio-cultural predisposing factors, respectively, were caused by unpleasant experiences and negative self-concept (100%) and the condition of the client who did not work (79.2%).

The most biological precipitation factor as shown in table 4 was drug withdrawal (50%), the most psychological factor was problem solving (41.7%), and the most social was unemployment, reaching 66.7%.

The Effect of Nursing Actions (TKN) and Acceptance and Commitment Therapy (ACT) on Personal and Social Presentation in Clients with Risk of Violent Behavior and Hallucination: Acceptance and commitment therapy was given to 48 schizophrenic clients who were at risk of violent behavior and hallucination. Clients were measured personal and social presentation before and after being given TKN and ACT.

Table 5 showed that the average personal and social presentation of schizophrenic clients who experienced a risk of violent behavior and hallucination before being given ACT was 57.44 (57.44) from a total score of 100 and this number increased after being given TKN and ACT, which was 70.56 (70.56%). The minimum and maximum scores in the two groups also indicated an improvement. Based on the Wilcoxon test conducted on schizophrenic clients who experience a risk of violent behavior and hallucination, the p value was 0.000 (<0.05), which means that there is an effect of nursing actions and acceptance and commitment therapy on personal and social presentation in clients with the risk of violent behavior and hallucination.

The Effect of Nursing Actions and Acceptance and Commitment Therapy on Treatment Compliance for Clients Risking of Violent Behavior and Hallucination: Acceptance and commitment therapy was given to schizophrenic clients who were at risk of violent behavior and hallucination as well as to measure compliance with treatment for clients.

Table 6 indicated that the average adherence to treatment of schizophrenic clients who experienced a risk of violent behavior and hallucination before being given ACT was 8.10 (40.5%) from a maximum score of 20. There was an increase after being given TKN and ACT, which was 15.08 (75,4%). The minimum and maximum scores in the two groups also increased. Based on the results of the Wilcoxon test which was carried out, the p value was 0.000 (<0.05), this means that there is an effect of nursing actions and acceptance and commitment therapy on compliance with treatment for clients, the risk of violent behavior and hallucination.

The Effect of Nursing Actions, Acceptance and Commitment Therapy, and Family Psychoeducation Therapy on Personal and Social Appearances in Clients Risking of Violent Behavior and Hallucination: The stage of giving nursing actions to schizophrenic clients who experience the risk of violent behavior and hallucination were giving TKN and ACT then continued with giving FPE.

Based on table 7, it showed that there was an increase in the average value of personal and social appearances in the group before the TKN and ACT giving, after the TKN and ACT giving, and after the TKN and ACT and FPE granting. The results of statistical tests using the Friedman test, it was obtained a p value of 0.000 (<0.05), which means that there is an effect of nursing actions, acceptance and commitment therapy, and family psychoeducation therapy on personal and social appearances in clients at risk of violent behavior and hallucination.

The Effect of Nursing Actions, Acceptance and Commitment Therapy, and Family Psychoeducation Therapy on Treatment Compliance in Clients with the Risk of Violent Behavior and Hallucination. Family psychoeducation therapy given to schizophrenic clients who experienced problems with the risk of violent behavior and hallucinations after the clients received TKN and ACT was also measured against treatment compliance.

Based on table 8, it showed that there was an increase in the average value of treatment compliance in the group before giving ACT, after giving ACT, and after giving ACT and FPE. The results of statistical tests using the Friedman test showed a p value of 0.000 (<0.05), which means that there is an effect of acceptance and commitment therapy and family psychoeducation therapy on treatment compliance in clients with the risk of violent behavior and hallucination.

Table 1: Age Characteristics of Schizophrenic Clients at Risk of Violent Behavior and Hallucination (n = 48)

Characteristic	Mean	Median	SD	Min-Max
Age	36.79	35.50	13.465	18-68

Table 2: Characteristics of Gender, Education, Work Status, and Marriage of Schizophrenic Clients at Risk of Violent Behavior and Hallucination (n = 48)

Characteristic	Total	Percentage
Gender	· · · ·	
Male	36	75
Female	12	25
Education		
Not graduate from elementary school	2	4.2
Elementary school	17	35.4
Junior high school	13	27.1
Senior high school	15	31.2
University	1	2.1
Job		
Not working	31	64.6
Working	17	35.4
Marital status		
Unmarried	25	52.1
Married	14	29.2
Widower/ Widow	9	18.8

Table 3: Predisposing factors for schizophrenic clients who experience the risk of violent behavior and hallucination (n = 48)

Predisposing Factors	Total	Percentage
Biological factors		
Previous mental disorders	35	72.9
Drinking alcohol	5	10.4
Drug users	5	10.4
Smoking	28	58.3
Heredity	21	43.8
Drug withdrawl	7	14.6
Psychological factors		
Unpleasant experiences	48	100
The solution to the problem was buried	38	79.2
Negative self-concept	48	100
Wishes not fulfilled	12	25
Socio-cultural factors		
Dropout	4	8.3
Does not work	38	79.2
Economic problem	31	64.6
Not yet/ unmarried	33	68.7

Table 4: Precipitation factors for schizophrenic clients experiencing the risk of violent behavior and hallucination (n = 48)

Presipitation factors	Total	Percentage
Biological factors		
Drinking alcohol	3	6.25
Drug users	1	2.1
Smoking	20	41.7
Heredity	21	43.8
Drug withdrawl	24	50
Psychological factors		
Unpleasant experiences	19	39.6
The solution to the problem was buried	20	41.7
Negative self-concept	19	39.6
Wishes not fulfilled	15	31.3
Socio-cultural factors		
Does not work	32	66.7
Economic problem	31	64.6
Not yet/ unmarried	25	52.1

Table 5: The effect of Nursing Actions and Acceptance and Commitment Therapy on the personal and social presentation of clients risking at violent behavior and hallucination (n = 48)

Variable	Group	Mean	SD	Min-Max	p <i>valu</i> e
Personal and social	Before TKN & ACT	57.44	16.205	21-75	0.000
presentation	After TKN & ACT	70.56	14.030	35-85	0.000

Table 6: The Influence of Nursing Actions and Acceptance and Commitment Therapy on Treatment Adherence to Clients Risking of Violent Behavior and Hallucination (n = 48)

Variable	Group	Mean	SD	Min-Max	p <i>value</i>
Treatment Adherence	Before TKN & ACT	8.10	4.804	0-18	0.000
	After TKN & ACT	15.08	43.41	8-20	0.000

Table 7: The Effect of Nursing Actions, Acceptance and Commitment Therapy, and Family Psychoeducation Therapy on Personal and Social Appearances in Clients at Risk of Violent Behavior and Hallucination (n = 48)

Variable	Group	Mean	SD	Min-Max	p <i>value</i>
Deresnel and assist	Before TKN & ACT	57.44	16.205	21-75	0.000
Personal and social appearance	After TKN & ACT	70.56	14.030	35-85	
	After TKN, ACT & FPE	88.69	10.228	58-95	

Table 8: The Effect of Nursing Actions by Nurses, Acceptance and Commitment Therapy, and Family Psychoeducation Therapy on treatment compliance in clients with the risk of violent behavior and hallucination (n = 48)

Variable	Group	Mean	SD	Min-Max	p <i>valu</i> e
	Before TKN & ACT	8.10	4.804	0-18	0.000
Treatment Compliance	After TKN & ACT	15.08	4.341	8-20	
	After TKN, ACT & FPE	19.23	1.574	13-20	

DISCUSSION

Client Characteristics: Early adulthood is the age that indicates individual maturity in developing cognitive abilities and behavior.²⁶ Individuals reached a stable emotional level and could make decisions in adulthood. The level of emotional maturity and the ability to make decisions was influenced by education and daily experiences that have been passed by adult individuals.²⁷ This proves that, at adulthood, a person has good cognitive, emotional, and behavioral abilities.

Men have a 2.37 times greater risk of developing schizophrenia than women. This is related to the function, role, and duties of men in the household who are at risk of experiencing greater problems and stress. Men in society were required to be more independent than women. However, it did not rule out that women are also at risk for experiencing schizophrenia²⁸. Thus, it can be concluded that schizophrenic clients are more common in males than females.

The educational characteristics found in this specialist's final scientific work were elementary school graduates (35.4%). The specialist's final scientific work showed that the clients still had low education. Formal education could affect access and then clients got some information.²⁹ Education could also influence individual attitudes in managing the stress they experience.³⁰ Therefore, education that is classified as low can increase the risk of schizophrenia caused by the inability to manage stress and the lack of information obtained about stress.

The results of this specialist's final scientific work showed that 64.6% of clients were unemployed. Work is an important component of clients to be able to exist in maintaining their lives through meeting client needs. Clients who had jobs would pay more attention to their quality of life.³¹ In addition, job status is closely related to the client's self-concept. Clients who had jobs had high self-esteem and a good quality of life so that they could help clients to recover. Working clients can reduce stressors in their life.

The marital status found in this specialist's final scientific work was 52.1% of the clients were unmarried. These results are in line with the theory that schizophrenia

was more common in unmarried people³². An unmarried person had a higher risk of experiencing schizophrenia because there was no process of closeness and personal interaction with a partner to create peace.³³ In addition, schizophrenic clients could be prevented from getting married as well because as a result of their status as a schizophrenic clients that required long treatment.³⁴ It can be concluded that marital status is the cause and effect of schizophrenia.

Predisposing and Precipitation Factors: Biological factors, namely previous mental disorders could affect the activity of neurotransmitters in clients, one of the causes was due to hereditary factors. Individuals or family members having or experiencing mental disorders would tend to have a family with mental disorders, would tend to be higher with people who did not have genetic factors.³⁵ The biggest risk factor was a positive family history. The risk factor in one relative who had schizophrenia was 6.5% and became 40% if it occured in monozygotic twins. Schizophrenia can occur due to an imbalance of neurotransmitters in the brain. Schizophrenia arises due to excessive dopamine activity or abnormal dopamine sensitivity. Apart from dopamine, several other neurotransmitters that played a role in schizophrenia were serotonin and norepinephrine³⁶.

Psychosocial factors are psychological stressors experienced by clients due to stress and life experiences experienced. When this pressure lasted for a long time and reached a certain level, it could lead to mental balance disorders and further led to symptoms of schizophrenia. Socio-cultural factors are related to work status and fulfillment of daily needs. Low economic status has six times the risk of developing schizophrenia. Someone who did not work also had a 6.2 times greater risk of suffering from schizophrenia.²⁸

Takeuchi, Suzuki, Uchida Watanabe, & Mimura (2012) explained that schizophrenic patients who experienced drug withdrawal after one to two years from the first episode could cause relapses37³⁷. Emsley, Chiliza, Asmal, & Harvey (2013) argued that the withdrawal factor was the biggest cause of relapse after the first period but did not lead to severe relapses if the drug was not

consumed after a long period of treatment¹³. Inability to comply with the treatment program was one of the most frequent causes of relapse and it was estimated that about 50% did not comply with the treatment program that has been given³⁸. This is in line with the results of the assessment which found that drug withdrawal was a factor of precipitation in the treated clients.

Precipitation of socio-cultural factors was obtained because the clients did not work. This was because people who did not work would be more pessimistic about life which had an impact on the production of stress hormones (catecholamines) and resulted in helplessness.³⁹ Someone who does not work will affect the economical status to be low which can also affect someone's life. The difficult economic conditions make people vulnerable to schizophrenia.

Clients with schizophrenia who experienced risk problems for violent behavior could be caused by several risk factors. Biological risk factors were caused by past and untreated symptoms of psychosis, drug and alcohol abuse, and mood disorders. Psychological risk factors included the experience of victims of abuse, sexual and physical abuse, and personality disorders. Socio-cultural risk factors included young age, gender, divorce victims, family and social conflicts, hostility, inability to establish social relationships, low social and economic status, and bad environmental factors⁴⁰.

The risk factors for hallucination are also divided into biological, psychological, and socio-cultural factors. Biological factors include a previous history of schizophrenia, neurochemical disorders, brain lesions, and metabolic response to stress⁴¹. Hallucination biological factors are related to the presence of neuropathology and an imbalance of neurotransmitters. The impact that can be assessed as a manifestation of the disorder was the patient's maladaptive behavior⁴². Neuropathology can involve the limbic system, frontal lobe and hypothalamus which can affect thinking disorders, emotional regulation, mood, and motivation. Hallucinations can also occur due to an imbalance of several neurotransmitters.

The Effect of Nursing Actions and Acceptance and Commitment Online Therapy on Personal and Social Appearances in Clients Risking of Violent Behavior and Hallucination. There was an effect of nursing actions and acceptance and commitment therapy on personal and social appearance in clients at risk of violent behavior and hallucination. Acceptance and commitment therapy is a therapy resulting from the development of cognitive therapy that focuses on changes in the client's mind and behavior⁴³. Acceptance and commitment therapy can be given to clients with schizophrenia. The purpose of using ACT is to increase the client's self-acceptance and ideal so that it becomes a commitment to create more comfortable and calm conditions⁴⁴. In general, ACT is given to schizophrenic clients to create client meaning and acceptance of the client's unpleasant conditions⁴⁵. Acceptance and commitment therapy can help schizophrenic clients in accepting disease conditions, increase their awareness, and form a commitment to recovery and productivity.

Acceptance and commitment therapy could not reduce the signs of schizophrenia symptoms experienced by clients, but through increased acceptance and commitment, it would automatically increase the client's efforts to reduce the symptoms that clients experienced. Acceptance and commitment therapy was used to prevent recurrence of psychotic clients⁴⁶. Walker (2017) stated that ACT could also reduce the burnout rate. Johns et al (2016) stated that ACT in schizophrenic clients was given to increase awareness and acceptance of the client's condition. This means that, through ACT, it is hoped that clients will be aware of their self-care needs to help clients manage the signs of symptoms they are experiencing.

Acceptance and commitment therapy is given to schizophrenic clients by maintaining two main principles. This principle is the use of value clarification and action in making agreements and counseling to respond to the client's uncertainty or confusion regarding perceptions and thinking patterns that are not appropriate to the client's condition. The difference with cognitive therapy is that ACT makes more use of changes in mind to form new behaviors according to believed values and self-regulate in maintaining these behaviors⁴⁷. This is consistent with the results of this specialist's final scientific work revealing that ACT could influence clients' social and personal appearance through cognitive changes experienced by clients.

The client's cognitive function can be linked to the client's personal and social functions. Clients who experienced cognitive deficits would be disturbed by their functional life status.⁴⁸ The ability of social functions experienced by clients could be caused by the client experiencing cognitive dysfunction.¹⁰ This results in a decrease in work productivity and client social relationships. The client was also unable to maintain work activities and daily activities which in turn could affect the client's quality of life⁴⁹.

Based on the final scientific work, it was found that ACT was a mental nursing special therapy that could directly improve clients' personal and social appearance. Acceptance and commitment therapy could improve the client's personal and social appearance because in its implementation it contained the client's cognitive improvement process by changing his mind to form new behaviors according to the values believed and selfregulating in maintaining these behaviors. In the end, through ACT, personal and social appearances could also be maintained through the commitment formed from the ACT implementation process for clients.

The Effect of Nursing Actions of Acceptance and Commitment Online Therapy on Treatment Compliance for Clients Risking at Violent Behavior and Hallucination. There was an effect of nursing actions and acceptance and commitment therapy on treatment adherence to clients at risk of violent behavior and hallucination. Acceptance and commitment therapy is proven as a therapy that can help overcome non-compliance. Acceptance and commitment therapy has been shown to reduce recurrence and reduce signs of risk of violent behavior. Acceptance and commitment therapy has also proven to be effective in increasing abilities and overcoming problems of social isolation and hallucination.²⁴ Pardede, Keliat, & Wardani (2013) stated that with ACT therapy the ability to accept and commit to clients with schizophrenia increased by 40.78% and client adherence increased by 53.7%7. Thus, it is proven that ACT can increase the client's commitment to adhere to the treatment program to prevent relapse.

Acceptance and commitment therapy can also bring clients to adapt psychologically to the conditions they are experiencing. The client was more aware and accepted of his illness.⁵⁰ Acceptance and commitment therapy utilizes positive values and beliefs that clients have as a basis for changing thoughts and behavior to be more accepting and surviving the changes they experience⁵¹. These values usually serve as guidance for clients in determining attitudes and behavior after being given ACT. Hayes (2003) states that the values in the ACT that can be used are family, social, health, and physical welfare values⁴⁴. These values are able to make clients more aware of and accept their condition.

Based on the results of the specialist's final scientific work, it can be concluded that giving ACT can increase and affect adherence to treatment for schizophrenic clients who are at risk of violent behavior and hallucinations. Acceptance and commitment therapy is proven as a therapy that can increase the client's psychological flexibility so as to increase the client's adaptation and acceptance to the changes he is experiencing. Positive values that clients have are the main key in shaping awareness, acceptance, and commitment of clients in maintaining and improving their condition to be more recovering and productive through obedient treatment.

The Influence of Nursing Actions, Acceptance and Commitment Therapy, and Family Psychoeducation Online Therapy on Personal and Social Appearances in Clients Risking at Violent Behavior and Hallucination. There was an effect of nursing care, acceptance and commitment therapy, and family psychoeducation therapy on personal and social appearances in clients at risk of violent behavior and hallucination. Acceptance and commitment therapy is given to schizophrenic clients by maintaining two main principles. This principle is the use of value clarification and action in making agreements and counseling to respond to the client's uncertainty or confusion regarding perceptions and thinking patterns that are not appropriate to the client's condition. The difference with cognitive therapy is that ACT makes more use of changes in mind to form new behaviors according to believed values and self-regulate in maintaining these behaviors.⁴⁷ This is consistent with the results of this specialist's final scientific work revealing that ACT could influence clients' social and personal appearance through cognitive changes experienced by clients.

The client's cognitive function can be linked to the client's personal and social functions. Clients who experienced cognitive deficits would be disturbed by their functional life status⁴⁸. The ability of social functions experienced by clients could be caused by the client experiencing cognitive dysfunction.¹⁰ This results in a decrease in work productivity and client social relationships. The client was also unable to maintain work activities and daily activities which in turn could affect the client's quality of life⁴⁹.

Family psychoeducation therapy is a family therapy that focuses on providing education to families and therapy that focuses on psychological experiences to reduce conflict manifestations and change family communication patterns in problem solving through therapeutic communication^{52,42}. This therapy is important to do because several studies have shown that family-focused therapy can improve family dynamics and decrease family conflict⁵³. Family psychoeducation is also a form of health promotion to families in order to increase the family's ability to participate in solving problems that occur in the family.

Family as caregiver has a major role in the care of schizophrenic clients at home. This is evidenced by several research results which reveal that recurrence of schizophrenia clients was caused by caregiver factors, namely knowledge, support, quality of life, and caregiver burden while caring for schizophrenic clients^{54,55}. The results of this study are supported by previous research which revealed that family psychoeducation therapy was closely related to quality of life and life functions⁵⁶.

It can be concluded that giving ACT and FPE will increase personal and social appearance of the clients. It is evident that along with three times the measurement of the client's personal and social appearance, both before ACT, after ACT, and after ACT and FPE, the average score increased. It is increasingly evident that the combination of individual and family specialist nurse therapy makes the client far more optimal in achieving his personal and social appearance.

The Influence of Nursing Actions, Acceptance and Commitment Therapy, and Online Family Psychoeducation Therapy on Treatment Adherence to Clients at Risk of Violent Behavior and Hallucination. Nursing actions, acceptance and commitment therapy, and family psychoeducation therapy on treatment adherence to clients at risk of violent behavior and hallucinations. Acceptance and commitment therapy is proven as a therapy that can overcome non-compliance. Acceptance help and commitment therapy has been shown to reduce recurrence and signs of risk of violent behaviors⁵⁷. Acceptance and commitment therapy has also proven to be effective in increasing abilities and overcoming problems of social isolation and hallucination.²⁴ Pardede, Keliat, & Wardani (2013) stated that with ACT therapy the ability to accept and commit to clients with schizophrenia increased by 40.78% and client adherence increased by 53.7%⁷. Thus, it is proven that ACT can increase the client's commitment to adhere to the treatment program to prevent relapse.

Family psychoeducation therapy is a family therapy that is added after the client has received ACT. Clients and families are given FPE to increase social support to clients. This is supported by previous research which stated that FPE could form optimal social support for clients and increased emotional control in the family so that it could prevent recurrence. Family psychoeducation therapy can also improve the ability to regulate and control the client's relapse and treatment. This is evidenced in a study which stated that FPE can increased adherence to treatment programs⁵⁸.

Ho, Black&Anderson (2003 in Townsend, 2014) stated that FPE was effectively a therapy that could directly involve clients and families so that they could achieve the goals of an optimal therapy program⁴². Family psychoeducation therapy provides comprehensive

education both to solve client and family problems so that families optimally experience increased knowledge and skills in increasing treatment compliance and reducing the rate of client recurrence. This is reinforced by Fadli (2013) who stated that the strongest predictor in the family that triggers relapse was the lack of family knowledge about how to care for clients at home. Thus, it can be concluded that, family is an important part in determining medication adherence and prevention of relapse.

Based on the results of this specialist's final scientific work, it can be concluded that ACT combined with FPE is able to provide a good solution for schizophrenic clients and families who experience the risk of violent behavior and hallucinations. Giving ACT and FPE can increase treatment adherence to clients and the possibility of obediently taking medication can minimize recurrence in clients.

CONCLUSION

The results of this specialist's study showed that online acceptance and commitment therapy and family psychoeducation therapy influenced personal and social appearance as well as treatment adherence to schiozfrenia clients with a risk of violent behavior and hallucination. Therefore, the implementation of schizophrenic client nursing care with the risk of violent behavior and hallucination can be given according to the standard of nursing care with generalist nursing actions and supplemented with ACT and FPE specialist nursing actions.

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REFERENCES

- 1. World Health Organization. Depression and other common mental disorders: global health estimates.Switzerland: World Health Organization. 2017. http://apps.who.int/iris/bitstream/10665/254610/1/WHO-MSD-MER-2017.2-eng.pdf.
- Riset Kesehatan Dasar(Riskesdas) (2018). Badan Penelitian dan Pengembangan Kesehatan Kementerian RI tahun 2018. http://www.depkes.go.id/resources/download/infoterkini/mater i_rakorpop_2018/Hasil%20Riskesdas%202018.pdf.
- Kalb, L.G., Stapp, E.K., Ballard, E.D., Holingue, C., Keefer, A. and Riley, A., (2019). Trends in psychiatric emergency department visits among youth and young adults in the US. Pediatrics, 143(4), p.e20182192.
- Wahyuningsih, D., Keliat, B.A. and Hastono, S.P., (2011). Penurunan perilaku kekerasan pada klien skizoprenia dengan assertiveness training. Jurnal Keperawatan Indonesia, 14(1), pp.51-56.
- 5. Rhoads, J. (2011). Clinical Consult for Psychiatric Mental Health Care. New York : Springer Publishing Company.
- Stuart, G. W., Keliat, B. A., & Pasaribu, J. (2016). Prinsip dan praktik keperawatan kesehatan jiwa stuart. Edisi Indonesia. Singapore: Elsevier.
- Pardede, J.A., Keliat, B.A. and Yulia, I., (2015). Kepatuhan dan Komitmen Klien Skizofrenia Meningkat Setelah Diberikan Acceptance And Commitment Therapy dan Pendidikan Kesehatan Kepatuhan Minum Obat. Jurnal Keperawatan Indonesia, 18(3), pp.157-166.

- 8. Stuart, G.W. (2009). Principles and Practice of psychiatric nursing. (7th edition) St Louis: Mosby.
- 9. Maramis. (2009). Ćatatan Ilmu Kedokteran Jiwa. Edisi 2. Surabaya: Airlangga.
- Shamsi, S., Lau, A., Lencz, T., Burdick, K.E., DeRosse, P., Brenner, R., Lindenmayer, J.P. and Malhotra, A.K., (2011). Cognitive and symptomatic predictors of functional disability in schizophrenia. Schizophrenia research, 126(1-3), pp.257-264.
- Keliat, B.A et.al (2009). Influence of the Abilities in Controlling Violence Behavior to the Length of stay of Schizophrenic Clients in Bogor Mental Hospital, Indonesia. Medical Jurnal of Indonesia vol 18.
- Abdullah-Koolmees et al. (2018). Predicting rehospitalization in patients treated with antipsychotics: a prospective observational study. Ther Adv Psychopharmacol. 2018 Aug; 8(8): 213–229. Published online 2018 Mar 16. doi: 10.1177/2045125318762373.
- Emsley, R., Chiliza, B., Asmal, L. et al. (2013). The nature of relapse in schizophrenia. BMC Psychiatry 13, 50 (2013). https://doi.org/10.1186/1471-244X-13-50.
- Gellad, W.F., Grenard, J.L. and Marcum, Z.A., (2011). A systematic review of barriers to medication adherence in the elderly: looking beyond cost and regimen complexity. The American journal of geriatric pharmacotherapy, 9(1), pp.11-23.
- Wardani,I.Y.,Hamid,A.Y.S.,Wiarsih,W., Susanti,H. (2009). Pengalaman keluarga menhadapi ketidakpatuhan anggota keluarga dengan skizofrenia dalam mengikuti regimen terapeutik: pengobatan. Tesis FIK UI tidak dipublikasikan diakses di lib.ui.ac.id.
- Sutinah,. (2016). Penerapan Standar Asuhan Keperawatan Dan TAK Stimulus Persepsi Terhadap Kemampuan Mengontrol Halusinasi. Jurnal Ipteks Terapan. Vol 10, No 3 (2016): JIT. DOI: 10.22216/jit.2016.v10i3.1260.
- Chien, W. T., & Chan, Z. C. Y. (2013). Chinese translation and validation of the questionnaire on the process of recovery in schizophrenia and other psychotic disorders. Research in Nursing & Health, 36(4), 400–411. http://dx.doi.org/10.1002/nur.21549.
- Yunalia, E.M. and Etika, A.N., (2019). Efektivitas Terapi Kelompok Assertiveness Training terhadap Kemampuan Komunikasi Asertif pada Remaja dengan Perilaku Agresif. Jurnal Keperawatan Jiwa, 7(3), pp.229-236.
- A.Rezan, Çeçen, Erogul, & Zengel (2009). The Effectiveness of an Assertiveness Training Programme on Adolescents ' Assertiveness Level. Elementary Education Online, 8(2), 485–492.
- Wahyuni, S.E., Keliat, B.A., Yusron, Y. and Susanti, H., (2011). Penurunan Halusinasi Pada Klien Jiwa Melalui Cognitive Behavior Theraphy. Jurnal Keperawatan Indonesia, 14(3), pp.185-192.
- Hayes, S.C., & Smith, S. (2005). Get out of your mind & into your life: The new acceptance and commitment therapy. Oakland: New Harbinger.
- Twohig, M.P., (2009). The application of acceptance and commitment therapy to obsessive-compulsive disorder. Cognitive and Behavioral Practice, 16(1), pp.18-28.
- Sulistiowati, N.M.D., Keliat, B.A., & Wardani, I.Y (2012). Pengaruh acceptance and commitment therapy terhadap gejala dan kemampuan klien dengan perilaku kekerasan dan halusinasi di RSMM Bogor (Tesis, tidak dipublikasikan). FIK UI, Jakarta.
- 24. Gaudiano, B.A. and Herbert, J.D., (2006). Believability of hallucinations as a potential mediator of their frequency and associated distress in psychotic inpatients. Behavioural and Cognitive Psychotherapy, 34(4), pp.497-502.
- Buanasari, A., Keliat, B. A., & Susanti, H. (2017). Kombinasi acceptance commitment therapy (ACT) dan family psychoeducation (FPE): Case series pada klien dengan risiko

perilaku kekerasan. (Tidak dipublikasikan karya ilmiah akhir ners spesialis). Universitas Indonesia, Indonesia.

- 26. Potter, P.A. & Perry, A.G.. (2010). Fundamental Of Nursing: Consep, Proses and Practice.
- Yundari, A., A., & Dewi, N., M. (2018). Faktor-faktor yang berhubungan dengan peran keluarga sebagai caregiver pasien skizofrenia. Journal of Borneo Holistic Health. 1 (1). 27-42 P ISSN 2621-9530 E ISSN 2621-9514.
- Zahnia, S & Sumekar, DW (2016). Kajian Epidemiologis Skizofrenia', Medical Journal Of Lampung University, vol.5, no.4, hlm. 160-166. http://juke.kedokteran.unila.ac.id/index.php/majority/article/vie w/904/812.
- Chorwe-Sungani, Genesis & Namelo, Mbumba & Chiona, Vincent & Nyirongo, Ditress. (2015). The Views of Family Members about Nursing Care of Psychiatric Patients Admitted at a Mental Hospital in Malawi. Open Journal of Nursing. 5. 181-188. 10.4236/ojn.2015.53022.
- Given, B.A., Given, C.W. and Sherwood, P.R., (2012). Family and caregiver needs over the course of the cancer trajectory. The journal of supportive oncology, 10(2).
- Lesmanawati, D., A., S. (2012). Analisis Efektivitas Biaya Penggunaan Terapi Antipsikotik Pada Pasien Skizofrenia di Instalasi Rawat Inap Rumah Sakit Jiwa Grhasia Yogyakarta. Berita Ilmu Keperawatan Vol. 1 No. 4.
- Kaplan, H., Sadock, B., & Grebb, J. (2010). Kaplan-Sadock Sinopsis Psikiatri, Ilmu Pengetahuan Perilaku Psikiatri Klinis. Jakarta: Bina Rupa Aksara.
- Erlina, Soewadi, Pramono.D. (2010). Determinan terhadap timbulnya skizofrenia pada pasien rawat jalan di Rumah Sakit Jiwa Prof.HB Saanin Padang Sumatera Barat. Berita Kedoteran Masyarakat.2010; 26: 2.
- Sira, I. (2011). Karakteristik Skizofrenia di Rumah Sakit Khusus Alianyang Pontianak Periode 1 Januari – 31 Desember 2009. Publikasi Penelitian. Pontianak: Program Studi Pendidikan Dokter. Fakultas Kedokteran Univesitas Tanjungpura.
- 35. Yosep, Iyus. (2013). Keperawatan Jiwa (Edisi Revisi). Bandung: Refika Aditama.
- Durand, VM & Barlow, DH (2007). Essentials of abnormal psychology. Yogyakarta: Pustaka Pelajar.
- Takeuchi H, Suzuki T, Uchida H, Watanabe K, Mimura M. (2012). Antipsychotic treatment for schizophrenia in the maintenance phase: a systematic review of the guidelines and algorithms. Schizophr Res. 2012;134(2-3):219-225. doi:10.1016/j.schres.2011.11.021.
- Li, X.-j., Wu, J.-h. & Liu, J.-b., 2015. The influence of marital status on the social dysfunction of schizophrenia patients in community. International Journal of Nursing Sciences, pp. 149-152.
- Erlina, Soewadi, Pramono.D. (2010). Determinan terhadap timbulnya skizofrenia pada pasien rawat jalan di Rumah Sakit Jiwa Prof.HB Saanin Padang Sumatera Barat. Berita Kedoteran Masyarakat.2010; 26: 2.
- Yanuar, R.(2011). AnalisisFaktor yang Berhubungan dengan Kejadian Gangguan Jiwa di Desa Paringan Kecamatan Jenangan Kabupaten Ponorogo. Surabaya : Fakultas keperawatan Universitas Airlangga.
- Schultz, J.M. and Videbeck, S.L., (2013). Enfermería psiquiátrica: planes de cuidados. Editorial El Manual Moderno.
- 42. Townsend, Mary C. (2014). Essentials of Psychiatric Mental Health Nursing Concepts of Care in Evidence-Based Practice . 6th ed. Philadelphia: F.A. Davis Co. Print.

- Harris, A., Melkonian, D., Williams, L. and Gordon, E., (2006). Dynamic spectral analysis findings in first episode and chronic schizophrenia. International journal of neuroscience, 116(3), pp.223-246.
- 44. Hayes, S. C. & Strosahl, K. D. (Eds.), (2004). A Practical Guide to Acceptance and Commitment Therapy. Nueva York: Springer.
- Sanford, B. T. & Hayes, S. C. (2010). Acceptance and Commitment Therapy in healthcare. Chapter to appear in G. Delsabella & G. Majani (Eds), Psicologia in medicina: Perche' conviene. Milan: FrancoAngeli.
- Gaudiano, B.A., Nowlan, K., Brown, L.A., Epstein-Lubow, G. and Miller, I.W., (2013). An open trial of a new acceptancebased behavioral treatment for major depression with psychotic features. Behavior modification, 37(3), pp.324-355.
- Gutierrez, O., Luciano, M. C., Rodríguez. M., & Fink. B. (2004). Comparison between an Acceptance-based and a Cognitive-Control-Based Protocol for coping with pain. *Behavior Therapy*, 35, 767-783.
- Bowie, Christopher & Harvey, Philip. (2005). Bowie CR, Harvey PD. Cognition in schizophrenia: impairments, determinants, and functional importance. Psychiatr Clin North Am 28: 613-633. The Psychiatric clinics of North America. 28. 613-33, 626. 10.1016/j.psc.2005.05.004.
- Rubbyana, U. (2012). Hubungan antara Strategi Koping dengan Kualitas Hidup pada Penderita Skizofrenia Remisi Simptom. Jurnal Psikologi Klinis dan Kesehatan Mental. Vol. 1 No. 02, Juni 2012.
- A-Tjak JG, Davis ML, Morina N, Powers MB, Smits JA, Emmelkamp PM. (2015). A meta-analysis of the efficacy of acceptance and commitment therapy for clinically relevant mental and physical health problems. Psychother Psychosom. 2015;84(1):30-36. doi:10.1159/000365764.
- Hooper, N. and Larsson, A., (2015). Serious Mental Illnesses. In The Research Journey of Acceptance and Commitment Therapy (ACT) (pp. 66-72). Palgrave Macmillan, London.
- Friedman, M.M., Bowden, O., & Jones, M. (2010). Buku ajar keperawatan keluarga: Riset, teori, & praktik: alih bahasa, Achir Yani S Hamid, et al., editor Bahasa Indonesia, Estu Tiar, Ed. 5. Jakarta: EGC.
- McBroom, L. A. and Enriquez, M. (2009) 'Review of Familycentered Interventions to Enhance the Health Outcomes of Children With Type 1 Diabetes', The Diabetes Educator, 35(3), pp. 428–438. doi: 10.1177/0145721709332814.
- Gould, F., Sabbag, S., Durand, D., Patterson, T.L. and Harvey, P.D., (2013). Self-assessment of functional ability in schizophrenia: milestone achievement and its relationship to accuracy of self-evaluation. Psychiatry research, 207(1-2), pp.19-24.
- Rafiyah, I., Suttharangsee, W., & Sangchan, H. (2011). Social support and coping of Indonesian family caregivers caring for persons with schizophrenia. Nurse Media Journal of Nursing, 1(2), 159-169.
- Gumus, F., Dikec, G. and Ergun, G., (2017). Relations among internalized stigmatization, depressive symptom frequency and family loading in first-degree caregivers of the patients treated in the psychiatry clinic of a state hospital. Archives of Psychiatric Nursing, 31(5), pp.522-527.
- 57. Gaudiano, B.A. and Miller, I.W., (2013). The evidence-based practice of psychotherapy: Facing the challenges that lie ahead. Clinical Psychology Review, 33(7), pp.813-824.
- Bhattacharjee, D., Rai, A.K., Singh, N.K., Kumar, P., Munda, S.K dan Das, B. (2011). Psychoeducation: A Measure to Strengthen Psychiatric Treatment. Delhi Psychiatry Journal, vol.14, no.1.