

Improvement of Intellectual, Emotional, Spiritual, and Adversity Intelligence After Psychoeducation Modification Among Lepers

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Abstract—The anxiety due to leprosy stigma makes the patient not ready to accept the disease so that it can cause psychological disorders, namely distress. Psychological disorders can affect the intellectual, emotional, spiritual, and adversity intelligence of lepers. Healing process must pay attention to physical, psychological, and spiritual aspects. One of the efforts to improve the psychosocial impact is psychoeducation. This study aims to prove differences in intellectual, emotional, spiritual, and adversity intelligence before and after psychoeducation modification intervention among lepers. This study used a Quasi Experiment approach with one group pretest-posttest design. The samples consisted of 12 leper respondents. Data were analyzed statistically using the dependent T test. Based on the results of paired T test, intellectual intelligence score obtained p value=0.004, emotional intelligence score obtained p value=0.001, and spiritual intelligence score obtained p value=0.000, meaning that there were differences in intellectual intelligence, emotional intelligence and spiritual intelligence before and after psychoeducation modification intervention among lepers. Meanwhile, the adversity intelligence score obtained p value=0.103, meaning that there was no difference in adversity intelligence before and after the psychoeducation modification intervention among lepers.

Keywords—*Intellectual, Emotional, Spiritual, Adversity Intelligence*

I. INTRODUCTION

Even though leprosy patients have completely treated and then declared cured and not contagious, but the status of leprosy predicate remains inherent for life, this leads to psychological problems among lepers [1]. Stigma that occurs among lepers affects mental health and quality of life of both patients and their families. Several studies showed that leprosy patients had a high prevalence of psychiatric problems compared to other diseases [2]. Everyone had experienced stress, which could have a variety of impacts on individuals namely in the physical, emotional, intellectual, social and spiritual aspects [3]. Psychological disorders can affect intellectual, emotional, spiritual, and adversity intelligence of lepers. Spiritual intelligence is intelligence that has the role of functioning intellectual intelligence and emotional intelligence effectively [4]. Spiritual intelligence is not a sole factor that can solve

problems, but a balance between emotional and intellectual intelligence is needed. According to (Ginanjar, 2004), Adversity Quotient is intelligence owned by someone in overcoming difficulties and make a person to be able to survive [5].

Healing process must pay attention to physical, psychological, and spiritual aspects. One of the efforts to improve the psychosocial impact is psychoeducation. Psychoeducation is health education that aims to overcome psychological problems experienced by patients [6]. A person's life is formed from spiritual beliefs which will provide direction for coping in life problems [7]. Basically every human being has basic spiritual needs. The study results found that the level of faith was closely related to both physical and mental immunity. For example in religion (Islam), some verses and hadith could be practiced as prayers for those who were suffering from stress, anxiety, depression or other physical diseases [8].

Based on the results of several previous studies, improvements in of intellectual, emotional, spiritual and adversity intelligence found in chronic diseases could be achieved through psychoeducation and prayer. Leprosy is a chronic disease, if leprosy is treated with psychoeducation and prayer, the intellectual, emotional, spiritual and adversity intelligence will improve, but it has never been proven. Then this study aims to prove the differences in intellectual, emotional, spiritual, and adversity intelligence before and after psychoeducation modification intervention among lepers.

II. METHODS

This study used Quasi Experiment approach with a one-group pretest-posttest design [9]. The samples were 12 leper respondents who received MDT therapy based on the last quarterly report at the time of the study in the Work Area of Astanajapura Community Health Center in Cirebon District. Data were analyzed statistically using dependent T test, to determine differences in the mean scores before and after the psychoeducation modification intervention among lepers.

Psychoeducation modification is the development of psychoeducation intervention which is one of group psychotherapy, with the aim not only to increase

knowledge and manage emotion but to improve the spiritual response of lepers, and the intervention topics consisted of: knowledge management, relaxation, and prayer, the intervention was provided as many as 5 sessions and each session lasted for 60-90 minutes.

III. RESULTS

TABLE 1. CHARACTERISTICS OF THE STUDY SUBJECTS

Characteristic	n (%)	Mean±SD
Age (year)		31.42±14.47
Treatment duration (month)		6.08±2.81
Education		
▪ No formal education	0 (0)	
▪ Did not complete primary school	2 (16.7)	
▪ Elementary school	4 (33.3)	
▪ Junior High School	4 (33.3)	
▪ Senior High School	1 (8.3)	
▪ Higher Education	1 (8.3)	
Marital status		
▪ Unmarried	5 (41.7)	
▪ Married	6 (50.0)	
▪ Widowed	1 (8.3)	
Characteristic	n (%)	Mean±SD
Income		
▪ < UMR	10(83.3)	
▪ ≥ UMR	2 (16.7)	
Type of Leprosy		
▪ PB	0 (0)	
▪ MB	12 (100)	
Disability		
▪ Disabled	6 (50)	
▪ Not disabled	6 (50)	

Source:[10]

The results on table 1 showed the mean age of the study subjects was 31.42 years, the mean treatment period was 6.08 months. Most of respondents had education levels of elementary and junior high school, namely 33.3%, respectively. Most of respondents were married (50%), most respondents had income of <UMR (83.3%). All respondents had MB leprosy type (100%) and half respondents did not experience disabilities (50%).

TABLE 2. DIFFERENCES IN INTELLECTUAL, EMOTIONAL, SPIRITUAL, AND ADVERSITY INTELLIGENCE (PRE AND POST) AMONG LEPERS.

Variable	Pretest Mean±SD	Posttest Mean±SD	p value
Intellectual intelligence	21.67±4.499	28.58±4.337	0.004
Emotional intelligence	45.33±7.524	57.67±4.887	0.001
Spiritual intelligence	34.83±3.904	46.08±4.252	0.000
Adversity intelligence	26.42±4.010	28.58±3.118	0.103

The results of difference test on table 2 showed that the mean intellectual intelligence increased from 21.67 to 28.58, the mean emotional intelligence increased from 45.33 to 57.67, the mean spiritual intelligence increased from 34.83 to 46.08, and the eman adversity intelligence increased from 26.42 to 28.58 after psychoeducation modification intervention among lepers.

The results of paired T test in intellectual intelligence obtained p value=0.004 then it can be concluded that there was a significant difference in intellectual intelligence scores between, in emotional intelligence obtained p value=0.001, then it was concluded that there was a significant difference in emotional intelligence scores between before and after intervention, in spiritual intelligence obtained p value=0,000, then it can be concluded that there was a significant difference in the scores of spiritual intelligence between before and after the intervention, while in adversity intelligence obtained p value=0.103, then it can be concluded that there was no difference in adversity intelligence scores between before and after the psychoeducation modification intervention among lepers.

IV. DISCUSSION

A. Intellectual intelligence

The results showed that there was an increase in the mean score of intellectual intelligence after the intervention and there was a significant difference in the intellectual intelligence scores between before and after the psychoeducation modification intervention among lepers. The existence of religious exposure can affect human cognitive perceptions so they are able to control their emotions. Cognitive perception can change due to the mechanism of receiving stimuli that affect the subject's mind which is then interpreted or perceived in cognitive. Emotional responses can present in emotional states that are reflected in behavior. Spiritual elements that flow in the human mind are then perceived cognitively in human mind which can be seen from the change in the mean score of spiritual intelligence [7]. The stimuli in this study was a psychoeducation modification in the form of psychoeducation and prayer.

The results of this study are in accordance with several previous studies, which stated that there was a significant relationship between family psychoeducation intervention and knowledge. Psychoeducation is a therapy that can provide information to those experiencing distress, to be able to understand and improve coping due to health problems [10]. The spiritual element in human beings integrates the elements of physical, emotional, and intellectual needs in their growth and development [11]. The principle for religious people is that there is intelligence or creative mind in the universe that is greater than humans. After a person has succeeded in expanding the context of his illness in his consciousness, the coping mechanism will succeed in turning a stressor into an eustress [12].

B. Emotional intelligence

The results showed there was an increase in the mean score of emotional intelligence after the intervention and there was a significant difference in the emotional intelligence scores between before and after the psychoeducation modification intervention among lepers. The technique of concentration on positive sentences is able to break one's negative thought cycle. When someone always says a positive sentence it will produce positive thoughts and emotions. Positive emotions can

encourage limbic work to produce endorphine. Endorphine is able to foster feelings of happiness, comfort, calm and make a person energized. Positive emotions can improve self-assessment, self-awareness, and self-control so that emotional intelligence increases.[13]

The results of this study are in accordance with several previous studies which stated that psychoeducation provided a cognitive framework that could help patients to understand their illnesses and the reasons for treatment, so they could accept their illnesses and improve adherence to care as a result of increasing self-awareness.[14] Spirituality is very helpful for people to overcome emotional distress.[15] Individuals who had strong personalities in the sense of not complaining and always optimistic would be steadfast in the face of every trial.[16]

C. *Spiritual intelligence*

The results showed there was an increase in the mean score of spiritual intelligence after the intervention and there was a significant difference in the spiritual intelligence scores between before and after the psychoeducation modification intervention among lepers. Group counseling using a spiritual approach was effective in improving spiritual intelligence in the intervention group compared to the control group, such as in the aspects of critical thinking, personal meaning, awareness, and expansion of the conscious state in the intervention group compared to the control group. People who had high spiritual intelligence were able to better understand the profound meaning of daily events and not limit the meaning of life to the physical life as a result, they are not vulnerable to depression.[17]

Reekum et al, (2005) states that spirituality is believed to influence a person to give strength. A person's life is formed from spiritual beliefs which will give direction for coping in life problems.[7] The results of this study are in line with the results of previous studies which stated that there was no significant difference in the mean score of spiritual intelligence and its components between the two groups, but two months after intervention, the results showed a significant difference.[17] The spiritual element in human beings integrates the elements of physical, emotional, and intellectual needs in their growth and development.[11]

D. *Adversity intelligence*

The results showed there was an increase in the mean score of adversity intelligence after the intervention, while there was no significant difference in the adversity intelligence scores between before and after the psychoeducation modification intervention among lepers. The impact of leprosy is not only on the physical aspect but also on psychological, social, economic, and spiritual aspects. People affected by leprosy try to recover from their illness, therefore they must continue to struggle to improve all aspects that are impacted by leprosy in order to maintain their lives. This requires good adversity intelligence of the patients, so that patients can be resilient in dealing with their illnesses. The ability to deal with the demands that exist in life is related to Adversity

quotient (AQ) or fighting power. Fighting power gives an illustration of the individual's toughness in facing obstacles and can predict whether an individual can remain in control in facing difficult conditions in his life.[18] Thus, based on various problems that exist among lepers, intervention is needed to bring back to the state of homeostasis.[19] The intervention in this study was a psychoeducation modification so as to improve the adversity intelligence of lepers.

Based on previous studies, it was found that spiritual intelligence, intellectual intelligence, and emotional intelligence through adversity intelligence had a negative correlation with cortisol levels, meaning that an increase in intelligence was followed by a decrease in cortisol levels. When emotional and spiritual intelligence were good, intellectual developed well, then it was followed by the development of adversity. In general, the development of adversity grows after people are able to understand every life event they experience.[20]

V. CONCLUSION

There were differences in intellectual, emotional, spiritual, and adversity intelligence scores before and after the psychoeducation modification intervention among lepers. There is a need to improve emotional and spiritual intelligence so that the level of anxiety among lepers may decrease. Health practitioners should continue to improve efforts to promote health, especially regarding leprosy so that people's perceptions of leprosy can be positive

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