

Original Research Article

THE EFFECT OF REIKI THERAPY ON POSTTRAUMATIC GROWTH (PTG) AMONG CHRONIC RENAL FAILURE PATIENTS THROUGH HEMODIALYSIS

Abdul Muhith ^{1*}, Nur Hidayah ¹, Imamatul Faizah ¹, Ratna Yunita Sari ¹, Hartadi ²

¹ Nursing Department, Universitas Nahdlatul Ulama Surabaya, Indonesia

² Nursing Science Department, STIKes Bina Sehat PPNI Mojokerto

*Correspondence:

Abdul Muhith

Nursing Department, Universitas Nahdlatul Ulama Surabaya, Indonesia
Smea Road No.57, Wonokromo, Wonokromo Sub-District, Surabaya City, East Java, Indonesia - 60243
Email: abdulmuhith@unusa.ac.id

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Abstract

Background: Disease Chronic kidney failure can result in positive and negative implications as *Posttraumatic Growth (PTG)* and problems mental - psychological include self-concept, and the quality of life of patients.

Objectives: The research objective was to analyze the effect of spiritual based reiki therapy (prayer) on *posttraumatic growth*.

Methods: The study design was *Quasy-Experimental design* with *pre-post test control group approach* and research conducted by a research assistant. The population was all chronic renal failure patients undergoing hemodialysis. Sample size 40, divided into 20 interventions and 20 controls. The sampling technique is *purposive sampling*. In the intervention group-based reiki therapy for 45 - 75 minutes of 8-12 meetings performed 2 weeks. The control group was given action according to hospital standards. The influence analysis was done by using the *Wilcoxon Signed Ranks Test* and the *Mann Whitney* difference analysis.

Results: Results of analysis of test *Wilcoxon Signed Ranks Test* P no intervention group therapy reiki spiritually based (Prayer) no effect on *posttraumatic growth* $p = 0.000$. If the control group was given therapy according to hospital SOP, there was an effect on *posttraumatic growth* $p = 0.025$. And the results of the analysis using *Mann Whitney* found that *Posttraumatic Growth* in the intervention group of the reiki therapy - In the group controls are enforced according to SOP hospital treatment, the results are no different, $p = 0.000$.

Conclusion: Reiki therapy is very effective to decrease the *Posttraumatic Growth*, can improve quality of life and positive attitude in which respondents were willing to change his priorities and biases appreciate herself.

Keywords: Reiki therapy, Hemodialysis chronic renal failure, *Posttraumatic Growth*.

INTRODUCTION

Chronic kidney failure can have both positive and negative implications as a traumatic experience. This disease can cause mental-psychological and physical disorders. However, the impact of chronic renal failure disorder can experience *Posttraumatic Growth* (PTG), namely positive changes after a traumatic event in addition to negative changes as well. A traumatic event is characterized by a state that provokes fear, helplessness or horror when responding to threats of injury or death. In addition, various reactions appear including acute reactions such as helplessness, confusion, anxiety, shock, distrust and severe anger (Sharma and Zhang, 2017).

REIKI use vital energy as healing (Mc Kenzie, 2016, in Soegoro, 2012). In patients with Chronic renal failure and diabetes, the energy will be distributed by the hands of practitioners REIKI through the chakras (the gate entrance and exit of energy) crown, solar plexus, and sex. The crown chakra is located at the head (fontanel), solar plexus in the solar plexus area, and the sex chakra around foundation back / perineum. Healing occurs through a process where energy stimulate the cells and tissues are damaged to return to the normal functioning (Goldberg, 2011, in Sjahdeini, 2015). Relaxation and meditation in therapy REIKI also cause the sympathetic nervous system is inhibited thus inhibiting the secretion norepinephrine (Benson, Proctor, 2010). Norepinephrine inhibition causes heart rate, respiration, and blood glucose to decrease. In addition, the anterior pituitary is also inhibited so that ACTH which secretes stress hormones such as cortisol decreases so that the gluconeogenesis process, as well as protein and fat catabolism which play a role in increasing blood glucose decreases and stress hormones such as cortisol also decrease (Guyton, 2011; Smeltzer & Bare, 2012). Therapy of REIKI developing them combine REIKI with medical therapy in treating patients (Vitale, 2017).

Reiki therapy is an immediate treatment offered through light touch to a fully clothed

recipient sitting in a chair or lying on a treatment table. A setting of calm conditions conducive to relaxation is desirable, but not necessary. Full treatment usually includes placing the hands in a position on the head, and in front and behind as well. The hand can also be placed directly over the injury or pain if desired, but this technique is not symptom or pathological specific. When light touch is contra indicated, such as in the presence of a lesion, the hand can float a few inches from the body with full treatment usually lasting 45 minutes to 75 minutes and lasting 8-12 sessions/ day. Practitioners believe reiki has the potential to rebalance, thereby eliminating the causes of disease increasing overall resistance to accelerate the healing process (Gala True & Albert Einstein, 2016).

Spiritual-based meditation (prayer) in reiki therapy also causes the sympathetic nervous system to be inhibited, thus inhibiting norepinephrine secretion (Benson, Proctor, 2010). Chronic renal failure is one of the terminal diseases that will affect the quality of life of patients, causing biological, psychological, social and spiritual imbalances. The importance of spirituality in health, World Health Organization (WHO) (1984) states that the religious (spiritual) aspect is one of the elements of the understanding of complete health. World Health Organization (WHO) added that the dimension of religion is one of the four pillars of complete human health, namely: Physically healthy (biology), mentally healthy (psychiatric /psychological), socially healthy, and spiritually healthy (spiritual/religious). Spirituality is an important contributor to *health-related quality of life* for patients with life-limiting diseases. Spirituality is an inseparable part of the quality of life of an individual and is a very important aspect for chronic kidney failure patients undergoing hemodialysis. (Tina M., Sri N., Nurul M., 2018).

The research objective was to analyze the effect of spiritual-based reiki therapy on *posttraumatic growth* (PTG), in chronic kidney failure patients undergoing

hemodialysis at Jemursari Islamic Hospital, Surabaya.

METHODS

Study Design

The research design was *Quasy-Experimental* with a *pre-post-test control group* design approach and this research was carried out by a research assistant.

Setting

This research has been carried out at Jemursari Islamic Hospital, Surabaya on April until June 2021.

Research Subject

The population was all chronic renal failure patients undergoing hemodialysis. The sample size is 40 respondents, consisting of (20 interventions and 20 controls). This study used purposive sampling technique.

Instruments

This study used a questionnaire to assess Posttraumatic Growth. The questionnaire used is the Posttraumatic Growth Inventory Questionnaire that was used by Tedeschi & Calhoun (2006). The questionnaire assessed the positive psychological changes and growth

experienced by chronic kidney disease patients after experiencing a stressful and life-threatening traumatic event. The reliability of the questionnaire was Cronbach Alpha .90 and the validity with coefficients from .67 to .85 (Tedeschi & Coulhan, 2004 in Weiss & Berger, 2006).

Intervention

The intervention group was given spiritual-based reiki therapy (prayer) for 45 to 75 minutes for 8-12 meetings (each meeting there were 3 sessions) carried out for 2 weeks. and the control group was given action according to hospital standards.

Data Analysis

The influence analysis was done by using the *Wilcoxon Signed Ranks Test* and the *Mann Whitney* difference analysis.

Ethical Consideration

This research has been tested for health research ethics and has been declared to have passed the health ethics test by Jemursari Islamic Hospital, Surabaya with the number 0180/KEPK-RSI JS/VI/2020.

RESULTS

Posttraumatic Growth

Table 1. The distribution of the frequency of *posttraumatic growth* (PTG) in reiki therapy intervention group and the control group was given action according to hospital standards at Jemursari Islamic Hospital, Surabaya on April until June 2021.

<i>Posttraumatic Growth (PTG)</i>	Intervention Group Reiki Therapy				Control Group			
	Pre-Test		Post Test		Pre-Test		Post-Test	
	F	%	F	%	F	%	F	%
Low PTG	0	0	4	20	0	0	0	0
PTG Is	5	25	14	70	9	45	14	70
High PTG	15	75	2	10	11	55	6	30
Total	20	100	20	100	20	100	20	100

Sources: Primary Data of Questionnaire, 2021.

Based on the data in the table 1, it found that the respondent intervention group therapy-based Reiki Therapy before administration of treatment based reiki therapy obtained the results of a small portion (25 %) *Posttraumatic Growth* (PTG) is and the majority (75 %) *Posttraumatic Growth* (PTG) high. After provision of therapy reiki based spiritual (prayer) on the respondent intervention group obtained the results of a small portion (10 %) *Posttraumatic Growth* (PTG) high and a small portion (20%) *Posttraumatic Growth* (PTG) low and the majority (70 %) *Posttraumatic Growth* (PTG) is.

The Effect of Reiki Therapy on Posttraumatic Growth

The result of the study (table 2) found that giving the intervention group with reiki therapy effect for the *Posttraumatic Growth* (PTG) obtained $p = 0.000$. This means ($p < 0.05$), there is an effect. While in the control group before and after the given actions according to SOP hospital standards affect the *Posttraumatic Growth* (PTG) obtained value of $p = 0.025$. This means $p < 0.05$, there is an effect. The results of analysis based on test using *Mann Whitney* between *Posttraumatic Growth* (PTG) in the Intervention and Control Groups, no difference, $p = 0.000$ ($p < 0.05$).

Table 2. Analysis of the effect of therapy reiki in the intervention group and the control group given action according to standard hospitals to *Posttraumatic Growth* (PTG) at Jemursari Islamic Hospital, Surabaya on April until June 2021.

Group		N	Std. Deviation	Minimum	Maximum	Mean Rank	Sum of Ranks	Wilcoxon Signed Ranks Test
Intervention PTG After - PTG Before	Negative Ranks	17 ^a	.44426	2.00	3.00	9.00	153.00	.000
	Positive Ranks	0 ^b	.55251	1.00	3.00	.00	.00	
	Ties	3 ^c						
	Total	20						
Control PTG After - PTG Before	Negative Ranks	5 ^a	.51042	2.00	3.00	3.00	15.00	.025
	Positive Ranks	0 ^b	.47016	2.00	3.00	.00	.00	
	Ties	15 ^c						
	Total	20						
Mann Whitney difference test between <i>Posttraumatic Growth</i> (PTG) Intervention - Control, there is a difference p = 0.000 (p < 0.05).								

Sources: Primary Data of Questionnaire, 2021.

DISCUSSION

Reiki Therapy (Prayer) to Posttraumatic Growth (PTG).

Based on the Table 2, the respondent intervention group therapy-based reiki (Prayer) before administration of treatment based spiritual reiki (Prayer) obtained the results of a small portion (25 %) *Posttraumatic Growth* (PTG) is and the majority (75 %) *Posttraumatic Growth* (PTG) high. After provision of therapy reiki based spiritual

(prayer) in the intervention group obtained the results of a small portion (10 %) *Posttraumatic Growth* (PTG) high and a small portion (20%) *Posttraumatic Growth* (PTG) low and the majority (70 %) *Posttraumatic Growth* (PTG).

Patients failure chronic renal trauma having an experience of trauma in the form of negative and positive. This disease can cause psychological problems. *Posttraumatic growth* (PTG) is a positive psychological experience as a result of changes and individual

struggles that occur as a result of experiencing high levels of stress. In *posttraumatic growth* (PTG) there are several factors that influence, including self-respect, relationships with others, inner strength, new possibilities and spiritual development (Yorulmaz, 2010).

In the results of a study conducted by Yorulmaz (2010), it was found that the average *posttraumatic growth* (PTG) score was mostly moderate in patients with chronic kidney disease who underwent hemodialysis, hemodialysis patients had high scores compared to patients suffering from *Rheumatoid* and Cancer. Respondents with a high level of education have a high level of *Posttraumatic Growth* (PTG) as well (Yorulmaz, 2010) because a high level of education will affect how someone gets complete information about the disease they experience. From the results of this study, the intervention group therapy reiki-based spiritual (prayer) visits according education levels, high partly (55 %) is upper secondary education (high school) while the control group visits accordance educational level, most (75%) is upper secondary education (high school) means respondents in the Intervention and Control Group have a high school education background that shows the respondent is easier to obtain knowledge, educational level, counseling, counseling, training, and easily review the information. Besides seeking support or optimism, support from friends, family support and problem resolution into one factor that supports high levels of *Posttraumatic Growth* (Yorulmaz, 2010).

Research conducted by Cui (2016) explains that the level of education, family income, self-concern and social support are related to the level of *posttraumatic growth* (PTG). Cui's research (2016) found that most respondents had a good *Posttraumatic Growth* (PTG) rate. Social support is the support obtained from the respondent's social circle with family, friends and relatives. Based on linear regression analysis, it shows that social support is one of the important factors in increasing *Posttraumatic Growth* (PTG). Good

social support contributes to improving psychological and mental health and quality of life for hemodialysis patients.

Result findings of research conducted by Abdul Muhith, et al., (2018) where statistical test calculation *Spearman rank* with the results of the study there was a significant relationship between *Posttraumatic Growth's* with quality of life and there is no relationship significantly between *Posttraumatic Growth* with the concept of self. The conclusion of this study is that there is a relationship between *Posttraumatic Growth* and quality of life and self-concept in chronic kidney disease patients undergoing hemodialysis at Sakinah Islamic Hospital, Mojokerto. Research by Heidarzadeh, et al (2014) states that there is a significant relationship found between *Posttraumatic Growth* and quality of life, the physical dimensions and psychological dimensions with a strong significant correlation in cancer patients. The biggest *Posttraumatic Growth* changes are in spiritual changes and relationships with others.

Where the respondent's condition which began to change during the hemodialysis process made him experience a decrease in activity and strength, so that being tired would make his situation much more uncomfortable. The disruption of all activities and drastic changes in lifestyle encouraged respondents to try to change their lifestyle as well, but these changes could be for better or worse depending on each individual. The growth of a positive attitude where respondents want to change their priorities in life and respect themselves more so that slowly their decreasing condition will enable them to find new possibilities to continue their life. Positive feelings, ways of thinking and concentration to change the negative psychology, the respondent is getting closer and strengthening the spiritual value in him to find more meaning in his life. It is important that respondents are aware that these relationships can end quickly so that they can be closer to each other. Positive changes that occur from the respondent will affect how the respondent will enjoy his life in the

future. When the respondent tries to be a better person, he will get satisfaction in himself. Relationships that are rebuilt and re-established both in the family, and the respondent's self-awareness that he can accept and need other people and friends will generate strong support. Feeling safe and comfortable with the environment and getting good health information and services makes respondents feel satisfied with their situation.

Chronic kidney disease affects the physical and even psychological health of the sufferer, the progressive decline in kidney function makes activity decrease and affects the daily life of the sufferer and changes the entire lifestyle. With this change, people with chronic kidney disease are unable to accept their condition, are pessimistic, depressed and angry about their condition, making the sufferer's psychological health also disturbed. Disruption of psychological health can worsen the situation as well as lower interest for treating or maintaining health, for it takes support from family or friends as well as his own consciousness so as to foster the spirit as well as changing the concept or thought pattern forming *Posttraumatic Growth* (PTG) after given intervention spiritual based reiki therapy (Prayer). Respondents feel better able to cope with the problem, have a good spiritual level, and me flavor is stronger than ever, then the respondent will find a destination or a new priority in his life. Respondents more appreciate the value of their own life, open to others, feel a stronger person and increase their spiritual experience. When the respondent is open about his situation, he will begin to accept people around him, the respondent can accept that he needs and needs help from others.

The Effect of Reiki Therapy on Posttraumatic Growth (PTG)

Based on the results of the study, the intervention group was given spiritual-based reiki therapy (prayer), there was an effect on *Posttraumatic Growth* (PTG) $p = 0.000$. whereas in the control group given

according to hospital standards there was an effect on *Posttraumatic Growth* (PTG) $p = 0.025$. The research resulted that, in the intervention group spiritual-based reiki therapy (prayer) was given and the control group was given action according to hospital standards showing the results that, between *Posttraumatic Growth* (PTG) Intervention - Control, there was a difference, $p = 0.000$.

Therapeutic REIKI using vital energy as healing (Mc Kenzie, 2016, in Soegoro, 2012). In patients with chronic renal failure and diabetes, the energy will be distributed by the hands of practitioners REIKI through the chakras (the gate entrance and exit of energy) crown, solar plexus, and sex. The crown chakra is located at the head (fontanel), solar plexus in the solar plexus area, and the sex chakra around low back / perineum. Healing occurs through a process where energy to stimulate the cells and tissues are damaged to return to the normal functioning (Goldberg, 2011, in Sjahdeini, 2015). Relaxation and meditation in Reiki therapy also cause the sympathetic nervous system to be inhibited, thus inhibiting the secretion of norepinephrine (Benson, Proctor, 2010). Norepinephrine inhibition causes heart rate, respiration, and blood glucose to decrease. In addition, the anterior pituitary is also inhibited so that ACTH which secretes stress hormones such as cortisol decreases so that the gluconeogenesis process, as well as protein and fat catabolism which play a role in increasing blood glucose decreases and stress hormones such as cortisol also decrease (Guyton, 2011; Smeltzer., Bare, 2012).

Reiki therapy is an immediate treatment offered through light touch to a fully clothed recipient sitting in a chair or lying on a treatment table. A setting of calm conditions conducive to relaxation is desirable, but not necessary. Full treatment usually includes placing the hands in a position on the head, and in front and behind as well. The hand can also be placed directly over the injury or pain if desired, but this technique is not symptom or pathological specific. When light touch is

contra indicated, as in the presence of a lesion, the hand can drift a few inches from the body with full treatment usually lasting 45 to 75 minutes and lasting 8-12 meetings / day. The recipient does not need to be aware and reiki can be offered during the operation. (Gala True & Albert Einstein, 2016).

Relaxation and spiritual meditation (prayer) in reiki therapy also cause the sympathetic nervous system to be inhibited, thus inhibiting norepinephrine secretion (Benson & Proctor, 2010). Chronic renal failure is one of the terminal diseases that will affect the quality of life of patients, causing biological, psychological, social and spiritual imbalances. The importance of spirituality in health, WHO (1984) states that the religious (spiritual) aspect is one of the elements of understanding total health. WHO added that the dimension of religion is one of the four pillars of complete human health, namely: physically healthy (biology), mentally healthy (psychiatric/ psychological), socially healthy, and spiritually healthy (spiritual /religious). In other words, completely healthy humans are religious people and this is in accordance with human nature (Tina M., Sri N., Nurul M., 2018).

The results of this study are reinforced by the results of research by (Tina M, Sri N, Nurul M, 2018) where the aim of the study is to conduct a *literature review* of articles that examine the aspects of spirituality and the spiritual needs of patients with chronic kidney failure with hemodialysis. Research design *Literature review*. The results of the research are the name of the article used in the *review*. Four articles suggest the components of well-being, spirituality should be considered and formulated in a patient care program with hemodialysis, to improve the patient's quality of life, sleep quality, reduce anxiety and fear of death. One article suggested that dialysis nurses establish programs that support the spirituality activities of pre-dialysis and dialysis patients. Nurses are expected to be able to provide *holistic* nursing care (bio-psycho-socio-spiritual), in addition to physical

care nurses also provide care with a spiritual approach (*spiritual care*). The conclusion from the results of this study is that Fulfilling aspects of spirituality and spiritual needs of patients with chronic kidney failure is important as a way to increase meaning and life expectancy, improve quality of life, and increase patient self- confidence even in unsupportive health conditions and reduce anxiety and fear. about death with spiritual activities such as prayer and prayer.

In the findings of research (Gala True, & Albert Einstein., 2016) which explain the benefits of Reiki therapy including reducing anxiety and reducing the use of painkillers, increasing patient satisfaction for surgical patients, and reducing the number of self-reported general gerontological complaints such as anxiety. loneliness, insomnia, and pain among older individuals living in the community. Reiki can easily fit into a cardiac reduction model and can be used successfully in self-medication in combination with appropriate medical / psychiatric treatment by people with a combined diagnosis of HIV, Diabetes Mellitus, neuro-degenerative disorders or chronic kidney failure, stroke, organ transplantation. for a variety of medical conditions such as cancer, autism / special needs, infertility, and psychiatry for emotional centering, pain management, and support in recovery readiness. Reiki is a supportive therapy for hospital and palliative care.

The results of the study in the intervention group based on Reiki therapy (Prayer) had a significant effect on *Posttraumatic Growth* (PTG), quality of life, self-concept in kidney failure patients undergoing hemodialysis. Where the respondent's condition that began to change during the hemodialysis process made him experience a decrease in activity and strength, unable to sleep well so that being tired would make his situation much more uncomfortable. The disruption of all activities and drastic changes in lifestyle encouraged respondents to try to change their lifestyle as well, but these changes could be for better or worse depending on each individual. The

growth of a positive attitude where respondents want to change their priorities in life and respect themselves more so that slowly their decreasing condition will enable them to find new possibilities to continue their life. Positive feelings, ways of thinking and concentration to change the negative psychology, the respondent is getting closer and strengthening the spiritual value in him to find more meaning in his life. It is important that respondents are aware that these relationships can end quickly so that they can be closer to each other.

Positive changes that occur from the respondent will affect how the respondent will enjoy his life in the future. *Posttraumatic growth* affects the formation of a patient's quality of life for the better. When the respondent tries to be a better person, he will get satisfaction in himself. Relationships that are built and re-established both in the family, and the respondent's self-awareness that he can accept and need other people and friends will generate strong support. Feeling safe and comfortable with the environment and getting good health information and services makes respondents feel satisfied with their situation.

CONCLUSION

Based on the research results it can be concluded as follows:

1. Intervention group was given reiki therapy, there is an influence on the *Posttraumatic Growth* (PTG), whereas in the control group at given according to standard hospital there is an influence on the *Posttraumatic Growth* (PTG).
2. There is a group-based intervention with reiki therapy and a control group given standard hospital appropriate action showed the result that, between *Posttraumatic Growth* (PTG) Intervention - Controls, is no different.

SUGGESTIONS

Reiki therapy is very effective in reducing *Posttraumatic Growth* (PTG). Nurses are expected to make professional and quality service innovations by implementing Reiki

therapy so that they can maintain the level of *posttraumatic growth* (PTG).

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DECLARATION OF CONFLICTING INTEREST

The authors have consented and no conflicting interests.

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AUTHOR CONTRIBUTION

Abdul Muhith: Conceptualization, methodology, writing-original draft, and supervision.

Nur Hidaayah: Software, validation, and formal analysis.

Imamatul Faizah: Investigation, resources, and data duration.

Ratna Yunita Sari: Visualization, project administration and funding acquisition.

Hartadi: Writing-review and editing.

ORCID

Abdul Muhith:

<https://orcid.org/0000-0003-1667-5961>

Nur Hidaayah:

<https://orcid.org/0000-0002-1941-0769>

Imamatul Faizah:

<https://orcid.org/00000001-7568-4572>

Ratna Yunita Sari:

<https://orcid.org/0000-0002-1714-1163>

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