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## Acceptance and commitment therapy (ACT) for patients with chronic renal failure

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### Abstract

**Background:** Patients with chronic renal failure who undergo physiological haemodialysis will experience unstable blood pressure, nausea, low haemoglobin value, cramped legs, difficulty sleeping, and dizziness when waking up. The patient feels tired, anxious, and then discovered the symptoms of fatigue and depression lead to a feeling of powerlessness.

**Purpose:** To know of acceptance and commitment therapy (ACT) for patients with chronic renal failure and a response to perceived powerlessness.

**Method:** A quantitative study by a one-group pre-experimental design with a sample of 25 participants as patients with chronic renal failure under haemodialysis at Harapan dan Do'a Hospital. The sampling technique used was purposive sampling. The assessment of the response to powerlessness used a Likert scale questionnaire. The acceptance and commitment therapy (ACT) delivered for 4 sessions.

**Results:** The proof that there is a decrease in the score of powerlessness responses after acceptance and commitment therapy with a p-value of 0.00 and a different means after the intervention of 1.72

**Conclusion:** There is an influence of commitment therapy (ACT) for patients with chronic renal failure and a response to perceived powerlessness. Hospital management to consider applying an acceptance and commitment therapy, and nurses to have a course that therapy especially nurses who conducted with chronic patients.

**Keywords:** Acceptance and commitment therapy; Chronic renal failure; Perceived powerlessness.

### INTRODUCTION

The prevalence of sufferers of chronic kidney disease in Indonesia increased significantly from 2013 (2.0) to 2018 (3.8). North Kalimantan Province occupies the highest rate with a prevalence of 6.4, Bengkulu Province shows a fairly high increase in prevalence, from 2.0 to around 4.0. Patients over 55 years of age experience more chronic kidney disease, and men are at higher risk than women experiencing chronic kidney disease ( Ministry of Health Republic of

Indonesia, 2018).

Patients with chronic renal failure undergo life-long hemodialysis to maintain their metabolic with the physiological and psychological impact (Ismoyowati, 2018; Valsaraj, Bhat, & Latha, 2016; Ramya, 2017; Wicaksono & Sajidin, 2017). The results of previous studies describe the patient's experience during hemodialysis physiologically experiencing unstable blood pressure, nausea, low hemoglobin value, cramped legs, difficulty sleeping and dizziness when waking up. The patient feels

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tired, bored, anxious, then symptoms of fatigue and depression cause feelings of helplessness in the patient (Khusniyati, Yona, & Kariasa, 2019; Danquah, 2009).

Depression is a psychological condition that is mostly found in patients with chronic renal failure, the association of depression and high mortality is also found in patients undergoing long-term hemodialysis. Depression is one of the causes of feelings of helplessness in chronic renal failure patients, the hemodialysis procedure they undergo all the time is only to sustain life temporarily but not to cure the disease. Chronic illness suffered by patients can weaken the patient's condition psychologically and feelings of helplessness arise because they feel dependent on something for their survival (Dzulhidayati, 2020; Wang, 2012). Psychosocial stressors that appear in patients with chronic kidney failure cause changes in their lives, causing them to adapt or adapt themselves to cope, but not everyone has positive coping mechanisms in overcoming these stressors (Muehrer & Becker, 2005).

Previous studies show that Acceptance Commitment Therapy (ACT) affects anxiety and self-efficacy of chronic renal failure patients, besides that previous studies stated that ACT has a significant effect on the helpless response of patients undergoing hemodialysis (Ismoyowati, 2018; Cukor, Peterson, Cohen, & Kimmel, 2006). ACT is a mental nursing therapy that can help

patients maintain, make positive improvements to the chronic disease problems they experience such as chronic renal failure ACT emphasizes the use of alternative coping strategies, to provide a sense of control over a person's emotional responses, not trying to reduce unwanted internal events (Busse & Blümel, 2010; De Ridder, Geenen, Kuijter & van Middendorp, 2008).

## RESEARCH METHODS

The research design used was a pre-experiment with the One Group Pretest Posttest approach, with the number of 25 patients with chronic renal failure undergoing hemodialysis. The study was done on August–September 2020 at the Harapan and Doa Hospital. ACT implementation for 4 sessions for a month. ACT done as standard operating procedures, each session took 90 minutes and the last session followed by an evaluation. The ethical clearance taken from Sekolah Tinggi Ilmu Kesehatan Bhakti Husada Bengkulu with the number: 176a/ LPPM/ STIKes-BH/VIII/ 2020.

The patient's powerlessness response was measured using a powerlessness response questionnaire using a Likert scale consisting of 12 questions with a rating of 1=never; 2=rarely; 3=sometimes; 4= often; 5=always. For the items with a meaning of lack of powerlessness, the values were inverted: never=5; rarely=4; sometimes=3; often=2; always=1. An overview of the implementation of ACT in this study can be seen in the diagram below:

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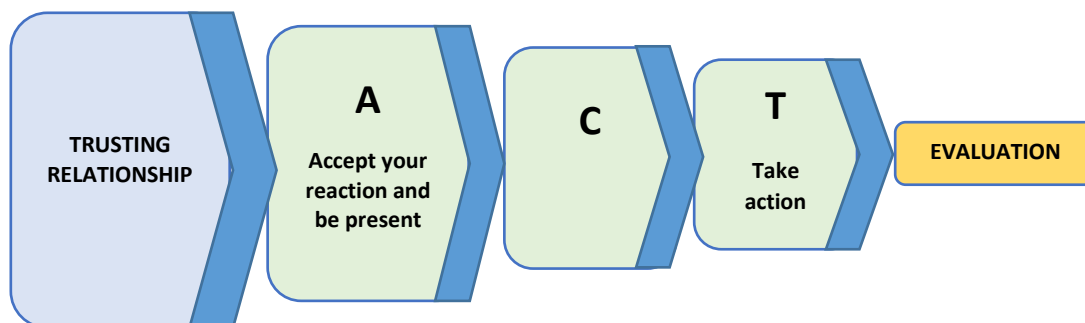


Diagram 1. Process of the Acceptance Commitment Therapy

RESULTS

Table 1. Demographic Characteristics of Respondents (N = 25 )

| Variables   | n           | p-value |
|---|-------------|---------|
| <b>Demographic Characteristics of Respondents</b>               |             |         |
| <b>Age (Years) Mean ± SD</b><br>(Range: 50-59)                  | 55.24± 2.03 |         |
| <b>Gender (n/%)</b>   |             |         |
| Male  | 15/60       |         |
| Female  | 10/40       |         |
| <b>Education level (n/%)</b>                                    |             |         |
| Low education   | 5/20        |         |
| Higher education  | 20/80       |         |
| <b>Occupational (n/%)</b>                                       |             |         |
| Unemployment  | 7/28        |         |
| Has an employment   | 18/72       |         |
| <b>The effectiveness of Acceptance Commitment Therapy (ACT)</b> |             |         |
| Pre-test (Mean ± SD)  | 42,84±6,03  | 0,000   |
| Post-test (Mean ± SD)   | 42,12±5,48  |         |

The average age of the participants in this study was 55 years, including the elderly category. In line with the results of previous studies stating that the majority of patients who experience CRF are elderly (Ismoyowati, 2018), as well as the

results of previous studies which resulted that the average patient with chronic kidney failure was in the age range of 59 years (Shen., Jin, Ji., Chen, Zhao & Behera, 2019).

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This study shows that the number of patients according to the gender, the men a more suffer chronic renal failure. It is the similar previous study of men had a higher rate of chronic kidney failure than women (Ismoyowati, 2018; Cleary, 2019). This is inversely proportional to the results of a study in Taiwan which found most women who become sufferers of chronic renal failure (Shen, Jin, Ji, Chen, Zhao, & Behera, 2019),

The results of this research education variable respondents have a high level that is equal to 80%, higher education in question is started from the high school level. and College. This is also supported by previous research which shows the majority of respondents have a higher education level (Ismoyowati, 2018). This study is different from the research of (Lebov, Valladares, Peña, Peña, Sanoff, Cisneros, Hogan, 2015) that the majority of CRF prevalence is primary education (basic), namely 41.6% which explains that CRF often occurs in patients who have low education. According to the synthesis of researchers, patient education levels higher when the patient will easily understand what is conveyed by the nurse and can overcome the feeling of powerlessness that arise when undergoing hemodialysis action. Most of the employment status of respondents (72%) are working, are known to the majority of respondents work as civil servants and private sector, is inversely proportional to the results of research conducted by Ismoyowati (2018) which stated that the majority of respondents with chronic renal failure who are unemployment.

The results of the bivariate analysis showed a decrease in the average response score of respondents' powerlessness before ACT therapy 42.8 and after being given the ACT therapy intervention the powerlessness response score became 41.12 with a difference in the score of 1.72 with a P value = 0.000 ( $\alpha < 0.05$ ).

## DISCUSSION

ACT interventions carried out on CRF patients showed a decrease in the response score of the respondent's helplessness. Most of the respondents felt that they felt sad when they

thought they needed someone to help them with their care, then they felt sad because they could not control their body functions as before suffering from CRF. Some stated that they were unable to take care of themselves because their health condition was worse than before.

When ACT conducted with participants, they looked a take part in the intervention cooperatively; they were happy to share their feelings about the current situation they felt and could organize activities that could motivate their lives, in the research that the components of the ACT intervention are flexible in targeting significant results in the poor psychological state (Bunney, Zink, Holm, Billington, & Kotz, 2017; Parker, 2001)

ACT is a treatment intervention in nursing that can produce an increased response to acceptance with the situation that is being experienced, forming a positive focus of thought (Sheibani, Sheibani, Amreei, & Masrou, 2019). The results of this study prove that the effect of ACT therapy has an impact on the acceptance response of CKD patients to think positively in carrying out the treatment therapy they have to undergo, accept physical conditions whose functions have changed before and assess their lives are still valuable to be maintained. The condition that creates acceptance caused by ACT besides having an effect on a person's psychological condition, changes in physical function will also have a positive impact. Previous studies have shown that ACT has a significant effect on reducing anxiety and patients can adapt to the physical responses they feel (Cederberg, Cernvall, Dahl, von Essen, & Ljungman, 2016; Lepore, Ragan, & Jones, 2000).

## CONCLUSION

There is an influence of commitment therapy (ACT) for patients with chronic renal failure and a response to perceived powerlessness. Hospital management to consider applying an acceptance and commitment therapy, and nurses to have a course that therapy especially nurses who conducted with chronic patients.

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