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**THE INFLUENCE OF MUSIC THERAPY TOWARD THE  
ANXIOUSNESS OF ACUTE CORONER SYNDROME PATIENTS IN  
ICCU ROOM OF BLU R.D KANDOU HOSPITAL MANADO**

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**ABSTRACT**

Coronary heart disease is a term that refers to heart disease caused by decreased blood supply to the heart muscle due to clogged coronary arteries. Decreased blood supply to the heart muscle can cause an imbalance between supply and oxygen demand. Percutaneous Coronary Intervention is the term used to describe various procedures that mechanically works to improve perfusion (flow) infarction without doing surgery. Before the implementation of measures percutaneous coronary intervention patients must be prepared both physically and mental. One of the nursing intervention that can be given to reduce anxiety, stress and depression that is supportive so as to improve the coping of patients before the procedure is the action of music therapy. The aim of this study in order to identify the influence of music therapy towards anxiety patient SKA. A quasy experimental post test design was used in this study. The total samples of 40 respondents. The subjects was divided into the intervention group consists of 20 respondents and the control group consists of 20 respondents were selected by a non probability of consecutive sampling method, and used questionnaires STAI 21. Base on spesifik data analysis, there were effect of music therapy toward anxiety patient coronary heart disease. Recommendations from this study can be used as an alternative nursing intervention in an music therapy toward anxiety patient coronary heart disease.

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## INTRODUCTION

Heart was vital organ for body. Trouble at the heart could cause problem at all systems such as trouble of blood vascular, trouble of oxygen fulfill, and trouble of body metabolism. Those conditions would impact very fatal if it didn't solve immediately. Coroner heart disease was terminology that referred to heart disease caused by the decreasing of blood supply into the heart muscle because the coroner vessel was closed up. The decreasing of blood supply into the hearth muscle could cause imbalance between the supply and need of oxygen. Finally, this imbalance would raise trouble of hearth pump and influenced the body systemically (Black & Hawk, 2005).

Based on the research result, it was known that the number of death and suffer of heart disease was increasing from year to year. According to the report of *World Health Organization* (WHO) in 2005, from 58 million deaths in the world, 17,5 million (30%) of them caused by heart disease and blood vessel disease. In 2005, it was estimated that the death caused by heart and blood vessel diseases in the world was becoming 20 million (MenKes, 2009). In United State, cardiovascular disease was an endemic, more than a quarter of American people got heart and blood vessel diseases. According to *American Heart Association*, in United State, there was a death each second caused by cardiovascular disease (Price & Wilson, 2010).

The research of Basic Health in 2007 showed that prevalence of heart and blood vessel diseases such as hypertension was very high of 31,7 % while heart disease was 7,2% and stroke was 8,3 per 1000 citizen (MenKes, 2009). Government's effort in order to face the problem of heart and blood vessel disease, based on Keputusan Menteri Kesehatan Republik Indonesia Nomor 984/MENKES/SK/X/2007 was the giving of health tool for intervention service of non-surgery, ballon, and stent for poor people through some hospitals in Indonesia. While, in bringing nearer the reference service of cardiovascular disease, it was being developed integrated heart service centre that nowadays had been developed in some provinces in Indonesia (MenKes, 2009).

Other effort done in order to press the number of death caused by cardiovascular disease in a hospital was by developing integrated service system started from emergency service to advance service. The critical patient needed an advance service so that needed a tight control and observation with sophisticated tools and skilled staffs. This room was now known as *Intensive*

*Coronary Care Unit* (ICCU). This room provided any kinds of treatment service for heart patients. ICCU gave bigger chance for the patients to get the best treatment.

Acute coroner syndrome (SKA) was important society's health problem because the it's high morbidity and mortality. Acute coroner syndrome also gave impact after getting treatment in the hospital in the form of disturbance in his activities such as work, sport, sexual activity, and decreasing of work ability and had low mood (Brown, *et al*, 1999). Thus, SKA was influenced in his live quality and productivity, so that SKA was not only impacted at the individual of SKA sufferers but also at the family, society, and his work environment.

Considered from the cost, impact, treatment time, and theratment cost of heart disease, and supporting check up, it needed high cost (Anis, quoted in Supriyono, 2008). Considering that high impact of SKA for sufferer and his family so the health staffs included nurses should handling the case exactly and comprehensively in order to minimize the impact for sufferer and his family. The handling of anxiousness was one of nurse's intervention to solve patient's psychology problem and could prevent complication of SKA so that could increase the service quality, efficient the time and treatment cost.

The society knew SKA as heart attack, that known as disease with difficult handling and could raise sudden death. Those cases made person with SKA became anxious with his health condition. That fact was appropriate with research result which stated that most patients with SKA experienced psychology response of stress, anxiousness, and depression. The prevalence of anxiousness was around 70 – 80 % at the sufferer of coroner heart disease (PJK) (Ruz, Lennie & Moser, 2011). In a research, it found that patient with cardiovascular, 50% experienced depression, 70% experienced anxiousness, and 48% experienced stress (Carney & Freedland quoted in Reddy *et.al*, 2007).

Anxiousness was the first psychology response, the most often occurred at IMA patient Malan (1992), and Buchanan (1993) quoted in Moser and Dracub (1996). The research result of Macit, Mercanuglu, Sofran, Gungor, and Eroglu (2009) concluded that anxiousness occurred at the acute phase after heart attack, while depression occurred not only at the acute phase but also after that. According to Moser and Dracub (1996) IMA patient who experienced anxiousness during the first 48 hours would had complication risk 4,9 times higher than patients who didn't get anxiousness. The anxiousness could increase the risk of complication because, physiologically, it could activate the centre of nerve system that

furthermore stimulated the increasing of catecholamine, that would influenced work system of cardiovascular, that would stimulate tachycardia and hypertension. Else, anxiousness was cause instability of hemodynamic, imunopresy, and tissue catabolism. This condition was worsened the condition of SKA patient (Sole *et al.*, 2009).

The anxiousness of SKA patient could be caused by many factors such as painful and asphyxia, disease's condition prognosis, faced the threat death, inability, and also were in new room (Sole *et al.*, 2009; Smeltzer, 2001; Moser & Dracub, 1996). While according to Ruz *et al.* (2011), the factors were the changing in the hospital environment, the loosing of individual control, changing of self-concept, afraid of the future caused by disease complication, and decreasing in work competency.

Problem of anxiousness was individual problem that wasn't needed other's involvement included attention from health staffs in handling the case, they often obeyed it (Ruz *et al.*, 2011). So that, the intervention priority of SKA patient always focused to overcome the problem with patient's physical by giving the medicine. Whereas, in handling patient, nurse should do the treatment at all human's aspects included biological, psychological, social, and spiritual. Anxiousness was psychological problem, so it was part of nurse's handling toward the patients by giving the treatment nursing. Treatment intervention toward problem of anxiousness especially at the patient with heart attack could be done by educating and guiding the relaxation technique such as respiration relaxation, guided imagery, environment manipulation, music therapy, and others (McCloskey *et al.*, 1996). Those interventions should be done so that could solve problem of patient's anxiousness. However, those some interventions needed long time, mind concentration, and psychological readiness (relax, calm, unpressured of many works) so that the nurse could be done the treatment. In fact, the nurses' responsibilities in the critical room were very big, so that they got difficulties in doing those nursing intervention. Nowadays, it had been developed alternative interventions that were *complementary therapy* in order to decrease anxiousness, one of them was voice therapy of music therapy. Music was often become relaxation choice, the people's choicest was classical music. Nurses had role to give treatment nursing toward the patients holistically at all conditions. Patients at the critical condition also must get holistic treatment nursing, by prioritizing the aspect of defending live. SKA patients who were hospitalized in the intensive room also must get holistic treatment

nursing. In fact, the nurses hadn't given holistically nursing, their main attention was patients' physical aspect. The nurses often obeyed the psychological aspect such as anxiousness. The nurses were tended to minimize communication with the SKA patients with the reason in order that the patients could get rest and saved the energy. Whereas, if the patients with anxiousness weren't asked to interact, it would cause them to think about the problems that made them got sick. That condition would increase the patients' anxiousness. Therefore, there was needed some planned intervention in order to solve patients' anxiousness, such as intervention by listening music.

Based on the thought that most of SKA patients got anxiousness, and anxiousness would be worsened prognosis, increased complication and mortality. This research was important to increase the quality of nursing treatment, decreased complication and nursing time at the SKA patients. The aim of this research was to know the influence of listening music toward the anxiousness of SKA patients in ICCU room of ICCU BLU of Prof R.D Kandow Hospital Manado.

## METHODS

This was qualitative research with *quasiexperiment design with pre - post test control group* (Notoatmodjo, 2007).

The data sampling technique used was by using *non probability sampling of consecutive sampling*, that was sample choosing by determining the subjects that fulfilled the research criteria, included into the research until the certain time frame so the number of patients needed were fulfilled (Sastroasmoro & Ismael, 2006). The samples were 40 respondents consisted of 20 respondents for intervention group and 20 respondents for control group.

This research was conducted in ICCU room of ICCU of BLU Dr. R.D Kandou Hospital Manado. The instruments used in this research was measurement tool of anxiousness by using questionnaire of *State Trait Anxiety Inventory* (STAI).

Univariate analysis was done to describe each variable studied, by observing the data distribution of all variables.

Bivariate analysis was done to know the correlation of both variables (independent and dependent) (Notoatmodjo, 2007). While the test used was using "Ranking test" marked Wilcoxon with z statistic, where it's norm: Value of z counting was bigger tha z table so Ho rejected and Ha accepted if  $p < 0.05$ .

## RESULTS

The data presentation was started with result of univariate analysis toward respondent's characteristics included age, gender, education, and kinds of music.

**Table 1.** Respondent's Distribution based on Demography Data of SKA Patients in ICCU Room of General Hospital BLU Dr. R.D Kandou.

Variable	Intervention Group		Control Group		Total	%
	F	%	F	%		
Age (year)						
• 40-59	12	60	9	45	21	52,7
• > 59	8	40	11	55	19	47,5
Gender						
• Men	16	80	15	75	31	77,5
• Women	4	20	5	25	9	22,5
Education						
• SD	3	15	2	10	5	12,5
• SMP	6	30	8	40	14	35
• SMA	7	35	7	35	14	35
• PT	4	20	3	15	7	17,5

Based on the table above, the age of 40-59 years old were the most in this sample that were 52,7 % and the most gender were men of 31 respondents (77,5%). The most education level were SMA and SMP of 14 respondents (35 %).

In order to know the influence of music therapy toward SKA patients' anxiousness, it was done z statistic test with meaning of  $p = 0,05$ . The result of ranking test marked wilcoxon using z statistic found the z value for intervention group was -3,942 with error level of 0,05 and trust level of 95 % so  $p = 0,000 < 0,05$ . While, at the control group, z value was -1,342 with error level of 0,05 with trust level of 95 % so  $p = 0,180 > 0,05$ . By comparing the value of test capacity of two sides (2 tailed) it was seen that at the intervention group  $p = 0,000$  and at the control group  $p = 0,180$  meant that p value of intervention  $<$  p value of control group. According to this value comparison, it could stated that the chance of intervention group rejected  $H_0 >$  control group. This showed that intervention group that given the treatment of music therapy gave meaningful result. So, there was influence of music therapy toward the level of SKA patient's anxiousness.

The anxiousness that experienced by the patients around the treatment was form of reality of anxiousness occurred caused by a fear to face the treatment procedure

(Notosoedirdjo & Latipun, 2007). Music was seen as medium of soul formed that was dynamic and recreation. The voice of music could create responsive attitude toward an object. Universally, music was proved able to change someone's mind atmosphere. The process of music influenced toward someone psychology started from the frequency of music voice that orderly melodic, then absorbed by the listening sense, then absorbed into nerve centre of all bodies, so that was able to cause feeling or cause psychology effect and could be more convergent, influenced brain nerve that could make fresh mind, and develop better spirit of life. This comfort atmosphere had caused positive power as the power support to release someone from any diseases disturbances, and developed health body (Dofi, 2010).

The treatment procedure would cause anxiousness at the patients. Anxiousness was emotional reaction toward perception of danger either real or unreal that signaled with subjectively feeling of fear, stress, afraid, nerves, anxious (Enc *et al.*, 2007). Anxiousness was expressed differently by the patients, there was patient who asked a question repeatedly although the answer had been given or cringing and avoided having communication with others (Black & Hawk, 2005). There were many factors that influenced patient's anxiousness and stress, such as: anxious of painful, death, anxious because didn't know the procedures done and anxious with other threatening toward body's condition (Smeltzer & Brenda G, 2002; Underhill *et al.*, 2005).

Music therapy could be done in order to decrease patient's anxiousness who would get any treatment procedures and other kinds of operation (Dofi, 2010). This was proved by the research of Gillen (2009) by seeing the effect of patient's anxiousness who was listening to the music before getting the procedures of systoscopy, breast biopsy, colonoscopy, gynecology, larascopy, and orthopedic. At the intervention group who was given music therapy for 30 minutes, the music therapy could significantly decrease anxiousness (Gillen, 2009).

Other research done in Turkey at the patient who experienced with urogenital operation, music therapy was given to the patient before the treatment. Giving the music that was appropriate with patient's willing showed the decreasing of anxiousness level at the patient who would get urogenital surgery process (Arslan *et al.*, 2007).

This could be explained that factors which known could modulate anxiousness was by doing relaxation technique through music therapy which made the muscles got relaxation so it would decrease the

anxiousness level. Music therapy could become save intervention and was enable had positive effect in repairing symptoms that related with the admission of patient who would get IKP procedures.

## DISCUSSION

The previous result showed that method of using music to decrease stress level had been long time developed in America and Germany, with more modern method, a group of researchers intensively observed music which had power to treat and relax the patient. This was in line with the result stated by (2006), in the developed countries especially United State, music therapy had been the part of health profession where music therapy used the power of music to help client found the solution for experiencing the change in decreasing his painful. According to Kemper and Denhauer (2005) music also could give effect of increasing the health, decreased the stress, and reduced the painful. Music was influenced toward the work system of autonomy and hormonal nerve so that could be influenced toward the decreasing of anxiousness and stress. Patient who got music therapy would be seemed relax and calm

Those relaxation effect would be influenced toward stability, decreased the blood pressure, artery and respiration. His could be explained that factors which known could modulate stress was by doing relaxation technique through therapy music that made muscles became relax so that would decrease the stress level. Music therapy could become save intervention and was enable having positive effect in repairing the symptoms related with the treatment of SKA patient in the intensive room.

Thus, it meant that the giving of music therapy at SKA patient who was hospitalized with instrumentals music during 30 minutes had been able to give meaningful influences toward the decreasing of anxiousness level. This result showed that music therapy was best used at SKA patient who was hospitalized in intensive room. Music therapy was able to be one alternative of treatment intervention in the effort to decrease the anxiousness level, especially at SKA patient who was hospitalized in intensive room.

## CONCLUSION

The result showed that there was influence of music therapy toward SKA patient's anxiousness in

ICCU Room of General Hospital of BLU Dr. R.D Kandou Manado.

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