

## **Randomized Control Trial to Compare Effectiveness of Emotional Freedom Technique and Therapeutic Communication to Reduce the Anxiety in Cancer Patients at Sanglah Hospital Bali**

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### **Abstract**

Anxiety is presumed to be suffered more by female patient than male patient, due to the multi-functional roles of female. Therapeutic Communication Methods which has been applied show less-favorable results, particularly at times the patients display their anxiety. The objective of this research is to compare the Therapeutic Communication (TC) Methods to Emotional Freedom Technique (EFT), in order to reduce the anxiety of female cancer patients. There were 62 female cancer patients at the stage of I to IV, followed by Karnofsky score at the range of 50 to 80, were involved as the research sample. This experimental research was conducted by using Randomized Control Trial (RCT) design. The sample was selected by block randomization methods and divided into two groups, an intervention group (IG) and a control group (CG). The intervention was held three times with EFT and TC for Intervention Group. The Control Group was held three times with TC only. The anxiety score measured by HSCL-25, the results show that the score of anxiety on the IG was decreased at 0.38 after the intervention. CG was decreased at 0.34 after the intervention. To conclude the research, Emotional Freedom Technique showed the same decrease significantly in anxiety level with the Therapeutic Communication Method in female cancer-patient.

*Keywords: emotional freedom technique, communication therapeutic, female-cancer patient anxiety.*

### **Abstrak**

*Kecemasan dianggap lebih banyak diderita oleh pasien wanita daripada pasien pria, karena peran multi-fungsional wanita. Metode Komunikasi Terapi yang telah diterapkan menunjukkan hasil yang kurang menguntungkan, terutama pada saat pasien menunjukkan kecemasan mereka. Tujuan dari penelitian ini adalah untuk membandingkan Metode Komunikasi Terapi (TC) dengan Teknik Kebebasan Emosional (EFT), untuk mengurangi kecemasan pasien kanker wanita. Ada 62 pasien kanker wanita pada stadium I hingga IV, diikuti oleh skor Karnofsky pada kisaran 50 hingga 80, dilibatkan sebagai sampel penelitian. Penelitian eksperimental ini dilakukan dengan menggunakan desain Randomized Control Trial (RCT). Sampel dipilih dengan metode acak kelompok dan dibagi menjadi dua kelompok, kelompok intervensi (IG) dan kelompok kontrol (CG). Intervensi diadakan tiga kali dengan EFT dan TC untuk Intervensi Group. Grup Kontrol diadakan tiga kali dengan TC saja. Skor kecemasan diukur oleh HSCL-25, hasilnya menunjukkan bahwa skor kecemasan pada IG menurun pada 0,38 setelah intervensi. CG menurun pada 0,34 setelah intervensi. Untuk menyimpulkan penelitian, Teknik Kebebasan Emosional menunjukkan penurunan yang sama secara signifikan dalam tingkat kecemasan dengan Metode Komunikasi Terapi pada pasien kanker-wanita.*

*Kata kunci: Teknik Kebebasan Emosional, Terapi Komunikasi, Kecemasan Pasien Kanker Wanita.*

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## Introduction

Cancer has quite a complex impact to physical, mental and social health, until the passing of the patients. The effect of cancer often accepted as a great suffering because it needs long term medication and causing anxiety through out the process. This condition is very unbeneficial for the society up to a point were, "*cancer is a public health problem*".

According to Mehnert et al. (2010) in *European Journal of Cancer Care*, one out of four newly diagnosed cancer patient, under an anxiety trauma that we call PTSD (*Post Traumatic Stress Disorder*) an extreme anxiety disturbance. This trauma brings anxiety to the patients in every stages and process of medication. It is often started when the patient received the first diagnosed, also when the patient is undergo various examination, responding medication plan and during the operation as well as the healing process. Based on that, anxiety has become the important topic since it is the most often experience by cancer patient in all stages. The patient experiences anxiety towards the impact of the medication processes (such as body image change up to considering about the end of life). Female patient with the age span of 21-45 years old is more likely undergoing anxiety than male patient. Therefore, intensive care is needed since anxiety always related with the rejection of medication or with high anxiety during treatment.

Based on the explanation above, it can be concluded that anxiety may affect the smoothness of the medication processes because the patient experiences this from the beginning of treatment until the end. Psychological intervention is crucial to be given as the main support in order to help the patient related with emotional problems that occurs during and after the medical treatment. Therefore, apart from the medical intervention-treatment that has psychological intervention is needed. Palliative care is one of the treatments that have both interventions. The purpose of palliative care is to minimize the patient's discomfort and grievance as well as to give comfort when the medical treatment is impossible to do. Palliative care has plenty of holistic purposes, such as physical, psychological, social, financial, culture and spiritual care.

Based on the daily data survey of cancer patient at Palliative team of Sanglah Hospital Denpasar Bali in 2013-2015, there are 910 patients. The majority of cancer patients are female, with 280 people had cervix cancer, 65 had ovarium cancer and 17 had breast cancer. The palliative team consists of several professions (nurses, medical doctors, psychologists, specialist doctors from multi-discipline, volunteers and spiritual caregivers) according to the need of the patients. The comparison between the palliative team, especially the nurse and the psychologist who does the daily tasks is disproportion with the amount of the patients. Considering that limitation, a psychological intervention method that can be use by the palliative team swiftly and effectively is highly needed.

There are a few psychological intervention methods that is often being used to reduce psychological complain on cancer patient in the hospital. The methods are therapeutic communication, relaxation program, meditation, spiritual support, hypnotherapy and Cognitive Behavior Therapy/ CBT. Hypnotherapy, relaxation and meditation methods need motivation, skill, concentration and high belief in order to be able to do it. Cognitive Behavior Therapy needs 12 session minimal with 120 minutes per session.

Psychological intervention that has been done in Sanglah Hospital by the palliative team since 1997 is the therapeutic communication. The effectivity intervention to the cancer patients in Sanglah Hospital. The consideration to choose EFT compare to other therapy methods was because of the practicality and effectivity in improving emotional condition. Several cases only needed one or two sessions of an hour. One of the study that has been done by Karatzias et al. (2011) proved the high effectivity of EFT on reducing the physical symptoms and pain. This intervention proved to reduce anxiety, depression, fatigue, and hot flashes from the chemotherapy medication. It has the benefit of independent conduct as well as easy to learn.

The effectivity of EFT in reducing anxiety as well as affecting physical and psychological condition of the patients has never been researched in Sanglah Hospital Denpasar. Therefore, a research is needed to compare the effectivity of therapeutic communication with combining EFT towards the female cancer patients.

The aim of this reasearch is to compare the effectivity of therapeutic communication method-EFT combined with only therapeutic communication method in reducing anxiety on female patients at Sanglah Hospital Denpasar.

### **Method**

The experiment research used Randomized Control Trial (RCT). There was an allocation randomization process with block randomization to determine the participants in intervention group (A) and control group (B). The researcher chose sampling by random allocation to eliminate the bias between control group and intervension group. The selected chosen subjects based on the inclusion criteria and signed informed consent were unaware wheter she would be put in control group or intervension group. The researcher did the checking based on the subject's attendee number and block randomization formula. After that, the researcher informed to the data collector team about which group the subject belonged to Group A (IG) or B (CG).

The comprehension capacity of the subjects who mostly has as high as Elementary or Junior Highschool education background, did not affect the data collecting process. Since the process was being done gradually, the steps of data collecting process was explained and interpreted in the language that was easy to be understood by the subjects. Simple form of measurement - self-monitoring SUDS (Subjective of Units Distress Scale) was used in the data collecting in order for the subjects to understand it easier. Other supporting equipment such as ruler and pain scale board was being used as the tool to clarify the discomfort or pain. Measurement score of 0-1 if there were no complaint, 2-3 if there were seldom complaint but non-disturbing, 4-5 if the complaints were more frequent and somewhat disturbing, 6-7 if the complaints were often and sometimes disturbing, 8-10 if the complaints always appear and disturbing.

The research was conducted in several Sanglah Hospital Denpasar wards. The period of intervention was from May until June 2017. The research population was the stadium I-IV cancer patients, who undergo the treatment in the hospital, 30-59 years old and have 50-80 Karnofsky score. The dependent variable was anxiety level, measured with Hopkins Symptom Checklist-25 (HSCL-25) Anxiety and Depression Scales. The independent variable was Emotional Freedom Technique method and therapeutic communication method.

To know the difference anxiety score between groups, two independent sample T-test is being done. This research has the research ethical permitt no. 953/14.2/KEP/2017 on 26 April 2017 from Komisi Etik Fakultas Kedokteran Universitas Udayana/ Rumah Sakit Umum Pusat Sanglah.

### Result

The characteristics of the subject in the research are presented in Table 1. The Table presented the result of the comparison between CG and comparable IG ( $p > 0.05$ ), on the aspect of age ( $p = 0.535$ ), education ( $p = 0.195$ ), occupation ( $p = 0.258$ ), income ( $p = 0.958$ ) and stadium ( $p = 0.901$ ). Whereas on the marital status ( $p = 0.036$ ) exhibited an incomparable comparison between CG and IG.

**Table 1**

Subject Characteristic Comparement between CG and IG

Subject characteristic	Intervention		Control		p
	N	%	N	%	
Age					0.535
30-39 years old	5	38.46	8	61.54	
40-49 years old	18	56.25	14	43.75	
50-59 years old	8	52.94	9	47.06	
Education					0.195
Elementary	10	40.00	15	60.00	
Middle school	6	85.71	1	14.29	
High school	6	46.15	7	53.85	
University	9	52.94	8	47.06	
Job					0.258
Farmer	1	50.00	1	50.00	
Entrepreneur	8	44.44	10	55.56	
Government employees	3	75.00	1	25.00	
Private employees	4	28.57	10	71.43	
Housewife	15	62.50	9	37.50	
Income					0.958
<2 million IDR	19	51.35	18	48.65	
2-5 million IDR	8	47.06	9	52.94	
>5 million IDR	4	50.00	4	50.00	
Marital status					0.036
Not married	0	00.00	4	100.00	
Married	31	55.36	25	44.64	
Divorced	0	00.00	2	100.00	
Stadium					0.901
I	1	50.00	1	50.00	
II	10	47.62	11	52.38	
III	15	48.39	16	51.61	
IV	5	62.50	3	37.50	

The outcome of normality test using Shapiro Wilk shows the data are in normal distribution state ( $p > 0.05$ ). The homogeneity test is used to observe the difference between two groups, Robust Variance Test is done and stated that both of the groups are homogenous ( $p > 0.05$ ).

The result of Paired Samples T-test, the pre-test and post-test score of anxiety on both groups are presented in Table 2.

**Tabel 2**

The Difference of Mean-Score of Anxiety before and after Intervention on IG and CG

Group	Pre-test	Post test	Mean diff	T (df=30)*	95% CI		P
					Bottom	Upper	
IG	2.02	1.64	0.38	4.56	0.21	0.55	0.001
CG	2.21	1.88	0.34	5.76	0.22	0.46	0.000

Note: \*t table= 1.697

The decreasing score of anxiety on CG for 0.34 and categorized as statistically significant (95% CI = 0.22-0.46;  $p < 0.000$ ). The declining score of anxiety on IG for 0.38 is also statistically significant (95% CI = 0.21-0.55;  $p < 0.000$ ).

The result of two independent samples T-test are seen in the Table 3 as seen below:

**Tabel 3**

Result of Two Independent Samples T-Test

Anxiety score	Mean score	Mean score	T (df= 60)*	95% CI		P
	IG	CG		Bawah	Atas	
Decline	0.38	0.34	0.39	-0.244	0.460	0.696

\*t table= 1.67

Table 3 shows that the decreasing score of anxiety on IG and CG are not significantly different (95% CI = 0.244-0.460;  $p > 0.05$ ). The average declining score of anxiety on IG is 0.38 and on the average score of CG decrease for 0.34.

## Discussion

In the present research, the contrast of anxiety score between CG which receive the old method and IG which receive the complementary EFT showed a statistically insignificant decrease. The decreasing of anxiety that occur are relatively small thus statistically insignificant. Such condition occurs due to the source of anxiety is the on going treatment progress and the pain as the side effect of medication greatly impact the subject's judgement. Anxiety scale given prior to intervention, resulted anxiety score on IG for 71% of 31 subjects and the score on CG for 77,4% of 31 subjects. Both groups showed Medium and Heavy level of anxiety. The majority of the subjects showed anxiety particularly towards the illness manifested in various sore and pains.

There are several conditions that can not be generalized in the present research. Initially, the subjects of the research are intended to be the patients of the same cancer, that is cervical cancer so that the patients are in equal biopsyoemotional condition. Yet, in reality the numbers of cervical cancer in KI group is only in 48.38% of 31 subjects and KK in 51.61% of 31 subjects. The short duration of research is taken as consideration to select various type of cancer as subjects. Subjects in I-IV stadiums that are evenly distributed are difficult to find. Based on the cancer stadium of 62 subjects, 64.5% subjects are stadium III cancer's patient and dominated by cervical cancer (43.5%).

Randomized Control Trial method was utilized in the research in order to minimalize bias on both group and to reach the homogeneous condition before applying an intervention. However the low frequency of intervention and short-interval are predicted to impact the relatively small declining of score. The effectiveness of reduction pain and frequency of Tension-Type Headache (TTH) are proven to be significant and required one month of research with EFT intervention to be given twice a day to the patients. Other research gives daily interventions to the subjects for four weeks and re-evaluate the effectiveness after nine weeks. Emotional Freedom Technique is proven to significantly lower ( $p < 0.05$ ) psychological and physical pain on HB (Hawbyung) patients, sudden outburst emotional disorder.

The present research were done in in-patient room of RSUP Sanglah Denpasar and the majority of class are in III class, therefore it only represents the small group of population. The condition of data collection resource is not comparable, generally the conditions of in-patient room of III class are limited. The distance of four bed are separated by curtains greatly impact the privacy and comfort. There are a few difficulties in collecting the data and prevent the subjects to discuss personal matters, that is the inconvenience and fear of confidentiality. The conditions are in contrast with the minority subject in VIP room, comfortable room and privacy provide personal space for patient to express their feelings.

The implementation of the interventions are not comparable between subjects is predicted to impact the intervention results. The data collecting progress depend on the physical readiness of the patient and the time owned by the researcher. The data are collected in the morning and mostly in the afternoon and in the evening. Considering the two-days interval of the data collection, there are some subjects visited on non-work day periods. On this condition, the time of intervention are longer than the ones on the work days.

The limitations of the research is in the try out session of anxiety scale given to the male cancer patient without considering their education level. The research is executed in in-patient room of RSUP Sanglah in Denpasar only, the data are not collected in other hospitals. Therefore, the conclusion and the result of the research can not be generalized due to its small population of female cancer patient in RSUP Sanglah.

There are only a few numbers of research regarding EFT in Indonesia, particularly the research in cancer patient. The present research is a scientific study about the first EFT in Bali with homogenous subject, that is female cancer patient. The method utilized in the research was Randomized Control Trial as the scientific way and able to minimize bias in KI and KK.

## Conclusion

The combination of therapeutic communication and Emotional Freedom Technique are not proven to significantly lower anxiety than only using therapeutic communication in female cancer patient.

## Suggestion

It is suggested for the next research to do the research by repeating the intervention more than 3 times with shorter time-span (daily basis) and giving mass intervention. The expansion of research also needs to be done on male cancer patients, to compare the anxiety level with female cancer patients, on several hospitals.

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