

Attitude Toward Complementary and Alternative Medicine (CAM) as SangkalPutung Patient Satisfaction

Lusy Asa Akhrani
Department of Psychology
Brawijaya University
lusyasa@ub.ac.id

Yeni Ardyaningrum
Department of Psychology
Brawijaya University
yeniardyaningrum@gmail.com

Abstract. This research aims to determine the attitude on Complementary and Alternative Medicine (CAM) as sangkalputung patient satisfaction. Attitude is defined as psychological construct that can be realized through beliefs, feelings, and relevant behavioral components that can predict patient's satisfaction on sangkalputung treatment. The used method was correlational quantitative with simple linear regression as the statistical analysis, and the used sampling technique was accidental sampling. Number of respondents are 90 subjects with the age of 18 to 67 years old who visited sangkalputung at least twice, and conducted a treatment in the last 10 years. The research instrument is SACAM (Scale for Attitude towards CAM) with a reliability of 0.843 and PSQ-18 (Patient Satisfaction Questionnaire Short Form) with a reliability of 0.859. Research result concludes that there is an attitude role on Complementary and Alternative Medicine (CAM) of 32.1% on sangkalputung patient satisfaction.

Keywords: Patient's satisfaction, sangkalputung, attitude on CAM (complementary and alternative medicine)

Introduction

Bone injuries can cause fractures, both local and partial fractures. Fracture is defined as the condition of discontinuity in the bone that can be caused by accidents or degenerative processes and pathology (Ministry of Health of Republic of Indonesia, 2005; Noorisa, Apriliwati, Aziz, & Bayusentono, 2017). The most common cause of fracture is accidents, either traffic accidents, work accidents, and other accidents. Based on study conducted by Kiran, John, Sarah, Lars, David, & George (2015; Noorisa *et al.*, 2017), the average incidence of fracture associated with traffic accidents is 14.5 and 4.2 per 100,000 people.

The effort to recover from injury is performing a treatment. The types of treatment in Indonesia that are often used by the people is in the form of non-medical and medical treatment. Non-medical treatment is an effort to get healed through practice and knowledge that are not related to medical, such as use of traditional herbs, while medical treatment is an attempt to get healed through medical methods. Human behavior in dealing with health problems is not a random behavior, but a selective, planned, and patterned behavior in a health system that integrates in the people culture (Dunn, 1976; Setyoningsih & Artaria, 2016), so that many users of alternative and complementary medicine (CAM) in Indonesia indicate the value of people's interest in using the treatment. Primary Health Care Survey (*Riskesdas*) in 2013 indicated that 77.8% of households utilized the type of traditional health care skills without tools and 49.0%

of households used traditional herbs (Ministry of Health, 2013).

According to National Center for Complementary and Alternative Medicine (NCCAM), CAM (Complementary Alternative Medicine) is a diverse group of medical and health care system, and currently practice and products are not considered as part of conventional medical treatment (Bahall & Legall, 2017). The alternative and complementary medicine known and enthused by people is sangkalputung which focuses on returning the abnormal limb function due to fracture. Whereas, the use of sangkalputung has its own pros and cons until today, including the statement that CAM is part of pseudoscience, because the principles that come from intuition, anecdotes and community traditions meaning that CAM is based on personal opinion, other opinion, and ancestor opinion (Singh & Ernst, 2009; Besaans, 2014). The advantages in sangkalputung is affordable costs, the handling process that does not require surgery, faster healing process, and so on, making this treatment attractive to the people.

Sangkalputung treatment putung in Indonesia is regulated by Minister of Health Regulation (2007) concerning Implementation of Alternative-Complementary Medicine at Health Service Facility. The effort to cure sangkalputung patients is conducted using hand skill, so this treatment is included in the scope of *manual healing method*. Besides those advantages, sangkalputung is a treatment that is harmful to the patient's health in some cases due to failure in treatment which results in disability or impaired function, such as standing or walking. According to the staff of Orthopedic

and Traumatology SMF of Dr. Soetomo Regional Public Hospital, Dr. Pramono Ari WibowoSp OT, almost all patients who come to Dr. Soetomo Regional Public Hospital are patients who had come to SangkalPutung, even these patients came in severe condition (Ministry of Information of East Java, 2014)

Regardless of the risks, a number of patients choose to go through SangkalPutung because of the practitioner ability to heal patient's pain, so that the patient is satisfied and fulfilled. Campbell (1999) defines patient satisfaction as a consumer's view on achieved health service and obtained treatment outcome (Ross & Venkatesh, 2015). Information that is circulating among the people regarding sangkalputung can affect people's perception and shape people's attitude toward the treatment. Information distribution can be obtained either through electronic media or word of mouth communication. Maiodan Haddock (2009) define attitude as a comprehensive evaluation of an object based on cognitive, affective, and behavioral information (Mercer & Calyton, 2012). Meaning that, each individual has a positive and negative reaction to a person, object, and idea or opinion.

This research aims to determine the attitude on Complementary and Alternative Medicine (CAM) as a satisfaction of sangkalputung treatment. Therefore, the researcher uses the attitude theory proposed by Rosenberg & Hovland (1960) which is referred to as Tripartite Model of Attitude Structure consists of cognitive, affective, and conative aspects. Then the theory of patient satisfaction proposed by Ware, Snyder, Wright, & Davies (1983) consists of seven aspects: general satisfaction, interpersonal manner, technical quality, communication, financial aspects, time spent with doctor, and accessibility and convenience.

Method

The used method in this study was quantitative correlational with the aim to determine role of attitude on Complementary and Alternative Medicine (CAM) as the patient's satisfaction with sangkalputung.

The number of respondents was 90 subjects within the age of 18 to 67 years old who visited sangkalputung at least twice, and conducted a treatment in the last 10 years. The sampling technique was performed using accidental sampling.

The measurement in this study was done using two scales, namely (Scale for Attitude towards CAM) and PSQ-18 (Patient Satisfaction Questionnaire Short Form). Both were likert scale, where participants were asked to choose one of four alternative answers, namely (STS) Strongly Disagree, (TS) Disagree, () Agree, (SS) Strongly Agree.

SACAM Scale (Scale for Attitude towards CAM) was formulated by Araz&Harlak (2006) and there have been transcription and modification by the researchers with a scale reliability of 0.843 (high). This scale consisted of eight items of favorable and unfavorable statements based on three attitudes, namely: 1) cognitive,

2) affective, and 3) conative. Meanwhile PSQ-18 (Patient Satisfaction Questionnaire) scale has been simplified by Marshall & Hays (1994) and there have been trans-adaptation and modification by the researchers which resulted in a scale reliability of 0.859 (high). This scale consisted of 11 items of favorable and unfavorable statements based on seven dimensions of patient satisfaction, namely: 1) general satisfaction, 2) interpersonal manner, 3) technical quality, 4) communication, 5) financial aspect, 6) time spent with doctor, and 7) accessibility and convenience.

The used data analysis technique in this research was simple linear regression. The analysis technique was conducted by SPSS for Windows version 21.0. After data processing, the researchers interpreted the results and relate to the used theory.

Beliefs and hopes for treatment success arisen because of social-cognitive theory learning on individual. According to Bandura & Adams (1977), personal judgments based on their ability to conduct behavior were referred to self-efficacy. Self-efficacy was a belief that became a part of attitude due to the expectations and beliefs in it. Beliefs in a person had a central role that could affect the way a person felt, thought, motivated themselves, and how they behave (Bandura, 1986; LjubišaZlatanović, 2015).

Expectations and beliefs in patients' attitudes contributed to increase in their satisfaction with the obtained treatment. This state occurred because patient satisfaction was based on a combination of beliefs strengths about the specific attributes of obtaining experience health care (access, efficiency, cost, comfort) and evaluation of those experience (Brien, 2009). Therefore, in this research the researchers wanted to determine attitude role on CAM (Complementary and Alternative Medicine) as sangkalputung patients' satisfaction.

Based on the description of previous framework, the hypothesis was as follows:

Ha: There was an attitude role on Complementary and Alternative Medicine (CAM) as patient's satisfaction of sangkalputung. The more positive attitude role on Complementary and Alternative Medicine (CAM), the more the increase in sangkalputung patient's satisfaction.

Results

The demographic data indicates that people who seek treatment at SangkalPutung are dominated by men who are mostly between the ages of 18-33 years. Most of the people are students with the last level of education in junior high school with the income of < 1,000,000 IDR in one month. Most of the subjects conduct a treatment at SangkalPutung in 2014-2018 and return to sangkalputung by the number of visits as much as 2-5 times.

Analysis on research variable components is conducted to explain the high value of each research variable aspect. Based on each aspect value, it can be seen there is a most dominant aspect in explaining the

participants' attitude and satisfaction with the treatment of sangkalputung.

Based on score analysis of attitude variable component on CAM (Complementary and Alternative Medicine) & patients satisfaction variable components on sangkalputung treatment it is known that the affective aspect has the highest average. This state indicates that patients' positive attitude on CAM is hugely affected by the affective aspect or emotional response of arise feeling and sensation. Besides, based on Table 2 it can be seen that the increase in patient satisfaction is hugely affected by financial aspects or related to payment for achieved health service.

Normality test

Normality test is performed using Kolmogorov-Smirnov with a significance test of $\alpha=5\%$ ($p>0.05$). Based on the tests, the result indicates that attitude variable on CAM generates a significance value of 0.07 ($p>0.05$) and satisfaction variable of treatment for patients with sangkalputung generates a significance value of 0.152 ($p>0.05$). These results indicate that the used variables in this research is able to meet the assumptions of normality and distributed normally.

Linearity test

The purpose of linearity test is to ascertain whether the data is in line with linear line or not. The assumption can be determined by finding the value of *Deviation from Linearity* on ANOVA table by a significance value of $\alpha=5\%$ ($p>0.05$).

Heteroscedasticity test indicates that in *scatter plot* images there are randomly spread points, both above zero and below zero from Y axis. Besides, the point on the plot does not form a certain regular pattern. It gives the conclusion that no heteroscedasticity on the regression model in this research.

Besides, based on statistical analysis of heteroscedasticity test produces a significance coefficient of 0.90 for attitude variables on CAM. The coefficient has bigger value than significance level of $\alpha=5\%$ or 0.05, so based on scatter plot and statistical analysis above can be concluded, there is no heteroscedasticity on regression model in this research.

Simple linear regression analysis

Hypothesis test is performed using simple linear regression to see effect of independent variables (X), namely attitude on CAM in the dependent variable (Y), that is patient's satisfaction with sangkalputung. Significance test result on attitude variable on CAM in predict patient's satisfaction with sangkalputung using simple regression result in a_{rxy} coefficient of 0.56 with a p-value of 0.000 ($p<0.05$), so there is evidence to reject the null hypothesis.

Analysis result on effect size found that effect size in this research is 0.56 and categorized as large effect ($r > 0.50$) and Bayes Factor analysis generates BF coefficient₁₀ of 14391601 ($BF_{10}>100$), so there is firm

evidence to support the proposed main alternative hypothesis in this research. Attitude role is indicated through R square value that contributes to sangkalputung patient satisfaction by 0.32 or 32.1%.

Discussion

Result of Hypothesis test by simple linear regression indicate that attitude on CAM plays a role in increasing sangkalputung patient satisfaction. This state is indicated by a significance value of 0.000 ($p<0.05$), so it can be seen that the attitude on CAM has a significant effect on sangkalputung patient's satisfaction. Besides, (*R Square*) determination coefficient is 0.32 meaning that attitude variable on CAM can explain sangkalputung patient's satisfaction variable by 32.1% and the remaining 67.9% that are not examined.

Attitudes of positive and negative views on an object, individual, and idea become one of the predictors of treatment expectation. Therefore, the patient's attitude on CAM, mainly in sangkalputung treatment will trigger treatment satisfaction, because there is a hope and belief in an individual's attitude regarding the treatment result. The more positive the attitude on *Complementary and Alternative Medicine* (CAM), the more positive sangkalputung patient's satisfaction.

One of the supporting studies was conducted by Huang & Furnham (2013) which aims to examine attitudes of Chinese people on the use of complementary and orthodox medicine. The result indicates that complementary treatment patient's belief if complementary medicine is better than Chinese orthodox medicine, so the therapeutic decision can be affected by the patient's beliefs or attitudes on the treatment.

Secondary analysis is conducted based on the subject demographic data to increase the research result diversity. Analysis result indicates that most people who visit SangkalPutung are dominated by males by 62%, with the patients age ranging from 18-33 years old by 70%. Most of the patients who visit SangkalPutung are students, as many as 52% by 73% of junior and senior high school level. Subjects who mostly work as students are related to the amount of earned income, so that the income of less than one million rupiah is mostly dominated by participants by 56%. Next result indicates that most people return to treatment as much as 2-5 visits or 88% in 2014 to 2018 with 64%.

While the component score analysis on attitude variable on CAM results in the highest mean value on affective dimension, this state indicates sangkalputung patient's positive attitude on CAM is largely affected by the affective aspect or emotional responses that arise feeling and sensation. Furthermore, the component score analysis on sangkalputung patient satisfaction variable results in the highest mean value in financial aspect dimension, this can be interpreted that the increasing in patient satisfaction is largely affected by the financial aspects or related to the achieved health service. The highest satisfaction in this aspect is assumed by the existence of a 'fair' treatment tariff or payment that can

be adjusted to the patient's economic ability. The financial aspect has the highest value associated with the average patient's income of less than one million rupiah per month because most participants are students of junior and senior high school.

Regression equation analysis generates following equation: $Y = 16,16 + 0.63X$. The regression equation indicates that regression coefficient for constant is 16,16. This means that if attitude variable on CAM (X) is zero or constant, then sangkalputung patient satisfaction (Y) increases by 16,16. Attitude variable on CAM (X) generates a coefficient parameter of 0.63. This state means that if there is an increase in attitude variable on CAM (X) by 1%, then sangkalputung patient satisfaction variable (Y) will increase by 0.63.

Conclusion

Based on the research result, it can be concluded that there is a role of attitude on Complementary and Alternative Medicine (CAM) by 32.1% as sangkalputung patient satisfaction. The more positive attitude role on Complementary and Alternative Medicine (CAM), then sangkalputung patient satisfaction is more increasing.

References

- Araz, A., & Harlak, H. (2006). Developing a scale for attitudes towards complementary and alternative medicine. *Turkish Journal of Public Health*, 47-54.
- Bahall, M., & Legall, G. (2017). Knowledge, attitudes, and practice among health care providers regarding complementary and alternative medicine in trinidad and tobago. *BMC Complementary and Alternative Medicine*, 1-9.
- Bandura, A., & Adams, N. E. (1977). Analysis of self-efficacy theory of behavioral change. *Cognitive Therapy and Research*, 287-310.
- Besaans, L. C. (2014). *Pseudoscience: A case study of a South African lifestyle magazine, and a survey of its usage*. Stellenbosch: Stellenbosch University Press.
- Brien, J.S. (2009). The role of expectations as determinants of satisfaction in an outpatient care setting. *Dissertations*. Paper 239.
- Dinas Komunikasi dan Informatika Provinsi Jawa Timur. (2014). *RSUD Dr. Soetomo banyak rawat pasien gagal sangkal putung*. Surabaya: Penulis.
- Diakses dari <http://kominfo.jatimprov.go.id/read/umum/42768>
- Huang, Y., & Furnham, A. (2013). Examining health beliefs, attitudes and behaviours relate to complementary and orthodox medicine use in Chinese population. *Altern Integ Med*, 1-7.
- Marshall & Hays. (1994). *The patient satisfaction questionnaire short form (PSQ-18)*. Santa Monica: RAND.
- Menteri Kesehatan RI. (2007). *Peraturan menteri kesehatan Republik Indonesia Nomor 1109 Tahun 2007/MENKES/PER/IX/2007 tentang penyelenggaraan pengobatan komplementer-alternatif di fasilitas pelayanan kesehatan*. Departemen Kesehatan RI: Jakarta.
- Mercer, J., & Clayton, D. (2012). *Psikologi sosial*. Jakarta: Penerbit Erlangga.
- Noorisa, R., Apriliwati, D., Aziz, A., & Bayusentono, S. (2017). The characteristic of patients with femoral fracture in Department of Orthopaedic and Traumatology RSUD Dr. Soetomo Surabaya 2013-2016. *Journal of Orthopaedi & Traumatology Surabaya*, 1-11.
- Kementerian Kesehatan RI. (2013). *Riset kesehatan dasar*. Jakarta: Penulis. Diakses dari <http://www.depkes.go.id/resources/download/general/Hasil%20Riskasdas%202013.pdf>
- Rosenberg, M. J., Hovland, C. I., McGuire, W. J., Abelson, R. P., & Brehm, J. W. (1960). *Attitude organization and change: An analysis of consistency among attitude components*. (Yales studies in attitude and communication). Oxford, England: Yale Univer. Press.
- Ross, D. S., & Venkatesh, D. R. (2015). An empirical study of factors influencing quality of healthcare and its effects on patient satisfaction. *International Journal of Innovative Research in Science, Engineering and Technology*, 54-59.
- Setyoningsih, A., & Artaria, M. D. (2016). Pemilihan penyembuhan penyakit melalui pengobatan tradisional non medis atau medis. *Masyarakat, Kebudayaan dan Politik*, 44-56.
- Ware, Snyder, Wright, & Davies. (1983). Defining and measuring patient satisfaction with medical care. *Evaluation and Program Planning*, 247-263.
- Zlatanović, Ljubiša. (2015). Self-efficacy and health behaviour: Some implications for medical anthropology. *Journal of the Anthropological Society of Serbia*, 17-25.