The Factors of Health Perception and Samutthan of Thai Traditional Medicine as Correlates of Osteoarthritis of the Knee in the Patients at Out - Patient Department in Rajiavithi Hospital[1]

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Introduction

Osteoarthritis of the knee is a chronic disease which may occur from hormonal Changes , genetic reason, health risk behaviors, such as using the knee in abnormal position , or persisting any position longer than usually done , knee injury, too much food, or abnormal deformity of the knee. Information about all of this is found in Phrakamphree Wetchasuksa and Dhatwiwon (two Thai books). Not only this but also there are other risk behaviors of OA of the knee such as not eating according to Tart Chao Ruean of birthday ,not eating according to Tart Chao Ruean of personality, risk behaviors of OA of the knee dietary, risk behaviors of action ,lack of food , sleep , suppression of defecation and micturition, Touching hot and cold , lack of Upekkha, and anger (Sumruay Subcharoen. 1989) . Health behaviors were based on their health belief, which have positive and negative affects on their health. The health risk behaviors due to lack of knowledge among the other things found to be the cause of health problem are the perceived severity, perceived susceptibility, perceived benefit, perceived barriers and health motivation. Health problem of OA of the knee are pain, stiffness and deformity. It's the result of the surgery of knee osteoarthritis. At the present time, the Thai traditional medicine is the alternative medicine which the ancient people used, to treat and to cure the disease. Thai traditional medicine is the Thai wisdom, holistic concern with social culture and associated with the life style of people in the community. But there is insufficient recorded and research information.

In 1990, Sumruay Subcharoen. (1989) compared Thai traditional medicine with allopathic medicine . The results of the research found some interesting relationships between Utu Samutthan , Ayu Samutthan and health problems . Hence, It's important to study The factors of health perception and Samutthan of Thai traditional medicine as correlates of osteoarthritis of the knee.

Objective

1. To study the correlation among factors relevant to health risk behaviors including perceived severity, perceived susceptibility, perceived benefit, perceived barriers and health motivation in patients with OA knee.
2. To study the correlation among factors relevant to OA knee including health risk behaviors , Dhatus Samutthan , Utu Samutthan , Ayu Samutthan , Kala Samutthan , Prathet Samutthan , and Tart Chao Ruean.

Material and method

Population and sampling The sample comprises 2 groups of patients : group 1 composed of 150 patients who were diagnosed by a physician as having knee OA and went for follow up at the Orthopedic clinic at Rajavithi hospital . The other group composed of 150 patients who did not have knee OA at OPD clinic.

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Instrument : The instrument used for data collection was interview questionnaire which consisted of 5 parts :

Part 1 Demographic data : weight, height, status, occupation and education

Part 2 Samutthan questionnaire (adapted from patient's record form of Medical technology and public health college) : Dhatus Samutthan , Utu Samutthan , Ayu Samutthan, Kala Samutthan and Prathet Samutthan.

Part 3 The Tart Chao Ruean questionnaire was adapted from Pennapa Subcharean's questionnaire . (Pennapa Subcharoen. 1989)

Part 4 The health perception questionnaire adapted from the health belief model of Becker (1974). The questionnaire consisted of 60 items which was tried out with 30 patients and tested for reliability by using Cronbach's Alpha Coefficients which was found to be 0.82

Part 5 The health risk behaviors questionnaire adapted from Phrakamphree Wetchasuksa and Dhatwiwon . The questionnaire consisted of 42 items which was tried out with 30 patients and tested for reliability by using Cronbach's Alpha Coefficients which was found to be 0.87

Collection of the data : 1 The letter of introduction from the graduate school was presented to the director of Rajavithi hospital 2 The researcher presented this project to the committee of a human rights to research involving humans for documentary proof of ethical clearance at Rajavithi hospital. 3. The investigator introduced herself and informed the objectives of this study and asked for formal consent to participate in research.

Data analysis 1. Pearson Product Moment Correlation Coefficient was used to analyzed the correlation among perceived severity, perceived susceptibility, perceived benefit, perceived barriers , health motivation and health risk behaviors. Stepwise multiple regression was used to analyze the predictive power between health perception and health risk behaviors. 2.Chi-square test was used to analyzed relationship among Dhatus Samutthan ,
Utu Samutthan , Ayu Samutthan , Kala Samutthan , Prathet Samutthan , Tart Chao Ruean, Health risk behaviors and patients with knee OA and without knee OA. Multiple logistic regression was used to analyze the predictive power between health risk behaviors, Samutthan and Tard Chao Ruean.

Result

Results according to research hypothesis indicated the followings :

1.The perceived severity of OA of the knee was negatively correlated to health risk behaviors of OA of the knee (r =-.289) at 0.001 level. When considering in each dimension it was founded that inappropriate eating behaviors affecting OA of the knee (r =-.234), inappropriate movement and posture (r =-.343), exposure to extreme heat and cold (r =-.134) and was correlated to non consumption of the diet of Dhatus Chao Ruean related to date of birth (χ^2 =18.35 , cramer's v coef. = .25). The perceived severity of OA of the knee was not correlated to lack of Upekkha (indifference), furious behaviors and non consumption of the diet of Dhatus Chao Ruean related to personality.

2. The perceived susceptibility of OA of the knee was negatively correlated to health risk behaviors of OA of the knee(r =-.427) at 0.001 level. When considering in each dimension it was founded that inappropriate eating behaviors affecting OA of the knee (r =-.356), inappropriate movement and posture (r =-.478), exposure to extreme heat and cold (r =-.257), lack of Upekkha (r =-.144) and furious behaviors (r =-.135).

The perceived susceptibility of OA of the knee was non consumption of the diet of Dhatus Chao Ruean related to date of birth and non consumption of the diet of Dhatus Chao Ruean related to personality.

3.The perceived benefit of OA of the knee was negatively correlated to health risk behaviors of OA of the knee (r =-.472) at 0.001 level. When considering in each dimension it was founded that inappropriate eating behaviors affecting OA of the knee (r =-.411) inappropriate movement and posture (r =-.486), exposure to extreme heat and cold (r =-.154), lack of Upekkha (r =-.127) and furious behaviors (r =-.144). The perceived benefit of OA of the knee was not correlated non consumption of the diet of Dhatus Chao Ruean related to date of birth and non consumption of the diet of Dhatus Chao Ruean related to personality.

4.The perceived barriers of OA of the knee was positively correlated to health risk behaviors of OA of the knee (r =-.678) at 0.001 level. When considering in each dimension it was founded that inappropriate eating behaviors affecting OA of the knee (r =-.456), inappropriate movement and posture (r =-.812), exposure to extreme heat and cold (r =-.260), lack of Upekkha (r =-.262), furious behaviors (r =-.252) and was correlated to non consumption of the diet of Dhatus Chao Ruean related to date of birth (χ^2 =41.31, coeff. = .37). The perceived barriers of OA of the knee was not correlated to non consumption of the diet of Dhatus Chao Ruean related to personality.

5.The health motivation was negatively correlated to health risk behaviors of OA of the knee (r =-.624) at 0.001 level. When considering in each dimension it was founded that inappropriate eating behaviors affecting OA of the knee (r =-.375) , inappropriate movement and posture (r =-.788), exposure to extreme heat and cold (r =-.302), lack of Upekkha (r =-.197) , furious behaviors (r =-.199) and was correlated to non consumption of the diet of Dhatus Chao Ruean related to date of birth (χ^2 = 47.95; coeff. = .39).The health motivation was not correlated to non consumption of the diet of Dhatus Chao Ruean related to personality.

6. The results of stepwise multiple logistic regression analyzed showed that the perceived barrier of OA of the knee were significant associated with non consumption of the diet of Dhatus Chao Ruean related to date of birth : An increase of 1 score on perceived barriers of OA of the knee will increase incidence of non consumption of the diet of Dhatus Chao Ruean related to date of birth 1.13 times.

7. The results of stepwise multiple regression analyzed showed that 45.30 percent of the health risk behaviors of OA of the knee was accounted for by two predictors : perceived barriers of OA of the knee and health motivation.

8. The Dhatus Samutthan, Prathet Samutthan and Dhatus Chao Ruean were not correlated to OA of the knee. Utu Samutthan , Ayu Samutthan, Kala Samutthan and health risk behaviors : inappropriate eating behaviors affecting OA of the knee , non consumption of the diet of Dhatus Chao Ruean related to date of birth, inappropriate movement and posture, exposure to extreme heat and cold, lack of Upekkha , furious behaviors and non consumption of the diet of Dhatus Chao Ruean related to personality were correlated to OA of the knee (χ^2= 18.884, cramer's v coef. = .25 , χ^2= 3.93 , phi coef. = .11 , χ^2= 7.611 , cramer's v coef. = .16, χ^2= 20.43 , phi coef. = .27 , χ^2= 12.82 , phi coef. = .21, χ^2= 64.57 , cramer's v coef. =.46, χ^2= 157.98, cramer's v coef. =.73, χ^2= 20.55 , cramer's v coef. =.26 , χ^2= 28.83 , cramer's v coef. = .31 , χ^2= 39.16 , cramer's v coef. = .36 respectively)

9. The result of stepwise multiple logistic regression analyzed showed that inappropriate eating behaviors affecting OA of the knee, non consumption of the

diet of Dhatus Chao Ruean related to date of birth, inappropriate movement and posture and furious behaviors were significant associated with OA of the knee : An increase of 1 score on inappropriate movement and posture , furious behaviors , inappropriate eating behaviors affecting OA of the knee, will increase incidence of OA of the knee 1.16 , 1.15 , 1.28 times respectively. Non consumption of the diet of Dhatus Chao Ruean related to date of birth will increase incidence of OA of the knee 8.63 times.

Discussion

From these findings, perceived benefit of OA of the knee, perceived barriers of OA of the knee and health motivation were correlated to health risk behaviors, which is in accordance to the findings of Buppa Intakual (2001:37) who founded the association between health perception and health protection or health prevention. Results found perceived severity was not correlated to lack of Ubekka and furious behaviors , perceived severity is the perception of the disease that is harmful and will affect lives and 30% of sampling group had a low level of perceived severity, then they have no experience of OA of the knee. Due to these reasons, the perceived severity were not correlated to lack of Ubekka and furious behaviors. Additionally, the results of this study found that perceived severity ,perceived barrier and health motivation were correlated to non consumption of the diet of Dhatus Chao Ruean related to date of birth but were not correlated to non consumption of the diet of Dhatus Chao Ruean related to personality. While perceived susceptibility and perceived benefit were not correlated to non consumption of the diet of Dhatus Chao Ruean related to date of birth and personality, and that 100% of sampling group was not have experience of Dhatus Chao Ruean . They did not prepare food related to Dhatus Chao Ruean and did not know how to eat food related to Dhatus Chao Ruean . 36.33% of the sample ate diet of Dhatus Chao Ruean related to date of birth. A person may have 2 Dhatus Chao Ruean , due to the method of diagnosis Dhatus Chao Ruean consisted of 2 ways : first, diagnosed by date of birth, the second diagnosed by personality. Although they ate diet of Dhatus Chao Ruean related to date of birth, it did not mean that they ate diet of Dhatus Chao Ruean related to personality. From these reason, as a result perceived susceptibility and perceived benefit were not correlated to non consumption of the diet of Dhatus Chao Ruean related to date of birth and personality. The multiple regression analysis showed that the perceived barriers of OA of the knee and health motivation can predict health risk behaviors , which according to Champion (1984) and Becker(1974) showed that perceived barrier can predicted health risk behaviors. According to Gochman (1974) founded that the health motivation can predict intention of preventive behaviors. Health motivation is the factor which promotes and stimulates interest in taking care of health by themselves.

The result of the study found that Dhatus Samutthan and Dhatus Chao Ruean were not correlated to OA of the knee, due to proportion of patients with OA of the knee were the same as Dhatus Chao Ruean of patients without OA of the knee. Not only Dhatus Chao Ruean may affect of OA of the knee but they are many other factors : behaviors of daily life , emotion and environment which affect of OA of the knee. According to Euai Katsing (1996:14) said that " behaviors" were the causal factors of abnormality of Dhatus Chao Ruean . The research founded that Prathet Samutthan were not related to OA of the knee, due to the proportion of the place which the patients with OA of the knee and without OA of the knee live is the same as. The result of the research founded that Utu Samutthan, Ayu Samutthan, Kala Samutthan and health risk behaviors were correlated to OA of the knee. According to Thai traditional medicine theory , season, age, time and health risk behaviors are correlated to health problems. According to a study by Ebong (1985) and Felson ;& et al (1988) it was found that age was correlated to OA of the knee. It was also similar to the finding of Piyanun Manekul (1988:79-80), Vichi Rungpitarungsri 1995:45)

and Vipa Yamvisutikul (2001:40), found that behaviors in daily life were correlated to OA of the knee.

Recommendation

Some of the recommendations from the study to :

Health team

1. Should collaborate and work together to promote knowledge and appropriate perception of OA of the knee by motivating people to take part in health programs so that they will be aware of performing good health behaviors

2. Should promote knowledge about eating according to Tart Chao Ruean, appropriate food , avoid risk behaviors of action, avoid touching hot and cold , Upekkha , and avoid anger

People

1. Eat according to Tart Chao Ruean / avoid risk behaviors of action

2. Do exercises of muscle tendon and ligament around the knee / avoid touching hot and cold, be peaceful, quiet and calm or try to calm down.

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