

# Quality Research: The life Experience Adaptation of Cervical Cancer Women in Taiwan based on Traditional Chinese Medical Science Approach

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## Research Article

Received date: 06/04/2017

Accepted date: 10/07/2017

Published date: 17/07/2017

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**Keywords:** Cervical cancer, Mortality rate

### ABSTRACT

Cervical cancer (CC) is one of leading death courses but has declined in recent years, statistics published by the Health Promotion Administration in Taiwan. Cervical cancer was the fifth leading death cause in 2001 with a mortality rate of 8.6:100,000 and had declined to the tenth in 2015 with a mortality rate of 5.4:100,000; a diminution rate of 54.6%.

## INTRODUCTION

Cervical cancer (CC) is one of leading death courses but has declined in recent years, statistics published by the Health Promotion Administration in Taiwan. Cervical cancer was the fifth leading death cause in 2001 with a mortality rate of 8.6:100,000 and had declined to the tenth in 2015 with a mortality rate of 5.4:100,000; a diminution rate of 54.6% [1]. As the result of decline mortality rate, more women are living with cervical cancer. It is important to understand their quality of life with the disease. Cultural factors influence the health behavior of women with cervical cancer in Taiwan not only regarding attitudes toward participating in cervical cancer screenings [2] but also preferences of treatment methods. Taiwanese prefer treatment approaches that integrate Western medicine and traditional Chinese medical science (TCMS) [3]. Although many Taiwanese cervical cancer patients adapt their lifestyle to be more keeping with traditional Chinese medical science (TCMS), few studies have published that address the benefits of traditional Chinese medical science (TCMS) to cervical cancer patients. The purpose of this research is to explore life adaptation experience of cervical cancer women following a traditional Chinese medical science (TCMS) regimen.

Besides medications, TCMS typically works to improve the health condition of patients through life adaptation in four aspects: food, exercise, quality of sleep, and mind equilibrium [4].

In the aspect of food, most Taiwanese women with cancer believe that consuming a proper and high-quality food is more important than medications to restore health. Specifically, certain foods such as ginseng, lentils, mushroom, and enhance therapeutic functions [5] by activating lymphocytes, which improve immune system functions. Additionally, sweet potatoes, mung beans, oats, brown rice, lotus roots, and sweet potato leaves are widely believed to eliminate toxins from the body [6]. Ginseng, plums, and garlic enhance macrophage phagocytosis in cancer patients; mushrooms and melons have been shown to improve the capacity of T cells to prevent cancer cell proliferation [7]. Dr. Ho, a doctor of traditional Chinese medicine (TCM), defined cancer-suppressant foods which reduce the proliferation of cancer cells [5]. For example, brown rice contains high levels of vitamin B complex, which helps to produce ATP (adenosine triphosphate) balancing intercellular sodium and extracellular potassium between cell membranes.

In the aspect of exercise, physical exercises such as yoga, tai chi and walking are believed to promote the health status of

# Research and Reviews: Journal of Clinical and Medical Case Studies

people living with cancer. Those exercises increase the metabolism rate and oxygen saturation, eliminate toxins and reduce the sense of fatigue [7].

In the aspect of sleep quality, getting an adequate and restful sleep is believed to enhance the body's self-healing processes and improve overall health status. TCMS identifies the most beneficial for a health promotion sleep hour is between 23:00 and 03:00. As TCMS theory indicates that both the gall bladder channel and the liver channel (a meridian channel based on TCM theory) run from 23:00 to 03:00 and involve in self-healing and restore energy. Huang Di Nei Jing, an ancient Chinese medical textbook, describes the gall bladder and liver channels are helpful in digestion and self-detoxification, in turns of improving the capability of self-restoration [4,8].

About the aspect of mental equilibrium, TCMS theory states that seven emotions, including depression, anger, worry, anxiety, fear, happiness and sadness, affect the progress of the disease. Thus, emotional instability may impede the recovery of cancer patients who are excessively sensitive [5]. Mental equilibrium may facilitate the proper activities of the organs and benefit cancer recovery [9,10]. Conversely, having a negative mindset may impair the immune system and accelerate disease progressing [5]. Literature reviews on TCMS mainly based on theory limited on clinical evidence. Therefore, the present study aimed to examine the effect on women with CC of following a lifestyle in line with TCMS theory.

## MATERIALS AND METHODS

A qualitative approach used purposive snowballing sampling and semi-structured interviews for women with CC. The participants underwent treatment at a teaching hospital in southern Taiwan. The inclusion criteria were: 1) diagnosis of cervical cancer, 2) native-born citizen of Taiwan, 3) complete history of disease progressing, 4) cognitively clear, 5) able to commute in either Hokkien or Mandarin Chinese, and 6) provided informed consent to participate. This research was approved by the Yuhing College institutional review board and by Director of Maternity of the hospital.

All participants matched criteria and provided informed consent before enrollment. Researcher built up the relationship with participants by caring them for one shift and signed consent. The researcher conducted twice semi-structure interview twice to every participant, the first interview focused on demographic data and the second interview recalled the life experience with cervical cancer. Thus, 15 participants enrolled in total and conducted 30 interviews. The researcher recorded all interviews and saved the interview transcripts as the raw database. The questions of semi-structure interviews are as follow (**Figure 1**).

1. Based on your experience, what were your symptoms of cervical cancer?
2. What did you feel when you knew your diagnosis?
3. How did your family help you when you experienced the treatment?
4. How did you adapt yourself after diagnosed "cervical cancer"?
5. Do you believe "Traditional Chinese Medicine"?
6. Have you been treated by "Traditional Chinese Medicine"?
7. If "yes," how did you rearrange your life by "Traditional Chinese Medicine" theory?

**Figure 1.** Questions of semi-structured interview.

The researcher analyzed the interview data according to the following procedure. The material was analyzed line-by-line to create the first-level codes, also known as master codes. After second- and third-level coding, each code became more robust after cross-checking and analysis of potential significance. Similar words, sentences, paragraphs and chapters formed the secondary code (sub-code), which was then used to create the main-level category, secondary analytic categories, and the theme. The rigor of this research was assessed using Lincoln and Guba's criteria of credibility, transferability, dependability, and confirmability.

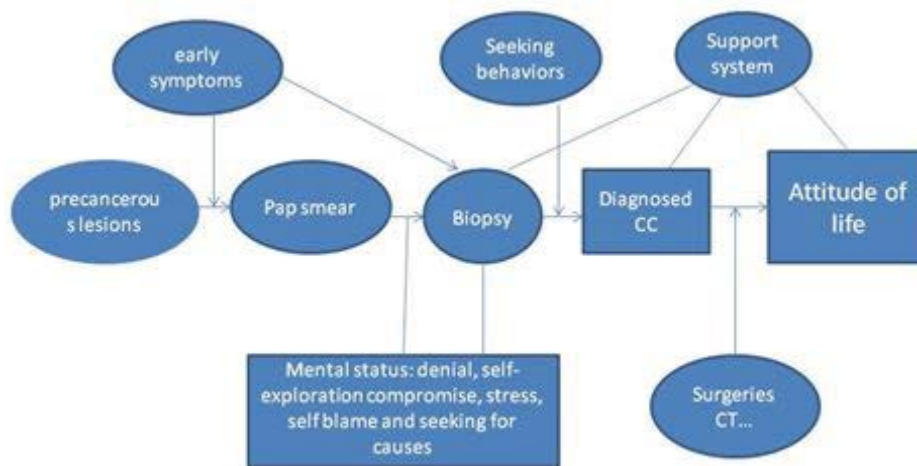
## RESULTS

Fifteen cervical cancer patients participated in data collection over the one-year research period, of which eight had been diagnosed with cancer using Pap smear and seven had been diagnosed after the appearance of related symptoms. The following illustrates the experience of participants regarding their precancerous lesions, early symptoms, and diagnosis procedures.

The mean age of participants was 57.8 y/o, from 42 y/o to 75 y/o. Six of the participants had carcinoma in situ, 5 were IA, 1 was IIA, and 3 were IIB. Five of the participants had experienced genital precancerous lesions, one had experienced cervical

## Research and Reviews: Journal of Clinical and Medical Case Studies

erosion, 1 had the inflammatory pelvic disease, and 2 had vaginitis. Twelve of the participants had observed multiple early symptoms, with 4 experiencing bleeding after intercourse, 6 experiencing abnormal vaginal bleeding, 2 experiencing mass vaginal secretion, 1 experiencing vaginal secretion odor, two experiencing bleeding after urination/defecation and 1 experiencing bilateral abdominal pain (**Figure 2 and Table 1**).



**Figure 2.** The life experience of cervical patients in Taiwan.

**Table 1.** Demographic of participants.

	Number	Percentage%
<b>Marriage status</b>		
Married	8	53.3
Seperated	5	33.3
Divorced	1	6.7
Widow	1	6.7
<b>Religion</b>		
Buddhist	11	73.3
Taoism	3	20.0
Christian	1	6.7
<b>Education</b>		
Elementary school	4	26.7
Junior high school	2	13.3
Senior high school	1	6.7
University	7	46.7
Graduated school	1	6.7
<b>Age</b>		
70-79	5	33.3
60-69	1	6.7
50-59	4	26.7
40-49	5	33.3

The nearest-to-diagnosis patient had been diagnosed with cervical cancer only one week before the interview, while the furthest-from-diagnosis patient had been diagnosed five years before the interview. The attitude of participants toward cervical cancer was affected by time. Five participants reported initially being in denial of their disease and emotionally four reported having explored and rationalized the reason for their contraction of cervical cancer 3 reported sensing that they had a limited amount of time to complete their responsibilities in life and 2 expressed regret that they had overlooked the early symptoms of their disease (**Table 2**).

**Table 2.** Treatment of participants.

Number	Stage	Treatment
1	CIS	Hysterectomy
2	IIB	Lyph nodes dissection, chemotherapy
3	CIS	Cone biopsy
4	CIS	Cone biopsy

5	CIS	Hysterectomy and salpingectomy
6	IA	Cone biopsy and hysterectomy
7	IA	Hysterectomy and salpingectomy
8	IA	Hysterectomy and salpingectomy
9	IA	Radical Hysterectomy
10	IIB	Total Hysterectomy and salpingo-oophorectomy
11	IIB	Total Hysterectomy and salpingo-oophorectomy
12	CIS	Total Hysterectomy and salpingo-oophorectomy
13	IIA	Total Hysterectomy and salpingo-oophorectomy
14	CIS	Total Hysterectomy and salpingo-oophorectomy
15	CIS	Total Hysterectomy and salpingo-oophorectomy

All of the participants had undergone various treatment programs. Twelve underwent hysterectomy and adnexectomy; two had received a cone biopsy, one had received a hysterectomy and unilateral oophorectomy, and three had received chemotherapy. The regimen based on TCMs addresses the four themes: food, exercise, quality of sleep and mental equilibrium. Dietary control includes the consumption of fruit, vegetables, and white meat; exercise implies regular exercise; quality of sleep refers to sleeping during the proper period and mental equilibrium refers to maintaining a positive attitude and peaceful mindset (**Table 3**).

**Table 3.** Participants life adaptation based on TCMs.

Believe in TCMCS	Food adaptation	Exercise adaptation	Sleep adaptation	Mental adaptation
Yes	Took cancer suppressants Avoid fried foods	Yes, unspecified	Tried to sleep, but with bad quality	Happiness consists in contentment
Yes	Took cancer suppressants Avoid fried foods	Yes, unspecified	Tried to sleep, but with bad quality	Happiness consists in contentment
Yes	Took cancer suppressants Avoid fried foods	Yes, unspecified	Tried to sleep, but with bad quality	Stay positive, overlook disease, make plans for children
Yes	Took cancer suppressants Avoid fried foods	Yes, unspecified	Tried to sleep, but with bad quality	Stay positive, don't evade from the disease
Yes	Took cancer suppressants Avoid fried foods	Yes, unspecified	Tried to sleep, but with bad quality	Stay positive
Yes	Took cancer suppressants Avoid fried foods	Yes, unspecified	Tried to sleep, but with bad quality	Seek for methods to stay healthy
Yes	Lack of appetite	Yes, unspecified	Insomnia	Make plans for children, financial plans
Yes	Lack of appetite	Don't have energy	Insomnia	Die when she is sleeping
Yes	Radical Hysterectomy	Yes, unspecified	Tried to sleep, but with bad quality	Stay positive, hope to take high speed railway
Yes	Avoid cancer suppressants Avoid fried foods	Yes, unspecified	Tried to sleep, but with bad quality	Stay positive, follow alliance treatment
Yes	Took cancer suppressants Avoid fried foods	Yes, unspecified	Tried to sleep, but with bad quality	let nature take its course
Yes	Took cancer suppressants Avoid fried foods	Yes, unspecified	Tried to sleep, but with bad quality	look for release from suffering
Yes	Lack of appetite	Yes, unspecified	Bad sleeping quality	look for release from suffering
Yes	Took cancer suppressants Avoid fried foods	Yes, unspecified	Tried to sleep, but with bad quality	look for proper treatment
Yes	Took cancer suppressants Avoid fried foods	Yes, unspecified	Tried to sleep, but with bad quality	Stay positive, follow alliance treatment

Many participants had adopted a diet that included “the consumption of a larger proportion of “cancer suppressants” foods such as chicken, mushrooms, vegetables, fruit and brown rice. Eight of the participants believed that they had lived longer because of their dietary controls. One said: *“I thought I would die soon, but have lived longer than expected and feel like I have been reborn. I do not eat “poisonous” foods like eggplant, duck, goose, crab and shrimp because they are relatively more toxic, which traditional Chinese medical science advises not to eat. Cancer cells rely on these toxic foods, and the more you eat, the more they grow.”* The participants also paid more attention to cooking methods and replaced fried food in their diet with boiled food. One stated: *“I eat light food, and cook food with steaming or boiling. I don't eat fried food.”*

Most of the participants incorporated moderate exercise such as tai chi or walking into daily life. Some of them found it difficult to do strenuous exercise, so they preferred walking and other simple exercises. One said: *“I do not like hiking because that*

is not suitable for my age. It is better for me to take a walk for 30 to 60 minutes every day". They found that they retrieved energy soon and felt calm after exercising. One participant said: "On the third day after my surgery, I started to exercise, moving my toes up and down and walking to improve my peripheral sensation. If I was tired, I took a rest. I believe exercise is good for my body!"

Sleep deprivation deteriorates physical and mental health. One participant said: "I sleep as much as possible because a good sleep helps me feel healthy. So I go to bed at 11 pm." However, not all of the participants who went to bed early were able to gain quality of sleep. In some cases, the participants suffered from insomnia, so the doctor suggested medication to improve sleep quality. They were afraid of taking medication interfering their health. One participant said: "I want to sleep without pills." Two of the participants didn't sleep well, and they have no solutions. "I want to sleep, but negative thoughts made me sleepless. I can't sleep because of I am afraid of recurrent tumors. I just removed my uterus a few days ago. I am not sure what will happen."

Most of the participants dealt with their cancer with a positive attitude by avoiding negative thoughts. One said: "I believe that I will not be afraid of what the future brings. Don't try to escape from life. Dealing with the disease is difficult, but the attitude is a very important part of it." They expressed that they valued their lives and stayed in a simple happy life with a positive attitude. One said: "The doctor encouraged me and gave me the energy to fight with the disease. He told me that if I lived with cancer for five years, then I will be longevity until one hundred twenty years old. I am happy that I have already been with it over five years!"

The participants avoided excessively emotional. One participant said: "I believe if this is what the future holds, then I should relax and face the problem bravely. I shouldn't be nervous. I should be optimistic with more positive thinking to deal with the illness". On the other hand, two of the participants, both in stage IIB, were impatient without family support. The first participant said: "I hope that death comes soon. I hope I will fall asleep quickly and then go to heaven." The second participant said: "I can't stand the pain of my cancer. I hope death will be a relief for me." They did not know how to adjust their lifestyle, feel sad and lonely due to negative thoughts. The results consistent with the theory of TCMS, as negative thoughts are believed to accelerate the progression of the disease.

## DISCUSSION

The present research assessed the effect on cervical cancer patients in Taiwan of following general TCMS guidelines about disease control and management.

TCMS has been a trustworthy treatment for Taiwanese, 13,536,266 subjects (62.5%) of Taiwan National Health Insurance had used TCM at least once from 1996 to 2001 and new users increased gradually every year. The top major disease categories for TCM visits from 1996 to 2001 were diseases of the respiratory system, musculoskeletal system, and connective tissue; symptoms, signs and ill-defined conditions <sup>[11-13]</sup>.

The ratio of TCMS users increased from 2001 to 2010, the ratio of TCMS users among women was more than that among men. The mean TCM visits increased from 2000 to 2010. The mean change ratio in TCM visits among women was more than that among men. The high socioeconomic status group had the largest change ratio of visits to TCMS. Neoplasms had the greatest increase in percentage change in TCMS visits among all disease categories; in contrast, diseases of the respiratory system had the greatest decrease <sup>[14]</sup>.

Participants of this research were female who followed a TCMS regimen experienced with their cancer, which concurs with a prior study of lifestyle adaptation in cancer patients <sup>[14]</sup>. Eating a larger proportion of cancer inhibiting foods such as chicken and fish and avoiding cancer promoting foods such as red meat, eggplant, duck, goose, crab and shrimp helped these participants reduce the risk of cancer recurrence and metastasis. Thomas and Davies <sup>[14]</sup> suggested that cancer patients eat white meat, fish, or chicken and cancer suppressors such as fruit and vegetables. Vegetables increase bowel movements and the rate of metabolism, which enhances the elimination of toxins <sup>[5]</sup>. Diets lacking in fruit and vegetables lead to constipation and causing more toxins absorption into the blood stream and induces other diseases <sup>[5]</sup>. The participants recommended that people living with cancer avoid fried foods, cooked at high temperatures that destroy nutrients.

Moderate exercise is known to boost immunity and also to improve sleep quality and blood circulation. Mode of exercise is typically self-selected by patients based on their physical condition. Most of the participants in the present study performed a moderate exercise such as tai chi and walking and reported feeling happy and calm afterward. Based on TCMS theory, physical activity is an important strategy for preventing and for controlling the further development of cervical cancer.

Sleep quality is necessary for cancer patients to regain energy. Some participants found it difficult to achieve a good quality of sleep, although all reported sleeping regularly between the hours of 23:00 and 04:00, which is the optimal period for sleep according to TCMS theory. TCMS has alternative aids for sleep, including massaging specific acupuncture points, sustaining mind equilibrium, and breathing naturally. Most of the participants who maintained positive attitudes and had plans for the future were happier than others; a result is echoing some previous studies <sup>[3-6]</sup>. Two of the participants who were over 70 y/o had had cancer for three years with bone metastasis and were living alone. One of the two expressed that she planned to end his cancer treatment due to emotional loneliness.



The findings of the present study provide a useful reference for people living with cancer, clinicians, and researchers. Findings support that TCMS helps to improve the quality of life of Taiwanese cervical cancer patients through beneficial dietary control, healthier cooking methods, regular exercise, adequate sleep, positive attitude and mental equilibrium.

A limitation of the present research is the small sample size used, which limits the transferability of findings to the population at large.

### CONCLUSION

In conclusion, the findings support that a treatment approach that combines Western medicine and Traditional Chinese Medicine Science helps cervical cancer patients in Taiwan maintain a healthier lifestyle. Future research may replicate the approach and methodology of this research on larger study populations to determine the impact of using TCMS in cancer treatment more precisely.

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