

## Research Article

### The Analysis for the Value of Health-care Food upon the Daily Adjustments for Female Climacteric State

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**Abstract:** To investigate the value and role of health-care food has on the daily adjustments for female climacteric state. Method: according to the epidemiology of climacteric state, 500 menopausal females were selected to conduct the survey pertaining to the situations the health-care food being eaten and the survey about life quality, analytic statistic results are obtained. Results: according to the 482 valid questionnaires, there are 179 persons who have absorbed the health-care food while another 303 not. The proportion of consumption is lower than that of non-ingestion,  $p < 0.05$ , which is of statistical significance; consumption team has obvious higher score values in the four investigated fields body conditions, psychological conditions, living conditions and the conditions of social relations comparing with non-ingestion team, which is of statistical significance that indicates the positive role made by health-care foods in improve the sub-health status of menopausal females and such health-care method shall be promoted in sub-healthy menopausal females.

**Keywords:** Female, health-care food, menopause, regulation, sub-health, value

## INTRODUCTION

Health-care foods can be defined as a subclass; it possesses the general characters of common foods. The administration of registration of health-care food (for trial implementation) came into effect in 2005/7/1, the proposals for the strict definition of health-care food have pointed out that: health-care foods are a category of food claimed to possess health functions and can supplement vitamins etc., nourishments. The intake of health-care food is aimed to adjusting body conditions rather than curing diseases, which may not result in chronic damages (Han *et al.*, 2013). The general characters the health-care food possesses the same as common foods are that they can supply the nourishments human being needs and have the second function that they are special combinations of color, aroma and taste (Huang *et al.*, 2013); compared with common foods, the name of health-care foods comes from the special functions they provide, i.e., the third function of foods; health-care foods are not suitable for all the people and the scopes edible are regulated. Bai and Ye (2011) in recent years, as the living loads added, the ratio of females suffering from menopause is increasing rapidly; the menopause females in the sub-healthy condition are called as a part of the sub-healthy groups; even though menopause is not a disease but no attention paid to menopause care shall increase the risks of diseases. Because about 1/3 life is spent after

menopause, it is particularly important for menopause care (Nong, 2010). Compared with other methods of healthcare, the intake of health-care foods never fail to be a convenient way without any negative effects; however, the role played by health-care foods in female menopause sub-healthy daily regulations shall still needs to be further investigated.

## MATERIALS AND METHODS

General materials the materials come from the survey data according to epidemiology under sub-healthy state in which 500 menopause females are selected and the subjects are women coming to our hospital for physical examination. The standard for selecting menopause females: Ages are between Follicle-stimulating hormone raises, estradiol and progesterone level become lower and during the menopausal period luteinizing hormone remains constant but obviously raises in postmenopausal stage. After inquiries of history of illness, medical examination and lab test for hormonal readiness, the selected women are judged as menopausal females.

Standards for sub-health screening Standard for reference is based on the judgment standards specified in the definition of sub-health established by World Health Organization and the guiding principles for clinical study of TCM (Traditional Chinese Medicine) on sub-health ((for trial implementation): feeling

uncomfortable for continuous three months with continuous adaptability impairment, without serious organic diseases or diseases diagnosed but no needs to depend on medicine, diseases are not consequently related to current uncomfortable conditions. The standard for the investigated subjects categorized as sub-health: people are in accordance with the above-mentioned judgment standards for sub-healthy state shall voluntarily accept this investigation and sign informed consent, after which the hospital Ethics Committee shall review and consent. The standard for exclusion: suffering from major organic diseases or diseases diagnosed the medicine are needed for maintaining, a language barrier and inability to express correctly or to understand this investigation.

**Methods:**

- Consumption situation investigation upon health-care foods individually design the questionnaires to add up the people having a habit of ingesting health-care foods and the ones not, the former ones are categorized as consumption team and the others non-ingestion team.
- The investigation on living quality adopting the questionnaires of living quality established by World Health Organization to convey the body condition, psychological status, living condition and the conditions of social relations. Body conditions are confirmed combing with physical examination materials, the detailed evaluation indicators are: pains or comfortlessness, fatigue, sleeping quality, the ability to live and work, etc. Psychological status evaluation indicators: Ideology, memory, esteem, negative feelings, psychological anchor, etc. four investigation contents include 28 items in total, investigated females sum up the scores of degrees of satisfaction according to their own practical situation, more scores means the higher degrees of satisfaction.
- The distribution and recovery of questionnaires the surveyors shall take appointment through professional trainings, by on-site investigations the females are surveyed directly face to face with surveyors; the surveyed females fill the questionnaires by themselves under the guidance of surveyors and the questionnaires are recollected at the scene; through unified review the invalid questionnaires shall be eliminated (the standard for

eliminating invalid questionnaires: unconformity; surveyed females give up the investigation half-way and the missing amounts of questionnaires' items are above 10%).

Statistical method statistical software SPSS18.0 to conduct statistical analysis upon this research data; measurement data is indicated by use of ( $\bar{x}\pm s$ ) and apply t to examine it; apply  $X^2$  to examine categorical data;  $p<0.05$  indicates the differences are of statistical significance.

**RESULTS**

The situation of recovery the questionnaires 500 questionnaires were issued this time and reclaimed 493 questionnaires with a recovery rate of 98.6%. Among which, 11 questionnaires are eliminated because they were invalid, the rest are 482 valid questionnaires with an efficiency of 96.4%. Among the 482 questionnaires, total 179 questionnaires show the habits of ingesting health-care foods with a proportion of 37.1%, the rest 303 show they don't have such habits occupying a ratio of 62.9%. The consumption proportion is lower than the non-ingestion proportion,  $p<0.05$ , which is of statistical significance. The grouping results of consumption situation of health-care foods are shown Table 1 and 2.

Through the normal distribution test, the corresponding bilateral probability p-values of statistics in four fields with comprehensively high scores and low life quality are 0, which indicates that among the female menopausal groups who are in sub-healthy status, life quality between the comprehensive high and low score values in the four fields the obvious differences exist.

The contrast of evaluations of the average values on the each item of life quality among the females in two groups the evaluations of the average values on the each item of life quality in consumption team are obvious higher than those in non-ingestion team,  $p>0.05$ , which is of statistical significance. Results are shown Table 3.

Table 1: The grouping results of consumption situation of health-care foods (n, %)

Group	Catalogue data	Proportion
Learning	Reinforcement, Teaching and playback	
Consumption team	179	37.1% (179/482)
Non-ingestion team	303	62.9% (303/482)
$X^2$		9.534
P		<0.05

Table 2: The contrast of evaluation of score values between two female groups in four fields ( $\bar{x}\pm s$ , %)

Investigated fields	The average values of consumption team (score)	The average values of non-ingestion team (score)	t	P
Body conditions	3.76±1.24	3.56±1.82	8.364	<0.05
Psychological conditions	4.03±0.69	3.30±0.22	9.812	<0.05
Living conditions	4.00±0.23	3.55±0.41	8.462	<0.05
The conditions of social relations	3.48±1.84	2.39±1.75	7.941	<0.05

Table 3: Two groups of women's quality of life each entry mean score comparison (x±s, %)

Item	Average value (score) of consumption team	Average value (score) of non-ingestion team	t	P
The overall quality of life	4.32±1.52	2.39±1.26	8.414	<0.05
General health condition	4.82±0.22	3.29±0.36	9.967	<0.05
Aches or pains	3.94±0.41	3.15±0.74	9.482	<0.05
Fatigue	3.93±1.45	3.00±1.29	8.934	<0.05
Quality of sleep	3.97±1.07	3.04±1.87	10.087	<0.05
Action competence	4.93±1.71	3.92±1.69	10.330	<0.05
living competence	3.83±0.83	2.93±0.56	8.989	<0.05
Working competence	3.56±0.25	3.00±0.77	10.887	<0.05
Awareness	4.47±0.33	3.64±0.28	11.082	<0.05
Memory	3.93±1.45	2.93±1.47	9.052	<0.05
Attention	4.98±1.64	3.93±1.67	10.567	<0.05
Self-respect	4.89±1.36	3.80±1.88	9.672	<0.05
Passive reception	4.35±1.25	3.36±1.85	8.385	<0.05
Spiritual force	3.98±1.30	3.14±1.84	9.649	<0.05
Individual relationship	3.96±1.28	3.17±1.22	7.634	<0.05
Social support satisfaction	4.03±1.64	3.01±1.73	10.897	<0.05

### CONCLUSION

Female menopause and sub health. Women's menopause is a period of transition from fertility and sexual life to old age. During such stage, female ovarian functions gradually fail which result in the endocrine dyscrasia; therefore, uncomfortable symptoms will appear among partial females, obvious symptoms may appear among the ones more serious. Female sub-health refers to a physiological status where comfortlessness appears among the sub-healthy menopausal females while the clinic test indicators are normal. Female menopause and sub-health female menopause is a transition period during which females' strong fertilities and sex lives are transferred to a veteran stage (Wu *et al.*, 2014). Female sub-health refers to the comfortlessness among the modern females. It is not a type of disease and the medical test indicators are normal; therefore the majorities usually ignores it. Female sub-health refers to a physiological status where comfortlessness appears among the sub-healthy menopausal females while the clinic test indicators are normal (Xu, 2013). A epidemiological survey on sub-health shows that the frequency of occurrence of sub-health (Zhang, 2014) is above 75% and the incidence in females is far higher than males. With the improvement of living standard, the sub-health status of menopausal females will be given increasing attentions. Therefore, concerning their sub-health status in female menopause is of great significance. This investigation and study shows that as for the evaluation for the intake of health-care foods, the corresponding average values of each item of health-care foods consumed by these females are obvious higher than those not consumed; the items are the body conditions, psychological conditions, living conditions and the situations of social relations such four investigated fields and the life quality.  $p < 0.05$ , such investigation and study is of statistical significance that indicates the positive role made by health-care foods in improve the sub-health status of menopausal females and such

health-care method shall be promoted in sub-healthy menopausal females.

Sub-healthy physical signs of menopausal females the occurrence of female menopausal sub-health status is closely related to social, psychological (Yang *et al.*, 2010), environmental factors and factors of biological heredity. The integrated action of such factors may result in the imbalance of female organic nerves, internal delivery and immune system to induce many symptoms. Li *et al.* (2012) The detailed presentations of sub-healthy physical signs of menopausal females are:

- Females' menstruation is irregular with uncertain intervals and there is a strong possibility of intermittent dysmenorrhea, even menostasia when their immunity functions have lowered, making females more likely to suffer from tumor.
- Frequent fever accompanied with accelerated palpitation, unstable emotions and memory loss, these are the presentations of imbalance of vegetative nerves.
- Entering menopause, females will get fatter, the fat accumulates are likely to cause angioclerotica and about more than half menopausal females will suffer from osteoporosis.
- Atrophic organs, thinner mucous and decreased anti-microbial ability, these are likely to induce bacterial infection of genital trace. (Wang, 2013)

The functions of health-care foods there are obvious differences between health-care foods and medicine (He *et al.*, 2013). The intake of medicine is aimed to cure disease while health-care foods are still foods in nature which may regulate organic functions but without any effects of curing diseases (Wang *et al.*, 2012). In addition, compared with foods of special nutrients the differences are also distinctive, although both contain certain physiological active substances, there is no need for foods of special nutrients to be experimentally tested to ensure its safety while health-care foods shall be experimentally tested through

animals or humans before they can be marketed so as to ensure whether they have obvious and stable functions (Shang, 2014). The functions of health-care foods can be divided into three categories: Supply nourishments, increase appetite and regulate human functions. Food laws provide that health-care foods shall contain the minimum active ingredients corresponded with their functions, i.e., effective compositions. The health-care role played by health-care foods largely depends on their effective compositions. The effective compositions in health-care foods mainly include categories as below: Polysaccharide (dietary fiber), functional sweetening agent (oligose, address sugar), functional fats (phospholipid, sinkaline), free radical scavenging agent (glutathione peroxidase), vitamins (vitamin A, C, E), active bacteria (bifidobacteria) and trace elements (selenium, zinc), etc (Wang *et al.*, 2013). The functions of health-care foods to be declared are specified in the Testing for Health-care Foods and Standards for Evaluation and Review Techniques: Strengthen body immunity, improve sleeping quality, ease the fatigue, enhance the anoxia endurance, supplementary anti-radiation protection, supplementary chemical hepatic injure protection, clean acnes, improve anemia, regulate intestinal flora, improve promote digestion, protect gastrointestinal mucosa and purgating. Through the analysis of the functions of health-care foods we can know that why health-care foods can adjust menopausal females' sub-healthy status is that the effective compositions can improve body functions so as to generally improve body conditions, promote the human conditions and further to meet the psychological satisfactions to improve the living situations and social-relation situations. However, there is not lack of fake products; attention shall be paid to distinguish the effective health-care foods (Xiong *et al.*, 2014).

The daily treatment method for menopausal female sub-health menopausal females can adopt the ways below to attain the goal of daily treatment:

- Strengthen dietetic regulation, eat more bean products and fresh fruits and vegetables and less high-fat foods, decoct red date and bean porridge when you feels lack of appetite and drink it continuously for two weeks the symptom of inappetence can be relived
- Stick to exercising to strengthen body resistance. Take more aerobic exercises can improve one's immunity system.
- Keep a pleasant mood. e.g., music therapy can relax oneself.

Menopause is an important stage in females' life; it shall not need to be paid more attention from family but also society. Only pay more attention to daily treatment can choose the suitable health-care foods can we get away from sub-health.

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