

Current Issues in Evaluating Health Promotion Programme Using Traditional Korean Medicine in Korea

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Purpose : The aim of this study is to identify current situation and issues of outcome measures to evaluate the public health programs using traditional medicine by public health centers in Korea.

Method : This study analyse and review existing data and documents related to traditional Korean medicine and health policy using contents analysis method. To collect the information on outcome measures evaluating the programmes, this study reviewed annual reports for health promotion programmes using traditional Korean medicine(HP-TKM) of Hub public health centers, as pilot public health centers, which have implemented the health promotion programmes collectively. Additionally, the review included research articles, government documents and book chapters on the topics related assessments in health promotion.

Results : HP-TKM are stroke prevention education, smoke free program, health promotion according to Four Constitutional Medicine, home visiting treatment, etc. However, there are only a few studies of traditional medicine focused health promotion evaluation strategies. The benefits of health promotion programs using TKM can be categorized as non-health benefit, physiological, psychological and physical effects. To manage and monitor the intervention programmes efficiently, attention should be given to developing relevant and valid outcome measures for evaluating the programmes by government and public health center.

Conclusion : Up to now, considering number of researchers, research projects undertaken or published articles and reports, within traditional Korean medicine there is a lack of capacity in research. Thus, government should pay more attention to developing relevant and valid outcome measures for evaluating the programs.

Key Words : health promotion programmes using traditional Korean medicine, public health center, outcome measures, evaluating health promotion programme

Introduction

Due to an increasing number of community health promotion projects using traditional Korean medicine,¹⁾ there is a growing interest in evaluation research in the health care sector.²⁾ Popularity of traditional medicine^{3,4)} and recent increase in need

for traditional medicine have contributed to the idea of public health programs on the bases of traditional medicine, especially health promotion programs.⁵⁻⁷⁾

Since 2001 when traditional Korean medical doctors assigned to public health centers provide primary care services and implement community public health program using TM, 9 pilot health

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centers had implemented community based health promotion programs on the bases of traditional Korean medicine (HP-TKM).⁵⁾ The HP-TKM are stroke prevention education, stop smoking programme, health promotion according to Four Constitutional Medicine, home visiting treatment, etc.⁶⁾ Then, the number of public health centers implementing the programs was increased from 137 in 2002 to 191 in 2007.⁷⁾

Especially, the hub public health center of HP-TKM, as a pilot public health center, which has implemented the health promotion programmes collectively, has been introduced in 2005.⁵⁾ The number of the hub public health centers implementing the programs has been increased from 26 in 2005 to 35 in 2007 and the number of public health traditional medical doctors are 859 in 2007.⁸⁾

While there has been significant efforts directed at establishing the efficacy and effectiveness of many and varied health promotion intervention strategies over the past 7 years, much less attention has been given to the development of, and research into, effective methods for the broader dissemination, uptake and diffusion of these interventions.¹⁾ However, HP-TKM, such as those proposed by Ministry of Health and Welfare, identify stages in the development, research and evaluation of interventions for a defined problem.⁹⁾ Such health promotion programme have been useful for conceptualizing the steps involved in developing and researching interventions, and for establishing their efficacy and effectiveness. However, they do not specifically identify links with the subsequent steps involved in planning more widespread program adoption, implementation and sustainability as discussed by a number of researchers.¹⁰⁾ As evaluation research is the application of methods and knowledge of social science in order to make rational and well-informed decisions about social intervention program^{11,12)}, thus, structured evaluation of health promotion programs is important. Moreover, evaluation also contributes to provide information on their effectiveness and evidence on need for modification. However, there are only a

few studies related to the evaluation of the health promotion programme and its strategies.

Thus, the aim of this study is to identify current situation and issues of outcome measures to evaluate the public health programs using traditional medicine by public health centre in Korea.

Methods

To explore current situation and issues of outcome measures to evaluate the programmes by public health centre, this study reviewed and analysed existing documents and data related to traditional Korean medicine and health policy using contents analysis method.

To collect the information on outcome measures evaluating the programmes, this study reviewed annual reports for health promotion programmes using traditional Korean medicine of Hub public health centers, as pilot health centers, which have implemented the health promotion programmes collectively. Additionally, the review included research articles, government documents and book chapters on the topics related assessments in health promotion.

Results

The number of Hub Public Health Centers implementing public health program using traditional medicine in 2008 was 45 (Table 1). Of the 45 health centers, 5 site were located in Metropolitan cities, 40 site in Provinces.⁷⁾

All health centers have implemented more than ten programs. The health centers have done with utilizing community and regional human resources or organizations related to the programs. Target population of the programs was not only the people with chronic diseases such as hypertension, DM, chronic arthritis, but also community people who wants to participate, such as elderly, women, student and so on. They provided the services regularly, twice per week and duration of each session of the

Table 1. Hub Public Health Centers implementing Public health program using Traditional Medicine, 2008

Region	No. of Public health center	City/Gun/Gu
Total	45	
Sub-total	5	
Metropolitan city	Busan	Busanjin Gu
	Daegu	Dalsung Gun/ Dong-Gu
	Incheon	Ganghwa Gu/ Dong-Gu
Sub-total	40	
Province	Gyeonggi	Yangju Si/ Yangpyung Gun/ Gimpo Si
	Gangwon	Yanggu Gun/ Hongcheon Gun/ Yeongwol Gun
	ChungBuk	Okcheon Gun/ Jecheon Si/ Cheongwon Gun/Eumseong Gun
	ChungNam	Geumsan Gun/ Asan Si/ Seosan Si/ Yesan Gun
	Cheonbuk	Namwon Si/ Wanju Gun/ Iksan Si/ ChungEup Si/ Jinan Gun/ Buan Gun/ Gochang Gun/ Sunchang Gun
	Cheonnam	Gangjin Gun/ Naju Si/ Shinan Gun/ Jangheung Gun/ Hwasoon Gun/ Hampyoung Gun/ Jangseong Gun/ Yeonggwang Gun/
	Kyoungbuk	GinHae Si/ Kyoungju Si/ Sangju Si/Yeoungyang Gun/ Pohang Buk Gu/ Cheongdo Gun/ Andong Si/ Gyeongsan Si
	Kyoungnam	Gimhae Si/ Jinjoo Si
	Jeju	Nam Jeju Gun

programme was 60 to 90 minutes.¹⁾

In 2008, the identified community based health promotion program using traditional medicine implemented by public health center are: Qi-gong exercise program; Stroke prevention education; Stop smoking program; Well-baby care programme; Ante- and Post-natal program; Health promotion program according to Four Constitutional Medicine; Home visiting program and so on. Of the programs implemented by the health centers, the eight programs are implemented commonly in compliance with the guidelines set by Ministry of Health and Welfare.^{1,7)}

According to the guideline for evaluating the programs⁵⁻⁷⁾, evaluation indicators for the programs are categorized as three domain: structure and process and outcome. Structure measures of the programs include indicators about: whether a public health center has: organized a unit or a team; equipped with facilities and equipment; has proper budget allocation; selecting appropriate participants. Process and outcome measures of the programs include

indicators about: success rate in smoking cessation; successful completion rate of program participants; participants' satisfaction rate of program.

As Table 2²¹⁾ shows, major outcome measures for evaluating the programs on the bases of traditional Korean medicine used by the public health centers are as follows: 'success rate in smoking cessation of program participants'; 'participant's satisfaction measures'; 'the change in participant's perception'; 'successful completion rate of program participants'; 'the improvement of symptom level'; 'the changes of biochemistry values'; 'knowledge level change'; 'behaviour improvement' and so on.

For evaluating the outcome of smoking cessation program, 42% use 'success rate in smoking cessation of program participants', 25% use 'participant's satisfaction measures' and 20% attendance rate, 16% 'change in participant's perception' and 15% 'successful completion rate of smoking cessation program'.

For assessing the outcome of stroke prevention

Table 2. Outcome measures used to evaluate health promotion programs using TKM by the public health centers

Programme	Evaluation measures
Stop smoking program	The rate of quit smoking (42%), User satisfaction measures (25%), The change of user perceptions (16%), attendance rate (15%)
Stroke prevention education	User satisfaction measures (43%), The change of user perceptions (33%), attendance rate (20%)
Qi-gong exercise	User satisfaction measures and the change of knowledge-level (43%), The change of user perceptions (16%), Attendance rate (14%) Regular practice rate(14%) Analysing physical capability (27%)
Home visiting programme	User satisfaction measures (57%), The symptom improvement rate (27%), Attendance rate (13%) The changes of biochemistry (3%)
Health promotion according to Four Constitutional Medicine	User satisfaction measures and the change of knowledge-level (58%), The change of user perceptions (3%), Attendance rate (19%) Perception rate(Health promotion)(3%) Analysing physical capability (27%) Behaviour improvement(17%)
Ante- and Post natal programme	User satisfaction measures and the change of knowledge-level (67%), Attendance rate (31%) Regular practice rate by self (3%)
Well-baby care programme	User satisfaction measures and the change of knowledge-level (60%), Attendance rate (29%) Regular practice rate by self (11%)

education program, 43% use 'participant' satisfaction measures', 33% use 'the change of user perceptions', 20% 'successful completion rate of program participants'.

For evaluating Qi-gong exercise program, 43% use 'participant's satisfaction measures and the knowledge level change', 27% use 'analysing physical capability (ROM)', 16% use 'change in participant's perception', 14% 'successful completion rate of program participants' and 14% 'regular practice rate'.

For assessing home visiting program, 57% use 'participant's satisfaction measures', 27% use 'the symptom improvement rate', 13% 'successful completion rate of program participants', and 13% 'the changes of biochemistry values'.

For evaluating health promotion program acco-

rding to Four Constitutional Medicine, 58% of health centers use 'participant's satisfaction measures and the knowledge level change', 27% use 'analysing physical capability', 19% use 'successful completion rate of program participants', 17% 'behaviour improvement', 3% 'the change in participant's perception', and so on.

For assessing 'Ante- and Post natal programme' and 'Well-baby care programme', 67% use 'participant's satisfaction measures and the change of knowledge-level', 31% use 'successful completion rate of program participants', and 3% 'Regular practice rate by self'.

However, there are no standardized health promotion programs and their evaluation indicators. So, many health workers in health center have difficulty

in doing health promotion practice.

Discussion

This study identifies that community public health centers implementing HP-TKM has used various measures to assess the programs. Most of the measures used for evaluating the outcomes of HP-TKM by community public health centers were selected in compliance with the guidelines set by Ministry of Health, Welfare & Family Affairs.⁵⁻⁷⁾ In practice, to evaluate the outcome of programs, self-reported questionnaires were used for gathering information on participants' subjective rating of program and its effects on their health or changes in participant' experiences. As objective evaluation indices of the health promotion programs was not developed well, however, public health center's staff recognize lack of objective evaluation indices as one of major causes of implementing difficulties.^{13,14)} These problems may caused by the characteristics of traditional medicine, that is, "the theories and concepts of prevention, diagnosis, improvement and treatment of illness in traditional medicine historically rely on a holistic approach towards the sick individual, and disturbances are treated on the physical, emotional, mental, spiritual and environmental levels simultaneously".¹⁵⁾ It means that we need more sophisticate approaches to the evaluation of the program and to the development of outcome measures.

Thus the health centers' experiences on evaluating the outcome of the programs are likely to raise many questions and issues on the outcome measures. Can the benefit perceived by attendant receiving traditional medicine program be measurable? If the benefits is simply a sophisticated and non-specific response within a limited period of time, then, how do we evaluate the outcomes? How do we ensure the programs provided by public health centers give benefits in terms of maintaining health and effectiveness?

However, up until now, research is seldom conducive to sweeping the difficulties. The evaluation of

the programs has been systematically examined only in few studies^{1,2)}, in which the specific objectives of the programs were, unfortunately, not determined. [This lack of research validation of traditional medicine is troubling in light of research's influence on acceptance of new techniques by the biomedical community].¹⁶⁾ Thus, it might be worth noting whether the measures used are relevant to the goals of the programs initiated by government.

First of all, the identified main goals of the intervention programs are as follows. The goals are to cope with: increasing demand for traditional Korean medical services of community people; the increasing need for providing TKM public health services and treatment services at the same time; transition of the role and function of public health center to health promotion center; and lastly, the need for implementing diversified TKM health promotion programme to fulfill the demand for traditional Korean medicine.¹⁰⁾

Reviewing achieving the goals, in a sense, the diversification of health promotion program may be achieved partially¹³⁾. Then, do the programs implemented fulfill the demand for traditional Korean medicine? As the public health centers is facing various difficulties and new pressure in implementing HP-TKM,^{13,14)} public health centers in general have difficulty serving the demand. The situation has lead the centers to develop some measures, such as community oriented programs and their capacity expanding and so on, for providing community oriented health promotion programs.

Regarding evaluating the programs, major outcome measures used by the public health centers for evaluating HP-TKM can be summarized as follows: 1) success rate in smoking cessation of program participants; 2) participant's satisfaction rate; 3) the change of participant's perceptions; 4) participant's successful completion rate of health education programs; 5) improvement of symptom level; 6) the changes in biochemistry values; 7) the change of knowledge level; 8) behaviour improvement and so on. Comparing with the measures in the guidelines

set by Ministry of Health, Welfare and Family Affairs, currently public health centers adopt various measures for evaluating the programs. Moreover, considering the programs developed by the public health centers for coping with increasing demand of the community, in reality public health centers are implementing a wide range of programs using TKM such as osteoporosis prevention program, managing arthritis program, program for period menstrual pains, obesity management program and so on.

These circumstances give staff of public health centers difficulties in implementing and evaluating health promotion programs,¹³⁾ because of no standardized health promotion programs and their evaluation indicators, and partly because of the conflict between the need to develop programs while at the same time implementing the programs as they are offered to citizens. Especially, these raise some issues: which individual measure and combinations of measures are most successful tool in evaluating the programs' objectives; how to ensure the measures are interrelated to participants' achievement in health promotion more generally. The issues also include assessing the impact of the HP-TKM on: participants' knowledge and confidence in managing behaviour; communities' capability for community people to access to the public health programs using traditional medicine; the range of health promotion programs using TKM available and its impact on individuals and communities.

Regarding behaviour changes, in particular, as it takes time, health effects may not always be observed within the time frame of evaluation.¹⁷⁾ Under current circumstance, the participants of the programs has been observed within limited period of time. Its health effects may not always be observed within the period. Nevertheless, the measures is adopted to evaluate HP-TKM by public health centers. Then, is the guideline for evaluation set by MOHW acceptable and sensible?

Additionally, some measures such as 'the change of knowledge' and 'participant' completion rate of health education programs' were used. As Lee et

al⁹⁾ revealed, the most desirable outcomes of the programs were spreading community understanding of the programme and establishing an effective and unique health promotion model for implementing the programme. It suggests that the programs provide attendants with many knowledge on health promotion and that is one of main benefits from the programs. As Borghi & Jan¹⁸⁾ stressed, thus, "knowledge can be of 'decisional' value in terms of changing behaviour and improving health." Numerous studies also point to the "non-decisional" value of knowledge, including a decrease in anxiety/concern and an entertainment value, the joy of learning. The subsequent process of knowledge integration can also affect the way people feel about themselves, their self-image and ability to make informed choices.¹⁷⁾ These measures are non-health benefits^{17,18)} such as the provision and sharing of information which may occur and improve social welfare. Non-health benefits, thus, are a characteristic of health promotion programs using TKM.

Evaluating most of programs, the change of participant' perceptions as a measure was selected by public health centers. The program evaluate subjective perception. For the evaluation HRQOL(health related quality of life) is theoretically the most suitable outcome measure of traditional medicine that emphasizes subjective perception.¹⁸⁾ Qigong exercise can produce desirable psychological effects, and Qigong exercise may therefore be included among other activities performed to boost resistance to daily stressors. To measure the effects, they use structured questionnaire such as POMS(Profile of Mood States)-Depression, Anger, and Fatigue, STAI(State-Trait Anxiety Inventory)-State Anxiety scores and blood chemistry values such as plasma triglycerides, total cholesterol and so on.^{19,20)} The evaluation indices means that the programs have both physiological and psychological effects over a set period. It is suggested that there continues to be a need to monitor and assess the impact of programs on the health of community people. Thus more information and researches are required to examine whether the

programs are associated with physiological, psychological and physical effects.²¹⁾ This would also raise awareness of the potential and holistic benefits of the programs in the communities.

Conclusion

This paper do not provide the evaluation methodology as either endorsing or rejecting any specific health promotion programs using traditional Korean medicine implemented by public health centers. Rather it provides a forum for debate of the current issues that face us in integrating an evidence based public health approach to health promotion into public health system, to the benefit of both citizens and public health authorities so that the interventions implemented are both safe and effectiveness.

Health promotion programs using traditional Korean medicine have been an important part of the public health programs implemented by public health centers but notice of the importance has recently increased. The programs encompasses a number of diverse interventions, raging from Qigong practice and behavioral interventions to acupuncture and herbal medicine. Lessons from last 7 years experiences since 2001, health promotion programs using traditional Korean medicine is not fad up to now so more reliable information on its safety, efficacy, and effectiveness is required.²²⁾ This is the role of evaluation research on the programs.

Then, the design of programs could be informed by behavior change theories, knowledge of opportunities within health care settings, research on determinants of health behaviors, and lessons learned from research on similar types of interventions. However, most available evaluation methods and tools were developed in the Western and do not capture some important concepts unique to traditional Korean medicine, so they are often of limited sensitivity or responsiveness. Considering the characteristic of the programs, to evaluate health promotion programs using traditional Korean medicine, comprehensive approaches and methods are required. Methods for

investigating these issues are challenging, partly because of the conflict between the need to generalize while at the same time implementing the programs as they are offered to citizens. Lastly, considering characteristics of health promotion programs using TKM, such as non-health benefit, physiological, psychological and physical effects, this study propose a integrated health management index, as an alternative method, which is consist of evaluation indices such as Quality of Life(QoL), Visual Analogue Scale(VAS) for pain and discomforted, measuring perception change and behaviour change. This index as evaluating tool, may be able to capture important concepts unique to health promotion program using traditional Korean medicine. Up to now, considering number of researchers, research projects undertaken or published articles and reports, within traditional Korean medicine there is a lack of capacity in research. Thus, government should pay more attention to developing relevant and valid outcome measures for evaluating the programs.

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