

Effects of Holistic Healthcare Home Visit Intervention Program for Multi-cultural Couples

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Abstract

This study was to identify the effects of home visit intervention program for Holistic Healthcare of multi-culture Couples. It used a non-equivalent control group pretest-posttest design quasi-experimental research. The subjects of this study consist of 20 couples for experimental and control groups. Multi-cultural couples comprised of foreign women married to Korean men in farm and fishery areas. The research tools were used stress index by SA-3000P (Medicare co. Ltd. KOREA), Center for Epidemiologic Studies-Depression Scale (CES-D), and World Health Organization Quality of Life (WHOQOL-Bref). The experimental group of the wives had lower stress index than the control group, the experimental group of the husband showed lower stress index than the control group, ($t=-3.14$, $p=.002$). The wife ($t=-3.75$, $p=.001$) and husband ($t=-4.20$, $p=.001$) of the experimental group showed lower depression scores than the control group. Both the wife ($t=3.86$, $p=.001$) and husband ($t=5.28$, $p=.001$) showed higher scores for quality of life compared to the control group. It was found that this holistic healthcare home visit program is an effective program to make improvements on stress, depression and quality of life for multi-cultural couples. Therefore, as the intervention program developed in this study is home visits for the holistic health of multi-cultural couples, and it is judged that it can be implemented at the local social health centers or healthcare centers.

Keywords: *Multi-cultural Couples, Holistic Healthcare, Home Visit Intervention Program, Stress Index, Depression, Quality of Life*

1. Introduction

Health today is a right for everyone and the new concept of holistic health surfaced, and through self-healthcare with gradual continuity per cycle from the perspective of life-cycle health from infancy to elderly [1], comprehensive healthcare that includes not only physical health, but also mental, social, cultural and spiritual health concepts have become important. There have been increased number of multi-culture couples in the Korean society around farm and fishery villages and it has contributed the foundation of farming area and helped for low birth rate. However, various aspect of health issues has been discovered due to physical, psychological, social-cultural, and spiritual issues between farm and fishery Korean husbands and foreign wives who got married through marriage agencies. Especially, since they got married, pregnant, and had babies [2] in a short period of time without dating for a long time, wives were not taken care of properly after the child birth which affected the health of mom and babies in addition the cultural difference has also led to the disaster in couples and separation of couples.

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The previous domestic studies related to multi-cultural marriages have put the focus on foreign woman to study the characteristics of the marriage, family life, economic issues, employment, social discrimination, need of policies, and human right issues [3], [4], [5]. However, there were not many studies that compared two different groups nor any Intervention programs.

2. Research Method

2.1 Research Design

This study used a non-equivalent control group pre-experimental-post-experimental design quasi-experimental research design to identify the effect of holistic healthcare home visit intervention programs on the stress index, depression and quality of life of multi-cultural couples.

2.2 Research Subjects

The Subjects of this study is multi-cultural couples comprised of foreign women married to Korean men registered in the multi-cultural centers of rural areas located in G-gun and Y-gun of K Province. The experimental group was comprised of eight multi-cultural couples out of 12 multi-cultural couples introduced by the social welfare center in Y-gun at K Province, and 12 couples out of 16 multi-cultural couples that the above eight couples introduced to through the snowball sampling method. In order to prevent the spread of disposition, the control group was comprised of 10 couples introduced by the multi-cultural center of G-gun of K Province, which is another rural village with similar features as the experimental group but little interaction between the regions, and 10 couples introduced by the health care center, who were multi-cultural couples who listened to the purpose and need of the study and who gave their consent.

2.3 Research Tool

For stress index, the SA-3000P (Medicare co. Ltd. KOREA) device was used for measurement. SA-3000P is an autonomic nervous balance experimental and measures the heart rate variability to experimental the heart regulation functions related to autonomic nerves to diagnose stress. The standard value of stress index is 110-90 and a lower number means lower stress. In order to measure the level of depression of subjects, the tool developed by [6] was edited and supplemented by [7] as a 20 question Korean version CES-D (Center for Epidemiologic Studies-Depression Scale) for use. For quality of life, the Korean version of the World Health Organization Quality of Life developed by [8] based on the WHOQOL-Bref was used.

3. Research Procedure

3.1 Survey on Health Issues and Demands of Multi-cultural Couples

In order to identify the health issues and demands of multi-cultural couples, web sites such as KERIS (Korea Education & Research Information Service), National Assembly Library, KISS (Korean Studies Information), DBPia (Nuri Media), RISS, and the Ministry of Health and Welfare, and dissertations published in the past five years and theses and policy reports published in theses and academic journals. Holistic health, which is a health field presented by the World Health Organization (WHO), was categorized into the physical, mental, social/cultural, and spiritual health fields. After the initial literature review, interviews were held with multi-cultural couples. The subjects of interviews were the four multi-cultural couples introduced by the social welfare center of region G.

3.2 Interviews with Multi-cultural Couples

In order to identify the health issues and demands of multi-cultural couples in rural areas, four multi-cultural couples introduced by a social welfare center in Y-gun of K province were interviewed as subjects. Upon interviewing the husband, the need for education of couples per life-cycle was found to be in the five fields of migrant couples, newlyweds, adaptation period, middle age years, and retirement years in relation to the health issue and demands of multi-cultural couples. For migrant married women, health issues and demands were found to be in difficulty of communication in the beginning of marriage, difficulty to adapt to family cultural

lifestyles, demand for raising global children, interference in raising children by parents-in-law, pressure on religion, different concept of hygiene, short temper of husbands, discord with husband who is impetuous and nagging, lack of understanding of wife by husband, desire for self-development, desire for pregnancy, lack of support system among residents in the same situation, and difference of food culture.

3.3 Home Visit Intervention Program Development Process

This program used the JUMP [1] operation method to develop a intervention program. Home visits and telephone counseling was held for six weeks for one hour per session per week. Home visits were made by making appointments in advance with the subject at an hour of their convenience, and phone counseling was conducted for 5-10 minutes once a week to check changes in health behavior and improvement of marital relationships. At every session, vital signs were checked and it also included physical and mental relaxation therapy, counseling and prayer for holistic health care. Health counseling and education was provided based on the theme of orientation on the first sessions, couples learning about each other in the second session, healthy couples in the third session, wise and thrifty couples in the fourth session, and couples assimilating in the fifth session. On the sixth session for happy couples, it aimed at reminding multi-cultural couples on the value of holist health and family so that they may lead happy married life [Table 1].

Table 1. Goal and Contents of Home Visit Intervention Program for the Holistic Healthcare of Multi-Cultural Couples

Session	Topic	Goal	Contents
1	Orientation	<ul style="list-style-type: none"> ·Understanding the importance of health ·Understanding the purpose of the home visit intervention program 	<ul style="list-style-type: none"> ·Check vital signs ·Definition of health and holistic health and education on its need ·Washing hands healthcare education ·Consulting, support, prayer
2	Couples learning about each other	<ul style="list-style-type: none"> ·Maintaining and improving holistic health of multi-cultural couples ·Increased intimacy through couples relation improvement activities 	<ul style="list-style-type: none"> ·Check vital signs ·Relaxation therapy ·Education on pregnancy, childbirth, contraceptives ·Using nicknames, drawing happy hands, expressing one's self ·Consulting, support, prayer
3	Healthy couples	<ul style="list-style-type: none"> ·Maintaining and improving holistic health of multi-cultural couples ·Understanding risk factors for cancer ·Understanding cancer symptoms, prevention and examination methods 	<ul style="list-style-type: none"> · Check vital signs ·Relaxation therapy ·Education on stomach cancer, liver cancer, lung cancer, colon cancer, uterine cancer, breast cancer ·Consulting, support, prayer
4	Wise and frugal couples	<ul style="list-style-type: none"> ·Maintaining and improving holistic health of multi-cultural couples ·To form a healthy family environment and culture 	<ul style="list-style-type: none"> ·Check vital signs ·Relaxation therapy ·Sharing housework and home-making knowhow ·Distribution of pamphlets ·Consulting, support, prayer

5	Assimilating couples	<ul style="list-style-type: none"> ·Maintaining and improving holistic health of multi-cultural couples ·Understanding the cause of and how to manage stress 	<ul style="list-style-type: none"> ·Check vital signs ·Relaxation therapy ·Education for quitting smoking and drinking moderately ·Stress management ·Learning about spouse's strengths ·Consulting, support, prayer
6	Happy couples	<ul style="list-style-type: none"> ·Recognizing the value of the holistic health of multi-cultural couples and family ·Life plan for a holistic and happy life as a couple 	<ul style="list-style-type: none"> ·Check vital signs ·Relaxation therapy ·Movies related to the value of family ·Ending of program: What the subjects felt and learned ·Consulting, support, prayer

3.4 Data Collection

This study was carried out from June 13, 2014 after receiving approval from the Institutional Bioethics Review Board until July 27, 2014. Multi-cultural centers, social welfare centers and healthcare centers of Y-gun and G-gun of K Province were visited to explain the purpose and goal of the study, and the study was carried out after receiving consent for data collection.

3.5 Data Analysis

The collected data was analyzed SPSS/WIN 21.0 program.

- 1) The common features of subjects were found through frequency and percentage, and the homogeneity verification for general features was analyzed with the χ^2 test.
- 2) Pre-homogeneity experimental for the dependent variable of subjects was analyzed using t-test.
- 3) In order to verify the effects of the holistic healthcare home visit program, intervention was made on stress index, depression, and quality of life, and the difference between the groups were analyzed using t-test.

3.6 Ethical Considerations of the Study

This study was carried out based on the contents approved (No. HYI-14-009-3-1) through review of the H University IRB(Institutional Review Board). Also, social welfare centers were visited to explain the purpose and procedures of this study to receive approval for cooperation. Subjects introduced by the institute according to the selection criteria were explained on the purpose, need and method of this study prior to beginning studies, and data was collected from those who gave consent in writing to participate in this study.

4. Research Results

4.1 Homogeneity verification for general characteristics of the two groups

The average age of subjects of this study was 35 for wife and 48 for husband in the experimental group, and 34 for wife and 48 for husband in the control group. Philippines was the top birth country of wives for both the experimental group and control group at 10 (50.0%) and 11 (55.0%), respectively, and for the marriage period, both the experimental group and control group had highest at more than 10 years with eight couples (40.0%) and seven couples (35.0%), respectively. For the number of children of experimental groups, 12 couples (60.0%) had two children, and for the control group, 12 couples (60.0%) had two children. Upon conducting homogeneity verification for the experimental group and control group, there were no items that showed statistically significant differences, so it was evident that the two groups were homogenous groups for general characteristics

4.2 Homogeneity Verification for the dependent variable between the two groups

Upon conducting homogeneity verification for the dependent variable, in the case of the wife, the stress

index was 101.75 ± 18.27 for the experimental group and 107.45 ± 13.28 for the control group ($t = -1.13$, $p = .266$). Depression was 0.79 ± 0.44 for the experimental group and 0.76 ± 0.47 for the control group ($t = 0.20$, $p = .846$). Quality of life was 3.32 ± 0.75 for the experimental group and 3.25 ± 0.25 for the control group ($t = 0.37$, $p = .715$), showing no statistically significant differences.

In the case of the husband, the stress index was 115.40 ± 15.72 for the experimental group and 114.30 ± 15.69 for the control group ($t = 0.22$, $p = .826$). Depression was 0.72 ± 0.47 for the experimental group and 0.65 ± 0.43 for the control group ($t = 0.46$, $p = .650$). Quality of life for the experimental group was 3.30 ± 0.72 and 3.23 ± 0.45 for the control group ($t = 0.36$, $p = .725$), showing no statistically significant differences. Therefore, it was found that in the dependent variables of this study, the two groups were homogenous with no statistically significant differences [Table 2].

Table 2. Homogeneity Tests for Dependent Variables between Groups

Variables		Exp. (n=40)	Cont. (n=40)	t	p
		M±SD	M±SD		
Wife	Stress Index	101.75±18.27	107.45±13.28	-1.13	.266
	Depression	0.79±0.44	0.76±0.47	0.20	.846
	Quality of Life	3.32±0.75	3.25±0.25	0.37	.715
Husband	Stress Index	115.40±15.72	114.30±15.69	0.22	.826
	Depression	0.72±0.47	0.65±0.43	0.46	.650
	Quality of Life	3.30±0.72	3.23±0.45	0.36	.725

Exp. = Experimental group; Cont.= Control group; M=Mean

4.3 Verification of the effects stress index, depression, quality of life between the Two Groups after Intervention

In the result of comparing the effects of two groups after the Intervention [Table 3], the stress index of experimental group was lower than control group even though it was not statistically significant (Exp. 99.55 ± 8.69 , Cont. 102.90 ± 10.22).

In case of husbands, stress index was lower in experimental group compared to control group and it was statistically significant (Exp. 103.05 ± 8.70 , Cont. 114.60 ± 13.96).

For depression, wives (Exp. 0.30 ± 0.22 , Cont. 0.68 ± 0.4) and husbands (Exp. 0.26 ± 0.13 , Cont. 0.81 ± 0.57) showed both lower in experimental group compared to control group and it was statistically significant.

For quality of life, wives (Exp. 3.88 ± 0.56 , Cont. 3.88 ± 0.56) and husbands (Exp. 4.03 ± 0.43 , Cont. 3.32 ± 0.42) showed both higher in experimental group compared to control group and it was statistically significant.

Table 3. Groups Comparison of Differences of Stress Index, Depression, Quality of Life between Groups post program intervention (N=80)

Variables		Exp. (n=40)	Cont. (n=40)	t	p
		M±SD	M±SD		
wife	Stress Index	99.55±8.69	102.90±10.22	-1.12	.136
	Depression	0.30±0.22	0.68±0.40	-3.75	.001
	Quality of Life	3.88±0.56	3.35±0.24	33.86	.001
husband	Stress Index	103.05±8.70	114.60±13.96	-3.14	.002

	Depression	0.26±0.13	0.81±0.57	-4.20	.001
	Quality of Life	4.03±0.43	3.32±0.42	5.28	.001

Exp. = Experimental group; Cont.= Control group; M=Mean

5. Discussion

Result of intervention using the holistic healthcare home visit program, the experimental group of the wives had lower stress index than the control group, but there was no statistically significant difference ($t=-1.12$, $p=.136$).

Meanwhile, the experimental group of the husband showed lower stress index than the control group, showing statistically significant difference ($t=-3.14$, $p=.002$). In the study of [9] the stress test of foreigner subjects was not statistically significant in the result of cortisol measurement, either. Therefore, this study could likely influence to stress index on measurers of error, psychological influence of subjects, location and time of data collect.

After intervention using the program developed in this study, both the wife and husband statistically significantly reduced levels of depression for the experimental group compared to the control group. This showed depression of immigrants as relevant variables such as age, motive for immigration, everyday stress, education level, employment status, social support, satisfaction with life, etc. in the research of [10]. In the study of [11], birth country, period of residence, monthly average income, religion, education, housemate, person or organization that helped with adapting to life in Korea after marriage were found to be statistically significant. In this study, the age difference of the wife and husband in the test group was more than 13 years, so while the demographical factor that affects depression appears to be low, depression is high when there is a high level of stress and when there is a low support from the spouse and when the period of marriage is less than three years. Therefore, it is judged that the active support of the spouse is important.

In addition, quality of life was found to be statistically significantly higher for both the wife and husband in the experimental group compared to the control group. It appears that the quality of life is affected by multi-dimensional aspects such as physical, emotional, sociocultural, and spiritual intervention, and considering that the intervention program used in this study is an intervention program applying holistic health, it is judged that there was improvement in the quality of life of multi-cultural couples through this.

6. Conclusion

This study was a non-equivalent control group pre-experimental-post-experimental design quasi-experimental research design to identify the effect of holistic healthcare home visit intervention programs on the stress index, depression and quality of life of multi-cultural couples.

Results of comparing the effects of the two groups after intervention, depression was statistically significant, the experimental group of wife and husband had lower than the control group. And for the quality of life of wife and husband was statistically significant, the experimental group had higher than the control group.

The stress index was statistically significant for husband, the experimental group had lower than the control group, but in the case of wife, the experimental group had not significantly lower stress index than the control group.

Based on these research results, it is evident that the holistic healthcare home visit program is an effective program to make improvements on stress, depression and quality of life for multi-cultural couples. Therefore, as the intervention program developed in this study is home visits for the holistic health of multi-cultural couples, it is judged that it can be used at local social health centers or healthcare centers [12]. Meanwhile, as this study was conducted on just a few multi-cultural couples in rural areas, generalization would be unreasonable, and it is necessary to verify the effects on marriage immigrant women from various countries.

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