

Sigma's VIRTUAL 31st International Nursing Research Congress (Wednesday, 22 July - Friday, 24 July)

Effects of Respiratory Infection Prevention Education for Rural Dwelling Elderly on KAP and Social Capital

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Purpose:

Respiratory infections are the leading cause of death in the elderly, and according to the 2017 cause of death statistics, mortality from pneumonia has increased over the last decade (Statistics Korea, 2018). Moreover, with the rapid aging of South Korea, mortality from pneumonia is the second highest after Japan (OECD, 2019).

The elderly group have a high risk of developing diseases due to physical, emotional and social deterioration due to aging, and above all, they are vulnerable to infectious diseases (Song & Yang, 2015).

WHO (2008) proposed pharmacological and non-pharmaceutical methods to prevent these infectious diseases. However, the elderly are weaker than the adults in their pharmacological preventing effects, so it is recommended to observe non-pharmaceutical prevention, such as hand washing, personal hygiene, nutrition, exercise, oral health, sleep and rest (Benkouiten, Brouqui, & Gautret, 2014; Qualls et al., 2017). It is more urgent to prevent respiratory infectious diseases in rural areas where the elderly in Korea are high.

The purpose of this study is to apply the respiratory infection prevention (RIP) program based on Social Cognitive Theory developed for rural dwelling elderly in South Korea and to verify its effectiveness.

Methods:

This study was a nonequivalent control group pretest-posttest design and the subjects of this study were aged over 65 years old who live in rural area which was managed by two community health post in C city. A total of 69 participants were divided into the experimental group (n=37) and the control group (n=32).

The program was based on social cognitive theory and the contents of the program include cough etiquette, hand washing, oral hygiene and exercise. The program was composed of four weeks of 60 minutes once a week, and a total of 7 sessions were conducted, including orientation, finishing and reinforcement education.

The effect of the program measured KAP (Knowledge, Attitude, Practice) and social capital. Data were collected at the baseline (before intervention), post-intervention, first follow-up (1st month) and the second follow-up (6th month).

Data was analyzed using SPSS 25.0 for Windows. The homogeneity test was used χ^2 -test, Fisher's exact test, and independent sample t-test. Two-way repeated measures analysis of variance was used to evaluate the effect of the intervention.

Results:

There was a significant difference measurement time and interactions between the groups in knowledge ($F=3.09$, $p=.041$), attitude ($F=3.24$, $p=.042$), practice

($F=14.10$, $p=.000$) of RIP and social capital ($F=10.81$, $p=.000$). The program had a positive impact on improved the knowledge, attitude, practice of RIP and social capital in the experimental group from baseline to 6 months.

Conclusion:

In conclusion, the respiratory infection prevention program developed based on social cognitive theory was verified have a continuous effect on improving the knowledge, attitude, and practice of respiratory infection prevention, and enhances the social capital of the rural elderly. Therefore, the program is expected to be used as an effective intervention for the respiratory infection prevention in the elderly living in rural areas.

Title:

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Keywords:

Aged, Health behavior and Respiratory tract infection

Abstract Summary:

This study was to investigate the effectiveness of respiratory infection prevention (RIP) program based on Social Cognitive Theory developed for rural dwelling elderly on South Korea. In conclusion, it was verified continuous effect on improving the knowledge, attitude, and practice of RIP, and enhances the social capital of the rural elderly.

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