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Research Papers

The Effect of Implementing an Action Plan Based on the AIC Technique for Computer Game Addiction and Health Behavior among Elementary School Students

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ABSTRACT The purpose of this experimental research was to examine the effect of implementing an action plan using the Appreciation Influence Control (AIC) technique for computer game addiction and health behavior among elementary students regarding the process of problem solving on the part of the student participation in relation to the adjustment of their health behavior. The sample consisted of 60 students in elementary school grades 4-5 that had exhibited addition to computers and that were observed from September 3, to October 30, 2012, divided equally into two groups the experimental and the control group. The experimental group received the implementing action plan using the AIC technique; and the control group received only the questionnaire on general information, a computer game addiction questionnaire, and a health behavior questionnaire. Data were collected before and a week after the intervention. Descriptive statistics were carried out by using frequency, mean, standard deviation, and t-test. The results indicated that there was a significant difference in the computer game addiction between the experimental group and the control group (p -value $\leq .001$). The mean scores were 16.43 (SD=4.051) in the experimental group and 33.63 (SD=2.697) in the control group. Moreover, there was a significant difference in the health behavior scores between two groups (p -value $\leq .05$). The mean scores were 66.23 (SD=4.890) and 49.30 (SD=7.203). Furthermore, the results from implementing the action plan using the Appreciation Influence Control (AIC) technique revealed that students participated and felt proud of the music project. They believed music could incline interesting from computer games. These results suggest that teachers, student leaders, and those who involved in students have to apply music project which including the monitoring and modifying of student participation in such an efficient sustainable.

Keywords: Implementing an action plan based on AIC technique /Computer game addiction / Health behavior

Effectiveness of Protection Motivation Theory Application Program on Tb Prevention Behavior of Caregivers

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ABSTRACT The main objective of the research was to study the effectiveness of Protection Motivation application program on TB Prevention behavior of caregiver .This quasi-experimental research was one group pretest-posttest design. The sample were 55 caregivers of new TB patients with smear AFB positive in Suphanburi province. The activities composed of lecture with the use of flipcharts, dialogue, demonstrations, practice, positive-role models, and group discussion.The research procedure lasted 12 weeks. Data were collected at 4th week and 8th week by using questionnaires before and after the intervention. The data were analyzed using percentage, mean, standard deviation, and paired t-test. After the intervention at 4th and 8th week, it was found that people in the experiment group had significantly higher mean score of perceived severity, perceived probability, selfefficacy,outcome expectation, and intention to perform behavior (p- value < .05) than before getting involve to the program. After the intervention at 4th , the people in the experiment group had significantly different mean score of all variables from 8th week (p- value < .05). Findings suggested that the intervention applying the Protection Motivation Theory was able to encourage the risk group to develop proper practices in prevention Tuberculosis .Thus, this heath education program can create motivation to prevent and promote activities that reduce the risk of TB. The results of this study should be used in the further studies.

Keywords: TB prevention behavior/ Health Protection Motivation theory/ Caregiver

Factors Associated with Stages of Change for Dietary Intake of Persons with Metabolic Syndrome, Uthaitani Province
Thaweesak Khamklueng Manirat Therawiwat Nirat Imamee

ABSTRACT Metabolic syndrome is a complex of signs and symptoms that are the risk factors of the onset of coronary heart disease. The persons with metabolic syndrome will increase the risk of getting Type 2 diabetes mellitus and coronary heart disease which are very harmful to health. This study was a survey research aiming to investigate the factors associated with stages of change for dietary intake of persons with metabolic syndrome in Uthaitani Province. The samples were composed of 500 respondents with metabolic syndrome, in accordance with the criteria set by the International Diabetes Federation, who were selected by using three-stage sampling method. The research instrument used was the interviewing schedule and the data were analyzed by using descriptive analysis, Chi-square test, and One-Way ANOVA. The results were found that 75 percent of the respondents were females and 25 percent were males. According to the stages of change, the following percentages of the respondents in each stage were found: precontemplation (36.4%); contemplation (18.6%); preparation or ready for action (27.6%); action (10.4%) and maintenance stage (7.0%) respectively. Significant difference of pros of decisional balance for dietary intake and perceived self-efficacy average score was found between stages of change (p -value < .001) but no significant difference was found between the cons of decisional balance of dietary intake average scores (p -value =0.073). This study revealed that the respondents with metabolic syndrome hold different stages of change for dietary intake. Therefore, public health organizations should assess the stages of change and organize learning activities for promoting correct and appropriate dietary intake in accordance with the different stages of change for dietary intake of persons with metabolic syndrome in order to change dietary intake behavior effectively.

Keywords: Stages of change / Dietary intake / Decisional balance

The Effect of Motivational Interviewing on Smoking Behavior in Persons at Risk for Coronary Artery Disease

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ABSTRACT The purpose of this quasi-experimental study was to examine the effect of a motivational interview or routine advice on smoking cessation on knowledge of cigarette toxicity, stages of behavioral change, and number of cigarettes smoked per day comparing before, immediately-after the intervention, and follow - up stage (30 days after the intervention). Subjects were purposively recruited from persons at risk for coronary artery disease. The experimental group (n = 30) received a motivational interview, while the control group (n = 30) received routine advice on smoking cessation. Data were obtained using questionnaires assessing knowledge of cigarette toxicity and stages of behavioral change, as well as daily records of the number of cigarettes smoked. The findings revealed that the improvement of knowledge of cigarette toxicity immediately after the intervention and follow - up stage in the experimental group was significantly better than that in the control group ($p < .01$; $p < .05$, respectively). A greater proportion of subjects were in the action stage of smoking reduction, and a greater reduction in the number of cigarettes smoked per day at both times were detected in the experimental group, compared to the control group, ($p < .001$; $p < .001$, respectively). However, there was no significant improvement of knowledge of cigarette toxicity between follow - up stage and immediately after the intervention in either group; the experimental group had a greater reduction in number of cigarettes smoked per day compared to the control group ($p < .05$). The study showed significantly greater effectiveness of a motivational interview on smoking reduction than routine advice on smoking cessation. Therefore, motivational interview should be applied for smoking cessation in persons using health services at primary care centers.

Keywords: Motivational Interview/ Routine Advice on Smoking Cessation/ Knowledge of Cigarette Toxicity/ Stages of behavioral change/ Smoking behavior

Effects of a Fall Prevention Program for Thai Older Adults ***Wilawan Somton Tassanee Rawiworrakul Kwanjai Amnatsatsue***

ABSTRACT The objective of this quasi-experimental study was to examine effects of a fall prevention program for Thai older adults applying Orem's Self-care Deficit Theory. Seventy older adults in Langsuan District, Chumphon Province, aged 65-79 years, with a risk of falling, were invited to participate in this study. There were 35 participants in the experimental group and 35 participants in the comparison group. The 8-week fall prevention program consisted of enhancing awareness, giving support, enhancing self-care capability, and creating environmental modification, all of which were designed to improve the effect of self-care capability on fall prevention. The comparison group received conventional care as part of the routine work of the Sub-district Health Promotion Hospital in their community. Data collected before and after the intervention included socio-demographic data and effect of self-care capability on fall prevention. Data analysis was performed using percentage, mean, standard deviation, paired t-test, and independent t-test. Results reveal that, at the post-test, the experimental group had significantly higher self-care capability effect on fall prevention scores than the pre-test scores (p -value $< .001$). In addition, the self-care capability effect on fall prevention scores of the experimental group were greater than those of the comparison group (p -value $< .001$). The fall prevention program for Thai older adults could enhance the effect of self-care capability on fall prevention for older adults. This program could be adopted by sub-district health promotion hospital personnel to promote the effect of selfcare capability on fall prevention for older adults at home and in the community.

Keywords: Fall Prevention Program / Older Adults

Effects of Capacity Building for Breast Self-Examination of Female Health Volunteers in Surin's Communities
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Natkamol Chansatitporn

ABSTRACT Most of the female village health volunteers (VHVs) only know the basic skills about how to perform breast self-examination(BSE) but they are unable to detect abnormal lump in breasts. The purpose of this quasi-experimental study was to evaluate the effects of capacity building for BSE. The one-group pretest-posttest design had 45 subjects recruited by stratified sample and proportional allocation method from female VHVs in Surin province. The intervention procedures hold on 3 weekends with Participatory Learning (PL). Data were collected by self-administered questionnaires for knowledge and attitude at before the intervention, at immediately after the intervention, and at 2-month follow-up, and by checklists for technical skills at before the intervention and at follow-up period. Descriptive data were presented by percentage, mean scores and standard deviations. One-way repeated measure ANOVA was performed to assess the effects on time of knowledge and attitude and paired t-tests to determine technical skills. The level of significance was less than .05. Most of the subjects had developed their learning capacity to higher than before the intervention and more than half of them were at good level. The results revealed that the mean scores of knowledge and attitude were significantly different in times (p -value $< .001$), and showed its sustainability at the follow-up period. For technical skills, the result revealed that at 2-month followup period the mean score was significantly higher than at before the intervention (p -value $<.001$).

It's suggested that an application of PL had an overall effect and illustrated sustainability such as knowledge, attitude and skills in BSE. This study can further initiate capacity building of female VHVs for other public health services.

Keywords: Breast self-examination / Capacity building for BSE / Participatory learning / Female village health volunteers

Factors Related to Occupational Health Services of Primary Care Units in NakhonRatchasima Province

Napak Duangchumphol Yuwadee Wittayapun

ABSTRACT The Nakhon Ratchasima province has a higher rate of injury at work than the national average. This should have occupational health services (OHSs) suitable to the primary health care units assigned to it in order to alleviate this problem. The purpose of this cross-sectional research was to study factors related to the OHSs of primary care units in Nakhon Ratchasima province. Rogers' model of occupational health programs and services was applied in order to give a conceptual framework to this study, including the input factors (i.e., knowledge and skills of personnel; adequacy of staff; basic data and problem situations; materials, tools, manuals and funding; as well as policy and goals), the throughput factors (i.e., the management of OHSs; training, field visits, continuing education and research of personnel, as well as team work and networks), and the OHSs of primary care units. Mailed questionnaires were used to collect data and had a Cronbach's alpha coefficient of 0.88 - 0.94. The samples of this study were 264 primary care units from the Nakhon Ratchasima province. Descriptive statistics, Pearson's product moment correlation coefficient and Spearman rank correlation coefficient were used to analyze data. The results showed that input and throughput factors held statistically significant positive relationships with OHSs (p -value $< .01$). The first three minor factors that had the highest positive relationships with OHSs were the management of OHSs; basic data and problem situations; as well as team work and networks ($r_s = 0.670, 0.630$ and 0.625 respectively), whereas the adequacy of staff held lowest positive relationships ($r_s = 0.425$). This study suggested that in order to deliver effective OHSs under the limitation of OHSs system in primary care units, they should develop management systems first, followed by putting the basic information and problem situations to action, as well as building the occupational health network teams. This would bring the highest benefit to all sectors of workers in Nakhon Ratchasima province.

Keywords: Occupational health services / Primary care units / Model of occupational health service

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Research Papers

Factors Predicting of Allergic Symptoms Preventive Behaviors among School-Age Children

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ABSTRACT Allergic symptoms are chronic illness among school-age children. They must have appropriate allergic symptoms preventive behaviors. The purpose of this predictive correlational research was to study the predicting factors of allergic symptoms preventive behaviors among school-age children. The study sample included of 241 school-age children out-patients with allergy clinic, 4 tertiary hospitals in Bangkok Metropolitan, a stratified random sampling. The instruments used for data collection were the demographic data, knowledge, perceived symptoms, indoor environment, outdoor environment, social support and allergic symptoms preventive behaviors. The data were analyzed by using descriptive statistics, Pearson's product moment correlation, and multiple regression analysis. The results revealed that: The mean score of allergic symptoms preventive behaviors among school-age children were at a high level ($X = 44.32$, $S.D. = 6.10$). Social support, indoor environment, outdoor environment and perceived symptoms were positively related to allergic symptoms preventive behaviors among school-age children ($r = .42, .23, .21, \text{ and } .17$ respectively, $p\text{-value} < .05$) While, knowledge was not related to allergic symptoms preventive behaviors among school-age children ($r = .07$, $p\text{-value} > .05$). Social support, indoor environment, outdoor environment and perceived symptoms and knowledge were predictors for allergic symptoms preventive behaviors. Variables accounted for 20.5% of the variance in allergic symptoms preventive behaviors among school-age children ($R^2 = .205$, $p\text{-value} < .05$). The result enhanced understanding of how to develop the exacerbation allergic symptoms preventive intervention program among school-age children, focusing on family participation and management indoor environment at home.

Keywords: Preventive behaviors / Allergic symptoms / School-age children

Effects of Information Motivation and Behavioral Skills Model on Sexual Health behaviors in Male Secondary School Students

Sriphan Thavonrut Punyarat Lapvongwatana Natkamol Chansatitporn

ABSTRACT Healthy sexual health behaviors in adolescents can protect risky sexual behaviors such as sexual intercourse without using a condom. The purpose of this quasi-experimental study was to examine the effects of an Information Motivation and Behavioral Skills model on sexual health behaviors. Samples were male secondary school students selected by simple random sampling: 43 for the experimental group and 45 for the comparison group. Data were collected by using self-administered questionnaires: knowledge, attitude, self-efficacy skills, decisional making skills about sex and sexual health, and sexual health behaviors. Data were analyzed by percentage, mean, standard deviation, independent t-test, Repeated Measures ANOVA and ANCOVA. Results showed that the experimental group had total scores of sexual health behaviors at a high level that was higher than those at pre-test and higher than their in the comparison group. The mean scores of knowledge, attitude, self-efficacy skills, decisional making skills and sexual health behaviors were higher than those in the comparison group (p -value $< .05$). At immediately after the experiment and the follow-up periods, the mean scores of knowledge, self-efficacy skills, and decisional making skills were significantly higher than at pre-test (p -value $< .05$). In the follow-up periods, the mean scores of sexual health behaviors were significantly higher than at pre-test (p -value $< .05$). The mean scores of knowledge, self-efficacy skills, and decisional making skills showed its sustainability at the follow-up periods. The IMB model will be successful on sexual health behaviors if the behavioral skills are given intensively by responsible teachers and parents. To facilitate the promotion of sexual health behaviors, further study is needed to motivate positive attitude towards behavioral skills and sexual health behaviors.

Keywords: Information Motivation and Behavioral Skills Model/ Sexual Health Behaviors/ Male Secondary School Students

The Effectiveness of Spiritual Well-Being Promoting Program on Perceived Self- Efficacy for Continuous Breast-Feeding of Teenage Mothers at Home *Waroonwon Phakoat Suparp Thaitae*

ABSTRACT The purpose of this quasi-experimental research was to conduct a study of the effectiveness of spiritual well-being promoting program on perceived self-efficacy for continuous breast-feeding of teenage mothers at home. The 60 samples were teenage mothers 14 -19 years old, the first period after birth that dribble with breast- feeding continuously at home in Bangkok. The sample was equally divided into 30 experimental group and 30 comparison group with the select of the specific sample. The experimental group received a spiritual well-being promoting program on perceived self–efficacy of teenage mothers after birth. The comparison group used a calendar media from the way of baby love. The equipment were collected by a questionnaire on perceived self–efficacy for continuous breast–feeding and spiritual well–being of breast–feeding of teenage mothers at home questionnaire. Data were analyzed using frequency, percentages, means, standard deviations, Independent t-test and Repeated Measures ANOVA. The result revealed that after spiritual well–being promoting program teenage mothers in the experimental group had higher scored in spiritual well-being on perceived self-efficacy for continuous breast-feeding at home in the post-test higher than the pre-test and better than the comparison group at the .05 level of significance. (p-value < .05) The results of this study suggest that the research should integrate health social services academic empirical and proactive empirical tactical nursing care network, including the establishment of teenage mothers health center according to maternal and child nursing care focusing on health promotion in normal and risk post-partum mothers. The goal is to excellent development of urban community and prepare to ASEAN community by coordinating with the government hospital, private sector, educational institution and religion organization. This should be done by adding channels to the home health services approach teenage mothers in body in mind sustainability, focusing on enhancing maturity in terms of life skills and well-being in the lives of teenage mothers in order to live with wisdom and to sacrifice personal happiness for children and family.

Keywords: Spiritual Well-being Promoting Program/ Perceived Self-efficacy/ Continuous Breast- feeding Mothers at Home

Prevalence and Risk Factors of Acute Low Back Pain among Nurses in Singburi Hospital
Chuliporn Sopajareeya Surintorn Kalampakorn Punyarat Lapvongwatana Chukiat Viwatwongkasem Oisaeng Hong

ABSTRACT Nursing is a high risk low back pain (LBP) profession. LBP impacts on nurses' health and ability to work and on the economic, labor force, and quality of care. The prevalence and risk factors of acute LBP among hospital nurses was reported in several countries, while it was limited in Thailand. The purpose of this study was to determine the prevalence and risk factors of acute LBP among nurses by applying the PRECEDE-PROCEED model as its study framework. The samples were 265 nurses working at the Nursing Department of Singburi Hospital for at least 1 year. Self-administered questionnaires were used for collecting the data on site. Data were analyzed by frequency distribution, percentage, mean, standard deviation, and logistic regression. The results of the study revealed that the prevalence of acute LBP based upon the nurses' report in the past seven days was 36.6%. Logistic regression analysis indicated that having history of previous diseases related to LBP (OR= 4.45; 95% CI=1.46-13.54) and moving patients in bed without assistance (OR= 2.33; 95% CI=1.32-4.09) were the significant risk factors of acute LBP among nurses (p-value < .01). The findings of risk factors of acute LBP among nurses are useful for developing LBP preventive factor-based interventions.

Keywords: Prevalence/ Risk factors/ Acute low back pain/ Nurses

Work-related Health Problems of Hospital Workers in Chaopraya Abhaibhubejhr Hospital, Prachinburi Province *Apuntree Prayunvong*

ABSTRACT Understanding work-related health problems of hospital workers is important in improving health care system of the hospital personnel which is the human resource development policy of the hospital. The objectives of this study were to examine the work-related health problems of workers in Chaopraya Abhaibhubejhr hospital and explore the relationships between work-related health problems and personal factors and working factors. Subjects were 433 hospital workers in Chaopraya Abhaibhubejhr hospital. Data were collected using self-administered questionnaire. Statistics used were frequency, percentage, and stepwise multiple regression analysis. Results showed that 78.3 % of workers in Chaopraya Abhaibhubejhr hospital experienced work-related health problems and most work-related health problems reported were shoulder pain and back pain. It was found that exposure to occupational hazards, receiving occupational health information, and income had significant relationship with work-related health problems ($p < .05$). These factors altogether could also explain 11.2% of work-related health problems among hospital workers. Findings suggested that work-related health problems especially musculoskeletal disorders as well as health hazards at work should be regularly monitored. Health and safety information should also be disseminated to hospital workers at all level.

Keywords: Work-related health problems / occupational hazards/ hospital workers

**The Study of Predictive Factors' Complications of Diabetes Mellitus Client
in Community under King's Nursing Theory**
Jiraporn Dechma Vanida Dulongritichai Wichuda Kijtorntam

ABSTRACT The survey research objectives was to examine the predictive factors of complication of Diabetes Mellitus patients in community under King's Nursing Theory. The sample included 300 diabetes types 2 patients with complications, aged of 35 years or higher, in Nakornchaisri, Nakornprathom province. The questionnaire was enquired about personal information, and health behaviors related to individual, interpersonal, and social system in King's Nursing Theory. The data were analyzed by Mean, Standard deviation, and stepwise regression analysis. The results have shown that respondents mainly were female, age ranged between 56-65 years, primary school level, unemployed, income ranged 5,001-10,000 baht monthly, family member ranged 3-5 persons. A length of sickness with diabetes was 1-5 years. The diabetes patients had the highest level of health behaviors for preventing complication in interpersonal level, followed by individual and social level, respectively. The studied complications of Diabetes Mellitus patients were blood sugar level, eye complication, renal complication, nervous complication, and footsore. The predictive factor for blood sugar level was patient's care ability in diabetes complications. When patient's care ability in diabetes complications increased in 1 point, the blood sugar can be reduced 2.337 points. It can explain the changing of blood sugar by 3.0%. The predictive factor for eye complication from diabetes was a length of diseases. When a length of disease was one point or higher, the eye complication was increased 0.009 point. It can explain eye complication by 1.5%. The predictive factors for renal complication were economic status and length of disease. If the economic status of diabetic patients improved 1 point, the renal complication increased by 2.538 point. It can explained the renal complication by 9.8%. When a length of disease increased by 1 point , the renal complication increased by 0.018 point, while the length of disease can explain the onset of renal complication by 11.9 %. The predictive factor for nervous complication and footsore included age and perception of family member's role in diabetes management and stress. When the age increased for one point, the nervous complication was increased by 0.007 point. It can explain the nervous complication by 2.6%. While the family member's role in diabetes management increased by 1 point, the nervous complication was decreased by 0.016 point. It can explain the nervous complication by 4.2%. When the diabetes patients' stress increased by 1 point, the nervous complication increased by 0.116 point., It can explain the nervous complication by 5.5%.

Applying Research-based Learning Model into the Course of Public Health Research

Nihra Kitreerawutiwong Orawan Saetan

ABSTRACT Research-based learning helps students develop critical thinking, analyzing, synthesizing, and creating new knowledge. This study aimed to develop research-based learning model and to evaluate effectiveness of the model. Population of this action research included the 87 senior public health undergraduate students, who were enrolling in Academic Year 2010 at Naresuan University. The instruments were: competency assessment questionnaire, oral presentation skill assessment form, poster presentation skill assessment form, and satisfaction assessment questionnaire. The competency and satisfaction assessment questionnaires were a 5-point Likert scales. Three experts validated a face content validity. The Cronbach's alphas of the competency and satisfaction assessment questionnaires were 0.82 and 0.77, respectively. The descriptive statistics included of percentage, mean, standard deviation, median, minimum, and maximum. Wilcoxon signed rank test was used to analyze data. The results showed that the students had a significant difference of pre and post competency after they received research-based learning (p -value $< .001$). The range of oral presentation scores was 74.2 – 95.8, and the range of oral presentation scores was 75.2 – 97.3. The average score of students' satisfaction was good (4.19 out of 5). The results illustrated that the research-based leaning model enhanced research skills of students, who attended the public health research course (course number: 554471).

Keywords: Research-based learning/ Effectiveness/ Student centered

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Research Papers

Factors Predicting Sense of Community Belonging

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Supucharin Watanakul Manirat Therawiwat Nirat Imamee Supreya Tansakul

Predictors of Risky Sexual Behaviors among Adolescent Boy Phitsanulok Province

Worawan Tipwareerom Arpaporn Powwattana Punyarat Lapvongwatana

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Effects of the Caregiver's Empowerment Program on Home Care for Preschool Children with Leukemia

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Factors Related to Client with Pre-Hypertention and Non-Essential Hypertension in Naklier Community, Pra Samut Jadee District, Samut Praka

Pacharee Rasamejam Prisana Akaratanapol Vanida Durongritichai