

The Effects of the Self-Efficacy Method on Adult Asthmatic Patient Self-Care Behavior

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ABSTRACT

Background: The prevalence of asthma and associated mortality is higher among adults than among children, as are associated morbidity and hospital readmission rates. The literature shows that promoting patient self-care behaviors and self-efficacy helps reduce recurrence and hospital readmission rates. Therefore, self-care behaviors and self-efficacy represent critical issues in successful asthma management.

Purpose: This study was developed to investigate the effects of a self-efficacy intervention on (a) the self-care behaviors of adult asthma patients and (b) the self-efficacy of adult asthmatic patients. The study used a pretest–posttest experimental design.

Methods: A total of 60 asthma outpatients who visited the chest medicine division of a medical center in Kaohsiung City between March 2, 2009, and January 31, 2010, were assessed. Patients were randomly divided into two groups (experimental and control), with 30 patients assigned to each. Experimental group participants received the self-efficacy intervention program, which included watching a 15- to 20-minute DVD, received a healthcare booklet on self-efficacy for adult asthmatic patients, were asked to share their illness experience with support groups, and received medical follow-ups by telephone. Control group patients received conventional health education administered by the outpatient department. Study instruments included a self-care behavior scale for adult asthmatic patients (content validity index = .95, Cronbach's α = .82) and a self-efficacy scale for adult asthmatic patients (content validity index = .98, Cronbach's α = .82).

Results: The two key findings of this study were as follows: (a) There was a significant improvement in the self-care behaviors of patients who received self-efficacy intervention in terms of medication adherence ($p = .008$), self-monitoring ($p = .000$), avoidance of antigens ($p = .001$), regular follow-up visits ($p = .000$), and regular exercise ($p = .016$); and (b) the program improved participant self-efficacy in terms of both asthma attack prevention ($p = .030$) and management during asthma attacks ($p = .017$).

Conclusions: On the basis of these results, self-efficacy intervention has been demonstrated a beneficial addition to adult asthmatic patient self-care regimens.

KEY WORDS:

self-efficacy intervention, adult asthma, self-care behaviors.

Introduction

Asthma is a predisposition to chronic inflammation of the bronchi (Waltraud, Markus, & Erika, 2006). It is the result of the hyperresponsiveness of airway to various stimuli and is a reversible obstructive airway disease (Johnston, 2006). Ninety percent of first asthma attacks occur before patients turn 6 years old, and the asthmatic ailment is likely to continue into adolescence (Johnston, 2006; Waltraud et al., 2006). Internationally, asthma has been shown to affect some 12.8% of populations aged 30 to 59 years and 4% to 8% in the population older than 65 years. Both prevalence and mortality rate among asthmatic adults are higher than those among children (Global Initiative for Asthma, 2009; Johnston, 2006; Waltraud et al., 2006). The threat to health posed by adult asthma, thus, cannot be overlooked.

Timing and frequency of asthma attacks are often difficult to predict. Many asthma patients must constantly adjust themselves to the uncertain nature of their disease while at home and at work and while participating in extracurricular and social activities. Bandura (1977) found that the vicarious experiences and verbal persuasion availed by the self-efficacy theory could offer a good strategy to offer patients disease prevention training, to play a persuasive role in health education, and to provide patients

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with motivation to self-learn and adjust their self-care behavior routines. A significant positive correlation was found between self-care behaviors and self-efficacy in adult asthmatic patients, that is, patients with higher self-efficacy tend to exhibit better self-care behaviors (Chen, Sheu, Wang, & Huang, 2009).

According to Bandura's (1977) social cognitive theory, self-efficacy is related to empowerment. It inspires people to carry out behaviors required to achieving a desired goal. Four major information sources, namely, performance accomplishments, vicarious experiences, verbal persuasion, and self-appraisal, are required to construct self-efficacy to accomplish certain tasks. These four sources, provided by either direct or indirect experience, determine the level and strength of one's self-efficacy (Bandura, 1977). The four sources are further described below:

1. **Performance accomplishments:** These represent the most influential of the four sources (Bandura, 1977). Performance accomplishments are experiences of enactive attainments, primarily the accumulation of previous experiences and skills. Successful experiences raise, and repeated failures undermine, self-efficacy (Shortridge-Baggett, 2001).
2. **Vicarious experiences:** Vicarious experiences achieve desired behavior through the observation of others (Bandura, 1977). Seeing people similar to oneself succeed can raise an observer's belief that he or she too possesses the capabilities to master comparable activities, that is, "If they can do it, I can do it as well" (Shortridge-Baggett, 2001).
3. **Verbal persuasion:** Verbal persuasion enhances one's self-efficacy by guiding behavioral determinants (Bandura, 1977). Receiving positive language or verbal persuasion, such as "You are going great!" and "You can do it," from others increases self-efficacy (Shortridge-Baggett, 2001).
4. **Self-appraisal:** Self-appraisal judges one's learning capabilities via messages from one's own somatic and emotional states (Bandura, 1977). One's physiological and psychological responses provide information feedback (Shortridge-Baggett, 2001). Stress, anxiety, and depression are interpreted as signs of personal physical inefficacy and will weaken one's self-confidence and undermine one's implementation efficiency, whereas positive physical and psychological feedback enhances perceived self-efficacy (Bandura, 1997).

Five practice guidelines for self-efficacy were generated by Egan (1994). These included (a) self-efficacy is not an all-or-none quality—encouragement should be provided in the case of high self-efficacy, and alternative approaches should be determined to improve self-efficacy when patients demonstrate low self-efficacy; (b) doing is the best way to enhance self-efficacy; (c) skills are required to meet with success and such skills must be nurtured; (d) feedback should be provided for performance deficiencies; and (e) people learn by modeling themselves

after others; hence, discussing the successful experience of others, attending self-help groups, and so on may enhance self-efficacy.

In their study of self-management efficiency in adult asthmatic patients, Palen, Klein, Zielhuis, Herwaarden, and Seydel (2001) found both self-efficacy and self-management behaviors in the experimental group to be significantly better than in the control group. A study done by Smith et al. (2007) on the self-management model adopted by asthmatic adults also demonstrated similar results. However, research done by Chen et al. (2009) investigated 128 asthmatic patients older than 20 years from a teaching hospital in southern Taiwan. Their results indicated participants had only moderate self-care capabilities (3.74 points out of 5), a self-monitoring score of 2.93, and a regular exercise score of 2.85. Among these patients, 104 received care provider delivered health education. As self-care behavior is known to play an important role in asthma management, adequate self-care behavior in patients means not only lower asthma morbidity and hospital readmission rates but also more cost-effective medical care (Liu, Weng, & Tsai, 2006).

In light of these insights, the authors developed a self-efficacy program for stable asthma patients. Patients watched a DVD video for 15 to 20 minutes, were provided with a self-efficacy education booklet, were asked to share their illness experience within a support group setting, and received telephone follow-up interviews. The program was designed to improve self-care behaviors in adult asthmatics and to provide medical institutes with a more efficient strategy to caring for these patients by equipping them with ample self-efficacy.

Methods

Study Participants

Study participants were recruited from the chest medicine division of a medical center in Kaohsiung City. Inclusion criteria included the following: (a) diagnosis of asthma only by a chest physician (493 as the first three digits of the International Classification of Diseases, 9th revision, Clinical Modification [ICD-9-CM] number), (b) at least 20 years of age, (c) Taiwanese or Mandarin Chinese speakers, and (d) no other acute or serious illness that might precipitate adverse influences on a prolonged study or cause inaccurate responses. The sample size was 60, as determined by Polit and Hungler's (1999) "Power analysis," with 30 each assigned to experimental and control groups ($r = .8$, medium effect size, and $\alpha = .05$; Wynd, Schmidt, & Schaefer, 2003). A pretest was carried out with participants in both groups 1 week before intervention implementation. The experimental group watched a health education DVD program on asthma management, received a health-care booklet on self-efficacy in adult asthmatic patients, and shared their experiences with 8 to 12 patients from

support groups. Control group participants received oral instruction only. Telephone follow-up was conducted during the fifth week. On the sixth week, participants completed a posttest survey during a one-on-one question-and-answer interview.

Standard Care

All participants were asked to maintain their current level of oral medication throughout the experiment. For the control group, such was the only prescribed treatment. All participants received instruction in the proper use of all medication, relaxation training, pursed-lip breathing retraining, deliberate coughing, and joint and muscle stretching exercises. Clinical visits were scheduled for week 6 to monitor treatment progress and address participant concerns.

Self-Efficacy Intervention Program

Participants in the experimental group completed a self-efficacy program. They watched a DVD for 15 to 20 minutes, received a self-efficacy education booklet, were asked to share their illness experience with a support group, and received follow-up telephone interviews. The asthma video clip published by the Department of Health, Taiwan (2003), was edited by researchers, and the content was evaluated by five health professionals. Content validity index (CVI) value was determined on the basis of Wynd et al. (2003). The five health professionals invited included chest internal physicians, head nurses, and respiratory management head nurses. Correlation, wording, and relevance of test table content were evaluated and given marks of “very inappropriate,” “inappropriate,” “acceptable,” or “very appropriate” and were modified as follows: Items marked

as “very inappropriate” were given 1 point and eliminated from the test table; items marked as “inappropriate” were significantly modified and retained, items marked as “acceptable” were slightly modified, and items marked as “very appropriate” were given 4 points and not further modified. The sum of the number of items given 3 points and 4 points was first divided by the total number of items and then multiplied by 100. The percentage of items given 3 points and 4 points were calculated, and a consistent CVI value of .92 was achieved among the five health professionals. Successful self-care behavior experiences of adult asthmatic patients were presented in the specially prepared video. “Patients” (graphic animations) shared and described feelings about their illness, explaining how they helped themselves, their worst experience, their best experience, how they managed their time, their treatment regimens, and how their asthmatic conditions influenced their family and individual lives. The goal was to provide patients with a disease-preventive training using a media tool to enhance message persuasiveness.

The developed self-efficacy education booklet for adult asthmatic patients earned a CVI (.93) for content, as determined by previous studies (Chen et al., 2009) and researcher clinical experience, and was verified by five professionals, all who had rich clinical care experience. The booklet included healthcare knowledge and medication advice for adult asthmatic patients. Related explanations and illustrations were used to make reading and understanding easy for patients.

Illness experience sharing with a support group was conducted using 45-minute sessions. The support group offered support, shared information, fostered feelings of belonging, and provided a forum for problem discussion. The researcher also spent 15 minutes to evaluate participant self-confidence.

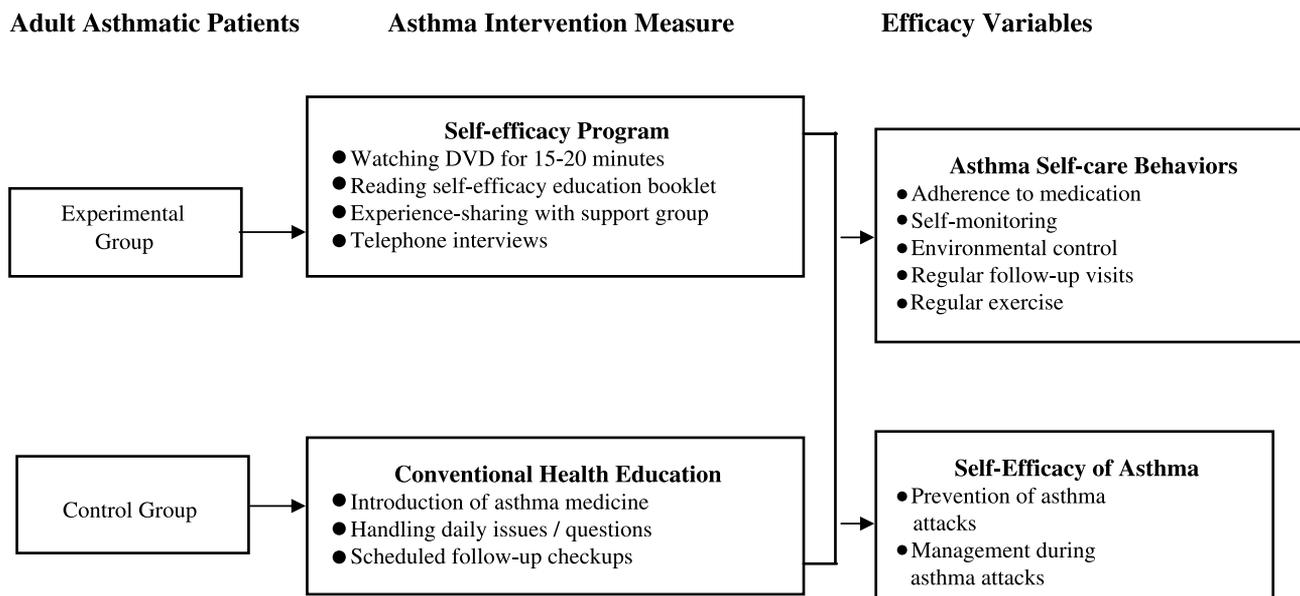


Figure 1. Conceptual framework of the study: Effects of self-efficacy on adult asthmatic patient self-care behaviors.

The verbal persuasion of Bandura's (1977) self-efficacy theory was used to enhance performance accomplishment continuation. Telephone interviews were conducted by researchers in the fifth week of the self-efficacy program, the purpose of which was to make participants perceive being cared for. It was hoped that this procedure would enhance self-care motivation, which would in turn promote healthy self-care behavior.

The conceptual framework of the study was developed on the basis of the abovementioned purposes and findings of previous studies, as shown in Figure 1.

Study Tools

Participant Data

The basic questionnaire used consisted of questions regarding gender, age, education level, family type, family history of asthma, smoking history, frequency of asthma attacks during the past year, number of doctor visits, previous receipt of health education, years with asthma, and illness severity (as determined using International Asthma Council 2009 self-control standards).

Self-Care Behavior Scale for Adult Asthmatic Patients

This scale, developed by Chen et al. (2009), consisted of 22 questions categorized into five groups, including adherence to medication (2 questions), self-monitoring (6 questions), environmental control (7 questions), follow-up visits (2 questions), and regular exercise (5 questions). A 5-point Likert scale was used, with 5 indicating *always* and 1 indicating *never*; a relatively higher score correlated to relatively better self-care behavior. The CVI of the current study was .952, and the Cronbach's α value was .823. A prior study done by Chen et al., targeting 128 adult asthmatic patients older than 20 years, earned a CVI of .95 and a Cronbach's α of .82.

Self-Efficacy Scale for Adult Asthmatic Patients

This scale was adopted from Bursch, Schwankovsky, Gilbert, and Zeiger (1999) and translated by Chen et al. (2009). Participants were tested as to their confidence to conduct asthma self-care. The scale consisted of 14 questions. The first part addressed asthma prevention (9 questions) and the second addressed asthma attack management (5 questions). A 5-point Likert scale was used, with 5 (the highest score) indicating *completely certain* and the 1 (the lowest score) indicating *completely uncertain*. Relatively higher scores implied relatively better self-efficacy. The CVI of the current study was .976, with a Cronbach's α value of .823. A prior study by Bursch et al., targeting 110 asthmatic children aged from 7 to 15 years, earned a CVI of .98 and a Cronbach's α value of .82. Another study done by Chen et al., targeting 128 adult asthmatic

patients older than 20 years, also had a CVI of .98 and Cronbach's α of .82.

Procedures and Data Collection

Upon approval by the hospital institutional review board (No. KMUH-IRB-970348) and related managers, asthmatic outpatient case files were obtained from the Chest Medicine Division. Study purposes, procedures, and time requirements were explained thoroughly to participants. The study was then carried out with participants' written consent. Participant personal data were kept anonymous and confidential and used only for research purposes.

With prior permission from the physician, 10 pioneer participants were purposively sampled from February 2 to February 27, 2009, to evaluate intervention feasibility. The formal study was then carried out from March 2, 2009, to January 31, 2010, with a pretest–posttest experimental design. There were 627 asthmatic outpatients during this period being treated by the Division of Chest Medicine, among which 115 were qualified on the basis of study qualification criteria. Nearly half of these (55) were unable to participate because of time inconvenience. Therefore, a total of 60 qualified outpatients were selected and divided randomly into experimental and control groups, with 30 participants in each group. A pretest questionnaire was filled out by participants from both groups in a question-and-answer manner during interviews held 1 week before the intervention. Each control group participant then received an individualized oral health lesson from an instructor on asthma medication, daily matters (e.g., avoidance of antigens and colds), and follow-up checkups. The experimental group received the researcher self-efficacy intervention program, which included watching a 15- to 20-minute asthma video clip as a group during the first week, receiving a self-efficacy education booklet, and sharing illness experience with 8 to 12 people in a support group. Individual follow-ups by telephone were performed in the fifth week, and interviews were held in a question-and-answer manner in the sixth week at which the posttest questionnaire was completed.

A posttest questionnaire was filled out by all participants 1 month after completion of the intervention. The effects of the self-efficacy program on self-care behaviors and self-efficacy in adult asthmatic patients were then investigated using an empirical research method.

Data Analysis

SPSS Statistics 17.0 software was used for data analysis. Mean values, standard deviations, and percentages were calculated to present personal data. Values from both experimental and control groups were then compared for continuous variables and categorical variables using the *t* test and the chi-square test, respectively. Self-care behaviors and confidence in self-care ability were compared and analyzed using a *t* test in a pretest and posttest manner.

Results

Basic Participant Data (Experimental Group and Control Group)

The average age of participants was 52.20 ± 12.74 years in the experimental group and 53.97 ± 13.64 years in the control

group. In terms of education level, the majority held high school (junior college) degrees as their highest academic accreditation (56.6% of the experimental group, 33.3% of the control group). In terms of family type, small families predominated (56.7% and 70%, respectively). Fifty and seventy percent, respectively, of experimental and control group

TABLE 1.
Basic Participant Data (Experimental and Control Groups)

Variable	Experimental Group (n = 30)		Control Group (n = 30)		p
	n	%	n	%	
Gender					.160
Male	11	36.7	11	36.7	
Female	19	63.3	19	63.3	
Age					.181
20–44 years old	8	26.7	9	30.0	
45–64 years old	13	43.4	14	46.7	
≥65 years old	9	30.0	7	23.3	
Education level					.122
None	0	0	3	10.0	
Elementary school	0	0	8	26.7	
Junior high school	8	26.7	3	10.0	
High school (including junior college)	17	56.6	10	33.3	
College and above	5	16.7	6	20.0	
Family type					.228
Joint family	6	20.0	5	16.7	
Small family	17	56.7	21	70.0	
Nuclear family	2	6.7	3	10.0	
Single	5	16.7	1	3.3	
Family history of asthma					.803
No	15	50.0	21	70.0	
Yes	15	50.0	9	30.0	
Smoking history					.609
No	24	80.0	25	83.3	
Yes	6	20.0	5	16.7	
Frequency of emergency department visits over the past year					.100
0 times	20	66.7	24	80.0	
1 and 2 times	8	26.7	5	16.6	
≥3 times	2	6.7	1	3.3	
Previous asthma health education					.794
No	13	46.3	17	56.7	
Yes	17	56.7	13	43.3	
Years affected by asthma					.360
≤2 years	2	6.7	8	26.7	
2–5 years	9	30.0	8	26.7	
5–10 years	8	26.7	5	16.7	
10–20 years	4	13.3	3	10.0	
>20 years	7	23.3	6	20.0	
Asthma severity					.172
Not under control	10	33.3	5	16.7	
Under moderate control	13	43.3	14	46.7	
Under complete control	7	23.3	11	36.7	

TABLE 2.
Efficacy of Program on Self-Care Behaviors (Experimental and Control Groups)

Item	Experimental Group (n = 30)		Control Group (n = 30)		Δ	
	Pretest	Posttest	Pretest	Posttest	t	p
Medication adherence	9.13 ± 1.36	9.47 ± 1.28	8.50 ± 1.66	9.30 ± 0.99	-2.851**	.008**
Self-monitoring	17.70 ± 4.23	21.63 ± 5.42	17.00 ± 4.03	19.80 ± 4.18	-6.869***	.000***
Antigen avoidance	26.80 ± 6.74	30.43 ± 6.04	26.93 ± 6.37	29.77 ± 5.26	-3.708**	.001**
Regular follow-up visits	7.87 ± 2.62	8.83 ± 2.04	7.77 ± 1.76	9.00 ± 1.00	-5.024***	.000***
Regular exercise	15.47 ± 4.99	19.07 ± 6.75	14.53 ± 5.14	14.83 ± 5.26	-2.547*	.016*

Note. Values are presented as mean ± SD. Δ indicates that significant difference for t test on the posttest (intervention group) – posttest (control group) is greater than pretest (intervention group) – pretest (control group).
*p < .05. **p < .01. ***p < .001.

TABLE 3.
Efficacy of Intervention Program on Self-Efficacy (Experimental and Control Groups)

Item	Experimental Group (n = 30)		Control Group (n = 30)		Δ	
	Pretest	Posttest	Pretest	Posttest	t	p
Asthma prevention	30.27 ± 8.78	33.90 ± 6.27	29.40 ± 6.43	29.73 ± 8.41	-2.280*	.030*
Management during asthma attacks	23.40 ± 6.49	25.03 ± 4.15	22.33 ± 5.68	22.17 ± 7.00	-2.526*	.017*

Note. Values are presented as mean ± SD. Δ indicates that significant difference for t test on the posttest (intervention group) – posttest (control group) is greater than pretest (intervention group) – pretest (control group).
*p < .05.

participants did not have a family history of asthma. A significant majority of both (80% and 83.3%) did not have a smoking history. Two thirds (66.7%) of the experimental group and 80% of the control group did not receive emergency care for asthma over the past year. Roughly half (56.7% and 43.3%) had previously received asthma health education. The average duration of asthma was 13.25 and 11.12 years for experimental and control group participants, respectively. Just less than half (43.3%) of the experimental group and 46.7% of the control group showed moderate control over their asthma. Most participants in both groups did not have their asthma under complete control (Table 1).

Effects of the Self-Efficacy Intervention Program on Adult Asthmatic Patient Self-Care Behaviors

Findings revealed a significant difference in medication adherence (p = .008), self-monitoring (p = .000), avoidance of antigens (p = .001), regular follow-up visits (p = .000), and regular exercise (p = .016; Table 2).

Effects of the Self-Efficacy Intervention Program on Adult Asthmatic Patient Self-Efficacy

Findings showed that the self-efficacy intervention program improved self-efficacy significantly in terms of both attack

prevention (p = .030) and management during asthma attacks (p = .017; Table 3).

Discussion

Self-Efficacy Intervention Promotion of Adult Asthmatic Patient Self-Care Behaviors

This study found that participants who received the self-efficacy intervention program showed better self-care behaviors than those receiving conventional outpatient health education only. Results should be confirmed by further relevant research.

The design of the self-efficacy program is described in detail in the video clip. Patient self-confidence is built on the vicarious experience and verbal persuasion described in self-efficacy theory and plays an important role in providing self-motivation and adjusting self-behaviors (Bandura, 1977). Media can be a very persuasive tool, helping to provide well-rounded disease prevention training to patients. A self-efficacy education booklet was also provided. The stories of other patient conditions and their coping methods described in the booklet can be used at the beginning of the program to encourage interpatient brainstorming and facilitate discussions, question asking, and goal setting, thereby maintaining patient self-care behavior. These are examples of vicarious experiences and performance accomplishments, in accordance with Bandura’s (1977) theory.

Asthma self-care relies on patient self-efficacy and self-care. Self-efficacy emphasizes health behavior change. Therefore, to improve patient self-care behaviors, it is necessary to strengthen patient self-efficacy, an element that should be added to clinical current patient education training programs.

Self-Efficacy Program Promotes Self-Efficacy in Adult Asthmatic Patients

Our study indicates that participants who received the self-efficacy intervention showed better self-efficacy than those who received conventional outpatient health education only. The application of self-efficacy is a very important topic in nursing. Through successful experience control and enhanced expectation toward accomplishment capability, a person with high self-efficacy will hold more positive views of himself or herself. In contrast, a person with low self-efficacy expects failures, leading to lack of self-confidence in facing challenges and taking action. It is thus necessary to change patient self-care behaviors. However, these changes may lead to stress and insecurity. Therefore, sufficient self-efficacy becomes critical. This is the reason Bandura's (1977) social cognitive theory plays an important role in nursing practice.

In addition to lectures given by instructors, illness experience sharing with a support group of 8 to 12 persons allowed for sufficient discussions and interactions among patients. This further enhanced self-efficacy and encouraged behavioral changes in an effective manner. Follow-up telephone interviews helped participants feel cared for and attended to. According to Bandura's (1977) theory, verbal persuasion advocates continuous performance accomplishments. It is therefore hoped that telephone interviews will promote self-care motivation and consequently enhanced healthcare behavior.

Applying all the information sources to the intervention program provides patients with an opportunity engaging self-efficacy within a new context and generates expected results (Shortridge-Baggett, 2001). Bandura (1977) suggested combining all four information sources to be the most efficient way to promote self-efficacy. This study further confirmed that an intervention applying the four sources of self-efficacy has a substantial effect on asthmatic adult self-care behaviors.

Conclusions and Suggestions

This study shows that the self-efficacy program has a positive effect on promoting adult asthmatic patient self-efficacy and improving relevant self-care behaviors. This finding supports the theory proposed by Bandura (2006), who suggested that when one believes that he or she has the capability to perform a certain behavior, he will engage in this behavior more and for a longer period. Providing patients with positive recognition of self-care behaviors and promoting will-power and confidence through various information sources to achieve an expected result appear to improve healthcare behaviors effectively. This is especially true in coping with

chronic diseases, where successful disease management relies greatly on personal implementation of self-care matters. Patients with high self-efficacy have better control over their ailment. In contrast, patients with low self-efficacy are often pessimistic and depressed and tend to develop complications that worsen extant conditions. Therefore, by concurrently promoting self-efficacy in asthmatic patients and equipping them with self-care skills should help patients achieve a well-rounded self-care program.

The best way to promote self-efficacy is to combine a wide variety information sources, with special emphasis on the abovementioned four major sources (self-efficacy performance accomplishments, vicarious experiences, verbal persuasion, and self-appraisal). In this study, we used a video as the primary source of information on vicarious experiences and verbal persuasion, a health education booklet as the primary source of vicarious experiences and performance accomplishments, and follow-up telephone calls to guide patient self-appraisal and further strengthen behaviors using verbal persuasion.

On the basis of study findings, we highly recommend that nursing staff acquire perceptive knowledge of self-efficacy skills and apply the concept of self-efficacy intervention in clinical practice to fulfill this essential nursing function. Application of the self-efficacy program in nursing practice should also extend to other chronic diseases to further evaluate the influences of self-efficacy on self-care behavior. In addition, nursing personnel should promote asthma control education proactively to improve patient self-care behavior and capabilities and to help them understand asthma is, in many cases, completely controllable.

Study Limitations

During this study, some participant appointments were changed or rescheduled without notice. The survey location was also restricted. Also, participants in both groups received the intervention only once, and telephone interviews were conducted 5 weeks after the intervention program was initiated. Therefore, the continuous effects of self-efficacy intervention await clarification. Even with these limitations, this program should benefit public health and help reduce long-term healthcare costs and is thus worth promoting.

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自我效能方案增進成人氣喘病患自我照顧行為之成效

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- 背景** 成人氣喘罹患人數及死亡率較兒童高，發病率及再住院率亦有增加趨勢，文獻指出提昇氣喘病患自我照顧行為及自我效能，可以降低氣喘病患發病率及再住院率，因此自我照顧行為及自我效能為氣喘病患重要的照護議題。
- 目的** 本研究目的為探討自我效能介入方案(1)對成人氣喘病患自我照顧行為之影響；(2)對成人氣喘病患自我效能之影響。
- 方法** 本研究採兩組前後測之實驗設計法，2009年3月2日至2010年1月31日於高雄市某醫學中心胸腔內科門診60位氣喘病患，隨機分為實驗組及控制組各30人。實驗組接受自我效能介入方案，包括觀看15-20分鐘的DVD影帶、提供成人氣喘自我效能衛教手冊、病友團體經驗分享、參與電話訪談；控制組接受傳統的門診衛教方案。研究工具為成人氣喘病患自我照顧行為量表 (CVI .95, Cronbach's α 值為 .82)，及成人氣喘病患自我效能量表 (CVI .98, Cronbach's α 值為 .82)。
- 結果** 結果顯示：(1)自我效能方案對成人氣喘病患所有自我照顧行為，包括遵從服藥 ($p = .008$)、自我監控 ($p = .000$)、遠離過敏原 ($p = .001$)、定期返診 ($p = .000$)及規律的運動 ($p = .016$)均有顯著性進步；(2)自我效能方案對成人氣喘病患的預防氣喘發作 ($p = .030$)及氣喘發作時的處理 ($p = .017$)自我效能均有顯著性進步。
- 結論** 依本研究之自我效能方案可作為成人氣喘自我照顧臨床實務之參考。

關鍵詞：自我效能方案、成人氣喘、自我照顧行為。

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