Program development activities to promote healthy behaviors in the self-care for middle school students with allergies.

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The background and importance of the issues.

The vulnerable situation of allergy

The symptoms of those with allergies
The vulnerable situation of allergy

The symptoms of those with allergies

Problem management learning for students with allergies

Pander’s theory of health promotion

Theory of motivation to prevent disease.
Allergic symptoms between adults and children by The Department of Allergies and Preventions, 2013
The symptoms of those with allergies
The Outline Questions

1. Whether the developed program contained effective activities?

2. Whether the developed program activity effectively promoting healthy behaviors in children to care themselves?
Purpose of the Study

1. To develop the program activities to promote healthy behaviors in self-care of middle school students with allergies.

2. To assess the effectiveness of the developed program and the activities.
1. The developed program adequately include variety of activities and conclusive

2. The developed interventive program effectively improved in self-care with dementia allergic symptoms between the experimental group and the control group.
The Scope of Study

1. The population
2. The duration of the experiment
3. The variables
4. The effectiveness of the program

The Definitions Used in the Study

- Program development activities
- Self-care behaviors
- Activities to promote health caring for ourselves.
- A trial level of allergy symptoms
- Dementia allergic symptoms assessment
Expecting Benefits Received.

1. The program effectively promote healthy behaviors in the Self-care of middle school students with allergies.

2. Middle school students with program intervention for healthy habits can take care of oneself better and reduced symptoms of hypoglycemia allergy.

3. The activities are developed to guide students with allergies to de-elevate reaction symptom in schools environment.
The Related Literatures and Studies

Program development activities

Behavioral health concepts

Dementia allergies

Theoretical concepts in promoting healthy behaviors in the care of self
Theory of motivation to prevent the disease.

- The severity of the disease.
- Recognition of disease chances.
- To anticipation in the effectiveness of the response.
- Expectations in their own abilities.
Pender’s theory of health promotion

Characteristics and experience of the person.

- Related behaviors.
- Personal factors.

Thoughts and emotions

- Realize benefits of the practice.
- Realize barriers.
- Knowledge of the own limits.
- Realize of own behaviors.
- Interpersonal influences.
- Influenced by the situations.

Behavioral results.

- Striving to practice habits.
- Another necessary and other options that occur.
- Health-promoting behaviour.
The Conceptual Framework

| Development Concepts of the program | Program activities to promote healthy behaviors in self-care for middle school students with allergies. | 1. Health care behavior to reduce allergies  
1.1 knowledge about self-care and to reduce allergic  
1.2 recognition, the ability to take care of their own to reduce allergic  
1.3 to behave in their own care, allergy relief.  
2. the symptoms, allergies, dementia |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Incentive activities to prevent the disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Motivation for health promotion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Methodology.

1. Program Development Activities.

   Step 1: Explicate theoretical concepts and related studies

   Step 2: Implement the concepts

   Step 3: Develop activities

   Step 4: Verify the adequacy of the developed activities.
<table>
<thead>
<tr>
<th>Activity Descriptions</th>
<th>IOC</th>
<th>Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Evaluation own behaviors</td>
<td>0.93</td>
<td>high</td>
</tr>
<tr>
<td>2: Information awareness</td>
<td>0.93</td>
<td>high</td>
</tr>
<tr>
<td>3. Activity on the dream home</td>
<td>0.90</td>
<td>high</td>
</tr>
<tr>
<td>4: Group activities online.</td>
<td>0.83</td>
<td>modulate</td>
</tr>
<tr>
<td>5: Fitness to overcome allergies</td>
<td>0.87</td>
<td>modulate</td>
</tr>
<tr>
<td>6: Allergy relief activities</td>
<td>0.87</td>
<td>modulate</td>
</tr>
<tr>
<td>7: Emotional relaxations</td>
<td>0.83</td>
<td>modulate</td>
</tr>
<tr>
<td>8: Personal consulting</td>
<td>0.93</td>
<td>high</td>
</tr>
<tr>
<td><strong>Accumulative Average</strong></td>
<td>0.89</td>
<td>satisfy</td>
</tr>
</tbody>
</table>
The population and sample group

Population.

Middle school students with allergies

Sample group.

Subjects of 60 school students with allergies is equally divided into a control group and experimental group as selected volunteer anticipants.

Access criteria

- Moderate to highly hypoglycemia allergies
- Do not undergoing treatment
- Do not use the medication in the treatment
- Willingness to participate in the event
- Parents consent.

The cut-off criteria.

- There is no interest in participating
- Illness or have trouble joining
Phrase 1: Program Development

Step 1: Explicate related literature and researches

Step 2: Implement the theoretical concepts

Step 3: Conceptualize concepts to develop activities.

Step 4: to verify the relevancy of the activities developed.

Step 5: adjustment to improve activities.

Phrase 2. Examine the Effectiveness of the Activities.

Step 1: preparing for the trials.

Step 2: applying the interventions and collecting data

Step 3: statistical analyses the collected data

Step 4: summarized results and discussion of the results.
Development of the instrument to collect information

1. Knowledgeable about allergic reactions and learn how to self-care to reduce allergies.

2. Measure information awareness to take self-care to reduce allergies.

3. Assess ability in self-care to reduce allergies.

4. Evaluate a level of allergic symptom.
## The Characteristics of the Instruments

<table>
<thead>
<tr>
<th>Instrument</th>
<th>IOC</th>
<th>Reliability</th>
<th>Discrimination</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Assessment</td>
<td>0.94</td>
<td>0.82</td>
<td>0.39</td>
<td>0.67</td>
</tr>
<tr>
<td>Awareness Evaluation</td>
<td>1.00</td>
<td>0.88</td>
<td>0.48</td>
<td>-</td>
</tr>
<tr>
<td>Practices Assessment</td>
<td>0.96</td>
<td>0.80</td>
<td>0.38</td>
<td>-</td>
</tr>
<tr>
<td>Allergy Assessment</td>
<td>0.94</td>
<td>0.83</td>
<td>0.42</td>
<td>-</td>
</tr>
</tbody>
</table>
Data analyses

Quantitative data analysis
- Calculate the means and standard deviations
- Using t-test for means comparison for t-values
- Multi-Variance Analysis of using “repeated measure”
- Means comparison using Bonferroni method

Field study analysis
- From the interviews, reviews of the students.
Seeking Results for developed activities
interventions on:

1. Self-evaluation
2. Information awareness
3. Dream house
4. The online group
5. Fitness activities
6. Relieving activity
7. Emotional Relaxation
8. Consulting activities.
1. Self-evaluation activities.
2. Information awareness activities.
2. Information awareness activities.
2. Information awareness activities.
3. Dream house activities
3. Dream house activities
4. The online group activities

Panzera A. D. et al. (2013)
5. Fitness activities, overcoming allergies

Satyam Tripathi. et al. (2014)

สุมาลี เกียรติบุญศรี (2553)

Lucas S. R. et al. (2005)
6: Allergy relief activities

Brygge T. et al. (2001)
Wello W. et al. (2003)
Singh V. et al. (1990)
7. Emotional Relaxation
7. Emotional Relaxation

Mora-Ripoll R. (2011)
Collingwood J. (2008)
8. Personal Consulting Activities.
Activity 1: Knowledge of allergies and self-care to reduce allergies

Theory of motivation to prevent disease by เกศินี จังมนตรี (2548), Panzera et al. (2013), สมจิตต์ ฟุ่มจันทร์ประสงค์ (2538)
Cognitive ability in taking care of their own to reduce allergies.

Pender’s theory of health promotion; Burkhart et al. (2001)
Activity 2: Knowledge of allergies and self-care to reduce allergies

Theory of motivation to prevent disease by เกศินี จงมณีรัตน์ (2548); Panzera et al. (2013); สมจิตต์ สุพรรณทัสน์ (2538)

Phrase 2: Program Effectiveness Evaluation
Activity 3: Practices in self-care to reduce allergies

Phrase 2: Program Effectiveness Evaluation

Collingwood (2008); Sheikh (2003); Kutintara (2002)
Activity 4: Dementia allergy symptoms
The result of comparing the level of dementia allergic symptoms in each stage.
The result of comparing the level of dementia allergic symptoms: prior intervention

Experimental Group
96.7%
3.3%

Control Group
96.7%
3.3%
The result of comparing the level of dementia allergic symptoms: After the end of first period of intervention.
The result of comparing the level of dementia allergic symptoms:
After Ending Period of the Intervention

Experimental Group
- 80.0%
- 6.7%
- 13.3%

Control Group
- 40.0%
- 36.7%
- 23.3%
The number of satisfactory students toward the intervention

Knowledge

Awareness  Practice  Allergic level
Student Satisfaction with the Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Self Evaluation</th>
<th>Information Awareness</th>
<th>Dream House</th>
<th>Physical Fitness</th>
<th>Self Remidy</th>
<th>Relaxation</th>
<th>Consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Satisfaction</td>
<td>4.4</td>
<td>5.0</td>
<td>4.9</td>
<td>5.7</td>
<td>5.3</td>
<td>3.7</td>
<td>3.6</td>
</tr>
</tbody>
</table>
Table 1: Means comparison between groups on knowledge of allergies, and self-care for allergy relief, awareness, ability to practice reducing allergies before intervention

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>Experiment Group</th>
<th>Control Group</th>
<th>t-Value</th>
<th>Sig.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std D</td>
<td>Mean</td>
<td>Std D</td>
</tr>
<tr>
<td>Knowledge</td>
<td>10.27</td>
<td>3.29</td>
<td>10.40</td>
<td>3.40</td>
</tr>
<tr>
<td>Info. Awareness</td>
<td>3.47</td>
<td>0.37</td>
<td>3.53</td>
<td>0.47</td>
</tr>
<tr>
<td>Practice</td>
<td>2.47</td>
<td>0.14</td>
<td>2.44</td>
<td>0.28</td>
</tr>
<tr>
<td>Allergic Levels</td>
<td>2.31</td>
<td>0.26</td>
<td>2.32</td>
<td>0.20</td>
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</tbody>
</table>
Table 2: Means comparison between groups on knowledge of allergies, and self-care for allergy relief, awareness, ability to practice reducing allergies *after intervention*

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>Experiment Group</th>
<th>Control Group</th>
<th>t-Value</th>
<th>Sig.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std D</td>
<td>Mean</td>
<td>Std D</td>
</tr>
<tr>
<td>Knowledge</td>
<td>14.70</td>
<td>3.09</td>
<td>10.77</td>
<td>3.58</td>
</tr>
<tr>
<td>Info. Awareness</td>
<td>4.13</td>
<td>0.37</td>
<td>3.54</td>
<td>0.47</td>
</tr>
<tr>
<td>Practice</td>
<td>2.90</td>
<td>0.28</td>
<td>2.56</td>
<td>0.30</td>
</tr>
<tr>
<td>Allergic Levels</td>
<td>2.86</td>
<td>0.29</td>
<td>2.31</td>
<td>0.57</td>
</tr>
</tbody>
</table>
Table 3: Means comparison between groups on knowledge of allergies, and self-care for allergy relief, awareness, ability to practice reducing allergies in followed up

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>Experiment Group</th>
<th>Control Group</th>
<th>t-Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std D</td>
<td>Mean</td>
<td>Std D</td>
</tr>
<tr>
<td>Knowledge</td>
<td>15.20</td>
<td>2.58</td>
<td>10.37</td>
<td>3.92</td>
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<tr>
<td>Info. Awareness</td>
<td>4.16</td>
<td>0.39</td>
<td>3.55</td>
<td>0.58</td>
</tr>
<tr>
<td>Practice</td>
<td>2.87</td>
<td>0.24</td>
<td>2.55</td>
<td>0.29</td>
</tr>
<tr>
<td>Allergic Levels</td>
<td>2.81</td>
<td>0.24</td>
<td>2.26</td>
<td>0.52</td>
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</tbody>
</table>
Table 4: **Results of analysis of variance of knowledge, awareness, practice to take care of their own to reduce allergies, and level of allergic reactions by combined the time intervals**

<table>
<thead>
<tr>
<th>Source of Variations</th>
<th>Experiment Group Before -After –Follow W-Lambda F-Value Sig.</th>
<th>Control Group Before-After-Follow W-Lambda F-Value Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>0.06 221.0 0.00</td>
<td>0.96 0.65 0.53</td>
</tr>
<tr>
<td>Info. Awareness</td>
<td>0.14 83.9 0.00</td>
<td>0.97 0.65 0.65</td>
</tr>
<tr>
<td>Practice</td>
<td>0.24 44.9 0.00</td>
<td>0.58 10.23 0.00</td>
</tr>
<tr>
<td>Allergic Levels</td>
<td>0.22 50.6 0.00</td>
<td>0.98 0.24 0.00</td>
</tr>
</tbody>
</table>
Table 5: Means comparing the results in paired-wise on knowledge classified by time intervals

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>Group</th>
<th>Intervention periods</th>
<th>Mean</th>
<th>F-Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Experiment</td>
<td>Pre-Intervention</td>
<td>10.27</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post-Intervention</td>
<td>14.70</td>
<td></td>
<td>0.31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Followed-Up</td>
<td>15.20</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>Pre-Intervention</td>
<td>10.40</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post-Intervention</td>
<td>10.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Followed-Up</td>
<td>10.37</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 6: Means comparing the results in paired-wise *on practice to reduce allergies* classified by time intervals

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>Group</th>
<th>Intervention periods</th>
<th>Mean</th>
<th>F-Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice</td>
<td>Experiment</td>
<td>Pre-Intervention</td>
<td>2.47</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post-Intervention</td>
<td>2.90</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Followed-Up</td>
<td>2.87</td>
<td>0.035</td>
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<tr>
<td></td>
<td>Control</td>
<td>Pre-Intervention</td>
<td>2.44</td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post-Intervention</td>
<td>2.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Followed-Up</td>
<td>2.55</td>
<td></td>
<td></td>
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</tbody>
</table>
**Table 7:** Means comparing the results in paired-wise on *information awareness* classified by time intervals

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>Group</th>
<th>Intervention periods</th>
<th>Mean</th>
<th>F-Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information awareness</td>
<td>Experiment</td>
<td>Pre-Intervention</td>
<td>3.47</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post-Intervention</td>
<td>4.13</td>
<td></td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Followed-Up</td>
<td>4.16</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>Pre-Intervention</td>
<td>3.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post-Intervention</td>
<td>3.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Followed-Up</td>
<td>3.56</td>
<td></td>
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</tr>
</tbody>
</table>
**Table 8: Means comparing the results in paired-wise on level of allergic reactions classified by the time interval**

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>Group</th>
<th>Intervention periods</th>
<th>Mean</th>
<th>F-Value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Allergies</td>
<td>Pre-Intervention</td>
<td>Experiment</td>
<td>2.31</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Post-Intervention</td>
<td>Experiment</td>
<td>2.86</td>
<td></td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>Followed-Up</td>
<td>Experiment</td>
<td>2.81</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Pre-Intervention</td>
<td>Control</td>
<td>2.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post-Intervention</td>
<td>Control</td>
<td>2.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Followed-Up</td>
<td>Control</td>
<td>2.26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Recommendations

1. Recommendations from the Results

Should present the approach program and activities to help students with dementia allergies through school setting.

The activities in program can be applied to patients with allergic rhinitis in order to reduce the symptoms of dementia allergies.

Auxiliary empowerment is positive, and increase their motivation to pupils.

The participating in activities to every student

Those activities should be sociable and have a invitational relationship.

At the promotion events should be appropriately flexible

the consulting duty to advise students on a regular basis should be continuously available
Suggestions.

Suggestion for future research

Long term studies should be continuously observe the persistence of the promoting healthy behaviors and ongoing outcomes

The effectiveness of the concepts could be improves and extended to other kinds of health promoting settings

A comparative study should be conducted with larger sample sizes or different settings.

A paralleled study should be developed to reduce other health problems in school such as aggression or depression.


Lucas, S. R. et al. (2005), Physical activity and exercise in asthma: Relevance to etiology and treatment. *Journal of Allergy and Clinical Immunology, 115*(5), 928-934


Singh, V. et al. (1990), Effect of yoga breathing exercises (pranayama) on airway reactivity in subjects with asthma. *Lancet, 335*(8702), 1381-1383
End of Presentation.

Thank you !!