The Effect of the One-to-one Interaction Process with Group Supportive Psychotherapy on Levels of Hope, Anxiety, and Self-care Practice for Patients that had Experienced Organ Loss: An Alternative Nursing Care Model

Manyat Ruchiwit, PhD, RN
Mental-Health and Psychiatric Nursing Department
Faculty of Nursing
Thammasat University
Introduction

- Patients who lose an organ are disabled and in a crisis as they have had impairments.

- Such impairments are physical, sensory, cognitive, and psychosocial disabilities.
Introduction

- In this study, disabilities are not congenital and are the result of illnesses or accidents due to anatomical and/or physiological malfunctions.

- Reactions to losses depend on patient’s perception of loss, age, and severity of loss.
Introduction

- Faced with losses but maintain hope
  - adapt to losses until pass crisis
- Lack hope
  - see no prospect of improvement
  - are unable to see means of resolving their difficulties, exhibit anxiety, anger, indecisiveness, and lack of confidence leading to hopelessness.
Introduction: Hope

- Hope is future oriented, related to depending on others, having some choices, wishing to obtain, trusting the others, and having perseverance and courage.

- With trust, aspiration, perseverance and courage, hope can be maintained and used to reduce anxiety.
Introduction: Anxiety

- Various degrees of anxiety occur in each person and instances of anxiety depend on the circumstances of the anxious experience.

- Continual experiences of extreme anxiety may cause persons to decreasing the awareness of one’s health and the ability to provide self-care.
If patients experience hopelessness, anxiety or worthlessness, cooperation in their self-care will decline.

Patients will accept help from nurses depending on levels of trust, and acceptance of each other based on their strengths of the relationships with other people or from a group.
Given the clear consensus in the literature that both one-to-one interaction process (OIP) and group supportive psychotherapy (GSP) are important tools in encouraging those patients, this research applies both methods to determine the effects that those interventions may have on levels of hope, anxiety, and self-care practice for patients.
Purpose:

➢ To compare the mean scores of the differences in the levels of hope, anxiety, and self-care practice of patients between the experimental group after receiving the experimental treatments and the control group receiving normal nursing therapeutics in the hospital units during six weeks of the experiment.
Conceptual framework

- **Matching Variables for the Control and Experimental Groups Paired by:**
  1) Gender
  2) Interval of age
  3) Type of organ loss
  4) Time length of organ loss or adaptation period

- **Assessment of the levels of Hope, Anxiety, and Self-care Practice** of patients in the control and experimental groups before the intervention programs

- **Intervention Programs**
  Integration of the one-to-one interaction process (OIP) and the group supportive psychotherapy (GSP) in three phases:
  - **Phase 1:** Orientation phase in week 1 and 2 utilized OIP to develop trusting relationship between the nurse and the patient
  - **Phase 2:** Working phase in week 3 and 4 utilized OIP to allow patients to express their feelings together with starting GSP in week 4 to encourage patients to establish relationship with others as a group member
  - **Phase 3:** Termination phase for OIP in week 5 and 6, but for GSP in week 5, the purposes were to allow patients to better understand their own problems and corrective actions and to conclude the lessons learned in week 6

- **Assessment of the levels of Hope, Anxiety, and Self-care Practice** of patients in the control and experimental groups after the intervention programs

  - **Level of Hope**
    By hope assessment in 6 aspects according to the theoretical approaches of hope by Rawlins

  - **Level of Anxiety**
    By two methods:
    1) Anxiety assessment based on Zung and Spielberger
    2) Electromyogram (EMG) biofeedback instrument

  - **Level of self-care practice**
    By self-care practice assessment developed by the researcher according to Orem’s self-care theory

**Figure 1** Framework of the effect of the one-to-one interaction process with group supportive psychotherapy on levels of hope, anxiety, and self-care practice for patients that had experienced organ loss
Indicators of the levels of hope, anxiety, and self-care practice of patients were different between the experimental group after the treatments and the control group receiving normal nursing therapeutics in the hospital units during six weeks of the experiment.
Methods
A quasi-experimental research

Sample

- Eighty patients from the University hospital were selected by matched pairs, according to:
  - Gender
  - Interval of age: from 20 to 40 years, and from higher than 40 years to 60 years
Sample

- Type of organ loss: *orthopedic type* consisted of patients who had finger(s), arm(s) and/or leg(s) losses, *reproductive type* includes losses such as breast, and *visual type* was eye loss.

- Time length of organ loss or adaptation period of patients toward the loss: “less than 6 months” and “greater than 6 months to 1 year.”
Exclusion criteria

1. Patients diagnosed with psychiatric symptoms.
2. Patients experienced organ loss with complications that were not able to participate in activities.
3. Patients who did not consent to participate in this project.
Questionnaires

1. Level of hope assessment according to Rawlins

2. Level of anxiety assessment by two methods:
   1) EMG biofeedback instrument
   2) Modified assessment comprised of 20 closed-ended questions by Zung and Spielberger

3. Level of self-care assessment according to Orem’s self-care theory
1. The one-to-one interaction process
The Experimental Treatment

2. The group supportive psychotherapy
Validity and Reliability

- Content validity and an item analysis were conducted.
- Reliability values were at .977, .837, and .700 respectively (hope, anxiety, self-care assessments).
- Data were collected after the approval of HSRB of the University.
1. Descriptive analyses for socio-demographic data after the comparison of socio-demographic factors was conducted by match pairs, and the Chi-square test at the significance level of .05, it was found that both groups were similar.
Results

2. Comparative analyses
For the mean scores of the differences in the levels of hope, anxiety, and self-care practice of the patients between the experimental group after receiving the treatments and the control group receiving normal nursing therapeutics in the hospital units, the findings are as shown in table 1 and table 2.
Table 1  The mean scores of the differences, means and standard deviations of the levels of hope, anxiety, and self-care practice of the patients in the experimental group

<table>
<thead>
<tr>
<th>Experimental group</th>
<th>$\bar{X}$</th>
<th>S.D</th>
<th>$\bar{D}_1$</th>
<th>S.D$_{\bar{D}_1}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of hope</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>before ($O_{1E}$)</td>
<td>38.53</td>
<td>8.668</td>
<td>47.15</td>
<td>13.096</td>
</tr>
<tr>
<td>after ($O_{2E}$)</td>
<td>85.68</td>
<td>8.097</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>before ($O_{1E}$)</td>
<td>58.05</td>
<td>7.168</td>
<td>12.03</td>
<td>15.630</td>
</tr>
<tr>
<td>after ($O_{2E}$)</td>
<td>46.03</td>
<td>11.331</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of self-care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>before ($O_{1E}$)</td>
<td>30.75</td>
<td>3.492</td>
<td>23.75</td>
<td>4.722</td>
</tr>
<tr>
<td>after ($O_{2E}$)</td>
<td>54.50</td>
<td>2.512</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$\bar{X}$ = Mean scores of the levels of hope, anxiety, and self-care practice of patients before ($O_{1E}$) and after ($O_{2E}$) receiving the experimental treatments

S.D = Standard deviations of the levels of hope, anxiety, and self-care practice of patients before ($O_{1E}$) and after ($O_{2E}$) receiving the experimental treatments

$\bar{D}_1$ = Mean scores of the differences in the experimental group ($O_{2E} - O_{1E}$)

S.D$_{\bar{D}_1}$ = Standard deviations of the differences mean scores for $\bar{D}_1$
Table 2  The mean scores of the differences, means and standard deviations of the levels of hope, anxiety, and self-care practice of the patients in the control group

<table>
<thead>
<tr>
<th>Control group</th>
<th>$\bar{X}$</th>
<th>S.D</th>
<th>$\bar{D}_2$</th>
<th>S.D$_{\bar{D}_2}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of hope</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>before ($O_{1C}$)</td>
<td>38.65</td>
<td>10.157</td>
<td>1.20</td>
<td>11.168</td>
</tr>
<tr>
<td>after ($O_{2C}$)</td>
<td>39.85</td>
<td>8.923</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>before ($O_{1C}$)</td>
<td>59.30</td>
<td>6.358</td>
<td>0.53</td>
<td>6.857</td>
</tr>
<tr>
<td>after ($O_{2C}$)</td>
<td>59.83</td>
<td>6.429</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of self-care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>before ($O_{1C}$)</td>
<td>30.40</td>
<td>4.075</td>
<td>1.40</td>
<td>4.749</td>
</tr>
<tr>
<td>after ($O_{2C}$)</td>
<td>31.80</td>
<td>3.764</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$\bar{X}$ = Mean scores of the levels of hope, anxiety, and self-care practice of patients before ($O_{1C}$) the experimental treatments with the experimental group and after ($O_{2C}$) leaving six weeks with the conventional treatments

S.D = Standard deviations of the levels of hope, anxiety, and self-care practice of patients before ($O_{1C}$) the experimental treatments with the experimental group and after ($O_{2C}$) leaving six weeks with the conventional treatments

$\bar{D}_2$ = Mean scores of the differences in the control group ($O_{2C}$-$O_{1C}$)

S.D$_{\bar{D}_2}$ = Standard deviations of the differences mean scores for $\bar{D}_2$
2. Comparative analyses

When comparing the mean scores of the differences in the levels of hope, anxiety, and self-care practice of patients of both groups, it was found that there were statistically significant differences at the p<.001 level.
Results

2. Comparative analyses

Patients that received the experimental treatments in the experimental group *had higher levels of hope and self-care practice, with lower levels of anxiety*, than the patients in the control group, who received normal nursing therapeutics such as health education and guidance in the hospital units during six weeks of the experiment with the experimental group as shown in table 3.
Table 3  Comparison of the mean scores of the differences in the levels of hope, anxiety, and self-care practice of patients between the experimental group and the control group

<table>
<thead>
<tr>
<th>Studied variables</th>
<th>Experimental group</th>
<th></th>
<th>Control group</th>
<th></th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \overline{D_1} )</td>
<td>S.D. ( D_1 )</td>
<td>( \overline{D_2} )</td>
<td>S.D. ( D_2 )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of hope</td>
<td>47.15</td>
<td>13.096</td>
<td>1.20</td>
<td>11.168</td>
<td>78</td>
<td>17.767***</td>
</tr>
<tr>
<td>Level of anxiety</td>
<td>12.03</td>
<td>15.630</td>
<td>0.53</td>
<td>6.857</td>
<td>78</td>
<td>4.261***</td>
</tr>
<tr>
<td>Level of self-care practice</td>
<td>23.75</td>
<td>4.722</td>
<td>1.40</td>
<td>4.749</td>
<td>78</td>
<td>23.752***</td>
</tr>
</tbody>
</table>

***p < .001

\( \overline{D_1} \) = Mean scores of the differences in the experimental group (\( O_{x} - O_{ie} \))

S.D. \( \overline{D_1} \) = Standard deviations of the differences mean scores for \( \overline{D_1} \)

\( \overline{D_2} \) = Mean scores of the differences in the control group (\( O_{x} - O_{ic} \))

S.D. \( \overline{D_2} \) = Standard deviations of the differences mean scores for \( \overline{D_2} \)

t = Comparison of the mean scores of the differences in the levels of hope, anxiety, and self-care practice of patients between \( D_1 \) and \( D_2 \)
Results

2. Comparative analyses
It was also found that the mean score of EMG of the patients in the experimental group before the treatments was at 4.872 with S.D. at 2.817, and after the treatments, the mean score of EMG decreased to 3.752 with S.D. at 1.689.
Discussion

- It can be explained that increased levels of hope occurred from successful experiences in problem-solving due to the building of trust both individual and group during the intervention.

- Hope is a stimulator to maintain life further, and nurses can encourage patients to have power to face their illnesses by building relationships with techniques based on trust both individual and group.
When interactions are maintained over time, relationships become meaningful and patient feels positive from the relationships as well as a sense of hope that this is a person who can be counted on in times of distress.


Discussion

- The programs assisted patients:
  - to better understand their own problems and corrective actions,
  - to be accepted by others among group members,
  - to support each other by exchanging their feelings, thoughts, opinions and experiences through confrontation and self-exploration in the group,
  - to help them reduce anxiety, improve self-care practice, have value and self-confidence, and promote new hope.
Conclusion

- A satisfactory type of care for patients
- This research contributes the development of an alternative nursing care model for patients experienced organ loss.
Recommendations

- The programs can be modified for other patients who have other health conditions or risk factors.
- Further research for other patient groups such as chronic illness, HIV infections, and terminal illness is recommended.
THANK YOU