Misconceptions of Group Counseling Trainees in Knowledge Structures about Group Situations

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Abstract

Objective: This study investigated how novice group counseling trainees’ knowledge structure about group situations differed from experts’.

Method: Three experienced experts and 28 trainees indicated which of 19 leader interventions what they would consider using to address the 21 group situations described in the Group Therapy Questionnaire (GTQ, Wile, Brown, & Pollack, 1970).

Results: (a) Using Pathfinder Network Analysis (PNA, Schvaneveldt, 1990), we found no common error of commission (links (relationships between two situations) in trainees’ knowledge structures but not in experts’ knowledge structures) but 17 common errors of omission (links in experts’ knowledge structures but not in trainees’ knowledge structures);

(b) Cluster analysis identified two subgroups of trainees, with the second subgroup (N=5) making significantly more commission errors than the first subgroup (N=23);

(c) Experts approached the different group situations from the perspective of the group process (whether the group needs support or insight), trainees in the first subgroup responded from the perspective of the group leader (what the leader needs to do), and trainees in the second subgroup displayed an undifferentiated pattern.
Introduction

Research in cognitive psychology suggested that experts and novices differ in their structure of knowledge (Gagne, Yekovich, & Yekovich, 1993), and experts have a more effective organization of knowledge in a domain (Glaser & Chi, 1988).

The process of training can be conceptualized, at least in part, as a process of gaining more efficient knowledge structure (Kivlighan & Tibbits, 2012).

In group counseling research, scholars have investigated experts and novices’ knowledge structure about group members (Kivlighan & Quigley, 1991; Kivlighan et al., 2007), and group leader interventions (Kivlighan & Kivlighan, 2009, 2010).

However, there is a “missing piece”: besides an understanding of group members and group leader intervention, to be effective in clinical work it is also important for group counselors to have a sophisticated understanding about group situations (Donigian & Hulse-Killacky, 1999).

Building on Kivlighan and Tibbits (2012), this study used Pathfinder Network Analysis (PNA, Schvaneveldt, 1990) to investigate the individual knowledge maps of novice group counseling trainees and average knowledge map of expert group counselors about group situations, and identify the misconception of commission and omission of novice trainees.
Method

Participants

Participants were (a) three experienced male psychologists specializing in group therapy (the expert group) and (b) 19 counseling graduate students (5 men and 14 women; mean age = 23.7, SD = 1.2) in a university in Northeastern America (the novice trainee group).

Measures

The revised Group Therapy Questionnaire (GTQ). The GTQ (Wile, et al., 1970; revised by Wile, 1972) is composed of 21 descriptions of realistic situations that typically occur in counseling groups. Participants are required to read each description and indicate from a list of 19 potential responses one or several responses or interventions that they would consider doing in this situation.

In Wile et al. (1970), Kivlighan and Kivlighan (2009), and Kivlighan and Tibbits (2012), evidence was found to support the validity of using GTQ in studying knowledge structure about group situations and corresponding leader interventions.

Data Analysis

✧ First we generated the co-occurrence matrix of the 21 group situations for each respondent: if respondent considered doing intervention k under group situation j, the corresponding cell of \((k, j)\) was coded as 1, otherwise 0.

✧ Then we generated dissimilarity matrix \((d_{ij})_{21 \times 21}\) for group situations based on the co-occurrence matrix with \(d_{ij}\) indicating the Euclidean distance between
situation $i$ and $j$.

- All the dissimilarity matrices were submitted to the PNA program. An individual network map for each trainee was generated, and an average network map for the three experts (Figure 1) was produced.

- Each novice trainee’s knowledge map was compared to the referent expert map to identify individual errors of commission (a link in the trainee’s map that was not in the experts’ map) and omission (a link in the experts’ map that was not in the trainee’s map).

- We followed Kivlighan and Tibbits (2012) to explore the general common errors of commission and omission: if a link is absent in the expert map but present in more than 75% of the novice maps, this link in the novice maps is regarded as a common error of commission; similar for assessing common error of omission.

- Given the variability in trainees’ responses, we used cluster analysis to identify potential subgroups of trainees that shared similar patterns of responses, yielding 2 subgroups.

- We compared the commission and omission errors and the respective average knowledge maps for these two subgroups using chi-square analysis and PNA.

**Results**

- The average expert knowledge map of group situations contained 21 links considered as the referent correct relationships between group situations.

- For the novice trainees’ knowledge maps, the number of links ranged from 26 to
52 (M=35.82, SD=8.26). The correlation between novice trainees’ knowledge maps and the expert average map ranged from -.01 to .35 (M=.16, SD=.10).

- Results of novice trainee’s individual/common errors of commission and omission are shown in Table 1/Table 2. The common errors of omission centered around four group situations: Monopolizer, Quiet Member, Threat to Quit, and Grumpy Group.

- Cluster analysis identified 2 subgroups of trainees with subgroup G2 (N=5) displaying significantly more commission errors than subgroup G1 (N=23). In all 210 possible links, G2 made 27 more commission errors than G1.

- The average knowledge maps of experts and the two subgroups of trainees all had two big clusters. Comparing the average endorsement rate of each intervention for each cluster of each group (experts, subgroup G1 and G2 of trainees), we found that experts tended to use more supportive and emotion-oriented interventions in the cluster-1 situations, and more dynamic-related and insight-oriented interventions in cluster-2 situations. Trainees in subgroup G1 tended to use more explorative interventions in cluster-1 situations, and more directive interventions in cluster-2 situations. However, trainees in subgroup G2 did not display any clear pattern of differential interventions of the two clusters of group situations.

**Discussion and Conclusion**

- Novice group trainees tended to view group situations as distinct and separate
incidents, and had difficulty in grasping their implicit similarities and connections.

✧ To deal with the four clusters of situations where trainees’ omission errors occurred, experts endorsed three universal non-specific interventions: remaining silence, disclosing leader’s feelings, and giving interpretations about group atmosphere. In addition, they also endorsed specific interventions for each different cluster.

✧ Cluster results about the two subgroups of trainees suggested that there might be two patterns of learning based on group counseling trainees’ initial knowledge structure: in one pattern (G1) trainees need to establish and learn a number of correct relationships between group situations (Fender & Crowley, 2007), in another pattern (G2) trainees need to both learn those correct relationships and unlearn a number of other incorrect relationships (Levin, Siegler, & Druyan, 1990).

✧ Experts differentiated the two clusters of situations in their knowledge map from the perspective of the group process (whether the group needs support or insight). G1 trainees tended to respond to the two clusters of incidents from the perspective of themselves, i.e., the group leader (whether the leader should facilitate exploration by asking questions or giving direction by providing structure). G2’s response pattern was undifferentiated.
References


Figure 1. Average expert knowledge map (tree format) of the 21 group situations.
Table 1.

Descriptive Statistics of Number of Commission Errors, Omission Errors, and Correct Links for the Overall Sample and Two Subgroups

<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>G1 (N=23)</th>
<th>G2 (N=5)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>NComm</td>
<td>31.36</td>
<td>7.67</td>
<td>28.78</td>
<td>5.62</td>
<td>43.20</td>
</tr>
<tr>
<td>NOmis</td>
<td>17.14</td>
<td>2.19</td>
<td>17.13</td>
<td>2.28</td>
<td>17.20</td>
</tr>
<tr>
<td>NCorIdtf</td>
<td>3.89</td>
<td>2.10</td>
<td>3.91</td>
<td>2.17</td>
<td>3.80</td>
</tr>
<tr>
<td>NCorDism</td>
<td>157.61</td>
<td>7.67</td>
<td>160.17</td>
<td>5.64</td>
<td>145.80</td>
</tr>
</tbody>
</table>

Note. G1 = Subgroup 1, G2 = Subgroup 2. NComm = Number of commission errors; NOmis = Number of omission errors; NCorIdtf = Number of correctly identified links; NCorDism = Number of correctly dismissed links. U is the non-parametric Mann-Whitney test statistics. **p < .01.

Table 2.

Seventeen Errors of Omission by Group Counseling Trainees

<table>
<thead>
<tr>
<th>Omitted Links between Situations</th>
<th>% of Trainees Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.Starting Group &amp; 9.M monopolizer</td>
<td>89.30%</td>
</tr>
<tr>
<td>2.Personal Questions &amp; 3.Chairman</td>
<td>89.30%</td>
</tr>
<tr>
<td>3.Chairman &amp; 9.M monopolizer</td>
<td>89.30%</td>
</tr>
<tr>
<td>3.Chairman &amp; 20.Fight</td>
<td>89.30%</td>
</tr>
<tr>
<td>5.Attack Leader &amp; 8.Late Arrival</td>
<td>89.30%</td>
</tr>
<tr>
<td>5.Attack Leader &amp; 12.Marital Problem</td>
<td>78.60%</td>
</tr>
<tr>
<td>6.Group Silence &amp; 15.Grumpy Group</td>
<td>85.70%</td>
</tr>
<tr>
<td>7.Distressed Woman &amp; 19.Side Conversation</td>
<td>89.30%</td>
</tr>
<tr>
<td>9.M monopolizer &amp; 15.Grumpy Group</td>
<td>82.10%</td>
</tr>
<tr>
<td>10.Quiet Member &amp; 11.Threat to Quit</td>
<td>89.30%</td>
</tr>
<tr>
<td>10.Quiet Member &amp; 12.Marital Problem</td>
<td>78.60%</td>
</tr>
<tr>
<td>10.Quiet Member &amp; 16.Polite Group</td>
<td>85.70%</td>
</tr>
<tr>
<td>10.Quiet Member &amp; 17.Group Attack</td>
<td>82.10%</td>
</tr>
<tr>
<td>11.Threat to Quit &amp; 13.Return Absent Member</td>
<td>85.70%</td>
</tr>
<tr>
<td>11.Threat to Quit &amp; 21.Sexualized Meeting</td>
<td>82.10%</td>
</tr>
<tr>
<td>15.Grumpy Group &amp; 19.Side Conversation</td>
<td>82.10%</td>
</tr>
<tr>
<td>18.Member Drunk &amp; 20.Fight</td>
<td>82.10%</td>
</tr>
</tbody>
</table>