Guided peer support groups for psychosis
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Predictors of successful participation in peer support groups for psychosis

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Submitted
Abstract

**Objective** To find the predictors of successful participation in peer support groups for psychosis by studying the influence of active ingredients and attainment of goals.

**Method** The subjects (n=56) participated in a controlled trial on the effectiveness of peer support groups. Patients were interviewed after the last group meeting at 8 months about attainment of goals like ‘more knowledge about the problems and treatment of others’ and on the active ingredients of the intervention in terms of ‘recognition and self-expression’ and ‘social support’. Additionally, the predictive value of group adherence, and group atmosphere as well as clinical characteristics of the subjects was investigated.

**Results** The intervention was most successful in improving the information on and insight into each other problems. Statistically significant correlations were found between goal attainment and both active ingredients, group adherence, and group atmosphere. Clinical characteristics such as duration of illness and number of psychotic episodes, were not associated to goal attainment. Successful participation in peer support groups for psychosis was predicted only by ‘recognition and self-expression’ explaining 63 percent of the variation.

**Conclusion** ‘Recognition and self-expression’ predict successful participation in peer support groups for psychosis.
Predictors of successful participation

Introduction

What makes a peer support group successful from the perspective of the participants? In other words, what do people in these groups experience as active ingredients necessary to make it a useful intervention? Studying the effectiveness of minimal guided peer support groups (GPSGs) for psychosis (Castelein et al., 2008a), the question rose as why some people gain by participating in such groups whilst others are less satisfied and do not find what they came for.

Sociological as well as psychological theories have been put forward to explain the underlying social processes in peer support such as the experiential knowledge, helper-therapy principle, social comparison, social learning, and social support theory (Salzer & Shear, 2002; Solomon, 2004). An important factor in peer support is the use of so called ‘referent power’: in a non hierarchical way support and knowledge are exchanged (Salem et al., 1998; Salem et al., 2000). While being among equals in status, people influence each other based on a sense of identification. In contrast, expert power is based on knowledge and expertise of a professional (French & Raven, 1959; Salem et al., 2000). By definition, referent power is not replicable in a professional-client orientated relationship.

From other studies on group interventions, context specific factors also have shown a critical influence on successful participation. The importance of a pleasant atmosphere and (clinical) stability of the participants was demonstrated in a study on psycho-education groups in schizophrenia (Sibitz et al., 2007). From studies on groups for depressed people, sufferers from asthma or alcohol addiction, it has become apparent that the predictive value of more specific therapeutic factors, such as interpersonal input and cohesiveness may vary with patient populations (Roman, 1997; Yalom, 2005).

In this study, the focus will be on what makes peer support successful in the eyes of the participants of minimal guided groups for people with psychosis. We will address what participants describe as important
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ingredients and what they experienced as having gained by their participation. This study is part of a larger study on the effectiveness of the minimal guided peer groups in psychosis (Castelein et al., 2008a). As some analyses showed that intervention adherence i.e. group adherence is a major predictor of effect, its influence will also be investigated, as well as some clinical characteristics of the participants like duration of illness and number of psychotic episodes.

**Methods**

*Design and subjects*

The participants of 5 peer support groups (n=56) were assessed at baseline and follow up at 8 months. All subjects participated in a controlled study on the effectiveness of peer support groups for psychotic disorders. Patients were included if they had a clinical diagnosis of schizophrenia or a related psychotic disorder according to DSM-IV criteria and were 18 years of age or older. One of the exclusion criteria was severe psychotic symptoms which would hamper the communication with peers (for more details see: Castelein et al. (2008a).

*The intervention*

Peer support interventions are in essence quite diverse in their design and execution, and greater accuracy in their description and naming is needed to advance the science in this field. The GPSG intervention is best characterised as a ‘minimally guided peer support group’. ‘Minimal guidance’ refers in this case to two aspects of the intervention: it follows a prescribed format, and the groups are ‘professionally guided’ by a nurse. The details of the guided peer support group (GPSG-) intervention (Castelein et al., 2008b) are shown in figure 1.

*Measurement*

In a Dutch study on peer support in psychiatry, Janssen & Geelen investigated motives to participate in peer support with an 20-item questionnaire (Janssen & Geelen, 1996). In our study, these items were modified into questions referring to what participants experienced as having gained by participating in a peer support group like ‘More knowledge about the problems and treatment of others’ and ‘More self-
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esteem’ (see Table 1). Two of the 20 items were considered inadequate as they referred to changes in the relationship with the partner and professional carer and these effects were not aimed for these groups.

Figure 1 Detailed description of GPSG-intervention

| Aim | The aim is to share experiences with each other about how to cope with daily life after a psychotic episode. |
| Patient group | People with schizophrenia and related psychotic disorders (in- and outpatients) |
| Method of support | Closed group |
| Introductory session | Before entering the group, each participant has an introductory session with the professional. Aim: check participants’ motives and match with the patient group |
| Number of sessions | 16 |
| Frequency | Once in 2 weeks |
| Duration of one session | 90 minutes (including break) |
| Design of the session | Pairs exchange positive experiences from the previous two weeks (ten minutes). Next, all pairs share with the group the stories they just heard (ten minutes). Then the nurse initiates the general discussion by asking, “What have you just heard that could be of interest for the whole group?” Next, the participants choose the theme of the session (five minutes), briefly introduced by the nurse (two minutes). After a 15-minute break, they share their experiences about the theme in pairs (15 minutes); participants reconvene for the final plenary session (25 minutes). At the end, the nurse briefly summarizes the session (eight minutes). |
| Time | 4h30-6h00 PM |
| Themes | Participants themselves per session choose themes. The themes should relate to the illness, for example: living with psychosis, telling others about your illness, or resuming your job. |
| Setting of intervention | Mental Healthcare Organizations |
| Number of participants | Approximately 10 |
| Recruitment | Participants needed to enrol themselves |
| Composition | Heterogeneous (gender, age, duration of illness) |
| Peer or professional led | Professional: nurse |
| Role professional | Minimal guidance: not actively interfering in the group process. The focus is peer-to-peer interaction (Doull et al., 2005). |
| Training professional needed | Yes |
| Manual available for nurse | Yes (Castelein et al., 2008b) |

Positive and negative changes are rated on a 5-point scale ranging from 1 ‘strongly decreased or worsened to 5 ‘strongly increased or improved’.
Their assessment was done at the end of the study (8 months). A sum score (range, 18-90) was calculated with higher scores indicating more goal attainment at the end. The internal consistency of the original questionnaire was good with a Cronbach Alpha of 0.89 for the whole questionnaire in our study.

The active ingredients (AI) - i.e. working mechanisms - were worded in such way that participants were asked to evaluate the extent to which they believe that the active ingredients accounted for the effectiveness of the group. This seems to be a good way to assess what people think is helpful about the group. This assessment was done by a 14-item questionnaire (Kerseboom et al., 2000), which has two dimensions: (AI 1) ‘recognition and self-expression’ (range, 7-35) and (AI 2) ‘social support’ (range, 7-35). The ‘recognition and self-expression’ scale includes items that reflect both telling one’s own story and hearing the experiences of others (e.g. ‘I recognized myself in others’, ‘I got time and the opportunity to tell my story’, ‘I saw that I was not the only one with this problem’ and ‘Other peers understood me very well.’). The ‘social support’ scale includes items like ‘I got social support from the other participants’ and ‘I got out of my social isolation’. All items start with the same part of the sentence: ‘The effect that the peer support group had on me, is achieved by the fact that…’. Items were scored on a 5-point Likert scale (1=completely disagree and 5=completely agree). The Cronbach alpha of the original questionnaire was good on both subscales (0.86 on AI 1 and 0.81 on AI 2).

In the literature, group atmosphere and clinical stability have been found to be predictors of success in group interventions. One question - ‘Did you feel at ease during the sessions?’ - assessed the group atmosphere was added (feeling at ease: 1=never and 4=always). Psychopathology was assessed by the Community Assessment of Psychic Experiences (CAPE, Konings et al., 2006; Stefanis et al., 2002) with the last 2 weeks as the reference period. The CAPE contains 42 items and measures positive, negative and depressive symptoms. It provides a total score of the ‘frequency’ and ‘distress’ dimension of these symptoms (both ranging
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from 42 to 168). Higher scores on the CAPE indicate more (distress of) symptoms.

Finally, gender, age, duration of illness, number of psychotic episode lifetime, and group adherence were recorded. The guiding nurse of each peer support group collected data on group adherence by noting the presence of each participant after each session.

All questionnaires were self-reporting and filled out by the participants during a separate group session where assistance from an independent professional (nurse) was available.

Data analysis
Linear regression (enter method) was used to determine the predictors of total goal attainment. Descriptive analyses examined the active ingredients and goal attainment. The Mann-Whitney U test analysed between group differences between low and high attenders. The significance levels were set at 0.05 and all tests were two-tailed. SPSS (version 14) was used for all analyses.

Results
Sample characteristics
The 56 subjects had a mean age of 37.8 (SD 10.5), 68% was male, 64% lived alone and 73% had no partner. Of the participants, 77% had a DSM IV-diagnosis of schizophrenia and 23% had a related psychotic disorder. The number of self-reported psychotic episodes lifetime was: one (18%), two (34%) and three or more (48%). Mean duration of illness was 9.5 years (SD 8.6). High and low attenders were distinguished as follows. Thirty-one participants took part in nine or more of the total offered 16 sessions and were defined as 'high attenders', while the remaining 25 with less sessions were defined as 'low attenders'.

Generally, participants reported a pleasant atmosphere during the sessions: 27% felt always at ease, 60% felt mostly at ease and only 13% felt mostly uncomfortable. The finding that 92% would recommend the
intervention to other peers supports this. All participants were also clinically stable (data not shown, see: Castelein et al., 2008a).

Predictors of goal attainment
Participants attained a number of goals simultaneously. Table 1 presents the ten goals with the highest attainment rates. The mean total goal attainment score was 65 out of 90 (range 52-83) indicating that participants in general felt improved on all goals.

Table 1. Attained goals reported by participants of peer support groups for psychosis on T8 on percentages (N=56)

<table>
<thead>
<tr>
<th>(Strongly) increased or improved</th>
<th>Knowledge about the problems and treatment of others</th>
<th>82</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Information on how others cope with their problems</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>Recognition</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Personal storytelling</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Cosiness</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>Acknowledgement</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Solidarity</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Learning about myself</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>Helping others</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>Self-esteem</td>
<td>48</td>
</tr>
</tbody>
</table>

We examined the correlations between total goal attainment and (potentially) predictors: group atmosphere, the two active ingredients (AI 1=recognition and self-expression; AI 2=social support), group adherence, psychopathology, duration of illness and, lifetime number of psychotic episodes. Statistically significant correlations were found with group atmosphere ($r=.422, p=.003$), recognition and self-expression ($r=-.754, p=.0000$), social support ($r=-.546, p=.000$), and adherence ($r=.379, p=.008$).

Next, a multivariate regression analysis of these four variables showed that ‘recognition and self-expression’ appeared to be the only predictor of goal attainment ($p<.001$) (see Table 2). This ingredient did account for 63% of the variation in the total effect score. Notably, of all items of active ingredients the recognition that they were not the only ones with these problems was perceived as most helpful (81%).
Further, there was a significant difference between high and low attenders on the perceived attainment of goals overall (p=0.02). The high attenders attained more goals (mean score: 66.6) compared to the low attenders (mean score: 61.7). This led to the examination of attendance rate on attainment of individual goals on the item level. High attenders were more successful in gaining insight (p=0.003), increasing knowledge on the coping style of others (p=0.038), obtaining information on the problems of others (p=0.006), improving self-esteem (p=0.017), and improving their coping style (p=0.020).

Table 2. Regression analysis: Predictors of goal attainment in peer support groups for psychosis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficient</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE B</td>
</tr>
<tr>
<td>Constant</td>
<td>95.32</td>
<td>4.86</td>
</tr>
<tr>
<td>AI 1 Recognition and self-expression</td>
<td>1.38</td>
<td>.28</td>
</tr>
<tr>
<td>AI 2 Social support</td>
<td>.41</td>
<td>.24</td>
</tr>
<tr>
<td>Group adherence</td>
<td>1.75</td>
<td>1.54</td>
</tr>
<tr>
<td>Group atmosphere</td>
<td>.90</td>
<td>1.25</td>
</tr>
</tbody>
</table>

Note R^2= .63. * p< .001. AI=active ingredient

The differences between high and low attenders with regard to the active ingredients demonstrated a strong tendency towards 'recognition and self-expression' (p=0.059). On the item-level, more people in the high attenders group did 'recognize themselves in other peers' (p=0.001), ‘did know their position by hearing the story of others’ (p=0.012), ‘did not feel left alone with their problems’ (p=0.035) and ‘received more social support from the other participants’ (p=0.043) compared to low attenders.

**Discussion**

The participants reported that the GPSG-intervention was very successful in improving the information on and insight in how others handle their problems. High goal attainment rates were found on several aspects simultaneously. Although social support, group adherence, and group atmosphere were associated with the number of attained goals, they did not predict the overall total goal attainment. However, high attenders benefited much more from the intervention with regard to the number of
perceived goals. The most important predictor was the dimension of ‘Recognition and self-expression’ enabling participants to share experiences and to learn from other peers. This refers directly to the concept of referent power. Our conclusion is that referent power is indeed at work in peer support groups for psychosis.

Yalom (2005) has defined curative factors of group psychotherapy such as instillation of hope, universality, imparting of information, altruism, imitative behaviour, and interpersonal learning. Participants in our study recognized that they were not alone in their unique problems. Using the classification of Yalom, universality - i.e. the feeling of having problems similar to others, not alone - should be seen as the most important curative factor in peer support groups for psychosis.

In line with sociological and psychological theories, the dimension ‘Recognition and self-expression’ i.e. opportunity to express yourself towards equals is most associated with experiential knowledge and social learning. From these theories, we know that people learn more from peers that have experiential knowledge than from others who miss these experiences. Also notions from other theories are reflected in the data.

In contrast to the literature, goal attainment was not predicted by group atmosphere in our study. This could be due to the single item question, and to the lack of its variability: about 88% of the participants felt mostly or always at ease during the sessions. The other factor for successful participation in a group intervention, viz. clinical stability, was examined in our study, but not unexpectedly, this factor did not predict goal attainment as only stable in- and outpatients were included in the GPSG-intervention.

According to many professionals, people with a severe mental disorder, such as a psychotic disorder, have no need for such peer support (Davidson et al., 1999) and are unable to offer each other useful support (Davidson et al., 2006). Also, group treatment is seen as a not viable option for this patient group (Mead & Copeland, 2000). Yet, our study clearly demonstrates that the GPSG-intervention enables people with
psychosis to benefit from referent power when exerted in a pleasant
group atmosphere. This study gives some support to a more optimistic
point of view about the value and effectiveness of peer support groups for
psychosis.

This is the first study to our knowledge that uses regression analysis
instead of descriptive analysis to gain more understanding of the processes
that are involved in goal attainment in peer support groups for psychosis.
Earlier studies evaluated the effectiveness without exploring the patients’
opinion on what was helpful in peer support.

A methodological weakness of this study is that there is some overlap in
the items assessing active ingredients and goal attainment e.g. both scales
have a recognition item. Our study should be seen as a first step towards
the exploration of predictors of successful participation. More research is
needed on measures.

Another weak point may be the lack of generalizability. The results may
not be generalized to in-patient or substance-misusing patients as our
participants were all clinically stable, non-substance-misusing out-
patients.

Finally, all chosen instruments are self-reporting. Some might say that
this is a good way to assess what people think is helpful about the group
intervention, but an unusual way to assess the relationship between
process and outcome. Our approach assumes that participants can
accurately assess the extent to which different aspects of the experience
help them to make changes. The rating of active ingredients by an
independent researcher during each session would be worthwhile in
order to see whether this would yield to other results.

In conclusion, peer support groups for psychosis that help patients to
attain their goals are effective because of the use of referent power in the
form of facilitating people to express their thoughts, feelings, concerns
and to learn from each other how to cope with set backs and how to solve
problems. The recommended structure for this is contact in pairs and in
the group with registration of the activities to provide a comfortable
atmosphere that facilitates self-expression.
Acknowledgements

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Chapter 5


