SOCIAL NETWORKS EXPERIENCED BY PERSONS WITH MENTAL DISABILITY TREATED IN SHORT-TERM PSYCHIATRIC INPATIENT CARE

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Introduction

Psychiatric illness has been thought of as a ‘social network crisis’ both for the patient and his/her closest persons (Garrison, 1974; Lipton et al., 1981). Several studies of social networks among non-retarded psychiatric patients, especially among schizophrenic (Tolsdorf, 1976; Marsella and Snyder, 1981; Segal and Holschuh, 1991) and depression (George et al., 1989; Cornelis et al., 1989) patients can be found. The social networks of persons with mental disability have been shown to be smaller than those among the non-retarded (Rosen and Burchard, 1990). It has been suggested that the failure to acquire social and interpersonal skills due to mental retardation itself may impair relationships. This may further predispose to psychiatric disorders (Fraser and Nolan, 1994). However, our knowledge of the social networks of persons with mental disability with psychiatric disorders (e.g. dually diagnosed persons) is rather limited. It has been thought that ‘the expression of emotional disorders, in part, has its roots in the social milieu of the individual’ (Llamas et al., 1981). The following findings in previous studies of social networks are relevant also for the psychiatry of mental disability. Firstly, the ‘disruption of relationships’ is thought to be one of the disadvantages of the treatment of persons with mental disability in special units (Newman and Emerson, 1991). However, the revolving-door treatment experiences are shown to be related to a positive social network.
outcome among non-retarded schizophrenic patients (Segal and Holschuh, 1991).

Secondly, the social network may protect the individual from mental disorders (Marsella and Snyder, 1981). On the other hand, it can also be the source of stress, because the patient's difficulties in coping may be related to their relationship with their social network (Tolsdorf, 1976; Reiss and Benson, 1985). This must be taken into account especially among people with mental disability, whose coping mechanisms may be already impaired due to low intelligence (Fraser and Nolan, 1994).

In the light of the above findings one might think that the social network research can give us valuable information both for treatment and for understanding the underlying psychodynamic processes behind psychiatric disorders of patients with mental disability.

The above findings and our clinical psychiatric work among dually diagnosed inpatients, where the patient's social network was encouraged to take an active role in care, led us to construct this study.

The aim of our study was to research one of the structural variables, the size, and one of the content variables, quality, of the members (Tolsdorf, 1976) of social networks among the dually diagnosed persons admitted to inpatient care.

There were two reasons for wanting to restrict the study on the experience the person with mental disability has of his/her social networks. Firstly, self-reports of persons with mental disability have been shown to be reliable information sources (Kazdin et al., 1983). and secondly, the study was carried out as a part of the developmental process of treatment. For reasons related to care, we wanted to emphasise the autonomy of the person with mental disability (Levitas and Gilson, 1994) and his/her personal validation (Rosen and Burchard, 1990).

**Methods**

**Study Setting**

This study took place in the psychiatric unit of the Special Welfare District of Southwest Finland, a local service organisation for individuals with mental disability. This unit serves people with mental disability, whose psychiatric symptoms are impossible to evaluate and treat in outpatient care or who cannot benefit from general mental health care. The nature of the care is psychoeducation (Lewis and Lewis, 1989) with elements of need-adapted treatment (Räkköläinen et al., 1991). One of the principles of need-adapted treatment is that the patients' close persons participate actively in the treatment on the ward through therapy meetings. The treatment time in the unit is limited to the shortest possible and aftercare planning for the patient is tailored together with him/her and his/her close persons.

The study was approved by the ethics committee of Turku University Central Hospital, and every patient and when needed his/her official or unofficial guardian gave informed consent prior to participation in the study.

**Subjects**

The subjects of this study were persons with mental disability (N = 29), who were admitted during a period from February 1994 through July 1995 for short-term psychiatric inpatient care. Twenty-nine patients were selected from 40 admitted patients.

Eleven patients were excluded: six patients were in psychotic confusion, three patients could not comprehend the instructions for the study, one patient had severe visual impairment and one patient did not want to participate. The studied
sample included 20 (69%) men and 9 (31%) women. The mean age was 31 years (sd 10.45, range 17-52). The distribution of level mental disability was as follows: borderline intellectual functioning 3 (11%), mild 23 (80%), moderate 2 (7%) and severity unspecified 1 (3%). The main discharge diagnosis of patients according to ICD-10 (WHO, 1992) were schizophrenia and other psychotic disorders 8 (28%), affective disorders 7 (24%), anxiety disorders 3 (10%), adjustment disorders 9 (31%), somatoform disorder 1 (3%) and impulse-control disorder 1 (3%).

Fourteen (48%) patients came from a familial and 15 (52%) patients from a non-familial setting. The non-familial setting was a residential home for 12 patients, a home-like department of the Social Welfare District for one patient and a mental hospital for two patients. At follow-up 8 (28%) patients were in a familial and 21 (72%) in a non-familial setting. Of 21 patients 14 were in a residential home, six in a home-like department of the Special Welfare District and one patient in a short-term psychiatric unit. The mean of the total length of hospitalisation was 103 days (sd 3.73, range 5-374 days) and the mean follow-up period after discharge was 189 days (sd 18.5, range 148-232 days). Eleven patients needed crisis inpatient care (mean care period 68 days, sd 71.15, range 7-215 days) during follow-up and 7 patients’ aftercare included scheduled inpatient care (mean care period 11 days, sd 10.20, range 2-32 days).

The study was carried out on admission to the unit and at follow-up 6 months after discharge.

Evaluation procedures

The social network was researched using the network map developed by Klefbeck et al., (1988). This map is in the form of a circle divided into four segments: family, relatives, work (or school) relationships (including supervisors and workfellows), and others. In this study we divided segment “others” into two different segments: “friends” and “carers”. The patient is thought to be at the centre of the circle (focal person). The drawing/marking of the network map was done in individual sessions, where the meaning of the segments and his/her position in the circle were explained to the patient as many times as necessary for his/her comprehension. Once the patient was familiar with the research tool, the examiner (personal nurse or one of the authors) asked him/her as follows: ‘please draw or write in this circle the persons, who you feel to be important for you’. The example of a social network map of one patient X is shown in FIGURE 1.

The total number of persons on the map and the number of persons in each segment was counted. The size of networks was evaluated separately for patients according to current living place (familial and non-familial settings) and for three main psychiatric diagnostic groups (schizophrenia and other psychotic disorders, anxiety and affective disorders, adjustment disorders).

After completing the drawing/writing, the map was taken away and the patient was asked to name, in order of current importance, at most six persons in his/her life. The importance of each member was estimated by giving points from six (for the first in importance) to one (for the sixth important), and the total scores for each Klefbeck et al.’s segment were counted.
The number (none, one to two, three to five and six or more) of members in the patient's social network was also classified according to the member's position in the patient's life as follows: 1. family and relatives, 2. friends and work fellowships and 3. carers and work supervisors. Psychiatric symptoms of each patient were evaluated with the Brief Psychiatric rating Scale (BPRS, Overall and Gorham, 1962).

Statistical Analysis

Statistical analyses were mainly carried out using the SAS software package, version 6.10. The differences between means were tested using t-test or one-way analysis of variance (ANOVA). Correlations between two variables were examined using Pearson's correlation coefficient and its significance. Statistical tests were carried out at the level 0.05.

Two percentages were compared by the test for relative proportions (TRP) using the Statistica software package, version 5.0.

Results

The most significant finding was that family members belong less often among patients' most important persons at follow-up than on admission (p = 0.027, t-test). The scores describing the importance of persons on each circle segment on admission and at follow-up are shown in FIGURE 2.

The changes in the social network map were in line with the above finding. The changes in the number of persons in different network segments were not statistically significant. However, it was found that parents belonged to the social network significantly less often at follow-up.
than on admission (p = 0.032, TRP). When analysing the involvement of mother and father in the social network map separately, it was found mother belonged to the social network significantly less often at follow-up than on admission (p = 0.037, TRP); father belonged to the social network map as often at follow-up than on admission (p = 0.166, TRP). When the persons on the network map were classified according to their position in the patient’s life, the composition findings supported the above results; on admission, the patient’s social network included three or more family members or relatives in 89% of cases, but at follow-up, only in 69% of cases. The number and percentage sample of social networks' members according to the members position in the patient’s life as reported by the persons with mental disability, treated in the psychiatric unit of the Special Welfare District of Southwest Finland, are shown in TABLE I.

There was a tendency for the total network size to decrease between admission and follow-up. However, this change did not reach statistically significant level (p = 0.167, t-test). There were no significant changes for network sizes of patients living in familial and non-familial settings either on admission or at follow-up (p = 0.244, p = 0.096, respectively, t-test).
**TABLE I**
Distribution of Sizes of Three Types of Social Support Networks on Admission (A) and 6 Months After Discharge (F)

<table>
<thead>
<tr>
<th>number of individuals in the network</th>
<th>Family &amp; Relatives</th>
<th>Friends &amp; Fellow Workers</th>
<th>Supervisors &amp; Carers*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>F</td>
<td>A</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>2% (1)</td>
<td>4% (1)</td>
</tr>
<tr>
<td>1-2</td>
<td>10% (3)</td>
<td>27% (8)</td>
<td>52% (15)</td>
</tr>
<tr>
<td>3-5</td>
<td>42% (12)</td>
<td>38% (11)</td>
<td>31% (9)</td>
</tr>
<tr>
<td>6 and over</td>
<td>48% (14)</td>
<td>31% (9)</td>
<td>17% (5)</td>
</tr>
</tbody>
</table>

(percentage and number of patients)

* as reported by the patients with mental disability (n = 29) treated in the psychiatric unit of the Special Welfare District of Southwest Finland
** including carers from the Special Welfare District and the community

<table>
<thead>
<tr>
<th>Patient Category</th>
<th>Mean on Admission (sd, range)</th>
<th>Mean at Follow-up (sd, range)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL SAMPLE</td>
<td>11.8 (5.9, 4 - 24)</td>
<td>10.0 (5.2, 3 - 24)</td>
</tr>
<tr>
<td>Men</td>
<td>12.0 (5.8, 5 - 22)</td>
<td>10.2 (5.6, 3 - 24)</td>
</tr>
<tr>
<td>Women</td>
<td>11.3 (6.3, 4 - 24)</td>
<td>9.4 (4.7, 5 - 19)</td>
</tr>
<tr>
<td>TYPE OF LIVING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Familial (n = 14)</td>
<td>10.4 (6.0, 4 - 22)</td>
<td>8.0 (2.7, 4 - 12)</td>
</tr>
<tr>
<td>Non-familial (n = 15)</td>
<td>13.0 (5.6, 7 - 24)</td>
<td>10.7 (5.8, 3 - 24)</td>
</tr>
<tr>
<td>DIAGNOSTIC GROUP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schizophrenia &amp; Psychotic Disorders (n = 8)</td>
<td>11.6 (5.3, 4 - 20)</td>
<td>12.4 (5.6, 5 - 20)</td>
</tr>
<tr>
<td>Affective Disorders (n = 7)</td>
<td>7.7 (2.0, 6 - 11)</td>
<td>7.4 (3.2, 3 - 12)</td>
</tr>
<tr>
<td>Anxiety Disorders (n = 13)</td>
<td>11.0 (2.0, 9 - 13)</td>
<td>14.3 (8.4, 9 - 24)</td>
</tr>
<tr>
<td>Adjustment Disorders (n = 9)</td>
<td>14.2 (8.0, 5 - 24)</td>
<td>9.2 (4.4, 3 - 17)</td>
</tr>
<tr>
<td>Other Disorders (n = 2)</td>
<td>16.5 (0.7, 16 - 17)</td>
<td>6.0 (0.0, 6 - 6)</td>
</tr>
</tbody>
</table>

† number of individuals drawn by patients on the map developed by Klefbeck et al. (1988)
* the number of patients on admission
** the number of patients at follow-up

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The sizes of networks did not differ significantly among the main diagnostic subgroups: schizophrenia and other psychotic disorders, affective and anxiety disorders and adjustment disorders (p = 0.125, ANOVA). The sizes of networks are shown in TABLE II.

Psychiatric symptoms on the BPRS attenuated significantly during the period between admission and follow up (BPRS sum of scores 38.8, sd 12.57, range 21-80 and 26.4, sd 5.29, range 20 - 36, respectively, p<0.0001, t-test). There was no correlation between either the sum of BPRS scores and network sizes or the changes between them. We also analysed the correlation between the changes in the sum of BPRS scores and social network size both for patients whose social network increased (n = 13) and for those whose network remained the same or decreased (n = 16); no correlation was found.

Discussion

The main finding in our study was that after short-term psychiatric care there was a tendency towards a decrease in social network size (cf. Newman and Emerson, 1991). There were significantly fewer family members included in the list of important persons reported by the patient at follow-up than on admission.

There can be two explanations. Firstly, that the family reorganised their social network (Segal and Holschuh, 1991) or secondly, it was part of the process towards independence of the person with mental disability.

Sometimes the admission to the inpatient care was inevitable, because the closest persons' resources had come to an end (Patterson et al., 1995). Because of exhaustion, some kind of network collapse, as described by Lipton et al. (1981) among schizophrenic patients, might occur. The network collapse may increase feelings of rejection in persons with mental disability, as has been suggested to happen on any psychiatric evaluation contact (Szymanski, 1977). We tried to support the closest persons and diminish the patient's feeling of rejection by encouraging the closest persons to participate in therapy meetings and to visit the department. Each patient and his/her closest persons were told at the beginning of inpatient care that the treatment in the department would be as short as possible and that the department was not meant to become a home for anyone (Beels, 1981). Home visits and vacations were also included in the treatment. The mapping of the social network itself together with the patient was also thought to diminish the patient's feeling of rejection.

Delayed separating-individualisation process (Levitas and Gilson, 1994) may lead to a belated process towards independence from home, which appears as a psychiatric crisis. As a part of that process, the person with mental disability may feel ambivalence towards autonomy (Levitas and Gilson, 1994) and may protest against his/her family by leaving them out of the network. As Marrone et al. (1995) have suggested, in some cases the psychiatric staff supported this process towards independence from his/her family. Patient's psychiatric diagnosis did not have a significant impact on network sizes in our study. This may be due to the small sample sizes. However, the tendency of affective disorder and psychotic patients to have smaller social networks than adjustment disorder patients is in line with previous studies among the non-disabled. (cornelius et al., 1989; Lipton et al., 1981).

Although the sizes of networks diminished, the psychiatric symptoms attenuated significantly. The diminishing of social
networks and the attenuation of psychiatric symptoms have no correlation. This finding is in agreement with Rosen's and Burchard's result (1990), that neither the size nor composition of social networks is related to the well-being of the person with mental disability.

Cognitive deficiencies restrict verbal expression and comprehension of persons with mental disability, which must be taken into account, when choosing the research tool (Rosen and Burchard, 1990). In psychotherapy the drawing of figures was used among people with mental disability already in the sixties by Sternlicht (1966). We find Klefbeck et al.'s network map to be a very suitable research tool among outpatients. Even those who had difficulties in writing were anxious to draw, although it could take a great deal of time. Through the drawings, some persons on the social network map seem to come to life (FIGURE 1).

When interviewing persons with mental disability, 'concrete and directive' questions should be used (Menolascino and Fleischer, 1992). The term 'important' or 'significant' has been used in previous network studies (Llamas et al., 1981), because denial is a common defence mechanism among persons with mental disability (Bickenhill, 1994), it may be that some of our patients did not draw or mark the persons they disliked. Our findings are preliminary. We restricted our study to two structural variables, size and content. The sample was also too small to draw conclusions about different subgroups. However, in contrast to Newman's and Emerson's (1991) presentation, our study shows that the patient's experience of the interruption of relationships, especially with family members, is not necessarily disadvantageous for him/her. Can the interruption even help the process towards independence of dually diagnosed persons? In future controlled network studies on the relationships between psychiatric, inpatients and outpatients with mental disability are needed to investigate the complex implications of the social network to the dually diagnosed person.

Summary

The aim of the present study was to evaluate the connection between the social network and the short-term psychiatric care of persons with mental disability and psychiatric symptoms.

The size and content of the social network were researched with the social network map developed by Klefbeck et al. (1988), while the psychiatric symptoms were evaluated with the Brief Psychiatric rating Scale (BPRS, Overall and Gorham, 1962).

The study was based on self-reports of persons with mental disability (n = 29) admitted to short-term psychiatric inpatient care in a special psychiatric unit.

After psychiatric short-term inpatient care there was a tendency towards a decrease in social network size. Family members belonged less often to patients' most important persons at follow-up than on admission (p<0.027). There was no correlation between the changes in the size of patients' social networks and psychiatric symptoms.

The Klefbeck et al.'s network map was found to be an illustrative research tool for studying the networks of persons with mental disability. The psychiatric symptoms of all our patients could be evaluated with the BPRS. Patients' experiences of the interruption of relationships after short-term inpatient care were not found to be disadvantageous to them. Further controlled social network studies on dually diagnosed outpatients and inpatients are needed.
References


