The social network and the quality of life of people suffering from schizophrenia seven years after the first hospitalisation*

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Summary

Aim. The analysis of social networks of people suffering from schizophrenia seven years after their first admission to mental hospital and the analysis of correlations between the social network of people suffering from schizophrenia and treatment outcomes, the quality of life in particular.

Subjects and methods. The study group was sixty-four patients diagnosed with schizophrenia according to DSM III, seven years after the first hospitalisation, among whom there were 34 men (55.7%) and 27 women (44.3%). The average age in this group was 32. Lehman's Life Quality Questionnaire and Bizoń's Questionnaire of Social Support were used.

Results. In the Krakow longitudinal study, the patients with a large network and with a high level of social support have also a higher general subjective satisfaction with the quality of life.

Conclusion. The results are confirmed in the research by Lehman et al., Corrigan and Buican. The lack of connection between the social network parameters and the current health condition as an objective and subjective indicator of the quality of life is incompatible with what is reported by some researchers, who claim that with time the support system gets impoverished, which is hazardous to health and may lead to mental disorders. The hitherto research on the correlations between the social network and the quality of life of people suffering from schizophrenia hasn't been widely described in professional literature, moreover, the obtained results are ambiguous and may still raise many doubts.

social network / quality of life / schizophrenia / follow-up study

INTRODUCTION

There are not too many studies on the social network and the quality of life of people ill with schizophrenia, and the obtained results are not unambiguous and raise doubts among the researchers [1, 2]. Bengtsson-Tops and Hanson [13]

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claim that the need to receive support from the social network is related to the subjectively lower quality of life. Other research findings are that those patients who have a larger and more satisfying support network enjoy a higher quality of life [1, 2, 3]. A better quality of life is typical of people who can cope better with social demands and are able to build interpersonal relations. The research by Koivumaa-Honkanen et al. [13] indicates that the absence of social relations is the chief correlate of a low satisfaction with life. In the study on the quality of life, it was demonstrated that the important parameters of the social network are its range, the quality of relations [8] and the type of social support system. The researchers proved that the small size of the so-

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cial network, the low frequency of interpersonal contacts, lack of instrumental support and lack of a confidant [5, 7] correlate with the negative findings in the study on the quality of life.

This investigation is part of the Krakow longitudinal study on the course of schizophrenia. The study described the objectives and remote treatment outcomes in the clinical and social aspect in the course of schizophrenia at two follow-up points: three and seven years after the first hospitalisation. The research on the social network three years after the first hospitalisation showed the need to assess as many parameters of the network as possible (the range of the network, the size of the extra-familial network, the age of the network, the amount and source of support, the type of support system) [9]. The next stage was to evaluate treatment outcomes for the patients suffering from schizophrenia seven years after their first admission to a mental hospital [10], with focus on the quality of life [10, 11, 12]. Also, correlations between the quality of life and treatment outcomes were analysed [13].

Another research step that has been described was to assess the social network of people ill with schizophrenia seven years after their first hospitalisation, and the analysis of correlations between this indicator of treatment outcomes and the quality of life.

The analysis of correlations between the social network and treatment outcomes in the clinical and social aspects is described in our previous paper [14] on the subject.

AIM OF STUDY

The aim of this study was to analyse the social network of people suffering from schizophrenia seven years following their first hospitalisation as well as to analyse the correlations between the social network of people ill with schizophrenia and the quality of their lives as one of the important indicators of treatment outcomes. Fig. 1, below, presents the model of the study.

Social network
- range of network
- size of extra-familial network
- level of support
- source of support
- age of network
- type of support system

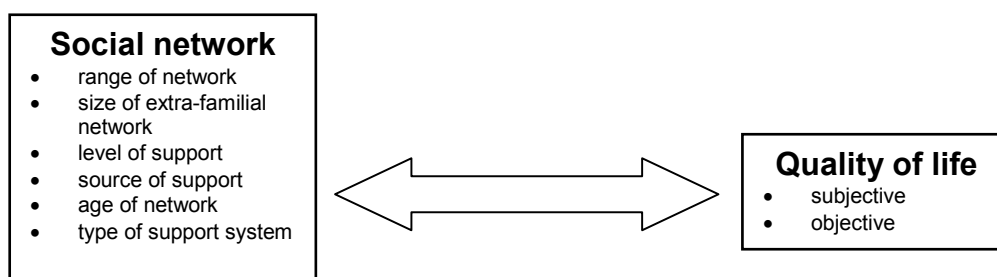**Quality of life**
- subjective
- objective

Figure 1 Correlations between the social network and the quality of life of people suffering from schizophrenia

The following research objectives were identified:

1. Description of social networks, subjective and objective quality of life of people ill with schizophrenia seven years after their first psychiatric hospitalisation.
2. Analysis of correlations between the parameters of the social network and the subjective quality of life.
3. Analysis of correlations between the parameters of the social network and the objective quality of life.

SUBJECTS AND METHODS

Seven years after the first hospitalisation, the study embraced a group of 64 persons ill with schizophrenia, diagnosed according to the DSM III criteria. The group included 34 men (55.7%) and 27 women (44.3%). Their average age was 32. In the study group, the first psychotic symptoms occurred at the age of 26, and the first hospitalisation took place at the age of 27. The lapse of time between the onset of the illness and the first hospitalisation was, on average, 50 weeks. It was found out that before the onset of the illness, 8 patients had at least one deep, satisfying relationship, 21 persons had numerous super-

ficial relationships, 11 had one superficial relationship, 13 persons had unsatisfying relationships, and 8 had no extra-familial relationships. At the moment of the first hospitalisation, 36 patients were employed full time, 11 patients were either employees or students temporarily on sick leave, 2 patients received sickness and disability benefit and were employed part time, 3 patients only received social benefits and had no employment, and 4 patients neither got the benefit nor a job.

Seven years after the first hospitalisation, at the moment of assessment, the average number of subsequent inpatient hospitalisations in the study group was 1.64. The average stay in an inpatient ward amounted to 14 weeks, and the average number of relapses during the seven years after the first mental hospital admission was 2.5.

The applied tools were Bizoń's social support questionnaire and Lehman's questionnaire on the quality of life. In the Krakow study, the Polish version of the latter was used. Lehman's questionnaire allows assessing both the subjective and objective quality of life in eight basic domains: accommodation, leisure activities, family relations, social relations, financial standing, school and work, safety and legal issues, and health. In our study, another domain, religion, was introduced into the questionnaire. The subjective satisfaction with life was assessed with the use of Likert's scale [10; 11; 12].

The parameters of the social networks were examined with the use of Bizoń's questionnaire, which gathers data concerning people who fulfil support functions as well as indicates the characteristics of the social network such as the range of the network (i.e. the number of persons with whom the patient stays in contact), the size of the extra-familial network (i.e. the number of persons whom the patient contacts outside the family), the age of the network (the duration of relationships in the network), the level of support (as the product of the number of persons in the network multiplied by the functions they fulfil), the source of support (in the family, outside the family, or both in the family and outside), the type of the support system (focused, dispersed or compound). Correlations were analysed with the use of Spearman's correlation coefficient.

RESULTS

The first, descriptive section presents the findings of our research on the social network and the quality of life in a seven-year follow-up. The latter section contains an analysis of the correlations between the social network and the quality of life.

Description of the social network seven years after the first hospitalisation

Seven years after their first hospitalisation, 24% of the patients suffering from schizophrenia had a small social network. The most numerous are those patients who have a middle-sized network (45%), and 31% of the study group have a large network (Table 1).

Table 1. Description of network in K-7 (n=64)

Range of network in K-7	
Small network – up to 10 people	24%
Middle-sized network – from 11 to 20 people	45%
Large network – over 21 people	31%
Range of extra-familial network in K-7	
Small network – up to 2 people	31%
Middle-sized network – from 3 to 10 people	52%
Large network – over 11 people	17%

Level of support K-7	
Low – up to 25 points	13%
Medium – from 26 to 50 points	45%
High – over 51 points	42%
Source of support in K-7	
Family	59%
Outside the family	3%
Both in the family and outside it	38%
Type of support system in K-7	
Focused	48%
Dispersed	13%
Compound	39%
Age of network in K-7	
Old relationships – over 10 years	72%
Medium relationships – from 1 to 10 years	25%
New relationships – up to 1 year	3%

31% of the study group have a small extra-familial network, 52% a middle-sized one and 17% a large one. 13% receive a low level of support from their social network, 45% a medium level and 42% a high level of support. With 59% of the study group, the source of support lies in the family, with 3% it is outside the family, and 38% have a compound support system.

48% of the patients have a social network where the support system has one person at the centre. With 13% of the study group, the support is dispersed, and with 39% the system is compound, i.e. it contains one confidant and other individuals who satisfy the patient's particular needs, emotional and instrumental. 72% of the patients maintain old (over ten years old) relationships in their networks, 25% medium relationships (from 1 to 10 years), and 3% of the surveyed have formed and maintained new relationships for the last year.

The quality of life seven years after the first hospitalisation

Having summed up the findings concerning the quality of life, the following conclusions were formulated:

Seven years after the first hospitalisation, people suffering from schizophrenia have good treatment outcomes if they receive treatment within the community programme.

General satisfaction with life is slightly and positively correlated with the general subjective assessment of the quality of life because the individual subjective and objective indicators of the quality of life in Lehman's model are partly interrelated and partly independent.

Those domains that are subjective indicators of the quality of life are strongly, positively, to a high extent interrelated and also related to general satisfaction with life. Contrariwise, the objective indicators of the quality of life are only weakly and to a low degree interrelated and related to the general satisfaction with life.

Among the examined prognostic factors, the ones that impact to the highest extent general satisfaction with life are subjective factors, such as the subjective satisfaction with one's religious life, employment, good social relations, as well as the female gender.

A psychopathological condition (intense positive, negative or depression syndrome) may influence the general satisfaction with life in peo-

ple suffering from schizophrenia and residing outside the hospital.

General satisfaction with life is a complex construct which can be only partly accounted for by the observed psychopathology.

Correlations between the social network and the quality of life

The following paragraphs are devoted to the correlations between the social network and the indicators of the subjective quality of life seven years after the first hospitalisation and then the indicators of the objective quality of life (Tab. 2 and 3).

Correlations between the social network and the indicators of the subjective quality of life

The analysis shows that general satisfaction with the quality of life positively correlates with the range of the network and the amount of support (Tab. 2).

With a larger network and a higher level of support, general satisfaction with the quality of life increases. With a wider range of the social network, especially the extra-familial network, and with a higher level of support provided by the network, the subjective satisfaction with social relation increases. The more of the old relationships in the network (over 10 years old) remain, the higher subjective satisfaction with

Table 2. Correlations between the social network and the indicators of the subjective quality of life in K-7

Indicators of subjective quality of life	Range of network ↑	Size of extra-familial network↑	Level of support ↑	Age of network↑	Type of support system↑
Accommodation	0.38	0.08	0.11	0.03	0.01
Leisure	0.19	0.07	0.21	0.07	0.02
Family	0.13	0.15	0.21	0.11	0.06
Social relations	**0.39****	**0.44****	**0.32***	-0.12	0.13
Financial standing	0.03	0.09	0.01	0.11	-0.12
Employment	0.16	-0.01	0.16	**0.46***	-0.16
Safety	-0.03	-0.10	-0.10	0.14	0.10
Health	0.10	-0.01	0.21	0.06	0.01
Religion	0.16	-0.10	0.12	0.13	0.01
General satisfaction	**0.35****	0.12	**0.30***	0.03	-0.11

* p< 0.05, ** p < 0.01, as measured with Spearman's correlation coefficient

Table 3. Correlations between the social network and the indicators of the objective quality of life in K-7

Objective quality of life	Range of network ↑	Size of extra-familial network↑	Level of support ↑	Age of network↑	Type of support system ↑
Accommodation	0.15	0.25	0.09	0.01	0.05
Leisure	**0.48****	0.23	0.23	-0.15	**0.27***
Family	0.14	0.16	0.17	0.03	0.04
Social relations	**0.33****	**0.38****	**0.29***	**-0.27***	0.19
Financial standing	**0.42****	**0.34****	-0.23	-0.14	0.16
Employment	0.16	0.28	0.13	-0.35	0.06
Safety	**-0.27***	0.01	-0.12	-0.07	-0.07
Health	0.11	-0.06	0.08	0.13	0.10
Religion	0.21	-0.10	0.07	0.06	0.11

* p< 0.05, ** p < 0.01, as measured with Spearman's correlation coefficient

one's job. Employment allows one to maintain long-standing relationships, but the age of the network and the predominance of older relationships have no impact on other subjective indicators of the quality of life.

Correlations between the social network and the objective indicators of the quality of life

The wider range of the social network is positively correlated with more leisure activities, more social contacts, a higher monthly income and less frequent victimisation of the study group (Tab. 3).

Those patients who have a large extra-familial network have also more social contacts and a higher income. The higher level of support correlates with more social contacts. It was found out that those patients who have a greater number of recent relations in the network (up to 1 year old) have also more social contacts. There is a statistically significant, though a low correlation between the compound support system and more leisure activities.

DISCUSSION

Seven years after their first hospitalisation, the patients suffering from schizophrenia usually (45%) have a middle-sized social network of 11-20 people. Most frequently (52%) their extra-familial network is middle-sized as well and embraces 3-10 people, so the number of relationships here is visibly smaller. A large part of the study group (45%), have a medium level of support (21-50 points). With 59% of the study group, the source of support is the family. Almost half (48%) of the patients ill with schizophrenia have a focused support system, i.e. the majority of their needs are fulfilled by one person, usually a parent. Old relationships, lasting over 10 years, are maintained by 72% of the study group. In our study, the range of the network is a broader term than the analogous parameter described by Westermeyer and Pattison [20] as the "size of the network".

Having analysed correlations between the parameters of the social network and the indicators of the quality of life, we found the significant factors to be the range of the social network and the presence of social support. A wider range of the network and a higher level of support correlate positively with a higher general subjective satisfaction with the quality of life. These findings are corroborated by previous studies [1, 2, 3] which show that patients with a larger and more satisfying social network have a higher quality of life or, alternatively, that a small social network and few interpersonal contacts involve a subjectively lower quality of life. However, the subjectively higher level of support does not allow for the assessment of the demand for it and consequently to comment upon the findings of Bengtsson-Tops and Hanson [13], who think that the need to receive support from the social network is connected with the subjectively low quality of life.

Although we did not assess the quality of the relationships in the network, as Mercier and King [8] did, this quality can be inferred for instance on the basis of how long the relationships have been maintained. The more old relationships (over 10 years) in the network, the higher subjective satisfaction with one's work, which is an especially significant indicator of the quality of life. A better quality of life is enjoyed by those who cope well with social demands and are able to form interpersonal relations. A study by Koivumaa-Honkanen et al. [13] shows that the absence of social relations is the primary correlate of a low satisfaction with life. A strong correlation with the selected parameters of the social network, such as the range of the network, the size of the extra-familial network, the level of support and the age of the network, has an impact on satisfaction with one's social relations and on the number of them. This can indicate that satisfaction is derived from extra-familial relations in the network, which confirms the hypothesis put forward by some researchers that extra-family relations may compensate for the poor familial ties [18, 19, 20], the more so that higher satisfaction with family relations seems not to be connected with the parameters of the social network.

Interestingly, some results point to the fundamental difference between the subjective experience of support and the objectively provided support. With people suffering from schizophrenia, more people in the network (the range of

the network) as well as the optimum compound support system (with a confidant and many other people who satisfy the patient's particular needs) correlate with more leisure activities in the assessment of the objective quality of life. However, no correlation was observed between the social network and the subjective satisfaction with leisure activities. Perhaps the existent relations do not satisfy the emotional needs of the patients in the study group. Znanecky-Lopata [21] states that in order to maintain support one needs life goals. This seems to indicate that the patient ill with schizophrenia may be deficient in identifying and attaining goals, which can be related to the course of the illness. The support system is stable when there is mutual exchange of emotions, goods and transactions between the partners. If the person receiving support does not reciprocate, the provider of support may withdraw it and in consequence break the bond. In accordance with the theory of social exchange, it is regulated by a conscious or unconscious calculation of losses and gains by the interaction partners [22]. People suffering from schizophrenia do not initiate contacts with others. As they cannot properly perceive how social exchange is organized, they do not derive satisfaction from the fact that the needs of the people in their social environment are fulfilled.

Our research did not show correlations between the parameters of the social network and the subjective opinion about one's health, which stands in contrast to the results reported by other researchers [5], who claim that with time, the support system is more and more impoverished, which is hazardous to health and leads to mental disorders. Some authors suppose that those persons who receive more support from the network, experience less tension despite difficult stressful situations. Others suggest that the support system as such does not reduce tension, but only increases the individual's resilience to stress [23]. Although our research did not point to any correlation between the subjective satisfaction with one's health and the parameters of the social network, the analysis of the objective indicators of treatment outcomes (e.g. the intensity of psychopathological symptoms) or the assessment (with the use of different tools) of the type of the course of schizophrenia, observed

throughout the years, confirm the existence of such a correlation [14].

The duration of relationships in the network correlates to a statistically significant degree with the subjective satisfaction with one's work. The patients maintain relationships for a long time (over 10 years) when their subjective satisfaction with their jobs is high. So it is employment that helps to establish social contacts. Also the size of the social network, including the extra-familial network, correlates with financial standing. Those who have a larger social network have a higher income.

It should be noted that our research demonstrated a parallel lack of correlation between the parameters of the social network and both the objective living conditions and the subjective satisfaction with one's living conditions.

Surprisingly, there is no correlation between the parameters of the social network and the subjective satisfaction with one's religious experiences as well as the actual church attendance. It could be surmised that religion, which is a vital element of Polish culture, should be a source of support rather than a way to seek and establish interpersonal contacts. However, our clinical practice shows that for some patients, their religious communities prove to be important providers of support. The research results concerning the correlations between the social network and the quality of life of people suffering from schizophrenia are still ambiguous, doubtful, and hard to interpret.

CONCLUSIONS

Those persons suffering from schizophrenia who have a large network and receive a high level of social support from their network are generally more satisfied with their quality of life These findings are confirmed by Lehman et al. [1, 2], Corrigan and Buican [3].

No correlation was found between the parameters of the social network and health as a subjective and objective indicator of the quality of life, which stands in contrast to the findings of some researchers [5] who say that with time, the support system becomes ever weaker, which may threaten one's health and lead to mental disorders.

The research on the correlations between the social network and the quality of life of people suffering from schizophrenia points to the fact that the obtained results are ambiguous, doubtful and hard to interpret.

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