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Association between social support and quality of life in patients with affective disorders

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Abstract
Background and objectives: Despite seemingly simple relationships between the quality of life and depression, the relevant issues are still not fully understood. The aim was to study the role of social support in the quality of life.
Methods: The study included 104 patients with unipolar or bipolar affective disorder. Beck Depression Inventory and Hamilton Depression Rating Scale were used to determine the level of intensity of depressive symptoms. Quality of life (Quality of Life in Depression Scale) and levels of social support (parts of Berlin Social Support Scales, Social Support Scale) were measured on admission, at discharge from the hospital, and 3 months after discharge.
Results: Results showed an increase in quality of life during hospitalization. The amount of social support remained constant between three measurements and positively correlated with quality of life. The strongest associations (controlled by depression severity) were found for perceived support at discharge (controlling HRS Rho = −0.44; $p < 0.001$, controlling BDI Rho = 0.4; $p < 0.001$). Support from the person perceived as most helpful did not correlate significantly with quality of life on admission, at discharge and during follow-up. Interestingly, support from the person perceived as least helpful correlated with quality of life on admission (controlling HRS Rho = 0.39; $p < 0.001$, controlling BDI Rho = 0.27; $p < 0.05$).
Conclusions: During hospitalization, the quality of patient's life significantly improves with time. Social support is a significant correlate of quality of life in affective disorders.
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Introduction

Terms such as depression, mental health, and quality of life seem to be closely associated with one another.[1] Typically, depression refers to marked difficulties and poor quality of life.[2–7] The results of many studies suggest that the quality of life can markedly improve with time (as a result of effective pharmacological treatment of depressive symptoms or psychotherapy).[8–13] This association and its strength are to a large extent determined by the way the quality of life has been defined. Models and studies defining quality of life as an unidimensional variable (i.e. well-being) simplify this problem and bring it to an excessively basic level (typically, a depressed individual with decreased mood does not perceive him/herself to have a high level of wellbeing).[14] The multidimensional (for example function and need-based) approach to the quality of life raises more possibilities of interpretation.[3]

Social support and the quality of life in depression

Support can be defined as help which one can use in difficult situations.[15] As such, support reduces the risk of both mental and somatic disorders, modulates stress-coping approach, and diminishes the probability of premature death.[16,17] Additionally, social support is thought of as a significant determinant of the patient's quality of life. Jarema[18] observed that patients who were asked to rank the potential determinants of quality of life often placed support in the first place (followed by mental health, financial situation, and independence). This intuitive understanding of the role of social support was supported in empirical research.[19,20] Studies dealing with depression have produced similar findings. The relationship between the quality of life, depressed mood, and social support was documented by Friedman et al.,[21] Chan et al.[22] and Kuehner and Buerger[23] among others. Patients with affective disorders frequently perceive obtained support as inadequate to their needs.[24,25] Available data highlights a negative correlation between depression and the amounts of obtained social and emotional support, which translates into the quality of life.[26]

Despite the high severity of symptoms of depression, social support can serve as a protective buffer with regard to the perception of the quality of life; this is consistent with Cohen's and Wills concept[27] explaining the mutual relationships between support and the quality of life. They suggested two possible mechanisms: ''main effect'' and ''buffer against stress''. In the first case, the more social support in one's life the higher one's quality of life (the relationship between these two variables is linear). The ''buffer against stress'' explains this association in relation to stress. If stress is at a moderate level, the quality of life is not modulated by the amount of social support. In contrast, in the case of considerable accumulation of stress, social support serves as a protective buffer, clearly translating into the quality of life.

Psychiatric patients hospitalized for depression are especially prone to high levels of stress. Thus, an empirical research into the relationships between quality of life and social support in this group could potentially yield interesting and clinically significant results. Social support is thought of as vital for the recovery process in depression and for the quality of life. However, the strength of these relationships and the possibilities of the most effective utilization of social support in facilitating the recovery and improving the quality of life of patients with depression remain open to investigation. The aim of this research was to study the role of social support in the quality of life and to verify if the quality of life is modulated by various types of social support.

Material and methods

Participants

The study, conducted at the Academic Clinical Centre included 104 patients with unipolar (83% of the studied group) or bipolar affective disorder (17%), without other comorbidities or cognitive impairment hindering the understanding of questionnaire content. A history of depressive episodes was found in approximately 92% of the studied group; the remaining subjects were hospitalized for the first time. Sixty-six percent of the sample were female. The average age of the participants was 51 ± 13.2 years (Table 1).

Study design

The study was designed as a prospective observational study. The procedure included three measurements: (1) on admission (within one week after hospitalization; $N = 104$), (2) at discharge from the hospital with clinical improvement ($N = 66$), and (3) 3 months after discharge ($N = 40$). The study protocol included filling out questionnaires in the presence of a psychologist in the office in the clinic. The third meeting took place in most cases in the clinic, some patients did not want to go back to the hospital and offered a meeting in their own home. At the end of each meeting, the patients had the opportunity to talk to a psychologist.

The protocol of this study was approved by the Local Ethics Committee. The exact purpose of the study was explained to the participants and their written consent was obtained. The project is a continuation of research on the quality of life in depression – the first part of the research concerned with differences in the quality of life between patients with unipolar and bipolar affective disorder.[28]

Assessments

Quality of Life in Depression Scale (QLDS) enables the evaluation of quality of life (defined in relation to the concept of needs) in patients with depression.[29] QLDS consists of 34 statements and is completed by the patient himself/herself in about 7 min. A high score indicates low quality of life. The tool has been adapted to Polish conditions using the procedure of translation and retranslation and pilot studies which revealed satisfactory psychometric properties.[30]

The diagnosis of depression was established by the psychiatrist employed at the Academic Clinical Centre (using ICD-10), and the severity of depressive symptoms was determined with two scales: the subjective Beck Depression

Table 1 Socio-demographic and clinical characteristics of the studied group.

	$n = 104^{a}$	$n = 40^{a}$
Age (years); M ± SD	51.3 ± 13.2	48.95 ± 12.11
Gender; N (%)		
Female	72 (69.2%)	29 (72.5%)
Male	32 (30.8%)	11 (27.5%)
Education; N (%)		
Primary school	11 (10.7%)	3 (7.5%)
Professional school	27 (26.2%)	9 (22.5%)
Secondary school	39 (37.9%)	15 (37.5%)
Higher education	25 (24.2%)	13 (32.5%)
Marital status; N (%)		
Single	18 (17.3%)	6 (15%)
Married	52 (50.0%)	21 (52.5%)
Divorced	19 (18.3%)	5 (12.5%)
Widow/widower	15 (14.4%)	8 (20%)
Employment; N (%)		
Unemployed	50 (49.5%)	19 (47.5%)
Employed	36 (36.6%)	18 (45%)
Retired	14 (13.9%)	3 (7.5%)
Diagnosis; N (%)		
Unipolar	88 (84.6%)	35 (87.5%)
Bipolar	16 (15.4%)	5 (12.5%)
Previous depressive episodes; N (%)	92%	87.5%
Number of hospitalizations; M ± SD	2.9 ± 2.7	2.67 ± 2.7
Number of days in hospital; M ± SD	54.2 ± 23.4	62.2 ± 24

^a All participants *n* = 104; participants that have finished study *n* = 40.

Inventory,[31] and the observational Hamilton Depression Rating Scale.[32]

The level of social support was determined with two measures. Berlin Social Support Scales (BSSS) was used to determine the level of support by the examined individual. Three subscales of this instrument were employed to evaluate the levels of perceived, required and sought social support. The polish adaptation has satisfactory validity and reliability.[33]

Social Support Scale (SSS) developed by K. Kmiecik-Baran determines the level of social support on the basis of Tardy's theory: emotional support (verbal and non-verbal communications such as ''we like you''), valuating support (informing the person that he/she is valuable and important), instrumental support (offering specific help, e.g. lending him/her money), and informative help (offering advice, information).[34] The method allows for the evaluation of social support offered by various social groups, such as family members, friends, neighbours, and colleagues. In the present study, each participant was asked to name the persons who were most helpful and least helpful in difficult life situations and evaluate the support obtained from those persons. The persons named most frequently as most helpful were: spouses (21.4%), children (15.2%) and parents (9.5%). Most frequently named least helpful persons were children (11.9%), spouses (10.5%) and siblings (9.0%). The scale contains 24 items for each person.

Statistical analyses

Statistical analysis was conducted with STATISTICA PL version 12 (StatSoft Inc.). The normality of the distributions of the studied variables was assessed using the Shapiro–Wilk test. Since all variables were non-normally distributed in at least one of the measurements, non-parametric tests were performed. The results obtained during three consecutive measurements were compared with non-parametric Friedman's ANOVA with Kendall's coefficient of concordance. Post hoc comparisons on pairs of dependent variables were compared with the non-parametric sign test. For partial correlations analysis, Spearman's coefficient (*Rho*) of rank correlation was calculated. In cases where multiple comparisons were made, Bonferroni correction was applied to the *p*-values. *p*-Values lower than 0.05 (two-tailed) were considered statistically significant.

Results

Quality of life

Table 2 presents the results of three consecutive measurements of the quality of life for the entire group of patients (ANOVA = 12.25, *p* = 0.002). Patients had the poorest quality of life on admission to the ward (*M* = 22.85, SD = 8.69). This value differed significantly from that determined at discharge (*p* = 0.002, sign test with Bonferroni correction),

Table 2 Means and standard deviations of depression (BDI, HDRS), quality of life (QLDS) and social support (BSSS, SSS) on admission, at discharge and 3 months after discharge from the hospital.

	On admission (n = 104)		At discharge (n = 66)		After 3 months (n = 40)	
	M	SD	M	SD	M	SD
BDI	31.17	12.74	20.74	12.48	20.50	14.35
HDRS	25.46	9.00	12.00	7.60	12.93	9.84
QLDS	22.85	8.69	16.97	11.20	15.75	12.13
BSSS						
Perceived	24.57	6.05	23.95	6.66	25.15	6.20
Required	11.63	3.17	11.43	2.87	11.28	2.90
Sought	13.68	4.47	13.38	4.27	14.10	4.15
Total	49.88	10.46	48.75	11.92	50.53	10.84
SSS						
Most supportive person	50.48	17.97	45.35	12.76	50.68	19.87
Least supportive person	77.13	21.05	74.65	20.38	75.43	20.81

which was characterized by a marked improvement in the quality of life (M = 16.97, SD = 11.20). Similarly, a significant difference in quality of life measured on admission and 3 months after discharge was found (p = 0.01, sign test with Bonferroni correction). In contrast, no significant differences (p = 0.29) were observed between the quality of life scores determined at discharge and three months after discharge (M = 15.75, SD = 12.13).

Social support

The overall amount of obtained social support (BSSS) remained similar during three consecutive measurements: on admission (M = 49.88, SD = 10.46), at discharge (M = 48.75, SD = 11.92), and 3 months after discharge (M = 50.53, SD = 10.84) (ANOVA = 0.863, p = 0.649). Similarly, no significant differences were found in BSSS subscales. The results obtained using the Social Support Scale enabled us to analyze the extent of support obtained from the most and least helpful individuals. The overall score of support obtained from the individual who was perceived as most helpful did not change throughout the consecutive measurements (ANOVA = 2.042, p = 0.360). Similarly, no significant differences were documented with regard to the amount of support provided by the person who was perceived as least helpful (ANOVA = 2.046, p = 0.359). The results of both methods are quite consistent and suggest that the amount of support is relatively constant and stable irrespective of its type and the stage of treatment.

Social support and the quality of life

Partial correlations (controlling the severity of depresssive symptoms) between quality of life measured using QLDS and both measures of social support are presented in Table 3. All reported significant correlations show a positive relationship between quality of life and social support – the more social support an individual receives, the higher his or her quality of life is. Negative *Rho* values in BSSS reflect the inverse nature of the QLDS (fewer points indicate better quality of life), while positive *Rho* values in SSS reflect a ''double

Table 3 Relationship between the quality of life (QLDS) and social support (BSSS and SSS) during three consecutive measurements – Spearman's coefficients of correlation, partial correlations controlling for severity of depressive symptoms using HRS or BDI.

	Quality of life (QLDS)	
	Control – HRS	Control – BDI
BSSS total		
On admission	−0.3**	−0.26**
At discharge	−0.4***	−0.37**
After 3 months		
BSSS perceived		
On admission	−0.26**	−0.21**
At discharge	−0.44***	−0.4***
After 3 months		
BSSS sought		
On admission	−0.28**	−0.23*
At discharge	−0.26*	−0.26*
After 3 months		
SSS most helpful		
On admission		
At discharge		
After 3 months		
SSS least helpful		
On admission	0.39***	0.27*
At discharge	0.37**	
After 3 months	0.41*	

* p < 0.05.
** p < 0.01.
*** p < 0.001.

negative'' relationship (fewer points in SSS indicate more support).

Quality of life on admission correlated with BSSS measures of overall, perceived and sought support on admission, as well as with support on admission from the least helpful individual. Quality of life at discharge correlated with

overall support, perceived support at discharge, and sought support at discharge. Furthermore, significant correlations were reported for support from the least helpful person at discharge. Quality of life 3 months after discharge correlated only with support from the least helpful person (3 months after). All reported correlations are low to moderate. Interestingly, no significant association was observed between quality of life at any stage and the support obtained from the person ''who was most helpful during difficult life situations''.

Discussion

The results of this study showed that hospitalization is associated with an improvement in subjectively perceived quality of life. Plausibly, this change results both from the influence of conditions that ensure optimal fulfilment of the needs of the patient and from proper psychiatric and psychological support. According to the results of the present study, the subjective quality of life is stable and does not undergo further changes in the span of 3 months after discharge. Due to the highest severity of the symptoms of depression and the poorest quality of life, the onset of treatment seems crucial for the patients as they require the most extensive care and therapeutic approach during this period. The improvement in quality of life resultant from psychiatric ward hospitalization and relevant therapeutic activities has been observed in many studies.[8–10]

Social support proved to be significantly correlated with quality of life in the current study. More social support is associated with higher levels of subjectively perceived quality of life. Correlation between the support and the quality of life was stronger at discharge than at the onset of treatment. From patients' perspective, the end of hospitalization represents a difficult moment due to the necessity of returning to everyday life and the commonly encountered presence of unsolved problems. Help, under the guise of the various forms of social support, is required during this period. During this time, as well as after recovery, it is the self-perceived support (rather than seeking support) that seems to be an important determinant of the quality of life; moreover, there is no relationship between required support and the quality of life according to our results. Consequently, the presence and perception of support seems vital during this period. There are several potential explanations of this phenomenon; it may result from the difficulties associated with asking for support, or from the lack of social skills useful in finding various sources of support. It cannot be excluded, however, that it is sufficient for the patient to be aware that there are individuals they can rely on in case of any problems to maintain their quality of life.

Helgeson[35] attempted to explain the relationship between social support and quality of life on the basis of Cohen's and Willis' theory.[27] The presence of other people in one's life can markedly improve his/her mood and enable the creation of an identity. In difficult situations (such as recovering from depression) other people can modulate one's perception by providing informative or emotional support. Also, material support can change a lot. Aside from reducing the level of stress, all these activities improve person's quality of life. According to Helgeson, an improvement in the quality of life does not require actual support, but rather the awareness of its availability.

Another interesting finding pertains to the relationship between quality of life at the onset of hospitalization and the support obtained from the individual perceived as least helpful. The more support is offered by this person, the higher one's quality of life is. Similar relationship has not been documented with regard to the support obtained from the person ''who is most helpful in difficult life situations''. This finding can be interpreted in view of the interpersonal theories of depression, which state that individuals who desperately need support due to prolonged episode of depression have lower chances of obtaining support from their close relatives.[36] Free expression of negative emotions can be associated with the risk of alienation. The individual suffering from depression represents a considerable burden for his/her environment; commonly, instead of empathy, the patients are treated as being fatigued, accused of being lazy, or ordered to ''get their act together''. Similar conclusions were formulated by Strack and Coyne,[37] who observed that patients with depression behave in a way inducing negative emotions in their close surroundings, which in turn can lead to the increasing feeling of rejection and isolation. Such social response can negatively affect one's self-esteem, stimulating the spiral of depressive symptoms. Therefore, it is sometimes easier to talk about neutral topics to a stranger than discuss important problems with close relatives.

A study by Spiegel,[38] involving cancer patients, supports the assumption that it is sometimes difficult to talk to family members about fearful issues. Cancer patients live in constant fear, but do not express it to their family members, friends, and medical personnel as these persons do not respond well to such confessions. This results in reduced interactions and progressive feeling of loneliness. Unwanted advice and comments can constitute another reason behind difficulties in contacts with close relatives experienced during the exacerbation of the symptoms of depression. A survey conducted by Davidowitz and Myrick[39] included individuals who experienced the loss of a close relative. They were asked about the kind of responses they met with when they shared their experience of loss with other people. They were asked to judge how helpful and comforting these responses were. As many as 80% of the participants perceived these responses as absolutely useless (for example: ''You should not question the will of God'', or ''You should be grateful for having another son'').

After discharge the quality of life not only correlated with the support offered by the least helpful individual, but also with that from the most helpful person. The relationship between social support, health, and quality of life is documented in the literature, both in terms of the general context and mental illness[40]; this was also confirmed by our study. These findings can be used for developing therapeutic programs addressed both to patients experiencing episodes of depression and those in remission. Additionally, the quality of life can be improved by specific psychoeducational activities addressed at the family of patients with depression (learning how to effectively support and assist the affected family member).

Limitations of the study

The generalization of the results of the current study is limited by a large drop-out rate. On admission the group consisted of 104 patients, at discharge 66, while in remission only 40. The drop-out most often resulted from the explicit refusal to participate. The most frequently given reasons were difficulties related to the lack of time and an excess of duties, and patients desire to distance themselves from anything associated with depression. Although people who dropped out of the study did not differ significantly from the others in terms of the severity of depressive symptoms (BDI on admission: $M = 31.75$, $N = 40$; $M = 31.17$, $N = 64$) and quality of life (QLDS on admission: $M = 22.87$, $N = 40$; $M = 22.83$, $N = 64$), the results should be interpreted with care.

Conclusions

(1) During hospitalization, the quality of patient's life changes, significantly improving with time. (2) Social support is a significant correlate of the quality of life in affective disorders. (3) The results of this study can be used during the development of therapeutic programs for patients and their family members.

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Conflict of interest

None to declare.

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