

Social networks and social functioning level among occupational therapy workshops and community-based support centers users

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Summary

Introduction. Community-Based Support Centers (CSC) and Occupational Therapy Workshops (OTW) have been functioning for over 20 years in Poland. However, the effectiveness of their rehabilitation programs as well as the users profile has not been examined yet.

Aim. The aim of the study was to determine social functioning level and support network effectiveness of CSC and OTW users.

Methods. Research tools: GAS (Global Assessment Scale), social network and social support assessment, Social Functioning Scale, Sociodemographic Questionnaire.

Results. Results show that investigated groups (except for participants' age) show no significant differences in sociodemographic variables and illness profile. Significant differences were found in the aspect of number and quality of support networks and the functioning level.

Conclusions. Analyzed support institutions have different aims and offer different support programs which show differences in support networks and social functioning level. It can result from that the goal of OTW is to activate its users and assist them with their reintegration into the labor market, whereas CSCs are oriented on users' current issues and hospitalization prevention. It is important to have knowledge of these specifics during referring a person to such service.

Key words: schizophrenia, social support, psychiatric rehabilitation

Introduction

Expanded environmental support models for persons with mental illnesses in Poland are currently available in many local communities. Models consist of differing programs adjusted for users' individual abilities and demands in the context of their

mental illness. The most available and popular are: community-based support centers, occupational therapy workshops, home care services, support centers, clubs, sheltered housing and professional activation advocacy. The majority of these models are pursued by non-governmental organizations, local governments and social assistance. The aim of these environmental programs is to support healing process in the course of mental illnesses. Using a positive psychology language it could be stated that it aims to enable a “good life” [1] to mentally ill persons.

Programs that are mentioned above are constituted from typical procedures that are conducted with different intensity. These are: day structure modeling, social network compensation, social abilities training, individual and group psychological support and help in the course of engaging into employment.

Among support programs that are based on a daily centre routines most popular are community-based support centers and occupational therapy workshops. These services can be also treated as elementary for social support systems. They usually operate seven hours daily, provide differing offer of activities and are available for groups of approx. thirty persons. They also provide a numerous, interdisciplinary staff. The staff is combined from occupational therapists, psychologists, social workers, career advisor and career coaches. The staff in both discussed types of services are mainly persons with a long employment history and an adequate, essential preparation (courses, competence – building trainings) for working with persons with mental illnesses [2].

Both services work daily and their main goals are similar. However, each of these has its own specifics. CSC guidelines are mainly created to provide direct support to persons functioning, relapse prevention and hospitalization. OTW are oriented to provide career advocacy and general help in returning to employment. It could be recognized, that workshops aim to activate and build a strong independency of its users [3].

Aim

CSC and OTW have been functioning since the mid 1990s. So far, its characteristics and users’ profiles have not been described in research. However, it is an important matter because such data could enable professionals to assess if these services are adjusted properly to users’ abilities and needs.

To implement such research goal, groups of both services users were analyzed. Apart from sociodemographic and illness-related data, two basic and functioning-related important specifics parameters were chosen: range and efficiency of social networks and social functioning level.

Methods

The research was conducted in years 2009–2011. Participants were persons with schizophrenia who were users of community-based support centers and occupational therapy workshops in Warsaw, Lublin and Krakow.

Data was collected with the following tools:

- Sociodemographic Questionnaire (prepared for the research): sex, age, education, marital status and source of income;
- Illness Course Questionnaire (prepared for the research): illness-related data such as age at first episode, illness duration and a number of hospitalizations;
- Environmental Support Use Questionnaire (prepared for the research): data applying to usage of environmental support programs;
- Network and Social Support Assessment [4]: applies to social networks and enables support system measurement. People creating social networks are divided into 9 general categories – areas (cohabitants, close family, other relatives, service acquaintances, friends from work, neighbors, other acquaintances, therapists, other significant persons). In this research, concerning the specifics of the researched group, an additional group was added to the original questionnaire – “service acquaintances”. The tool helps to assess a level of obtained social support. Eight types of support were included (maintaining functions): advising, help in everyday duties, backing up, taking care of, coming with help in unexpected crisis, comforting – lifting the spirits, trust in private matters and so-called unconditional support [4]. The tool was prepared especially for examination of persons with mental illness and no other tool of this kind was created in Poland. It has been used in different researches concerning social networks of persons with mental illness, e.g., assessment of correlations between treatment result and social networks [5], social networks of persons using environmental therapy [6], users of support programs [7], social networks and QoL relation in persons with schizophrenia [8]. The tool is useful in both clinical and research work [4];
- Birchwood Social Functioning Scale [9]: used to assess levels of functioning in people with mental illness in seven subscales:
 - social engagement;
 - interpersonal relationships and communication;
 - social activities;
 - recreational activities;
 - independence-competence;
 - independence-performance;
 - employment.

Each subscale has several statements which are assessed on a few-point scale. The version of the scale adjusted to Polish conditions by Załuska was used [9]. Version for person with illness was provided.

- Global Assessment Scale (GAS): a scale which enables overall evaluation of psychological functioning on continuum from mental illness to health. Assessment is made on a scale of 1 (hypothetically the most ill person) to 100 (the most healthy person). The scale is divided into 10 equal intervals. It allows researchers to assess the severity (or absence) of psychopathological symptoms in people with mental

illness in terms of self-aggression and suicidal tendencies, aggression, thought disorders, anxiety level, mood disorders, delusions and hallucinations [10, 11].

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Results

Study group

Group of 198 persons was examined. Participants had at least 3 months experience in a participation to a community-based support centre (CSC) or occupational therapy workshops (OTW). The research was conducted in Lublin, Krakow and Warsaw. In these cities community-based support programs have been functioning for many years. Participants from both groups used community support programs for 47 months on average. Frequency of participation was similar – participants, on average, joined services 4 times a week. Details are presented in Table 1.

Table 1. Average participation time (in months) and frequency (in weeks)

		N	M	SD	Z	p
Participation time	OTW	79	47.94	47.78	-0.406	0.685
	CSC	119	47.71	39.53		
Participation frequency	OTW	79	4.72	0.62	-0.379	0.704
	CSC	119	4.66	0.92		

N – number of participants; M – mean; SD – standard deviation; Z – Mann-Whitney U test Z statistic values; p – probability level

Nonparametric tests were applied to compare the two investigated groups due to non-equal sample sizes ($\chi^2(1) = 8.08$; $p = 0.004$), and non-normal distribution of the data. The Kolmogorov-Smirnov test, as well as the Shapiro-Wilk test were significant in case of all the variables for both or at least for one group. Moreover, the ratio of skewness to its standard error and/or kurtosis to its standard error exceeded $> |1|$. In vast majority of the variables, the values of skewness and/or kurtosis exceeded $|1|$. In other cases, i.e., when the values of skewness and kurtosis were $< |1|$, outlier observations were present in groups. However, according to the least conservative criteria, for the variables with the values of skewness and kurtosis not exceeding $|1|$, the Student's t-tests were conducted; in other cases the Mann-Whitney U test was performed.

Analysis of the distribution and composition of the services users considered: sex, age, marital status, education. Details are presented in tables 2–6.

Table 2. **Participants' sex**

	OTW	CSC	OTW	CSC
Men	38	69	48.1	58.0
Women	41	50	51.9	42.0
Total	79	119	100.0	100.0

N – number of participants; % – percentage

Table 3. **Age of participants**

		M	SD	Z	p
Age	OTW	38.09	10.27	-2.312	0.021
	CSC	42.22	12.07		

M – mean; SD – standard deviation; Z – Mann-Whitney U test Z statistic values; p – probability level

Table 4. **Marital status**

	N		%	
	OTW	CSC	OTW	CSC
Single	66	100	83.5	84.1
Married	6	6	7.6	5.0
Divorced	5	6	6.3	5.0
Widow/er	1	7	1.3	5.9
Separation	1	0	1.3	0
Total	79	119	100.0	100.0

N – number of participants; % – percentage

Table 5. **Participants' education**

	N		%	
	OTW	CSC	OTW	CSC
Primary	5	12	6.3	10.1
Vocational	15	32	19.0	26.9
Secondary	50	57	63.3	47.9
Higher	9	18	11.4	15.1
Total	79	119	100.0	100.0

N – number of participants; % – percentage

Table 6. Duration of illness (years)

		N	M	SD	t	df	p
Course of illness (in years)	OTW	78	14.56	8.93	-2.20	194	0.029
	CSC	118	17.76	10.60			

N – number of participants; M – mean; SD – standard deviation; t – values of the Student's t-test; df – degrees of freedom; p – probability level

There are no significant differences in gender distribution in occupational therapy workshops and community-based support centers: $\chi^2(1) = 1.97$; $p = 0.172$ (Table 2).

Mean age of persons using occupational therapy workshops ($M = 38.09$, $SD = 10.27$) was significantly different from a mean age of users of community-based support centers ($M = 42.22$; $SD = 12.07$), $Z = -2.31$; $p = 0.021$ (Table 3).

In both types of services over 90% of users are single. Only slightly over 7% of OTW and 5% of CSC users were married during the research. The compared groups showed no significant differences in marital status: $\chi^2(4) = 4.66$; $p = 0.324$ (Table 4).

In the compared groups, most participants have secondary education while least had primary education. (Table 5). There are no significant differences in education level between research groups ($Z = -1.016$; $p = 0.310$).

Course of illness and community-based support programs usage

OTW users have a shorter course of illness ($M = 14.56$; $SD = 8.93$) than CSC users ($M = 17.76$; $SD = 10.60$), $Z = -2.099$; $p = 0.036$, however, the effect size shows that the difference is at a low level ($r_{ES} = 0.21$) [12].

There were no significant differences in a number of 24-hour hospitalization between the groups. However, there were differences in a number of daily hospitalizations ($t(194) = -2.20$; $p = 0.029$). Persons using OTW ($M = 14.56$; $SD = 8.93$) were hospitalized in a daily wards more often than persons using CSC ($M = 17.76$; $SD = 10.60$). The effect size shows, that the difference was minor ($r_{ES} = 0.17$) [12]. Details are presented in Table 7.

Table 7. Number of psychiatric hospitalizations

		N	M	SD	Z	p
number of 24-hour hospitalizations	OTW	78	4.81	4.81	-1.47	0.141
	CSC	119	6.20	6.05		
number of daily hospitalizations	OTW	79	1.92	2.14	-2.33	0.020
	CSC	118	1.52	2.29		

N – number of participants; M – mean; SD – standard deviation; Z – Mann-Whitney U test Z statistic values; p – probability level

Both groups showed no significant differences in coping with illness symptoms. Results obtained on the Global Assessment Scale present no statistical differences in groups. Details are presented in Table 8.

Table 8. GAS results in both groups (Student's t-test)

		N	M	SD	t	df	p
GAS intervals	OTW	79	7.13	1.20	0.68	195	0.496
	CSC	118	6.99	1.46			
GAS raw	OTW	79	68.80	11.89	0.99	195	0.325
	CSC	118	66.85	14.64			

N – number of participants; M – mean; SD – standard deviation; t – values of the Student's t-test; df – degrees of freedom; p – probability level

No significant differences were obtained in the assessment of the general mental state of participants. Both groups scored around 7th interval which refers to a following clinical description: “occurrence of mild symptoms (e.g., depressive mood and minor insomnia) or particular difficulties in a few scopes of activity, quite good functioning, patient has a few significant relationships with people and most of persons in his/her environment do not see him/her as an ill person”.

Social networks

Data gathered using Bizoń's Questionnaire show, that OTW users had statistically more numerous social networks (Table 9).

Table 9. Numerical amounts of social networks in examined groups

		N	M	SD	T	df	P
Social environment – number of people	OTW	79	13.57	6.896	4.500	196	< 0.001
	CSC	119	9.54	4.890			

N – number of participants; M – mean; SD – standard deviation; t – values of the Student's t-test; df – degrees of freedom; p – probability level

Support networks of OTW users contained on average 13 persons which was significantly different than in the group of CSC users in which the number equaled to 9 persons.

Examined groups differ in numerical amounts of categories of persons combining their social networks (Table 10).

Table 10. Average categories of persons combining social networks

		N	M	SD	Z	p
Cohabitants	OTW	79	0.89	0.320	-4.602	< 0.001
	CSC	119	0.58	0.496		

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Closest family	OTW	79	0.87	0.335	-0.326	0.744
	CSC	119	0.86	0.351		
Other relatives	OTW	79	0.59	0.494	-1.021	0.307
	CSC	119	0.52	0.502		
Services acquaintances	OTW	79	0.78	0.414	-2.529	0.011
	CSC	119	0.61	0.489		
Friends from work	OTW	79	0.10	0.304	-1.644	0.100
	CSC	119	0.04	0.201		
Neighbors	OTW	79	0.33	0.473	-0.778	0.436
	CSC	119	0.28	0.450		
Other acquaintances	OTW	79	0.51	0.503	-2.384	0.017
	CSC	119	0.34	.474		
Therapists	OTW	79	0.95	0.221	-0.478	0.633
	CSC	119	0.93	0.251		
Other significant persons	OTW	79	0.30	0.463	-0.717	0.474
	CSC	119	0.35	0.480		

N – number of participants; M – mean; SD – standard deviation; Z – Mann-Whitney U test Z statistic values; p – probability level

Results show that OTW users have statistically significantly more numerous social networks in following categories: “cohabitants”, “service acquaintances”, “other acquaintances”.

Possibilities of support in groups of participants are presented in Table 11.

Table 11. **Number of obtained functions of support**

		N	M	SD	Z	p
Counseling – number of persons	OTW	79	1.94	2.126	-0.795	0.427
	CSC	119	1.85	1.560		
Helping out – number of persons	OTW	79	1.27	1.059	-0.708	0.479
	CSC	119	1.44	1.394		
Protection – number of persons	OTW	79	2.11	1.874	-0.873	0.382
	CSC	119	1.92	1.848		
Care – number of persons	OTW	79	2.11	1.948	-0.133	0.894
	CSC	119	2.15	2.118		
Direct help – number of persons	OTW	79	2.47	2.401	-0.831	0.406
	CSC	119	2.18	2.151		

table continued on the next page

Comforting – number of persons	OTW	79	3.10	2.947	-1.616	0.106
	CSC	119	2.47	2.626		
Trusteeship – number of persons	OTW	79	1.92	2.018	-0.356	0.722
	CSC	119	1.84	1.657		
Unconditional help– number of persons	OTW	79	3.41	3.695	-2.594	0.009
	CSC	119	2.03	2.036		

N – number of participants; M – mean; SD – standard deviation; Z – Mann-Whitney U test Z statistic values; p – probability level

The level of obtained support in general show no differences between groups on a statistically significant basis. The only difference concerns unconditional help which, according to CSC users, they obtain from other people, which significantly differs the group from OTW users.

Results presented in Table 12 show that OTW users obtain more support functions from outside the service. It concerns “cohabitants” and “other acquaintances”. In the case of CSC users statistically significantly more support functions is provided by the service “therapists”.

Table 12. A number of functions provided by particular categories of persons

		N	M	SD	Z	p
Number of functions – cohabitants	OTW	79	4.443	2.730	-4.273	< 0.001
	CSC	119	2.563	2.927		
Number of functions – closest family	OTW	79	2.253	2.559	-1.501	0.133
	CSC	119	2.866	2.855		
Number of functions – other relatives	OTW	79	0.671	1.639	-0.409	0.682
	CSC	119	0.613	1.397		
Number of functions – service acquaintances	OTW	79	0.899	1.614	-1.404	0.160
	CSC	119	0.773	1.685		
Number of functions – friends from work	OTW	79	0.051	0.221	-1.322	0.186
	CSC	119	0.092	0.713		
Number of functions – neighbors	OTW	79	0.114	0.453	-0.696	0.487
	CSC	119	0.345	1.252		
Number of functions – other friends	OTW	79	0.873	1.644	-1.993	0.046
	CSC	119	0.588	1.470		
Number of functions – therapists	OTW	79	1.532	1.818	-2.281	0.023
	CSC	119	2.345	2.316		

table continued on the next page

Number of functions – other significant persons	OTW	79	0.709	1.529	-0.464	0.643
	CSC	119	0.790	1.625		

N – number of participants; M – mean; SD – standard deviation; Z – Mann-Whitney U test Z statistic values; p – probability level

Social functioning

The analysis of social functioning level in participants shows that there are significant differences between scales: interpersonal behaviors/relations, pro-social activities and employment/occupation (Table 13). In both scales OTW users obtained higher scores than CSC users. There were no significant differences between means in scales: social engagement, recreation, independence-performance or independence-competence.

Table 13. Social functioning in participants

		N	M	SD	t(df) or Z	p
Social engagement	OTW	79	91.671	10.652	Z = - 1.341	0.180
	CSC	119	90.038	10.876		
Interpersonal behaviors/relations	OTW	79	88.215	28.610	t(196) = 2.734	0.007
	CSC	119	78.059	23.387		
Pro-social activities	OTW	74	107.541	12.819	t(178) = 2.29	0.023
	CSC	106	103.231	12.147		
Recreation	OTW	71	98.113	13.309	t(176) = 1.097	0.274
	CSC	107	95.818	13.891		
Independence-performance	OTW	74	100.845	12.455	t(183) = 0.848	0.398
	CSC	111	99.207	13.140		
Independence-competence	OTW	73	96.116	5.417	Z = - 1.260	0.208
	CSC	116	95.349	5.723		
Employment/occupation	OTW	75	101.927	10.787	t(192) = 5.016	< 0.001
	CSC	119	93.933	10.824		

N – number of participants; M – mean; SD – standard deviation; Z – Mann-Whitney U test Z statistic values; t – values of the Student's t-test; p – probability level

Discussion

Both researched groups show similarities. All examined persons are diagnosed with schizophrenia, do not show differences in the level of coping with symptoms in the GAS examination. All participants attend community health centers regularly.

Groups do not differ in duration and frequency of using support services. Occupational therapy workshops users are, however, significantly younger than community-based support centers users.

In the research, the group of participants was outsourced amongst well prospering, integrated, community-based support services from Krakow, Warsaw and Lublin. Participants were persons with chronic mental illness. Data show that mean duration of illness was a dozen years and that there were significant differences in the span of the illness between CSC users (17.76 years) and OTW users (14.56 years). In addition, these persons were repeatedly hospitalized (full-time hospitalizations and day hospitalizations). The group of OTW users was significantly more often hospitalized in outpatient wards which could indicate a higher readiness to obtaining support in this group. Both groups were in majority singles with disability pension as the only source of income. In the group of CSC users, the majority were men, in OTW the majority were women.

The research does not enable an explicit assessment of the influence of services programs on the functioning level and healing process parameters. However, basing on the outcomes, it could be assumed that occupational therapy workshops are more likely to enable its users to activate in a labor market while community-based support centers are rather perceived as ultimate targets [13]. OTW are also defined by its users more as a workplace with all its specifics: time-sheets, absence excuses, quality of work evaluations, sometimes a financial gratification as a salary substitute. In both services users spent similar time (approximately 47 months, 4 days per week on average). Detailed analysis of other sociodemographic data showed, that examined groups show differences in age – community-based support centers users are on average 4 years older.

Comparison of social functioning results among both groups of users shows no significant differences in areas such as: independence-competence, independence-performance, engagement in coping with social isolation. Thus, both groups declare a similar level of activity potential and general functioning. However, they significantly differ in scales of interpersonal relations, pro-social activities and employment/occupation. Such aspects of functioning are crucial for interpersonal activities, relationships building and independence. In this respect, the group of occupational therapy workshops users shows definitely better results. This may be showed by statistically significantly more numerous, beyond-family social support networks which are combined of: friends from work, acquaintances from a service and other remote friends. These relations take effect in a stronger feeling of “unconditional support” from the obtained networks. These aspects are differently shaped among the group of community-based support centers users where the strongest base for support are mainly therapists. Social support network is fundamental for many psychological aspects of functioning, experienced by persons with mental illness [14]. Studies show that an efficient support network is treated as a stimulating source of own social activity, aspiration to have enough number of friends and be in a relationship which together, may positively influence immunity for mental illness stigma [15]. This specific immunity may be visible in the results of this research where, with similar

outcomes in the level of social functioning, social environment of participants from occupational therapy workshop is considerably richer and varied than in the compared group of participants from community-based support centers. It is worth to add that an efficient support network empowers the immunity for stigma and protects from the feeling of shame, necessity of keeping a secret about one's problems and illness [16]. It also prevents a feeling of being disabled that subjectively may be comprehend as an accumulation of barriers in entering any social relations, employment, or an independent habitation [17]. Lack of support system increases a feeling of otherness and disability which can decrease the hope for change of one's situation or self-appraisal [17–20]. Sibitz's study shows that the stimulation of the healing process in persons with mental illness is held by creating/re-creating social network, reducing stigma and developing resilience. Such operations result in a considerable reduction of depressive symptoms, anxiety and significant influence of declared quality of life level [14]. There is another phenomenon that can be observed in the functioning of social networks in the aspect of mental illness and concerns mitigation and "displacement" of natural support network in favor of professional network. This kind of network is usually more resilient, efficient and adjusted to these persons' needs than the natural one consisting of family or friends [5, 21].

Conclusions

1. Users of occupational therapy workshops and community-based support centers show significant differences in numerous healing process-related parameters between groups.
2. Occupational therapy workshops place more emphasis on career advocacy and vocational activation. Community-based support centers provide a support system oriented on sustaining the general functioning and prevent further hospitalizations.
3. Results show that both services have different aims, answer different needs and capabilities of its users. Thus, they should be the elements of local support systems. Their accessibility decide on versatility and efficiency of local support systems.
4. Knowing the diversity of OTW and CSC offer is important during the process of directing persons with illness to support services. A relevant choice of the service that considers individual needs and capabilities could be decisive for the effectiveness of the operations undertaken in the course of healing process.

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