

IMPROVING THE QUALITY OF LIFE DURING TREATMENT IN THE DAY HOSPITAL FOR EARLY INTERVENTION IN PSYCHIATRIC HOSPITAL "SVETI IVAN"

Daniela Šago^{1,2}, Vanja Lovretić^{1,2}, Kristina Habuš¹, Ena Ivezić^{1,3}, Anamarija Bogović Dijaković⁴,
Vanessa Valentina Đogaš¹ & Igor Filipčić^{1,3,5}

¹Psychiatric Hospital "Sveti Ivan", Zagreb, Croatia,

²Faculty of Medicine, Josip Juraj Strossmayer University of Osijek, Osijek, Croatia

³Faculty of Dental Medicine and Health, Josip Juraj Strossmayer University of Osijek, Osijek, Croatia

⁴University Clinical Hospital Center Sestre milosrdnice, Zagreb, Croatia

⁵School of Medicine, University of Zagreb, Zagreb, Croatia

SUMMARY

Background: The Day hospital for early intervention is a time-limited structured therapeutic program based on different psychotherapy and socio-therapy techniques. The aim of this study was to examine the outcomes of the Day hospital treatment for early intervention on self-esteem, and quality of life, and to determine which patients benefit the most from the program.

Subjects and methods: The study was conducted on 124 patients with an early phase of psychosis who were treated at the Day hospital. They filled out Rosenberg Self-Esteem Scale, and WHOQOL-BREF upon the admission and again after three months of the treatment. Interaction effects were examined between their sociodemographic characteristics (gender, age, employment status), clinical features (first episode of psychosis or longer duration of illness), and results on applied questionnaires.

Results: After three months of the treatment, patients evaluated their self-esteem, overall quality of life and satisfaction with different QoL domains (physical and psychological health, environment) as significantly improved. Younger patients had greater increase in estimated self-esteem compared to older patients. No other significant interactions were found.

Conclusion: Notwithstanding the limitations of this study, we may conclude that the findings are encouraging and may assist with development of more effective therapeutic approaches.

Key words: day hospital - early intervention - first episode psychosis - quality of life - self-esteem

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INTRODUCTION

Contemporary psychiatry has set functional recovery as the goal of treatment, especially for early intervention in the first episode of psychosis. "Recovery is an intensely personal, unique process of change in one's attitudes, values, feeling, goals, skills and/or roles. It is a way of life, a way of living a satisfying, hopeful and meaningful life within the limitations that the psychological symptoms entail. Recovery relates to out-growing the catastrophic effects of psychiatric illness and developing a new meaning and a new purpose in one's life" (Antony 1993).

Psychiatric practice in Europe is moving towards an early intervention treatment for people with severe mental illness. Unequal development of early intervention programs/services for psychosis has been shown across Europe (Maric et al. 2019). Croatia is one of the southeast European countries and a part of Central and Eastern Europe region known as a blind spot on the global mental health map (Winkler et al. 2017). Despite heterogeneity, countries in this region share many similar characteristics, such as mental health systems were organised and funded centrally by the government; people with severe mental illnesses were almost exclusively treated in large psychiatric hospitals;

mental health care reforms, so often announced in the region, remain largely unimplemented; the allocation of financial resources for mental health care is far below the average of the European Union (Winkler et al. 2017). High levels of public stigma indicate societal unwillingness to accept people with severe mental illnesses as members of the community, which is likely to influence policy, funding, recovery, service quality, and quality of life for people with these disorders (Winkler et al. 2017).

Day hospital as a stepping stone towards the community

In this article we intend to shed light on the blind spot and to present how efforts of enthusiastic individuals and organization implemented early intervention program through day hospital treatment.

Even though psychiatric day hospital treatment has been offered since the 1930s and is appropriate for individuals experiencing intense psychiatric symptoms without requiring 24-hour inpatient care, day hospital for individuals with severe mental illness is rather an exception than a rule. Day hospital programs provide an alternative to intensive psychiatric care, and operate as bridge over the gap between intensive inpatient and purely outpatient treatment.

Day hospital is a time-limited structured program of diagnosis, treatment and rehabilitation or recovery based on various psychotherapy and socio-therapy techniques. An important goal of treatment is to improve interpersonal relations, communication with others and adequate social functioning which is achieved by various forms of group psychotherapy activities, as well as group gatherings in a friendly environment. Levière and colleagues found significant improvement in social participation in daily activities and social roles in patients with psychotic disorder during their day hospital treatment (Levière et al. 2010). Improving everyday functionality has a significant effect on the life of the patient, which improves the quality of their life, while also reducing the burden on the family (Durmaz & Okanli 2014).

Research shows that a day hospital treatment allows individuals to be kept out of hospital – to avoid hospitalization or be discharged from hospitalization sooner because there is something intensive they can be discharged to, and significantly reduces the stigmatization of mental illnesses (Verhaeghe et al. 2008). Treatment in the acute wards is often seen as restrictive, traumatic, and isolated from their natural support providers and network (Lo et al. 2016). The guiding principle of a day hospital is to form a bridge between psychiatric inpatient units and returning back to their community. A day hospital with its transitional care approach allows individuals to keep in touch with family and social environment, despite intensive treatment. Research shows that day hospitals are a cheaper form of treatment (Sledge et al. 1996), preferred by patients and their families, and clinical and psychosocial outcomes were similar or better compared to hospitalization (Harrison et al. 2003, Horvitz-Lennon et al. 2001, Marshall & Rathbone 2011).

The Day hospital for early intervention is housed within Psychiatric hospital "Sveti Ivan", Zagreb, Croatia and was established in 2014, as a part of the comprehensive early intervention program (RIPEPP) which exists since 2005. Individuals attend this program 5 times a week, daily for few hours. The Day hospital is providing treatment for up to 20 patients at an early phase of psychotic disorder who are admitted on a rolling basis in open group. Duration of treatment is adjusted by individual need. The Day hospital for early intervention encompasses group-oriented psychodynamic psychotherapy, multi-family group, cognitive behavioural workshop, metacognitive training, expressive art psychotherapy, literary workshop, nutrition workshop, psycho-education, occupational therapy, socio-therapy, recreational therapy, and consultation with the social worker. Program is carried out by collaborative team: psychiatrist – group analyst, nurse – group therapist, clinical psychologists, occupational therapist, social worker and nutritionist. The more detailed description of the Day hospital program can be found in Šago et al. (2018).

Weekly team meeting is place where group process as well as actual cases are discussed and enables each team member to participate in the collective learning process. The function of these meeting is to think as a team about problems or difficult dilemmas.

The aim of this study was to examine changes in self-esteem, and quality of life of patients with psychotic disorders treated in the Day hospital for early intervention in Psychiatric hospital "Sveti Ivan", and to determine which patients benefit the most from the treatment considering their sociodemographic and clinical characteristics.

SUBJECTS AND METHODS

Subjects

The study included a total of 124 patients, 72 men (58.1%) and 52 women (41.9%), diagnosed with psychotic disorders (according to the ICD-10 diagnostic criteria: F20-F29), and was conducted from January 1st 2015 until December 31st 2018. Only patients who were in the critical period of their illness (i.e., the onset of the disease had occurred within five years) and who were involved in the program for 3 months were included in this study. A total of 54% of the patients were admitted to the Day hospital during or after their first episode psychosis experience. Individuals with comorbid severe somatic conditions, neurological disease, and/or drug addiction were not included in the study. Patients' socio-demographic and clinical characteristics are presented in Table 1.

Table 3. Participants sociodemographic and clinical characteristics (n=124)

	n	%
Gender		
men	72	58.1
women	52	41.9
Age (years)		
≤20	15	12.1
21-30	59	47.6
31-40	32	25.8
41-50	16	12.9
51-60	2	1.6
Work status		
students	33	26.6
employed	50	40.3
unemployed	39	31.5
retired	2	1.6
Clinical characteristics		
Previous psychiatric hospitalizations		
≤1	67	54.0
>1	57	46.0

Abbreviations: IQR = interquartile range

Data are presented as number (percentage) of patients if not stated otherwise

Instruments and procedure

Sociodemographic and clinical characteristics of the patients were obtained from their medical records. The patients completed following questionnaires at the start of treatment and again after three months: Rosenberg Self - Esteem Scale, and WHOQOL-BREF Questionnaire.

Rosenberg Self - Esteem Scale (Rosenberg 1965) consists of 10 items, and the total score is determined by summing the estimate on the scale of 5 degrees (1 = strongly disagree, 5 = strongly agree). A higher score reflects higher self-esteem. The scale showed adequate psychometric properties (Schmitt & Allik 2005).

WHOQOL-BREF Questionnaire is a shortened version of the WHOQOL-100 questionnaire, constructed by the World Health Organization (WHO) to assess quality of life (The WHOQOL Group 1995). The questionnaire consists of 26 questions, measuring four domains of quality of life: physical health, psychological health, social relationships, and environment. A higher score represents higher quality of life. Evaluation studies have indicated its' adequate psychometric properties (Yao et al. 2002).

Statistical analysis

Statistical data analysis was performed using the SPSS statistical software, version 20.0 for Windows (SPSS, Chicago, IL). The results obtained are presented

in the form of means and standard deviations. A paired samples t-test was used to compare participants' state at the start of treatment and after three months. In order to test the potential effects of sociodemographic and clinical characteristics on day hospital treatment outcomes, mixed ANOVA was used to examine the interaction effects between these variables (between-subject factors) and time points of measurement (within-subject factor). The level of statistical significance was set at $P \leq 0.05$.

RESULTS

Table 2 and figure 1 show descriptive statistics and the results of comparison of participants' self-esteem and self-reported quality of life at the start of treatment and after three months.

Results indicate that patients estimated their self-esteem as significantly improved after three months of treatment in the Day hospital. Furthermore, there was a significantly better perception of overall quality of life, and perception of quality of life in the domains of physical and psychological health, and environment.

In order to determine which patients benefit the most from the Day hospital program, interaction effects were examined between their sociodemographic characteristics (gender, age, employment status), clinical features (first episode of psychosis or longer duration of illness), and results on applied questionnaires. Significant

Table 2. Descriptive statistics and differences in patients' state upon admission and after three months of treatment in the Day hospital (n=124)

	Admission M (SD)	After three months M (SD)	t-test	p
Rosenberg Self - Esteem Scale	33.47 (8.73)	36.50 (8.20)	5.443	0.000
Physical health*	12.67 (2.72)	13.67 (2.64)	4.868	0.000
Psychology health*	12.45 (2.97)	13.36 (3.01)	4.606	0.000
Social relationships*	13.25 (3.48)	13.58 (3.41)	1.278	0.204
Environment*	14.60 (2.69)	15.20 (2.55)	3.577	0.000
Total quality of life*	13.30 (2.44)	14.11 (2.46)	5.214	0.000

* domains and total scores from the WHOQOL-BREF Questionnaire

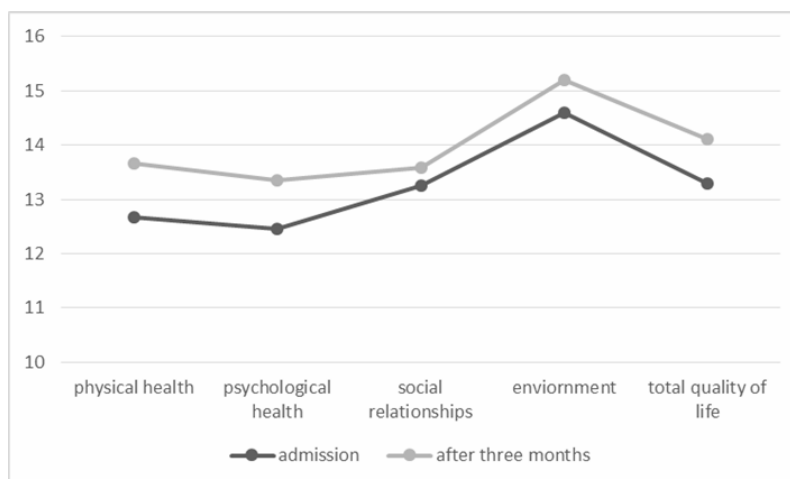


Figure 1. Results of comparison of participants' self-reported quality of life at the start of treatment and after three months

interaction effect was found between participants' age and self-esteem ($F(1,103)=5.182$; $p=0.025$): patients younger than 30 had greater increase in estimated self-esteem compared to older patients. No other significant interactions were found, meaning that there are no significant differences in benefits from the Day hospital treatment concerning patients' gender, employment status and duration of illness.

DISCUSSION

After three months of the treatment, patients evaluated their self-esteem, overall quality of life and satisfaction with different domains of quality of life (physical and psychological health, and environment) as significantly improved.

Possible reason for the improved self-esteem is that the treatment takes place in a safe environment, with a smaller number of members, where the patients are directly involved in decisions about treatment, and where they encourage their empowerment, emancipation and development of their therapeutic alliance. A sense of belonging, understanding, acceptance and usefulness (providing support to others) change their former feelings of isolation, insignificance, inferiority, and thus a negative image of themselves. Mirroring, as well as positive feedback from others, motivates patients for a change. In the Day hospital issues of stigmatization and self-stigmatization are addressed, therefore patients more easily accept changes brought on by mental illness, and therefore stumble less upon the question of acceptance of mental illness in society.

The World Health Organization defines quality of life as the perception of the individual about his position in life in the context of culture and the system of values in which he lives; in relation to their goals, expectations, standards and concerns (The WHOQOL Group 1995). Researches so far suggest that the quality of life of patients with schizophrenia is worse than in the general population and in individuals suffering from somatic diseases, and it becomes worse with the duration of the disease (Cabassa et al 2010, Roberts & Bailey 2011, Happell et al. 2014). Our findings indicated significantly better perception of the quality of life in the domain of physical health. This might be due to the physical activities included in the program. During treatment in the Day hospital, the emphasis is on educating patients on healthy lifestyles, exercise, smoking cessation, and healthy diet. Every day during the program patients have physical exercise, as well as sports games, organized and monitored by occupational therapist. Physical activities are conducted in groups, which is more effective than individual activities (Kemp et al. 2009). Roberts and Bailey described the barrier that patients with severe mental health problems have participating in these activities because of low self-esteem, sedation and increased body weight, which can be overcome via group exercises (Roberts & Bailey 2011).

De Hert and colleagues noted that physical activity could improve metabolic health status even when not associated with a reduction in body weight (De Hert et al. 2011). Therefore, we advised and encouraged the patients to practice half an hour of physical activity every day. Once a week blood pressure is measured, as well as waist circumference and body mass index. Upon admission and at regular intervals, serum lipid levels and blood glucose fasting are checked for all patients. Individuals with psychiatric disorder are at increased risk of developing chronic physical illnesses due to both maladaptive health risk behaviours (lower physical activity, obesity, alcohol consumption and an unhealthy diet) and the physiological effects of their psychiatric illnesses and treatment (Filipčić et al. 2018). The urgent need of health promotion and the development of preventive physical activity and weight loss program is nowadays recognised (Every-Palmer et al. 2018).

The results also pointed to significantly better perception of the quality of life in the domain of psychological health and environment. Group-oriented psychotherapy aims to improve emotional regulation and reduce intensity of symptoms through understanding intra-psychic experiences and emotional acceptance. Similar experiences of group members enhancing cohesion, verbalised in a safe and protective environment, especially in a small group, diminish the sense of discomfort, shame, isolation, seclusion and stigmatization. Group therapy enables communication, counselling, education and learning from others. Working through traumatic experience of psychosis, exchange experiences about treatment they have received, re-establish sense of self and incorporate that experience in personal history. Multi-family group works through initial projection and blame, guilt, negative symptoms, concern for the future and independence of the affected members. Such groups are a place where, for the first time, patients can talk about specific problems which they could not discuss in their family environment. A supportive medium-sized group enables correction of exaggerated attitudes and behaviour, and improves maladaptive patterns of behaviour and communication (Šago et al. 2018). Family acquires a more obvious role in the support and treatment. Through group therapy, seeing how other members achieve remission and recovery, patients begin to believe in their own self (Yalom & Leszcz 2005). Newly acquired knowledge within psycho-educational workshops develops a sense of control and mastery of the symptoms of the disease, and a sense of helplessness slowly disappears.

Freedom is one of the basic idea in the Day hospital. This is seen as shift in power, from position of dominant and controlling (closed wards), holding the monopoly on knowledge and care to a more assertive negotiable one. Patients are not only recipients of aid but also have active roles in treatment (skill building, coping strategies, managing interpersonal relationships, shearing the acquired knowledge with peers and family, self-

exploration, feed-back, mirroring). They are involved in personal planning and choices and an open discussion about the treatment plan is possible. Structure, schedule, and routine in the Day hospital gave patients a sense of confidence and safety. There is an intensive effort made to build good, long-term relationships with patients that pay close attention to one's personal story and life history. Throughout literary workshop, nutrition workshop, occupational therapy, socio-therapy, recreational therapy, and consultation with the social worker the emphasis is placed on the needs, opportunities, significance and growth behind the disease. Patients themselves make decisions about visits to the museum, walks in nature, participating in cultural events, finding the right transportation to reach the destination. They also choose their psychiatrist who will continue to follow them after discharge from the Day hospital and participate in deciding how often they will be visiting him. Recovery is a personal process for people with mental illness who, with and in spite of their vulnerability, pick up their lives again (Muusse & van Rooijen 2015).

In order to determine which patients benefit the most from the Day hospital program, interaction effects were examined between their sociodemographic characteristics, clinical features, and results on self-esteem, and quality of life. The findings showed that patients younger than 30 may benefit more than other patients: younger patients had greater increase in estimated self-esteem compared to older patients. No other significant interactions were found. It could be argued that being younger than 30 and having greater increase in estimated self-esteem is not in accordance with the well-known fact that psychosis onset at earlier age is associated with poorer outcomes on all domains. However, the early phase of psychosis presents important opportunities for secondary prevention. Therefore, the multidimensional approach in the Day Hospital program could be very important therapeutic strategy for young patients with psychosis. Matic and colleagues found that patients treated in the Day hospital had a lower risk for relapse than patients treated as usual (Matic et al. 2018). However, in the research from Switay and colleagues sociodemographic and clinical background variables jointly explained 22% of the variance in QoL, giving that apparently numerous other variables influence this relationship (Switay et al. 2017).

It is important to note several limitations of this study. No comparative group was involved, so the obtained effects cannot be specifically attributed to the Day hospital program. Results cannot be generalized for all patients included in the Day hospital but only for those meeting the inclusion criteria ie. participating the program for three months. Furthermore, possible influences of other factors were not examined, such as individual personality traits, severity of symptoms, social support etc. Future studies should take these limitations into account.

CONCLUSION

After three months of treatment in the Day hospital, patients diagnosed with psychotic disorders evaluated their self-esteem and quality of life as significantly improved. It seems that younger patients may benefit more from the participation in the Day hospital program. Notwithstanding the limitations of this study, we may conclude that the findings are encouraging and may assist with development of more effective therapeutic approaches. The Day hospital provides comprehensive therapeutic approach that refers to early systematic application of all available and effective therapeutic methods in the initial phases of psychotic disorders and aims to attain and maintain high-quality remission and clinical and social recovery, as well as insight and adherence to treatment.

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Contribution of individual authors:

Daniela Šago was involved with paper design, writing and multiple edits of the manuscript drafts.

Vanja Lovretić was involved with paper design, manuscript preparation, and reviewed the manuscript drafts.

Ena Ivezić designed the model and analyzed the data.

Anamarija Bogović Dijaković contributed to paper design and to writing of the manuscript drafts.

Vanessa Valentina Đogaš was involved with paper design, and discussed the results and contributed to the final manuscript.

Kristina Habuš contributed in data collection and conceptual ideas.

Igor Filipčić encouraged Daniela Šago to investigate quality of life in the Day hospital and supervised the findings of this work. All authors made a substantial contributions to conception and design; reviewed the manuscript and have approved the submitted version.

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Correspondence:

Daniela Šago, MD
Psychiatric Hospital "Sveti Ivan"
Jankomir 11, 10 090 Zagreb, Croatia
E-mail: sago.daniela@gmail.com