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C.F.İsmayılova¹, B.M.Əsədov², G.Ç.Gəraybəyli²**MÜXTƏLİF SAĞALMA MƏRHƏLƏLƏRİNDƏ OLAN
ŞİZOFRENIYA XƏSTƏLƏRİNİN EHTİYACLARI**¹Psixi Sağlamlıq Mərkəzi; ²Azərbaycan Tibb Universitetinin Psixiatriya kafedrası,
Bakı, Azərbaycan

Xülasə. Məqalədə şizofreniya xəstələrinin klinik əlamətlərindəki dəyişiklikləri və onların ehtiyacları ilə funksional sağalma mərhələləri arasındakı əlaqələri öyrənmək məqsədilə aparılmış tədqiqat işi haqqında məlumat verilmişdir.

Dizayn olaraq kross-seksion tədqiqat üsulu seçilmişdir. Bakı Psixi Sağlamlıq Mərkəzində və Respublika Psixiatriya Xəstəxanasında psixososial reabilitasiyada iştirak edən 52 şizofreniya xəstəsi tədqiqata daxil edilmişdir. Qısa Psixiatrik Qiymətləndirmə Şkalası (BPRS), Tələbatların Qiymətləndirilməsi üzrə Kembervil Şkalası (CANSAS) və Sağalma Mərhələlərinin Müəyyən edilməsi üzrə Şırlf (STORI) istifadə edilmişdir.

Tədqiqata əsasən belə nəticəyə gəlmək olar ki, şizofreniya zamanı funksional sağalma Moratorium, Dəyişmə və Şəxsiyyətin inkişafı mərhələlərini özündə birləşdirən üçpilləli proses kimi baxılması məqsədəuygundur. Bu zaman sağalmanın hər mərhələsi ehtiyacların kəmiyyəti və strukturu ilə assosiasiya olunur və ilk növbədə funksional ehtiyacların əhəmiyyətli dərəcədə azalması ilə özünü göstərir. Daha yüksək mərhələli sağalmaya keçid, şizofreniya xəstələrinin fəaliyyətinin artması deməkdir. Dəyişmə və Şəxsiyyətin inkişafı mərhələsində şizofreniya xəstələrinin özünə qulluq, uşaqlara qulluq, ev işlərini yerinə yetirmək, gündəlik fəaliyyəti təşkil etmək qabiliyyətləri bərpa olunur.

Açar sözlər: şizofreniya, ehtiyaclar, reabilitasiya

Ключевые слова: шизофрения, потребности, реабилитация

Key words: schizophrenia, needs, rehabilitation

J.F.Ismayilova¹, B.M.Asadov², G.Ch.Geraybeyli²**THE DEMANDS OF THE PATIENTS WITH SCHIZOPHRENIA
AT DIFFERENT STAGES OF RECOVERY**¹National Mental Health Center; ²Department of Psychiatry,
Azerbaijan Medical University, Baku, Azerbaijan

The goal of the study was to investigate a relation between stages of functional recovery and clinical variables and functions of patients with schizophrenia.

This cross-sectional observational study were included 52 patients with schizophrenia who were participated in psychosocial rehabilitation at the National Mental Health Center as well as at the Republican Psychiatric Hospital in Baku, Azerbaijan. Patients functional capacity were measured by The Brief Psychiatric Rating Scale (BPRS), the Camberwell Assessment of Need Scale (CANSAS) and Stages of Recovery Instrument (STORI). The study was approved by the Ethical Committee of the Azerbaijan Medical University.

Functional recovery in schizophrenia should be considered as a three-stage process including the stage of Moratorium, the stage of Changes, and the stage of Personal Growth. At the same time, the achievement of each new recovery stage is associated with a change in the quantity and structure of demands that is observed in a statistically significant decrease in functional demands in first place. The transition to a higher stage of recovery means, in fact, an improvement in the functioning of patients with schizophrenia. The transition to higher stages implies better functioning in the first place. In particular, patients with schizophrenia restore their self-care ability, ability to look after home, carry out everyday duties and care for children.

Introduction. According to the new approach, recovery of people with schizophrenia, patients go through different stages. The Stages of Recovery Instrument (STORI) was designed to measure the stage of psychological recovery from mental illness [1,2]. One of the most advanced concepts of recovery in patients with severe mental illnesses proposes four components model in recovery process: 1) sustain hope; 2) restoration of a positive self-image; 3) finding meaning in life; 4) taking responsibility over own life. Thus, all the components have been included into five consequent recovery stages: moratorium; awareness, preparation, changes, and personal growth in STORI. [3, 4]

Methods. *Participants* The study inclusion criteria were age 18 years or older; ICD-10 clinical diagnosis of schizophrenia; duration of schizophrenia at least 12 months; ability to participate in informed consent process. Exclusion criteria included diagnosis of a substance use disorder, intellectual disability/intellectual developmental disorder.

Procedure and Study design

Eligible patients were consecutively invited to participate in the study. Participation was voluntary and all patients were informed that refusal to participate will not influence their care in any way at the National Mental Health Center or Republican Psychiatric Hospital. The study was approved by the ethics committee of the Azerbaijan Medical

University. No additional interventions were offered beyond standard of care as part of their clinical services. Respondents did not receive any financial incentives for their participation.

A psychiatrist or a trained clinical psychologist conducted a standardized structured face-to-face interview with a patient. Demographic and clinical data were collected during the interviews.

Results. The estimation of a stage of recovery in 52 patients participating in psycho-social rehabilitation did not reveal any difference in respect to sex ($\chi^2= 4.5$; $df= 4$; $p=0.343$), age ($\chi^2=4.36$; $df=4$; $p=0.359$), marital status ($\chi^2= 14.1$; $df= 12$; $p=0.297$), education ($\chi^2=20.78$; $df=12$; $p=0.41$) and socio-economic status ($\chi^2=9.585$; $df= 8$; $p= 0.295$). The only differences was increased number of employed patients at the stage of *Personal Growth* ($\chi^2= 29.53$; $df= 12$; $p= 0.003$).

As for relation between stages of recovery and clinical variables it should be noted moderate negative correlation between illness duration ($r=-0.313$; $p=0.024$), number of psychotic episodes ($r=-0.324$; $p=0.02$) and number of hospitalizations ($r=-0.424$; $p=0.002$).

Met and unmet functional demands assessment as well as total demands estimation revealed differences in relation to a particular stage of recovery observed in patients with schizophrenia (Figure).

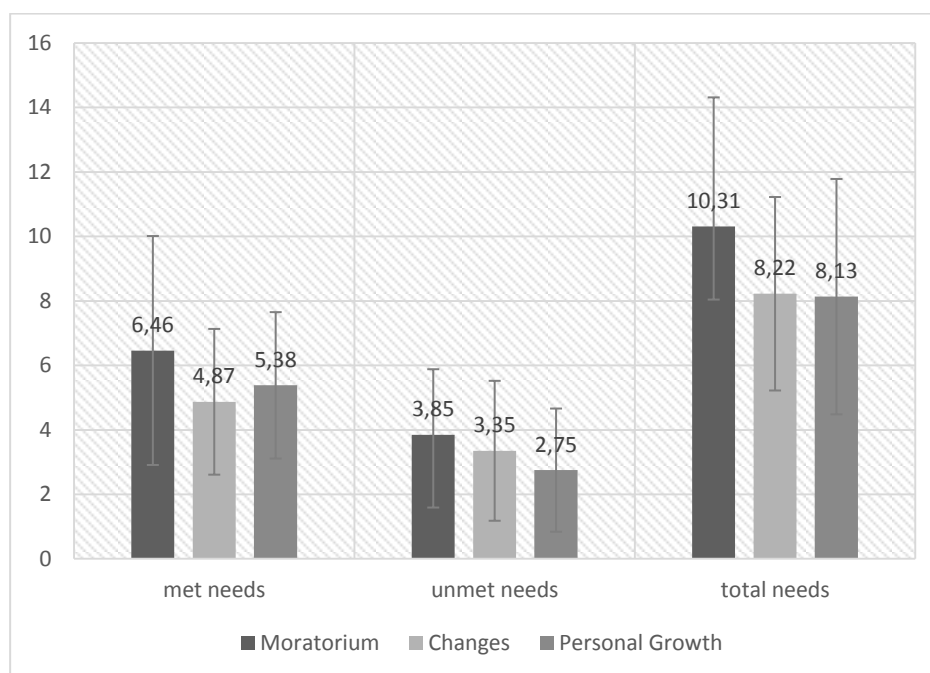


Figure. The number of functional demands at different stages of recovery

As it was expected, the highest number of demands was observed among the patients at Moratorium stage and the lowest - at the stage of Personal Growth.

Also, we conducted analysis of the structure of demands to find differences between various unmet demands at different stages of recovery. In should be noticed an absence of significant differences in unmet basic and social demands in patients with regard to recovery. Yet we could indicate only small differences related to the number of unmet demands in the field of health and social services (Table 1).

Thus, statistically significant difference was observed for functional needs only. These unmet needs were reduced at the stages of Changes and Personal Growth. In fact, a transition to higher stages implies better functioning in the first place. In particular, patients with schizophrenia restore their self-care ability, ability to look after home, carry out every-day duties and care for children.

At the same time not only quantity but also a quality of needs may change. For instance, a predominant demand at Moratorium stage were increase of symptoms control while at the stage of personal growth the most prominent demand was developing interpersonal relations and cognitive skills. In addition, we agree with the researches postulating that even at the highest stages of recovery patients continue to experience need for care in certain areas of life.

It should be noticed that people with schizophrenia and their relatives first of all reported absence of psychotic symptoms and hospitalization as a sign of remission that is in conformity with a traditional medical approach. However, our research revealed a limitation of

this approach because clinical remission and staying at out-patient treatment are prerequisites rather than evidence of recovery. Most patients at the Moratorium stage did not have acute symptoms of schizophrenia and therefore they did not get inpatient treatment. However, their functional status did not indicate the beginning of recovery process. On the other hand, the patients in the course of recovery assessed with the STORI who had the stages of Changes or Personal Growth were developing positive self-identity, separating own personality from their illness, searching for new life goals and accepting responsibility. Thus, they could satisfy their functional needs. This fact is evidence of legitimacy of biopsychosocial approach postulating that improving social functioning rather than an absence of symptoms should be the main indicator of recovery. That is why recovery-focused rehabilitation programs should be implemented in accordance with a particular level of functioning achieved by a patient [5-7].

The largest number of patients were at the Moratorium stage and at the Personal Growth stage, persons at other stages of recovery were distributed almost equally. Such a distribution should be considered as random ($\chi^2=6.077$; $df=4$; $p=0.193$).

The number of women (9 people) at the Moratorium stage was more than men (4 people), at the Personal growth stage the number of women (5 people) was less than men (11 people), and at other stages the ratio was the same. There was no statistically significance differences between gender ($\chi^2=4.5$; $df=4$; $p=0.343$).

Table 1. Demands at various stages of recovery

Demands	Number of needs at certain stage of recovery			χ^2 K-W	p
	Maratorium M (SD)	Changes M (SD)	Personal Grows M (SD)		
Basic and social	3.8 (1.95)	3.6 (2.35)	3.7 (2.41)	2.4	0.301
Functional	1.2 (1.07)	0.4 (0.59)	0.4 (0.51)	6.84	0.033
Health	0.7 (0.85)	0.9 (1.24)	0.3 (0.6)	3.41	0.182
Social services	0.5 (0.66)	0.7 (0.81)	0.6 (0.96)	0.652	0.722

Table 2. Stages of recovery and severity of mental health symptoms

Stages of Recovery	Symptoms (BPRS)						
	General	Anxiety/ Depression	Cognitive function	Deficit	Hostility	Decreased activity	Mania
Moratorium	50.7	8.3	6.9	7.6	7.7	5.1	7.5
Awareness	31.9	6.0	7.0	7.2	7.4	3.8	6.4
Preparation	30.7	5.7	6.7	6.4	7.6	4.6	5.6
Rebuilding	27.1	4.3	4.3	5.2	2.9	3.1	3.0
Growth	25.5	5.1	5.0	4.3	3.1	2.4	2.1
Kruskal-Wallis (χ^2)	9.96	5.57	2.9	6.03	8.92	6.71	12.5
p	0.041	0.233	0.575	0.197	0.063	0.152	0.014
Spearman (R_s)	-0.384	-0.265	-0.163	-0.152	-0.275	-0.351	-0.422
p	0.005	0.05	0.25	0.282	0.048	0.011	0.002

There were also no statistically significant differences in age ($\chi^2_{KW}=4.36$; $df=4$; $p=0.359$), marital status ($\chi^2=14.1$; $df=12$; $p=0.297$), education ($\chi^2=20.78$; $df=12$; $p=0.41$) and socioeconomic status ($\chi^2=9.585$; $df=8$; $p=0.295$). At the same time, statistically significant differences were noted depending on employment ($\chi^2=29.53$; $df=12$; $p=0.003$ at the stage of Personal Growth).

The moderate negative correlation between stages of recovery and the duration of the illness ($r = -0.313$; $p=0.024$), the total number of psychotic episodes ($r = -0.324$; $p=0.02$) and the number of hospitalizations ($r = -0.424$; $p=0.002$) were found.

An analysis of the association between the severity of various groups of and the stages of recovery was also shown.

In order to validate the scale of stages of recovery, a coefficient Cronbach's α analysis

of the internal consistency of the questions related to each stage was carried out. The coefficient ranged from 0.756 (Awareness stage) to 0.924 (Personal growth stage), which indicates the high reliability of individual subscales (Table 3).

The validity of the scale is determined by the degree of relationship between the individual stages of recovery; the closer stages are the stronger correlation is (Table 3).

An analysis of the correlation between different stages of recovery shows that patients in the moratorium stage do not meet the criteria defined for other stages. Patients in the awareness stage may have similar characteristics with patients in the preparation and rebuilding stages. Patients in the stage of preparation, rebuilding and growth also have common features (Table 4).

Table 3. Validation on the scale

Stages of recovery	STORI scores M (SD)	Cronbach's α
Moratorium	21.9 (12.86)	0.861
Awareness	28.5 (6.32)	0.756
Preparation	29.3 (8.47)	0.807
Rebuilding	28.7 (10.11)	0.853
Growth	28.2 (13.88)	0.924

Table 4. Correlation between stages

	Awareness	Preparation	Rebuilding	Growth
Moratorium	0.059 (p= 0.686)	-0.505 (p<0.001)	-0.604 (p<0.001)	-0.733 (p<0.001)
Awareness		0.536 (p<0.001)	0.332 (p=0.017)	0.192 (p=0.178)
Preparation			0.898 (p<0.001)	0.760 (p<0.001)
Growth				0.898 (p<0.001)

Hierarchical cluster analysis was carried out to determine the correspondence between the number of stages of recovery using the Ward method. Possible variants of clusters are shown in dendrogram.

As a result of cluster analysis in our study, the best recommended solution is a three-cluster model.

With a three-cluster model, it is possible to clearly identify questions related to the Moratorium stage (Cluster I) and all questions related to the Personal Growth stage (Cluster III). At the same time, Cluster III includes three questions from the Preparation stage and 7 questions from the Rebuilding stage [8, 9].

In our case, the four-cluster and five-cluster models do not fit into the concept

underlying the STORI scale.

The obtained results can be interpreted from the point of view that the initial and last stages of recovery are states with clearly defined boundaries, while the second, third and fourth stages reflect a dynamic process with many intermediate forms that smoothly pass into each other. In this regard, in the further part of the work, a three-phase recovery model was used, which was divided into the Moratorium stage, the Change stage (which included the stages of Awareness, Preparation and Restructuring) and the stage of Personal growth [10,11]

The results of the assessment of unmet needs revealed differences in patients at a certain stage of recovery (Table 5).

Table 5. Number of unmet needs at different stages of recovery

Type of needs	Number of needs at different stages			χ^2	p
	Moratorium M (SD)	Rebuilding M (SD)	Persinal Growth M (SD)	K-W	
Basic and social	3.8 (1.95)	3.6 (2.35)	3.7 (2.41)	2.4	0.301
Functional	1.2 (1.07)	0.4 (0.59)	0.4 (0.51)	6.84	0.033
Health	0.7 (0.85)	0.9 (1.24)	0.3 (0.6)	3.41	0.182
Social services	0.5 (0.66)	0.7 (0.81)	0.6 (0.96)	0.652	0.722

Discussion. Statistically significant difference was observed for functional needs only. These unmet needs were reduced at the stages of Changes and Personal Growth. In fact, a transition to higher stages implies better functioning in the first place. In particular, patients with schizophrenia restore their self-care ability, ability to look after home, carry out every-day duties and care for children.

At the same time not only quantity but also a quality of needs may change. For instance, a predominant need at Moratorium stage were increase of symptoms control while at the stage of personal growth the most prominent need was developing interpersonal relations and cognitive skills. In addition we agree with the researches postulating that even at the highest stages of recovery patients continue to experience need for care in certain areas of life

The transition to a higher stage of recovery means, in fact, an improvement in the functioning of patients. In particular, patients with schizophrenia regain the ability to take care of themselves, take care of children, do housework, and organize daily activities [12]. It is important to note that although individuals suffering from schizophrenia and their relatives primarily consider the absence of psychotic symptoms and hospitalization as recovery, which fits within the framework of the traditional medical approach. However, our research shows the limitations of this approach, since clinical remission and outpatient stay are only a prerequisite, but not proof of recovery. Most patients at the Moratorium stage did not reveal acute symptoms of schizophrenia and, accordingly, were not hospitalized, however, their functional status did not allow us to judge the beginning of the recovery process [13-15].

On the other hand, patients who were in the process of recovery, in whom the stages of Change or Personal Growth were established using the STORI scale, in parallel with the formation of a positive self-identity, sepa-

ration of their personality from the disease, search for new life goals and acceptance of responsibility, are able to satisfy their functional needs. This fact justifies the biopsychosocial approach - it is the improvement of social functioning, and not the absence of symptoms or hospitalizations, that should be considered as the main indicator of recovery in schizophrenia [4, 6, 16].

The STORI is recommended to use to measure recovery stages in patients with schizophrenia and other severe mental illnesses in Azerbaijan. Functional recovery in schizophrenia should be considered as a three-tier process including the stage of Moratorium, the stage of Rebuilding, and the stage of Personal Growth. At the same time, the achievement of each new recovery stage is associated with a change in the quantity and structure of needs that is observed in a statistically significant decrease in functional needs first of all [17-19]. Understanding the association of psychological recovery with various psychosocial and treatment-related variables can help in organizing services to promote personal recovery [3,20].

Conclusion. Functional recovery in schizophrenia should be considered as a three-tier process including the stage of Moratorium, the stage of Changes, and the stage of Personal Growth. At the same time, the achievement of each new recovery stage is associated with a change in the quantity and structure of demands that is observed in a statistically significant decrease in functional demands in first place. The transition to a higher stage of recovery means, in fact, an improvement in the functioning of patients with schizophrenia. The transition to higher stages implies better functioning in the first place. In particular, patients with schizophrenia restore their self-care ability, ability to look after home, carry out every-day duties and care for children.

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Д.Ф.Исмаилова¹, Б.М.Асадов², Г.Ч.Герайбейли²

ПОТРЕБНОСТИ БОЛЬНЫХ ШИЗОФРЕНИЕЙ НА РАЗНЫХ СТАДИЯХ ВЫЗДОРОВЛЕНИЯ

¹Центр Психического Здоровья; ²Кафедра психиатрии Азербайджанского Медицинского Университета, Баку, Азербайджан

Резюме. В статье представлены результаты исследования проведенного с целью изучения взаимосвязи между этапами функционального выздоровления и клиническими переменными и потребностями пациентов с шизофренией.

Данное кросс-секционное исследование включало обследование 52 пациента с шизофренией, которые проходили психосоциальную реабилитацию в Национальном Центре Психического Здоровья, а также в Республиканской Психиатрической Больнице в г. Баку, Азербайджан. Краткая шкала оценки психиатрических симптомов (BPRS), Кембервельская шкала оценки потребностей (CANSAS) и шкала по изучению стадий выздоровления (STORI)

Функциональное выздоровление при шизофрении целесообразно рассматривать как трехступенчатый процесс включающий стадию Моратория, стадию Изменений и стадию Личностного роста. При этом прохождение каждой стадии выздоровления ассоциируется с изменением количества и структуры потребностей, и, в первую очередь, проявляется в статистически значимом уменьшении функциональных потребностей.

Correspondence Author:

Dr. **Jamila Fuad Ismayilova** - M.D., M.Sc., Ph.d., National Mental Health Center of the Ministry of Health of The Republic of Azerbaijan, Secretary for International Relations at Azerbaijan Psychiatric Association (AzPA)

E-mail: ismayilova.d@gmail.com

ORCID: 0000-0001-8418-4692