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Review Article

Recovery-Oriented Practices in Community-based Mental Health Services: A Systematic Review

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Abstract

Objective: New initiatives are needed to manage patients with mental health problems in the community. Among the core principal ideals of any healthcare system is transition from traditional services to community-based practices. The aim of this study was to assess community-based and recovery-oriented practices and interventions for individuals with mental health problems.
Method: MESH keywords, including “mental health recovery”, “rehabilitation”, “aftercare”, “community psychiatry”, and “mental health service” were searched in scientific databases such as Medline, EMBASE, PsychInfo, CINAHL, and Cochrane up to July 2022. A snowball search was also conducted on eligible studies. The methodological quality of the studies was determined by Kmet standard criteria.
Results: The systematic review included 32 studies, all of which demonstrated a moderate to high promising effect for community-based and recovery-oriented practices or programs on patients with severe mental illness. These practices could help patients to find suitable jobs, avoid isolation and stigma, improve communication skills, increase awareness of problems, and foster independence. The study also highlighted the pivotal role of nurses, artistic and sports activities, electronic (E)-mental health, home visits, psychoeducation, and special recovery programs.
Conclusion: Community-based and recovery-oriented practices should be used as an effective means of normalizing the lives of psychiatric patients. In essence, by cultivating hope and empowering these patients, many of the concerns of health systems can be eradicated.

Key words: *Aftercare; Community Mental Health Services; Community Psychiatry; Mental Health Recovery; Systematic Review*

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Mental illnesses have affected humankind for a long time, and the prevalence of people suffering from these disorders has been on the rise (1, 2). Studies have shown that 20% of adolescents aged 13-18 suffer from severe mental illnesses (3, 4). Latest reports indicate that the prevalence of mental illnesses among children and adolescents in Iran is about 22.1%, and women are more affected by mental illnesses than men (5). Moreover, approximately 10 million adults in the United States suffer from serious mental illnesses such as schizophrenia, major depression, and bipolar disorder. According to recent reports, approximately 25% of the United States population is affected by one or more mental illnesses, and almost half of the psychiatric patients suffer from two or more mental illnesses (6).

Being of high prevalence, these mental illnesses are associated with significant direct and indirect economic costs for societies, including specific treatment costs and reduced efficiency, respectively (7). In addition, the cost of care and treatment for patients with drug abuse is around one and a half trillion dollars in the United States annually (6), and the rate of patients who need treatment services and hospitalization in neuropsychiatric wards is 6% (7). However, it should be noted that mental illnesses not only affect patients but also their families (8).

Given the far-reaching consequences of mental illnesses, it is plausible to assert that these disorders have biological and psychological origins, affecting different personality dimensions of individuals. Therefore, it is essential to not only provide acute treatment but also plan for follow-up and conducting community-oriented measures, aimed at addressing the recovery of these patients in all dimensions (9). Typically, psychiatric patients are discharged from hospitals after a partial recovery, but without proper support, they may stop taking their medication, resulting in a relapse and ultimately re-hospitalization. There are numerous factors that contribute to re-hospitalization, including failure to modify life events, inability to follow-up on treatment and visit on time, lack of correct insight into the disease, abandonment of the patient, and lack of financial or emotional support for regular visits or follow-up care (10). Thus, community-based practices can be effective in reducing the re-hospitalization rate among psychiatric patients, as re-hospitalization not only imposes additional costs on the health system but also on patients' families, leading to a vicious cycle of treating psychiatric patients (11). Community-based services in mental illnesses are defined as goal-oriented services that aim to help people with mental health issues to reach an optimal level of mental, physical, social, and functional well-being (11).

Research has indicated that individuals with severe mental illnesses prefer services provided in their living environment to maintain relationships and continue their careers (1, 2). Mental health services in the community include medical follow-up and psycho-social support, which can lead to better health-related outcomes, such as adherence to treatment, improved quality of life, and individual and social functioning. In addition, social outcomes, such as reducing the social stigma of mental illness and increasing stability, should be considered (12). Therefore, access to care, professional recovery assistance, and community involvement are essential for people with mental health problems to lead full lives (13).

To improve the quality of care and outcomes for people with mental health problems, many mental health systems may require reform. Although considerable progress has been made worldwide in reforming mental health systems, particularly through the development of policies and services, resulting in moving away from institutional care towards community-based services (14), these steps are often inadequate to make significant changes in mental health care. In addition, potential challenges particularly affect vulnerable populations, such as those with severe mental health problems, who may require a complex combination of long-term services. Patients with mental health problems incur high costs, necessitating the use of social health care services (13).

Nevertheless, important steps must be taken worldwide to reform mental health systems by moving away from traditional care towards community-based services. Despite extensive evidence of effective care for people with severe mental illnesses, many individuals do not have access to optimal mental health care (12). This study aimed to consolidate previous research to improve community mental health care and support the complex transition from hospital-based to community-based care delivery. The objective of this systematic review was to assist the implementation and interdisciplinary cooperation among community mental health practitioners. It focused on recovery-oriented projects and aimed to answer three questions: 1. What is the current status of treatment and care for patients with chronic mental illnesses after hospital discharge? 2. What are the community-based and recovery-oriented interventions available for chronic mental patients? 3. What is the role of psychiatric nurses in providing community-oriented services for patients with severe mental illnesses?

Materials and Methods

This systematic review was conducted based on PRISMA guidelines. The protocol was registered in PROSPERO (ID: CRD42022348698).

The code of ethics in this study was IR.SBMU.PHARMACY.REC.1401.053, as issued by Shahid Beheshti University of Medical Sciences.

Search strategy

We conducted a comprehensive search of several databases including Medline, EMBASE, PsychInfo,

CINAHL, and Cochrane up to July 2022 using the following terms:

1. Mental health recovery (Text Word) OR Rehabilitation (Mesh Term) OR Aftercare (Mesh Term) OR Continuity of Patient Care (Mesh Term) OR Activities of Daily Living (Mesh Term) OR Psychiatric Rehabilitation (Mesh Term) OR Psychosocial Care (Mesh Term) OR Mental Health Rehabilitation (Mesh Term) OR Psychosocial Rehabilitation (Mesh Term)
2. Community (Text Word) OR Community Psychiatry (Mesh Term) OR Social Psychiatry (Mesh Term) OR Nurse, Visiting (Mesh Term) Community Health Center (Mesh Term) OR Community Health Worker (Mesh Term) Community Health Nurse (Mesh Term) OR Home Health Nurse (Mesh Term) OR Home Nurse (Mesh Term) OR Health Visitor (Mesh Term) OR Neighborhood Health Center (Mesh Term) OR Community Health Aide (Mesh Term) OR Family Planning Personnel (Mesh Term) OR Village Health Workers (Mesh Term) OR Community Support (Mesh Term) OR Community Participation (Mesh Term) OR Therapeutic Community (Mesh Term) OR Community Involvement (Mesh Term)
3. Mental Health Service (Text Word) OR Mental Hygiene Service (Mesh Term)
4. 1 AND 2 AND 3

The search strategy was supplemented by a snowball search of included studies.

Inclusion and Exclusion Criteria

All the qualitative and quantitative studies published in English were considered eligible if they investigated professional factors related to community-oriented services for the recovery of patients or clients suffering from chronic mental illnesses.

Meanwhile, studies were considered for the primary search if they:

1. Included educational and mental community-based services;
2. Addressed community-based mental services in research;
3. Evaluated management aspects of community-based psychological services;
4. Used various methods (descriptive, interventional, etc.) of providing community-based and recovery-oriented services for individuals with severe mental illness;
5. Focused on community-based psychological services in the area of nursing;
6. Addressed various dimensions of community-based psychological services, including obstacles and facilitators of implementing these interventions, and the organizing process to start using the interventions, strategies, and consequences. For example, one consequence is whether the interventions can be implemented at the level of a mental health system or not;
7. introduced any related setting or treatment group, even as telemedicine or E-mental health; and
8. were peer-reviewed and used or developed post-discharge and community-based services for patients with mental illnesses.

Exclusion criteria included studies that:

1- did not focus on the professional aspects of community-oriented services for the recovery of patients with mental illnesses;
2- did not include challenges or descriptions/suggestions related to professional dimensions;
3- included primary experimental results such as reviews, editorials, and commentaries;
4- were a part of treatises, dissertations or proceedings;
5- were published in a language other than English; and
6- were considered as gray literature, which were not published as articles, such as posters presented in seminars, statements, organizational projects, class presentations, health messages, and other related literature.

Quality Assessment

Kmet standard criteria were used to evaluate both quantitative and qualitative studies (15). These criteria are designed to evaluate the quality of quantitative (maximum 22 points) and qualitative (maximum 20 points) studies. The items of this tool include study design, selection of participants, data analysis methods, transparency, and interpretation of results. In case of non-applicable cases (mixed methods), reports were presented as percentages. Quality scores were also employed to identify potential studies for exclusion.

Data Extraction

Guidance notes and data extraction table were used for more coordination. Two researchers summarized the included studies, and the summaries were then reviewed by a third author. The final summary was determined through a group discussion to reach a consensus. The following items were extracted for the studies:

1. General information about the research (author, publication year, reference, location, study design, sample size, participants)
2. Type of program or intervention
3. Main findings or key points.

Results

Characteristics of included studies

Initially, a total of 1615 articles were collected, but after removing duplicate articles, 1117 articles remained. After removing irrelevant articles through title and abstract screening, 152 articles were checked in full text. Of those, 120 studies were excluded owing to the following reasons: being reviews or editorials, not providing the data, being in a language other than English, and having low quality assessment scores. Eventually, 32 relevant studies were included with a

total sample size of 6674 (Figure 1). The studies comprised 11 RCTs, eight qualitative studies, five mixed-method studies, four cross-sectional studies, two quasi-experimental studies, and two longitudinal studies.

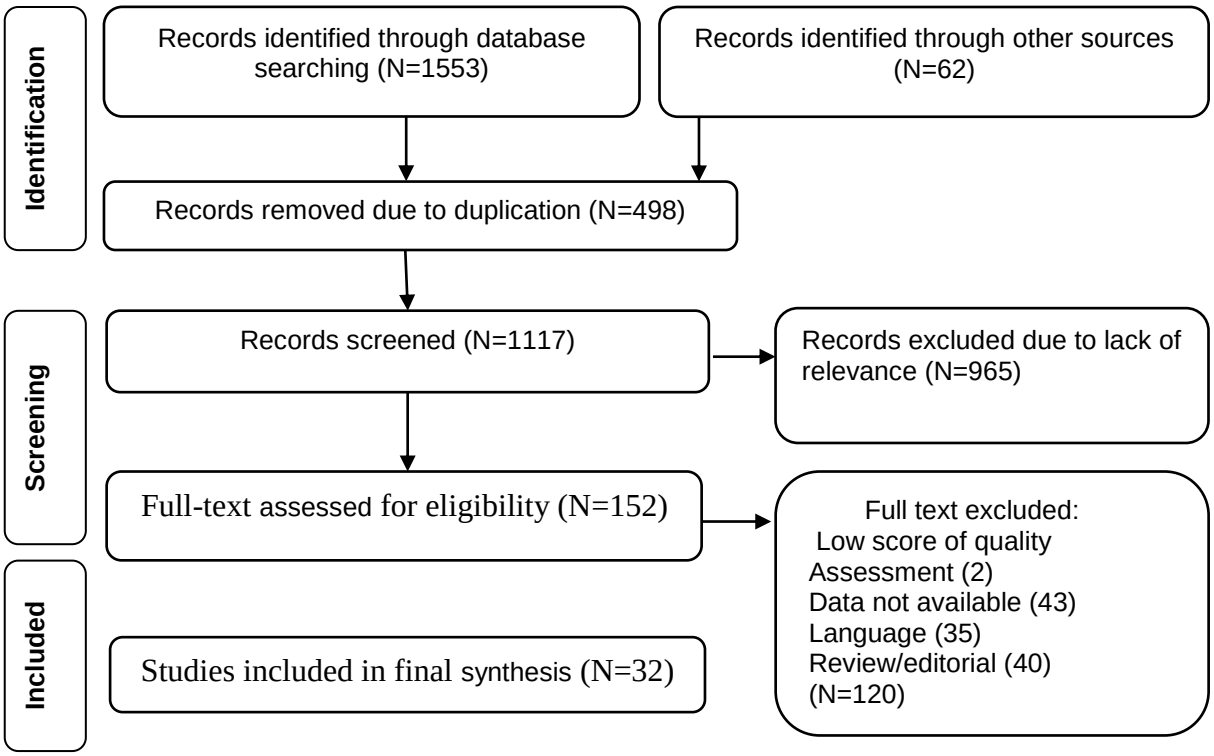

Figure 1. PRISMA Flowchart of Selected Studies on Recovery-Oriented Practices in Community-|Based Mental Health Services

Description and Classification of Practice Components

The practices included psychoeducational programs (16-21), tele-psychiatric interventions (18, 22, 23), home visits (18, 24-26), E-mental health interventions (23, 27, 28), recreational activities (29-31), family-based interventions or assessments (16, 18, 32, 33), transitional interventions for de-hospitalization (25, 34, 35), special service programs (36-42), public policies or services (43-46), and employment support (21, 24, 39, 42, 47). These practices and services were provided by nurses, social workers, peer workers, psychiatrists, psychologists, and mental health workers.

Quality Assessment

The total quality assessment scores for each study are presented in Table 1, and some studies were excluded owing to their low quality (48, 49). Studies with a percentage below 70% or a score below 16 were considered ineligible. Studies with a mixed-method design were reported in the form of percentages.

Service programs

13 studies assessed the impact of a specific type of recovery program (Table 1), including two international RECOVER-E studies which were conducted by the same first author in Central and Eastern Europe. RECOVER-E consists of five trials. It evaluates the perception of professionals and users regarding the efficacy of the program, the influencing socioeconomic factors, and patient-reported outcomes (36, 37).

Assertive community treatment (ACT) is a new type of intervention for recovering and managing patients with severe mental illnesses. Further, the Illness Management and Recovery (IMR) program is designed to improve patients' self-management and empowerment levels. ACT-IMR combines both programs for better outcomes (41). The Consumer-Operated Service Program (COSP) was developed for improving the recovery process among individuals with mental illnesses (40), while the Individual Placement and Support (IPS) program focuses primarily on the employment of individuals with lived experience of mental illnesses (42). Similarly, the ACT-IPS program was designed to increase employment rates among individuals with severe mental illnesses (39). An Australian program called Community Care Unit (CCU) was developed for residential mental health rehabilitation, the aim of which was to provide non-clinical services (38).

Table 1. Characteristics of Included Studies in the Systematic Review

Author, Year and Reference	Location	Study type; Assessment Tool	Participants (Sample Size)	Program/ Intervention	Key points/Main Findings	Quality Score
Roth et al. (2021) (a) (37)	Croatia, Montenegro, Bulgaria, Romania, North Macedonia	CS; RSA-P and TMSA and self-report measures	Health care workforce such as nurses, psychiatrists, psychologists, social workers and peer workers (n=52)	RECOVER-E (community-based mental health care for psychiatric patients in Europe)	• There is a great potential for offering tr • aining sessions to health care workers, as the training week could increase their awareness concerning the provision of recovery-oriented practices. • Interestingly, compared with the experienced workforce, the staff with lower levels of experience recognized that they are providing more recovery-oriented services • Among different professions, nurses and peer workers were not as liable as other staff members. • Users declared their satisfaction with the care provided by the staff.	21/22
Roth et al. (2021) (b) (36)	Croatia, Montenegro, Bulgaria, Romania, North Macedonia	CS; WHODAS and INSPIRE	Mental health service users (n=931)	RECOVER-E	• There was an acceptable level of interaction between the users and staff. • There was a direct association between the perceived level of support from the staff and lower levels of functional limitation. • It can be hypothesized that community-based services may lead to a greater degree of recovery among patients.	21/22
Mashimo et al. (2020) (24)	Japan	RCT; GAF and SFS	Adults with ICD-10 diagnosis of F2 or F3 category (n=49)	Home-visit Occupational Therapy as Management Tool for Daily Life Performance	• Participants in the intervention group had a higher score on the GAF scale. • Employment/occupation score was higher in the intervention group. • There was no significant difference in the total score of SFS between the intervention and control groups. • Management Tool for Daily Life Performance can lead to an improved level of social functioning.	21/22

Ogundipe et al. (2020) (31)	Norway	Qualitative; focus group interviews	Individuals with mental health and/or substance abuse problems (n=51)	Street football	• Street football is a unique kind of recovery-oriented and community-based program. • Participants missed each other, demonstrating improvements in social relationships and inclusion. • The sense of rivalry should be addressed which may have some disadvantages. • Participants reported feeling safe with their coaches and respected each other.	19/20
Jørgensen et al. (2020) (43)	Denmark	Qualitative; focus group interviews	Healthcare professionals and users (n=27)	Recovery-oriented intersectoral care	• A particular agenda and purpose should be designed for the staff. • Family members and relatives can help facilitate the recovery process. • All the involved sectors and their staff should be available during the recovery process. • Establishing a trusting bond between the patient and staff can help the patient's successful return to a normal life. • Establishing a communication network is necessary for improving the social inclusion of users .	20/20
Padmakar et al. (2020) (34)	India	Mixed methods; interviews, naturalistic observation, BPRS and WHO Quality of Life scale	Users with severe mental illness (n=11)	Supported Housing for de-hospitalization	• A significant reduction in symptoms and modification of behavior was observed. • Creating a safe and welcoming environment for patients is crucial to eliminate labels such as stigma and abandonment. • According to participants, rest, peace, attention, and reduced disturbance are among the key features that improve the quality of life.	80%

Williams et al. (2019) (30)	Australia	Longitudinal; 7-item scale for the measurement of group identification and WEMWBS	Members of choir and creative writing groups with chronic mental illness (n=59)	Arts-Based Groups	• An improvement in the psychological well-being of the participants was observed. • There was a direct association between the sense of identification and psychological well-being. • Overall, there was no difference between the improvement level of participants in the two groups. • Art-related programs, especially in the form of groups, can be useful in the recovery procedure of psychiatric patients in the community.	20/22
Williams et al. (2018) (28)	Australia	Qualitative; focus groups with discussions	Mental health workers (n=37)	Recovery oriented E-mental Health	• By taking advantage of online programs, mental health activists can introduce patients to a wide range of tools, such as various applications and useful websites. • Limited online interaction between mental health workers and patients was reported. • Patients' access to invalid or false information through online content cannot be denied. • Metal health workers could check the recovery-related activity of patients via online communication. • Using technological tools to access online resources can improve patients' skills and social relationships.	18/20
Rezaei et al. (2018) (16)	Iran	RCT; Communication skills questionnaire, GHQ	Family members of patients with schizophrenia (n=100)	Psychoeducation as Multiple Family Group	• Improvements were observed in communication skills. • There was a higher level of GHQ scores after the intervention.	19/22
Pakpour et al. (2017) (17)	Iran	RCT; MARS, PBC, YMRS, SRBAI, CGI-BP-S, MADRS	Patients with bipolar illness (n=270)	Psychoeducation as motivational interviewing	• Improvements in medical adherence was noted. • Significant improvements in all outcome measures were observed in the intervention group.	20/22

Parker et al. (2017) (38)	Australia	Qualitative; semi-structured interviews	Consumers of Community Care Unit (n=24)	Community Care Unit	• The Community Care Unit is an excellent alternative to housing programs as the risk of insecurity reduces. • Participants could avoid family conflicts and disabling environments by joining the Community Care Unit. • All participants reported feeling positive about the program and observed changes such as reaching goals, normalizing their lives, and developing a new personality. • Consumers could practice independence in the Community Care Unit • Some participants felt nervous about the transitional atmosphere of the Community Care Unit.	18/20
Moradi-Lakeh et al. (2017) (18)	Iran	RCT; PANSS, YMRS, CQS, Cost Questionnaire, GHQ, Family Experience Interview Schedule, HAM-D, GAD	Patients with severe mental illness (n=120)	Home visit, telephone follow-up, social skills training and psychoeducation of caregiver	• There was a significant improvement in the quality of life and satisfaction with the service provided. • The intervention imposed lower costs while providing higher efficacy.	21/22
Berry et al. (2017) (23)	UK	Qualitative; focus groups	Staff of mental health care services (n=20)	Internet and mobile phones for self-management	• Both clients and staff take advantage of the digital world to increase their knowledge about mental health problems. • Participants reported that websites are a useful tool to communicate with others, and patients felt being heard. • Potential threats, such as over-disclosures, trolling, confidentiality breaches, and false information, must be addressed. • One potential obstacle was that some important information regarding symptoms may be lost when reported digitally. • E-mental health is a supplement to face-to-face visits, not a substitute.	20/20

					• Virtual space directly managed by the patient can bring about a sense of empowerment. • E-mental health should not be a justification for neglecting staff and professionals.	
Faridhosseini et al. (2017) (19)	Iran	RCT; YMRS, SF-36,	Patients with bipolar illness (n=26)	Structured group psychoeducation	• An improvement in quality of life and a decrease in re-hospitalization and relapse rates were observed.	20/22
Cusack et al. (2016) (44)	Ireland	Mixed method; focus groups and closed questions, Likert scale questions and optional responses	Psychiatric/ mental health nurses (n=1017)	Mental health services	• Nurses disagreed with symptoms-oriented approach for the recovery of patients with mental illnesses • Nurses admitted that they embrace studies that assess their practices in the society. • Nurses should receive more education in the area of recovery. • A well-planed funding should be dedicated to nursing services. • Leadership is another crucial component that requires enforcement in the nursing profession.	85%
Isobel et al. (2016) (33)	Australia	Mixed method; Evaluation form (for qualitative), K10, DERS and PESQ	Individuals with diagnosed severe mental illnesses(n=10)	Emotional awareness-based group with parenting intervention	• Nurses could assist parents in diminishing the frequency of difficulties experienced by their children. • The level of distress and emotional awareness was also found to be improved. • Parents were able to manage the various emotional states of their children.	90%
Bressington et al. (2016) (45)	China	Qualitative; interview	community psychiatric nurses (n=11)	The community psychiatric service	• Both physical and mental health should be considered. • Working groups focused on lifestyle modification for patients need to be established. • Increased communication and collaboration among professionals is necessary for recovery-oriented practices. • Some services are not fully	20/20

					available for referral to community-based services. • Clients' motivation to participate in the service was found to be increased.	
Lagace´ et al. (2015) (29)	Canada	Qualitative; group interview	Individuals with severe mental illnesses(n=12)	Singing activity	• Improved levels of self-confidence, cognitive skills, and psychical condition, a transformed identity, distance from stigma, and involvement in valuable duties were among the principal benefits. • The participants could collaborate with each other and learn new social skills.	19/20
Egede et al. (2015) (22)	USA	RCT; GDS, BDI	Older veterans with MDD (n=241)	Psychotherapy via telemedicine	• Home-based telemedicine can be effectively delivered and can be an alternative to face-to-face visits if there are potential limitations.	21/22
Chang et al. (2015) (26)	Taiwan	Mixed method; Interview as well as measuring the frequency of re-hospitalization, re-hospitalization rate, hours of hospitalization, and therapeutic costs of the two groups	Patients with schizophrenia or other psychiatric illnesses(n=16)	Home visit intervention	• The home visit intervention group had greater reduction in costs compared to the other group. • After the implementation of home visit intervention, re-hospitalization rates and hospitalization days were significantly reduced in the home visit intervention group.	70%
de Wit et al. (2015) (27)	Netherlands	Mixed method; semi-structured interviews and WHO-QOL, SUS, The Dutch Empowerment Questionnaire, The Pearlin Mastery Scale, The Social Network Questionnaire and The Client Satisfaction Questionnaire	Clients with mild intellectual disabilities or severe chronic psychiatric illnesses(n=39)	Web-based program	• Saving time, more independence and more tractability in planning were among the positive effects • The level of quality of life, empowerment, mastery, social cohesion or satisfaction with care did not change.	90%
Chien et al. (2013) (20)	China	RCT; BPRS, ITAQ, PSS, M-FSSI	Patients newly referred to outpatient department (n=96)	Needs-based and nurse-led psychoeducation program	• The psychoeducation group exhibited an improved level of mental health, greater awareness of the problem, and a diminished rate of hospitalization, when compared with the control group.	20/22

Kaplan et al. (2012) (40)	USA	Longitudinal; RAS, MOL	Adults with severe mental illness from customary mental health services (n=1827)	Consumer-Operated Service Program	• When it comes to parenting, spirituality, and self-help, mature adults scored higher than their younger counterparts. • Younger adults and those participated in the community had better scores in terms of recovery, quality of life, and meaning of life. • It can be argued that younger adults with mental illnesses should receive more support in areas such as education and employment, since community participation has been shown to improve the level of recovery.	21/22
	Canada	'ANSS, SQ	Individuals with severe mental illnesses(n=130)	Low-Intensity Home-Based Aftercare	• The rate of re-hospitalization was reduced after the intervention. • The patients were more satisfied with the new service. • Improvements in symptoms were observed after the intervention. • The findings indicate that the home-based intervention is not superior to usual care when it comes to improving the quality of life.	21/22
Piat et al. (2010) (46)		Qualitative; semi-structured interviews	Decision-makers in mental health systems (n=10)	Various recovery models, depending on the setting	• An obvious definition of the recovery-oriented practice should be considered. • Recovery is more feasible in the community rather than in hospitals. • The principles of a recovery program should be developed by practitioners involved in the mental health system. • Mental patients should be completely involved. • Workers who provide the recovery programs need to possess special skills in order to achieve success. • A valid tool should be created to evaluate the efficacy of recovery-oriented programs.	18/20

Salyers et al. (2010) (41)	USA	RCT; DACTS, IMR Fidelity Scale, COMP, SWS and Adult State Hope Scale	Consumers with severe mental illness (n=324)	Integrated ACT-IMR program	• Gradually, re-hospitalization rate was reduced among IMR participants. • ACT-IMR program could not significantly lead to an improved level of hope, satisfaction, and self-management among mental illness patients. • ACT-IMR had more penetration rate than the control group, but it was not high. • High fidelity scores for ACT in both IMR and ACT were observed.	20/22
Khankeh et al. (2010) (35)	Iran	Quasi-experimental; HQL and self-control check list	Schizophrenic patients (n=35)	Continuous care model	• There was no significant difference in quality of life scores between intervention and control groups. • An improvement in interpersonal relationship was observed in the intervention group compared to the control group.	19/22
Cheraghi et al. (2010) (32)	Iran	CS; questions about the needs and nursing	Family of patients with severe mental illnesses(n=200)	Nursing and care needs of patients	• There was a desperate need for regular consultation and follow-up, well-established community-based services, social and psychological rehabilitation, and family-patient's education. • Recovery-oriented and community-based services need to focus on supportive practices, providing basic needs, and encouraging patients to find appropriate jobs.	19/22
Schneider et al. (2009) (47)	UK	CS; Mental Health Services Scale, Herth Hope Index, Perceived obstacles to work and behaviors	Individuals with severe mental illness (n=147)	Employment support and assessment of factors related to successful placement in work	• Having a job could lead to a higher level of self-esteem and satisfaction. • The total score of hope was also greater after finding a job. • Age, gender, and even mental illness are not barriers to finding a job.	20/22

Dunn et al. (2008) (21)	USA	Quasi-experimental; SCL-90-R, SF-36, The Empowerment Scale, QoLI, Basis-32 and TSCS	Adults with serious and persistent mental illness (n=178)	Rehabilitation courses (physical health, personal development, employment and education) in the form of Recovery Center program	• The level of interpersonal sensitivity and phobic anxiety were reduced gradually. • No significant change was observed in somatization, obsessive compulsive behavior, depression, anxiety, or hostility. • The improvement in Support and Affirmation subscale was more significant in the intervention group. • The empowerment was more positively altered in the intervention group. • Support and Affirmation subscales also improved significantly in the intervention group.	21/22
Burns et al. (2007) (42)	UK, Italy, Netherland, Bulgaria, Germany, Switzerland	RCT; interview and measurement of vocational services by Questionnaire	Patients with severe mental illness living in the community (n=312)	individual placement and support program	• Compared with vocational services, patients could maintain their jobs more successfully along with the project. • Less readmission to hospital was observed for the intervention group.	21/22
Gold et al. (2006) (39)	USA	RCT; 72-item ACT Fidelity Checklist, 15-item IPS Fidelity Scale, PANSS and QoLI	Rural adults with severe mental illness (n=143)	ACT-IPS	• Participants in the ACT-IPS group were able to hold their competitive jobs. • The participants in the ACT-IPS group could ignore the stigma to find jobs in rural communities. • The program could help the labor market to attract useful workforce.	20/22

RSA-P: Recovery Self-Assessment-Provider; TMSA: The Team member Self-Assessment Tool; WHODAS: WHO Disability Assessment Schedule; INSPIRE: Recovery support; RCT: Randomized Controlled Trial; SANS: Scale for the Assessment of Negative Symptoms; SF-36: Short-Form Health Survey; SFS: Social Functioning Scale; GAF: Global Assessment of Functioning; BPRS: Brief Psychiatric Rating Scale; WEMWBS: Warwick Edinburgh Mental Wellbeing Scale; GHQ: General Health Questionnaire; MARS: Medication Adherence Rating Scale; PBC: Perceived behavioral control; YMRS: Young Mania Rating Scale; MADRS: Montgomery Åsberg Depression Rating Scale; SRBAI: Self-report Behavioral Automaticity Index; CGI-BP-S: Clinical Global Impressions-Bipolar-Severity of Illness; PANSS: The Positive and Negative Symptoms Scale; CSQ: Client Satisfaction Questionnaire; HAM-D: Hamilton Rating Scale for Depression; K10: Kessler Psychological Distress Scale; DERS: Difficulties in Emotional Regulation Scale; PESQ: Parents Emotional Style Questionnaire; GDS: Geriatric Depression Scale; BDI: Beck Depression Inventory; MDD: Major Depressive Illness; SUS: System Usability Scale; ITAQ: Insight and Treatment Attitudes Questionnaire; PSS: Perceived Self-Efficacy Scale; M-FSSI: The modified Family Support Services Index; RAS: Recovery Assessment Scale; MOL: The Meaning of Life Framework; DACTS: Dartmouth Assertive Community Treatment Scale; IMR: Illness Management and Recovery; ACT: Assertive Community Treatment; COMP: Consumer Outcomes Monitoring Package; SWS: Satisfaction With Services Scale; HQL: Heinrich_Quality of Life Scale; CS: Cross-sectional; SCL-90-R: Symptom Check-List-90-R; TSCS: The Tennessee Self Concept Scale; QoLI: The Quality of Life Inventory; IPS: Individual Placement and Support

The specific role of nurses

We clearly observed, in this study, that nurses have a central role in providing community-based and recovery-oriented services. Community health nurses act as a bridge between the caregiver and the patient to control the illness. This bridging role of nurses also applies to parent-child interpersonal relationships, as nurse interventions are very effective in helping families with parental mental illnesses (33). However, nurses must have certain characteristics in order to be more successful in the society. These characteristics include the ability to work with social media, hold peer meetings, participate in conferences, and build development teams. Furthermore, communication skills were considered as another important component of competence (44). In addition, nurses play a pivotal role in the follow-up of psychiatric patients. Therefore, the needs-based psychoeducation program (NPEP) was designed to provide support, by nurses, for psychiatric patients who experience the early-onset problems (20).

Importance of home visits

Home-based interventions have been shown to significantly reduce costs and re-hospitalization rates in patients with severe mental illnesses (25, 26). Meanwhile, home-based services should include homeless patients or those living in the suburbs. Therefore, supported housing programs are recommended to cultivate a sense of having a 'home' or 'family' for such patients (34).

Implementation of psychoeducational services

Psychoeducational services, which are typically provided in eight sessions, are considered as an aftercare practice. Essentially, psychoeducational services refer to a training program to enhance patients' awareness of symptoms and help them develop new skills (18, 19). These interventions can also improve medication adherence among patients. Additionally, motivational interviewing (MI) has been found to be highly efficacious as a psychoeducational method (17). Psychoeducational programs provide an inexpensive way to foster communication skills, even among individuals with severe mental illnesses (16). Another important issue regarding the provision of psychoeducational services in the healthcare system is their cost-effectiveness (18, 50).

The potential for E-mental health

Electronic (E)-mental health can facilitate self-management among patients with mental health conditions. However, certain perquisites must be met, such as the availability of high-cost e-mental health resources, cognitive and technical skills, habituation, and access to the Internet. It is crucial to note that the online space should not be the main reason for anxiety or panic attacks among patients with mental health illnesses (28). On the contrary, web-based programs have been introduced as another tool in the recovery process, as professionals can aid patients in performing their daily tasks and achieving greater independence (27).

Recreational Activities

The recreational activities that have been shown to have positive outcomes among participants include artistic and sport activities, such as singing, football, and creative writing groups (29-31).

Discussion

The findings of this systematic review showed that community-based and recovery-oriented practices for individuals with mental illnesses can have moderate to high effects on the mental rehabilitation of these individuals. This suggests that these practices have the potential to be implemented in modern mental health services, as they have been found to notably decrease hospitalization rates, reduce the level of stigma, and help individuals discover a new social identity (29, 34). These results are consistent with previous studies (51, 52). However, community mental health workers reported that their workload prevented them from focusing on recovery-oriented practices, which has been a concern in similar studies on burnout (53, 54). Unfortunately, current scales cannot determine the relationship between burnout and the quality of recovery (55). Therefore, it is important to further address and consider this issue in future research.

The findings also emphasize the lack of dialogue and collaboration in the area of community-based and recovery-oriented services. In addition, it is essential to implement services that encourage individuals to participate actively in their communities (56), thus indicating that the current approach, which primarily focuses on drug language (57), is inadequate and needs to be replaced with community-oriented services (58).

One of the findings of the study indicated that psychoeducation has a direct association with improved levels of insight among patients (20), which is in line with other studies (59). Additionally, the presence of family members is a significant motivator for patients' engagement in psychoeducation (16), a finding which has been supported by other studies (60). However, the low participation rate of families in psychoeducation programs needs to be addressed (61). The reason for this low participation rate may be attributed to cultural factors, organizational obstacles, or inappropriate programs (62, 63).

This systematic review also highlighted that the role of nurses is of paramount importance. Nurses can provide a variety of services such as screening, assessment, diagnosis, treatment, and recovery (64). It is very difficult to teach fundamental recovery items such as self-management to individuals with mental illnesses (65). Thus, nurses play an important role in improving the level of empowerment and self-efficacy, leading ultimately to effective self-management (66). However, successful recovery requires teamwork and a high level of collaboration among different professions involved (67, 68). Integrated recovery centers require expert forces in all fields to provide various services (69).

The results of this study demonstrated that motivational interviewing can improve treatment adherence (17), which is consistent with other studies (70, 71). Motivational interviewing is a technique for promoting treatment compliance among patients (72). It has also been shown that motivational interviewing can be effective in reducing drug abuse (73). Additionally, the technique can help uncover and address negative behaviors and dark sides of a patient's life. However, certain barriers such as reduced motivation, anxiety, unwillingness, and skepticism concerning the efficacy of drugs must also be addressed (74).

Some of the studies included in this review focused on recreational and sports activities in the community, as they have shown to be effective in the recovery process of individuals with severe mental illnesses. One of the main components of recovery is individuals' connection with the society, which has been confirmed in this review (38) and other studies (75, 76). It has also been demonstrated that patients' efforts alone are insufficient for recovery, and social inclusion should be necessarily considered. In essence, services should serve as a bridge from isolation to community involvement (77). Thus, normalization of the environment for these patients is an important priority. However, custodian organizations and services must pay more attention to this issue (78). They should also be aware that minor practices such as providing recreational services can be effective in the recovery process (79).

Another finding was related to the use of E-health for providing community-based services. Additionally, many studies argue that outdated insights about the relationship between the client and the mental health worker should be updated to incorporate the benefits of revolutionary E-health services (80, 81). Moreover, the digital world encourages users to cooperate with each other and even share their ideas about decision-making, which is a valuable feature in mental health interventions (82). In fact, a systematic review found that videoconferencing psychotherapy can reduce anxiety levels and symptoms of mood disorders (83), and the advantages of online interventions far outweigh the disadvantages (84). In particular, the COVID-19 crisis has turned E-health services into an essential communication method (85). Nonetheless, there are still serious restrictions to the implementation of E-health that should be addressed (84). Notably, one of the main barriers is related to the resistance of healthcare workers to accept online interventions (86), as many of them argue that face-to-face visits are more effective, despite evidence to the contrary (87). Another important challenge is patients' unwillingness or lack of motivation to participate in E-health programs. Further, other studies confirm that there should be specific design considerations for the E-health structure, as patients with mental illness suffer from cognitive impairments, distrust, or other related problems (88).

Challenges and future directions

This systematic review demonstrated that there are serious obstacles in the implementation of programs (23); possible obstacles have been discussed in another study (89). Various factors, such as lack of knowledge, inadequate training of professionals, and resistance to new approaches, can contribute to creating potential obstacles (90-92). However, services can facilitate improvement and transformation, and it should not be forgotten to prioritize cooperative actions. This reduces the level of risk and ensures safety, which is a critical component of recovery (93, 94). On the other hand, stigma and discrimination, caused by the service structure, are the two main barriers that discourage psychiatric patients from active participation (95). Therefore, more attention is needed in both theoretical concepts and practical actions (96). Theoretical concepts can promote growth after psychological trauma (97). Moreover, it is recommended to design policies that support interpersonal relationships. In this context, social interdependence is particularly relevant after the COVID-19 pandemic (98).

Limitation

Although the authors did their best to provide a comprehensive study, certain limitations need to be addressed. Firstly, various tools were used to measure the association between community-based services and recovery from mental health problems. In addition, while the search terms were carefully selected in order to identify all relevant studies, it is possible that some pertinent studies were not included. However, this deficiency was compensated through snowball searching. Further, the exclusion of grey literature or non-English articles limited the scope of the identified papers. Some of the included studies also had major methodological flaws, and there was heterogeneity in terms of participants, type of intervention or program, and evaluated outcomes. Finally, the full-text access to some eligible articles was unavailable, which could have impacted the results.

Conclusion

The purpose of this review was to elucidate the importance of recovery-oriented and community-based practices for psychiatric patients. The findings highlight the role of such practices in reducing psychiatric symptoms and promoting other positive social outcomes. The goal of these community programs is to provide therapeutic and socioeconomic support for patients to help them lead a normal life. In addition, the review highlights some key features for the development of ideal community programs. It turns out that relying solely on the pharmaceutical approach is not always effective, and community-based practices offer a sustainable and appropriate alternative. This systematic review suggests areas for future research needed to improve the implementation of the services. However,

more studies with appropriate methodologies are required to complement the findings of this study.

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Conflict of Interest
None.

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