BMC Palliative Care

RESEARCH Open Access

The adaptation of clinical practice guideline recommendations regarding family-centered collaborative care of people living with schizophrenia, major depressive disorder, and bipolar mood disorder in the Iranian context: using the resource toolkit for guideline adaptation

Raziye Dehbozorgi[1], Mohsen Shahriari[2*], Malek Fereidooni-Moghadam[3] and Ebrahim Moghimi-Sarani[4]

Abstract

Introduction Chronic mental diseases are enduring and recurring, and need constant care and a collaborative approach for management. Based on clinical guidelines, family interventions can improve the quality of care for individuals with chronic mental diseases.

Objective Specifically, the study examined family involvement in the care of people suffering from schizophrenia, major depressive disorder, and bipolar mood disorder by adapting international clinical guidelines.

Methods The resource toolkit for guideline adaptation was selected as the adaptation process. Seven databases were searched for international clinical guidelines. Independent reviewers utilized the Appraisal of guidelines for research and evaluation II tools to assess guidelines that met the inclusion and quality criteria. The recommendations from the guidelines were combined with those from the systematic review and qualitative research, following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses and COnsolidated criteria for REporting Qualitative research checklists. Rephrased recommendations with redundant or overlapping content were excluded from the Iranian context due to the cultural, religious and belief changes of the people, as well as the lack of necessary facilities. Translations of the selected recommendations were made into Persian, along with modified recommendations.

Results A total of 573 recommendations from 17 books, 10 national documents, 16 guidelines, 27 articles, and 31 English and Persian theses were identified. After the initial review (referred to as RAND/UCLA Appropriateness Method

*Correspondence:
Mohsen Shahriari
shahriari@nm.mui.ac.ir

Full list of author information is available at the end of the article

© The Author(s) 2025. **Open Access** This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by-nc-nd/4.0/.

1), 467 recommendations received an appropriate score, 106 had an uncertain score, and none of them received an inappropriate score. After merging the recommendations, they received 433 good grades and 98 uncertain grades. After the face-to-face meeting of the research team, 7 were merged due to similarity, and 91 recommendations were made in a hybrid panel of experts (RAND/UCLA Appropriateness Method 2). Finally, 524 recommendations were identified that applied to the psychiatric medical centers in Iran. The examined and revised recommendations suggest healthcare professional interventions for family involvement in the care of patients with schizophrenia, major depressive disorder, and bipolar mood disorder referred to medical centers in Iran. The adapted recommendations emphasize the need for family-centered collaborative care (interventions which satisfy the needs of patients with chronic mental diseases and their caregivers, considering their preferences and capabilities.

Keywords Practice guidelines, Adaptation, Family, Schizophrenia, Major depressive disorder, Bipolar disorder

Introduction

There are numerous chronic mental diseases (CMDs), including schizophrenia, bipolar mood disorder (BMD), and major depressive disorder (MDD), that affect millions of individuals globally imposing a significant burden on caregivers [1, 2]. A holistic approach involves addressing all aspects, including medications, psychological interventions, and, when necessary, social care, with a streamlined referral pathway enabling seamless transitions between services. This is essential for providing evidence-based mental health care, especially for chronic conditions that require continuous monitoring by trained caregivers with up-to-date knowledge of current evidence [1]. To effectively address CMDs, it is crucial to implement evidence-based and practical interventions as part of social initiatives. Despite ongoing national efforts to tackle CMDs, the implementation of these interventions has often been ineffective and fragmented. This is concerning given the significant challenges posed by CMDs and the burden they place on caregivers, economies, and societies at large [1, 3].

Families and healthcare professionals can contribute to providing family-centered collaborative care (FCCC) for patients with specific conditions such as CMDs [4, 5]. Family-centered care recognizes the central role of the family in individuals' lives, acknowledges that service users and their families are experts on themselves, and involves clients and families as collaborators in all care-providing systems [6]. Collaborative care models (CCMs) integrate mental health and general medical care in primary care, utilizing a team-based approach to improve care coordination through leadership support, evidence-based decisions, clinical information systems, self-management support, and community linkages[7].

Families or caregivers should be actively involved in all aspects of healthcare whenever possible To increase and maintain improved patient outcomes, adequate interventions must be designed to involve families in the care process [6]. Improved quality of care can be achieved through the use of clinical practice guidelines by healthcare professionals and caregivers [8]. Clinical guidelines help unify practices and enhance patient outcomes through standardized recommendations. The quality of care can be significantly enhanced by utilizing these guidelines [9].

However, to develop an effective clinical guideline, it is necessary to use the evidence available in research. Due to the challenges associated with directly utilizing the best evidence, such as its difficulty, time-consuming nature, and resource-intensive requirements, it is recommended to carry out the process of adapting clinical guidelines in developing countries. This involves systematically adapting existing clinical guidelines to specific cultural conditions to create applicable clinical guidelines. In different cultural contexts, changes to care should be made by applying guideline recommendations to avoid duplication of efforts and unnecessary resource utilization, thereby enhancing the effectiveness of existing clinical guidelines.[10].

While there are several global clinical guidelines on schizophrenia, MDD, and BMD, the implementation of FCCC guidelines is not commonly observed. However, these guidelines contain numerous recommendations for FCCC in managing these three diseases, emphasizing the clear and justifiable need to integrate these recommendations for optimal use. Therefore, guidelines must be adapted to regional contexts to ensure accessibility for healthcare providers. Utilizing specific guidelines can facilitate family involvement in patient care and prevent confusion [8]. Currently, healthcare professionals do not have access to a global guideline that describes how to involve families in their care of patients with CMDs. As such, this study was designed to adapt clinical practice guideline recommendations regarding informal caregiver involvement to the Iranian context for healthcare professionals caring for people with schizophrenia, MDD, and BMD. The adaptation aimed to determine recommendations applicable to the work of nurses, psychiatrists, psychologists, social workers, and occupational therapists in the healthcare setting. Based on several meetings with specialists, the decision was made to adapt this guideline for these five groups of healthcare professionals because they have a direct impact on the care and treatment of these patients

Methods

A focus of the ADAPTE process was to adjust guidelines for healthcare professionals regarding family involvement in the caring of patients with schizophrenia, MDD, and BMD (Fig. 1). The ADAPTE toolkit assesses the applicability and acceptability of recommendations from existing guidelines within their healthcare environment and, include three steps and nine tasks [11, 12].

First step

FCCC was chosen as a topic in the first step of the initial stage and the feasibility of adapting guideline was done by research team. To provide patients with CMDs with the best care, recommendations were made for healthcare professionals (Psychiatrist, nurse, clinical psychologist, social worker and occupational therapist). A preliminary search was conducted regarding FCCC to identify the availability of guidelines. A guideline clearinghouse, also known as a designer's site or specialty institution, is recommended by the ADAPTE method for searching guidelines [11]. The literature was reviewed, and guidelines-related websites were systematically reviewed to select current guidelines containing FCCC recommendations for individuals with schizophrenia, BMD, and MDD, ensuring high-quality guidelines and gathering all necessary documents at this stage.

Second step

In the second step of the adaptation process, a specific question was asked [11]. "How healthcare professionals in the health care setting can involve families in the care of patients with disorders such as schizophrenia, MDD, and BMD?" An Isfahan University of Medical Sciences Library librarian checked the study researchers' search strategies. Table 1 summarizes search strategies based on PRISMA guidelines [Preferred Reporting Items for Systematic Reviews and Meta-Analyses] [13].

The following databases were searched on January 20, 2021: (G-I-N: Guideline International Network), (NICE: The National Institute For Health And Care Excellence), (MOH: Ministry Of Health), (SIGN: Scottish Intercollegiate Guidelines Network), (WHO: World Health Organization), (NIH: National Institute Of Health), and (APA: American Psychiatric Association) the Clinical practices were included if they were published in English, recently designed in the range of 2000–2022 years, and provided explicit recommendations on at least one mental illness and family involvement for adults (aged 18 years) with schizophrenia, BMD, and MDD. The systematic review process involved the research team (RD, MF, MSH, and EM). Initially, 309 guidelines were identified through a systematic search conducted by RD and MF (see Table 1). After removing duplicates, and following two rounds of title screening by RD, EM, and MSH ($n = 94$) for accuracy,

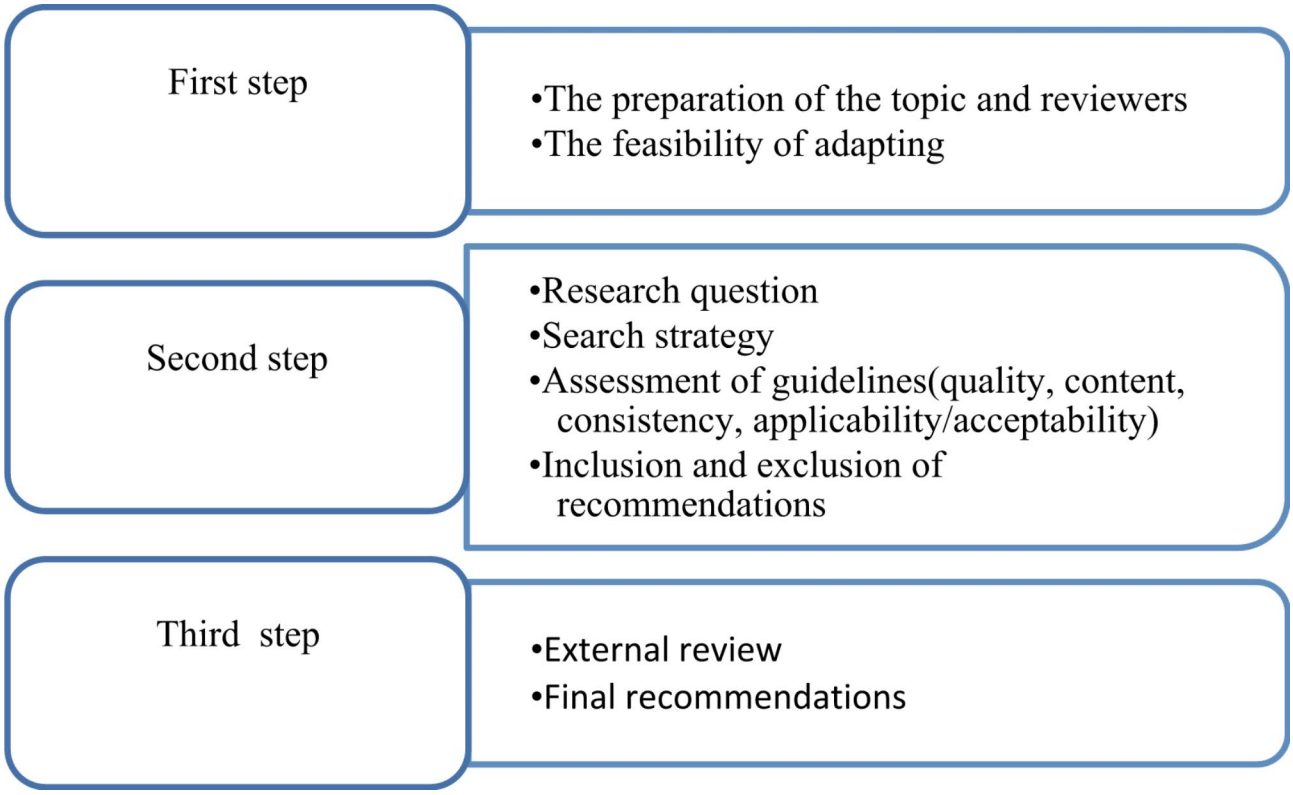

Fig. 1 Summary of the ADAPTE process [11]

Table 1 PRISMA table

Clinical practice guideline databases	All the guidelines obtained	Screening in the title	Screening introduction / language criteria	Duplication
G-I-N	118	33	13	10
NICE	31	31	16	14
MOH	61	2	2	2
SIGN	4	4	4	1
WHO	All title of guidelines were reviewed 0	6	6	3
Canadian Psychiatric Association	1	1	1	1
NIH	0	0	0	0
APA	10	6	0	0
ALL After systematic review	12	7	7	7
Guidelines mentioned in the text of related articles	5	5	5	2
ALL	309	94	53	40
Reducing the number of guidelines		15		

and abstract screening ($n=53$), 40 full-text guidelines remained from the systematic search.

Subsequently, during several research team meetings (RD, MF, MSH, and EM) guidelines unrelated to the PIPOH Model (Population, Intervention, Professionals, Outcome, Health care setting) were excluded. Finally, 15 clinical guidelines were selected and sent for appraisal between June 30, 2021, and August 7, 2021. These guidelines were primarily focused on severe and persistent mental disorders, common mental health problems ($n=5$), or issues such as depression, suicidal ideation, violence, or attempts in patients with mental disorders ($n=4$). Fewer guidelines were specific to schizophrenia or early psychosis ($n=2$), bipolar mood disorder ($n=2$), or directly addressed family and patient involvement ($n=2$).

The systematic review methodology and findings from this research have been published in another journal [14]. Recently updated guidelines were reviewed for methodological details based on previously published versions. The updated history provides confidence in the guideline's recommendations and supports evidence-based practices. This comprehensive review encompassed all study outcomes. Utilizing the AGREE II tool, 18 reviewers assessed the quality, content, consistency, and applicability/acceptability of the final selection of 15 clinical guidelines (see Table 1)[15]. These 18 specialists from five disciplines, including psychiatrists, mental health nurses, clinical psychologists, social workers, and occupational therapists, were involved in compiling the guideline. The tool comprises 23 items categorized into six domains, making it reliable and valid [15]. ICCs were calculated to determine the level of agreement, ranging from slight to virtually perfect, between appraisers for each range: 0.21–0.40, 0.41–0.60, and 0.61–0.80. Calculations were performed to assess the overall quality of each clinical guideline, and the final score within each domain were determined with a threshold of 60% to determine acceptable quality [15, 16].

The quality of guidelines was defined based on achieving scores above 60% in five or more domains, moderate quality in three or four domains, and poor quality in two or fewer domains. Furthermore, the overall quality was calculated by assessing the mean score and standard deviation.In the guidelines, recommendations are expressed as "recommended", "recommended with modifications", and "not recommended". The previous articles categorized the domain scores as good (more than 80%), acceptable (60 – 79%), low (40 – 59%), and very low (below 40%) [17, 18].

To assess methodological transparency and rigor of guideline development, the AGREE II tool is widely used to evaluate clinical guidelines. An explicit approach to assessing guideline quality in 6 standardized domains, as well as a methodology for guideline development, has been tested and validated for high trustworthiness [15].

95% of appraisers considered this instrument useful for the appraisal of clinical guidelines as an international recognized tool for evaluating the quality of guidelines. The recognized components demonstrated a reliability score ranging from 64 – 88%, and were deemed satisfactory for the intended purpose [15]. A collaboration panel of the Tehran University of Medical Sciences validated the validity of the AGREE tool translated into Persian by Rashidian and Yousefi-Nooraie. In addition, the reliability of the Persian version of the instrument and its English version was not found to be significantly varied after being compared with each other [19].

The overall evaluation scores were further analyzed, and members who assigned a "Strongly Recommend" score were asked to discuss the reasons for their selection. None of the 8 finalized guidelines were removed. Nearly all the guidelines were updated, and the

unchanged recommendations underwent a more thorough examination. The appraisers also noted that given the high quality of the recommendations, their validity can be enhanced by incorporating evidence obtained in a systematic review based on PRISMA guidelines and a qualitative study adhering to the COREQ (COnsolidated criteria for REporting Qualitative research) checklist[13, 20].

The two clinical guidelines (NO. 2 and 3) received the highest standardized score during the evaluation using the AGREE tool and were considered of the basic clinical guidelines [21, 22]. Only some recommendations of guidelines 1 and 4 to 8 were related to FCCC of chronic mental patients and were functional, so the complementarity of these guidelines was determined [20, 23–26] (Table 2). Moreover, to obtain the country's indigenous evidence for enhancing the adaptation process, qualitative content analysis was utilized in this area. Semi-structured interviews were conducted with 34 participants, including patients, families, and healthcare professionals, from 30 December 2020 to 25 August 2021. The interviews were conducted until data saturation was achieved. Then, the data were analyzed by conventional content analysis. MAXQDA software (2018) was used for coding and managing the data [27].

The complete results of the qualitative research as well as the screening of clinical guidelines have been published in other journals [28, 29].

Paying attention to the opinions of stakeholders, audiences, and the target community increases acceptance of the guideline, thereby increasing its practical application. The review of the country's upstream programs and documents concerning FCCC of patients with CMDs will be conducted concurrently with the previous stage. Finally, the recommendations were merged by expert panel, and those that were not suitable for the Iranian context were excluded. The recommendations extracted from clinical guidelines numbered 1 to 8, with a stronger focus on the guidelines that received the highest scores (No. 2 and 3), as well as articles, books, qualitative studies, and upstream documents, were reviewed, evaluated, read, and scored.

Third step

Recommendations extracted from 8 final clinical guidelines, placing emphasis on two high-scoring guidelines, along with finding from literature reviews (n: 385), and qualitative research (n: 188) (Total n: 573) underwent external review and discussion with the panel of experts using RAM I (RAND/UCLA Appropriateness Method). This method combines the best clinical evidence with expert judgment to assess the appropriateness of therapeutic care methods[30]. The themes extracted from the qualitative study were discussed with the expert panel and the research team, and relevant recommendations were formulated. Recommendations related to the study's objectives were identified in the literature review, discussed with the research team, and subsequently with the expert panel.

The panel of experts comprised academic staff members from the university specializing in five key disciplines related to the care of CMD patients, none of whom were involved in any stages of the guideline development process.

Recommendations were translated from English to Persian by an experienced translator. A panel of experts assessed the average scores for clarity, usefulness, relevance, and applicability of each recommendation using

Table 2 Characteristics of guidelines

NO	Title	publisher	Country, language	Publication date	Update
1	Bipolar disorder in adults Quality standard	National institute for health and care excellence	UK, English	23 July 2015	2020
2	Supporting adult carers	National Guideline Alliance part of the Royal College of Obstetricians and Gynaecologists	England, English	January 2020	-
3	Service user experience in adult mental health: improving the experience of care for people using adult NHS mental health services	National Collaborating Centre for Mental Health Commissioned by the National Institute for Health and Clinical Excellence	England, English	December 2011	February 2021
4	Violence and aggression: short-term management in mental health, health and community settings NICE guideline	The British Psychological Society and The Royal College of Psychiatrists	England, English	2005	2015
5	Assessment and Care of Adults at Risk for Suicidal Ideation and Behaviour	Registered Nurses' Association of Ontario	Canada, English	January 2009	-
6	Australian Clinical Guidelines for Early Psychosis	The national centere of excellence in youth mental health	Australia, English	2010	June 2016
7	Coexisting severe mental illness and substance misuse: community health and social care services	National Collaborating Centre for Mental Health	UK, English	30 November 2016	March 2020
8	The American psychiatric association practice guideline for the treatement of patients with with schizophrenia	American Psychiatric Association Publishing	USA, English	2021	2021

the RAM method. Following the merging of recommendations (N: 7), they received 433 good grades and 98 uncertain grades. During a three-hour face-to-face meeting, the research team (Authors) discussed and reviewed recommendations with uncertain scores. Seven recommendations with unclear clarity scores were adjusted based on feedback from the RAM I panel and the research team using the Delphi method.

Subsequently, 91 recommendations were evaluated and graded by the RAM II panel of experts using a hybrid (face-to-face and virtual) approach. One recommendation was removed due to redundancy, and the remaining 90 were refined, categorized, and finalized with input from the panel members.

The classification of the chapters of adapted family centered collaborative care clinical guideline was done based on the two basic guidelines with the highest score according to AGREE tool and the opinion of the panel of experts. Consensus was reached and the panel of experts agreed to accept the guideline.

Results

Due to the absence of a specific guideline for health system employees on involving families in systematic care, the aim of the present study was to adapt an existing guideline for Family-Centered Care (FCCC). Fifteen final clinical guidelines, specifically related to the research aim, were assessed using the AGREE II tool. Table 3 displays the obtained scores of these guidelines. There were 7 high-quality guidelines, 6 low-quality guidelines, and 3 medium-quality guidelines (High quality means: >60% in 5 fields or more, average quality means: >60% in 3 or 4 fields, and low quality: >60% in 5 fields or less). The lowest mean quality score was in stakeholder involvement (20/37%), while the highest scores were in clarity of presentation (98/14%) and scope and purpose (96/21%).

Over half of the guidelines ($n=8$, 60%) met the quality threshold with domain scores of 60% for the general guideline review (Table 3). These guidelines had a mean overall quality score of 58/29% [25, 31–33], and were about schizophrenia and psychosis ($n=3$)[24, 34, 35], depression ($n=1$)[36] and BMD ($n=2$)[23, 37]. The remaining five guidelines focused on violence and aggression ($n=2$)[38, 39], and the topics ranged from suicide care and assessment ($n=1$)[20] to caring of patients with mental disorders and supporting caregivers ($n=2$)[21, 22].

In the content evaluation of guidelines in the second step, the matrix of recommendations was drawn for easier comparison, and the recommendations obtained from all eight guidelines were written. To evaluate the stability of the clinical guidelines and the acceptability and applicability of the recommendations, the ADAPT-suggested tools were used [11]. A total of 573 recommendations were identified from books (n: 17), national documents (n: 10), clinical practice guidelines (n: 16), articles (n: 27), and English and Persian thesis (n: 31). The recommendations in RAM I were given to 18 experts from different professions, including psychiatric nursing, psychiatry, psychology, social work, and occupational therapy, using the Delphi method [30].

Out of 573 recommendations, 467 had an appropriate score, 106 had an uncertain score, none of them received an inappropriate score, and 42 recommendations were

Table 3 AGREE II domain and overall quality scores of included guidelines

number	The title of the clinical guideline	Scope and purpose %	Stakeholder involvement %	Rigour of development %	Clarity of presentation %	Applicability %	Editorial independence %
1	NICE (2015).[23]	91/6	80/5	69/7	72/2	64/5	54/16
2	NICE (2011) [31].	40/2	40/2	30/20	31/19	31/21	56/25
3	NICE (2020) [21].	96/29	90/74	83/33	98/14	83/33	86/11
4	Crawford, M et al. (2021) [22]	88/88	81/94	85/41	90/27	66/66	68/75
5	NICE. (2009) [36].	40/27	52/77	39/58	51/38	37/5	64/58
6	NICE. (2015) [38].	94/44	86/11	80/20	65/27	57/29	83/33
7	NICE. (2017) [39].	33/33	20/37	24/52	38/88	25	38/88
8	Thornicroft, G et al. (2018) [32].	61/11	71/92	61/80	50	45/83	61/11
9	MOH. (2014)[37]	41/66	45/83	45/31	72/22	45/83	56/25
10	Santa Mina, E et al. (2009) [20].	64/81	62/96	70/83	79/62	63/88	61/11
11	Couroupis, A et al. [24]	76/38	72/22	63/54	50	44/79	54/16
12	NICE. (2016) [25].	91/66	81/94	64/06	75	46/87	66/66
13	de la Cámara Izquierdo, C et al. (2009).[33]	50	48/61	57/29	65/27	68/75	68/75
14	Addington, Donald et al. (2017) [34].	41/42	33/33	39/06	48/61	32/29	64/58
15	A. Keepers, G et al. [35]	70/37	61/11	76/38	79/62	68/05	72/22
Mean scores		65/49	62/03	59/41	64/51	52/11	63/79

merged due to similarity and duplicate concepts. After merging the recommendations, 433 had good grades and 98 had uncertain grade recommendations. After the face-to-face meeting of the research team, out of 98 recommendations, 7 were merged due to similarity, and 91 were given to a hybrid (face-to-face and virtual) panel of 12 experts (RAM II) who participated in the first stage, provided critiques, and remained engaged [30] A decision was made about keeping or removing the recommendations by giving a solution.

Finally, the topics of the 524 included recommendations were categorized as follows: Giving information to caregivers ($n=91$), Identification of caregivers ($n=10$), Assessment of caregivers' needs($n=29$), Social support for caregivers ($n=18$), Training caregivers to provide care and support to the patient ($n=30$), Psychological and emotional support for caregivers (by health care professionals) ($n=26$), assessment (non-acute) ($n=67$), Community care ($n=47$), Assessment and referral in crisis ($n=17$), Hospital care ($n=144$), and Discharge and transfer of care ($n=47$).The title of the first chapter of the guideline was "Family-Centered Collaborative Care "which includes the sub-headings of "Family-Centered Collaborative Care of Patients with Chronic Mental Disorders", "Family-Centered Collaborative Care Policies of Patients with Chronic Mental Disorders in Iran", "Barriers and Background Factors in the Provision of Family-Centered Collaborative Care" and "A Framework for Family-Centered Collaborative Care". The title of the second chapter of the current guideline was "Generalities of Clinical Guideline Development", which includes subtitles such as "What is a Clinical Guideline?", "Overview of Clinical Guideline", "Clinical Guideline Mission", "Clinical Guideline Perspective", "Clinical Guideline Application", "Target users of the clinical guide", "Objectives of the Clinical Guideline", "The Importance and Necessity of Compiling and adapting the Clinical Guideline", "How to compile and Adapt the clinical guideline", "Concepts related to the clinical Guideline" and "The Structure and Content of the Clinical Guideline". From the third to the thirteenth chapter, which includes the recommendations, there were sub-headings: "Introduction", "Recommendations or Clinical Measures", "The Reason for Writing These Recommendations" and "The Effect of These Recommendations on Clinical Practice". Examples of Recommendations from the third to the thirteenth chapter can be seen in Table 4.

Discussion

This study aimed to adapt the clinical practice guidelines and their recommendations to the Iranian context regarding the involvement of family in the care of people living with schizophrenia, MDD, and BMD in medical centers.

Many global guidelines about CMDs and recommendations about collaboration of families in the care of these patients exist, but they cannot be used verbatim in every nation because some recommendations do not fit in the regional or national context. An adaptation of international guidelines is a useful way to reproduce the effects of existing guidelines. Differences between the evidence for efficacy and stakeholders' and clinicians' experience highlight a gap in the understanding why, how, and for whom FCCC is beneficial, and how this can be addressed. Towards this end, this article suggests that exploring the effectiveness of FCCC is important to gain stakeholder support due to preventing relapse rates and re-hospitalization. Qualitative research methods show how people are involved in caring and whether FCCC can sustain caregivers, identify the lived experiences of stakeholders, and guide the process of engaging caregivers in caring for others [40]. In this study, qualitative content analysis was used to examine the views of stakeholders. The themes extracted from the qualitative study were discussed by the research team and related recommendations were written. An interpretation of how collaborative care may improve the theoretical knowledge of this kind of care and guide controlled research.

The related guidelines recommend that healthcare professionals should perform family-centered collaborative care. However, it is possible that they feel unable to involve families in the care and treatment of patients diagnosed with schizophrenia, MDD, and BMD. In the qualitative study resulting from this research, barriers to family-centered collaborative care have been discussed [41].

Tools exist that could be helpful in these cases, including recommendations such as "Giving information to caregivers and supporting them" or "Identification of caregivers". Furthermore, these recommendations involve strategies and interventions that are not extremely time-consuming, such as identifying caregivers or providing information. The topic "Giving information to caregivers and supporting them" was identified as central topic based on the extracted recommendations.

The guidelines recommend that patients with chronic mental disorders and their caregivers should receive written and verbal information in an accessible format, such as using their preferred language or a form that suits their level of literacy. Results of systematic review have shown that information material given to patients in written form should be evidence and theory-based and documented by quality managers at a national level [42–44] [45] [46]. Furthermore, involving users in the evaluation of the information material is helpful, as it makes the information easier to understand and suppose their needs [45, 47–56]. The development of standardized, evidence-based, and documented information

Table 4 Examples of recommendations from the third to the thirteenth chapter

Row	chapter	Examples of recommendations	Source of adaption	Executives
1	Giving information to caregivers and supporting them	Make sure that the patient's caregivers have acquired sufficient information about the nature of the disease and participate in decision-making and treatment planning.	Guideline NO. 1	Psychiatrist, nurse, clinical psychologist, social worker and occupational therapist
2	Identification of caregivers	Proactively seek to identify caregivers and ensure caregivers have the necessary information about: • Their right to be evaluated, how the process of care and its benefits • How to evaluate caregivers • How to evaluate support • Access to community support	Guideline NO. 2	Psychiatrist, nurse, clinical psychologist, social worker and occupational therapist
3	Assessment of caregivers' needs	Ensure staff carrying out or participating in carer assessments are trained and skilled in this role and have access to specialist advice	Guideline NO. 2	Psychiatrist, nurse, clinical psychologist, social worker and occupational therapist
4	Social support for caregivers	During caregiving, consider times for caregivers to rest and provide the necessary support according to caregivers' needs.	Guideline NO. 2	social worker
5	Training caregivers to provide care and support to the patient	Empower patients and their caregivers to anticipate and reduce the risk of violence and aggression, as well as reduce the use of restrictive interventions.	Guideline NO. 4	Psychiatrist, nurse, clinical psychologist
6	Psychological and emotional support for caregivers	Provide psychosocial support and psycho-education to caregivers in groups	Guideline NO. 2	Psychiatrist, nurse, clinical psychologist
7	assessment (non-acute)	Ask patients who should receive the information and, if they are incapacitated, who should make decisions on their behalf.	Guideline NO. 1	Psychiatrist, nurse, clinical psychologist, social worker and occupational therapist
8	Community care	Be responsible for increasing knowledge and reducing the stigma associated with psychotic disorders at the community level	Guideline NO. 6	Psychiatrist, nurse, clinical psychologist, social worker and occupational therapist
9	Assessment and referral in crisis	Engage users of the Services in a supportive and respectful manner; Provide clear information about the care process according to the individual needs of service users and provide appropriate emotional support	Guideline NO. 3	Psychiatrist, nurse, clinical psychologist, social worker
10	Hospital care	Share the results of the assessment of violence and aggression with other health care services, social care, and related organizations, including the police, and also with caregivers if there is a risk for them.	Guideline NO. 4	Psychiatrist, nurse, clinical psychologist
11	Discharge and transfer of care	Based on the needs of the individual, schedule meetings with the service user once in a while	Guideline NO. 6	Psychiatrist, nurse, clinical psychologist, social worker

could aid healthcare professionals in delivering counseling and information management in medical centers. In the adapted guidelines, the recommendations include all stages of the disease course, from hospitalization to discharge and aftercare.

The use of the ADAPTE toolkit is one strength of this study because the toolkit provides a structured and easy to follow framework

Conclusion

The examined and revised recommendations suggest healthcare professional interventions for family involvement in the care of patients with schizophrenia, MDD, and BMD referred to medical centers in Iran. These recommendations are easy to understand and align well with the expectations of healthcare professionals for their implementation. They can also be effectively used by professionals in their interventions. The adapted recommendations emphasize the need for family-centered collaborative care to meet the needs of patients with common mental disorders and their caregivers, taking into account their preferences and capabilities.

Future directions

In Iran, healthcare professionals in medical centers should be enabled to implement these recommendations to enhance the quality of care and patient outcomes. The guideline extracted from the current research received approval from the Technological Committee of Isfahan University of Medical Sciences and was forwarded to the Guideline Committee of Isfahan University of Medical Sciences for implementation. This guideline underwent review by a team of experts in seven face-to-face sessions, who were not involved in its compilation and evaluation. It is now prepared to be submitted to the Ministry of Health for final approval. Upon approval, it will be

disseminated to medical sciences universities nationwide for implementation by healthcare professionals.

Abbreviations

CMDs	Chronic mental diseases
BMD	Bipolar mood disorder
MDD	Bipolar mood disorder
FCCC	Family- centered collaborative care
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
ICC	Intra-class correlation coefficient
COREQ	COnsolidated criteria for REporting Qualitative research
WHO	World Health Organization
PIPOH	Population, Intervention, Professionals, Outcome, Health care setting
AGREE	Appraisal of guidelines for research and evaluation
RAM	RAND/UCLA Appropriateness Method

Acknowledgements
This paper is an extract from a Ph.D. thesis. Special thanks go to the vice-chancellor of the Medical University of Isfahan for funding this study.

Author contributions
RD and MSH were involved in Conceptualization, and RD and MFM collected the dates. RD, MSH, and EMS analyzed the data. MSH has a funding acquisition. RD, MFM, and MSH were involved in the methodology. MFM and MSH were project administrators and supervised the project. EMS, MSH, and MFM validated all stages of the project. RD wrote the original draft of the manuscript and review and editing was done by RD, MSH, and MFM.

Funding
For this review article was provided by Isfahan University of Medical Sciences, Isfahan, Iran (Grant #399466).

Data availability
On reasonable request, the corresponding author is willing to provide the datasets used and analyzed during the present study.

Declarations

Ethics approval
Isfahan University of Medical Sciences has been received (IR.MUI.RESEARCH.REC.1399.502) and all methods were performed in accordance with the relevant guidelines and regulations based on the Declaration of Helsinki.

Consent to participate
Informed consent was provided by patients and participants in this study in both written and verbal forms.

Consent to publish
Not applicable.

Conflict of interest
There have been no conflicts of interest disclosed by any of the authors involved in this study.

Author details
[1]Community Based Psychiatric Care Research Center, School of Nursing and Midwifery, Shiraz University of Medical Sciences, Shiraz, Iran
[2]Nursing and Midwifery School, Isfahan University of Medical Sciences, Isfahan, Iran
[3]Community Based Psychiatric Care Research Center, School of Nursing and Midwifery, Shiraz University of Medical Sciences, Shiraz, Iran
[4]Department of Psychiatry Research Center For Psychiatry And Behavioral Science, Shiraz University of Medical Sciences, Shiraz, Iran

Received: 15 October 2022 / Accepted: 26 February 2025
Published online: 14 March 2025

Reference

1. WHO. Integrating the response to mental disorders and other chronic diseases in health care systems. World Health Organization, Geneva, Switzerland. 2014;50:978(92):4;150679:3.
2. Wittchen HU, Jacobi F, Rehm J, Gustavsson A, Svensson M, Jonsson B et al. The size and burden of mental disorders and other disorders of the brain in Europe 2010. Eur neuropsychopharmacology: J Eur Coll Neuropsychopharmacol. 2011;21(9):655–679. https://doi.org/10.1016/j.euroneuro.2011.07.018
3. Vigo D, Thornicroft G, Atun R. Estimating the true global burden of mental illness. Lancet Psychiatry. 2016;3(2):171–178.
4. Knapp M, Cambridge P, Thomason C, Beecham J, Allen C, Darton R. Care in the community: Challenge and demonstration. Routledge. 2018;0429840233
5. Feinberg LF. Moving toward person-and family-centered care. Public Policy Aging Rep. 2014;24(3):97–101
6. Wong OL, Wan ESF, Ng MLT Family-centered care in adults' mental health: Challenges in clinical social work practice. Social Work Mental Health. 2016;14(5):445–464
7. Bauer DEGAMKKMNMS. Mental Health Collaborative Care and its Role in Primary Care Settings. Curr Psychiatry Rep. 2013;15(383). https://doi.org/10.1007/s11920-013-0383-2
8. Harrison MB, Légaré F, Graham ID, Fervers B. Adapting clinical practice guidelines to local context and assessing barriers to their use. CMAJ. 2010;182(2):E78–E84.
9. Lugtenberg M, Burgers J, Westert G. Effects of evidence-based clinical practice guidelines on quality of care: a systematic review. BMJ Qual Saf. 2009;18(5):385–392
10. national institue for health and cae excellence. Violence and aggression: short-term management in mental health, health and community settings: national institue for health and cae excellence. 2015;978(1)4731:1234–6.
11. Adapt. Guideline Adaptation a source toolkit guideline international network. 2010;95.
12. Amer YS, Elzalabany MM, Omar TI, Ibrahim AG, Dowidar NL. The 'Adapted ADAPTE': an approach to improve utilization of the ADAPTE guideline adaptation resource toolkit in the A lexandria C enter for E vidence-B ased C linical P ractice G uidelines. J Eval Clin Pract. 2015;21(6):1095–1106
13. Equator. Enhancing the QUAlity and Transparency Of health Research Statistics in Medicine (CSM), NDORMS, University of Oxford, University of Oxford, Botnar Research Centre, Windmill Road, Oxford, OX3 7LD, UK: Equator network. 2021. Available from: https://www.equator-network.org/
14. Dehbozorgi RS, Mohsen,; Fereidooni-Moghadam M, Moghimi-Sarani. Ebrahim. Family-centered collaborative care for patients with chronic mental illness: A systematic review. J Res Med Sci. 2023;28(16). https://doi.org/10.4103/jrms.jrms_410_22
15. Brouwers MC, Kho ME, Browman GP, Burgers JS, Cluzeau F, Feder G et al. AGREE II: advancing guideline development, reporting and evaluation in health care. CMAJ. 2010;182(18):E839–E42.
16. Smith CA, Toupin-April K, Jutai JW, Duffy CM, Rahman P, Cavallo S et al (2015) A systematic critical appraisal of clinical practice guidelines in juvenile idiopathic arthritis using the appraisal of guidelines for research and evaluation II (AGREE II) instrument. PLoS ONE. 10(9):e0137180.
17. Brosseau L, Rahman P, Toupin-April K, Poitras S, King J, De Angelis G et al. A systematic critical appraisal for non-pharmacological management of osteoarthritis using the appraisal of guidelines research and evaluation II instrument. PLoS ONE. 2014;9(1):e82986.
18. Brosseau L, Rahman P, Poitras S, Toupin-April K, Paterson G, Smith C et al. A systematic critical appraisal of non-pharmacological management of rheumatoid arthritis with appraisal of guidelines for research and evaluation II. PLoS ONE 2014;9(5):e95369.
19. Berger AM, Mooney K, Alvarez-Perez A, Breitbart WS, Carpenter KM, Cella D et al. Cancer-related fatigue, version 2.2015. J Natl Compr Canc Netw. 2015;13(8):1012–1039
20. Santa Mina E, Boo S, Brown S, Clements A, Doan L, Hamer K. B, et al. Assessment and Care of Adults at Risk for Suicidal Ideation and Behaviour. Registered Nurses' Association of Ontario. 2009;0–92016:91;1.
21. Nice. Supporting adult carers: national institue for health and cae excellence. 2020;978(1)4731:3654;0.
22. Crawford M, Rose D, Kendall T, Allister J, Armstrong S, Black A et al. Service user experience in adult mental health: improving the experience of care for people using adult NHS mental health services: national institue for health and cae excellence; UPDATE 2021. 2011;978(1):4731;3704-2
23. Nice. Bipolar disorder in adults. Quality standard. England: national institue for health and cae excellence. 2015;978(1)4731:1295;7.

24. Couroupis A, Francey S, Fraser S, Gregory K, Stavely H Australian Clinical Guidelines for Early Psychosis. Second edition: The National Centre of Excellence in Youth Mental Healt.2016. 978(1)920718;38-1.
25. Nice. Coexisting severe mental illness and substance misuse: community health and social care services: national institue for health and cae excellence. 2016:978(1)4731:2181;2
26. Association AP. The American Psychiatric Association practice guideline for the treatment of patients with schizophrenia. American Psychiatric Pub. 2020;0890424691.
27. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. Nurse Educ Today. 2004;24(2):105–112.
28. Dehbozorgi R, Fereidooni-Moghadam M, Shahriari M, Moghimi-Sarani E. Barriers to family involvement in the care of patients with chronic mental illnesses: A qualitative study. Front Psychiatry. 2022;13.
29. Dehbozorgi R, Fereidooni-Moghadam M, Shahriari M, Moghimi-Sarani E. A quality assessment of clinical practice guidelines with recommendations for family involvement in the care of individuals diagnosed with schizophrenia, bipolar mood disorder, and major depressive disorder: Critical appraisal utilizing AGREE II. Front Psychiatry. 2023;13:1065129.
30. Fitch K, Bernstein SJ, Aguilar MD, Burnand B, LaCalle JR. The RAND/UCLA appropriateness method user's manual. Rand Corp Santa Monica CA. 2001.
31. Nice. Common mental health problems: identification and pathways to care: national institue for health and cae excellence. 2011;978-1:4731;3383-9.
32. Thornicroft G, Al-Khathami A, Arabia S, Druss B, El Chammay R, Lebanon B et al. Management of physical health conditions in adults with severe mental disorders: world health organization; 2018;978-92(4):155038;3.
33. de la Cámara Izquierdo C, José Caro Rebollo F, Escusa Julián M, José Galán Calvo F, Gracia López L, Martín Gracia A et al. Clinical Practice Guidelines for Psychosocial Interventions in Severe Mental Illness. Ministry of Science and Innovation. 2009;978-84:613;3370-7.
34. Addington D, Anderson E, Kelly M, Lesage A, Summerville C. Canadian practice guidelines for comprehensive community treatment for schizophrenia and schizophrenia spectrum disorders. Can J Psychiatry. 2017;62(9):662–672
35. Keepers A, Fochtmann GJ, Anzia LM, Benjamin M, Lyness SM, Mojtabai J et al. R,. Practice guideline for the treatment of patients with schizophrenia, third edition. Washington, DC: The American Psychiatric Association. 2021;9780890424698
36. Nice. Depression in adults with a chronic physical health problem: recognition and management: national institue for health and cae excellence. 2009:978-1;4731:2853-8.
37. MOH. Management of Bipolar Disorder in Adults. Federal Government Administrative Centre 62590 Putrajaya, Malaysia: Malaysia Health Technology Assessment Section (MaHTAS) Medical Development Division, Ministry of Health Malaysia Level 4, Block E1, Precinct 1. 2014;978-967:0769;00-4
38. Nice. Violence and aggression: short-term management in mental health, health and community settings: national institue for health and cae excellence. 2015;978(1):4731;1234-6
39. Nice. Violent and aggressive behaviours in people with mental health problems: national institue for health and cae excellence. 2017;978(1);4731:2542;1
40. Speziale HS, Streubert HJ, Carpenter DR. Qualitative research in nursing: Advancing the humanistic imperative. Lippincott Williams & Wilkins. 2011;0781796008
41. Dehbozorgi RF-MM, Shahriari M, Moghimi-Sarani E. Barriers to family involvement in the care of patients with chronic mental illnesses: A qualitative study. Front Psychiatry. 2022;13. https://doi.org/10.3389/fpsyt.2022.995863
42. NICE. Bipolar disorder in adults. Nice. 2015.
43. SIGN. Management of schizophrenia, A national clinical guideline. 131) Spn, editor. Scottish Intercollegiate Guidelines Network, Gyle Square, 1 South Gyle Crescent, Edinburgh EH12 9EBA Scottish Intercollegiate Guidelines Network; 2013;978(1):905813;96:4.
44. WHO Management of physical health conditions in adults with severe mental disorders: WHO guidelines. 2018.
45. Cohen AN, Glynn SM, Hamilton AB, Young AS (2009) Implementation of a family intervention for individuals with schizophrenia. J Gen Intern Med. 25(1):32–37. https://doi.org/10.1007/s11606-009-1136-0
46. Kaselionyte J, Conneely M, Giacco D. It'sa matter of building bridges… feasibility of a carer involvement intervention for inpatients with severe mental illness. BMC psychiatry. 2019;19(1):1–14. https://doi.org/10.1186/s12888-019-2257-6
47. Zeighami R, Javdani H, Alipoor Heydar M, Ghadami E, He Effect of, Family centered empowerment model on the severity of symptoms in patients with major depressive disorder. J Urmia Nurs Midwifery. 2019;17(7):535–545
48. Miklowitz DJ, Otto MW, Frank E, Reilly-Harrington NA, Wisniewski SR, Kogan JN et al. Psychosocial treatments for bipolar depression: a 1-year randomized trial from the Systematic Treatment Enhancement Program. Arch Gen Psych. 2007;64(4):419–426. https://doi.org/10.1001/archpsyc.64.4.419
49. Montero I, Asencio A, Hernández I, Masanet MJ, Lacruz M, Bellver F et al. Two strategies for family intervention in schizophrenia: a randomized trial in a Mediterranean environment. Schizophr Bull. 2001;27(4):661–670. https://doi.org/10.1093/oxfordjournals.schbul.a006905
50. Farooq S, Nazar Z, Irfan M, Akhter J, Gul E, Irfan U et al. Schizophrenia medication adherence in a resource-poor setting: randomised controlled trial of supervised treatment in out-patients for schizophrenia (STOPS). Br J Psychiatry. 2011;199(6):467–472. https://doi.org/10.1192/bjp.bp.110.085340
51. Tas C, Danaci AE, Cubukcuoglu Z, Brüne M. Impact of family involvement on social cognition training in clinically stable outpatients with schizophrenia—a randomized pilot study. Psychiatry Res. 2012;195(1–2):32–38
52. Mueser KT, Glynn SM, Cather C, Zarate R, Fox L, Feldman J et al. Family intervention for co-occurring substance use and severe psychiatric disorders: Participant characteristics and correlates of initial engagement and more extended exposure in a randomized controlled trial. Addict Behav 2009;34(10):867–877. https://doi.org/10.1016/j.addbeh.2009.03.025
53. Tantirangsee N, Assanangkornchai S, Marsden J. Effects of a brief intervention for substance use on tobacco smoking and family relationship functioning in schizophrenia and related psychoses: A randomised controlled trial. J Subst Abuse Treat. 2015;51:30–37. https://doi.org/10.1016/j.jsat.2014.10.011
54. Alibeigi N, Momeni F. The Effectiveness of Family-Based Intervention on Symptom Severity, Expressed Emotion and Coping Styles of Bipolar Patients. Iranian Red Crescent Med Jr. (IRCMJ). 2018;20(8):0
55. Kopelowicz A, Zarate R, Smith VG, Mintz J, Liberman RP. Disease management in Latinos with schizophrenia: A family-assisted, skills training approach. Schizophr Bull 2003;29(2):211–228. https://doi.org/10.1037/prj0000204
56. Barrowclough C, Haddock G, Tarrier N, Lewis SW, Moring J, O'Brien R et al. Randomized controlled trial of motivational interviewing, cognitive behavior therapy, and family intervention for patients with comorbid schizophrenia and substance use disorders. Am J Psychiatry. 2001;158(10):1706–1713. https://doi.org/10.1176/appi.ajp.158.10.1706

Publisher's note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.