Knowledge of Nursing Journal Autumn 2023, 1(3):238-256
http://Knjournal.ir

Original Article Open Access

Challenges of Care in Patients with Severe Mental Disorders: An Integrative Review

Saman Saber[1], Toktam Kianian*[2]

[1] Assistant Professor, Department of Medical Emergencies, School of Nursing, Alborz University of Medical Sciences, Karaj, Iran.

[2] Assistant Professor, Department of Community Health and Geriatric Nursing, School of Nursing and Midwifery, Iran University of Medical Sciences, Tehran, Iran. ***(Corresponding Author)***

Abstract

Background and Aim: The increasing prevalence of severe mental disorders (SMDs), and the complexity of managing and treating them, have imposed significant psychological, social, and economic burdens on societies. Consequently, caring for these patients presents numerous challenges to health care organizations, so identifying these challenges can help increase the quality of care provided to these patients. This integrative review aims to identify the challenges of care in patients with severe mental disorders.

Materials and methods: This study was conducted as an integrative review during 2000 - 2022. Keywords such as severe mental illness, serious mental disorders, mental disorders, relapse, challenges, barriers, and care as well as their Persian equivalents were used to retrieve relevant articles. Reputable Persian and international databases, including PubMed, Science Direct, Web of Science, Scopus, IranDoc, CINAHL, IranMedex, MagIran, SID, and Google Scholar were used to search for relevant articles. In total, 106 full-text articles in Persian or English, which were aligned with the purposes of this study were retrieved from the aforementioned databases before being analyzed by the Broome method.

Results: The findings revealed, the challenges of care in patients with SMDs, which included "Care Burden", "Stigma and social isolation", "Complexity in diagnosis, treatment, and disease management", "Weakness in the responsiveness of the health care system", and "Limited psychosocial support.

Conclusion: This integrative review highlights the multifaceted challenges of care in patients with SMDs. Addressing these challenges requires a coordinated effort of health care providers, policymakers, and society which ultimately improves care outcomes for individuals with SMDs. Comprehensive strategies that focus on enhancing system responsiveness, reducing stigma, and providing support structures are crucial for mitigating these challenges and ensuring effective management and support for these patients.

Keywords: Care, Mental Disorders, Patient, Review Literature.

Corresponding author: Toktam Kianian ORCID ID: 0000-0003-3834-7280 Email: kianian.t@iums.ac.ir, **Received**: August 2023, **Accepted**: September 2023, **ePublish**: Autum 2023. Citation: Saber S, Kianian T, Challenges of Care in Patients with Severe Mental Disorders: An Integrative Review, Knowledge of Nursing Journal. 2023;1(3):238-256.

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

Introduction

Mental disorders are prevalent worldwide, affecting 6.9% to 27.8% of the global population [1,2]. In 2019, one in eight people, including 20% of children and adolescents, were living with mental disorders [3,4]. In the Middle East, these disorders significantly contribute to the burden of disease, with Iran enduring the highest burden compared to other countries in the region [5]. A mental health survey in Iran reported that 23.6% of the population had experienced mental disorders in 2015 [6]. As the demand for mental health services increases, a shortage of mental health professionals is anticipated by 2025 ,particularly in the U.S. [7]. Despite the fact that common mental disorders like depression and anxiety cost the global economy one trillion dollars annually, governments allocate less than 2% of health care budgets to mental health [8].

Severe mental disorders (SMDs) refer to mental, behavioral, or emotional conditions that result in significant functional impairments. These include disorders such as schizophrenia, bipolar disorder, and major depressive disorder, which are often chronic and debilitating conditions with frequent relapses that reduce the social and occupational functioning of affected people [9-11]. Relapse, characterized by the recurrence of symptoms after at least 28 days of recovery [12], poses serious risks, including increased hospitalizations, reduced quality of life, and elevated risk of suicide [13,14]. Each relapse contributes to the loss of brain tissue and worsens clinical outcome, highlighting the complexity of care in individuals with SMDs [15,16].

Many studies have examined the barriers of care in patients with SMDs. For instance, Thornicroft et al. (2019) identified stigma, fragmented health care systems, and lack of integrated services as major obstacles [17], while Geller (2020) highlighted poor coordination between psychiatric services and primary care [18]. Maoz et al. (2024) underscored the difficulty of maintaining long-term engagement with patients due to the chronic nature of SMDs [19], and Hastings et al. (2013) pointed to the challenges of accessing care in rural areas [20]. Additionally, Addo et al. (2018) found that the high economic costs of treatment and support services place a substantial burden on families and health care systems [21].

Despite this growing body of research, an integrative review is needed to synthesize these findings and provide a comprehensive understanding of multifaceted challenges associated with the care of patients with SMDs. Most existing studies focus on

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

isolated issues, such as systemic barriers or patient adherence, without considering how these factors affect the care of SMD patients. Furthermore, many studies are geographically or contextually limited, failing to capture the global scale of these challenges or cultural variations in care. By consolidating fragmented knowledge, this integrative review aims to identify the challenges of care in patients with SMDs and provide actionable insights into these issues in order to improve mental health care policies and quality of care, which ultimately enhance the care outcomes for patients and reduce costs for health care systems worldwide.

Methods

This is an integrative review study that was conducted between 2000-2022. To analyze the findings of relevant studies using Broome method. The study was done in three stages: searching for relevant literature, evaluating the retrieved information, and analyzing the data. In the first stage, the retrieved articles were examined in terms of inclusion criteria, compliance with the required terms and conditions, researcher's review, and relevance of the content. Finally, after data reduction, data display, comparisons, conclusions, and data verification, the necessary analysis was performed [22].

Inclusion criteria for the study were included; SMDs-related articles, studies that examine the challenges of caring for patients with mental disorders, full text articles, and articles written in Persian or English. In this regard, the strategy of searching for Persian and English articles was that all the published articles with the keywords of care, mental disorders, major depressive disorder, schizophrenia, bipolar disorder, patient, relapse, and challenges were searched. Persian search was done in SID, IranMedex, Magiran, and Iran Medical Research Portal and English search was done in EMBACE, SienceDirect, Scopus, MEDLINE, Google Scholar, and CINAHL databases. Google Scholar search engine was also used.

In the first stage, out of 870 articles, 65 were excluded due to duplication and not meeting the language criteria. Also, 505 studies were excluded for not aligning with the study's objectives. In the second stage, 145 articles were excluded after reviewing their abstracts, and in the third stage, 49 articles were eliminated due to irrelevant content after reviewing their full texts. Ultimately, 106 articles that met the inclusion criteria were selected for the analysis (Flowchart 1).

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

Broome method was used for data analysis, which includes data reduction, display, comparison, conclusion, and validation. Two independent researchers separately reviewed and confirmed the validity of analysis. Their goal was to compare their findings, and in case of any discrepancies, consult with a third party. However, they found no discrepancies.

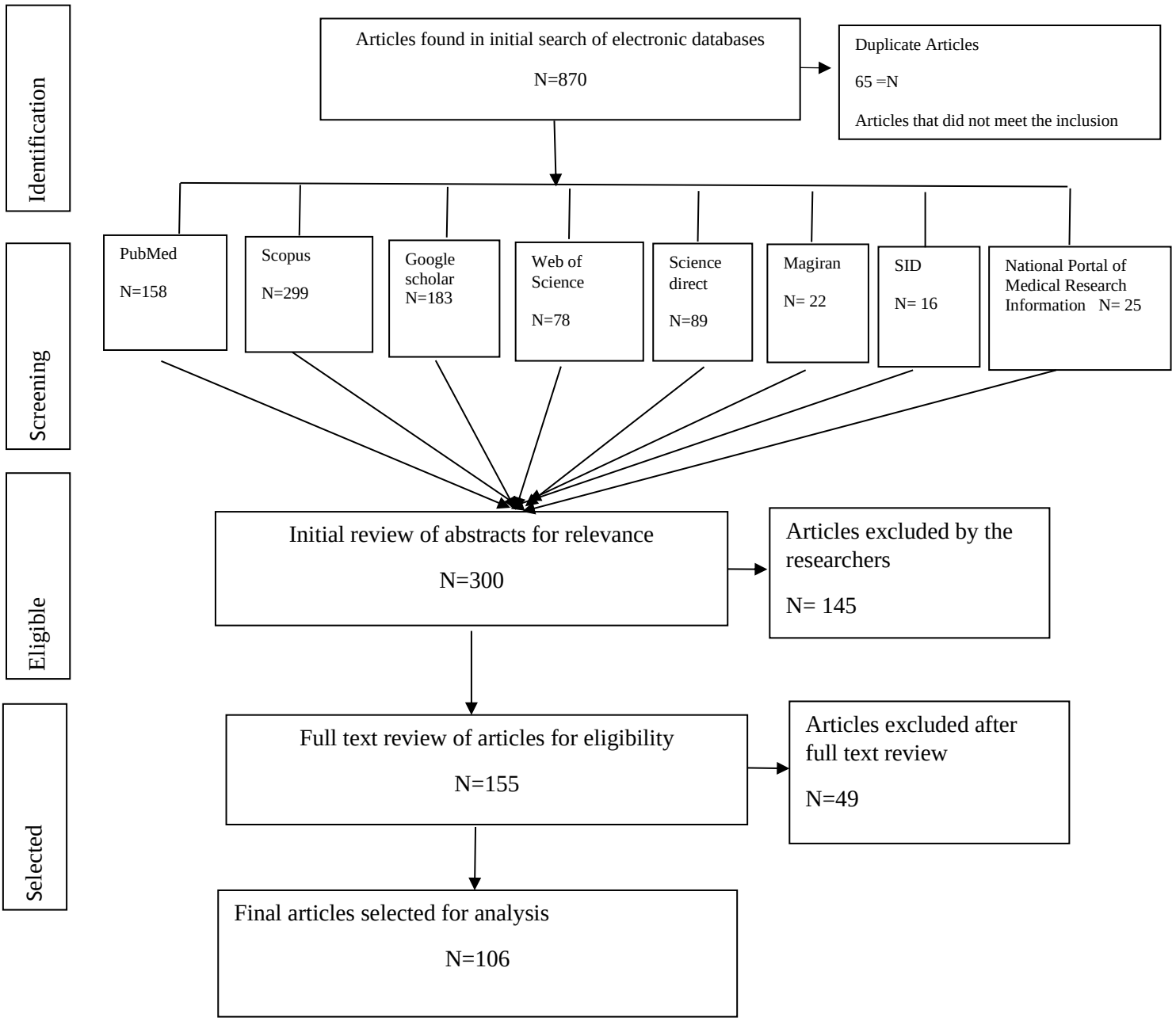
The code of ethics (IR.IUMS.REC.1399.800) was bestowed by the Ethics Committee of Northern Iran University of Medical Sciences.

Results

The review of literature revealed numerous challenges associated with the care of patients with SMDs. These challenges include: “Care Burden”, “Stigma and social isolation”, “Complexity in diagnosis, treatment, and disease management”, “Weakness in the responsiveness of the health care system”, and “Limited psychosocial support”. These challenges are presented in detail in Box 1.

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]



Flowchart 1. Searching strategy

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

Box 1. Challenges of care in patients with SMDs

Related Evidence
Care Burden [2,13,23-51]
Physical and emotional burdens
Financial strain
Stigma and social isolation [2-54]
Public stigma surrounding mental illness
Self-stigma among patients and caregivers
Complexity in diagnosis, treatment, and disease management [2,13,24-29,31-33,36,38,41-44,48-51,54-104]
Diverse symptoms and signs
Comorbidity with other mental, physical, and behavioral disorders
Inefficient disease management
Weakness in the responsiveness of the health care system [2,24,41,42,48,50,60,69,75,80,82,104,105]
Lack of standard treatment and guidelines
Limited access to mental health specialists
Limited psychosocial support [2,13,23,26,29,34,37,44,49,50,56,68,70,75,81,82,87,105-109]
Lack of peer support and counseling services
Insufficient trainings on life skills and social integration
Poor access to vocational and rehabilitation programs

Discussion

Based on the findings, there are five main challenges of care in patients with SMDs. One of the primary challenges is the significant care burden placed on both families and society. Families often endure physical, emotional burden, and financial strains, while society experiences an increased demand for health care systems and reduced economic productivity. The literature review indicated that the physical and emotional toll of these conditions in families and caregivers is a critical factor affecting the quality of care. A study by Nenobais et al. (2019) demonstrated that families face considerable physical strain due to the long-term and comprehensive care required by patients with SMDs. These families frequently face challenges such as lack of rest time, reduced social interactions, exhaustion, loss of energy, and disrupted sleep [46]. Other studies addressing the burden of mental disorders have highlighted the emotional toll of these condition in families, which include sense of sadness, shame, and fear related to the patient's behavior, particularly during the

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

disease relapses [2,24,26]. Many families caring for patients with SMDs report emotional pain, guilt, and anxiety, worrying that mental illness may lead to permanent disability that can severely impact the patient's quality of life [110]. The Saudi National Mental Health Survey emphasizes on the need for improved mental health policies [111]. A study in South Africa similarly highlight the severe caregiver burden in rural communities, where economic, social, and clinical factors contribute to the widespread distress among caregivers, with most experiencing mild to severe symptoms [112]. Collectively, these studies emphasize on the multifaceted nature of care burden and call for systemic solutions to address these challenges.

Another major factor contributing to the burden of care associated with SMDs is the financial strain that these conditions may impose on both patients and their families. Gauthier et al., in their study to examine the economic impact of major depression, found that the total costs of caring for these patients were more than 50% higher than other patients [23]. Zarei Shabkhaneh's study conducted on schizophrenia highlighted the high costs of cares associated with this disorder, stressing the need for identifying factors that may accelerate the disease relapse [113]. Dalgard (2008) found that families of patients with SMDs incur higher direct and indirect costs, such as health care services, education, regular visits to medical centers, transportation, and daily necessities, compared to families of other patients [25]. Economic pressures can sometimes discourage families from pursuing treatment or continuing care, as reported by Saber et al.(2023) thus, they argue that providing comprehensive insurance coverage for these patients would greatly reduce their financial concerns, burden of illness and also help them to prevent disease relapse [114]. SMDs significantly increase the health care needs of patients, not only for psychiatric care but also for other medical needs, and if they are not met, they will lead to higher hospitalization rates, a greater risk of chronic illness, caregiver stress, and treatment costs. Frequent disease relapse and the need for constant care result in the loss of workforce, lower government revenue and reduced productivity, and increase unemployment. Agenagnew and Kassaw (2020) stated that by 2030, the global economic cost of mental health issues could reach to $16 trillion, making it a priority for global health organizations all over the world [24]. Kadakia et al. (2022) also noted that the estimated excess economic burden of schizophrenia in the US in 2019 was $343.2 billion, including

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

$251.9 billion in indirect costs (73.4%), $62.3 billion in direct health care costs (18.2%), and $35.0 billion in direct non–health care costs (10.2%) [115]. Therefore, it is essential to design and develop care programs for patients with SMDs through the collaboration of health care teams and government agencies in order to promote effective reintegration of these patients into society. Ensuring the continuous treatment and follow-up programs helps to mitigate the long-term financial and social costs of disability, which could otherwise place an even greater burden on governments.

This literature review also identified stigma and social isolation as significant challenges of care in individuals with SMDs. Stigma affects the process of patient care in two ways, public stigma surrounding mental illness and self-stigma among patients and caregivers. Stigma may be imposed on patients and their families by society or can originate from within patients or families. Studies by Adebiyi et al. (2018) [2] and Agenagnew and Kassaw (2020) [24] indicate that patients with SMDs frequently experience frustration due to the negative social attitudes and criticism of caregivers and family members. This frustration often leads to self-imposed isolation, resistance to seek medical help, and non- adherence to treatment and medication regimens, or continuing care. Sartorius (2023) refers to stigma as a barrier to social inclusion, and states that it affects not only patients but also their families and health care providers [116]. Guan et al. (2023) examined social isolation and loneliness among caregivers of people with SMDs, and showed a considerable knowledge gaps in this area, calling for further research into interventions that target isolation [117]. Agenagnew and Kassaw (2020) emphasized that the recurrence of mental illness can exacerbate stigma, and reduce social functioning for both patients and their families, which negatively affect their health, social standing, and human rights [24]. Adebiyi et al. (2018) reported that social stigma may lead to non-adherence medication regimen, which result in the disease relapse and re-hospitalization [2].

Another challenge of caring for patients with SMDs is complexity in diagnosis, treatment, and disease management. According to literature, diverse symptoms and signs such as altered sleep pattern [28,66,78,79,118], changes of appetite [119-121], loss of sexual desire, and neglect of grooming and personal hygiene [28]. Studies also highlight the feelings of fatigue and reduced energy in patients with mental illness [29,79,120]. Saito et al. (2020) reported that patients

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

with schizophrenia exhibit cognitive, perceptual, and emotional changes several weeks before a relapse, showing as non-specific symptoms such as anxiety, malaise, insomnia, poor concentration, and mild psychotic symptoms [31]. Gaebel and Riesbeck (2014) identified several predictors of SMDs, including worry, irritability, low mood, diminished energy, forgetfulness, neglect of hygiene and appearance and lack of interest in usual activities [28]. However, these symptoms may also be indicative of physical illnesses, making timely diagnosis of SMDs particularly challenging. Failure to recognize early warning signs can lead to delayed diagnosis and treatment, and increases the burden of care [31].

Additionally, comorbidity with other mental, physical, and behavioral disorders presents a significant risk factor for treatment failure and disease relapse in patients with SMDs. Buckman et al. (2018) found that the presence of multiple conditions, such as depression combined with alcohol addiction or anxiety disorders, significantly increases the risk of relapse [109]. Similarly, Hoertel et al. (2017) referred to comorbid conditions as predictors of relapse in major depression [68]. Fikreyesus et al. (2016) also found that physical illnesses such as cancer, osteoporosis, and rheumatoid arthritis contribute to relapse in individuals with severe mental disorders [26]. Integrated care models which address both psychiatric and non-psychiatric problems and needs, are essential for improving health outcomes in these patients.

Inefficient disease management is another challenge of care in patients with SMDs. Poorly designed treatment plans, incomplete follow-up, non-adherence to medication regimen, and drug side effects are among suboptimal care outcomes [75]. Schizophrenia, in particular, presents diagnostic complexities due to its diverse symptoms, requiring careful coordination between clinical and psychosocial aspects of care [38]. Frequent follow-ups, extended medication periods, and monitoring of treatment efficacy and drug side effects are essential for the relapse prevention, yet drugs side effects can disrupt treatment adherence and increase risk of relapse by up to 35.6 times [75]. Ensuring continuous monitoring of patient’s symptoms and behaviors remains crucial, even during the recovery phase when the disease appears to be under control.

Finally, weakness in the responsiveness of the health care system, including lack of standardized treatment and guidelines and limited access to mental health specialists, are critical obstacles to effective care. As emphasized by Chaurotia

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

et al. (2016) [41] and Zipursky et al. (2014) [82], high treatment costs, particularly for inpatient psychiatric care, and long distances from specialized treatment centers may further reduce the patients' desire to seek continuous care. Non-specialized care often results in poor treatment outcomes and higher relapse rates [94]. Improved access to mental health specialists and clear, evidence-based treatment guidelines are necessary to meet the needs of patients with SMDs [78,82].

This literature review also revealed the limited psychosocial support, particularly peer support, patient empowerment, and social reintegration. Social support of patients by family, friends, and colleagues, such as expression of empathy and respect, plays a critical role in patient recovery [34,103,110]. However, many patients are deprived of such support due to their illness. Social stigma often causes families to hide their mentally ill members or delay treatment [24]. Disease relapse causes distress in patients and their families, puts relationships under stress and negatively affects educational and care prospects [49]. Improving the public awareness of SMDs and enhancing community support systems are among essential factors that reduce stigma and promotes patients' reintegration into society [2]. The role of mass media, virtual platforms, and non-governmental organizations is pivotal in achieving this goal.

Conclusion

Results of this review study highlight several key challenges associated with the care of patients with SMDs. These challenges include heavy physical, emotional, and financial burden on caregivers, systemic weaknesses in health care systems such as lack of guidelines and limited access to specialized care, and the pervasive stigma and social isolation experienced by patients and families. Additionally, complexities of disease diagnosis and treatment, as well as comorbid conditions, make disease management even more difficult. Addressing these challenges and issues requires some efforts, which include improving the response of health care system, providing integrated care models, reducing stigma, and offering robust psychosocial support, with intention of improving patient outcomes and promoting reintegration into society.

Acknowledgment

All colleagues who helped us to conduct this study are appreciated.

Conflict of interest disclosures

There is no conflict of interest in this study.

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

References

1. Charlson F, Van Ommeren M, Flaxman A, Cornett J, Whiteford H, Saxena S. New WHO Prevalence Estimates of Mental Disorders in Conflict Settings: A Systematic Review and Meta-Analysis. The Lancet. 2019;394(10194):240-8.

2. Adebiyi MO, Mosaku SK, Irinoye OO, Oyelade OO. Socio-Demographic and Clinical Factors Associated with Relapse in Mental Illness. International Journal of Africa Nursing Sciences. 2018;8:149-53.

3. IHME. (Institute of Health Metrics and Evaluation). Global Health Data Exchange (Ghdx). [Cited 14 May 2022]. Available From: https://vizhub.healthdata.org/gbd-results/ 2022. (Accessed 2024)

4. WHO. Mental Disorders. [8 June 2022]. Available From: https://www.who.int/news-room/fact-sheets/detail/mental-disorders. (Accessed 2024)

5. Nour Bala A, Namani F, Yahyavi Dizej J, Anvari S, Mahmoudpour Azari M. Burden of Mental Disorders: A Study of the Middle East Countries for the Period 2000-2017. Journal of Medical Council of Iran. 2020;38(1):19-26. [Persian]

6. Sharifi V, Amin-Esmaeili M, Hajebi A, Motevalian A, Radgoodarzi R, Hefazi M, Rahimi-Movaghar A. Twelve-Month Prevalence and Correlates of Psychiatric Disorders in Iran: The Iranian Mental Health Survey, 2011. Archives of Iranian medicine. 2015;18(2):76-.84. [Persian]

7. Purtle J, Nelson KL, Counts NZ, Yudell M. Population-Based Approaches to Mental Health: History, Strategies, and Evidence. Annual Review of Public Health 2020;41(1):201-21.

8. WHO. Mental Health. [17 June 2022]. Available From: https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response. (Accessed 2024)

9. Juan-Porcar M, Guillamón-Gimeno L, Pedraz-Marcos A, Palmar-Santos AM. Family Care of People with Severe Mental Disorders: An Integrative Review. Revista Latino-Americana De Enfermagem. 2015;23(2):352-60.

10. Den Boer K, De Veer AJ, Schoonmade LJ, Verhaegh KJ, Van Meijel B, Francke AL. A Systematic Review of Palliative Care Tools and Interventions for People with Severe Mental Illness. BMC Psychiatry. 2019;19:1-11.

11. Mötteli S, Schori D, Schmidt H, Seifritz E, Jäger M. Utilization and Effectiveness of Home Treatment for People with Acute Severe Mental Illness: A Propensity-Score Matching Analysis of 19 Months of Observation. Frontiers in Psychiatry. 2018;9 (1):495.

12. Koopmans PC, Bültmann U, Roelen CA, Hoedeman R, Van Der Klink JJ, Groothoff JW. Recurrence of Sickness Absence Due to Common Mental Disorders. International Archives of Occupational and Environmental Health. 2011;84(1):193-201.

13. Sullivan S, Northstone K, Gadd C, Walker J, Margelyte R, Richards A, et al. Models to Predict Relapse in Psychosis: A Systematic Review. Plos One. 2017;12(9):E0183998.

14. Caspi A, Moffitt TE. All For One and One For All: Mental Disorders in One Dimension. American Journal of Psychiatry. 2018;175(9):831-44.

15. Durgam S, Earley W, Li R, Li D, Lu K, Laszlovszky I, et al. Long-Term Cariprazine Treatment for the Prevention of Relapse in Patients with Schizophrenia: A Randomized, Double-Blind, Placebo-

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

Controlled Trial. Schizophrenia Research. 2016;176(2-3):264-71.

16. Andreasen NC, Liu D, Ziebell S, Vora A, Ho B-C. Relapse Duration, Treatment Intensity, and Brain Tissue Loss in Schizophrenia: A Prospective Longitudinal MRI Study. American Journal of Psychiatry. 2013;170(6):609-15.

17. Thornicroft G, Ahuja S, Barber S, Chisholm D, Collins PY, Docrat S, et al. Integrated Care for People with Long-Term Mental and Physical Health Conditions in Low-Income and Middle-Income Countries. The Lancet Psychiatry. 2019;6(2):174-86.

18. Geller F. Business as Usual: Emergency Rooms with No Psychiatric Coverage at All. Springer International Publishing. Switzerland. 28 August 2020. pp. 13-25.

19. Maoz H, Sabbag R, Mendlovic S, Krieger I, Shefet D, Lurie I. Long-Term Efficacy of a Continuity-of-Care Treatment Model for Patients with Severe Mental Illness Who Transition from In-Patient to Out-Patient Services. The British Journal of Psychiatry. 2024;224(4):122-6.

20. Hastings SL, Cohn TJ. Challenges and Opportunities Associated with Rural Mental Health Practice. Journal of Rural Mental Health 2013;37(1):37-49.

21. Addo R, Agyemang SA, Tozan Y, Nonvignon J. Economic Burden of Caregiving for Persons with Severe Mental Illness in Sub-Saharan Africa: A Systematic Review. Plos One. 2018;13(8):E0199830.

22. Broome ME. Integrative Literature Reviews for the Development of Concepts. In: Rodgers BL, Astin Knafl K, editors. Concept development in nursing: foundations, techniques and applications. Philadelphia: WB Saunders Company; 2000. pp. 231–50.

23. Gauthier G, Mucha L, Shi S, Guerin A. Economic Burden of Relapse/Recurrence in Patients with Major Depressive Disorder. Journal of Drug Assessment. 2019;8(1):97-103.

24. Agenagnew L, Kassaw C. The Lifetime Prevalence and Factors Associated with Relapse among Mentally Ill Patients at Jimma University Medical Center, Ethiopia: Cross Sectional Study. Journal of Psychosocial Rehabilitation and Mental Health. 2020;7(3):211-20.

25. Dalgard OS. Social Inequalities in Mental Health in Norway: Possible Explanatory Factors. International Journal for Equity in Health 2008;7(27):1-8.

26. Fikreyesus M, Soboka M, Feyissa GT. Psychotic Relapse and Associated Factors among Patients Attending Health Services in Southwest Ethiopia: A Cross-Sectional Study. BMC Psychiatry. 2016;16(1):1-10.

27. Gbiri CA, Badru FA, Ladapo HT, Gbiri AA. Socio–Economic Correlates of Relapsed Patients Admitted in a Nigerian Mental Health Institution. International Journal of Psychiatry in Clinical Practice. 2011;15(1):19-26.

28. Gaebel W, Riesbeck M. Are There Clinically Useful Predictors and Early Warning Signs for Pending Relapse? Schizophrenia Research. 2014;152(2-3):469-77.

29. Hui CL, Lo MC, Chan EH, Chen ES, Ko RW, Lee EH, et al. Perception Towards Relapse and Its Predictors in Psychosis Patients: A Qualitative Study. Early Intervention in Psychiatry 2018;12(5):856-62.

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

30. Moriarty AS, Meader N, Snell KI, Riley RD, Paton LW, Dawson S, et al. Predicting Relapse or Recurrence of Depression: Systematic Review of Prognostic Models. The British Journal of Psychiatry. 2022;221(2):448-58.

31. Saito Y, Sakurai H, Kane JM, Schooler NR, Suzuki T, Mimura M, et al. Predicting Relapse with Residual Symptoms in Schizophrenia: A Secondary Analysis of The PROACTIVE Trial. Schizophrenia Research. 2020;215:173-80.

32. Alphs L, Nasrallah HA, Bossie CA, Fu D-J, Gopal S, Hough D, et al. Factors Associated with Relapse in Schizophrenia Despite Adherence to Long-Acting Injectable Antipsychotic Therapy. International Clinical Psychopharmacology. 2016;31(4):202-9.

33. Fond G, Bulzacka E, Boucekine M, Schürhoff F, Berna F, Godin O, et al. Machine Learning for Predicting Psychotic Relapse at 2 Years in Schizophrenia in The National FACE-SZ Cohort. Progress in Neuro-Psychopharmacology and Biological Psychiatry. 2019;92:8-18.

34. Lal S, Malla A, Marandola G, Thériault J, Tibbo P, Manchanda R, et al. "Worried About Relapse": Family Members' Experiences and Perspectives of Relapse in First-Episode Psychosis. Early Intervention in Psychiatry. 2019;13(1):24-9.

35. Gathaiya NW. Factors Associated with Relapse in Patients with Schizophrenia at Mathari Hospital, Nairobi. Doctoral dissertation, University of Nairobi, Kenya, 2011.

36. Chabungbam G, Avasthi A, Sharan P. Sociodemographic and Clinical Factors Associated with Relapse in Schizophrenia. Psychiatry and Clinical Neurosciences. 2007;61(6):587-93.

37. Alvarez-Jimenez M, Priede A, Hetrick S, Bendall S, Killackey E, Parker A, et al. Risk Factors for Relapse Following Treatment for First Episode Psychosis: A Systematic Review and Meta-Analysis of Longitudinal Studies. Schizophrenia Research. 2012;139(1-3):116-28.

38. Bowtell M, Eaton S, Thien K, Bardell-Williams M, Downey L, Ratheesh A, et al. Rates and Predictors of Relapse Following Discontinuation of Antipsychotic Medication After a First Episode of Psychosis. Schizophrenia Research. 2018;195(1):231-6.

39. Wu NS, Schairer LC, Dellor E, Grella C. Childhood Trauma and Health Outcomes in Adults with Comorbid Substance Abuse and Mental Health Disorders. Addictive Behaviors. 2010;35(1):68-71.

40. Davarinejad O, Mohammadi Majd T, Abbasi M, Eskandari S. Identification of Effective Factors in Recurrence of Schizophrenia Spectrum Disorder Using Poisson Regression Model. Qom University of Medical Sciences Journal. 2022;15(10):726-35.

41. Chaurotia VK, Verma K, Baniya GC. A Study of Psychosocial Factor Related with Relapse in Schizophrenia. IOSR J. Dent. Med. Sci. Ver. XIV. 2016;15(4):2279-861.

42. Taylor CL, Broadbent M, Khondoker M, Stewart RJ, Howard LM. Predictors of Severe Relapse in Pregnant Women with Psychotic or Bipolar Disorders. Journal of Psychiatric Research. 2018;104:100-7.

43. Almond S, Knapp M, Francois C, Toumi M, Brugha T. Relapse in Schizophrenia: Costs, Clinical Outcomes and Quality of Life. The

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

British Journal of Psychiatry. 2004;184(4):346-51.

44. Rubio JM, Malhotra AK, Kane JM. Towards a Framework to Develop Neuroimaging Biomarkers of Relapse in Schizophrenia. Behavioural Brain Research. 2021;402:113099.

45. Bubonya M, Cobb-Clark DA, Wooden M. Mental Health and Productivity at Work: Does What You Do Matter? Labour Economics. 2017;46:150-65.

46. Nenobais A, Jatimi A, Muh J. Family Burden for the Caregivers of People with Mental Disorders: A Systematic Review. 2019;14(3):26-34.

47. Hennemann S, Farnsteiner S, Sander L. Internet-And Mobile-Based Aftercare and Relapse Prevention in Mental Disorders: A Systematic Review and Recommendations for Future Research. Internet Interventions 2018;14 (1):1-17

48. Abu Sabra MA, Hamdan-Mansour AM. Using Relapse Prevention Interventions to Maintain Remission and Minimize Relapse Rates for Individuals with Schizophrenia: A Scoping Review. Journal of Psychosocial Nursing and Mental Health Services. 2022;60(7):47-54.

49. Emsley R, Chiliza B, Asmal L. The Evidence for Illness Progression after Relapse in Schizophrenia. Schizophrenia Research. 2013;148(1-3):117-21.

50. Lee S-U, Soh M, Ryu V, Kim C-E, Park S, Roh S, et al. Risk Factors for Relapse in Patients with First-Episode Schizophrenia: Analysis of The Health Insurance Review and Assessment Service Data From 2011 To 2015. International Journal of Mental Health Systems. 2018;12 (9):1-9.

51. Ayano G, Duko B. Relapse and Hospitalization in Patients with Schizophrenia and Bipolar Disorder at The St Amanuel Mental Specialized Hospital, Addis Ababa, Ethiopia: A Comparative Quantitative Cross-Sectional Study. Neuropsychiatric Disease and Treatment. 2017; 13(2017):1527-31.

52. Gathaiya N, Mwaura J, Wagoro M. A Cross-Sectional Study on Factors Associated with Relapse in Patients with Schizophrenia at Mathari Hospital, Nairobi Kenya. Annals of Clinical and Laboratory Research. 2018;6(01):1-5.

53. Wu F, Huang Y, Zhou Y, Li H, Sun B, Zhong X, et al. Factors Influencing Relapse in Schizophrenia: A Longitudinal Study in China. Biomedical Research. 2017;28(9):4076-82.

54. Luciano A, Metcalfe JD, Bond GR, Xie H, Miller AL, Riley J, et al. Hospitalization Risk Before and after Employment Among Adults with Schizophrenia, Bipolar Disorder, or Major Depression. Psychiatric Services. 2016; 67(10):1131-8.

55. Klein NS, Holtman GA, Bockting CL, Heymans MW, Burger H. Development and Validation of a Clinical Prediction Tool to Estimate the Individual Risk of Depressive Relapse or Recurrence in Individuals with Recurrent Depression. Journal of Psychiatric Research. 2018;104 (1):1-7.

56. Andreescu C, Ajilore O, Aizenstein HJ, Albert K, Butters MA, Landman BA, et al. Disruption of Neural Homeostasis as a Model of Relapse and Recurrence in Late-Life Depression. The American Journal of Geriatric Psychiatry. 2019;27(12):1316-30.

57. Degenhardt EK, Gatz JL, Jacob J, Tohen M. Predictors of Relapse or Recurrence in

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

Bipolar I Disorder. Journal of Affective Disorders. 2012;136(3):733-9.

58. Dijkstra-Kersten SM, Biesheuvel-Leliefeld KE, Van Der Wouden JC, Van Schaik DJ, Bosmans JE, Van Marwijk HW, et al. Supported Self-Help to Prevent Relapse or Recurrence of Depression: Who Benefits Most? Journal of Affective Disorders 2019;257:180-6.

59. Gopinath S, Katon WJ, Russo JE, Ludman EJ. Clinical Factors Associated with Relapse in Primary Care Patients with Chronic or Recurrent Depression. Journal of Affective Disorders. 2007;101(1-3):57-63.

60. Kazadi N, Moosa M, Jeenah F. Factors Associated with Relapse in Schizophrenia. South African Journal of Psychiatry. 2008;14(2):52-62.

61. Dunn T. The Association between Medication Adherence in Mental Illness and Substance Use Disorder Relapse in Patients with Dual Diagnosis. Master's Thesis, Duquesne University, Pittsburgh, Pennsylvania. 2018: 1-24

62. Camacho-Gomez M, Castellvi P. Effectiveness of Family Intervention for Preventing Relapse in First-Episode Psychosis until 24 Months of Follow-Up: A Systematic Review with Meta-Analysis of Randomized Controlled Trials. Schizophrenia Bulletin. 2020;46(1):98-109.

63. Berwian IM, Walter H, Seifritz E, Huys QJ. Predicting Relapse after Antidepressant Withdrawal–A Systematic Review. Psychological Medicine. 2017;47(3):426-37.

64. Hardeveld F. Recurrence of Major Depressive Disorder: Towards A Model of Risk. Sl: sn; 2015.

65. Wojnarowski C, Firth N, Finegan M, Delgadillo J. Predictors of Depression Relapse and Recurrence after Cognitive Behavioural Therapy: A Systematic Review and Meta-Analysis. Behavioural and Cognitive Psychotherapy. 2019;47(5):514-29.

66. Etain B, Bellivier F, Olié E, Aouizerate B, Aubin V, Belzeaux R, et al. Clinical Predictors of Recurrences in Bipolar Disorders Type 1 and 2: A FACE-BD Longitudinal Study. Journal of Psychiatric Research. 2021;134:129-37.

67. Vigod SN, Kurdyak PA, Seitz D, Herrmann N, Fung K, Lin E, et al. Readmit: A Clinical Risk Index to Predict 30-Day Readmission after Discharge from Acute Psychiatric Units. Journal of Psychiatric Research. 2015;61(1):205-13.

68. Hoertel N, Blanco C, Oquendo MA, Wall MM, Olfson M, Falissard B, et al. A Comprehensive Model of Predictors of Persistence and Recurrence in Adults with Major Depression: Results from A National 3-Year Prospective Study. Journal of Psychiatric Research. 2017;95(1):19-27.

69. Brouwer ME, Williams AD, Kennis M, Fu Z, Klein NS, Cuijpers P, et al. Psychological Theories of Depressive Relapse and Recurrence: A Systematic Review and Meta-Analysis of Prospective Studies. Clinical Psychology Review. 2019;74(1):101773

70. San L, Bernardo M, Gómez A, Peña M. Factors Associated with Relapse in Patients with Schizophrenia. International Journal of Psychiatry in Clinical Practice. 2013;17(1):2-9.

71. Saxena S, Jané-Llopis E, Hosman C. Prevention of Mental and Behavioural Disorders: Implications for Policy and Practice. World Psychiatry. 2006;5(1):5-14.

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

72. Akechi T, Mantani A, Kurata Ki, Hirota S, Shimodera S, Yamada M, et al. Predicting Relapse in Major Depression after Successful Initial Pharmacological Treatment. Journal of Affective Disorders. 2019;250(1):108-13

73. Ali S, Rhodes L, Moreea O, Mcmillan D, Gilbody S, Leach C, et al. How Durable is The Effect of Low Intensity CBT for Depression and Anxiety? Remission and Relapse in a Longitudinal Cohort Study. Behaviour Research and Therapy. 2017;94(1):1-8.

74. Gulec M, Selvi Y, Boysan M, Aydin A, Besiroglu L, Agargun MY. Ongoing or Re-Emerging Subjective Insomnia Symptoms after Full/Partial Remission or Recovery of Major Depressive Disorder Mainly with The Selective Serotonin Reuptake Inhibitors and Risk of Relapse or Recurrence: A 52-Week Follow-Up Study. Journal of Affective Disorders. 2011;134(1-3):257-65.

75. Brugnoli R, Rapinesi C, Kotzalidis GD, Marcellusi A, Mennini FS, De Filippis S, et al. Model of Management (Mo. Ma) for the Patient with Schizophrenia: Crisis Control, Maintenance, Relapse Prevention, and Recovery with Long-Acting Injectable Antipsychotics (Lais). Rivista Di Psichiatria. 2016;51(2):47-59.

76. Mi W-F, Chen X-M, Fan T-T, Tabarak S, Xiao J-B, Cao Y-Z, et al. Identifying Modifiable Risk Factors for Relapse in Patients with Schizophrenia in China. Frontiers in Psychiatry. 2020;11 (1):574763.

77. Moges S, Belete T, Mekonen T, Menberu M. Lifetime Relapse and Its Associated Factors among People with Schizophrenia Spectrum Disorders Who are on Follow Up at Comprehensive Specialized Hospitals in Amhara Region, Ethiopia: A Cross-Sectional Study. International Journal of Mental Health Systems. 2021;15(1):1-12.

78. Barnett I, Torous J, Staples P, Sandoval L, Keshavan M, Onnela J-P. Relapse Prediction in Schizophrenia through Digital Phenotyping: A Pilot Study. Neuropsychopharmacology. 2018;43(8):1660-6.

79. De Siqueira Rotenberg L, Borges-Júnior RG, Lafer B, Salvini R, Da Silva Dias R. Exploring Machine Learning to Predict Depressive Relapses of Bipolar Disorder Patients. Journal of Affective Disorders. 2021;295(1):681-7.

80. Sánchez-Guarnido AJ, Huertas P, Garcia-Solier R, Solano M, Díez B, León M, Herruzo-Cabrera J. Risk Factors for Relapse in People with Severe Mental Disorders During The COVID-19 Pandemic: A Multicenter Retrospective Study. Healthcare(Basel). 2022; 10(1):64

81. Noroozi M, Alibeigi N, Armoon B, Rezaei O, Sayadnasiri M, Nejati S, et al. Patterns of Relapse Risks and Related Factors among Patients with Schizophrenia in Razi Hospital, Iran: A Latent Class Analysis. Polish Psychological Bulletin. 2018;49(3):) 355–359.

82. Zipursky RB, Menezes NM, Streiner DL. Risk of Symptom Recurrence with Medication Discontinuation in First-Episode Psychosis: A Systematic Review. Schizophrenia Research. 2014;152(2-3):408-14.

83. Gleeson JF, Rawlings D, Jackson HJ, Mcgorry PD. Early Warning Signs of Relapse Following a First Episode of Psychosis. Schizophrenia Research. 2005;80(1):107-11.

84. Eisner E, Drake R, Barrowclough C. Assessing Early Signs of Relapse in

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

Psychosis: Review and Future Directions. Clinical Psychology Review. 2013;33(5):637-53.

85. Eisner E, Drake R, Lobban F, Bucci S, Emsley R, Barrowclough C. Comparing Early Signs and Basic Symptoms as Methods for Predicting Psychotic Relapse in Clinical Practice. Schizophrenia Research. 2018;192(1):124-30.

86. Rasmussen JD, Kakuhikire B, Baguma C, Ashaba S, Cooper-Vince CE, Perkins JM, et al. Portrayals of Mental Illness, Treatment, and Relapse and Their Effects on The Stigma of Mental Illness: Population-Based, Randomized Survey Experiment in Rural Uganda. Plos Medicine. 2019;16(9):E1002908.

87. Salvini R, da Silva Dias R, Lafer B, Dutra I. A Multi-Relational Model for Depression Relapse in Patients with Bipolar Disorder. In MEDINFO 2015: eHealth-enabled Health. 2015; 216 (1): 741-745.

88. Bouhlel S, Jones Y, Khelifa E, Msolly M, Melki W, El-Hechmi Z. Prodromal symptoms in schizophrenic relapse: A descriptive and comparative study. L'Encéphale. 2012;38(5):397-403.

89. Kennard BD, Emslie GJ, Mayes TL, Hughes JL. Relapse and Recurrence in Pediatric Depression. Child and Adolescent Psychiatric Clinics. 2006;15(4):1057-79.

90. Di Capite S, Upthegrove R, Mallikarjun P. The Relapse Rate and Predictors of Relapse in Patients with First-Episode Psychosis Following Discontinuation of Antipsychotic Medication. Early Intervention in Psychiatry. 2018;12(5):893-9.

91. Takeuchi H, Siu C, Remington G, Fervaha G, Zipursky RB, Foussias G, et al. Does Relapse Contribute to Treatment Resistance? Antipsychotic Response in First-Vs. Second-Episode Schizophrenia. Neuropsychopharmacology. 2019;44(6):1036-42.

92. Montero I, Gómez-Beneyto M, Ruiz I, Puche E, Adam A. The Influence of Family Expressed Emotion on the Course of Schizophrenia in a Sample of Spanish Patients. The British Journal of Psychiatry. 1992;161(2):217-22.

93. Ndukuba A. Socio-Demographic and Clinical Profile of Patients Admitted in to Ebonyi State University Teaching Hospital: A Three-Year Retrospective Study. Ebonyi Medical Journal. 2011;10(1):47-55.

94. Kim K-H, Lee S-M, Paik J-W, Kim N-S. The Effects of Continuous Antidepressant Treatment during the First 6 Months on Relapse or Recurrence of Depression. Journal of Affective Disorders. 2011;132(1-2):121-9.

95. Pelayo-Terán JM, Galán VGG, Martínez-García O, Tabarés-Seisdedos R, Crespo-Facorro B, Ayesa-Arriola R. Rates and Predictors of Relapse in First-Episode Non-Affective Psychosis: A 3-Year Longitudinal Study in A Specialized Intervention Program (PAFIP). European Archives of Psychiatry and Clinical Neuroscience. 2017;267(4):315-23.

96. Larsen-Barr M, Seymour F, Read J, Gibson K. Attempting to Discontinue Antipsychotic Medication: Withdrawal Methods, Relapse and Success. Psychiatry Research. 2018;270(1):365-74.

97. Jeong H-G, Lee M-S. Long-Acting Injectable Antipsychotics in First-Episode Schizophrenia. Clinical Psychopharmacology and Neuroscience. 2013;11(1):1-6.

98. Hassan MK, Islam MI, Kamal A, Alam MJ. Factors Associated with Relapse of

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

Schizophrenia in Bangladesh. American Journal of Psychiatry and Neuroscience 2020;8(3):64-8.

99. Schooler NR. Relapse and Rehospitalization: Comparing Oral and Depot Antipsychotics. Journal of Clinical Psychiatry. 2003;64:14-7.

100. Csernansky JG, Schuchart EK. Relapse and Rehospitalisation Rates in Patients with Schizophrenia. CNS Drugs. 2002;16(7):473-84.

101. Subotnik KL, Casaus LR, Ventura J, Luo JS, Hellemann GS, Gretchen-Doorly D, et al. Long-Acting Injectable Risperidone for Relapse Prevention and Control of Breakthrough Symptoms after a Recent First Episode of Schizophrenia: A Randomized Clinical Trial. JAMA Psychiatry. 2015;72(8):822-9.

102. Liu C-H, Zhang G-Z, Li B, Li M, Woelfer M, Walter M, et al. Role of Inflammation in Depression Relapse. Journal of Neuroinflammation. 2019;16(1):1-11.

103. Sfetcu R, Musat S, Haaramo P, Ciutan M, Scintee G, Vladescu C, et al. Overview of Post-Discharge Predictors for Psychiatric Re-Hospitalizations: A Systematic Review of the Literature. BMC Psychiatry 2017;17:1-15.

104. Fanta T, Hagos KH, Hamda EF, Haile E, Ejigu AK, Nassir Z, et al. Trends in Clinical Practice and Its Effect on Relapse Among Patients with Severe Mental Disorders in Ethiopia: A Retrospective Chart Review. Research Square 2021

105. Moriarty AS, Castleton J, Gilbody S, Mcmillan D, Ali S, Riley RD, et al. Predicting and Preventing Relapse of Depression in Primary Care. British Journal of General Practice; 2020, 70(691): 54–55.

106. Ahmadi A, Farahbakhsh K, Moatamedy A, Khodaei M, Safi MH. The Effectiveness of Family Psychological Training on Prevention of Recurrence of Symptoms in Patients with Schizophrenia Spectrum Disorders. Iranian Journal of Psychiatric Nursing 2020;8(3):93-103.

107. Backs-Dermott BJ, Dobson KS, Jones SL. An Evaluation of an Integrated Model of Relapse in Depression. Journal of Affective Disorders 2010;124(1-2):60-7.

108. Brouwer ME, Williams AD, Forand NR, Derubeis RJ, Bockting CL. Dysfunctional Attitudes or Extreme Response Style as Predictors of Depressive Relapse and Recurrence After Mobile Cognitive Therapy for Recurrent Depression. Journal of Affective Disorders 2019;243:48-54.

109. Buckman JE, Underwood A, Clarke K, Saunders R, Hollon S, Fearon P, et al. Risk Factors for Relapse and Recurrence of Depression in Adults and How They Operate: A Four-Phase Systematic Review and Meta-Synthesis. Clinical Psychology Review 2018;64:13-38.

110. Tlhowe TT, Du Plessis E, Koen MP. Strengths of Families to Limit Relapse in Mentally Ill Family Members. Health Sa Gesondheid 2017;22(1):28-35.

111. Zedan HS, Bilal L, Hyder S, Naseem MT, Akkad M, Al-Habeeb A, et al. Understanding the Burden of Mental and Physical Health Disorders on Families: Findings from The Saudi National Mental Health Survey. BMJ Open 2023;13(10):E072115.

112. Ndlovu JT, Mokwena KE. Burden of Care of Family Caregivers for People Diagnosed with Serious Mental Disorders in A Rural Health District in Kwa-Zulu-Natal, South

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]

Africa. in: Healthcare: MDPI; 2023. P. 2686.

113. Zareie Shabkhaneh R, Khodaei Ardakani MR, Karimlou M, Rahgozar M. Identification of Some Risk Factors of Recurrent Relapses Interval Duration in Patients with Schizoaffective Disorder. Iranian Journal of Psychiatric Nursing 2017;5(5):43-8.

114. Saber S, Mardani-Hamooleh M, Seyedfatemi N. Designing and Recontextualizing the Model of Relapse in Iranian Clients with Serious Mental Illnesses. Doctoral dissertation, Iran University of Medical Sciences,Tehran, Iran, 2023.

115. Kadakia A, Catillon M, Fan Q, Williams GR, Marden JR, Anderson A, et al. The Economic Burden of Schizophrenia in the United States. The Journal of Clinical Psychiatry 2022;83(6):43278

116. Sartorius N. The Role of Stigma as an Obstacle for Social Inclusion for People with Severe Mental Disorders. European Psychiatry 2023;66(S1):S33-S.

117. Guan Z, Poon AWC, Zwi A. Social Isolation and Loneliness in Family Caregivers of People with Severe Mental Illness: A Scoping Review. American Journal of Community Psychology 2023;72(3-4):443-63

118. Spaniel F, Bakstein E, Anyz J, Hlinka J, Sieger T, Hrdlicka J, et al. Relapse in Schizophrenia: Definitively Not a Bolt from The Blue. Neuroscience Letters 2018;669:68-74.

119. Ghoreishizadeh A, Ranjbar, F. & Pezeshki, M. Risk Factors in The Recurrence of Bipolar I Disorder and it's Relationship With Demographic Characteristics. Medical Journal of Tabriz University of Medical Sciences 2009;31:77-81. [Persian]

120. Sahoo M, Chakrabarti S, Kulhara P. Detection of Prodromal Symptoms of Relapse in Mania & Unipolar Depression by Relatives & Patients. The Indian Journal of Medical Research 2012;135(2):177-183.

121. Taylor DJ, Walters HM, Vittengl JR, Krebaum S, Jarrett RB. Which Depressive Symptoms Remain After Response to Cognitive Therapy of Depression and Predict Relapse and Recurrence? Journal of Affective Disorders 2010;123(1-3):181-7.

[Downloaded from mail.knjournal.ir on 2026-09-18]

[DOI: 10.61186/knjournal.1.3.238]