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Understanding Comorbidities In Psychiatric Disorders: Diagnosis And Treatment Approaches

Yazeed Saleh Mohammad Alqahtani [(1)], Hossien Moteq Moshabab Alqahtani [(2)], Fahad Mohammed Saeed Saran [(3)] Haitham Mohammed Saeed Alqahtani [(4)] Yasser Yahya Ali Asir [(5)]

Abstract

comorbidities are common in psychiatric disorders and can significantly impact patients' overall health and well-being. Psychiatric comorbidity poses challenges for both patients and clinicians. Treatment for comorbid disorders is difficult since they are poorly understood, commonly misdiagnosed, and present challenges. Understanding the complex relationships between psychiatric symptoms, medical conditions, and social determinants of health is essential for providing effective and holistic care

Key words: "*comorbidities", "personalized medicine"," treatment approaches"," psychological disorder","*

Introduction

Psychiatric disorders are often complex and multifaceted conditions that can be further complicated by the presence of comorbidities. Comorbidities refer to the simultaneous presence of two or more medical conditions in an individual, and they are common[1] in psychiatric practice **(Fava et al., 2019).** Understanding the intricacies of comorbidities in psychiatric disorders is crucial for accurate diagnosis and effective treatment planning.

Individuals with psychiatric disorders frequently experience comorbid physical health conditions, such as cardiovascular disease, diabetes, and obesity **(Scott et al., 2018).** These comorbidities can significantly impact the overall health and well-being of patients, leading to increased morbidity and mortality rates **(Vancampfort et al., 2015).** Therefore, comprehensive assessment and management of comorbidities are essential components of psychiatric care.

In addition to physical health conditions, psychiatric disorders often co-occur with other mental health conditions, such as anxiety disorders, substance use disorders, and personality disorders **(Sareen et al., 2016).** The presence of these comorbid conditions can complicate the diagnostic process and may require tailored treatment approaches to address the unique needs of each individual (Kessler et al., 2011).

The relationship between psychiatric disorders and comorbidities is bidirectional, with each condition influencing the course and severity of the other **(Fleury et al., 2014).** For example,

1. Registrar Psychiatrist, Abha Psychiatric Hospital, Ministry of Health
2. Senior Registrar Psychiatrist, Abha Psychiatric Hospital, Ministry of Health
3. Resident Psychiatrist, Abha Psychiatric Hospital, Ministry of Health
4. Resident Psychiatrist, Abha Psychiatric Hospital, Ministry of Health
5 .Senior Registrar Psychiatrist, Abha Psychiatric Hospital, Ministry of Health

individuals with depression may be at increased risk for developing chronic medical conditions, while those with chronic medical conditions may experience worsening psychiatric symptoms **(Moussavi et al., 2007).** Understanding these complex interactions is essential for providing holistic and effective care.

Despite the high prevalence and clinical significance of comorbidities in psychiatric disorders, there remains a need for further research to elucidate underlying mechanisms and optimal treatment approaches. Current evidence suggests that integrated care models that address both psychiatric and physical health needs may lead to improved outcomes for individuals with comorbid conditions **(Druss et al., 2010).** However, more research is needed to determine the most effective strategies for implementing these models in clinical practice.

Given the high prevalence and clinical significance of comorbidities in psychiatric disorders, there is a growing recognition of the need for integrated care approaches that address both mental and physical health needs **(Fleury et al., 2014).**

Integrated care models aim to provide coordinated and comprehensive care that considers the complex interplay between psychiatric symptoms, medical conditions, and social determinants of health **(Druss et al., 2010).** By addressing the full spectrum of patients' health needs, these models have the potential to improve outcomes and reduce healthcare costs **(Vancampfort et al., 2015).**

Despite the potential benefits of integrated care, significant barriers remain to its implementation in clinical practice. These barriers include fragmented healthcare systems, limited access to mental health services, stigma surrounding mental illness, and reimbursement policies that favor specialty care over primary care Overcoming these barriers will require concerted efforts from policymakers, healthcare providers, and stakeholders across the healthcare system.In addition to integrated care approaches, there is growing interest in personalized medicine strategies for the treatment of psychiatric disorders and comorbidities **(Fava et al., 2019).**

Personalized medicine aims to tailor treatment interventions to the unique characteristics of each individual, including genetic makeup, biomarker profiles, and psychosocial factors **(Moussavi et al., 2007).** By identifying subgroups of patients who may respond differently to specific treatments, personalized medicine holds promise for optimizing treatment outcomes and minimizing adverse effects.

In this systematic review, we aim to provide a comprehensive overview of comorbidities in psychiatric disorders, with a focus on diagnosis and treatment approaches. By synthesizing existing evidence from the literature, we seek to enhance understanding of the complex relationships between psychiatric disorders and comorbidities and identify gaps in current knowledge. This review will inform clinical practice and guide future research efforts aimed to improving outcomes for individuals with psychiatric disorder and comorbidity.

Literature Review

1-purpose

The objective of this systematic review to give a thorough review of comorbidities in mental illnesses, emphasizing methods of diagnosis and treatment. By combining the available data from the literature, we hope to fill in knowledge gaps and improve understanding of the intricate connections between comorbidities and psychiatric disorders.

2- Methods

Finding pertinent research:

We chose the most pertinent studies in compliance with the PRISMA guidelines **(moher et al.,2009)** in order to attain a high degree of reporting. In addition to clinical trials, open-label studies, systematic reviews on the topic of the review, we included observational studies that clearly and explicitly reported the accepted definitions of psychological disorder and associated comorbidities .A number of search terms, including "psychological disorder; comorbidities; eating disorder; anxiety; suicide; personality disorder; bi polar; depression," to describe psychotic disorder comorbidities and their diagnosis and management interventions of psychologists to enhance patient outcome from electronic databases researching “science direct”, “PubMed”, ”Scopus, and psychological medical websites as American psychological association for original studies from (2007 to 2020) and preferred to be in English languages. To find more research, a manual review of the reference lists of the pertinent papers was done.

3-Inclusion and Exclusion Criteria:

Authors Analyze original research papers, RCTs, systematic reviews, clinical trials, observational and meta-analysis that assess the role of psychologists to diagnose and manage psychotic disorder comorbidities, the study inclusion standards are human subjects, psychologists, various psychological disorders related articles. studies that was published in English between 2007 and 2020 and accessible as full text, with no consideration of regional limitations. Studies conducted before 2007 as well as publications that did not adequately describe the related comorbidities to psychological disorder were also excluded. Articles lacking peer review, webcasts, secondary data analysis, non-original reports, letters, publication include pregnancy population were also rejected.

4- Data Extraction process

To ensure the accuracy and quality of our review process, we employed a double screening technique that involved screening both titles/abstracts and full texts. Along with reading the complete texts of the relevant papers that were located, two of the authors independently went through all of the article titles and abstracts that surfaced during the process. The screening process was carried out by them in blind pairs, and a senior member evaluated the reviewers' work overall and assisted them in discussing any discrepancies. The published full-text papers were assessed for inclusion by the reviewers using the following criteria; those that did not fulfill all the requirements were excluded. Conflicts that emerged in the abstract, title, full-text review, and full-text assessment resolved by a third party. The information gathered from the 10 publications that met the inclusion criteria was independently evaluated and collated by the review's writers. Following a thorough analysis, the constant comparison method was used to examine the data. After each of the included studies was examined, relevant data was extracted using the following criteria: The author extracted and documented the study's design, author, year of publication, objectives, country, type of psychotic disorder, diagnosis, management, results, and conclusion. The process comprised evaluating and selecting the data from the literature search in addition to going over earlier research.

Preliminary findings were presented and individually discussed with senior and junior researchers in the integrated care field during an in-person scientific meeting.

Quality Assessment

To evaluate the quality of the integrated research, a standardized instrument suitable for the different study designs was employed. The narrative synthesis of the included studies' research findings was completed.

Synthesized Finding

399 full-text publications were analyzed out of the 412 items that were found between September 2021 and July 2007. Of those, 280 did not fit the inclusion criteria. 10 papers were eventually added to the systematic review after additional revisions. Studies with a low risk of bias and good quality and satisfactory results were found in the majority of the included studies, according to the quality assessment.

Features of the included studies

There are ten articles were finally included in the systematic review that were published between 2007and 2021, According to the geographical distribution: - majority conducted on Denmark while other studies conducted in Canada, Netherland, New Zealand, USA, Australia, international.

Result of study

AUTHOR	**/COUNTRY**	**PSYCHOLOGICAL DISORDER**	**COMORBIDITY**	**DIAGNOSIS**	**MANAGEMENT**
(Dresler et al.,2019)	Systematic review/Australia	1- panic disorder 2- depression	migraine	-	bidirectional influence onabotulinumtoxin, amitriptyline, cognitive-behavioral therapy (CBT)
Jette et al., 2008	Cohort study/ Canada /to a sample of 36,984 subjects.	1- depression 2-bipolar disorder, 3-panic disorder, 4- social phobia	migraine	health survey which included administration of the World Mental Health Composite International Diagnostic Interview	Antidepressant use in those with combined migraine and mental health disorder (Selective serotonin reuptake inhibitors (SSRIs)

				to a sample of 36,984 subjects.	
Zhang et al.,2017	Pilot study/ (n = 30; 7 males, 23 females)	1- depression 2- anxiety	headache	-	botulinum toxin
Martin et al .,2015	RCT/Australian and New Zealand Standard / Sixty-six participants (49 female, 17 male)	Depression	1-Migraine 2-Type 2 headache	-	cognitive-behavioral therapy (CBT)
Plana et al.,2019	cohort study/ Denmark of 5 940 778 individuals	1-Intellectual disabilities	1-eating disorder 2- mood disorder	Follow up for diagnosis of later comorbidities	Various treatment for mood disorder
Maibing et al.,2015	cohort study/ Denmark total of 25138 individuals with child and adolescent psychiatric disorders	1-anxiety 2- Eating disorders 3- Developmental disorders 4- Attention-deficit/ hyperactivity -disorder	schizophrenia spectrum disorders	The Danish modification of International Classification of Diseases, 8th revision	- notice subthreshold symptoms
(Dalsgaard et al.,2014)	cohort study/ Denmark	(ADHD) Attention-Deficit Hyperactivity Disorder	schizophrenia spectrum disorders	Danish Psychiatric Central Register.	-
(kessler et al 2012)	national survey	Mental disorder	1-fear, 2distress, 3behavior	Composite International	increasing the knowledge on

			3substance disorder	Diagnostic Interview (CIDI) administered to adolescents and questionnaires self-administered to parents.	prevalence and consequences of comorbidity-
Engqvist et al.,2008	cohort study/sweden/ patients (285 in- and 1115 outpatients)	Schizophrenia, schizotypal and delusional disorders	1-behavioural and emotion disorders 2- Neurotic, stress-related and somatoform disorders	information concerning psychopathology provided by the hospital records.	child and adolescent psychiatry (CAP) care
McGrath et al.,2020	WHO Composite International Diagnostic Interview surveys (CIDI 3·0)/international 548	Mental disorder	HRs were most prominent between closely-related mental disorder types and in the first 1–2 years after the onset of the prior disorder.	DSM-IV criteria	-

Discussion

Psychological disorders that are most frequently associated with eating disorders are mood disorders (like major depressive disorder), anxiety disorders (like obsessive compulsive disorder, social anxiety disorder), panic disorder trauma and post-traumatic stress disorder (PTSD), substance use disorders, personality disorders (like Borderline Personality Disorder, OCPD), sexual dysfunction, non-suicidal self-injury, and suicidal ideation **(NADC.,2019).**

Psychological comorbidities

Depression, panic disorder

Major depressive episodes last for at least two weeks and are characterized by symptoms such as irritability or depression, decreased interest in or enjoyment from most activities, noticeable weight loss, sleep disorders (hyposomnia or insomnia), changes in behavior (psychomotor agitation or retardation), exhaustion or lack of energy, feelings of guilt or worthlessness, a diminished capacity for thought or concentration, increased indecision, and suicidality**. (APA.,2013)**

Compared to the general population, migraine patients are nearly twice as likely to experience depression. In our review depression, panic, social phobia found to be among psychiatric disorders in association with migraine and this result agree with two studies that: Estimates of migraine prevalence approximately ranges from 6. % to 74% depending on the nation. (**chen et al.,2012; Antonaci et al.,2011)**

Debilitating headaches that occur more frequently are associated with comorbid major depression Notably, migraineurs who also experience depressive and anxiety symptoms have a heightened risk of suicide attempts **(Heckman et al.,2008; Breslau et al.,2012)**

When treating patients, it may be advantageous to use the presumed bidirectional influence and the shared mechanisms underlying major depression and migraine in a synergistic manner. For example, there is evidence that prophylactic administration of onabotulinumtoxin significantly reduces headache as well as depressive and anxiety symptoms in patients with CM and comorbid depression **(Boudreau et al.,2015)** Similarly, patients with migraine and/or tension-type headache and comorbid depression experienced improvements in their quality of life, depression, anxiety, and headache symptoms that lasted for at least four months after starting cognitive-behavioral therapy (CBT) When a comorbid depression has been diagnosed, migraine guidelines recommend using amitriptyline, a tricyclic antidepressant, for migraine prophylaxis. It should be noted, though, that the doses of amitriptyline needed to treat migraine are lower than those needed to treat depression (**Finocchi et al,.2010; Diener et al.,2018).**

In this regard, there is growing agreement that CBT is an essential component of managing migraines. Attack prevention may be a major focus of CBT This treatment approach aims to modify dysfunctional behaviors that play a major role in the persistence of anxiety and depression.

Schizophrenia

Our results strongly support the findings from previous smaller studies, demonstrating a significantly increased risk of being diagnosed with schizophrenia spectrum disorders following a diagnosis of a childhood psychiatric disorder.

The correlation between psychiatric disorders in children and the likelihood of subsequently receiving a diagnosis of schizophrenia spectrum disorders may stem, at least in part, from co-occurring disorders or symptoms of schizophrenia that mimic those of other psychiatric disorders. Because the patient is reluctant to disclose psychotic symptoms or because the clinician fails to inquire about them, the schizophrenia disorder may first be diagnosed as a child and adolescent psychiatric disorder. However, given that the risk of schizophrenia spectrum disorders was evident even more than five years after the initial diagnosis of the child psychiatric disorder, it appears unlikely that detection bias alone can account for the entire association between psychiatric disorders diagnosed in childhood and adolescence and schizophrenia spectrum disorders. **(Davis et al.,2014; Benros et al 2011).**

Mental illness

Mental illnesses in adolescents are frequently co-morbid. Fear disorders may make good candidates for early interventions due to the strong correlations observed between temporally primary fear disorders and numerous other disorders with later onset and this consistent with the study of **(Copeland et al,2009).**

The time-dependent HRs between mental disorder pairs confirmed that the risk of later-disorder was significantly higher within the first 1-2 years after the onset of the prior-disorder (compared to longer intervals), which is consistent with our previous register-based study **(Plana et al., 2019b).** Perhaps as a result of **Berkson's bias**, the Danish study found extremely large HRs within the first six months of the previous disorder **(Morabia et al., 2014).** Within the first six to twelve months, the current estimates were more reasonable and cautious. Despite the cross-sectional nature of the surveys and the possibility of imperfect recall of lifetime mental history, particularly for events that have passed in the past, the two studies offer consistent proof of the enduring nature of the elevated risk of comorbidity**.**

Over the course of the study, which lasted at least 14 years, the risk of developing subsequent psychological disorders remained consistently elevated. These results support the theory that a broad range of mental disorders share a common background of risk factors, including both genetic and non-genetic factors (**Moffitt and Caspi., 2018; Hyman, 2019).**

Conclusion

Migraine represents most comorbidity in most psychological disorder and best treatment is CBT especially depression. While children with psychosis develop schizophrenia as later diagnosis emotional and behavior change also presented, Earlier diagnosis and treatment have appositive effect in decreasing comorbidities however, additional study needed to decrease gap.

Careful screening for both anxiety and depression in children, adolescents, and young adults with migraines may lead to better treatment options and better long-term outcomes for the patient.

The prevalence of comorbidity between mental disorders is confirmed by survey data from various sites. Programs for primary prevention of secondary disorders may be more effectively designed if the risks of temporally induced disorders are understood.

More awareness of the potential early psychotic symptoms in children would enable early interventions and potentially improve the long-term prognosis for clinicians. More research in this field is required to shed light on the process from childhood psychiatric disorders to psychotic disorders and to investigate potential hereditary links between comorbidities and psychiatric disorders in children and adolescents. Further studies needed to confirm bidirectional management

The results showed that there was a general risk of comorbidity for every pair of disorders and that this risk followed a temporal pattern. the risk of a subsequent disorder was most noticeable in the first year following the prior disorder. set the stage for more research on personalized medicine and comorbidity primary prevention should established.

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