MINISTRY OF HEALTH OF UKRAINE

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QUALIFICATION WORK

on the topic: «**RESEARCH OF THE CURRENT STATE OF MENTAL HEALTH CARE SERVICES**»

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Kharkiv – 2023

ANNOTATION

The qualification work examines the current state of the organization of mental health services. In the course of the study, approaches to the organization of mental health services were analyzed, and the level of provision of drugs for the provision of mental health services was analyzed.

The qualification work consists of the introduction, three chapters, conclusions to each chapter, a general conclusion, and list of used sources. The results of the study are presented on 66 pages of text, the number of figures – 7, number of tables – 3, and the list of references – 63 titles.

Keywords: mental health, mental health services, mental health care, mental health services

АНОТАЦІЯ

У кваліфікаційній роботі розглянуто сучасний стан організації послуг з психічного здоров'я. У ході дослідження проаналізовано підходи до організації служб з психічного здоров'я, проаналізовано рівень забезпечення лікарськими засобами для надання послуг з психічного здоров'я.

Кваліфікаційна робота складається зі вступу, 3 розділів, висновків, списку використаних джерел та викладена на 66 сторінках друкованого тексту. Робота ілюстрована 7 рисунками і 3 таблицями. Бібліографія включає 63 інформаційних джерел.

Ключові слова: психічне здоров'я, послуги з психічного здоров'я, охорона психічного здоров'я, служби з психічного здоров'я

CONTENT

LIST OF ABBREVIATIONS

ADHD - Attention-deficit/hyperactivity disorder

ASD - Autism spectrum disorder

BPD - Borderline personality disorder

CAGR - Compound Annual Growth Rate

CBT - Cognitive behavioral therapy

CNV - Copy number variation

COVID-19 - Coronavirus disease 2019

DALY - Disability-adjusted life year

DSM - Diagnostic and Statistical Manual of Mental Disorders

EAPs - Employee Assistance Programs

EMDR - Eye movement desensitization and reprocessing

FDA - U.S. Food and Drug Administration

GABA - Gamma-aminobutyric acid

GDP - Gross Domestic Product

IPT - Interpersonal therapy

IQVIA - IQVIA Holdings Inc. (formerly QuintilesIMS Inc.), a global information and technology-enabled healthcare service provider

LCSWs - Licensed clinical social workers

LMFTs - Licensed marriage and family therapists

MAOIs - Monoamine oxidase inhibitors

MFTs - Marriage and Family Therapists

mhGAP - Mental Health Gap Action Programme

NAMI - National Alliance on Mental Illness

NHS - National Health Service (UK)

NIMH - National Institute of Mental Health (US)

OCD - Obsessive-compulsive disorder

PMHNs - Psychiatric Mental Health Nurses

PTSD - Post-traumatic stress disorder

RdoC - Research Domain Criteria

SDGs - Sustainable Development Goals

SNRIs - Serotonin-norepinephrine reuptake inhibitors

SNV - Single nucleotide variant

SSRIs - Selective serotonin reuptake inhibitors

SUS - Sistema Único de Saúde (Unified Health System of Brazil)

TCAs - Tricyclic antidepressants

WHO - World Health Organization

INTRODUCTION

Mental health has become a major concern worldwide due to its rising prevalence and the adverse impact it has on individuals, families, and society as a whole. Mental disorders have been classified as the leading cause of disability and the second leading cause of mortality globally. However, despite the importance of mental health, there is still a significant gap in access to quality mental health services, particularly in low and middle-income countries.

Untreated mental health problems affect not only individuals and their ability to function, earn money, and raise children, but also entire families and communities. This high cost of untreated mental health problems is particularly relevant for countries trying to promote economic, political and health reforms in the context of dealing with prolonged political instability, high unemployment, protracted armed conflict and displacement.

The purpose of the study was to analyze the current state of mental health care services.

Research objectives:

- to conduct a review of literary sources on mental health issues;
- to study the concepts of mental health and mental disorders and the importance of mental health care organization;
- to investigate the current state of organization of mental health care services in different countries;
- to analyze the prevalence of mental disorders in the world;
- to investigate of state policy on the prevention and treatment of mental disorders;
- to study of approaches to the treatment of mental disorders in accordance with international guidelines;
- to analyse The current state of the market of medication for mental health support and their availability;
- to analyse of cost of mental health services.

The object of the research became literary sources on the development of mental health, the regulatory and legal framework, research by international public organizations, statistical data.

The subject of the study is the identification and assessment of modern aspects of the organization of mental health care services

Research methods. System, analytical and comparative, graphic and logical methods, method of descriptive and abstract modelling and generalization were used.

The scientific novelty and practical significance of the obtained results consists in conducting a comprehensive study on the current state of the organization of mental health services, namely the systematization and summarization of literary data, the study of the legal framework regulating the organization of mental health services.

The results of the study were approved at the VIII International Scientific and Practical Distance Conference "Social pharmacy: state, problems, prospects" that was held on 27 April 2023 in Kharkiv.

Structure and scope of qualification work. The qualification work consists of the introduction, three chapters, conclusions to each chapter, a general conclusion, and list of used sources. The results of the study are presented on 66 pages of text, the number of figures – 7, number of tables – 3, and the list of references – 63 titles.

CHAPTER I.

LITERATURE REVIEW ON THE ISSUE OF MENTAL HEALTH

1.1. The concept of mental health and mental disorders in the world

Mental health has been recognized as an essential component of overall health by the World Health Organization since 1948. It is defined as a state of well-being in which an individual can realize their potential, cope with the normal stresses of life, work productively, and contribute to their community. Mental health disorders, on the other hand, refer to a wide range of conditions that affect an individual's thinking, mood, and behavior, leading to significant distress and functional impairment. These disorders can manifest in various forms, including anxiety disorders, mood disorders, psychotic disorders, and substance use disorders.

Mental health disorders have a significant impact on individuals, families, communities, and societies at large. They can lead to poor academic and occupational performance, social isolation, relationship difficulties, and financial hardships. Mental disorders are also a leading cause of disability worldwide, with the WHO estimating that around 1 in 4 people globally will experience a mental health condition at some point in their lives [10].

There has been a rising understanding of the significance of mental health care services in recent years to address the prevalence and impact of mental disorders. Mental health care services refer to a range of interventions aimed at promoting mental health, preventing mental illness, and treating mental disorders. These services can be delivered in various settings, including primary care, specialty mental health care, community-based services, and online platforms.

Despite the critical importance of mental health care services, access to these services remains a significant challenge for many individuals worldwide. This is due to several factors, including a shortage of mental health care professionals, inadequate funding for mental health care, stigma surrounding mental health, and a

lack of integration between mental health care services and other health care services.

To address these challenges, there have been several global initiatives aimed at promoting mental health care services. In order to improve access to services for mental health in low- and middle-income countries, the WHO developed the Mental Health Gap Action Programme (mhGAP) in 2008, which aims to increase access to evidence-based mental health care services in low- and middle-income countries. The United Nations has also recognized the importance of mental health care services, with the Sustainable Development Goals (SDGs) including a target to promote mental health and well-being for all [2].

According to the World Health Organization, the concept of mental health is defined as: "a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community.". It goes on to add that the concept of mental health is more complex than simply the absence of mental disorders. It is a continuum that varies in degree of difficulty and distress experienced by each individual, with differing social and clinical outcomes. Mental health conditions include mental disorders, psychosocial disabilities, and other mental states that result in significant distress, impairment in functioning, or risk of self-harm. While people with mental health conditions are more likely to have lower levels of mental well-being, this is not always the case [1].

In accordance with the same line of thought, the WHO also offers a interpretation of "a mental disorder" as "characterized by a clinically significant disturbance in an individual's cognition, emotional regulation, or behavior. It is usually associated with distress or impairment in important areas of functioning.". Furthermore, it elaborates on the fact that a multitude of mental disorders exist, often referred to as mental health conditions. This term encompasses not only mental disorders but also psychosocial disabilities and other mental states that bring about significant distress, impairment in functioning, or risk of self-harm.

In 2019, over 1 in 8 people, or 970 million people globally, lived with a mental disorder, with anxiety and depressive disorders being the most common. This is

significant since it follows the COVID-19 pandemic. With initial estimates indicating a 26% and 28% increase, respectively, in just one year, the number of people living with anxiety and major depressive disorders increased dramatically in 2020. The majority of people with mental problems have limited access to effective care, despite the existence of excellent preventative and treatment options. Furthermore, a large number of people with mental illnesses encounter stigma, discrimination, and violations of their basic human rights. [2].

Mental disorders can arise from a variety of factors, including genetics, environmental factors, and life experiences. For example, some mental disorders, such as bipolar disorder and schizophrenia, have a genetic component, while others, such as depression and anxiety disorders, can be triggered by stressful life events or traumatic experiences. Other factors that can contribute to mental disorders include substance abuse, physical illness, and hormonal imbalances.

Mental illnesses are complex disorders that are believed to be triggered by a combination of genetic and environmental factors. Certain genes can increase the risk of developing a mental illness, and environmental exposures before birth, such as exposure to toxins, alcohol, or drugs, can also be linked to mental illness. Imbalances in brain chemistry and neurotransmitters can also contribute to mental illness.

There are several risk factors that may increase the likelihood of developing a mental illness, including a family history of mental illness, stressful life situations, chronic medical conditions, brain damage, traumatic experiences, substance abuse, a history of abuse or neglect, and a lack of healthy relationships. Mental illness is common and can occur at any age, but most cases begin earlier in life.

Mental illness can have both temporary and long-lasting effects, and individuals may experience multiple mental health disorders at the same time. Unhappiness, family conflicts, social isolation, substance abuse, relationship issues, missed work or school, legal and financial issues, poverty and homelessness, self-harm, harm to others, weakened immune systems, and an elevated risk of heart disease and other medical conditions are just a few of the severe emotional,

behavioral, and physical health problems that can result from untreated mental illness..

Treatment for mental illness can include medication, therapy, and lifestyle changes. Seeking help from a mental health professional is important, and support from family and friends can also be beneficial. Mental illness should be taken seriously, and with proper treatment, individuals can improve their overall quality of life [5].

Mental health is of great importance, according to the Advancing Discovery Summit 2018 whitepaper by the National Alliance on Mental Illness.. Mental disorders are prevalent worldwide, and the number of people affected is increasing, particularly due to the COVID-19 pandemic. Mental health disorders affect individuals' social, occupational, and personal functioning, leading to lower productivity and quality of life. Moreover, untreated mental health disorders may have severe consequences, including suicide and substance abuse.

The whitepaper emphasizes the need to recognize the critical role of mental health and provide effective care to individuals with mental health conditions. Mental health conditions are treatable, and early intervention can prevent the development of severe symptoms. However, many individuals do not have access to mental health services, resulting in untreated mental disorders.

Additionally, mental health is essential for the overall well-being of society. Mental health disorders not only affect individuals but also have economic and social consequences. They lead to a significant financial burden on individuals, families, and society. Moreover, untreated mental disorders may result in criminal behavior, leading to increased incarceration rates.

The whitepaper highlights the importance of investing in mental health research to develop effective prevention and treatment options. Mental health research is necessary to understand the underlying causes of mental disorders and develop targeted treatments. Additionally, mental health research can inform policies to improve access to mental health services and reduce the stigma surrounding mental disorders.

In conclusion, the Advancing Discovery Summit 2018 whitepaper stresses the importance of mental health and the need to recognize mental health conditions as significant public health concerns. Mental health disorders affect individuals' lives and society as a whole, emphasizing the need to provide effective care to individuals with mental health conditions. Investing in mental health research can lead to the development of effective prevention and treatment options, improving the overall well-being of individuals and society [3].

The stigma of mental health is a pervasive issue that continues to be a major barrier to addressing mental health problems. Despite the increasing awareness of mental health issues, there remains a great deal of shame and stigma associated with seeking help for mental health concerns. This stigma can lead to many people feeling reluctant to seek treatment, and can result in individuals feeling isolated and alone in their struggles.

The failure and delay in seeking professional help for mental disorders is a significant public health problem. Mental health literacy advocates the importance of recognizing symptoms for making decisions to seek help. The purpose of the study is to learn more about the kinds of health issues for which Japanese adults plan to seek assistance, the sources of assistance they prefer, and the variables that influence those plans. In June 2014, a cross-sectional web-based survey of 3308 Japanese people between the ages of 20 and 59 was carried out. Asking potential helpers about four medical conditions (irritability, dizziness, insomnia, and depression)measured people's intentions to seek assistance.

The purpose of the study is to learn more about the kinds of health issues for which Japanese adults plan to seek assistance, the sources of assistance they prefer, and the variables that influence those plans. In June 2014, a cross-sectional web-based survey of 3308 Japanese people between the ages of 20 and 59 was carried out. Asking potential helpers about four medical conditions (irritability, dizziness, insomnia, and depression) measured people's intentions to seek assistance. The majority of participants in the study intended to seek assistance, although psychological issues (such as insomnia and depression) had a lower propensity to do

so than physical issues (such as dizziness). 85.9% of the participants said they would seek treatment if they felt dizzy, and 42.7% said they would prioritise going to a professional. These percentages were lower in the cases of sleeplessness (75.4% and 25.0%), depression (74.9% and 18.7%), and irritability (72.9% and 0.9%). Indicators that were strongly related with intentions to seek treatment were essentially comparable across the four health concerns, multiple logistic regression analysis showed. The study also discovered that psychiatric history, contact to seek official sources of assistance for any issues involving lightheadedness, insomnia, or depression was substantially connected with interaction with persons who have mental illnesses, increased health literacy, and neighbourhood communicativeness. ted to dizziness, insomnia, and low mood. The study suggests that community-based interventions for fostering everyday interactions with family, friends, and neighbours and creating a friendly, approachable atmosphere may be worthwhile taking into account as a potential public health strategy for promoting help-seeking whether for psychological or physical problems. Increasing intentions to seek treatment also requires developing health literacy skills. Overall, the study highlights the importance of addressing the stigma and misconceptions around mental health issues to improve mental health literacy and promote help-seeking behavior among individuals [6].

The 2020 World Mental Health Day campaign theme, "Move for mental health: Let's invest", highlights the lack of investment in mental health despite increased global awareness of mental health issues. Nearly 1 billion people worldwide suffer from mental disorders, and poor mental health costs the world economy an estimated $2.5 trillion per year in poor health and reduced productivity. However, although research has shown the clinical and cost-effectiveness of treatments, there has been slow delivery at scale and translation into real-world benefits. Governments spend less than 2% of their health budgets on mental health, and care and treatment for severe mental disorders are not included in national health insurance or reimbursement schemes in 27% of countries. Out-of-pocket payments account for a significant portion of mental health expenditure in Africa and

Southeast Asia. The Lancet Commission on global mental health and sustainable development called for investment in mental health to transform care, stating that all countries are developing countries when it comes to mental health. The COVID-19 pandemic has further highlighted the importance of mental health, with the psychological toll of the pandemic causing or escalating issues with mental health on a global scale. According to the Lancet Psychiatry position paper, health systems will sooner or later have to deal with a sizable demand to address COVID-19-related mental health issues. In order to alleviate the great pain experienced by hundreds of millions of people and to lessen the long-term social and economic costs to society, the UN policy brief emphasises the importance of investing in mental health. As countries rebuild their economies, it is crucial to recognize the financial toll of mental ill-health and invest wisely in mental health [4].

A mental health action plan is important because it provides a roadmap for promoting mental well-being, preventing mental disorders, providing care, enhancing recovery, advocating for the protection of human rights, and reducing the mortality, morbidity, and disability associated with mental disorders. It also aims to ensure that persons affected by these disorders can access high-quality health and social care in a timely manner to to encourage healing and achieve an optimal level of health. For this aim, the mental health action plan made by the WHO for the 2001 – 2020 period highlights the fact that mental health is an integral part of overall health and well-being, and is affected by socioeconomic factors that require comprehensive strategies for promotion, prevention, treatment, and recovery. The determinants of mental health and disorders include individual attributes as well as social, cultural, economic, political, and environmental factors. Vulnerable groups may be at a a higher probability of suffering from mental health issues, including those living in poverty, people with chronic health conditions, minorities, indigenous populations, and those experiencing discrimination, among others. Mental disorders often result in disproportionately higher rates of disability and mortality, including suicide. Mental disorders also frequently cause people to become poor, homeless, or even inappropriately imprisoned. Stigmatization and discrimination often violate the

human rights of those with mental disorders, leading to exclusion and marginalization from society. The Convention on the Rights of Persons with Disabilities ensures that all people with disabilities have their rights upheld, including those with mental and intellectual impairment [11].

1.2 The importance of mental health care organization

Mental health organizations play a crucial role in ensuring that individuals suffering from mental health issues receive the necessary care and support. Mental health disorders affect millions of people worldwide, and it is estimated that nearly one in four people will experience a mental health issue at some point in their lives. These disorders can range from anxiety and depression to more severe illnesses like schizophrenia and bipolar disorder. Mental health organizations provide a range of services that help individuals manage their conditions and improve their quality of life. These services can include counseling and therapy, medication management, support groups, crisis intervention, and advocacy. The importance of mental health organizations cannot be overstated, as they provide a critical safety net for those in need of help. Without these organizations, many individuals would not receive the care and support necessary to manage their mental health conditions, which could lead to worsening symptoms, hospitalization, and even suicide. Overall, mental health organizations are vital for improving the lives of individuals struggling with mental health issues and for promoting the importance of mental health in society.

These organizations also help to reduce the stigma associated with mental health problems by providing information and resources to the public. Many people who experience mental health issues may feel embarrassed or ashamed to seek help, and mental health organizations can help to reduce these feelings by providing a safe and supportive environment for people to talk about their struggles.

Another critical role of mental health organizations is advocating for mental health policies and laws that promote mental health awareness, funding, and research. Mental health organizations also raise awareness of the importance of

mental health and the impact it has on individuals and society. Through education and awareness campaigns, mental health organizations can help to reduce the stigma associated with mental health problems and encourage people to seek help.

To the question of why mental health care organizations are important, the analysis of the current system in the United States of America might help shed a light on the answer. Indeed, the mental health industry in the U.S. is undergoing significant changes. There has been a shift in focus from intrapsychic variables to the interaction of individuals and their social environment, with the aim of reaching non-pathological populations. This means that in the past, mental health professionals used to focus on what was going on inside a person's mind (intrapyschic variables). Nowadays, they pay more attention to how people interact with their social environment, like their family, friends, and community. They're doing this to help not only people who have mental health problems, but also those who don't. Larger organizations are required to provide diversified services, and voluntary and private agencies are aggressively marketing mental health services.

The governmental role in direct provision of services has decreased, with more resources directed towards policy and regulatory functions. The future role of mental health agencies will center on prevention and promotion of optimal psychosocial development throughout the lifespan, with the growth expected to be through the proliferation of new types of services, activities, and providers.

Driving forces leading to changes in the mental health industry include the emergence of the behavioral health area, a shift to a primary prevention and health promotion model, emphasis on individual responsibility for health maintenance, the effects of deinstitutionalization, accountability requirements, managed care, proprietary organizations, and population shifts. The need for continued change in mental health services is emphasized to address issues of accessibility, effectiveness, and cost control. More radical changes can be anticipated as settings change to less traditional locations. The health agencies are already providing new services and looking for new mental clients.

It is also important to note that there are several barriers to accessing mental health care services:

- Financial, as the cost of mental health treatment can be high even with insurance coverage or financial assistance.

- Lack of mental health care professionals and services, with many areas of the country experiencing shortages.

- Limited mental health education and awareness, making it difficult for people to recognize when they need treatment.

- Social stigma, which can prevent people from seeking help due to fear of discrimination or negative perceptions.

- Racial disparities in mental health care access and treatment, with people of color experiencing greater barriers due to a lack of diverse representation in the mental health field and language barriers.

Mental health problems are just as debilitating as physical ailments, and with professional help from mental health services, most people can improve their quality of life. However, many people fail to seek help or lack appropriate access to it. According to statistics from the National Alliance on Mental disease (NAMI), one in five Americans suffers from a mental disease each year, with around 10% of those suffering from serious mental illnesses that seriously impair one or more major living activities. Serious mental illness, which accounts for around $193.2 billion in missed earnings annually for the United States and ranks as the third-most prevalent cause of hospitalisation for patients between the ages of 18 and 44, can also have a wider impact on society as a whole. mental illness being In addition to saving lives and enhancing the outlook for those who may feel hopeless and lost, mental health treatments can help minimise healthcare costs, lower the risk of chronic diseases linked to stress, anxiety, and drug abuse, and, most significantly, save lives [7].

The importance of administrative staff working in mental health clinics is often overlooked, and they are usually not well-equipped to handle their client-facing interactions. It is sometimes believed that these interactions between the staff and patients can have a significant impact on the overall care experience and should

be seen as part of the larger healing environment. A better understanding of the experiences and impact of administrative staff is necessary from both clients' and staff's perspectives. There is an important number of unmet training and support needs for client-facing administrative staff, who are often the first and last point of contact for patients. These staff members play a crucial role in the therapeutic experience, and positive interactions can have a significant effect on encouraging treatment engagement and adherence, ultimately leading to positive outcomes. However, negative experiences can have the opposite effect. Administrative staff members are not always trained in relevant clinical skills, such as deescalating emotionally charged situations, setting boundaries, and interacting with patients with acute mental illnesses. They may also face similar work stressors as clinical staff, which can have detrimental effects on service delivery and the quality of care [8].

A mental health community refers to a network of individuals and organizations that work together to improve the mental health and wellbeing of individuals and society as a whole. Mental health care organizations are a key part of this community, providing vital services such as counseling, therapy, medication management, and support for those with mental health disorders. Mental health care organizations collaborate with other members of the community, including advocacy groups, government agencies, and healthcare providers, to promote mental health awareness, reduce stigma, and increase access to care. By working together, the mental health community and mental health care organizations strive to provide better support and resources for those struggling with mental health issues.

Community is important for mental health as it provides a sense of belonging, support, and purpose. Being connected to others and feeling accepted for who you are can give validation and self-worth, which can be especially helpful for someone with mental illness who may already feel lonely and isolated. Belonging to a community that accepts and appreciates individuals for their unique qualities can improve mental health by providing a support system and a sense of safety. Community also provides individuals with a sense of purpose by allowing them to fill different roles and better other people's lives.

To find a sense of community, individuals should start with self-reflection and consider their interests, values, and beliefs. They can join clubs or teams that align with their interests, participate in volunteer work or charity events that align with their values, or attend events or groups that align with their beliefs. There is no one-size-fits-all approach to finding community, but it is important to keep trying until a sense of connection is established. Having a community is vital for mental health, and individuals should remember that they are also important members of their communities and can provide support to others [9].

A closer look at the WHO's mental health reports shows the need to reorganize mental health services to shift the locus of care from institutions towards communities while expanding the availability of care. A network of accessible community-based mental health services is crucial to provide an inter-connected platform for supporting people with a broad range of mental health conditions, including depression and anxiety. Community-based care is acknowledged to increase accessibility, reduce stigma, better protect human rights, and improve outcomes. The WHO has long advocated for community-based mental health care as an alternative to institutional care, and countries have committed to doubling the number of community-based mental health facilities by 2030 through the Comprehensive Mental Health Action Plan 2013-2030. The WHO emphasizes the need for person-centered, recovery-based care that ensures all people have access to a range of services and supports from promotion and prevention to treatment and rehabilitation. Good and supportive community-based health care is organized around the health needs and expectations of people, not diseases, and engages individuals, families, and communities as active participants in, rather than passive recipients of, care. Implementing person-centered care relies on people having the information and support they need to make decisions and participate in their own care. Person-centered care can have lasting benefits for individuals, communities, health workers, and even whole health systems [10].

Furthermore, The World WHO recognizes that integrating mental health into general health services is essential for mental health reform. This integration helps

increase access and reduce stigma, as physical and mental health problems can be treated simultaneously. The WHO has been promoting the integration of mental health into general health care since the 1970s. There are different ways and levels at which this integration can be implemented. Primary care is one of the levels where this integration can take place, by either building the capacity of general healthcare staff in primary care settings to identify and manage mental health conditions or embedding mental healthcare providers into primary care settings. Collaboration between mental and general healthcare providers can vary in intensity from operating independently to working as part of the same team. Integrated care by primary care staff trained in mental health has been shown to deliver better health outcomes compared with usual primary health care, even in low- and middle-income countries. However, there are several barriers to integration, including stigmatizing attitudes of health workers and the public towards mental health, inadequate training and supervision of health workers, high workloads among primary care staff, low mental health awareness in the community, lack of essential psychotropic medicines, disjointed management and leadership for mental and physical health care, and limited and inequitable funding. Primary care workers are often overburdened even before integrating mental healthcare, which can be relatively time-intensive, into their schedules. The first and most common way of integrating mental health into primary care involves training primary care medical staff in mental health care, so that they can combine their usual physical health care with caring for mental health conditions. WHO's mhGAP program, which is being implemented to strengthen skills and scale up mental health care for priority conditions among young people, adults, and older adults in non-specialist settings globally, forms the basis for integrated care by non-specialists. Studies show that this initiative improves knowledge, attitudes, and confidence among primary care providers after training and leads to improved symptoms and engagement with care for people living with mental health conditions. The mhGAP program can be used for specific groups such as refugees or youth. A humanitarian version of the mhGAP program also exists and

is widely used by international non-governmental organizations responding to humanitarian emergencies [10].

Nevertheless, the burden of mental disorders is not adequately addressed by health systems globally. Between 76% and 85% of those with serious mental problems in low- and middle-income countries are unable to get any therapy, whereas between 35% and 50% do so in high-income nations. Another issue that worsens the situation is the inadequate care given to patients seeking therapy.

WHO's Mental Health Atlas 2011 highlights the inequitable distribution and inefficient use of resources, with global spending on mental health less than $2 per person and less than $0.25 per person in low-income countries. Redirecting funding towards community-based services and integrating mental health into general health care settings would improve access to cost-effective interventions. There is also a shortage of of mental health professionals, both specialized and generalists, as well as civil society movements for mental health in low-income and middle-income countries are not well developed. The availability of basic medicines for mental disorders in primary health care is notably low, and the lack of qualified health workers with the appropriate authority to prescribe medications and trained personnel to deliver nonpharmacological interventions act as barriers to appropriate care for many persons with mental disorders. WHO's Mental Health Gap Action Programme evidence-based technical advice, resources, and training materials to increase service delivery in nations, especially in low-resource environments, and in addition, there are various other technical resources and guidance that can assist countries in creating comprehensive mental health policies, plans, and legislation. Moving from evidence to action and assessment requires strong leadership, improved collaborations, and the dedication of resources.

The action plan for mental health envisions a world where mental health is valued, mental disorders are prevented, and those affected have access to high-quality care without discrimination. The plan aims to promote mental well-being, provide care, and reduce mortality, morbidity, and disability for those with mental disorders. It has four objectives, including strengthening leadership, providing

comprehensive care, implementing prevention strategies, and improving information systems. The plan is guided by six principles, such as universal health coverage, human rights, evidence-based practice, a life course approach, a multisectoral approach, and empowerment of those with mental disorders. Member states can set more ambitious national targets, in addition to global ones, and progress will be measured by defined indicators [11].

Conclusion to Chapter I

Mental health and mental disorders are complex and have a significant impact on individuals, families, communities, and society. Despite the critical importance of mental health care services, access to effective care remains limited for many individuals worldwide due to several barriers. Mental health organizations play a vital role in providing necessary care and support, reducing stigma, and increasing awareness of mental health issues. However, for the provision of mental health services, there is a lack of financing, resources, and skilled employees; also, community initiatives for mental health in low- and middle-income countries are underdeveloped. To address this issue, there is a need to redirect funding towards community-based services and integrate mental health into general health care settings. Achieving comprehensive care, preventing mental disorders, and promoting mental well-being will require strong leadership, enhanced partnerships, and a commitment of resources towards implementation. With professional help from mental health services, individuals can improve their quality of life, lower health costs, reduce the risk of chronic diseases, and most importantly, save lives.

CHAPTER II.

STUDY OF THE CURRENT STATE OF PREVALENCE OF MENTAL DISORDERS AMONG THE POPULATION AND MODERN APPROACHES TO PHARMACOTHERAPY

2.1 Prevalence of mental disorders

The prevalence of mental disorders varies widely across countries and regions, with some countries reporting higher rates than others. According to the WHO, approximately 450 million people worldwide suffer from mental or behavioral disorders. This accounts for around 12% of the global burden of disease. However, the prevalence of mental disorders in poor and rich countries varies widely [2].

In poor countries, mental disorders are often overlooked or underdiagnosed due to a lack of resources, infrastructure, and trained personnel. Poverty, poor living conditions, and limited access to healthcare services exacerbate the risk of mental disorders in poor countries. According to the WHO, depression is more prevalent in low-income countries, with around 75% of people with mental disorders in these countries not receiving the necessary treatment [2].

In rich countries, mental disorders are more prevalent, but diagnosis and treatment are more readily available. The National Institute of Mental Health estimates that 20% of American people experience a mental disorder each year. This includes disorders such as depression, anxiety, bipolar disorder, and schizophrenia. Despite the high prevalence, access to healthcare services and insurance coverage in rich countries help ensure that people can access treatment when they need it [12].

The WHO report explains that mental disorders are typically accompanied by discomfort or functional impairment in key areas and are characterized by a severe disturbance in a person's cognition, emotional control, or behavior. Anxiety and depression are the most common disorders, with 970 million people around the world living with a mental disorder in 2019. There are effective ways to prevent and cure mental diseases, but the majority of those affected do not have access to these options.

The text covers different disorders, such as anxiety disorders, depression, bipolar disorder, PTSD, schizophrenia, and eating disorders. Each disorder has specific symptoms and treatment options, including medication and psychotherapy [2].

The following chart shows the most prevalent diseases and their symptoms according to the WHO's report [2] (table 2.1).

Table 2.1

Prevalence of mental health disorders in the world

Disorder	Prevalence	Symptoms	Causes
Depression	Affects 264 million people	Sadness, loss of interest, fatigue, changes in sleep and appetite	Genetics, life events, chemical imbalances in the brain
Anxiety	Affects 284 million people	Excessive worry, fear, and avoidance of triggers	Genetics, life events, chemical imbalances in the brain
Bipolar disorder	Affects 60 million people	Extreme mood swings, energy levels, and activity	Genetics, life events, chemical imbalances in the brain
Schizophrenia	Affects 20 million people	Delusions, hallucinations, disordered thinking and behavior	Genetics, life events, chemical imbalances in the brain
Obsessive-compulsive disorder (OCD)	Affects 1 in 40 people	Obsessive thoughts, compulsive behaviors	Genetics, life events, chemical imbalances in the brain
Attention-deficit/hyperactivity disorder (ADHD)	Affects 5-7% of children, 2.5% of adults	Inattention, hyperactivity, impulsivity	Genetics, environmental factors, brain development

Post-traumatic stress disorder (PTSD)	Affects 7-8% of people at some point in their lives	Flashbacks, nightmares, avoidance of triggers	Trauma, genetics, brain chemistry
Eating disorders	Affects 9% of women and 3% of men	Distorted body image, disordered eating behaviors	Genetics, life events, cultural factors, media influence

The information presented in the aforementioned table can be effectively portrayed through a block diagram, thereby enhancing its visual representation and enabling more comprehensive interpretation (Fig 2.1).
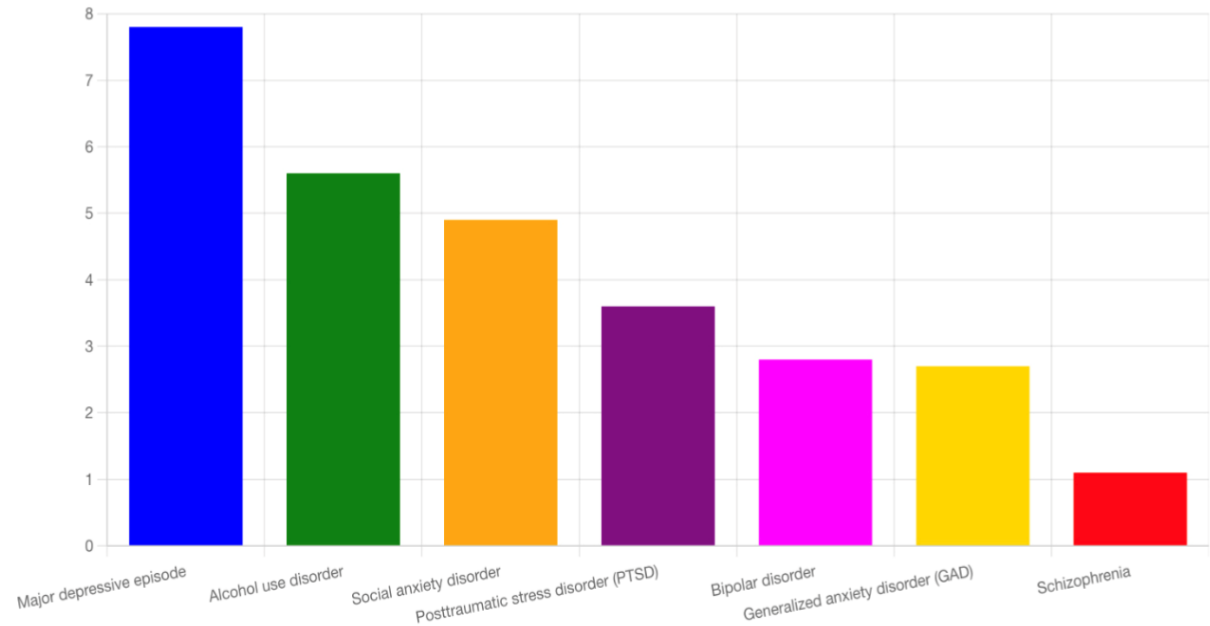
Figure 2.1 Prevalence of mental disorders in the world

Another study [13] found that the prevalence of mental diseases increased dramatically between 1990 and 2019, from an estimated 654.8 million cases in 1990 to 970.1 million cases in 2019 (Table 2.2). This represents an increase of 48.1%. There were no notable increases identified in age-standardized prevalence of any mental disorder over the same period. The two most common mental disorders were depressive and anxiety disorders, with the least common being schizophrenia and

eating disorders. Eating disorders were responsible for 318.3 deaths worldwide in 2019, with anorexia nervosa accounting for most of these deaths. In 2019, mental disorders accounted for 125.3 million DALYs (Disability-Adjusted Life Years), or 4.9% of global DALYs. The number of DALYs due to mental disorders has increased since 1990, although the age-standardised DALY rates have remained largely consistent. The highest prevalence of eating disorders, ADHD, conduct disorder, and autism spectrum disorders was found in high-income regions, whereas there were less significant regional differences in the prevalence of bipolar disorder and schizophrenia. Depressive disorders accounted for the largest proportion of mental disorder DALYs, followed by anxiety disorders and schizophrenia. All age groups were affected by mental disorders; those with idiopathic intellectual disability and autism spectrum disorders first showed signs of these conditions before the age of five, while those with depressive disorders, anxiety disorders, and schizophrenia continued to show signs of these conditions far into older age. The number of DALYs consistently rose throughout childhood and adolescence, peaked between the ages of 25 and 34, and then gradually dropped after age 35. Mental disorders were the 13th leading cause of DALYs in 2019, and their burden was present across all age groups, with the largest burden emerging before the age of 5 years and continued to be evident at older ages.

Table 2.3 displays the prevalence of mental disorders by region and age-standardization in 2019. In terms of the prevalence of all mental disorders, Australasia, Tropical Latin America, and high-income North America were found to have the highest rates. Different regional patterns were observed for individual disorders, such as high prevalence of depressive disorders in sub-Saharan Africa, north Africa and the Middle East, as well as in Australasia, Tropical Latin America, and high-income North America. In high-income areas, the most common disorders by age-standardized prevalence were eating disorders, ADHD, conduct disorders, and autism spectrum disorders. Schizophrenia and bipolar disorder prevalence varied between locations, but to a smaller amount [13].

Table 2.2

Global prevalence and age-standardized prevalence for mental disorders in 1990 and 2019

	1990		2019	
	Prevalence, in millions (95% UI)	Age-standardised prevalence per 100 000 people (95% UI)	Prevalence, in millions (95% UI)	Age-standardised prevalence per 100 000 people (95% UI)*
Mental disorders				
Total	654·8 (603·6–708·1)	12 579·3 (11 634·4–13 552·2)	970·1 (900·9–1044·4)	12 262·0 (11 382·9–13 213·3)
Male	317·8 (290·8–346·7)	12 020·0 (11 061·2–13 042·4)	462·2 (427·5–499·7)	11 727·3 (10 835·7–12 693·9)
Female	337·0 (310·1–363·8)	13 100·4 (12 114·8–14 090·9)	507·9 (471·2–547·4)	12 760·0 (11 831·7–13 763·1)
Anxiety disorders				
Total	194·9 (165·1–231·2)	3791·6 (3194·0–4476·6)	301·4 (252·6–356·0)	3779·5 (3181·1–4473·3)
Male	73·4 (61·3–87·0)	2839·2 (2388·7–3332·9)	113·9 (95·4–135·1)	2859·8 (2397·0–3379·9)
Female	121·5 (102·0–144·7)	4732·2 (3983·0–5605·5)	187·5 (157·7–221·6)	4694·7 (3945·6–5576·9)
Depressive disorders				
Total	170·8 (152·7–190·4)	3486·2 (3140·8–3855·7)	279·6 (251·6–310·3)	3440·1 (3097·0–3817·6)
Male	65·6 (58·5–73·2)	2700·7 (2432·1–2987·4)	109·2 (98·0–121·4)	2713·3 (2438·3–3013·1)
Female	105·2 (94·3–117·3)	4262·5 (3844·6–4730·0)	170·4 (153·6–188·7)	4158·4 (3746·9–4616·3)
Other mental disorders				
Total	67·7 (52·7–86·5)	1434·7 (1116·4–1822·6)	117·2 (90·8–148·7)	1428·7 (1108·4–1816·1)
Male	39·9 (30·8–51·0)	1702·3 (1323·7–2155·4)	68·3 (53·0–86·6)	1690·1 (1311·0–2138·8)
Female	27·8 (21·4–35·4)	1173·9 (909·9–1485·8)	48·9 (37·8–61·8)	1173·1 (905·6–1484·9)
Idiopathic developmental intellectual disability				
Total	92·8 (58·3–128·6)	1641·9 (1028·1–2278·2)	107·6 (65·8–150·4)	1426·6 (873·6–1991·7)
Male	47·7 (29·4–66·7)	1657·2 (1017·0–2325·9)	54·9 (32·8–77·6)	1436·4 (860·4–2027·8)
Female	45·2 (29·2–61·6)	1625·3 (1048·2–2220·8)	52·7 (33·1–72·8)	1415·4 (891·3–1954·5)
Attention-deficit hyperactivity disorder				
Total	72·4 (52·9–96·4)	1240·5 (909·6–1647·1)	84·7 (62·5–111·3)	1131·9 (831·7–1494·5)
Male	52·6 (38·6–70·7)	1768·3 (1304·2–2350·6)	61·5 (45·4–80·9)	1611·6 (1184·8–2134·1)
Female	19·8 (14·2–26·4)	693·4 (497·9–918·5)	23·2 (16·8–31·0)	631·0 (455·7–846·5)
Conduct disorder				
Total	32·7 (23·6–42·5)	537·9 (388·2–699·0)	40·1 (29·0–52·0)	559·0 (405·0–722·3)
Male	21·6 (16·1–27·7)	694·7 (517·7–891·4)	26·3 (19·6–33·4)	711·2 (530·5–904·0)
Female	11·1 (7·4–15·3)	374·0 (248·7–515·5)	13·8 (9·1–19·0)	397·3 (263·8–545·5)
Bipolar disorder				
Total	24·8 (20·6–29·4)	490·1 (411·0–576·5)	39·5 (33·0–46·8)	489·8 (407·5–580·6)
Male	11·6 (9·6–13·8)	459·4 (384·9–540·6)	18·8 (15·7–22·3)	466·9 (388·5–552·9)
Female	13·2 (10·9–15·5)	520·9 (435·1–613·3)	20·7 (17·3–24·6)	512·8 (425·6–609·0)
Autism spectrum disorders				
Total	20·3 (16·9–24·2)	372·8 (309·1–444·9)	28·3 (23·5–33·8)	369·4 (305·9–441·2)
Male	15·6 (13·0–18·6)	571·2 (473·8–679·6)	21·6 (18·0–25·8)	560·1 (465·2–667·3)
Female	4·7 (3·8–5·7)	173·4 (140·9–211·5)	6·7 (5·4–8·2)	176·3 (143·0–214·5)
Schizophrenia				
Total	14·2 (12·2–16·5)	289·9 (249·8–333·2)	23·6 (20·2–27·2)	287·4 (246·2–330·9)
Male	7·5 (6·4–8·7)	304·5 (262·6–350·0)	12·4 (10·6–14·3)	302·7 (259·7–348·4)
Female	6·7 (5·8–7·7)	274·9 (236·9–315·5)	11·2 (9·6–12·9)	272·0 (232·7–313·7)
Eating disorders				
Total	8·5 (6·4–10·9)	150·5 (113·1–192·1)	13·6 (10·2–17·5)	174·0 (130·1–222·1)
Male	2·8 (2·0–3·7)	96·7 (69·1–128·0)	4·7 (3·3–6·2)	117·9 (84·6–156·1)
Female	5·7 (4·3–7·2)	205·8 (156·2–258·6)	9·0 (6·8–11·3)	231·5 (175·1–291·4)

95% UI=95% uncertainty interval. *Disorders ordered from highest to lowest on the basis of total age-standardised rates in 2019.

Table 2.3

Age-standardized prevalence per 100 000 people by mental disorder and region (2019)

	Mental disorders	Schizophrenia	Depressive disorders	Anxiety disorders	Bipolar disorder	Eating disorders	Autism spectrum disorders	Attention-deficit hyperactivity disorder	Conduct disorder	Idiopathic developmental intellectual disability	Other mental disorders
Central Europe, eastern Europe, and central Asia	10 517·2 (9743·6–11 353·4)	282·1 (236·0–331·1)	3081·4 (2747·1–3442·3)	2993·3 (2501·3–3562·5)	526·7 (430·6–630·9)	150·2 (111·1–193·9)	385·5 (317·8–462·4)	1072·8 (764·2–1453·7)	604·7 (440·8–780·4)	606·4 (286·3–930·5)	1401·5 (1076·5–1783·5)
Central Asia	10 129·5 (9344·1–11003·9)	274·7 (220·3–333·4)	3186·5 (2807·9–3644·1)	2221·6 (1751·5–2773·5)	513·6 (401·5–647·5)	126·5 (93·1–163·6)	374·8 (308·0–450·9)	1059·1 (758·1–1421·8)	584·8 (420·8–764·5)	861·5 (475·4–1258·4)	1454·7 (1127·4–1861·2)
Central Europe	10 254·7 (9459·9–11144·7)	292·0 (241·1–345·2)	2601·0 (2309·7–2956·2)	3276·1 (2685·6–3986·5)	556·7 (449·1–675·6)	173·0 (127·0–222·8)	373·6 (308·4–446·9)	1072·0 (764·8–1442·1)	598·1 (435·7–774·8)	460·0 (188·1–732·9)	1427·2 (1097·6–1821·7)
Eastern Europe	10 828·1 (10048·4–11 656·1)	279·3 (238·2–323·2)	3316·4 (2964·2–3683·9)	3188·5 (2727·1–3719·6)	516·2 (434·7–603·7)	151·1 (112·4–195·3)	397·3 (328·3–476·0)	1084·2 (774·0–1496·1)	621·8 (458·7–802·8)	533·9 (225·4–844·9)	1358·5 (1038·2–1723·1)
High income	14 054·7 (13 090·5–15 168·3)	333·0 (286·4–382·8)	3659·9 (3307·4–4062·6)	5058·3 (4242·7–6047·4)	773·5 (660·3–887·4)	444·7 (340·2–554·1)	599·7 (502·2–709·4)	1693·1 (1235·0–2269·9)	588·9 (429·5–763·0)	404·1 (136·6–690·0)	1642·0 (1277·1–2080·5)
Australasia	17 506·7 (16 261·0–19 026·6)	388·5 (357·3–422·1)	4284·3 (3764·6–4908·9)	6031·9 (4885·4–7447·5)	1182·1 (993·7–1373·2)	969·2 (796·6–1149·7)	436·1 (363·8–521·2)	3248·8 (2476·6–4108·9)	617·0 (484·1–785·3)	318·4 (100·3–548·7)	1858·8 (1535·2–2216·7)
High-income Asia Pacific	9796·9 (9077·4–10 606·6)	301·5 (253·8–352·5)	2084·3 (1885·6–2313·1)	2616·4 (2184·4–3108·2)	601·0 (496·0–706·0)	379·2 (288·7–481·0)	634·3 (528·8–756·7)	1453·2 (1052·4–1958·7)	558·6 (405·5–730·5)	180·2 (27·2–357·2)	1516·2 (1172·5–1933·5)
High-income North America	15 445·8 (14 406·4–16 693·3)	418·9 (363·8–479·2)	4270·3 (3867·9–4743·3)	5559·9 (4693·5–6582·6)	621·2 (579·5–663·6)	424·7 (316·0–540·5)	640·0 (537·7–756·4)	2096·8 (1505·4–2838·7)	549·4 (386·7–720·7)	435·0 (136·7–745·1)	1792·5 (1372·9–2247·9)
Southern Latin America	13 056·6 (12197·9–14 002·5)	313·4 (251·9–380·9)	2777·3 (2492·5–3111·5)	5125·8 (4459·8–5885·1)	1024·5 (794·6–1273·0)	340·4 (253·8–434·8)	482·5 (400·8–579·0)	1289·0 (934·1–1738·4)	573·0 (416·6–741·2)	524·2 (198·9–847·0)	1590·1 (1226·8–2047·4)
Western Europe	14 528·7 (13 440·8–15 749·2)	272·6 (229·9–318·0)	3851·3 (3448·1–4296·6)	5626·6 (4632·7–6814·1)	901·8 (735·7–1069·3)	470·3 (363·3–586·6)	581·3 (488·2–686·4)	1363·5 (992·1–1824·1)	639·6 (468·4–822·6)	448·8 (168·7–746·0)	1556·7 (1202·2–1993·6)
Latin America and Caribbean*	13 804·2 (12793·5–14 941·6)	277·8 (234·0–325·5)	3417·1 (3079·4–3791·4)	5502·3 (4625·9–6588·7)	963·7 (794·2–1138·9)	231·4 (170·9–298·0)	350·4 (288·8–419·7)	1813·3 (1327·6–2443·9)	573·8 (416·0–745·6)	381·2 (144·8–626·3)	1398·2 (1072·1–1777·0)
Andean Latin America	13 562·0 (12 372·6–15 010·6)	276·2 (221·3–334·9)	2725·6 (2380·0–3105·2)	5497·3 (4467·8–6893·1)	910·5 (700·6–1142·2)	281·6 (201·2–378·0)	342·1 (282·4–410·5)	2116·8 (1537·0–2831·8)	571·8 (410·8–742·3)	419·5 (166·0–669·4)	1461·4 (1132·7–1868·4)
Central Latin America	11 806·9 (10931·6–12775·4)	279·6 (234·1–328·8)	3198·5 (2865·7–3562·3)	3930·7 (3253·4–4782·6)	854·0 (703·0–1015·8)	224·9 (165·7–292·3)	350·9 (288·8–419·5)	1403·7 (1033·9–1903·0)	575·9 (421·2–746·1)	351·4 (125·8–584·8)	1405·1 (1078·9–1791·6)
Tropical Latin America	15 909·4 (14 825·7–17139·0)	277·7 (237·7–320·2)	3799·4 (3464·3–4168·9)	7378·6 (6296·1–8605·9)	1111·1 (933·7–1288·1)	231·9 (173·2–296·5)	353·9 (292·0–425·3)	1945·0 (1418·3–2672·7)	574·9 (414·7–751·3)	357·2 (126·1–596·2)	1360·5 (1039·5–1723·8)
Caribbean	14 362·4 (13 110·6–15 834·0)	271·4 (218·7–329·3)	3673·6 (3212·5–4178·7)	4400·7 (3522·5–5499·8)	908·2 (695·0–1141·6)	193·9 (141·5–252·4)	343·8 (283·7–413·6)	3064·4 (2247·0–4115·1)	559·3 (405·6–723·1)	602·9 (284·1–929·8)	1459·5 (1131·2–1866·5)
North Africa and Middle East*	14 937·8 (13 736·6–16 219·8)	248·2 (203·9–294·9)	4348·9 (3807·3–4971·1)	5135·7 (4164·9–6267·2)	758·8 (595·7–939·1)	216·9 (159·7–280·2)	304·4 (251·2–366·1)	1245·1 (909·8–1667·4)	591·9 (433·4–762·5)	1850·5 (1157·7–2571·2)	1462·8 (1128·4–1867·2)
South Asia	13 106·0 (11 801·3–14 243·3)	283·5 (242·5–328·7)	3794·7 (3416·0–4199·7)	3045·5 (2594·5–3547·2)	361·4 (303·7–423·5)	126·7 (92·9–163·9)	290·0 (238·4–349·2)	609·4 (431·3–832·3)	538·2 (383·9–711·9)	3555·1 (2434·9–4716·8)	1378·6 (1054·5–1748·1)
Southeast Asia, east Asia, and Oceania	10 520·4 (9722·0–11 377·3)	305·9 (265·8–349·2)	2723·9 (2451·5–3022·4)	3292·9 (2801·9–3821·7)	226·9 (189·5–267·8)	111·2 (82·1–143·7)	348·1 (287·9–417·2)	1622·4 (1212·9–2135·6)	511·4 (367·3–666·5)	577·5 (288·8–875·4)	1383·7 (1059·1–1752·9)
East Asia	10 566·7 (9749·8–11 424·3)	309·2 (272·8–348·0)	2720·1 (2449·9–3004·9)	3180·7 (2712·3–3663·7)	182·0 (153·6–211·1)	112·7 (83·6–145·3)	367·8 (304·4–441·9)	2038·0 (1531·9–2662·2)	465·0 (326·9–609·6)	399·1 (163·6–639·3)	1371·0 (1048·4–1737·9)
Southeast Asia	10 551·5 (9724·2–11 420·5)	298·5 (249·6–353·1)	2610·6 (2302·9–2958·4)	3633·2 (3024·1–4315·0)	331·4 (272·5–399·6)	109·6 (81·4–141·3)	312·5 (257·7–374·4)	1000·5 (723·4–1365·7)	571·7 (417·2–745·2)	886·1 (491·8–1289·8)	1405·6 (1080·0–1791·7)

	Schizophrenia	Depressive disorders	Anxiety disorders	Bipolar disorder	Eating disorders	Autism spectrum disorders	Attention-deficit hyperactivity disorder	Conduct disorder	Idiopathic developmental intellectual disability	Other mental disorders
(Continued from previous page)										
Oceania	273·9 (220·9–333·9)	3044·8 (2622·9–3541·7)	4006·8 (3182·9–4990·4)	265·1 (206·8–333·3)	84·5 (61·2–109·3)	289·0 (235·5–349·0)	1131·3 (802·6–1567·5)	535·1 (374·8–698·5)	1213·3 (745·5–1695·1)	1471·1 (1139·9–1879·3)
Sub-Saharan Africa	**214·2** (178·2–254·3)	**4540·4** (4038·1–5112·4)	**3462·6** (2839·1–4184·2)	**566·4** (458·1–690·1)	**106·7** (78·3–137·7)	**373·5** (307·4–447·6)	**583·8** (414·2–797·0)	**592·7** (430·2–763·1)	**806·1** (398·8–1237·4)	**1415·7** (1088·2–1808·5)
Central sub-Saharan Africa	208·5 (166·2–253·9)	5536·9 (4801·3–6307·6)	3864·0 (3089·6–4826·5)	554·3 (432·0–696·3)	93·7 (68·8–120·7)	370·8 (303·3–446·9)	569·6 (403·3–776·8)	588·6 (432·7–757·8)	1052·6 (572·8–1570·3)	1456·9 (1129·1–1864·0)
Eastern sub-Saharan Africa	210·8 (174·3–250·2)	4849·2 (4317·2–5416·8)	3716·3 (3050·0–4530·6)	595·6 (480·3–722·6)	92·6 (68·1–119·6)	378·4 (317·7–454·4)	572·4 (404·0–779·4)	597·0 (436·2–766·8)	997·0 (537·0–1504·4)	1419·2 (1091·7–1813·0)
Southern sub-Saharan Africa	220·9 (187·5–256·8)	4166·3 (3736·3–4612·3)	3658·0 (3100·4–4307·8)	553·2 (459·0–654·1)	151·2 (111·9–196·6)	371·6 (304·9–447·7)	575·3 (404·0–789·5)	617·9 (456·6–801·4)	443·4 (176·1–722·3)	1379·9 (1057·1–1747·4)
Western sub-Saharan Africa	217·1 (181·1–256·5)	4075·4 (3633·0–4556·1)	3066·5 (2532·6–3683·3)	546·6 (445·2–661·4)	114·4 (84·0–148·0)	370·6 (305·5–443·3)	599·6 (421·8–832·2)	586·7 (423·0–763·5)	626·0 (282·1–1001·2)	1408·6 (1081·2–1797·9)
Global	**287·4** (246·2–330·9)	**3440·1** (3097·0–3817·6)	**3779·5** (3181·1–4473·3)	**489·8** (407·5–580·6)	**174·0** (130·1–222·1)	**369·4** (305·9–441·2)	**1131·9** (831·7–1494·5)	**559·0** (405·0–722·3)	**1426·6** (873·6–1991·7)	**1428·7** (08·4–1816·1)

95% uncertainty intervals are shown in parentheses. Bolding indicates global estimates or GBD super-regions. GBD=Global Burden of Diseases, Injuries, and Risk Factors Study.

Overall, mental disorders affect a significant proportion of the global population, with around 12% of the global burden of disease attributed to them. The prevalence of mental disorders varies across countries, with poor countries having higher rates of mental disorders due to limited access to healthcare services and poor living conditions. Effective prevention and treatment options exist for mental disorders, but most people do not have access to effective care. The most common mental disorders are anxiety and depression, and the highest prevalence of eating disorders, ADHD, conduct disorder, and autism spectrum disorders are found in high-income regions. The burden of mental disorders is present across all age groups, with the largest burden emerging before the age of 5 years and continued to be evident at older ages.

2.2 Investigation of state policy on the prevention and treatment of mental disorders

As previously stated, a considerable section of the population is impacted by mental problems, which also have an impact on communities, households, and society as a whole. Recognizing the importance of mental health, many countries have implemented policies and strategies aimed at the prevention and treatment of mental disorders. This subchapter will investigate state policy on the prevention and treatment of mental disorders, with a focus on exploring the current landscape of mental health policy, identifying gaps in policy implementation, and evaluating the effectiveness of existing policies. By examining the policies and strategies of different countries, this part of the work aims to contribute to a better understanding of the global response to mental health and provide insights for policymakers and stakeholders on how to improve mental health policies and programs.

Mental health is a crucial aspect of public health and state policies play a significant role in ensuring that mental health services are accessible and effective. The investigation of state policy on the prevention and treatment of mental disorders is an essential step towards identifying the gaps and challenges that hinder the

delivery of quality mental health services. The inadequate investment in mental health services is a significant issue that affects both low- and high-income countries. According to the WHO, up to 75% of people with mental disorders in low- and middle-income countries do not receive the treatment they need, while in high-income countries, this figure can reach up to 90% [11]. This treatment gap is unacceptable, and it highlights the need for increased investment and commitment to improving mental health services. The lack of investment in mental health services is not only a moral issue but also an economic one, as mental disorders account for a significant proportion of the global burden of disease and can have a significant effect on the productivity and economic development of countries [14].

The field of global mental health has evolved from two distinct epistemologies – the emic approach of social anthropologists and cultural psychiatrists, and the etic approach of clinicians and epidemiologists. From the 1970s, a new generation of interdisciplinary collaboration emerged, leading to the emergence of a "new cross-cultural psychiatry" that recognized the important contributions made by both programs (old and new) in advancing the study of mental illnesses in a variety of populations. This led to four transformational shifts that heralded the emergence of global mental health. The shifts included a rethinking of the nature of mental disorders, a shift from institutional care to community care, recognition of mental health as a collective responsibility that matters to each and everyone, and the empowerment of people with lived experience of mental disorders.

There are also ongoing discussions about the limitations of current classification systems for mental disorders, such as the ICD and DSM, which categorize syndromes as discrete disorders in a similar way to physical illnesses. The current diagnostic approach to mental health disorders can be simplistic and not always helpful due to the diverse experiences of mental health between people and over time. Therefore, a dimensional approach to symptom spectra, rather than discrete categories, should be adopted. This approach involves collecting observable physical and behavioral traits of an individual down to the molecular level, which

might result in a better way to categorize and describe mental health conditions. However, since early intervention is so important, the significance of functional impairment as a criterion to determine when a person might have a disorder or diagnosis shouldn't be the only one used to guide detection and intervention [14].

To that end, mental health promotion must be implemented as it aims to increase protective factors and healthy behaviors that can prevent the onset of mental disorders and reduce risk factors that can lead to their development. It entails establishing surroundings and living arrangements that promote mental health and enable individuals to adopt and uphold healthy lives. Mental health can be promoted through early childhood interventions, support for children, programs for vulnerable groups, activities in schools, violence prevention programs, and community development programs. A pro-social strategy known as positive youth development engages youth in their communities and works to improve the lives of young people by giving them the chances, relationships, and support they need to develop their leadership skills. Depending on their target audience, the amount of intensity, and the stage of development, prevention efforts can differ. Preventative efforts intensify and become more individualized as they transition from general preventative treatments to therapy. Prevention and intervention in the field of mental health are two parameters that are inextricably linked. Indeed, mental health interventions can be categorized based on the level of risk, ranging from universal preventive interventions to indicated preventive interventions and treatment for individuals who currently have a mental health disorder. The goal of preventive interventions is to reduce the likelihood of a disorder developing or the severity of its effects. There are different categories of mental health interventions, including universal preventive interventions, selective preventive interventions, indicated preventive interventions, and treatment. The interventions vary based on the level of risk and target audience, with interventions for high-risk individuals and those with diagnosed disorders being more intensive and individualized. By understanding these categories of interventions, mental health practitioners and policymakers can design effective prevention and treatment programs for individuals with mental health challenges [16] (Fig.2.2).

Treatment: Interventions for individuals who currently have a diagnosable disorder that are intended to cure or reduce the symptoms or effects of the disorder. For example, individual/family/group psychotherapy or evidence-based practice for an individual or family that has been diagnosed with a mental health disorder.

Indicated preventive interventions: Interventions for high-risk individuals who are identified as having some detectable signs or symptoms of a mental, emotional, or behavioral disorder, or who have a biological pre-disposition for such a disorder, but who do not meet criteria for a diagnosis at the current time. For example, a program to develop social skills and coping mechanisms for children or youth who have been referred to child serving systems due to behavioral challenges, substance use or truancy.

Selective preventive interventions: Interventions for individuals or a sub-group who exhibit biological, psychological, or social risk factors that are known to be associated with the onset of a mental, emotional, or behavioral disorders. For example, a support group for children exposed to domestic violence or substance abuse at home

Universal preventive interventions: Interventions for the general public that have not been identified to be at risk. For example, a mental health or substance abuse curriculum for all children in the school.

Treatment

Indicated preventive interventions

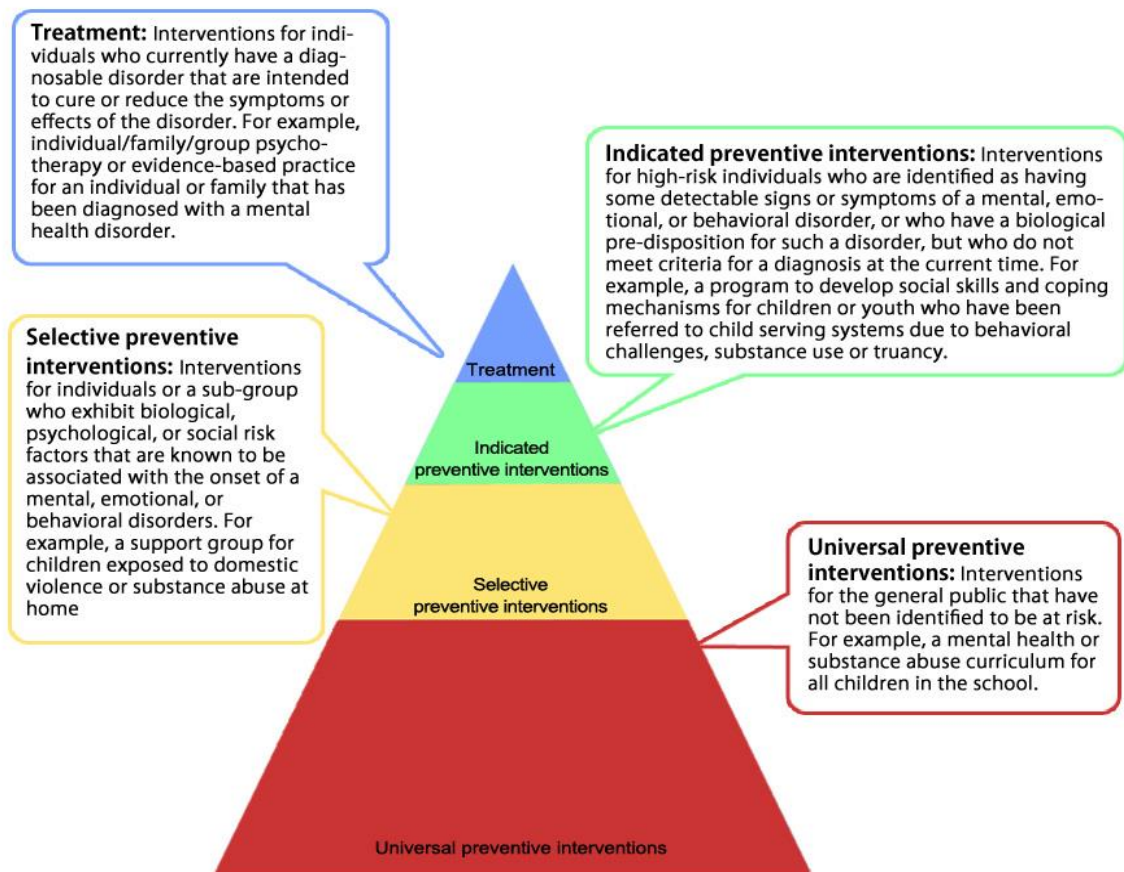Selective preventive interventions

Universal preventive interventions

Figure 2.2 Levels of interventions based on levels of intensity of disorders

As indicated in Fig 2.3, the prevention of mental health disorders from a young age plays a major role in promoting good health in populations. Universal preventive interventions, which target generic risk and protective factors in the general population, can have a non-specific effect on the global probability of developing psychiatric and other disorders. Schools have a central, universal preventive role during childhood and adolescence, and school-based programmes can be successful in enhancing one's academic performance, attitudes, behavior, and social and emotional skills. Interventions are successful in treating young individuals with substance use disorders, universal psychosocial preventative eating disorders, and anxiety and depression. Preventive interventions aimed at parents with mental illness could cut the incidence of mental illnesses in their children by 40%. Children of parents with mental illness or substance use disorders are among the populations most at risk for psychiatric issues. Targeting social stress and emotional issues while fostering resilience, selective preventative interventions in at-risk populations should

also offer early identification and access to services for those who require treatment. Psychosocial therapies have been shown to be effective in avoiding mental health conditions such post-traumatic stress disorder, eating disorders, postpartum depression, and depression or anxiety disorders in high-risk populations. Additionally, indicated preventive interventions for early manifestations of mental health disorders can be more cost-effective [17].
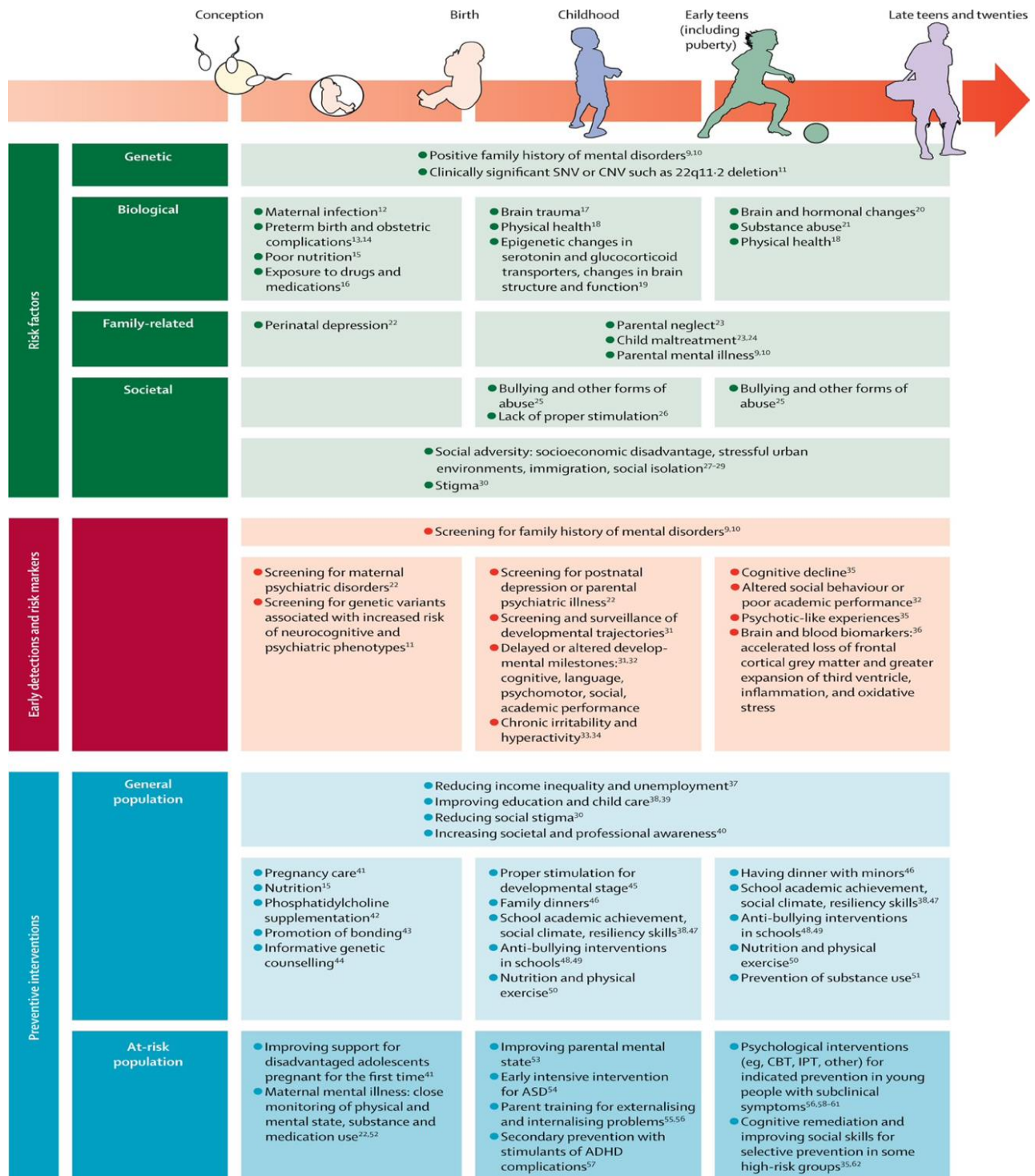

Figure 2.3: Risk factors for mental disorders in sensitive periods of intervention

According to the WHO, mental health policies should be an integral part of the country's health policy and strategy, and they should address various aspects of mental health promotion, prevention, treatment, and rehabilitation [11].

Ensuring the quality and effectiveness of mental health care is another critical component of mental health policies. Governments should invest in mental health research to identify evidence-based practices and promote the use of best practices in mental health care. Moreover, they should regulate mental health services to ensure that they meet the necessary quality standards. For instance, in the European Union, the European Psychiatric Association has developed guidelines for the quality of psychiatric care, which aim to improve the quality of mental health services across Europe [26].

Because treatment of mental disorders plays an important part in the global health of a country, many countries have decided to take action and put some measures in place in order to help their citizens. The following list is a non-exhaustive list of countries that have programs in place for mental health:

- Australia: the National Mental Health Strategy emphasizes the importance of increasing mental health literacy and reducing stigma through targeted public education campaigns. Mental health care services are funded by both the Victorian and Commonwealth governments, with specialized acute, sub-acute, and residential public mental health services provided in hospitals and community settings. Additionally, the Commonwealth government funds primary care mental health treatment and support through Medicare and psychosocial support programs for people with mental illness, as well as funding Mental Health Community Support Services (MHCSS) through non-government organizations. Since 1992, government has issued five national mental health plans with the goals of lowering reliance on psychiatric institutions, establishing cooperation between primary care providers and specialised services, and promoting mental health and illness prevention. The Fifth National Mental Health and Suicide Prevention Plan, endorsed in 2017, aims to establish a national approach for collaborative government effort across eight targeted priority areas, including reducing stigma and discrimination and improving

mental health for Aboriginal and Torres Strait Islander communities. The strategy calls for the development of person-centered mental health services and support across all pertinent government departments by all Australian governments working in coordination [15].

- The United States: the U.S. has been at the forefront of developing policies and initiatives for the treatment of mental disorders. The National Institute of Mental Health (NIMH) has developed several research-based initiatives to improve the diagnosis, treatment, and prevention of mental disorders. The NIMH launched the "Research Domain Criteria" initiative in 2008, which aims to transform the diagnosis and treatment of mental disorders by developing new methods of classification based on neurobiological, behavioral, and clinical data. The initiative has led to the development of new diagnostic tools, such as the NIMH's Research Domain Criteria (RDoC) Matrix, which has been widely adopted in research studies worldwide [18].

- The United Kingdom: the National Health Service (NHS) has developed several initiatives to improve mental health services. The NHS has launched a 10-year plan to transform mental health services by increasing funding, improving access, and developing new models of care. The plan includes the provision of mental health support to an additional two million people by 2020 and a focus on early intervention for children and young people. Additionally, the NHS has launched the "Improving Access to Psychological Therapies" initiative, which aims to provide more evidence-based psychological therapies to people with mental disorders [19]. The UK has also developed a comprehensive strategy for mental health care called the "Five Year Forward View for Mental Health" [20].This strategy focuses on early intervention, access to treatment, and support for those with severe mental illness. The UK government has also pledged to invest an additional £1 billion in mental health services by 2020. The Department of Health and Social Care released a Green Paper in 2018, outlining plans to transform mental health provision for children and young people in the UK. The document proposed

increased funding, new mental health support teams in schools, and improved access to services for children and young people [21].

- Canada: Canada has also been developing policies and strategies for the treatment of mental disorders. In 2017, the Canadian government announced a 10-year plan to improve mental health services across the country. The plan includes investments in mental health services for veterans, Indigenous peoples, and youth. Additionally, the government has established a Mental Health Commission of Canada, which aims to promote mental health and improve the lives of people living with mental illness. The commission has developed several initiatives, such as the "Mental Health First Aid" training program, which aims to increase public awareness of mental health issues and provide training to individuals to help them identify and respond to mental health problems [22].

- New Zealand: New Zealand has implemented a national mental health strategy called "Rising to the Challenge", which aims to improve access to mental health care, reduce stigma, and promote early intervention and prevention [23]. The strategy includes specific initiatives to address the mental health needs of Maori and Pacific Islander communities [24].

- South Africa: South Africa has developed a comprehensive mental health policy that includes a strong emphasis on community-based care and human rights. The country has also established a National Mental Health Task Force to develop and implement mental health programs and services [25]

- India: India has made significant strides in recent years to improve access to mental health care, including the development of a national mental health policy and the passage of the Mental Health Care Act in 2017. The country has also launched a national program called "Manas" to provide community-based mental health care and services.

Ultimately, state policies play a vital role in ensuring that mental health services are accessible and effective. The inadequate investment in mental health services is a significant issue that affects both low- and high-income countries, and

this treatment gap highlights the need for increased investment and commitment to improving mental health services.

2.3 Study of approaches to the treatment of mental disorders in accordance with international guidelines

Mental disorders can be treated through a range of approaches, including pharmacotherapy, psychotherapy, and other non-pharmacological treatments. These approaches are based on evidence-based guidelines developed by various international organizations:

Pharmacotherapy

Pharmacotherapy involves the use of medications to treat mental disorders. Antidepressants, antipsychotics, anxiolytics, and mood stabilizers are some of the common drugs used in the treatment of mental illnesses. These medications act on the central nervous system to alleviate symptoms of mental disorders. The choice of medication depends on the type and severity of the mental disorder.

The WHO has developed guidelines for the use of psychotropic medications in the treatment of mental disorders [27]. The guidelines emphasize the need for a comprehensive assessment of the patient's mental and physical health before prescribing psychotropic medications. The guidelines also recommend regular monitoring of patients receiving psychotropic medications to assess treatment response and side effects.

The following section will discuss the different classes of medications used in the treatment of mental disorders, their mechanisms of action, and their common uses:.

Antidepressants

Antidepressants are medications used in the treatment of depressive disorders, anxiety disorders, and other mental disorders. They operate by raising the levels of neurotransmitters such as serotonin, norepinephrine, and dopamine in the brain, which are believed to be involved in mood regulation. There are various different

groups of antidepressants, such as tricyclic antidepressants (TCAs), selective serotonin reuptake inhibitors (SSRIs), and monoamine oxidase inhibitors (MAOIs)::

- SSRIs are the most commonly used antidepressants and include drugs such as fluoxetine (Prozac), sertraline (Zoloft), and escitalopram (Lexapro). They are used in the treatment of depression, anxiety disorders, and obsessive-compulsive disorder (OCD). SNRIs, such as duloxetine (Cymbalta) and venlafaxine (Effexor), are also used in the treatment of depression and anxiety disorders, and they have a similar mechanism of action to SSRIs.

- TCAs, such as amitriptyline (Elavil) and imipramine (Tofranil), are older antidepressants that are still used in the treatment of depression, anxiety disorders, and neuropathic pain.

- MAOIs, such as tranylcypromine (Parnate) and phenelzine (Nardil), are also used in the treatment of depression, but they have potentially serious interactions with certain foods and medications and require careful monitoring.

Antipsychotics

Antipsychotics are medications used in the treatment of psychotic disorders such as schizophrenia and bipolar disorder. They work by inhibiting the brain's dopamine receptors, which are thought to have a role in the emergence of psychotic symptoms. First-generation (typical) antipsychotics and second-generation (atypical) antipsychotics are the two primary classes of antipsychotics:

- First-generation antipsychotics, such as haloperidol (Haldol) and chlorpromazine (Thorazine), are older medications that are still used in the treatment of psychotic disorders. They have a higher risk of side effects such as movement disorders and are less effective in treating the negative symptoms of schizophrenia, such as social withdrawal and apathy.

- Second-generation antipsychotics, such as risperidone (Risperdal) and olanzapine (Zyprexa), are newer medications that have a lower risk of movement disorders and are more effective in treating the negative symptoms of schizophrenia. They are also used in the treatment of bipolar disorder and other mental disorders.

Anxiolytics

Anxiolytics are medications used in the treatment of anxiety disorders and other mental disorders characterized by excessive worry and fear. They work by increasing the activity of the neurotransmitter GABA, which is believed to be involved in the regulation of anxiety. The main class of anxiolytics is benzodiazepines, which include drugs such as diazepam (Valium), lorazepam (Ativan) and alprazolam (Xanax).

Benzodiazepines are effective in the short-term treatment of anxiety disorders but have a high risk of dependence and withdrawal symptoms. They are also used in the treatment of insomnia and muscle spasms. Other anxiolytics include buspirone (Buspar), which has a lower risk of dependence and is used in the long-term treatment of generalized anxiety disorder, and pregabalin (Lyrica), which is used in the treatment of anxiety disorders and neuropathic pain.

Mood Stabilizers

Mood stabilizers are medications used in the treatment of bipolar disorder, a mental disorder characterized by episodes of mania and depression. They function by controlling the brain's concentrations of neurotransmitters like dopamine, norepinephrine, and serotonin. The main class of mood stabilizers is lithium, which has been used for decades in the treatment of bipolar disorder.

Other mood stabilizers include anticonvulsants such as valproic acid (Depakote) and carbamazepine (Tegretol), which are also used in the treatment of epilepsy. They have been found to be effective in the treatment of bipolar disorder, particularly in the prevention of manic episodes.

Other Medications

There are several other classes of medications used in the treatment of mental disorders. These include:

- Stimulants: medications such as methylphenidate (Ritalin) and amphetamine (Adderall), which are utilised to the treatment of narcolepsy and attention deficit hyperactivity disorder (ADHD).

- Sedatives and hypnotics: medications such as zolpidem (Ambien) and eszopiclone (Lunesta), which are used in the treatment of insomnia.

- Anticonvulsants: medications such as gabapentin (Neurontin) and pregabalin (Lyrica), which are used in the neuropathic pain treatment and other conditions such as fibromyalgia.

Mental health medications are taken by people of all ages, but certain groups require special considerations. Children may experience different side effects and reactions to medication than adults, and some medications are not approved for use in children or have FDA warnings. Health care providers may prescribe FDA-approved medication "off-label" to treat a child's symptoms, but it is important to monitor them closely. Non-medication treatments, such as psychotherapies, may be suggested first. Older persons should exercise caution when taking pharmaceuticals since they are more likely to experience drug interactions and frequently react differently to medications. Pregnant people should work with their health care provider to develop a personalized treatment plan weighing the risks and benefits of available treatment options. Some medications taken during pregnancy may be linked to birth defects, but antidepressants are generally considered safe for use during pregnancy. [28,29,30,31,32,33]

Psychotherapy

Psychotherapy involves the use of psychological techniques to treat mental disorders. Cognitive-behavioral therapy (CBT), psychoanalytic therapy, and interpersonal therapy are a few of the several types of psychotherapy. Psychotherapy aims to identify and modify negative patterns of behavior, thoughts, and emotions that contribute to mental disorders.

Guidelines for the practice of psychotherapy have been created by the American Psychological Association (APA). The guidelines emphasize the importance of evidence-based practice and the use of standardized assessments to monitor treatment progress. The guidelines also recommend that psychotherapists undergo regular training and supervision to maintain their skills and competence.

There are several different types of psychotherapy, each with its own approach and focus. Some of the most commonly used psychotherapies include:

Cognitive Behavioral Therapy (CBT)

CBT is a form of talk therapy that focuses on changing negative thoughts, beliefs, and behaviors that contribute to mental health issues. It is used to treat a variety of mental health issues, such as PTSD, anxiety, and depression. CBT was first developed in the 1960s and has been extensively researched since then.

Psychodynamic Therapy

Exploring unconscious thoughts and feelings that can be causing mental health problems is the main goal of psychodynamic therapy. This approach is often used to treat anxiety and depression, as well as personality disorders. Psychodynamic therapy has been in use since the late 19th century.

Interpersonal Therapy (IPT)

IPT is a brief form of treatment that aims to enhance communication and interpersonal skills. It is used to treat depression and has been proven successful in reducing social anxiety and dealing with grief. IPT was developed in the 1970s and has since undergone extensive research.

Dialectical Behavioral Therapy (DBT)

DBT is a form of CBT that is specifically used to treat borderline personality disorder (BPD). It focuses on improving emotional regulation, mindfulness, and interpersonal skills. DBT was developed in the 1980s and has been extensively researched since then.

Eye Movement Desensitization and Reprocessing (EMDR)

EMDR is a therapy approach that involves using eye movements and other types of bilateral stimulation to help process traumatic memories. It is often used to treat PTSD and has been found to be effective in managing anxiety and depression. EMDR was developed in the late 1980s and has been extensively researched since then.

Brief Eclectic Psychotherapy (BEP)

BEP is a type of psychotherapy that combines elements of cognitive-behavioral therapy with a psychodynamic approach to treat post-traumatic stress disorder. The contact between the patient and therapist is emphasised in BEP, which seeks to alter unpleasant thoughts and feelings connected to the traumatic incident.

Treatment consists of 16 individual sessions, scheduled once per week, each with a specific objective. BEP is conditionally recommended for the treatment of PTSD in individuals who have experienced a single traumatic event.

In addition to these psychotherapy approaches, there are also several different types of mental health professionals who can provide these services. They will be addressed more in depth in the next chapter: :

- Psychiatrists - Medical doctors who specialize in the diagnosis and treatment of mental health conditions. They can prescribe medication and provide therapy.

- Psychologists - Licensed mental health professionals who provide talk therapy and other forms of psychotherapy. They cannot prescribe medication.

- Licensed Clinical Social Workers (LCSWs) - Licensed professionals who provide therapy and counseling services. They may work in hospitals, clinics, or private practice.

- Licensed Marriage and Family Therapists (LMFTs) - Licensed professionals who provide therapy to individuals, couples, and families. [34, 35, 36, 37, 38, 39]

To a great degree, mental disorders can be treated through pharmacotherapy, which involves the use of medications such as antidepressants, antipsychotics, anxiolytics, and mood stabilizers and psychotherapy which involves the use of psychological techniques and interventions to help individuals with mental disorders improve their symptoms and overall quality of life.

Conclusion to Chapter II

In summary, mental disorders affect a significant proportion of the global population, with prevalence varying across countries and age groups. Effective prevention and treatment options exist, but access to care is limited, particularly in low-income regions. State policies are crucial for ensuring accessible and effective mental health services, as inadequate investment in mental health is a significant issue. Treatment options include pharmacotherapy and psychotherapy, with evidence-based guidelines developed to ensure safe and effective use of psychotropic medications in the treatment of mental disorders.

CHAPTER III.
ANALYSIS OF COSTS FOR THE MENTAL HEALTH SERVICES

3.1 Study of subjects of mental health services

The study of subjects of mental health services refers to the investigation and analysis of individuals and entities involved in providing and receiving mental health care services. This includes public authorities, mental health centers, hospitals, doctors, psychologists, and other healthcare professionals. It also includes patients, their families, and caregivers.

One of the main goals of studying subjects of mental health services is to identify the strengths and weaknesses of the current mental health care system. By understanding the perspectives and experiences of both providers and consumers of mental health services, researchers and policymakers can make informed decisions about how to improve the quality of care and accessibility to mental health services.

A study made by the World Psychiatry Journal [40] discusses the challenge of engaging individuals with serious mental illness in ongoing treatment and the negative consequences of poor engagement. The concept of recovery-oriented care is introduced as a helpful framework to view tools and techniques for enhancing treatment engagement. Person-centered care and shared decision making are identified as promising approaches that prioritize the individual's unique goals and life circumstances. The paper also draws attention to groups that have previously been challenging to reach, including homeless people, young adults with first-episode psychosis, and people who simultaneously suffer from psychotic and substance use disorders. Various evidence-based, recovery-oriented treatment techniques are reviewed, including the use of electronics and the internet, involvement of peer providers, and incorporation of the Cultural Formulation Interview to provide culturally competent, person-centered care. The research also discusses the complexities of engagement and suggests that optimizing recovery-

oriented skills and attitudes is essential for delivering services to those with serious mental illness.

Indeed, there are two approaches to mental health care that can enhance engagement: the therapeutic alliance and person-centered care. The therapeutic alliance involves the development of good relationships between providers and recipients, which is a predictor of successful outcomes in psychotherapy. The quality of the alliance can be enhanced by the clinician's recovery orientation, lower self-stigma, and higher levels of insight. On the other hand, person-centered care tailors the treatment plan to respect the unique preferences, strengths, vulnerabilities, culture, and spirituality of each whole person. It incorporates an individual's own culture, background, and immediate goals into treatment planning, which may enhance engagement. Shared decision-making is one approach to providing person-centered care, which involves a collaborative, dynamic, interactive process between physician and patient. In this model, a decision about the course of treatment is reached after an informational exchange between the doctor and patient. Studies suggest that shared decision making can improve engagement in care by involving the participant's goals, desires, and life situation in the decision-making process.

There are many individuals and institutions that may need mental healthcare services at some point in their lives:

- *Individuals with mental illness*: People who have been diagnosed with a mental illness, such as depression, anxiety, bipolar disorder, or schizophrenia, may need mental healthcare services to manage their symptoms and improve their quality of life.

- *Individuals with substance use disorders*: People who struggle with substance abuse or addiction may need mental healthcare services to address the underlying psychological issues that contribute to their addiction.

- *Individuals who have experienced trauma*: People who have experienced trauma, such as physical or sexual abuse, domestic violence, or a natural disaster, may need mental healthcare services to help them process their experiences and manage symptoms of PTSD.

- *Individuals who are experiencing stress or life changes*: People who are experiencing stress or significant life changes, such as a such as a separation, a job loss, or the death of a close relative, may need mental healthcare services to help them cope with these challenges.

- *Children and adolescents*: Children and adolescents may need mental healthcare services to address a wide range of issues, such as behavioral problems, developmental disorders, and learning disabilities.

- *Elderly individuals*: Elderly individuals may need mental healthcare services to address age-related mental health issues, such as dementia or depression.

- *Healthcare workers*: Healthcare workers, including doctors, nurses, and other healthcare professionals, may need mental healthcare services to manage stress, burnout, and other mental health challenges that can arise from working in a demanding and high-pressure environment.

- *Institutions*: Institutions, such as schools, universities, workplaces, and correctional facilities, may need mental healthcare services to provide support and treatment to individuals who are struggling with mental health issues. This can include counseling services, support groups, and other resources to promote mental health and well-being.

As mentioned above, there are several types of individuals who are mental health care providers that cater to those in need:

- *Psychiatrists*: psychiatrists are medical professionals who specialize in mental health and help diagnose and treat individuals with mental illnesses such as depression, schizophrenia, eating disorders, and addiction. They assess mental and physical symptoms, develop management plans, and provide treatments such as psychological therapy, medication, and brain stimulation therapies. Psychiatrists also offer practical advice on lifestyle changes to promote better mental health. They can help with complex or difficult diagnoses, severe conditions, suicidal thoughts, and medication needs that require a psychiatrist's prescription. People can see a psychiatrist for various reasons, including anxiety, depression, addiction, memory problems, and autism.

Psychiatrists provide information about the recommended treatments' safety and efficacy, side effects, and risks, and the decision to agree to the treatment is ultimately up to the individual [41]

- *Psychologists*: Psychologists are professionals with doctoral degrees who specialize in the assessment and treatment of mental illness and behavioral disorders. They provide psychotherapy and other forms of talk therapy. A clinical psychologist is a specialized mental health professional who provides comprehensive mental and behavioral healthcare for individuals and families in various settings such as schools, hospitals, clinics, counseling centers, and community organizations. Unlike a psychiatrist who can diagnose and treat mental health conditions with medications and other medical treatments, a psychologist generally cannot prescribe medication, but licensed psychologists with additional specialized training in some states in the US can prescribe a limited list of medications to treat certain mental health conditions [42].

- *Licensed Clinical Social Workers (LCSWs)*: These are professionals with master's degrees in social work who provide counseling and support for individuals and families dealing with mental health issues. LCSWs provide treatment to clients with mental and emotional issues that affect their daily lives by listening to their needs and providing support and resources to cope with those issues. They can diagnose and treat their clients' issues, but cannot prescribe medication. LCSWs can work in various settings, including schools, community centers, hospitals, and more. [43]

- *Marriage and Family Therapists (MFTs)*: In the context of marriage, couples, and family systems, MFTs are mental health specialists with training in the diagnosis and treatment of mental and emotional illnesses. They assess and treat mental and emotional diseases, as well as other health and behavioral concerns, and they deal with difficulties with relationships within the framework of the family system. They possess a typical median of 13 years of clinical experience. MFTs approach healthcare from a holistic standpoint and are interested in the long-term, general wellbeing of people and their

families. They have at least a couple of years of clinical experience and a graduate degree in marriage and family therapy. Marriage and family therapy is consistently shown to be beneficial in treating the complete spectrum of mental and emotional disorders as well as medical issues. Drug misuse in adolescents, depressive disorders, substance abuse, obesity, dementia in the elderly, and marital conflict are just a few of the diseases that MFTs treat. Clients are highly satisfied with services of MFTs, and after receiving treatment, almost 90% of clients report an improvement in their emotional health. [44]

- *Psychiatric mental health nurses (PMHNs)*: PMHNs help people with mental health or behavioral conditions by improving their physical and mental well-being. They may also assist the people close to them, such as family members or romantic partners. PMHNs assess mental health needs, develop nursing plans of care, implement these plans, and evaluate their effectiveness over time. They work in a variety of healthcare settings with other healthcare professionals, including general and psychiatric hospitals that offer inpatient and outpatient care, physician offices, and community mental health facilities. The majority of the population is served by PMHNs, including kids, teens, adults, seniors, those with substance use disorders, and those with eating disorders. They cannot treat any condition specifically but work with other healthcare professionals to design plans of care to help people.

- *Peer support specialists*: a peer support specialist is an individual who has firsthand experience dealing with mental health, substance use, or psychological trauma and has been trained to provide support to others facing similar challenges. They help individuals with their recovery by providing emotional support, assisting them in setting goals, monitoring progress, and advocating for effective services. [45]

There are also many institutions who provide mental health care services [46]

- *Hospitals*: Hospitals with psychiatric units provide inpatient treatment for individuals with severe mental health conditions. These units typically have

mental health professionals available 24/7 to provide treatment and support for patients. In addition to providing medication management, psychiatric hospitals may also offer various forms of therapy, such as individual, group, and family therapy.

- *Community Mental Health Centers*: Community mental health centers are community-based organizations that offer a range of mental health services. These centers typically offer counseling, therapy, medication management, and case management services for individuals with mental health disorders. Many community mental health centers offer sliding-scale fees or accept Medicaid or other forms of insurance, making them more accessible to individuals who may not have the financial means to pay for mental health services.

- *Private Practices*: Mental health care providers such as psychiatrists, psychologists, and therapists may have their private practices where they offer counseling, therapy, and other forms of treatment. Private practices offer a more personalized and private treatment experience, which can be beneficial for individuals who prefer more individualized attention.

- *Non-Profit Organizations*: Non-profit organizations offer a variety of mental health services and resources, such as crisis hotlines, support groups, and educational programs. Many non-profit organizations offer free or low-cost mental health services, making them more accessible to individuals who may not have the financial means to pay for mental health services.

- *Employee Assistance Programs (EAPs)*: EAPs are often offered by employers and provide counseling and support services for employees who are dealing with mental health issues. EAPs typically offer short-term counseling, crisis management, and referrals to mental health professionals, as well as other resources and support services.

- *Schools and Universities*: Many schools and universities have counseling centers that offer mental health services to students. These services could include counselling on an individual or in a group, crisis intervention, and

educational initiatives. School and university counseling centers can be a valuable resource for students who may be experiencing mental health issues related to academic stress, social pressures, or other factors.

The study of mental health services involves analyzing the individuals and entities involved in providing and receiving mental health care services, including patients, their families, and caregivers. The goal is to identify the strengths and weaknesses of the current mental health care system, enabling informed decisions to improve the quality of care and accessibility to mental health services. Recovery-oriented care, person-centered care, and shared decision-making are identified as promising approaches to enhance engagement in care. There are several types of individuals who are mental health care providers that cater to those in need, including psychiatrists and psychologists. Various populations may need mental healthcare services, including those with mental illness, substance use disorders, trauma, stress or life changes, children and adolescents, elderly individuals, healthcare workers, and institutions.

3.2 The current state of the market of medication for mental health support and their availability

The current state of the medication market for mental health support is complex and dynamic. There are numerous medications available for different mental health conditions, including anxiety, depression, bipolar disorder, schizophrenia, and more. These medications work by altering brain chemistry to improve symptoms and restore mental health. While many of these medications have been available for decades, there are also newer drugs that have been developed in recent years.

According to a report by the NIMH the use of medication for mental health conditions has been on the rise in recent years. The report states that in 2019, an estimated 19.4 million adults in the United States used prescription medication to

treat a mental illness. This is a significant increase from the 17.3 million adults who used medication in 2016.

One of the main reasons for the increase in the use of medication for mental health conditions is the increasing prevalence of mental illness in the population.

According to the NIMH, approximately one in five adults in the United States experienced a mental illness in 2019. This includes conditions such as, bipolar disorder, anxiety and depression among others.

Another reason for the increase in the use of medication is the growing awareness and destigmatization of mental health issues. As people become more comfortable seeking help for mental health conditions, they are more likely to receive a diagnosis and be prescribed medication if necessary. [47]

As was stated earlier, there is a wide variety of medications available for mental health conditions, and each medication works differently. For instance, antidepressants are frequently used to treat anxiety and depressive problems. Serotonin and norepinephrine (which are chemicals that regulate mood levels in the brain) are raised by these medications,. Examples of commonly prescribed antidepressants include Prozac, Zoloft, and Lexapro.

Antipsychotics, on the other hand, are often used to treat conditions such as schizophrenia and bipolar disorder. These drugs work by blocking dopamine receptors in the brain, which can help reduce hallucinations and delusions. Examples of commonly prescribed antipsychotics include Abilify, Risperdal, and Zyprexa.

Other medications commonly prescribed for mental health conditions include mood stabilizers, which are used to treat bipolar disorder and other conditions characterized by mood swings. Examples of mood stabilizers include Lithium, Depakote, and Lamictal. Anxiolytics, which are used to treat anxiety disorders, include drugs such as Xanax, Valium, and Ativan.

While there are many different medications available for mental health conditions, not all of these medications are equally effective or safe. In addition, some medications may be more appropriate for certain individuals than others, depending on their specific symptoms and medical history. Therefore, it is important

for individuals to work closely with their healthcare provider to determine the most appropriate medication for their needs.

In addition to the availability of different medications, several additional factors can also have an impact access to mental health medication. One major factor is insurance coverage. While many insurance plans do cover mental health medications, the extent of coverage may vary depending on the plan and the specific medication being prescribed. This can make it difficult for some individuals to afford the medication they need.

Another factor that can affect access to mental health medication is stigma. Despite growing awareness and destigmatization efforts, the stigma associated with mental health problems is still quite strong. This can lead to reluctance to seek help, as well as discrimination in healthcare settings.

The mental health market is divided into three segments that are based on the disorders being treated: depressive disorders, anxiety and related sleeping disorders, and different types of psychotic disorders. The market is projected to reach a revenue of $20.09 billion in 2023 with an annual growth rate of 1.37% (Fig 3.1). The top companies in the market include Pfizer, Bristol-Myers Squibb, Johnson & Johnson, AbbVie, and Sumitomo Pharma. Anxiolytics, antidepressants, and antipsychotic medications can be found on the market, however therapies for eating disorders, disorders associated with traumatic events, substance misuse, and other conditions are outside the purview of these therapies. The United States is expected to generate the most revenue in the market, with per-person revenues of $264.00 in 2023. The revenue projection is based on retail prices for each drug category, including all drugs, regardless of whether they are reimbursed or not (Fig 3.2) [48].
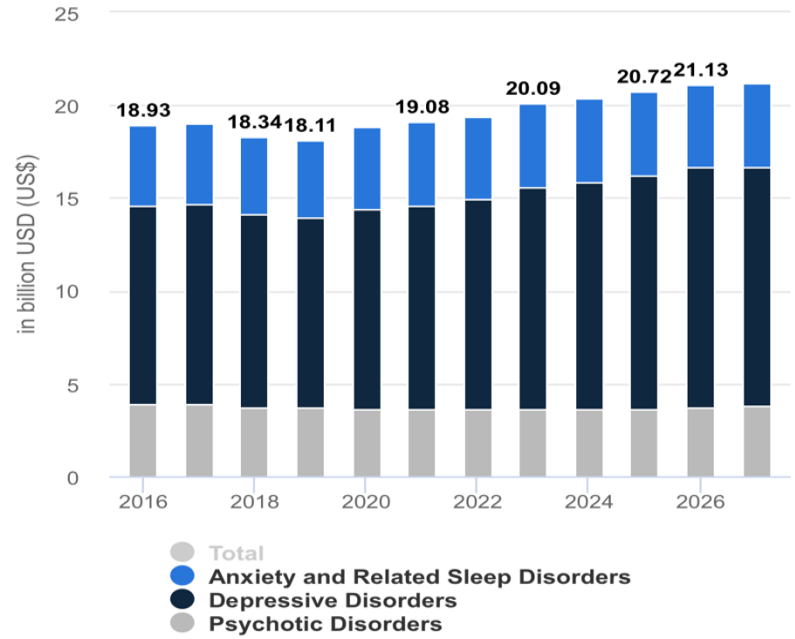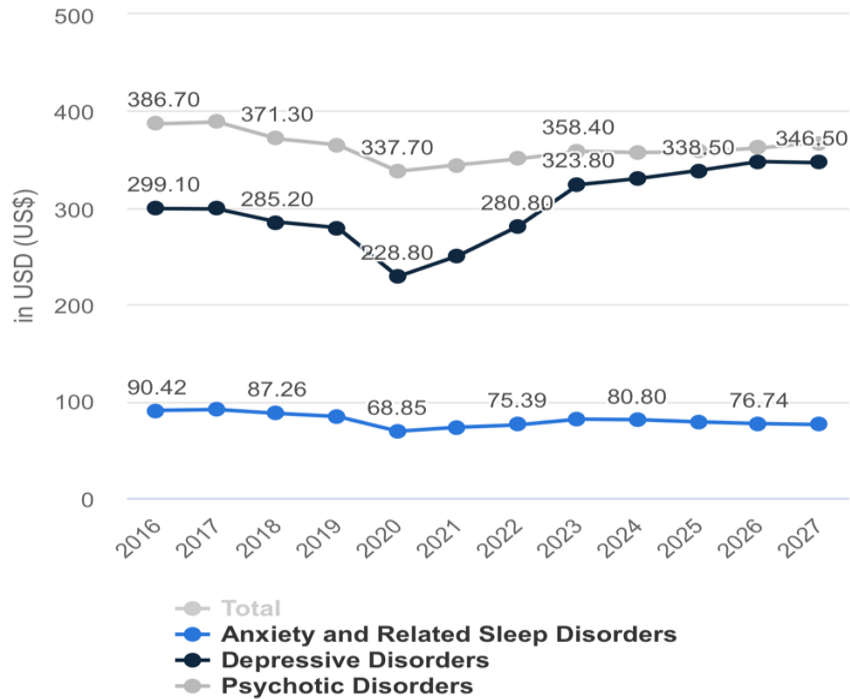
Fig. 3.1 Worldwide revenue by segment

Fig. 3.2 Worldwide average revenue per user segment

According to a report by Grand View Research, the global market for mental health medications was valued at $93.3 billion in 2020 and is projected to grow at a compound annual growth rate (CAGR) of 4.6% to reach $135.2 billion by 2028.

Antidepressants are one of the largest categories of mental health medications, accounting for over 50% of the market share. [48]

According to a report by IQVIA [49], a leading healthcare research firm, antidepressants were the second most commonly prescribed class of medication in the United States in 2020, with over 177 million prescriptions filled. The market for antidepressants is expected to continue to grow, driven by the increasing prevalence of depression and other mood disorders.

Antipsychotics are another important category of mental health medications, used primarily to treat schizophrenia and other psychotic disorders. The market for antipsychotics is expected to grow at a CAGR of 4% from 2021 to 2028, driven by the increasing prevalence of schizophrenia and other psychotic disorders, as well as the development of new and improved antipsychotic medications.

Anti-anxiety drugs called anxiolytics are used to treat anxiety disorders like panic disorder and generalized anxiety disorder. The market for anxiolytics is expected to grow at a CAGR of 5.2% from 2021 to 2028, driven by the increasing prevalence of anxiety disorders and the availability of new and improved anxiolytic medications.

Mood stabilizers, which are primarily used to treat bipolar disorder, are another important category of mental health medications. The market for mood stabilizers is expected to grow at a CAGR of 3.7% from 2021 to 2028, driven by the increasing prevalence of bipolar disorder and the development of new and improved mood stabilizer medications.

The report mentioned above [48] also delves deeper into the world of technology and states that The COVID-19 pandemic has led to a significant increase in downloads of mental health apps, with the mental health app market increasing by 54.6% between 2019 and 2021. The pandemic has also led to an increase in awareness of mental health as a serious problem, resulting in a growth opportunity for the digital health and mobile health space. The market is expected to grow at a rate of approximately 20-22% in the next five years.

Mental health apps have benefits in managing stress, depression, and anxiety, and there has been a surge in their adoption during the pandemic.

Stress-related apps are projected to grow in popularity, especially among working professionals. Market expansion is anticipated to be fueled by funding possibilities and strategic agreements between various companies. The transition from conventional care models to patient-centric and personalised care supports the uptake of mental health apps.

The effectiveness of mental health apps has been proven by research, with a 2019 study showing positive results in stress reduction. Increasing smartphone and internet penetration are expected to drive market growth, with the number of mobile subscriptions and worldwide internet penetration projected to increase in the near future. The COVID-19 pandemic has increased the adoption of mental health apps across the globe, with downloads of leading mental health and wellness apps in the U.S. increasing by 17.6% between January and April 2020.

The global mental health mobile applications market is divided based on region, application type and platform type. The iOS segment dominated the market with a revenue share of over 49.5% in 2022, while the Android segment is expected to grow at the fastest rate over the forecast period due to the rising usage rate of Android-based smartphones (Fig 3.3). Stress management is anticipated to increase at the quickest rate during the forecast period, while the depression and anxiety management category held the majority of the market with a revenue share of over 29.8%. With a revenue share of over 37.4% in 2022, North America held the majority of the market, while the Asia Pacific region is anticipated to rise rapidly during the forecast period (Fig 3.4). Among the leading companies in the industry are Headspace, Calm, Sanvello Health, Flow and Youper.
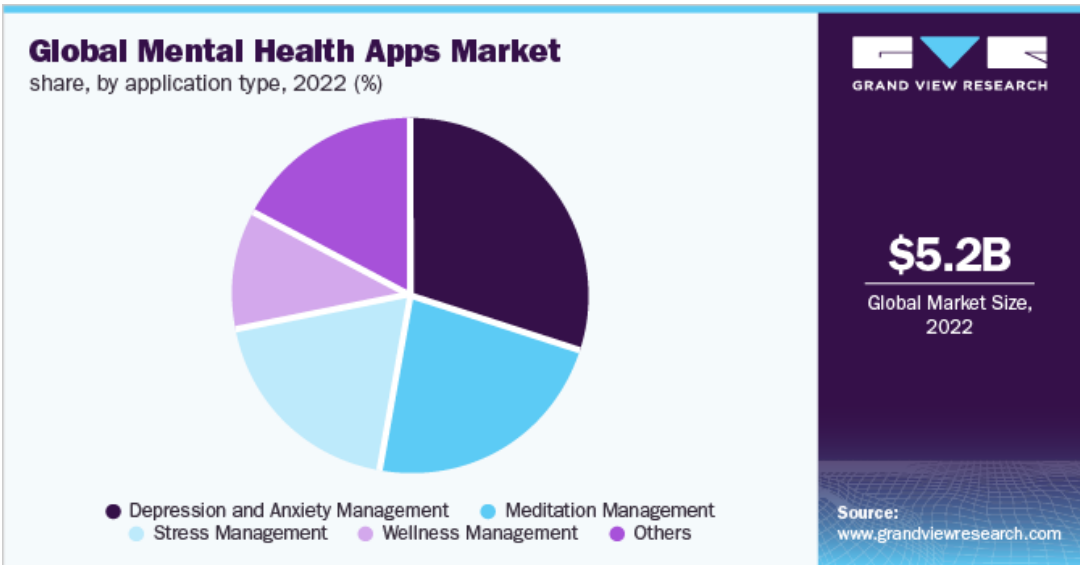
Fig. 3.3 Global mental health apps market share, by application type, 2022
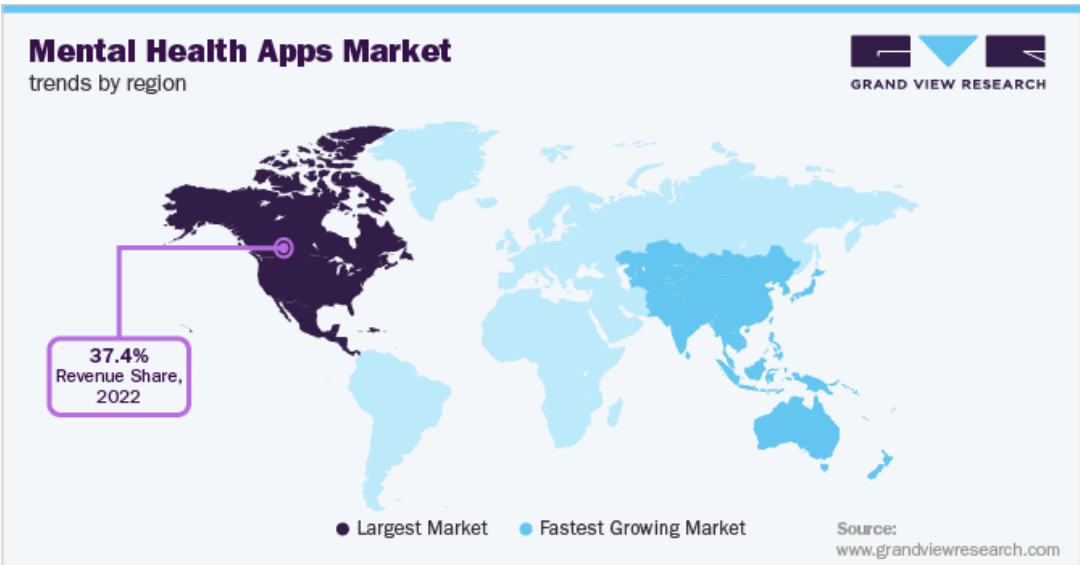

Fig. 3.4 Mental health apps market, trends by region

The medication market for mental health support is complex and dynamic with numerous medications available for different mental health conditions, and its use has been increasing due to the rising prevalence of mental illness and growing awareness of mental health issues. Antidepressants are the largest category of mental health medications with antipsychotics and anxiolytics following closely. The market for all three is expected to continue growing. Furthermore, the global mental health apps market is experiencing significant growth and is segmented by platform

type, application type, and region. The market is highly competitive, with prominent players like Headspace, Calm, Sanvello Health, Flow and Youper.

3.3 Analysis of cost of mental health services

Mental health is a crucial aspect of overall well-being, and access to affordable mental health care is essential for individuals to maintain good mental health. However, the cost of mental health services can vary greatly depending on the country and the type of service.

Examining the costs of mental health services in different countries, helps gaining a better understanding of the barriers that individuals may face when seeking mental health care and the ways in which different healthcare systems address these challenges. This information can help policymakers, healthcare providers, and individuals make more informed decisions about mental health care and advocate for policies that ensure access to affordable, high-quality mental health services for all.

The cost of mental health services varies depending on the country, the type of service, and the level of care required. Some of the countries are studied here to analyze the cost and differences between them:

In the United States, mental health services are often covered by private health insurance or Medicaid/Medicare. However, the cost of mental health services remains a significant concern for many individuals, particularly those who do not have adequate health insurance. According to a report by the NAMI, the average cost of outpatient mental health services in the US ranges from $60 to $200 per hour, while the cost of inpatient psychiatric hospitalization can range from $1,000 to $2,000 per day.

Treatment expenditures for mental health issues are partially covered by the federalgovernment. In 2020, $280 billion was spent on mental health care, with the U.S. Medicaid programme accounting for nearly 25% of the total [50].

In Canada, mental health services are covered by the publicly funded healthcare system. However, there can still be significant out-of-pocket costs for individuals who

require additional services, such as psychotherapy or medication. According to a 2018 study by the Mental Health Commission of Canada, the average annual cost of mental health services per person in Canada is $1,151. The study also found that mental health disorders cost the Canadian economy an estimated $51 billion annually in lost productivity, healthcare costs, and criminal justice expenses [51].

In the United Kingdom, mental health services are provided by the NHS. The cost of mental health services in the UK varies depending on the type of service and the level of care required. According to a report by the NHS Confederation, the average cost of an outpatient appointment with a mental health professional is £78, while the cost of a day in a mental health unit can range from £200 to £500. Despite the availability of mental health services through the NHS, access to affordable mental health care remains a challenge for many individuals in the UK.

Mental health problems cost the UK economy at least £117.9 billion annually, which is equivalent to 5% of the UK's GDP. The report shows that lost productivity of individuals with mental health conditions and costs incurred by unpaid carers make up almost three-quarters (72%) of the cost. [52]

In Australia, mental health services are funded by a combination of public and private healthcare systems. According to a report by the Australian Institute of Health and Welfare, the total expenditure on mental health services in Australia was $9.9 billion in 2018-19, with the majority of this funding coming from the government. The cost of mental health services in Australia varies depending on the type of service and the level of care required. The report found that hospital-based mental health services accounted for 60% of total mental health expenditure in Australia, with community-based services accounting for the remaining 40%. [53]

In India, mental health services are often not covered by health insurance, making them unaffordable for many individuals. According to a report by the Indian Express, the cost of treatment for mental health disorders in India can range from a few hundred rupees to several thousand rupees per session, depending on the type of service and the location.

The WHO has estimated that in India, mental health problems account for 2443 DALYs per 100,000 people, and the age-adjusted suicide rate is 21.1 per 100,000 people. The economic cost of mental health conditions in India is estimated to be USD 1.03 trillion between 2012-2030. [54]

In Japan, mental health services are provided by the national health insurance system, and the cost varies depending on the type of service and the location. Some services, such as those provided by mental health clinics and hospitals, are covered by health insurance, while others, such as private therapists, may not be. According to a report by the Japan Times, the cost of a therapy session with a private therapist in Japan can range from ¥10,000 to ¥30,000 per session. In Japan, depression had an estimated economic cost of $11 billion, of which $1,570 billion was spent on direct medical expenses, $2,542 billion on suicide-related expenses, and $6,912 billion on workplace expenses [55].

In Brazil, mental health services are provided by the Unified Health System (SUS), which offers free treatment to individuals. However, due to long waiting lists and limited resources, many individuals may choose to pay for private mental health services. According to a report by the Brazilian Institute of Geography and Statistics, the average cost of a therapy session with a psychologist in Brazil is around R$130.

The report also states that the cost of depression was Int$ 2,288,511,607.39 in the period between 2010-2018, with an average annual cost of Int$ 254,279,067.49. The cost of depression had a significant and continuous decrease of 44.24% between 2014 to 2018, primarily due to a decrease in indirect costs by 55.83%. Indirect costs accounted for the majority of the total cost (74.85%) during the investigation period. Outpatient costs surpassed hospital costs over time, representing 43.22% and 39.57% of total costs in 2017 and 2018, respectively. Women were the predominant group in all the years and cost components analyzed. [56]

In Germany, mental health services are covered by statutory health insurance, and the cost varies depending on the type of service and the location. Some services, such as those provided by psychotherapists and psychiatrists, are covered by health insurance, while others, such as private therapists, may not be. According to a report

by the Federal Statistical Office of Germany, the average cost of a therapy session with a psychotherapist in Germany is around 90€.

The costs of illnesses and health problems in 2020 amounted to 431.8 billion euros. This represents a 28% increase compared to 2015. The average per capita costs increased by 25% to 5,190 euros over the same period. In 2020, women had about 1,000 euros higher costs than men, with a total of 5,690 euros. However, over time, the per capita costs for men and women have become more equal. Women's per capita costs were 38% more in 2002 than men's were, but they were only higher by 21% in 2020. [57]

In South Africa, mental health services are provided by the public health system and private healthcare providers. Public healthcare is free for individuals who cannot afford private healthcare, but the quality of care may be limited. According to a report by the South African Depression and Anxiety Group, the cost of a therapy session with a private therapist in South Africa can range from R450 to R1,500 per session.

The public mental health expenditure for the 2016-2017 financial year was 5% of the total public health budget, which amounted to USD615.3 million. 86% of the money spent on mental healthcare was for inpatient care, with psychiatric hospitals accounting for nearly half of the total. Within three months of being discharged from the hospital, nearly 25% of mental health inpatients were readmitted, costing the public health system approximately USD112 million. Additionally, during the study period, a very small proportion of the uninsured population received public inpatient and outpatient mental healthcare. [58]

In France, mental health services are covered by the national health insurance system, and the cost varies depending on the type of service and the location. Some services, such as those provided by psychiatrists and psychologists, are covered by health insurance, while others, such as private therapists, may not be. According to a report by the French Health Insurance, the cost of a therapy session with a licensed psychotherapist in France is around 60€.

The total cost of mental disorders in France was estimated to be €163 billion in 2018. The cost included medical, social, indirect, and loss of quality of life, with loss of quality of life representing the highest proportion of the cost. The total cost increased by 50% compared to the 2007 study due to the increase in indirect costs. The cost considered the expenses, earnings forgone, and DALYs lost. [59]

In Ukraine, mental health services are provided by both public and private healthcare providers. The cost of mental health services may vary depending on the type of service and the location. According to a report by the Ukrainian Psychiatric Association, the cost of a therapy session with a private therapist in Ukraine can range from UAH 500 to UAH 1500 per session.

In 2020, Ukraine spent UAH 114 billion on healthcare. Mental health is allocated roughly 2.5% of total healthcare spending, or $5 per person. The National Health Service of Ukraine reports that UAH 3.6 billion was spent in 2018 to fund 95 specialised hospitals for mental care. [60]

In China, mental health services are provided by both public and private healthcare providers. Public healthcare is subsidized by the government, making it affordable for many individuals. Private healthcare providers may charge higher fees, depending on the location and the type of service. According to a report by the China Daily, the cost of a therapy session with a private therapist in China can range from ¥100 to ¥600 per session.

The annual costs of mental disorders in China for individual patients increased from $1,094.8 in 2005 to $3,665.4 in 2013, while for the whole society, the costs increased from $21.0 billion to $88.8 billion. In 2013, the overall expense of mental illnesses represented almost 15% of China's health spending and 1.1% of its GDP [61].

In Morocco, mental health services are provided by both public and private healthcare providers. Public healthcare is generally affordable but may be limited in quality, while private healthcare providers may charge higher fees depending on the location and the type of service. According to a report by the Moroccan Ministry of Health, the cost of a therapy session with a private therapist in Morocco can range from MAD 250 to MAD 500 per session.

The total health expenditure per capita in Morocco increased slightly from $181 in 2012 to $189 in 2013, while the percentage of GDP spent on health remained at 6% during the same period. However, the out-of-pocket health expenditure in 2013 was still high at 58.4%, largely due to the cost of medicines. [62]

Globally, it is estimated that mental disorders were responsible for 418 millions DALYs in 2019, which is around 16% of global DALYs, and it represents a three-fold increase compared to previous estimates. The economic cost related to this burden is approximately USD 5 trillion, and this loss could account for between 4% to 8% of gross domestic product in different regions around the world. The global economy suffers a loss of $1 trillion annually due to lost productivity caused by anxiety and depression, two of the most common mental disorders. Overall, poor mental health results in approximately $2.5 trillion in costs to the world economy annually in the form of poor health and reduced productivity, with projections showing this cost increasing to $6 trillion by 2030. [63]

The cost of mental health services varies greatly depending on the country and the type of service. The analysis of the cost of mental health services in different countries helps to understand the barriers that individuals may face when seeking mental health care and the ways in which different healthcare systems address these challenges. This information can help policymakers, healthcare providers, and individuals make more informed decisions about mental health care and advocate for policies that ensure access to affordable, high-quality mental health services for all. Despite the availability of mental health services, access to affordable mental health care remains a challenge for many individuals globally, which can lead to adverse economic and social consequences.

Conclusion to chapter III

Mental health services are essential to the well-being of both individuals and society as a whole. By analyzing the strengths and weaknesses of the current mental health care system, informed decisions can be made to improve the quality and accessibility of mental health services. Recovery-oriented care, person-centered care, and shared decision-making are promising approaches to enhance engagement in care. The medication market for mental health support is dynamic and expected to continue growing. Additionally, the cost of mental health services varies greatly, and access to affordable mental health care remains a challenge for many individuals globally, leading to adverse economic and social consequences. It is important for policymakers, healthcare providers, and individuals to advocate for policies that ensure access to affordable, high-quality mental health services for all.

GENERAL CONCLUSIONS

1.   The topic of mental health care services is of significant importance, and the analysis presented in this thesis has shed light on several key issues. Mental disorders are complex, and their impact extends beyond individuals to families, communities, and society at large.

2.   Unfortunately, despite the critical importance of mental health care services, access to effective care remains limited for many individuals worldwide due to several barriers, including a lack of funding, resources, and trained personnel for mental health services.

3.   The analysis presented in this thesis suggests that mental health organizations play a vital role in providing necessary care and support, reducing stigma, and increasing awareness of mental health issues. However, civil society movements for mental health in low-income and middle-income countries are not well developed, and there is a need to redirect funding towards community-based services and integrate mental health into general health care settings. Achieving comprehensive care, preventing mental disorders, and promoting mental well-being will require strong leadership, enhanced partnerships, and a commitment of resources towards implementation.

4.   The thesis has also highlighted effective treatment options that exist, such as pharmacotherapy and psychotherapy, with evidence-based guidelines developed to ensure safe and effective use of psychotropic medications in the treatment of mental disorders. Additionally, recovery-oriented care, person-centered care, and shared decision-making are promising approaches to enhance engagement in care. The medication market for mental health support is dynamic and expected to continue growing, and it is important for policymakers, healthcare providers, and individuals to advocate for policies that ensure access to affordable, high-quality mental health services for all.

5.   Overall, this thesis has provided a comprehensive analysis of the current state of mental health care services. It has highlighted several key issues that

need to be addressed, including a lack of funding, resources, and trained personnel for mental health services, and limited access to effective care due to several barriers. However, the analysis has also suggested several promising approaches to enhance engagement in care, such as recovery-oriented care, person-centered care, and shared decision-making.

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ANNEX

MINISTRY OF HEALTH OF UKRAINE
NATIONAL UNIVERSITY OF PHARMACY
DEPARTMENT OF SOCIAL PHARMACY

VIII INTERNATIONAL SCIENTIFIC AND PRACTICAL DISTANCE CONFERENCE "SOCIAL PHARMACY: STATE, PROBLEMS AND PROSPECTS"

CERTIFICATE OF PARTICIPATION №213

Tarifi Amina

participated in the roundtable
"Current issues of social pharmacy"
according to the program of 7 hours / 0.2 ECTS credits

Achieved learning outcomes:
the use in professional activity of knowledge of the basic principles of the concept of social pharmacy as a component of the effective sphere of health care, as well as the peculiarities of the regulatory and legal regulation of pharmaceutical provision of the population

Acting rector of the National University of Pharmacy, Doctor of Pharmaceutical Sciences, Professor, Honored Worker of Science and Technology of Ukraine — **Alla KOTVITSKA**

Vice-Rector for scientific and pedagogical work, Doctor of Pharmaceutical Sciences, professor — **Inna VLADYMYROVA**

Head of the department of Social Pharmacy, Candidate of Pharmaceutical Sciences, Associate Professor — **Alina VOLKOVA**

Kharkiv,
April 27, 2023

Ф А 2.2.1–32-366

National University of Pharmacy

Faculty for foreign citizens' education
Department of social pharmacy

Level of higher education master

Specialty 226 Pharmacy, industrial pharmacy
Educational program Pharmacy

<div align="right">

APPROVED
The Head of Department
of Social Pharmacy

_____
Alina VOLKOVA
"28" of September 2022

</div>

ASSIGNMENT
FOR QUALIFICATION WORK
OF AN APPLICANT FOR HIGHER EDUCATION

Amina TARIFI

1. Topic of qualification work: «Research of the current state of mental health care services», supervisor of qualification work: Iryna SURIKOVA, PhD,

approved by order of NUPh from "06th" of February 2022 № 35

2. Deadline for submission of qualification work by the applicant for higher education: April 2023.

3. Outgoing data for qualification work: data from scientific and periodical literature in accordance with research objectives; reports of international organizations, statistical data.

4. Contents of the settlement and explanatory note (list of questions that need to be developed): to conduct a review of literary sources on mental health issues; to study the concepts of mental health and mental disorders and the importance of mental health care organization; to investigate the current state of organization of mental health care services in different countries of the world and in Ukraine; to analyze the prevalence of mental disorders in the world; to investigate of state policy on the prevention and treatment of mental disorders; to study of approaches to the treatment of mental disorders in accordance with international guidelines; to analyse The current state of the market of medication for mental health support and their availability; to analyse of cost of mental health services.

5. List of graphic material (with exact indication of the required drawings):
Tables – 3, figures – 7

6. Consultants of chapters of qualification work

Chapters	Name, SURNAME, position of consultant	Signature, date	
		assignment was issued	assignment was received
1	Iryna SURIKOVA, assistant professor of higher education institution of department Social Pharmacy	30.09.2022	30.09.2022
2	Iryna SURIKOVA, assistant professor of higher education institution of department Social Pharmacy	15.11.2022	15.11.2022
3	Iryna SURIKOVA, assistant professor of higher education institution of department Social Pharmacy Alina VOLKOVA, head of the department of social pharmacy, associate professor	23.12.2022	23.12.2022

7. Date of issue of the assignment: «28» of September 2022.

CALENDAR PLAN

№	Name of stages of qualification work	Deadline for the stages of qualification work	Notes
1	Analysis of scientific, periodic literature on the topic of qualification work	October 2022	**done**
2	Study of the current state of prevalence of mental disorders among the population and modern approaches to pharmacotherapy	November – December 2022	**done**
3	Analysis of costs for the mental health services	January-February 2023	**done**
4	Summary of the results of the study	March 2023	**done**
5	Finalizing the work, preparing the report	April 2023	**done**

An applicant of higher education   Amina TARIFI

Supervisor of qualification work   Iryna SURIKOVA

ВИТЯГ З НАКАЗУ № 35
По Національному фармацевтичному університету
від 06 лютого 2023 року

нижченаведеним студентам 5-го курсу 2022-2023 навчального року, навчання за освітнім ступенем «магістр», галузь знань 22 охорона здоров'я, спеціальності 226 – фармація, промислова фармація, освітня програма – фармація, денна форма здобуття освіти (термін навчання 4 роки 10 місяців та 3 роки 10 місяців), які навчаються за контрактом, затвердити теми кваліфікаційних робіт:

Прізвище студента	Тема кваліфікаційної роботи		Посада, прізвище та ініціали керівника	Рецензент кваліфікаційної роботи
• по кафедрі соціальної фармації				
Таріфі Аміна	Дослідження сучасного стану послуг з охорони психічного здоров'я	Research of the current state of mental health care services	асистент Сурікова І.О.	доцент Юрченко Г.М.

Підстава: подання декана, згода ректора

Ректор

Вірно. Секретар

ВИСНОВОК

Комісії з академічної доброчесності про проведену експертизу

щодо академічного плагіату у кваліфікаційній роботі

здобувача вищої освіти

№ 113291   від « 2 » травня   2023 р.

Проаналізувавши випускну кваліфікаційну роботу за магістерським рівнем здобувача вищої освіти денної форми навчання Таріфі Аміна, 5 курсу, _____ групи, спеціальності 226 Фармація, промислова фармація, на тему: «Дослідження сучасного стану послуг з охорони психічного здоров'я / Research of the current state of mental health care services», Комісія з академічної доброчесності дійшла висновку, що робота, представлена до Екзаменаційної комісії для захисту, виконана самостійно і не містить елементів академічного плагіату (компіляції).

Голова комісії,
професор   **Інна ВЛАДИМИРОВА**

0%
25%

REVIEW

of scientific supervisor for the qualification work of the master's level of higher education of the specialty 226 Pharmacy, industrial pharmacy
Amina TARIFI
on the topic: «RESEARCH OF THE CURRENT STATE OF MENTAL HEALTH CARE SERVICES»

Relevance of the topic. Since the beginning of the full-scale Russian invasion of Ukraine, almost every Ukrainian has experienced the inevitable impact of the war on psychological health. The psychological state of Ukrainians has been in an unstable state for half a year: shock, euphoria, aggression, apathy, and reconciliation constantly create so-called "emotional fluctuations."

Practical value of conclusions, recommendations and their validity. The practical significance of the obtained results lies in conducting a review of modern scientific and analytical literature on the organization of mental health services in Ukraine with a detailed study of the structure of mental health services and the level of availability of drugs to solve this problem.

Assessment of work. During the research the student showed a creative approach to the solution of the tasks, diligently conducted research work, summarized and presented the results properly, which indicates the awareness of the problem and the proper level of its development. The work is carried out at a sufficient scientific level.

General conclusion and recommendations on admission to defend. In general, the qualification work of Amina TARIFI on the topic «Research of the current state of mental health care services» is performed at the proper level, meets the requirements of the "Regulations on the preparation and protection of qualification works at the National University of Pharmacy" and can be recommended for defense in the Examination commission.

Scientific supervisor   Iryna SURIKOVA

«6th» of April 2023

REVIEW

for qualification work of the master's level of higher education, specialty 226 Pharmacy, industrial pharmacy

Amina TARIFI

on the topic: « RESEARCH OF THE CURRENT STATE OF MENTAL HEALTH CARE SERVICES»

Relevance of the topic. Approximately a quarter of the population experiences various emotional disorders during the year, most often anxiety and depression. Women seek help and treatment more often than men. Depression occurs in 1 in 5 adults, more often in women. Also, women are more prone to anxiety. Men are more likely to suffer from problems related to alcohol and drug use. It is estimated that one in four people in the world will experience a mental disorder during their lifetime. The prevalence of mental health problems is often even higher in countries with socioeconomic problems such as poverty, violence and conflict.

Theoretical level of work. The acquirer conducted an analysis of publications by domestic and foreign authors on the subject under study, an analysis of legal acts regulating the protection of mental health. The generalized results of this analysis are systematized and reflected in the work.

Author's suggestions on the research topic. A comprehensive analysis of the current state of providing health care services around the world, their comparison and reflection of best practices is worthy of attention.

Practical value of conclusions, recommendations and their validity. Acquaintance with the qualification work gives reasons to affirm the expediency of the conducted research and the practical value of the recommendations.

Disadvantages of work. Minor typos and grammatical errors are present in the text.

General conclusion and assessment of the work. According to the relevance and the results of the research qualification work of Amina TARIFI on the topic «Research of the current state of mental health care services» meets the requirements for master's works and can be recommended for official defense in the Examination commission.

Reviewer   Associate professor Gennadii IURCHENKO

«13th» of April 2023

ВИТЯГ
з протоколу засідання кафедри соціальної фармації
№ 12 від «20» квітня 2023 року

ПРИСУТНІ: зав. каф. доц. Волкова А. В., доц. Кубарєва І.В., доц. Овакімян О.С., доц. Болдарь Г.Є., доц. Корж Ю.В., доц. Терещенко Л.В., доц.Гавриш Н.Б., доц. Калайчева С.Г., ас. Пилюга Л.В., ас. Сєврюков О.В., ас. Сурікова І.О., ас. Тарасенко Д.Ю., ас. Ноздріна А.А

ПОРЯДОК ДЕННИЙ: Про представлення до захисту в Екзаменаційній комісії кваліфікаційних робіт.

СЛУХАЛИ: завідувачку кафедри доц. Волкову А. В. з рекомендацією представити до захисту в Екзаменаційній комісії кваліфікаційну роботу здобувача вищої освіти спеціальності 226 Фармація, промислова фармація Таріфі Аміна на тему: «Дослідження сучасного стану послуг з охорони психічного здоров'я»

Науковий керівник: к.фарм.н, асистент кафедри СФ Сурікова І.О.
Рецензент: к. фарм. н., доцент кафедри ОЕФ Юрченко Г.М.

ВИСТУПИЛИ: доц. Кубарєва І.В., доц. Овакімян О.С., доц. Болдарь Г.Є., висловили рекомендації до кваліфікаційної роботи Таріфі Аміна

УХВАЛИЛИ: Рекомендувати до захисту в Екзаменаційній комісії кваліфікаційну роботу здобувача вищої освіти Таріфі Аміна на тему: «Дослідження сучасного стану послуг з охорони психічного здоров'я»»

Завідувачка каф. СФ, доцент   _____   Аліна ВОЛКОВА

Секретар, асистент   _____   Альміра НОЗДРІНА

НАЦІОНАЛЬНИЙ ФАРМАЦЕВТИЧНИЙ УНІВЕРСИТЕТ

ПОДАННЯ
ГОЛОВІ ЕКЗАМЕНАЦІЙНОЇ КОМІСІЇ
ЩОДО ЗАХИСТУ КВАЛІФІКАЦІЙНОЇ РОБОТИ

Направляється здобувач вищої освіти Аміна ТАРІФІ до захисту кваліфікаційної роботи
за галуззю знань 22 Охорона здоров'я
спеціальністю 226 Фармація, промислова фармація
освітньою програмою Фармація
на тему: «Дослідження сучасного стану послуг з охорони психічного здоров'я».

Кваліфікаційна робота і рецензія додаються.

Декан факультету _____ / Світлана КАЛАЙЧЕВА /

Висновок керівника кваліфікаційної роботи

Здобувач вищої освіти Аміна ТАРІФІ під час виконання кваліфікаційної роботи продемонстрував уміння працювати з науковими даними, проводити їх узагальнення, аналізувати та узагальнювати результати дослідження. Усі поставлені завдання відповідно до мети роботи було виконано у повному обсязі. Результати дослідження належним чином оброблені і представлені.

Таким чином, кваліфікаційна робота може бути рекомендована до офіційного захисту в Екзаменаційній комісії Національного фармацевтичного університету.

Керівник кваліфікаційної роботи Ірина СУРІКОВА

«06» квітня 2023 р.

Висновок кафедри про кваліфікаційну роботу

Кваліфікаційну роботу розглянуто. Здобувач вищої освіти Аміна ТАРІФІ допускається до захисту даної кваліфікаційної роботи в Екзаменаційній комісії.

Завідувачка кафедри
соціальної фармації Аліна ВОЛКОВА

«20» квітня 2023 р.

Qualification work was defended

of Examination commission on

« ___ » _____ 2023

With the grade _____

Head of the State Examination commission,

DPharmSc, Professor

_____ / Oleh SHPYCHAK /