

## Effective Treatment Interventions for Global Mental Health: An Analysis of Biomedical and Psychosocial Approaches in Use Today

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### Abstract

We are in an important moment for mental health treatment around the world, as many Low and Middle Income Countries (LMICs) – representing an increasing majority of the world’s population – are currently developing and scaling up services for the first time. Yet, research on Global Mental Health (GMH) best practices remains scattered and difficult to synthesize. This review aims to simplify existing GMH research on effective biomedical and psychosocial treatment approaches from both high-income countries and LMICs to enable a more comprehensive understanding of the benefits and drawbacks of existing interventions, based on the highest quality, up-to-date research. By understanding which treatments are most effective and why, we can begin to not only implement more effective practices, but guide the future of GMH research in the right directions. The purpose of this review is therefore to understand mental illness, what it is, how it was treated in the past, how it manifests differently around the globe, and how to best treat it. Ultimately, while psychosocial approaches are advised for patients with more mild to moderate disorders, medications and other biomedical approaches are recommended increasingly only for more severe cases. While significant evidence exists to justify the use of psychotropic medications for mental illness, their adverse effects indicate that psychosocial approaches should be prioritized as first line treatments, particularly for mild to moderate disorders. As one of the first to analyze this research, this review is useful not only for GMH scholars, but for practitioners and public health workers globally, as well.

**Keywords:** global; mental health; biomedical and psychosocial

### Introduction

#### Brief history of mental illness

In 2018, The Lancet Commission on Global Mental Health and Sustainable Development led by Dr. Vikram Patel, and other leaders in the field, characterized mental and substance use disorders as emotional, cognitive, or behavioral disturbances that reach a threshold which causes substantial functional impairment, so that an individual struggles to fulfill desired social roles in the community (Patel et al., 2018). According to the Commission, the focus on functional impairment is an essential criterion to identify the point at which a person might be considered to have a disorder or require a diagnosis; however, the measurement of functional impairment in diverse cultural contexts remains hotly debated in global mental health research (Patel et al., 2018). This debate is flavored by different interpretations of mental illness, its history, its causes, its manifestations, and its treatments.

The history of mental illness and the multitude of diagnoses that fall within its purview are as long as human history itself. Secular understanding of mental illness first emerged during early development of medical systems ranging from Greek theories on depression and psychosis, to Ayurvedic, Tibetan, and Chinese medicine’s promotion of humoral imbalance as a way of understanding, diagnosing and treating mental illness (Deane, 2019). Ancient Persia invented the first asylums for mentally ill, which eventually spread to other empires in Europe and then further afield through British, Dutch and French colonialism (Kohrt & Mendenhall, 2016).

In his seminal work on the history of mental illness, *Madness and Civilization*, Michel Foucault describes how since the beginning of the Middle Ages, Europeans had a relation to mental illness broadly characterized by three words: “Madness, Dementia, Insanity” (Foucault, 1961). During this period so-called madmen were frequently exiled from towns around Europe, and forced to live a wandering existence in the countryside. In the Renaissance, these individuals were often put on boats referred to as “ships of fools” that either went to sea or traveled the rivers of Europe. The 17<sup>th</sup> century saw the birth of the first large houses of confinement, established throughout Western Europe with edicts requiring one in every county in England, for example. In Paris, it is estimated that one-tenth of all arrests sent to the *Hôpital Général* concerned “insane” or “demented men,” individuals of “wandering mind,” and “persons who have become completely mad” (Foucault, 1961, p. 65). Often treated as a social danger, these individuals were treated extremely harshly, kept on leashes, living in putrid cages, or chained to walls for up to years at a time. However, just a few hundred years later, with the development of medical science, individuals suffering from mental distress were considered less as criminal vagrants and more as patients requiring medical intervention.

By the end of the 19<sup>th</sup> century, rapid growth and transformation of understandings of mental illness introduced contemporary practices of biomedicine including psychiatry and neurology as scientists searched for biological causes of mental and neurological conditions. In this period, medical professionals explored treatment options from electroconvulsive therapy (ECT) to lobotomies, practices whose risks were so high that they

were quickly abandoned with the advent of psychoactive medications – though ECT continues to be practiced today (Foerschner, 2010). While in the late 1800s, substances such as bromides and barbiturates were used to sedate the mentally ill, it wasn't until 1949 when an Australian psychiatrist experimented with the element Lithium and found it to be effective in treating some mental disorders, such as depression (Foerschner, 2010). Since this period, medications from Valium (diazepam) in the 1960s to Prozac (fluoxetine) in the 1980s have permanently altered mental health care; however, while many in the West view these as treatments for specific disease states, populations in other parts of the world continue to view mental illness as primarily related to spiritual afflictions (Kohrt & Mendenhall, 2016).

Today, mental health disorders are categorized into a range of conditions from trauma, anxiety, depression, personality disorders, psychotic disorders, and addiction (Pincus & England, 2015). More specifically, modern nosology of mental disorders are codified by the fifth edition of the *Diagnostic and Statistical Manual* or DSM as well as the 10<sup>th</sup> edition of the WHO's *International Classification of Disease* or ICD of mental and behavioral disorders. While these categories, labels, symptom lists and criteria for psychiatric diagnoses have changed significantly over the history of these documents, the current formulations include mood disorders (such as depression or bipolar disorder), anxiety disorders (such as panic or generalized anxiety disorder), stress and trauma disorders (such as post-traumatic stress disorder), psychotic disorders (such as schizophrenia), substance use disorders (such as alcoholism), child development disorders (such as autism and ADD/ADHD), somatoform disorders (such as chronic pain), cognitive disorders (such as Alzheimer's or dementia), personality disorders (such as borderline personality disorders) and neurological disorders (such as epilepsy) – see Table 1 (Kohrt & Mendenhall, 2016).

Disorder Type	Examples of Disorder
Mood Disorders	Depression, Bipolar Disorder
Anxiety Disorders	Panic Disorder, Generalized Anxiety
Stress and Trauma Disorders	Post-Traumatic Stress Disorder (PTSD)
Psychotic Disorders	Schizophrenia
Substance Use Disorders	Alcoholism, Drug Abuse
Child Development Disorders	Autism, Attention Deficit Disorder (ADD)
Somatoform Disorders	Chronic Pain
Cognitive Disorders	Alzheimer's, Dementia
Personality Disorders	Borderline, Narcissistic, Antisocial
Neurological Disorders	Epilepsy

**Table 1. Current Formulations of Mental Illness Categories**

However, the latest versions of the DSM and the ICD have also left room for “culture-bound syndromes” which are highly localized forms of mental distress such as Hikikomori (a Japanese syndrome of social withdrawal), Pibloktoq (Wildman syndrome in New Guinea), Arctic Hysteria among Inuit of Northern Greenland, and Windigo among Algonquin Indians, as just a few examples of well-documented syndromes of this type (Addlakha, 2008). Yet, culture-bound syndromes are not simply relegated to isolated tribes, as other scholars have examined how illnesses such as eating disorders represent forms of mental illness unique to the culture in the West, and less present elsewhere until recently (Watters, 2010). This example highlights a significant distinction between mental illness based on severity, with more moderate forms such as mild depression or anxiety and many culture-bound syndromes on one end of the spectrum, and bipolar and schizophrenia as more severe forms on the other end of the spectrum. While debates about

the culture-bound nature of other forms of anxiety, depression, and epilepsy are common in mental health research, it is generally accepted that conditions like schizophrenia and bipolar remain fixed in form because of their essential biological underpinnings (Addlakha, 2008). While secondary features of more severe mental illness – such as content of delusions and hallucinations – are affected by cultural milieu, their universality across culture indicates a deeper biological mechanism that transcends social context (Viswanath & Chaturvedi, 2012).

### What is Global Mental Health (GMH) today?

In his historic 1977 article, “The Need for a New Medical Model: A Challenge to Biomedicine,” George Engel coined the term “biopsychosocial.” Engel argues that since the dominant model of disease was biomedical, with molecular biology as its basic scientific discipline, there was no room within its framework of biological variables for the social, psychological, and behavioral dimensions of illness. He continues, “To provide a basis for understanding the determinants of disease and arriving at rational treatments and patterns of health care, a medical model must also take into account the patient, the social context in which he lives... this requires a biopsychosocial model” (Engel, 1977, p. 130). In his paradigm-shifting piece, Engel concludes that the boundaries between states of disease and health, sick and well, are therefore far from clear as they are influenced by inevitable social, cultural, and psychological considerations. For this reason, psychological and social factors needed to be incorporated into the biological medical model of the day (Malla et al., 2015).

From the 1980s, a new generation of inter-disciplinary collaboration began, leading to emergence of fields such as cross-cultural psychiatry (Patel et al., 2018). Arthur Kleinman influenced this field through his seminal 1987 article, “Anthropology and Psychiatry: The Role of Culture in Cross-Cultural Research on Illness,” in which he challenged the boundaries of psychiatry arguing that the incorporation of other approaches could greatly benefit the field. In Kleinman's view, “medical” fields such as psychiatry would benefit from domains such as anthropology which reflect aspects of human life such as culture and worldview in their considerations of disease etiology. This would allow medicine to take a more holistic, person-centered approach to health that would undeniably benefit both patients and health practitioners.

Early global mental health was therefore characterized by two differing epistemologies: the emic approach in which anthropologists and cultural psychiatrists analyze mental disorders through the lens of social and cultural forces, and the etic approach of epidemiologists and clinicians who analyze mental disorders as though they are biologically identical to other medical disorders and are conceived as universal conditions (Patel et al., 2018). Moving into the new millennium, the emerging field of GMH recognized the contributions of both schools and began to promote the study of mental disorders with balanced acknowledgement of both universal features and contextual and cultural influences.

GMH today is characterized as an area of study, research, and practice that places a priority on improving and achieving equity in mental health for all people worldwide (Patel & Prince, 2010). This field grew rapidly in visibility following a “call to action” series of articles on GMH in the *Lancet* medical journal in 2007 (Patel & Prince, 2010). GMH as formulated in that series, draws from a range of disciplines, however requires an “exquisite sensitivity” to contextual factors, such as cultural and social influences on mental health (Kohrt & Mendenhall, 2016). Following the lead established by Engel in 1977, The Lancet Commission on Global Mental Health and Sustainable Development wrote in 2018, “In terms of the causes of mental ill health, we emphasize a convergent model of mental health, recognising the complex interplay of psychosocial,

environmental, biological, and genetic factors across the life course” (Patel et al., 2018, p. 7).

In its 2018 appeal, The Lancet Commission called for new approaches for the field of GMH to address some of the above concerns, including a renewed focus on human rights. In particular, mental health services need to be more interdisciplinary in their efforts to scale up services for people in LMICs where human rights and dignity in care were most compromised. Additionally, mental health care should be fully integrated with other health priorities such as non-communicable diseases, maternal and child health, and HIV/AIDS. Lastly, barriers to care need to be addressed such as lack of awareness within communities of the value of mental health for social and economic development, and the severe constraints imposed on mental health care due to stigma and discrimination (Patel et al., 2018). Nevertheless, despite these positive steps forward, debates will continue to rage on controversial issues such as the role of culture in mental health treatment, or the role of pharmaceutical companies in the future trajectory of GMH.

## Approaches to Mental Health Treatment

### Psychosocial Approaches

#### Brief history of psychosocial approaches to treat mental illness

Despite a long history of metaphysical approaches to the treatment of mental distress, today spiritual approaches in the context of religion are relegated to the alternative category of mental health approaches and not considered as part of psychotherapy as such (Ehrenwald, 1976). In this sense, psychosocial approaches to mental health treatment tend to be bound up with the history of psychotherapy in the Western framework. Therefore, the birth of psychotherapy and psychosocial approaches in the context of current conceptualizations did not occur until Enlightenment Europe began to adopt a coherent, secular theory of mental disorder through medical investigation (Ehrenwald, 1976).

In 1785, the term “placebo” entered the medical lexicon – from the French meaning “to please or placate” – to denote treatments that were ineffective chemically but administered to satisfy a patient’s desire for treatment (Wampold, 2001). This would prove essential in understandings of effectiveness in treatments for mental illness, where patients are particularly susceptible to placebo. In the 1800s, scientists such as Jean-Martin Charcot and Pierre Janet preceded Sigmund Freud in developing what became known as “the talking cure” for early diagnosed mental illnesses such as “hysteria” (Young, 2006). During this early period, psychotherapy struggled to be accepted as a legitimate profession based on scientific principles emphasizing physiochemical processes. Yet, as perhaps the mostly widely known figure in the history of psychology, Freud developed coherent theories for mental disorder based on his work in talk therapy, treating the “hysterics” that came to his medical practice (Cushman, 1992). Freud’s early system of treatment involved several premises, including: 1) symptoms of hysteria are caused by repression of a real or imagined event, 2) the nature of symptoms is related to the event, 3) symptoms can be relieved by insight into the relationship between event and symptom (Wampold, 2001). These structures allowed psychosocial treatment approaches to gain wider acceptance not only in the medical community, but also in popular culture in Europe and North America at the time.

Often overlooked during this period is the work of Carl Jung, a Swiss doctor who also advocated for the use of individual psychotherapy for people with mental illnesses such as schizophrenia. Jung treated many patients in the early 20<sup>th</sup> century and suggested that even the most profoundly disturbed aspects of illness were connected to the patient’s life history and self-concept; therefore, by increasing the patient’s understanding of his or her self, patients with mental illnesses even as dire

as schizophrenia could accept and benefit from psychotherapy (Lysaker & Silverstein, 2009). Starting in the 1920s, behaviorism became a prominent concept in psychology based on the works of scientists such as Ivan Pavlov – with the famous Pavlov’s dog experiment on classical conditioning – and John B. Watson, followed by B. F. Skinner and his work in incorporating psychological treatments into behavioral treatments in the 1950s (Cushman, 2001). Many cite the work of behaviorists as leading to theories of behavioral change within psychotherapy – as opposed to Freudians and Jungians which do not focus on behavior change – ultimately culminating in popular current formulations of treatment such as cognitive behavioral therapy (CBT) and dialectical behavioral therapy (DBT) (Gaudiano, 2008).

However, in the 1960s and 70s, the scientific standing of psychotherapy became to suffer, as it was estimated there to be hundreds of different therapeutic approaches without any proof as to their effectiveness (Wampold, 2001). An anti-psychiatry movement was growing throughout this period, promoted by books such as Thomas Szasz’s *The Myth of Mental Illness* and Erving Goffman’s *Asylums* (Szasz, 1961; Goffman, 1968). As a result, Gene Glass developed the method of meta-analysis – examining multiple studies at once – to determine effectiveness of psychiatric interventions on a larger scale.

Initially publishing alone, Glass worked with colleagues to analyze nearly 400 controlled evaluations of psychotherapy and counseling, concluding that the typical therapy client is better off than 75% of untreated individuals (Glass, 1976; Smith & Glass, 1977). Importantly, Glass also examined differences in effectiveness between the classes of psychosocial approaches, finding equal effectiveness among both behavioral and non-behavioral therapies (Smith & Glass, 1977). Glass’ work was supported by additional meta-analyses conducted through the 1980s and 1990s (Wampold, 2001). These results are important today as they underline the importance of trauma processing and behavior change for many patients suffering from mental distress. In this sense, the psychosocial approach of the practitioner does not matter nearly as much as the ability of the patient to talk about their suffering, externalize it, and conceive of action steps to ensure sustainable behavior change.

Today, psychosocial interventions for mental health represent a broad field including the professions of psychology, psychiatry, medicine, anthropology, social work, public health, and more, and includes interpersonal or informational activities, techniques, or strategies that target biological, behavioral, cognitive, emotional, interpersonal, social, or environmental factors with the aim of improving health functioning and well-being. Psychosocial interventions capitalize on psychological or social actions to produce change in psychological, social, biological, and functional outcomes (England et al., 2015). More recent studies on psychosocial approaches to treating mental illness have found that treatment and diagnosis are heavily affected by the surrounding culture and society (Shorter, 2008). While this may seem obvious, when viewed from the historically scientific perspective of medical science from the Enlightenment era, it is clear that more difficult-to-quantify concepts like culture would not have been a part of the equation at that time.

Relatively new fields such as Transcultural Psychiatry have grown in the last few decades, under the premise that surrounding culture can change the presentation of mental illness as well as possibilities for successful treatment (Shorter, 2008). In addition to Transcultural Psychiatry, other approaches have also proliferated such as Multicultural Psychotherapy, Cognitive Processing Therapy (CPT), in addition to couples, group, or family therapy (Lee & Ramiez, 2000). These new formulations have allowed psychosocial approaches to address not only the suffering of the individual, but also struggles in relationships and with other loved ones.

While the past of this field was rather narrow, the future appears to be one of openness and expansion. In one poll conducted among 70

psychotherapy experts, behavioral, integrative, and multicultural theories were predicted to increase the most in the future of the field, while Jungian therapy and classical psychoanalysis were expected to decline the most (Norcross, Pfund & Prochaska, 2013). This is perhaps for the best, as the benefits of psychosocial approaches appear to be less related to any specific psychoanalytic paradigm, and more related to the ability to facilitate communication, understanding, as well as social and functional outcomes. Additionally, with the expansion of technologies such as internet and mobile phones around the world, experts forecast telepsychology via computers and mobile phones to flourish globally (Norcross, Pfund & Prochaska, 2013). Thus, while the history of psychosocial approaches – through the profession and scientific discipline of psychotherapy – to mental health treatment primarily centered on the upper classes in European and North American societies over the last 200 years, these treatments are quickly being adapted and expanded to a variety of populations worldwide today (Pritz, 2002).

### What psychosocial approaches are effective?

Today, effective mental health treatments can be understood as functioning on three outcomes: decreasing *symptoms*, including both physical and mental symptoms; improving *functioning*, or the performance of daily activities such as physical activities, assigned tasks at work or school, maintaining intimate and peer relationships, and involvement with family and community; and increasing *well-being*, including spirituality, life satisfaction, quality of life, and recovery of a self-directed life in which an individual can reach his or her full potential (Pincus et al., 2015). Treatment for mental illness via psychosocial approaches therefore has to be examined from a multi-faceted perspective in which the health of the individual is considered holistically.

Currently, there are a broad range of settings in which psychosocial approaches are delivered including outpatient clinics, primary care settings, schools, homes, hospitals, and community settings (i.e. retirement homes, religious settings, etc.). Providers range from psychologists, psychiatrists, social workers, counselors/therapists, primary care and nonpsychiatric physicians, nurses, physical and occupational therapists, religious leaders, peer counselors, even automated providers via the internet or video. The term psychosocial approaches is therefore applied to a wide range of psychotherapies, including problem solving therapy, cognitive behavioral therapy, interpersonal therapy, group therapy, and others (England et al., 2015).

Broadly speaking, the primary goal of psychosocial interventions for people suffering from mental illness today is to “facilitate the acquisition of skills to address the risk factors, mediators, or consequences of mental health conditions and to enable social circumstances for the patient’s recovery” (Patel et al., 2018, p. 26). As previously mentioned, Gene Glass performed the first meta-analyses on psychotherapeutic approaches to treat mental illness in the late 1970s. In the 1980s, further analyses were performed to identify potential differences between the two of the most common forms of psychotherapy, interpersonal psychotherapy (IPT) and cognitive behavioral therapy (CBT). In particular, a 1989 study by the National Institute of Mental Health Treatment of Depression Collaborative Research Program (NIMH TDCRP) found the benefits of both treatments were nearly identical with patients in both treatments showing significant reduction in depressive symptoms and an overall improvement in functioning during the course of the treatment (Elkin et al., 1989). Since this period, effectiveness of a broad range of psychosocial interventions has been established through hundreds of randomized controlled clinical trials and numerous meta-analyses (Barth et al., 2013; Cuijpers et al., 2009, 2010, 2013, 2014). The uniform effectiveness of psychotherapy suggests therefore that their common factors are the important determinants of their benefits; namely, the ritual of sitting in a room with a healer, processing emotions,

identifying problem areas and how to change them, and ultimately following the expectations of the psychotherapeutic protocol (Wampold, 2001).

In recent decades, additional studies have continued to examine these same questions, resulting in similar, but at times slightly varying, findings. One 2004 meta-analysis examined the same question as the 1989 study, comparing IPT and CBT. Using 13 recent RCTs examining the treatment of people with depression, researchers found that IPT and CBT were both effective when compared to placebo, yet overall IPT was more efficacious than CBT (de Mello et al., 2004). The authors justify this, arguing this to be a result of the IPT’s recognition of depression as related to an individual’s social environment, something they argue CBT does not do as well. However, other reviews have found the opposite, with another large systematic review of psychotherapy treatments for depression finding that CBT is more likely to help patients improve to a degree where they are no longer clinically depressed compared with other approaches (Churchill et al., 2002). To confuse things even more, one large RCT in the UK found psychoanalysis to be more effective than “treatment as usual” which included forms of CBT (Fonagy et al., 2015). In this sense, while there continues to be some disagreement about the most effective focus of treatment, psychosocial approaches are continually found to be effective overall.

Additional research has focused on short-term therapy, as many patients are unwilling to commit to evidence-based long-term therapies of 12 to 20 sessions. This is particularly pertinent, as the pace of people’s lives around the globe has increased in many places leaving them less willing to devote significant quantities of time to addressing mental or emotional distress. One systematic review, examining evidence-based brief psychotherapies of eight sessions or less, included 15 RCTs and two systematic reviews looking at CBT, problem-solving therapy, and mindfulness-based cognitive therapy (Nieuwsma et al., 2012). Overall, the review found that brief therapy of six to eight sessions can be efficacious in the treatment of depression. However, it should be noted that shorter treatment regimens are likely only effective for more mild cases of depression and anxiety.

Other new realms of study for the treatment of mental illnesses using psychosocial approaches is the study of psychotherapy techniques for depression among children and adolescents. This is important as medications are considered significantly riskier for the health of young people – including risk of suicide. One systematic review examining 27 studies containing 1,744 participants found psychotherapy to be significantly more effective than controls in the ability to help depressed youths – particularly in the short term (Watanabe et al., 2007). An additional new area of research is group therapy, which is used in cases in which individuals can benefit from exchange with their peers. One example where this has shown particular effectiveness is with HIV+ patients. A systematic review and meta-analysis of double-blinded RCTs from populations in high-income countries worldwide found that group psychotherapy is effective in reducing depressive symptoms among HIV+ individuals, with cognitive behavioral approaches being the most widely utilized (Himelhoch, Medoff & Oyeniyi, 2007).

Psychological therapies are therefore found to be at least as effective as other treatment methods, with head-to-head comparisons of psychosocial approaches versus pharmacological therapies exhibiting little difference in terms of attaining remission, but a greater enduring effect among psychological therapies – and no side effects as with medications (England et al., 2015). Additionally, more and more studies show that pharmacological and psychosocial approaches can be used concurrently to reinforce their individual effects (England et al., 2015). Yet, one recent systematic review examining this synergy between psychosocial and pharmacological approaches, examining 21 trials with a total of 1,709 patients, found that combined therapy was superior to antidepressant use but equal to psychotherapy alone (Furukawa,

Watanabe & Churchill, 2018). The authors conclude that either combined therapy or psychotherapy alone should be first-line treatment depending on the patient's preferences. In this sense, while psychosocial approaches can be reinforced through medication in certain cases, they are also considered similarly effective alone, unlike medications.

The future of psychosocial approaches however will inevitably be altered by the spread of mobile technologies. Ironically, many argue that while these technologies are able to facilitate mental health treatments, they themselves are also causing severe mental distress through overuse, stress, isolation, and detachment (Kruisselbrink Flatt, 2013). Initially with the development of eHealth, or healthcare focused on information and communication technologies, more recently mHealth – or mobile health – has evolved as a subfield of eHealth through the exploration of treatment via mobile devices and wireless communication (Abaza & Marschollek, 2017). Due to the virtual ubiquity of smart phones, tablets, laptop computers and affordable internet, videoconferencing psychotherapy (VCP) is a new psychosocial approach that has developed in the last several years in both high-income countries and LMICs. One systematic review of 65 studies primarily from high-income countries found that VCP is feasible, associated with high user satisfaction, used in a variety of therapeutic formats with diverse populations, and has similar clinical outcomes when compared with traditional in-person therapy (Backhaus et al., 2012). Young people in particular seem to respond better to this medium of treatment. Since mobile phone penetration has exceeded other infrastructure in LMICs, mHealth is increasingly seen as a promising way to provide patient-centered mental health care (Abaza & Marschollek, 2017).

Most of the literature on effectiveness of psychosocial approaches – including the studies mentioned above – is from high-income countries. This is due to the fact that in LMICs, access to these therapies is generally very low in most populations, primarily because there are few skilled practitioners, and awareness of their availability is lacking. With the large evidence base already in existence from high-income countries, some argue that many of these strategies can be adapted and extrapolated to LMICs to overcome challenges to successful implementation (Irfan et al., 2019). In the past decade, a significant body of research has been developed highlighting strategies to overcome these barriers, including task shifting approaches (Patel et al., 2018). Particularly with culturally relevant, evidence-based, brief psychotherapeutic interventions, low-resource settings are able to develop syncretic psychosocial interventions to treat mental illness within their cultural context. For example, by avoiding medicalizing or psychologizing language that may alienate locals, practitioners can use local terms for mental and psychological suffering – also referred to as “idioms of distress” – to which people can easily relate (Ventevogel, 2016). This allows patients not only to fully understand the terminology, but also to feel more open to expressing themselves with cultural signifiers they are comfortable with. For example, in his doctoral thesis work in Burundi, Dutch medical anthropologist Peter Ventevogel describes usage of the local term for depression – *akabonge* – but also notes how this Burundian concept is not identical to depression and may also refer to grief or other non-pathological forms of sadness (Ventevogel, 2016).

CBT-based programs that have gained a lot of attention in recent years include the Thinking Healthy Program in rural India and Pakistan, delivered to women with perinatal depression by female health workers (Rahman, 2007; Rahman et al., 2008). In communities such as these with high rates of illiteracy and poverty, where there are no specialists and where depression is not often recognized, developing a culturally acceptable and deliverable psychological intervention that community members find useful presented a particular challenge for program staff. Authors describe the important lessons learned in developing the program, and delivering the psychological intervention to

depressed mothers and their infants through task shifted, non-specialist, village-based, female health workers (Rahman, 2007). Ultimately, the integration of this CBT-based intervention into the routine of community health workers more than halved the rate of depression among women with perinatal depression compared with those receiving routine care (Rahman et al., 2008). In another study from Chile, 230 low-income mothers with major depression were either provided a multicomponent intervention involving psychoeducation and as well as medication if needed, or treatment as usual. Findings suggested the psychosocial intervention was particularly effective in treating depression in these patients (Rojas et al., 2007). In this sense, highly localized psychosocial interventions that focus on ensuring maximum cultural identification from patients appears to be one of the key aspects of a successful psychosocial approach, particularly in rural settings in many LMICs.

Several other studies have highlighted the extent to which psychosocial approaches can be effective in the treatment of depression and other mental illnesses, even in the most resource-poor and difficult to reach locations such as many parts of sub-Saharan Africa. In particular, several studies looked at the effectiveness of psychosocial interventions in HIV+ patients in southern Africa where rates of infection often surpass 20%. From a group-based counseling approach in South Africa (Petersen et al., 2014) to a problem solving therapy approach in Zimbabwe (Abas et al., 2016) to a cognitive behavioral therapy approach in South Africa (Andersen et al., 2018), these studies found psychosocial approaches to treating mental illness – primarily depression – among HIV+ patients to be highly effective. Other studies showing a high level of effectiveness have examined the treatment of trauma among children in Tanzania (O'Donnell et al., 2014) and Zambia (Murray et al., 2013), interpersonal therapy to treat depression in Uganda (Bass et al., 2014) and South Africa (Petersen et al., 2012), and problem solving therapy in Zimbabwe (Chibanda et al., 2016).

In Sierra Leone, Theresa Betancourt and others have worked on developing psychosocial interventions for children and adolescents impacted by war, Ebola, and other disasters (Betancourt et al., 2014, 2015, 2016). The authors sought to utilize, “modifiable intervention targets to improve mental health outcomes in war-exposed youth,” arguing that by reducing internalizing symptoms it would be possible to avoid “mental health problems at a [sic] later time points” (Betancourt et al., 2015, p. 347). Betancourt ultimately advocates for a task shifting approach with the justification that “internalizing disorders can be treated by bachelor's-level mental health workers with rigorous training and supervision using evidenced-based techniques such as cognitive behavioral therapy and/or interpersonal therapy” (Betancourt et al., 2015, p. 348). The authors also advocate for a stepped care approach – which constitutes navigation to more advanced care if needed, if regular treatment for more mild to moderate cases was insufficient – to help with more acute individuals or cases of psychosis. These examples from India, Pakistan, Chile, and sub-Saharan Africa highlight how psychosocial approaches in addition to potential stepped care options can be implemented effectively through task shifting in low resource settings, to relatively large effect.

An increasing concern in the field of GMH is that medications will become the default treatment in LMICs, just as they have in most high-income countries (Kohrt & Mendenhall, 2016). While antidepressant medications have shown some effectiveness – as we will discuss later – simple, low-cost, non-pharmacological psychological interventions may not only be more feasible in the long term, but evidence shows they are also often more effective, and avoid potential harmful side effects and withdrawal symptoms (Chibanda et al., 2013). Ideally, LMICs will be also able to incorporate the stepped care approach in which the first step represents self-delivered interventions for mild to moderate conditions, the second step comprises psychosocial interventions in routine care settings or through home visits by lay workers, and the final step requires the intervention of a specialist and medication in the most

severe cases such as acute psychosis or attempted suicide (Patel et al., 2018). However, overall psychosocial approaches, though more time consuming, appear to be the safest and most effective treatments for many mental disorders in the long term.

### **What are the drawbacks of psychosocial approaches?**

Despite the strong evidence base to support psychosocial approaches in the treatment of mental illness, there remain numerous obstacles to their successful implementation. First and foremost, psychosocial approaches tend to be lengthy and require significant human resources and capital for their implementation. Therefore, the structural imbalance between the large increase in individuals requiring treatment and the inadequate capacity to extend support represents a significant challenge globally (Batada & Leon Solano, 2019). In high-income countries this is problematic due to the increasingly high cost of care – particularly high salaries for specialized mental health practitioners – while in LMICs this is exhibited through the few specialists available to treat a large populations in need, or to adequately train other providers or lay workers. Related to this is the fact that even if psychosocial approaches are available, the patient has to be willing and able to listen and take part in the exchange. If this is impossible – due to psychosis or violence to self or others, for example – then stepped care protocols might require administration of sedatives or other medications to stabilize the patient in ways that psychosocial interventions are incapable of doing (Patel et al., 2018). In this sense, psychosocial approaches can only be effective in cases where the patient is responsive and able to engage in therapy – which is far from always the case.

Secondly, psychosocial interventions are notoriously difficult not only to standardize, but to randomize – as they must be tailored to individuals – and they require awareness, engagement, and commitment from patients to be efficacious (Kirmayer, 2012). As described by one of the leaders of the field of cultural psychiatry, Lawrence Kirmayer, these difficulties have led to an ambivalent relationship between mental health disciplines and evidence-based methods, such as RCTs, due to concerns about the adequacy of current approaches to address contextual issues related to service delivery (Kirmayer, 2012). For this reason, although the current evidence base for psychosocial interventions is sizable, including thousands of studies on hundreds of intervention, the data is difficult to synthesize and can be challenging for consumers and providers to interpret exactly which treatments are effective (Pincus & England, 2015; England et al., 2015). Scaling up these interventions thus relies more on a dynamic and collaborative approach rather than straightforward program and policy protocol based on scientific evidence (Dua et al., 2011). There are thus widespread implementation issues related to maintaining fidelity to the evidence base in evaluating psychosocial approaches.

One potential solution could be the further development and testing of new interventions in different populations and settings – as well as how best to implement them – which address currently unmet needs (Pincus & England, 2015). Without additional supports to strengthen the evidence base of psychosocial interventions, mental health research in general will likely maintain its second tier status compared with other medical disciplines (Kirmayer, 2012). In addition to difficulties for healthcare providers to make informed decisions in clinical practice based on the evidence from psychosocial intervention trials, training for psychosocial interventions is also not well standardized with researchers and providers being trained in a variety of schools from psychology, social work, nursing, medical schools and counseling programs with varying requirements (Pincus & England, 2015). While this is primarily the case in high-income countries, this same variety of disciplines is also spreading to LMICs as well.

Currently however, psychosocial approaches to treating mental illness in LMICs are severely hampered by lack of personnel. In one study in Morocco, the authors recount how the country only has 350 psychiatrists, 60 clinical psychologists, and 400 psychiatric nurses and social workers for 30 million inhabitants (Khabbache, Bragazzi & Rammouz, 2016). Morocco therefore only has about nine workers in the field of mental health per 100,000, a very low ratio when compared to other countries globally, while estimates for depression in Morocco range as high as 25% of the population – though this is surely an overestimation (Khabbache, Bragazzi & Rammouz, 2016). This shortage of specialized workers forced the researchers in this study to adopt peer therapy as treatment for patients at a rehabilitation center in Fès, Morocco due to lack of specialized staff. While the peer therapy model was not the ideal psychosocial approach to treating patients – nor highly effective in this setting – within the constraints of limited resources, staff were obliged to take a public health approach to the problem by shifting tasks to patients themselves. In this sense, the authors essentially argue that the lack of personnel to engage in psychosocial approaches led them to try untested and perhaps even dangerous treatment regimens for patients in their care.

India as well has exhibited difficulties adapting psychosocial approaches to treating mental illness within the country. Despite the passage of a 1982 bill called the National Mental Health Programme to improve mental health care coverage, very few of those who need mental health care receive it (van Ginneken et al., 2014). The hurdles that prevent implementation of plans such as this in many LMICs include political neglect, inadequate leadership at national, state, and district levels, little funding, and poorly implemented service delivery – including poor training and retention of staff (van Ginneken et al., 2014). Therefore, in India as in many LMICs, mental health treatment through increased psychosocial approaches has “mainly remained on paper” (van Ginneken et al., 2014). This is compared to other priority health sector areas in India such as family planning which started with strong leadership and had effective policies in place by 1976.

Why have many LMICs struggled with implementing psychosocial interventions for mental health treatment compared with other public health problems? A range of issues have been identified with stigma and discrimination at the top. In many LMICs, mental illness continues to be a taboo subject as understanding of disease etiology ranges widely and often strays into religious or spiritual explanations (Batada & Leon Solano, 2019). However, while some have suggested technology as a means to appropriately address some of these concerns by allowing for more accessibility to services as well as privacy, there continue to be questions in this regard as well. One scoping review found that several barriers exist in LMICs when making online psychosocial interventions available and accessible (Rasendran, 2019). In their current formulations, apps and other online interventions primarily derived from high-income countries like the US and Canada do not take into account the social determinants of health and structural barriers that exist in other locales. Policy makers, they argue, should therefore be cautious in steadily implementing mental health app-based interventions in disadvantaged communities to ensure that an appropriate “bottom-up approach” is adapted to various cultural contexts (Rasendran, 2019).

A larger critique of psychosocial approaches, as based in the history of Western psychiatry, is that these approaches are embedded in Western culture with a discourse that is beset by problems of cultural mistranslation (Fernando, 2014). For LMICs, psychotherapy as an approach is thus complicated, as many of these countries are non-Western in cultural background but have been colonized by Western powers in the past, and some still struggle with post-colonial problems resulting in civil conflict. In this way, the language of “mental health” and “mental illness” is often embedded in Western culture and the study of madness as understood in the West (Fernando, 2014). Addressing this gap in an effective manner therefore warrants innovative approaches which operate

in parallel to traditional strategies and understandings of mental illness (Batada & Leon Solano, 2019). Until the Western history embedded in current psychosocial approaches is allowed to meld more with local understandings, there will continue to be challenges and barriers associated with the planning, design, and deployment of effective psychosocial interventions in the treatment of mental illness. Development in a post-colonial world must be for the benefit of local people in LMICs and geared to their social and cultural expectations (Fernando, 2004). According to one researcher, this can be achieved by publishing directly from the experiences of mental health service users from LMICs as important both ethically and practically so as to allow GMH to benefit from the experiential expertise that they bring (Trivedi, 2014). Up until now, little has been published in this regard.

### Biomedical Approaches

#### Brief history of biomedical approaches to treat mental illness

Biomedical approaches for the treatment of mental illness – primarily consisting of psychoactive substances that affect the nervous system – have been used for medical, cultural, religious, and recreational purposes by humans for thousands of years; however, particularly in the last 100 years, the rise of science, advances in chemistry, and changes in culture and religious beliefs have disabused many of the notion that psychoactive substances are “magical potions” (Lieberman, 2003). With the birth of pharmacology as an established science in the 19<sup>th</sup> century, therapeutic agents were established to target psychosis, depression, and anxiety through experimentation with elements such as lithium (Shorter,

2009). Lithium was originally used for inmates of insane asylums during the late 19<sup>th</sup> century in Europe, though the mechanisms of both the substance and the illnesses were poorly understood. In the early part of the 20<sup>th</sup> century, experimentation started with additional drugs such as opioid alkaloids, as well as electroconvulsive therapy (ECT) which remained the treatment of choice for depression throughout the early 20<sup>th</sup> century (Lieberman, 2003). While use of ECT is progressively declining in Western countries, it remains the first line treatment in places such as India, where it is widely used throughout the country (Addlakha, 2008).

Following the Second World War in the 1950s, scientists in Europe and North America introduced two new antidepressant drugs: iproniazid, a monoamine-oxidase inhibitor (or MAOI) – which had originally been used in the treatment of tuberculosis (TB) – and imipramine, a tricyclic antidepressant (López-Muñoz & Alamo, 2009). As is often the case in medicine, iproniazid was used for one purpose and then discovered to have another, as terminally ill TB patients were found to become cheerful, optimistic, and more physically active when it was administered. The introduction of both these drugs, however allowed for a significant change in psychiatric care, particularly due to their role as an indispensable research tool for neurobiology and pharmacology in the exploration of the etiology of mental illness (López-Muñoz & Alamo, 2009). MAOIs and tricyclic antidepressants are both still in use today, though this has decreased in many countries where alternatives such as selective serotonin reuptake inhibitors (SSRIs) are available, as SSRIs generally have less adverse effects. See Table 2 for an overview of the different classes of antidepressants and examples of drugs within each class.

Class	Mode of Action	Examples	Adverse Effects
MAOIs	Inhibit the activity of monoamine oxidase enzymes in order to control depression, panic disorder and social phobias	Moclobemide, iproniazid, selegiline, isocarboxazid, phenelzine, tranylcypromine	Dry mouth, nausea, headache, drowsiness, insomnia, dizziness, reduced sexual desire, weight gain, drug interactions, withdrawal symptoms
Tricyclics	Block the reabsorption of serotonin and norepinephrine in the brain, yet with significant side effects compared to SSRIs or SNRIs	Imipramine, desipramine, amitriptyline, nortriptyline, clomipramine	Drowsiness, blurred vision, constipation, dry mouth, weight fluctuation, tremor, reduced sexual desire, drug interactions, withdrawal symptoms
SSRIs	Block the reabsorption of serotonin in the brain, and generally the drug of choice for health care professionals in the treatment of depression	Citalopram, escitalopram, fluoxetine, fluvoxamine, paroxetine, sertraline	Nausea, headache, drowsiness, insomnia, agitation, dizziness, reduced sexual desire, impact on appetite, drug interactions, withdrawal symptoms
SNRIs	Block the reabsorption of serotonin and norepinephrine in the brain, and used to treat many mental health disorders including major depression and anxiety disorders	Duloxetine, levomilnacipran, milnacipran, desvenlafaxine, venlafaxine	Nausea, dry mouth, excessive sweating, headache, dizziness, fatigue, constipation, reduced sexual desire, loss of appetite, drug interactions, withdrawal symptoms

Table 2. Different Classes of Antidepressant Drugs and Examples

A new revolution in psychotropic medications occurred in the 1980s with the development of Prozac (fluoxetine) and a new family of antidepressants called SSRIs. Similar to SSRIs, serotonin-norepinephrine reuptake inhibitors (or SNRIs) were also developed shortly after, such as the widely prescribed drug Effexor (venlafaxine). Additionally, other drugs such as antipsychotics were created during this period. Guidelines for treating mental illness with these newer drugs suggested that clinicians should strive to treat patients to remission – characterized by an essential cure of the disease state – and a return to normal functioning for the patient, as opposed to previous drug classes in which patients were expected to continue treatment indefinitely (Lieberman, 2003). Similar to previous classes of MAOIs and tricyclic antidepressants, SSRIs and

SNRIs work by modulating neurotransmitters at a synaptic level (López-Muñoz & Alamo, 2009).

Since the 1960s, pharmacologists began to understand the way many of these drugs interacted with neurotransmitters such as norepinephrine, serotonin, and dopamine (Lieberman, 2003). While important work has been done in this regard, one study in the 1980s wrote that a singular or comprehensive theory of depression from the biological perspective has not yet been established as there are likely multiple biochemical and psychological pathways for anxiety and depression (McNeal & Cimboric, 1986). Interestingly, despite the advances in biomedical treatment options, scientists continue to debate the mechanisms that modulate the biochemical pathways of affective disorders today.

## What biomedical approaches are effective?

In order to be considered “effective,” biomedical treatments for mental illness need to improve both symptoms and general functioning of the patient, but are also expected to increase overall well-being – a higher bar compared with many treatments for physical ailments (Pincus et al., 2015). Treatment for mental illness via medication and other biomedical approaches therefore has to be examined from a multi-faceted perspective in which the health of the individual is considered holistically. While expected treatment outcomes are similar when compared to psychosocial approaches, biomedical approaches – in particular, medications – have the additional hurdle of limiting negative side effects, including addiction and other long term effects on health.

Firstly, if biomedical approaches such as antidepressant medications are to be considered effective, they need to prove more useful than placebo. One systematic review in the early 2000s examined 6 randomized controlled trials (RCTs) looking at the effectiveness of older classes of antidepressants such as MAOIs and tricyclic antidepressants, compared to control groups which received placebo (Casacalenda, Perry & Looper, 2002). Although not as widely used today as newer classes of drugs such as SSRIs, tricyclic antidepressants and MAOIs are still prescribed particularly for treating mild to severe depression, insomnia, and chronic pain. This review found that, among studies examined, antidepressants alone are twice as efficacious as control conditions in producing full remission in patients with major depression after an average of 16 weeks of treatment. In particular, while 46% of patients on medication achieved full remission, only 24% of control patients achieved full remission (Casacalenda, Perry & Looper, 2002). The authors concluded that MAOIs and tricyclic antidepressants may be considered first-line treatments for mild to moderately depressed individuals. Another systematic review examined 26 studies on fibromyalgia and chronic pain finding that tricyclics and particularly amitriptyline reduced pain in patients by a mean of 26% and improved quality of life by 30% (Uceyler, Hauser & Sommer, 2008). Despite being largely sidelined after the development of new antidepressants, recent research continues to confirm that MAOIs and tricyclics exhibit some effectiveness in treating mental illnesses, particularly anxiety and depression.

Other studies examined more recent classes of antidepressants such as SSRIs, finding that they too maintain a satisfactory level of effectiveness in most patients. Two meta-analyses found strong levels of efficacy for newer antidepressants such as SSRIs in treating major depression, with no evidence of advantage for any specific drug over another (Williams et al., 2000; Gartlehner et al., 2008). Another systematic review examining the effectiveness of the latest antidepressant medications looked at sixteen trials in the early 2000s with a total of nearly 1,900 patients, half randomized to drug treatment alone and the other half to drug treatment plus psychotherapy (Pampallona et al., 2004). While this study found positive outcomes among both groups, patients receiving combined treatment improved particularly well, highlighting not only the effectiveness of antidepressants, but also their ability to help patients when combined with psychosocial approaches such as psychotherapy. An additional systematic review of 6 RCTs examining the treatment of post-partum depression using SSRIs found that all studies demonstrated high response and remission rates among patients (De Crescenzo, Perelli, Armando & Vicari, 2014). These studies and others highlight the proven effectiveness of the newer class of SSRIs in effectively treating depression.

Other studies compared the effectiveness of SSRIs with the older class of tricyclic antidepressants to examine which class of drug is more useful in patients with depression (MacGillivray et al., 2003). While the authors of one meta-analysis concluded that SSRIs and tricyclics did not differ significantly in terms of effectiveness, SSRIs are generally more tolerable for patients than tricyclics, a conclusion made by other reviews

as well (MacGillivray et al., 2003). However, the study came to this conclusion primarily due to the fact that patients receiving tricyclics withdrew from treatment due to side effects at much higher rates than patients receiving SSRIs. While many reports have suggested that SSRIs are more cost-effective because they are better tolerated and less likely to lead to overdose, a recent study examining cost-effectiveness of different antidepressant classes found there is currently not enough evidence to come to this conclusion, and that more research is needed (Hotopf, Lewis & Normand, 2018). Therefore, while effectiveness of both older and newer classes of antidepressants is indicated, the older class often causes more negative side effects thereby making them less desirable for patients.

The largest systematic review to date – and one of the only ones to include LMICs – examining whether current interventions to treat mental disorders are effective however, argues that while evidence is robust it nevertheless overwhelmingly originates in high-income countries (Patel et al., 2007). Of the 11,501 trials worldwide identified by this study, only 13% are from LMICs with the vast majority of these being in more middle-income countries in Asia. Therefore, even the best research to date lacks generalizability due to limited evidence from many parts of the world. The authors conclude that while in high-income countries a combination of antidepressants and psychotherapy is the most effective treatment, in low-income countries antidepressants alone are found to be efficacious (Patel et al., 2007). As previously discussed however, the presence of psychosocial approaches to treat mental illness in many LMICs is scarce to nonexistent, making an examination of this claim difficult to verify – though seemingly erroneous at face value.

While there are few systematic reviews or meta-analyses in LMICs, there are nonetheless several high quality studies of antidepressant effectiveness from LMICs published in the last couple decades. One RCT from Goa, India examined patients suffering from depression in two district hospitals (Patel et al., 2003). Patients were randomly assigned to either an SSRI, placebo, or a psychosocial intervention similar to psychotherapy. The SSRI or placebo was provided up to 6 months and the psychological treatment was provided by trained therapists for up to 6 sessions. Overall, while the psychosocial intervention was not found to be more effective than placebo at any point or on any outcome, antidepressants were found to have significantly better outcomes than placebo in both the short and long term (Patel et al., 2003). Affordable antidepressants such as SSRIs should therefore be the treatment of choice for common mental disorders, the authors conclude.

In sub-Saharan Africa, studies regarding the effectiveness of antidepressants often focus on those living with HIV due to high rates of infection in many countries of the region, as well as funding opportunities. One study out of Uganda examined the effectiveness of both tricyclics and SSRIs, finding that 122 of 154 patients studied responded to treatment, and concluding that antidepressants are effective in treating both moderate and severe depression among HIV+ patients (Ngo et al., 2014).

Other studies have been able to examine the use of medications in combination with psychosocial interventions. One randomized controlled trial in three primary care clinics in Chile examined 240 adult females with major depression (Araya et al., 2003). Patients were either provided both medication and the psychosocial intervention, or control conditions. Authors found that patients provided the multicomponent intervention responded significantly better compared with the control group, leading to this intervention to be scaled up across Chile (Araya et al., 2003). According to the authors, when appropriate screening procedures are put in place, medication can be provided in a way that is safe, effective, and sustainable for patients and communities.

The effectiveness of medication for treating mental illness is also proven by how effective these treatments can be for the more severe cases. In particular, one meta-analysis examining six randomized



placebo-controlled trials of antidepressants for the treatment of mild to severe depression found that the magnitude of benefit of antidepressant medication compared to placebo increased significantly with the severity of depressive symptoms (Fournier et al., 2010). For patients with the most severe cases of depression therefore, the benefit of medication over placebo was substantial. With regards to more serious mental illnesses such as bipolar depression, one systematic review examining 12 RCTs found antidepressants are safe and effective in the treatment of bipolar patients, concluding that MAOIs and SSRIs show higher efficacy compared with tricyclic antidepressants (Gijsman et al., 2004). While a different class of drugs from antidepressants, antipsychotic medications are a common first line treatment for the most serious mental illnesses such as schizophrenia. The vast majority of research on antipsychotics shows much higher level of efficacy in treating schizophrenic individuals compared with efficacy of antidepressants in treating less serious mental illnesses, this in spite of occasionally serious side effects (Leucht et al., 2003; Hartling et al., 2012; Leucht et al., 2012). The above research therefore indicates that antidepressants and other psychotropic medications have proven effectiveness when treating a range of mental illness, though there continues to be significant disagreement about which class of drug is more effective in treating specific cases.

Lastly, additional biomedical approaches such as electroshock therapy (ECT) continue to exist around the world in the treatment of mental illness. While controversial and lacking professional consensus in many cases, the American Psychiatric Association removed a prohibition on its use in the early 2000s, and it continues to be used as a treatment for severe cases of depression in many LMICs as well as some high-income countries such as the United States and Japan (Addlakha, 2008). In other high-income countries such as Italy, Germany, France and the Netherlands however, it is largely obsolete and only used as a life-saving intervention for patients with a high degree of suicidal intent or severe depression. In this sense, it can still be considered effective as, while some consider it barbaric and inhumane – particularly when not administered with anesthetic – the effect of the treatment is immediate and is often preferable to high doses of antipsychotics which contain their own serious risks for the patient (Addlakha, 2008).

### What are the drawbacks of biomedical approaches?

Challenges to biomedical approaches to treating mental illness are widespread despite evidence that these treatments have been beneficial to some patients. Nevertheless, many individuals have also been irreparably harmed by these drugs, with most concern focusing on the risks to children. Firstly, there are concerns in high-income countries regarding the over-prescription of powerful psychotropic medications to minors, and that calls from the WHO to scale up biomedical treatment for children diagnosed with mental illnesses in LMICs is harmful (Mills, 2014). Additionally, while evidence in recent years found that medications such as SSRIs are not only ineffective but potentially harmful in children and adolescents – recommending other interventions such as psychosocial approaches – the number of children prescribed SSRIs and other psychotropic medications continues to rise globally (Whittington, Kendall & Pilling, 2005; Tsapakis et al., 2008). As young minds are growing and malleable, the medicalization of “youth mental disorders” and consequent treatment of children with psychotropic drugs is justifiably one of the most serious concerns facing GMH.

Even among adult patients suffering from mental illness, many are calling for a paradigm change in GMH, arguing that the evidence base for biomedical psychiatric approaches itself remains unconvincing (Bracken et al., 2012). Currently, critics contend that the argument that psychotropic drugs work in a specific way, correcting “biochemical imbalances” assumed to be the cause of distress, is fallacious. According to one scientist who examined the so-called “dopamine hypothesis,” there

is currently little evidence that psychiatric drugs correct such imbalances, but rather “alter brain chemistry through intoxication” by disruption normal brain function (Moncrieff, 2009). In this study, the author shows that drugs assumed to work on the dopamine neurotransmitter in fact simply induce a state of neurological suppression that reduces the intensity of symptoms, and often does not act on dopamine in the assumed way at all (Moncrieff, 2009). This and other studies argue that the mechanisms we currently use to explain the effectiveness of psychotropic medications as working on specific neurotransmitters are essentially fabricated falsehoods.

Similarly with dopamine, other studies have examined the effect of antidepressant medications on the neurotransmitter serotonin. It is widely postulated in popular culture – largely through the advertising of drug companies – that a lack of serotonin in the brain is what causes depression. However, researchers examining a little known class of antidepressants called selective serotonin reuptake enhancers (SSREs) – which decrease serotonin in the brain – found that they had the same response rate as SSRIs – which increase serotonin – as well as tricyclics and other antidepressants (Wagstaff, Ormrod, Spencer, 2001). In this sense, while these drugs may be working on the neurotransmitters postulated, they are not at all working in the ways claimed by pharmaceutical companies as well as many researchers.

Lastly, many criticize antidepressants due to harsh side effects such as sexual dysfunction, weight gain, insomnia, and significant difficulty with withdrawal when patients stop taking their medications (Kirsch, 2014). In particular, negative sexual side effects – including decreased libido, difficulty ejaculating, and erectile dysfunction – can occur in up to 60% of patients (Predictable, 2006). Many patients have found this to be reason enough to avoid antidepressants altogether, though other patients find they have these side effects with some SSRIs and not others.

In recent years, antidepressant withdrawal has attracted more attention. While the subject has been explored since the early 1980s and earlier with regards to the first classes of antidepressants (Dilsaver & Greden, 1984), recent attention – including exposés in large international newspapers – has increased scrutiny (Carey & Gebeloff, 2018). While many previous studies reported withdrawal to be mild and to last between two to three weeks for most patients, a recent systematic review found withdrawal to be much more widespread than previously believed and that nearly half of sufferers (46%) experience “severe” withdrawal lasting several weeks or more (Davies & Read, 2019). With antidepressant use increasing exponentially, in addition to large increases in the duration of use by patients, the authors argue that withdrawal will continue to increase in severity and pose an even more significant threat over time.

Regardless of *how* antidepressants work however, many are simply interested in *whether* they work or not. In one of the first meta-analyses on antidepressants published in 1998, the author was very interested in the placebo effect but assumed antidepressants were effective after prescribing them in his psychotherapy practice for decades. Yet, after his research he discovered that 75% percent of the improvement of the intervention group also occurred when people were given placebo (Kirsch, 2014). When this meta-analysis was published, it was harshly criticized leading the author to request Food and Drug Administration (FDA) data on funding, which showed that nearly half of all studies on psychotropic medications sponsored by pharmaceutical companies had not been published as they had failed to find a significant benefit of drug compared to placebo. While the FDA requires two adequately conducted clinical trials depicting a significant difference between the drug and a placebo, there is no limit to the number of trials that can be conducted in the hunt for significant results; with one drug, vilazodone, seven trials had been conducted where the first five failed to show any significance. Overall, FDA data showed that only 43% of trials found a statistically significant effect of the drug tested compared with placebo, leaving a

failure rate of 57% (Kirsch, 2014). Similar studies have been conducted, and have found similarly low results in terms of psychotropic drug effectiveness in pharmaceutical trials (Khin, Chen, Yang, Yang & Laughren, 2011). Thus, many psychotropic drugs currently on the market may have passed muster on only a fraction of tests conducted, rendering them pharmacologically useless.

Of particular concern regarding the practices of drug companies and the FDA are the funding streams behind many drug approvals. A 2016 meta-analysis of 522 different antidepressant trials found that 78% of studies were funded by drug companies with many others not reporting funding sources (McCormack, 2016). In addition to funding streams, studies have repeatedly demonstrated that marketing practices can change the behavior of health care professionals and patients through the use of financial incentives, gifts, vacations, travel, meals and samples of drugs (Adair & Holmgren, 2005). Such strategies were depicted in detail the book *Crazy Like Us*, where drug companies attempted to introduce antidepressants into Japan in the early 2000s, a country that previously did not share conceptions of depression or mental illness that favored prescription medication as a possible cure (Watters, 2010). Through widespread marketing and social manipulation, large drug companies managed to change perceptions in Japanese society and enter into this new marketplace. As profit-making institutions, pharmaceutical companies have historically had the highest profit margins of any industry, with the top 10 drug companies earning profit margins of 17% – compared with median profit margins of 3% for all other industries on the Fortune 500 (Adair & Holmgren, 2005). Therefore, many critics find them to be inherently unscrupulous as institutions.

In the 1990s, it was largely believed that antidepressants worked in 70% of depressed patients compared to roughly 30% for placebo according to a US Department of Health and Human Services report on treatment of major depression. However, according to one study, this was found to be significantly overestimated with the more accurate rate closer to 40% effectiveness for antidepressants and 30% for placebo, a significant decrease in margins (Khan, 2015). Another more recent meta-analysis of 522 trials of 21 different antidepressants in 116,477 patients found drugs effective 50% of the time and placebo 40% of the time, a similarly negligible difference (McCormack, 2016). Additionally, in studies where researchers and staff were blinded, rates were virtually the same for antidepressants and placebo (Khan, 2015). With the most optimistic estimates of antidepressant clinical trial effect size estimated to be around .30, this remains similar to other chronic conditions, but far below illnesses such as irritable bowel syndrome (IBS) with a response rate of 56% compared to 46% for placebo, and hypertension with a response rate of 58% compared to 30% for placebo (Khan, 2015). While many argue that effectiveness of psychotropic medications increase with the severity of the illness, other large systematic reviews found similarly lackluster results. In one meta-analysis examining treatment of bipolar with antidepressants in 15 RCTs, researchers concluded that antidepressants – primarily SSRIs – were not effective for treatment of acute bipolar patients compared with other medications or placebo (Sidor & MacQueen, 2011). Many therefore recommend against antidepressants compared with psychosocial treatments due not only to comparative benefit, but also potential adverse short and long-term effects, and likelihood of withdrawal (McCormack, 2016).

Due to continued deliberation about the effectiveness of psychotropic interventions in high-income countries, whether or not antidepressants should continue to be exported to programs scaling up mental health services in LMICs is therefore hotly debated. Even the staunchest defenders of GMH, who characterize the effectiveness of pharmacological interventions for mental disorders as “transformative in reducing individual suffering and disability and comparable or superior to interventions for other chronic conditions,” admit that antidepressants

could have limited effects on population-level burden of mental illness, as data from high-income countries shows that, despite increases in the provision of antidepressants, the prevalence of mood and anxiety disorders continues to increase (Patel et al., 2018, p. 12). Other supporters of the effectiveness of antidepressants argue that even though SSRIs may show improvement in symptoms and level of disability, the high acquisition price of even generic SSRIs increases the total cost of care substantially (Chisholm et al., 2004). For this reason, brief evidence-based psychotherapy is potentially a more appropriate alternative to antidepressants in many LMICs. Despite population-level burden or cost factors however, a deeper question remains about the role of psychopharmaceutical drugs and the impact on the daily life of individuals and their families. While GMH interventions tend to suggest positive outcomes heavily outweigh negative outcomes in most drug trials to date, anthropologists have raised concerns about the medicalization of experience and the pathologizing of individuals as a result of wealthy pharmaceutical companies and their global distributors’ agendas in mental health care delivery systems (Kohrt & Mendenhall, 2016).

## Conclusion

The purpose of GMH research is to determine the most effective treatments for citizens around the globe regardless of where they live, what language they speak, or what religion they practice. The future of mental health treatment is therefore one of openness to adaptation and experimentation based on a wide range of cultural factors, to ensure that treatments are in sync with patient understanding itself. Pertinent to mental health in this context is Amartya Sen’s view that development can only be realized when people have real freedom within their unique social contexts (Sen, 1999). According to this view, allowing individuals to have practical access to the things they value allows for increased well-being, whereas exposure to social or economic adversity undermines the fundamental mental health capabilities that make freedom possible. Understanding that social context and suffering underlie much of the distress people experience presents an important counterpoint to the tendency to focus on internal causation for mental illness, and provides a valuable perspective on the limited role that mental health services can provide in terms of curative treatment.

Nevertheless, it is important to remember that a vast amount of research consistently shows that psychosocial and biomedical treatments are effective, and that those who participate in them generally benefit (Wampold, 2001). More specifically, while psychosocial approaches are advised for patients with more mild to moderate disorders, medications and other biomedical approaches are recommended increasingly only for the more severe cases. While significant evidence exists to justify the use of psychotropic medications for mental illness, their adverse effects indicate they should only be reserved for the more extreme cases. In this sense, if empiricism is used as criteria for grading healing practices, biomedical and psychosocial approaches are in vanguard of treatment options – with the choice of one or the other depending on the severity of the presenting patient’s symptoms.

Thus, researchers and practitioners within GMH should seek to gain a full understanding of the history of mental health, taking into account the field’s past of grappling with concerns about the use of predominantly biomedical models developed in high-income countries to define illness and treatment across diverse cultures with a wide-ranging perspective on mental disorder and distress. Yet, they should also forge ahead to promote practical, realistic, and sensible evidence-based treatments for the benefit of one of the world’s most vulnerable groups of people – namely, people with mental illness. GMH practitioners could promote a balanced approach in which we resist an automatic ideological reaction against the use of medications, just as we avoid romanticizing traditional shamanistic therapies (Kohrt & Mendenhall, 2016). As with

all inter-cultural work, respect for the wide range of experiences and behaviors inherent in the diversity of human societies around the globe should always be at the forefront of GMH.

## References

1. Abas, M., Bowers, T., Manda, E., Cooper, S., and Machando, D., et al. (2016). 'Opening up the mind': Problem-solving therapy delivered by female lay health workers to improve access to evidence-based care for depression and other common mental disorders through the friendship bench project in Zimbabwe. *International Journal of Mental Health Systems*, 10, 1-8. doi:10.1186/s13033-016-0071-9
2. Abaza, H., & Marschollek, M. (2017). mHealth Application Areas and Technology Combinations. *Methods of information in medicine*, 56(S 01), e105-e122.
3. Adair, R. F., and Holmgren, L. R. (2005). Do drug samples influence resident prescribing behavior? A randomized trial. *The American journal of medicine*, 118(8), 881-884.
4. Addlakha, R. (2008). Deconstructing mental illness: An ethnography of psychiatry, women, and the family. Zubaan.
5. Andersen, L. S., Magidson, J. F., O'Cleirigh, C., Remmert, J. E. and Kagee, A., (2018). A pilot study of a nurse-delivered cognitive behavioral therapy intervention (Ziphamandla) for adherence and depression in HIV in South Africa. *Journal of Health Psychology*, 23, 776-787. doi:10.1177/1359105316643375
6. Araya, R., Rojas, G., Fritsch, R., Gaete, J. and Rojas, et al. (2003). Treating depression in primary care in low-income women in Santiago, Chile: a randomised controlled trial. *The Lancet*, 361(9362), 995-1000.
7. Bass, J., Neugebauer, R., Clougherty, K. F., Verdelli, H. and Wickramaratne, P., et al. (2006). Group interpersonal psychotherapy for depression in rural Uganda: 6-month outcomes: randomized controlled trial. *The British Journal of Psychiatry*, 188, 567-573.
8. Barth, J., Munder, T., Gerger, H., Nüesch, E., and Trelle, S., Znoj, H., et al. (2016). Comparative efficacy of seven psychotherapeutic interventions for patients with depression: a network meta-analysis. *Focus*, 14(2), 229-243.
9. Batada, A., and Leon Solano, R. (2019). Harnessing Technology to Address the Global Mental Health Crisis.
10. Betancourt, T. S., McBain, R., Newnham, E. A., and Brennan, R. T. (2014). Context matters: Community characteristics and mental health among war-affected youth in Sierra Leone. *Journal of Child Psychology and Psychiatry*, 55(3), 217-226.
11. Betancourt, T. S., Gilman, S. E., Brennan, R. T., Zahn, I., and Vander Weele, T. J. (2015). Identifying priorities for mental health interventions in war-affected youth: a longitudinal study. *Pediatrics*, 136(2), e344-e350.
12. Betancourt, T. S., Newnham, E. A., Hann, K., McBain, R. K., and Akinsulure-Smith et al. (2014). Addressing the consequences of violence and adversity: the development of a group mental health intervention for war-affected youth in Sierra Leone.
13. Betancourt, T. S., Brennan, R. T., Vinck, P., VanderWeele, T. J. and Spencer-Walters, D., et al (2016). Associations between mental health and ebola-related health behaviors: a regionally representative cross-sectional survey in post-conflict Sierra Leone. *PLoS medicine*, 13(8), e1002073.
14. Bracken, P., Thomas, P., Timimi, S., Asen, E., and Behr, G., et al. (2012). Psychiatry beyond the current paradigm. *The British journal of psychiatry*, 201(6), 430-434.
15. Bryson, B. (2019). *The Body: A Guide for Occupants*. Penguin Random House Ltd.
16. Carey, B. & Gebeloff, R. (2018). *Many People Taking Antidepressants Discover They Cannot Quit*. New York Times.
17. Casacalenda, N., Perry, J. C., & Looper, K. (2002). Remission in major depressive disorder: a comparison of pharmacotherapy, psychotherapy, and control conditions. *American Journal of Psychiatry*, 159(8), 1354-1360.
18. Chibanda, D., Weiss, H. A., Verhey, R., Simms, V. and Munjoma, R., et al. (2016). Effect of a primary care-based psychological intervention on symptoms of common mental disorders in Zimbabwe: A randomized clinical trial. *JAMA: Journal of the American Medical Association*, 316, 2618-2626. doi:10.1001/jama.2016.19102
19. Chisholm, D., Sanderson, K., Ayuso-Mateos, J. L., and Saxena, S. (2004). Reducing the global burden of depression: population-level analysis of intervention cost-effectiveness in 14 world regions. *The British Journal of Psychiatry*, 184(5), 393-403.
20. Churchill, R., Hunot, V., Corney, R., Knapp, M., McGuire, H., Tylee, A., & Wessely, S. (2002). A systematic review of controlled trials of the effectiveness and cost-effectiveness of brief psychological treatments for depression. *Health technology assessment*, 5(35), 1-173.
21. Cuijpers, P., van Straten, A., Warmerdam, L., and Andersson, G. (2009). Psychotherapy versus the combination of psychotherapy and pharmacotherapy in the treatment of depression: a meta-analysis. *Depression and anxiety*, 26(3), 279-288.
22. Cuijpers, P., van Straten, A., Schuurmans, J., van Oppen, P. and Hollon, S. D., et al. (2010). Psychotherapy for chronic major depression and dysthymia: a meta-analysis. *Clinical psychology review*, 30(1), 51-62.
23. Cuijpers, P., Sijbrandij, M., Koole, S. L., Andersson, G. and Beekman, A. T. et al. (2013). The efficacy of psychotherapy and pharmacotherapy in treating depressive and anxiety disorders: A meta-analysis of direct comparisons. *World Psychiatry*, 12(2), 137-148.
24. Cuijpers, P., Karyotaki, E., Weitz, E., Andersson, and G., Hollon, S. D., et al. (2014). The effects of psychotherapies for major depression in adults on remission, recovery and improvement: a meta-analysis. *Journal of affective disorders*, 159, 118-126.
25. Cushman, P. (1992). Psychotherapy to 1992: A historically situated interpretation. In D. K. Freedheim, H. J. Freudenberg, J. W. Kessler, S. B. Messer, D. R. Peterson, H. H. Strupp, & P. L. Wachtel (Eds.), *History of psychotherapy: A century of change*. 21-64. Washington, DC, US: American Psychological Association.
26. Davies, J., & Read, J. (2019). A systematic review into the incidence, severity and duration of antidepressant withdrawal effects: Are guidelines evidence-based?. *Addictive behaviors*, 97, 111-121.
27. Deane, S. (2019). rLung, Mind, and Mental Health: The Notion of "Wind" in Tibetan Conceptions of Mind and Mental Illness. *Journal of religion and health*, 58(3), 708-724.
28. De Crescenzo, F., Perelli, F., Armando, M., & Vicari, S. (2014). Selective serotonin reuptake inhibitors (SSRIs) for post-partum depression (PPD): a systematic review of randomized clinical trials. *Journal of Affective Disorders*, 152, 39-44.

27. De Mello, M. F., de Jesus Mari, J., Bacaltchuk, J., Verdeli, H., and Neugebauer, R. (2005). A systematic review of research findings on the efficacy of interpersonal therapy for depressive disorders. *European archives of psychiatry and clinical neuroscience*, 255(2), 75-82.
28. Dilsaver, S. C., & Greden, J. F. (1984). Antidepressant withdrawal phenomena. *Biological Psychiatry*.
29. Dua, T., Barbui, C., Clark, N., Fleischmann, A. and Poznyak, V., et al (2011). Evidence-based guidelines for mental, neurological, and substance use disorders in low-and middle-income countries: summary of WHO recommendations. *PLoS Medicine*, 8(11), e1001122.
30. Ehrenwald, J. (Ed.). (1976). *The history of psychotherapy: From healing magic to encounter*. Jason Aronson.
31. Elkin, I., Shea, M. T., Watkins, J. T., Imber, S. D., and Sotsky, et al (1989). National Institute of Mental Health treatment of depression collaborative research program: General effectiveness of treatments. *Archives of general psychiatry*, 46(11), 971-982.
32. Engel, G. L. (1977). The need for a new medical model: a challenge for biomedicine. *Science*, 196(4286), 129-136.
33. England, M. J., Butler, A. S., and Gonzalez, M. L. (Eds.). (2015). *Psychosocial interventions for mental and substance use disorders: A framework for establishing evidence-based standards*. Washington, DC: National Academies Press.
34. Fairburn, C. G., and Patel, V. (2014). The global dissemination of psychological treatments: a road map for research and practice. *American Journal of Psychiatry*, 171(5), 495-498.
35. Fernando, G. A. (2012). The roads less traveled: Mapping some pathways on the global mental health research roadmap. *Transcultural Psychiatry*, 49(3-4), 396-417.
36. Foerschner, A. M. (2010). The History of Mental Illness: From "Skull Drills" to "Happy Pills". *Inquiries Journal*, 2(09).
37. Fonagy, P., Rost, F., Carlyle, J. A., McPherson, S. and Thomas, R., et al, (2015). Pragmatic randomized controlled trial of long-term psychoanalytic psychotherapy for treatment-resistant depression: The Tavistock Adult Depression Study (TADS). *World Psychiatry*, 14(3), 312-321.
38. Foucault, M. (1961). *Madness and civilization*. Routledge.
39. Furukawa, T. A., Watanabe, N., and Churchill, R. (2006). Psychotherapy plus antidepressant for panic disorder with or without agoraphobia: systematic review. *The British Journal of Psychiatry*, 188(4), 305-312.
40. Gartlehner G, Gaynes BN, Hansen RA, Thieda P, DeVeaugh-Geiss A, et al. (2008). Comparative benefits and harms of second-generation antidepressants: background paper for the American College of Physicians. *Ann Intern Med* 149: 734–750.
41. Gaudiano, B. A. (2008). Cognitive-behavioural therapies: achievements and challenges. *Evidence-Based Mental Health*, 11(1), 5-7.
42. Gijsman, H. J., Geddes, J. R., Rendell, J. M., Nolen, W. A., and Goodwin, G. M. (2004). Antidepressants for bipolar depression: a systematic review of randomized, controlled trials. *American Journal of Psychiatry*, 161(9), 1537-1547.
43. Glass, G. V. (1976). Primary, secondary, and meta-analysis of research. *Educational researcher*, 5(10), 3-8.
44. Goffman, E. (1968). *Asylums: Essays on the social situation of mental patients and other inmates*. Aldine Transaction.
45. Goodfriend, M., ter Horst, R., Pintaldi, G., Junker, A. and Frielingsdorf, H., et al (2014). Emergency psychiatric care in North Kivu in the Democratic Republic of the Congo. *Intervention*.
46. Hartling, L., Abou-Setta, A. M., Dursun, S., Mousavi, S. S., and Pasichnyk, D., et al (2012). Antipsychotics in adults with schizophrenia: comparative effectiveness of first-generation versus second-generation medications: a systematic review and meta-analysis. *Annals of internal medicine*, 157(7), 498-511.
47. Himelhoch, S., Medoff, D. R., and Oyenyi, G. (2007). Efficacy of group psychotherapy to reduce depressive symptoms among HIV-infected individuals: a systematic review and meta-analysis. *AIDS patient care and STDs*, 21(10), 732-739.
48. Hotopf, M., Lewis, G., and Normand, C. (1996). Are SSRIs a cost-effective alternative to tricyclics?. *The British Journal of Psychiatry*, 168(4), 404-409.
49. Irfan, M., Muzaffar, S., Kingdon, D., Rathod, S., and Naeem, F. (2019). Psychotherapy for schizophrenia and bipolar disorder. In *Global Mental Health and Psychotherapy*; 223-239. Academic Press.
50. Jordans, M. J., Tol, W. A., Susanty, D., Ntamatumba, P. and Luitel, N. P., et al, (2013). Implementation of a mental health care package for children in areas of armed conflict: a case study from Burundi, Indonesia, Nepal, Sri Lanka, and Sudan. *PLoS medicine*, 10(1), e1001371.
51. Khabbache, H., Bragazzi, N., and Rammouz, I. (2016). Task-shifting and organization of psychiatric services in a low-resource context: Using peer therapy at a mental rehabilitation center in Fès as a case study. *European Psychiatry*, 33, S608.
52. Khan, A., & Brown, W. A. (2015). Antidepressants versus placebo in major depression: an overview. *World Psychiatry*, 14(3), 294-300.
53. Khin, N. A., Chen, Y. F., Yang, Y., Yang, P., and Laughren, T. P. (2011). Exploratory analyses of efficacy data from major depressive disorder trials submitted to the US Food and Drug Administration in support of new drug applications. *The Journal of clinical psychiatry*.
54. Kieling, C., Baker-Henningham, H., Belfer, M., Conti, G., Ertem, I. and Omigbodun, et al, A. (2011). Child and adolescent mental health worldwide: evidence for action. *The Lancet*, 378(9801), 1515-1525.
55. Kirmayer, L. J. (2012). Cultural competence and evidence-based practice in mental health: Epistemic communities and the politics of pluralism. *Social science & medicine*, 75(2), 249-256.
56. Kirsch, I. (2014). Antidepressants and the placebo effect. *Zeitschrift für Psychologie*, 222(3), 128.
57. Kleinman, A. (1987). Anthropology and psychiatry: The role of culture in cross-cultural research on illness. *The British Journal of Psychiatry*, 151(4), 447-454.
58. Kohrt, B. A., & Mendenhall, E. (Eds.). (2016). *Global mental health: anthropological perspectives*; 2. Routledge.
59. Kruisselbrink Flatt, A. (2013). *A Suffering Generation: Six Factors Contributing to the Mental Health Crisis in North American Higher Education*. *College Quarterly*, 16(1), n1.
60. Lee, R. M., and Ramirez III, M. (2000). The history, current status, and future of multicultural psychotherapy. In *Handbook of multicultural mental health*. 279-309. Academic Press.
61. Leucht, S., Barnes, T. R., Kissling, W., Engel, R. R. and Correll, C., et al (2003). Relapse prevention in schizophrenia with new-generation antipsychotics: a systematic review and exploratory meta-analysis of randomized, controlled trials. *American Journal of Psychiatry*, 160(7), 1209-1222.
62. Leucht, S., Tardy, M., Komossa, K., Heres, S. and Kissling, W., et al (2012). Antipsychotic drugs versus placebo for relapse

- prevention in schizophrenia: a systematic review and meta-analysis. *The Lancet*, 379(9831), 2063-2071.
63. Lieberman, J. A. (2003). History of the use of antidepressants in primary care. *J Clin Psychiatry*, 5(Suppl 7), 6-10.
  64. López-Muñoz, F., and Alamo, C. (2009). Monoaminergic neurotransmission: the history of the discovery of antidepressants from 1950s until today. *Current pharmaceutical design*, 15(14), 1563-1586.
  65. Lysaker, P. H., and Silverstein, S. M. (2009). Psychotherapy of schizophrenia: A brief history and the potential to promote recovery. *Clinical Case Studies*, 8(6), 417-423.
  66. MacGillivray, S., Arroll, B., Hatcher, S., Ogston, S. and Reid, I., et al (2003). Efficacy and tolerability of the selective serotonin reuptake inhibitors compared with tricyclic antidepressants in depression treated in primary care: systematic review and meta-analysis. *Bmj*, 326(7397), 1014.
  67. McCormack, J., and Korownyk, C. (2018). Effectiveness of antidepressants. *BMJ: British Medical Journal (Online)*, 360.
  68. Malla, A., Joobar, R., and Garcia, A. (2015). "Mental illness is like any other medical illness": a critical examination of the statement and its impact on patient care and society. *Journal of psychiatry & neuroscience: JPN*, 40(3), 147.
  69. McNeal, E. T., & Cimboric, P. (1986). Antidepressants and biochemical theories of depression. *Psychological bulletin*, 99(3), 361.
  70. Mills, C. (2014). Psychotropic childhoods: global mental health and pharmaceutical children. *Children & society*, 28(3), 194-204.
  71. Mills, C. (2015). The psychiatrization of poverty: Rethinking the mental health-poverty nexus. *Social and Personality Psychology Compass*, 9 (5). 213 - 222. ISSN 1751-9004
  72. Moncrieff, J. (2009). A critique of the dopamine hypothesis of schizophrenia and psychosis. *Harvard review of psychiatry*, 17(3), 214-225.
  73. Murray, L. K., Familiar, I., Skavenski, S., Jere, E. and Cohen, J., et al (2013). An evaluation of trauma focused cognitive behavioral therapy for children in Zambia. *Child abuse & neglect*, 37, 1175-1185.
  74. Nieuwsma, J. A., Trivedi, R. B., McDuffie, J., Kronish, I. and Benjamin, D., et al (2012). Brief psychotherapy for depression: a systematic review and meta-analysis. *The International Journal of Psychiatry in Medicine*, 43(2), 129-151.
  75. Ngo, V. K., Wagner, G. J., Nakasujja, N., Dickens, A. and Aunon, F., et al. (2015). Effectiveness of antidepressants and predictors of treatment response for depressed HIV patients in Uganda. *International journal of STD & AIDS*, 26(14), 998-1006.
  76. Norcross, J. C., Pfund, R. A., and Prochaska, J. O. (2013). Psychotherapy in 2022: A Delphi poll on its future. *Professional Psychology: Research and Practice*, 44(5), 363-370.
  77. O'Donnell, K., Dorsey, S., Gong, W., Ostermann, J. and Whetten, R., et al. (2014). Treating maladaptive grief and posttraumatic stress symptoms in orphaned children in Tanzania: Group-based trauma-focused cognitive-behavioral therapy. *Journal of traumatic stress*, 27, 664-671.
  78. Pampallona, S., Bollini, P., Tibaldi, G., Kupelnick, B., and Munizza, C. (2004). Combined pharmacotherapy and psychological treatment for depression: a systematic review. *Archives of general psychiatry*, 61(7), 714-719.
  79. Patel, V., Chisholm, D., Rabe-Hesketh, S., Dias-Saxena, F., Andrew, G., et al. (2003). Efficacy and cost-effectiveness of drug and psychological treatments for common mental disorders in general health care in Goa, India: a randomised, controlled trial. *The Lancet*, 361(9351), 33-39.
  80. Patel, V., Araya, R., Chatterjee, S., Chisholm, D. and Cohen, A., et al (2007). Treatment and prevention of mental disorders in low-income and middle-income countries. *The Lancet*, 370(9591), 991-1005.
  81. Patel, V., and Prince, M. (2010). Global mental health: a new global health field comes of age. *Jama*, 303(19), 1976-1977.
  82. Patel, V., Saxena, S., Lund, C., Thornicroft, G. and Baingana, F., (2018). The Lancet Commission on global mental health and sustainable development. *The Lancet*, 392(10157), 1553-1598.
  83. Petersen, I., Bhana, A., Baillie, K., and MhaPP. Research Programme Consortium. (2012). The feasibility of adapted group-based interpersonal therapy (IPT) for the treatment of depression by community health workers within the context of task shifting in South Africa. *Community mental health journal*, 48, 336-341.
  84. Pincus, H. A., & England, M. J. (2015). Improving the quality of psychosocial interventions for mental and substance use disorders: a report from the IOM. *Jama*, 314(12), 1227-1228.
  85. Predictable, S. E. A. U. (2006). Side effects of antidepressants: an overview. *Cleveland Clin J Med*, 73, 351.
  86. Pritz, A. (Ed.). (2002). *Globalized psychotherapy*. *Facultas Universitäts*.
  87. Rahman, A. (2007). Challenges and opportunities in developing a psychological intervention for perinatal depression in rural Pakistan—a multi-method study. *Archives of women's mental health*, 10(5), 211-219.
  88. Rahman, A., Malik, A., Sikander, S., Roberts, C., and Creed, F. (2008). Cognitive behaviour therapy-based intervention by community health workers for mothers with depression and their infants in rural Pakistan: a cluster-randomised controlled trial. *The Lancet*, 372(9642), 902-909.
  89. Rasendran, R. (2019). Examining Mental Health Apps Potential in Providing Equitable Access to Care in the Global North and Global South: A Scoping Review.
  90. Rojas, G., Fritsch, R., Solis, J., Jadresic, E., Castillo, C., et al. (2007). Treatment of postnatal depression in low-income mothers in primary-care clinics in Santiago, Chile: a randomized controlled trial. *The Lancet*, 370(9599), 1629-1637.
  91. Sen, A. (1999). Development as freedom. Roberts, JT, Hite, AB & Chorev, N. *The Globalization and Development Reader: Perspectives on Development and Global Change*.
  92. Shorter, E. (2008). History of psychiatry. *Current opinion in psychiatry*, 21(6), 593.
  93. Sidor, M. M., & MacQueen, G. M. (2011). Antidepressants for the acute treatment of bipolar depression: a systematic review and meta-analysis. In *Database of Abstracts of Reviews of Effects (DARE): Quality-assessed Reviews [Internet]*. Centre for Reviews and Dissemination (UK).
  94. Sijbrandij, M., Acarturk, C., Bird, M., Bryant, R. A., Burchert, S., et al (2017). Strengthening mental health care systems for Syrian refugees in Europe and the Middle East: integrating scalable psychological interventions in eight countries. *European Journal of Psychotraumatology*, 8(sup2), 1388102.
  95. Smith, M. L., & Glass, G. V. (1977). Meta-analysis of psychotherapy outcome studies. *American psychologist*, 32(9), 752.
  96. Szasz, T. S. (1960). The myth of mental illness. *American Psychological Association*.

97. Trivedi, P. (2014). 'Nothing about us, without us'—A user/survivor perspective of global mental health. *International Review of Psychiatry*, 26(5), 544-550.
98. Tol, W. A., Barbui, C., Galappatti, A., Silove, D., Betancourt, T. S., et al (2011). Mental health and psychosocial support in humanitarian settings: linking practice and research. *The Lancet*, 378(9802), 1581-1591.
99. Tsapakis, E. M., Soldani, F., Tondo, L., & Baldessarini, R. J. (2008). Efficacy of antidepressants in juvenile depression: meta-analysis. *The British Journal of Psychiatry*, 193(1), 10-17.
100. Üçeyler, N., Häuser, W., & Sommer, C. (2008). A systematic review on the effectiveness of treatment with antidepressants in fibromyalgia syndrome. *Arthritis Care & Research: Official Journal of the American College of Rheumatology*, 59(9), 1279-1298.
101. Van Ginneken, N., Jain, S., Patel, V., & Berridge, V. (2014). The development of mental health services within primary care in India: learning from oral history. *International journal of mental health systems*, 8(1), 30.
102. Ventevogel, P. (2016). *Borderlands of mental health: explorations in medical anthropology, psychiatric epidemiology and health systems research in Afghanistan and Burundi*. Peter Ventevogel.
103. Wagstaff, A. J., Ormrod, D., & Spencer, C. M. (2001). Tianeptine. *CNS drugs*, 15(3), 231-259.
104. Viswanath, B., & Chaturvedi, S. K. (2012). Cultural aspects of major mental disorders: a critical review from an Indian perspective. *Indian Journal of Psychological Medicine*, 34(4), 306.
105. Wampold, B. E. (2001). Contextualizing psychotherapy as a healing practice: Culture, history, and methods. *Applied and Preventive Psychology*, 10(2), 69-86.
106. Watanabe, N., Hunot, V., Omori, I. M., Churchill, R., & Furukawa, T. A. (2007). Psychotherapy for depression among children and adolescents: a systematic review. *Acta Psychiatrica Scandinavica*, 116(2), 84-95.
107. Watters, E. (2010). *Crazy like us: The globalization of the American psyche*. Simon and Schuster.
108. Whittington, C. J., Kendall, T., & Pilling, S. (2005). Are the SSRIs and atypical antidepressants safe and effective for children and adolescents?. *Current opinion in psychiatry*, 18(1), 21-25.
109. Williams J, Mulrow C, Chiquette E, Noel P, Aguilar C, et al. (2000). A systematic review of newer pharmacotherapies for depression in adults: evidence review summary. *Ann Intern Med* 132: 743–756.
110. Young, C. (2006). One hundred and fifty years on: The history, significance and scope of body psychotherapy today. *Body, Movement and Dance in Psychotherapy*, 1(1), 17-28.



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