AMERICAN UNIVERSITY OF BEIRUT

THE MEDIATING ROLE OF MENTAL HEALTH TREATMENT ENGAGEMENT ON SOCIODEMGRAPHIC FACTORS AND TREATMENT OUTCOMES: A CROSS-SECTIONAL STUDY USING SECONDARY REAL-WORLD DATA IN LEBANON

by
FATIMA HASSAN KHACHFE

A thesis
submitted in partial fulfillment of the requirements
for the degree of Master of Arts
to the Department of Psychology
of the Faculty of Arts and Sciences
at the American University of Beirut

Beirut, Lebanon
May 2025

AMERICAN UNIVERSITY OF BEIRUT

THE MEDIATING ROLE OF MENTAL HEALTH TREATMENT ENGAGEMENT ON SOCIODEMGRAPHIC FACTORS AND TREATMENT OUTCOMES: A CROSS-SECTIONAL STUDY USING SECONDARY REAL-WORLD DATA IN LEBANON

by
FATIMA HASSAN KHACHFE

Approved by:

Dr. Tania Bosqui, Associate Professor Department of Psychology	Advisor
Dr. Mona Ayoub, Assistant Professor Department of Psychology	Member of Committee
Dr. Frederique Vallieres, Professor Trinity Center for Global Health Trinity College Dublin, Ireland	Member of Committee

Date of thesis defense: May 5, 2025

ACKNOWLEDGEMENTS

First and foremost, I would like to thank my advisor, Dr. Tania Bosqui, for her relentless support throughout this process. Dr. Tania is the one who encouraged me to seek this experience, and for that I am eternally grateful. I am immensely thankful for the guidance, motivation, and patience you provided me with.

I would also like to extend my gratitude to the members of the committee, Dr. Mona Ayoub and Dr. Frederique Vallieres, for their constructive feedback and exceptional assistance.

This work would not have been possible without the support of IMC and their research team. I am grateful to have had the opportunity to work with such esteemed professionals and learn from their expertise.

To my parents, your unconditional love and support are the reason I am able to persevere. You are my faith and my role models in this world. Everything that I am, I owe it all to you. To my brothers, you have been my rock and source of strength. Thank you for always showing up in your own ways. To my fiancé, your unwavering love kept me grounded during the toughest times. Thank you for believing in me.

To my friends, thank you for your encouragement throughout this journey and many others.

This thesis is a testament to the possibilities that AUB provided me with, both personal and professional. Thank you for being a home during the last five years, for allowing me to nurture my curiosity, and for helping me meet such brilliant minds.

Finally, I thank God for giving me the strength to continue, in the midst of all the hardships of the year.

ABSTRACT

OF THE THESIS OF

Fatima Hassan Khachfe for Master of Arts
Major: Clinical Psychology

Title: The mediating role of mental health treatment engagement on sociodemographic factors and treatment outcomes: A cross-sectional study using secondary real-world data in Lebanon

Sociodemographic factors impact individuals' engagement in psychotherapy services. Engagement in turn influences treatment outcomes of psychotherapy. Research has previously defined engagement in therapy as being related to attending sessions or duration of treatment and has explored predictors of dropout. To our knowledge, no study has combined all these definitions to encompass a broader definition of engagement in psychotherapy. Previous research has also examined a variety of factors that influence engagement in psychotherapy such as demographic factors, education, employment, and therapist effects. This study derived its data from International Medical Corps (IMC), an NGO which provides free mental health services across primary health care centers (PHCCs) across Lebanon. In this secondary analysis, data on age, sex, marital status, nationality, and disability was explored. This cross-sectional study also explored engagement in psychotherapy as a mediator between sociodemographic factors and treatment success using PROCESS Macro Model 4. Results showed that sociodemographic factors predicted better engagement differently, and only marital status, disability, and nationality predicted treatment outcomes. Engagement partially predicted treatment outcomes and mediated the relationship between age, nationality, and disability with treatment outcomes. Further research is needed for more conclusive findings.
Key words: sociodemographic factors, engagement, treatment outcomes, psychotherapy, Lebanon

TABLE OF CONTENTS

ILLUSTRATIONS

Figure

TABLES

Table:

CHAPTER I

INTRODUCTION

Lebanon's political and social history has been one of the biggest contributors to mental health disorders among its people for decades. The World Health Organization (2010) correlates the war trauma, experienced by the population over decades, and the country's instability, financially and politically, with the high prevalence of anxiety and mood disorders. Over 90% of those suffering from mental health disorders in Lebanon do not receive any mental health services (World Health Organization, 2010). In the Middle Eastern region, studies have been primarily conducted on hospitalizations and prescriptions for mental health related disorders, and less often on psychological treatment of these disorders (Nasser & Salamoun, 2011). A study by Karam et al. (2006) on the Lebanese population yielded similar results on the under-utilization of mental health services when needed, with only one-tenth of the people seeking help. Research in the Arab region has frequently focused on treatment outcomes and help-seeking behaviors, whereas only a few have focused on engagement in psychotherapy. This is important because positive outcomes of treatment in psychotherapeutic interventions have often been linked to client engagement in treatment (Holdsworth et al., 2014). In this study, engagement will be explored in two folds: with sociodemographic factors and with treatment outcomes.

Some factors that impact engagement are financial, structural, or attitudinal, and others are sociodemographic (Viana et al., 2025). These barriers are not consistent across all populations; they can differ from one population to another (Mojtabai et al., 2010). They may also alternate across different healthcare settings as well as across

time. In the Middle Eastern region, barriers can vary but mainly focus on stigma, beliefs and values, as well as access and availability of mental health services (Brown et al., 2019). Karnouk et al. (2019) explored how social constraints, such as bias towards mental health services, education on mental health, socioeconomic status, and most commonly stigma, can make it difficult to provide mental health care in Jordan. Another study by Kiselev et al. (2020) reported that refugees in Switzerland complain of structural and socio-cultural barriers when accessing and engaging in psychotherapy. Hence, determinants of mental health can differ across countries and populations. While no particular study has focused on factors related to engagement and in turn treatment outcomes in Lebanon, the country poses interesting insights due to its social and political events as well as its diversity in nationalities.

When looking at sociodemographic factors that impact engagement, those most highlighted include age, sex, education, employment status, as well as nationality, disability, and marital status (Allen et al., 2014; Carpallo-Gonzalez et al., 2023; Pei et al., 2024). Engagement in treatment has focused on more than one operational definition. Past studies have highlighted drop-out – the voluntary discontinuation of treatment by the client – as an indicator of engagement (Wierzbicki & Pekarik, 1993), while some others have focused on attendance and adherence to the assigned number of sessions – attending pre-scheduled therapy appointments (Dacosta-Sanchez et al., 2022; Nock & Ferriter, 2005). Engagement has also focused on duration of treatment – length of the course of therapy, as well as adherence to goals – compliance by the client in completing the discussed therapeutic goals.

Since 2019, the people of Lebanon have undergone extreme challenges socially, politically, and medically. Arbitrary limitations on cash withdrawals were being

enforced by banks in Lebanon in early September 2019, and depositors were not allowed to access their money using ATMs (Al Mahmoud, 2020). The revolution that broke out in October 2019 revealed those deep-rooted financial problems in Lebanon. The banks and the political regime became the public's target, leading to the shut-down of some Lebanese banks, the increase in banking restrictions, and more hyperinflation (Khatib, 2022). This currency collapse had people lose their trust in the country's economic and political strategies. The Lebanese pound lost 94% of its value when the country entered a serious recession, which reduced savings and purchasing power and sparked social discontent (Cherqaoui, 2024). Adding to this turmoil, the COVID-19 virus hit globally, increasing the economic hardship, especially in low-middle income countries like Lebanon (Dasgupta et al., 2021). This pandemic only helped increase the psychological distress that the country was already going through (Jaspal et al., 2020) and more so clinical disorders such as anxiety, depression, eating disorders, and substance use disorders (Khalil et al., 2022). Moreover, the Beirut-Port blast in 2020 was a breaking point for the country, economically but more so emotionally (Hankir & Chehayeb, 2020). The blast, being the 3rd strongest that humankind has ever known, killed two hundred individuals, injured over 6,000, and left approximately 300,000 people homeless (Siddique, 2022). Additionally, the most recent war between Lebanon and Israel had more than 1.3 million people displaced, and around 3,000 killed (United Nations, 2024). The war started on the South of Lebanon in October 2023, ultimately expanding to the Beirut area and its suburbs in September 2024, lasting approximately two months. The accumulation of all these events worsened the economic crisis, overwhelmed the healthcare systems, and emotionally drained the people (Cherqaoui, 2024). In the midst and because of all these challenges, mental health issues in Lebanon

were on the rise. In their recent study, Karam et al. (2025) explored the psychological outcomes on Lebanese people who underwent the consecutive and harsh events of the country. By surveying around 1000 Lebanese people, they found that the most prevalent mental health disorders were depression, anxiety, and PTSD, with approximately 50% of the population screening positive in each of the disorders. It is important to also note that Lebanon hosts close to 1.5 million Syrian refugees since 2011, who were also significantly impacted by the country's events as most of them had already been living in extreme poverty (Brun et al., 2021). The interplay of the events is believed to have caused increasing unemployment and ultimately social distress. According to the World Bank Group (n.d), the unemployment rates rose from 11.4% to 29.6% between 2018 and 2022. In order to account for the multiple crises that the country has faced, this study will analyze data collected in Lebanon between January 1st, 2018, and December 31st, 2024. This data has been collected by International Medical Corps (IMC) centers in Lebanon, a Non-governmental Organization (NGO) that provides free mental health services across the country. Since IMC operates in primary health care centers (PHCCs), they are believed to encompass a representative sample of people suffering from mental disorders living in Lebanon.

CHAPTER II

LITERATURE REVIEW

A. Engagement as a Process

The literature frequently uses terms like engagement, participation, compliance, and adherence to refer to similar actions by clients while undergoing therapy. These actions are mainly attending appointments and continuing therapy. According to Prinz and Miller (1991), engagement is “the participation necessary to obtain optimal benefits from an intervention”. This involves regular attendance and collaboration within and outside of sessions. Contradicting to early definitions of engagement that viewed it as a singular accomplishment, it is now viewed as a continuous activity. According to Karver et al. (2005), engagement encompasses both behavioral elements, such as making appointments and finishing therapeutic tasks, and attitudinal elements, such as emotional investment and conviction in the benefits of therapy.

To understand engagement in a more thorough manner, it is crucial to differentiate it from other similar terms. Help-seeking is a coping method whereby the individual seeks aid from others, be it professionals or family and friends, to address a health issue, including mental health ones (Rickwood & Thomas, 2012). This active form of searching for help is based on people’s social and relational skills, and often has barriers mainly reported as stigma, lack of appropriate knowledge on mental health, concerns on confidentiality, and problems in accessibility (Aguirre Velasco et al., 2020). On the other hand, engagement is the active participation in therapeutic services, and this participation could take place in several ways (Staudt, 2006). The terms attendance, attrition, retention, drop-out, adherence, compliance, maintenance, and premature

termination have been commonly used to define engagement (Kim et al., 2012). Conceptualizations vary depending on the type of engagement being studied (client, professional, or both), how the engagement is being measured, and whether engagement is being investigated as a measure on its own or in conjunction with other intervention components. Hence, help-seeking and engagement differ in that the former focuses on the intent and behaviors surrounding initial access to mental health services, whereas the latter focuses on the continued participation and involvement in the service and treatment approach, which could be defined in several ways. Moreover, there are numerous ways in which engagement and service outcomes are related. This is important because positive outcomes of treatment in psychotherapeutic interventions have often been linked to client engagement in treatment (Holdsworth et al., 2014). In this study, engagement will be investigated based on objective client measures rather than ones relating to the mental health professionals and their respective relationships.

The current study will operationalize engagement in psychotherapy as attendance of assigned treatment sessions, duration in weeks of the treatment course, and dropout status. To our knowledge, no study to date has combined all these definitions in one study and operationalized them as treatment engagement.

B. Sociodemographic Factors and Engagement in Psychotherapy

Throughout their lives, people are subjected to a variety of factors that impact their mental health which often cause differences among and between populations as these factors can differ. These conditions are collectively referred to as social determinants of mental health, including but not limited to: sociodemographic factors, employment, socioeconomic status, education, challenges in childhood, nutrition, discrimination,

social support, the living environment of each individual, and their ability to access healthcare services (Kirkbride et al., 2024). These variables influence each of engagement (Holdsworth et al., 2014), help-seeking behaviors, and treatment outcomes in psychotherapy (Tambling et al., 2021). This paper will focus on sociodemographic factors, specifically age, sex, marital status, nationality, and disability as factors impacting engagement in mental health.

An individual's social, financial, and political surroundings play a role in their access to basic necessities in life as well as in their mental health state. The goal of social determinant models is to comprehend how people's genetic, living, and working environments shape their experiences and affect their health (Alegria et al. 2018). While mental health disorders have a biological basis, they are also shaped by an individual's surroundings (Carod-Artal, 2017). Notably, these factors have been said to impact people's ability to access and benefit from healthcare services, including mental healthcare (Allen et al., 2014). This review by Allen et al. (2014) suggested that, regardless of a nation's economic growth, there is evidence that focused efforts on people's social, financial, and environmental settings have a significant potential to improve mental health by avoiding or mitigating mental disorders. More importantly, these factors are considered adaptable, which makes prevention possible. In the next sections, the existing sociodemographic factors will be discussed in relevance to engagement according to attendance of sessions, duration of therapy, and dropout.

1. Age and sex

Culturally and contextually diverse studies have been done that show age and sex to be sociodemographic variables which impact engagement – in its various definitions –

in psychotherapy. In the context of this study, “sex” will be used rather than “gender” as we refer to how the data was recorded, including males/females. However, biological sex has also been referred to as “gender” in the current literature. Although this study acknowledges “sex” as the most accurate term for demographic information, the original terminology used in each reported study (i.e. sex or gender) will be maintained to correctly convey their results.

When exploring engagement, attendance of sessions, also known as continuation in psychotherapy (Nock & Ferriter, 2005), has been commonly studied in relation to age and sex. A study that was conducted on military personnel between the ages of 18-65 found that participants that were of older age were more likely to attend treatment sessions (Berke et al., 2019). Findings of this study, however, did not find any significant associations between sex and engagement in psychotherapy. In contrast, in a randomized trial carried out in a Primary Health Care Center (PHCC) in the South of Lebanon among Lebanese and non-Lebanese citizens older than 18 diagnosed with depression, findings revealed that younger clients were more likely to attend their sessions as opposed to older ones (Kontar et al., 2022). This is in contrast to the study priorly mentioned, suggesting mixed findings that could have possibly resulted from different contexts and cultures, as the former was carried out in Texas, United States while the latter in Lebanon, a Middle Eastern country.

Fenger et al. (2010) conducted a study in Denmark across four years in a mental health center specialized in the treatment of non-psychotic adults, which provides several treatment approaches like cognitive behavioral therapy (CBT), psychodynamic, and narrative group therapy. They found that patients younger than 25 generally had a greater tendency to miss their appointments or not show up to an assigned appointment.

Similarly, Binnie and Boden (2016) indicated that males between the ages of 15-44 are more likely to miss their appointments in the UK healthcare system, as opposed to females of this age group. This could be due to the idea that older adults have less busy schedules compared to younger adults, or the fact that the former appreciate people's time more. Females may also see greater value in therapy compared to males. However, Liu & Gellatly (2021) mention that adults over the age of 60 who are diagnosed with depression are less likely to engage in psychotherapy because of its perceived unnecessity. Low self-awareness and psychoeducation on mental disorders and their treatment could explain this finding. Hence, evidence as to which age groups among adults commit to session attendance has been heterogenous. Additionally, attendance may differ between adults and children, mainly because adults are responsible for their own participation, whereas in children, the parents are the ones leading this responsibility.

On the contrary, less research has been done on children and adolescents' attendance rates as opposed to previously mentioned research on adults and their engagement in psychotherapy. Around 40-60% of adolescents frequently miss their assigned appointments in mental health services (Branson et al., 2013). In a study conducted in London for people between ages 12-21 who suffer from anxiety, depression, hyperactivity, or conduct disorders, Baruch et al. (2009) examined rates of continuation as well as dropout of psychotherapy using self-reported measures. They established that patients who were older in this age group tended to attend more sessions, whereas younger patients were more likely to dropout. One explanation to this finding is that individuals under the age of 18 require the consent and presence of their caregiver during treatment. This could decrease the likelihood of attending all sessions

since treatment would require more than one person to attend, making it more taxing. As for those aged 18 and over, they would be responsible of themselves and thus find the time that works for them. While age or sex alone do not predict client engagement in psychotherapy, interventions should tailor to the needs of each age group and sex for a better-informed treatment plan.

Duration of treatment, an indicator of engagement in psychotherapy, has also been linked to age and sex. In a study by Ingenhoven et al. (2012), treatment duration coupled with early termination of therapy services (i.e. dropout) were investigated on a sample of patients with personality disorders undergoing psychotherapy in the Netherlands. This research found that age was correlated with neither a shortened duration of therapy nor an early discharge of clients. On the other hand, the study did find an association between the male gender and a shorter course of psychotherapy. Similarly, in a study on the Finnish population, Selinheimo et al. (2024) explored the relationship between age, gender, and other factors with engagement in psychotherapy. Among the variables studied, sex of the client was the most associated with treatment duration, with the female gender relating to longer treatment duration, as opposed to males. Even though age was minimally linked, younger age did point to a longer treatment duration as well. In an attempt to conceptualize these findings, Eggenberger et al. (2021) explored men and women's utilization of psychotherapy in relation to gender ideals and roles for people older than 18 among German speaking countries. The researchers suggested a theory whereby males may only seek psychotherapy when their symptoms are severe, especially if they closely follow traditional masculine ideals. Men are more likely to stop treatment once their symptoms even slightly improve, whereas women are more likely to stick with the treatment even if their symptoms get better

(Selinheimo et al., 2024). Hence, the proposed studies and theories are homogenous and contend that females spend more time in therapy.

The literature on dropout, also referred to as premature termination and attrition, is quite comprehensive, as opposed to other definitions of engagement. A study by Hanevik et al. (2023) investigated the affiliation between sociodemographic variables, such as age and gender, with instances of dropout from psychotherapy. The study included participants older than 18 and revealed that patients under 30 years old were more likely to dropout; however, there was no association between sex and dropout. Likewise, in the study by Fenger et al. (2010) in Denmark, findings revealed that patients with non-psychotic symptoms who are younger than 45 were more likely to drop out. Another study investigating the factors associated with the completion of therapy in a group of male veterans diagnosed with PTSD found that older ages predicted a higher rate of treatment completion (i.e., less likely to dropout) (Stoycos et al., 2023). Moreover, the study by Berke et al. (2019) on military personnel found that older participants were also less likely to drop out from the treatment. These studies were consistent in the notion that being of an older age is a predictor of completing therapy and not dropping out. This could be explained by having a greater appreciation for services as one gets older, and thus continuing therapy and following the professional's advice and guidance, as opposed to leaving therapy without notice.

On the other hand, Maldonando et al. (2022) found that adolescents in Europe were twice as likely to dropout from mental health services compared to other medical services. Another study that took place in an outpatient clinical center in Iran examined the characteristics of the clients whose treatment (psychotherapy, pharmacotherapy, and hospitalization) was studied for around two years. Khazaie et al. (2013) showed that

dropping out was most closely associated with being of a younger age as well as of the male gender. Therefore, findings on dropout based on age and sex have been inconsistent. This points to the need for further research and exploration of factors that could moderate the relationship.

Research has also shown that the correlation between age and engagement is also present in studies involving youth. In their empirical review, Nock and Ferriter (2005) identified age, among other factors, as a predictor of engagement among children and adolescents between 3 and 18 years of age accessing mental health services. Participants who were older in age were more likely to have instances of dropout from their treatment. This could lead to the assumption that, as children age, parents may be less involved in treatment sessions, which leads to more dropout. Adolescents are also more likely to have commitments more so than children that could restrict their ability to attend all sessions.

Age and sex have been scarcely researched in relation to compliance (i.e. adherence) with treatments. Studies have mostly focused on medical cases, neglecting research focusing on demographics in relation to compliance in psychotherapy. As reported by Religioni et al. (2025), observational studies suggested that women generally adhere to medication recommendations less than men do, demonstrating gender disparities. Women, however, are more likely to adhere to lifestyle alterations more so than men. Further research is needed to conclude any associations between age and gender with adhering to treatments.

2. Marital status

Evidence related to marital status as a factor impacting engagement in mental health has also been mixed. Centorroni et al. (2001) explored living alone as one of the elements affiliated with attending psychotherapy sessions. Contradicting to prior findings, their results showed that individuals living alone were more likely to comply with scheduled visits when compared to those living with a partner, their children, their parents, or in a halfway house. It could be that low social support resulting from living alone encourages the individual to seek help and thus attend their sessions. Similarly, Teixeira et al. (2018) studied the impact of sociodemographic variables as well as clinical characteristics on the likelihood of patients between 18 and 65 years of age in attending CBT sessions in a clinic in Portugal. Of these variables, marital status was examined, however there was no association between marital status and the number of attended sessions. Moreover, marital status was not a significant determinant to engagement in the study by Ingenhoven et al. (2012) as they explored its relationship with treatment duration and early dropout.

A meta-review by Carpallo-Gonzalez et al. (2023) examined the sociodemographic factors and clinical symptoms that predict rates of dropout. While some studies reported that marital status had no significant impact, most others found that dropout rates were lower among married and cohabitating individuals. Notably, Carpallo-Gonzalez et al. (2023) found a correlation between being married and adhering to medications. They theorized that marital status could be a moderating variable between dropout and functional support – defined as having profound relationships with others – hence decreasing instances of dropout from psychotherapy. Moreover, in the meta-analysis by Sharf (2009), a negative correlation was found between marital status

and dropout. That is, being married suggested lower rates of dropout. Similarly, DiMatteo (2004) conducted a meta-analysis on studies between the years of 1948-2001 and highlighted that married people adhered more frequently to treatment approaches more so than unmarried people. The evidence presented by the studies could mean that partner support generally motivates someone to continue taking care of themselves.

Thus, the evidence on marital status and its association with engagement in psychotherapy is fairly mixed. Other factors, like additional sociodemographic and some cultural ones, as well as type of disorder and treatment modality, could have moderated this relationship Also, differences in methodologies, particularly in defining and measuring engagement (dropout, attendance, duration), could have resulted in these heterogeneous findings. Research should focus on the interaction of marital status with other sociodemographic factors to better comprehend its influence on engagement in psychotherapy.

It is important to note that the mentioned studies did not report whether the couples had a different-sex or same-sex marriage. While there may be an overlap between marital status and type of marriage according to sexual orientation, this concept is beyond the scope of this study as the data only reports the status of the individual. Also, this study does not explore marriage based on ethnicities, religions, cultures, or same- or different-sex marriages for that matter.

3. Nationality

According to the search in the literature, there did not seem to be studies directly reporting on the role of nationality in the engagement in psychotherapy; however, studies on ethnicity were quite prevalent. In a literature review and meta-analysis by

Huey and Jones (2013), the researchers examined engagement and outcomes of psychotherapy among different ethnic minorities present in the United States such as African Americans, Latinos/Hispanics, Asian Americans, Native Americans, and European Americans. The focus was on patients below 18 years dealing with disorders like depression, anxiety, attention-deficit hyperactivity disorder (ADHD), and conduct problems. They found that European Americans were the most likely to engage in psychotherapy whereas Asian Americans were the least likely, mainly due to cultural stigma and mistrust in Western systems of mental health. This points to the notion that culturally adaptive interventions might account to these barriers. Similar to this study, a systematic literature review by Interian et al. (2013) examined the relationship between ethnic groups in US adults and their engagement in mental health services. Ethnicities were the same as the ones mentioned in the previous study, excluding European Americans, and participants were those diagnosed with depression, schizophrenia, or a mixture of disorders. Results showed that Asian Americans were also the least likely to engage whereas White Americans had the highest rates of engagement and treatment completion. Thus, different ethnicities have different experiences in mental health services, primarily due to cultural differences and barriers pertaining to language, stigma, and financials.

Despite a high frequency of mental health problems, research shows that refugees underutilize mental health care services because they frequently encounter major obstacles, mainly economic, when trying to access those services. According to the UNHCR (2016), Lebanon hosts one of the largest refugee populations, the most prominent of which are Syrian and Palestinian. For the third generation now, Palestinians have lived in Lebanon, constituting around 450,000 people (Kiwan, 2021).

Syrians have now reached 1.5 million since they first sought refuge in Lebanon when their war broke out in 2011. The former have mainly had formal and more secure homes, whereas the latter have mainly been displaced and lived in unofficial tented communities (Sender et al., 2023). Nevertheless, Syrians, Palestinians, and Lebanese individuals have all experienced severe economic hardship and turmoil, increasing their risk of mental health disorders, and affecting their proper access to the services. Sender et al. (2023) explored the challenges to accessing mental health services faced by Syrian, Lebanese, and Palestinian people living in Beqaa, Lebanon. Both female and male Syrians reported certain dangers when going out which ultimately hinders their ability to utilize health services. Moreover, Ruggeri et. al (2021) carried out a study on 700 Syrian, Palestinian, and Lebanese participants living in Lebanon to examine risk-taking behaviors and mental health. The average general well-being of the participants did not differ significantly among the three nationalities, and mental health distress was not always more severe in one group more than another. In the study where Kontar et al. (2022) investigated follow-up attendance rates in a PHC in South Lebanon, non-Lebanese residing in Lebanon were more likely to attend further sessions when compared to Lebanese citizens.

Similar findings were present in other countries. According to a study in Germany, immigrants had high rates of depression and PTSD, but many were unable to access psychotherapy because of obstacles on both personal and structural levels. The former being mistrust in the system, disbelief in the need for therapy, and emotional maturity, and the latter being financial constraints, transportation costs, and language barriers (Boettcher et al., 2021). In another study done by Dumke et al. (2024) on the use of mental health services by refugees in Germany, less than half of individuals in

need made contact with any kind of organization, and only one in fourteen received barely appropriate psychotherapeutic services. Overall, just one out of seven refugees who needed mental health care received proper care, indicating serious deficiencies in the services offered. A systematic review by DeSa et al. (2022) revealed that language barriers, cultural differences, the stigma attached to mental health, and a lack of culturally responsive approaches by healthcare practitioners are some of the obstacles causing this underutilization. Accessing therapy is a concept different than engagement in psychotherapy, however, low access due to barriers may predict low engagement as well. Future research should focus on nationality as a distinct factor in predicting engagement in psychotherapy. This study will examine the relationship between nationality and engagement in the Lebanese context.

4. Disability

As for disability, similar findings and conclusions have been made. Individuals with disabilities, be it physical or intellectual, face challenges that hinder their access to psychological and psychiatric health services. According to Ahlström et al. (2020), older adults with intellectual disabilities frequently face obstacles that prevent them from receiving the right care, even though their need for mental health support has increased. These obstacles include misdiagnosis of certain conditions because of the intellectual disability, hindrances in communication, lack of proper training for professionals dealing with this population, and logistic barriers such as financial and transportation services. Additionally, a scoping review of 182 articles mainly from high-income countries by Gréaux et al. (2023) around health equity for people living with disabilities depicted certain frequently reported barriers, such as transportation,

communication, that this population faces when accessing mental health services. Similar to previously mentioned studies, these challenges include problems in transportation, communication difficulties, and insufficiently available equipment for persons with disabilities in medical facilities. Therefore, individuals with disabilities have a number of obstacles when seeking and in turn engaging in therapeutic modalities. In the current study, disability will be analyzed for its effect on engagement in psychotherapy in Lebanon.

C. Engagement and Treatment Outcomes

In this section of the literature review, research accounting for engagement as a predictor of treatment outcomes will be examined. Engagement, as previously defined, will encompass attendance of sessions, duration of the course of treatment, and dropout. In the literature, treatment outcomes were measured in various ways such as self-reports, clinical interviews, and functioning scales. Each study utilized certain tools to measure for the symptoms of its relative disorders, including depression, anxiety, obsessional-compulsive disorders, eating disorders, and substance use disorders. The following parts will discuss each of the definitions of engagement and their associations with outcomes of psychotherapy.

1. Attending Sessions

Attending sessions was chosen to be the first concept required to define engagement as it paves the way for other concepts to occur. That is, once clients attend their sessions, they are able to experience the process of engagement, including treatment duration and drop-out. Hence, it reflects the minimal but essential efforts

patients make concerning treatment (Holdsworth et al., 2014). That being said, little research has been done to support the notion that consistency in attending assigned sessions is key to overall improvement. Most research has focused on the implications of dropout but rarely on missed appointments, even though both of these phenomena are prevalent and frequently occur. Reardon et al. (2002) carried out tests on individuals over the age of 18 of all disorders except psychosis and substance use disorders in the Florida State University Psychology Clinic. They found that individuals who participate in irregular therapy attendance could not benefit from prolonged care and might be better off ending treatment early and looking for a more structured setting elsewhere. Moreover, missing appointments in the beginning of the course of therapy may be an indicator of future outcomes. Zimmerman (2019) explained how lower therapy dosages may result from inconsistencies in the early phases of treatment, and this pattern of lower therapy dosages may persist throughout the course of treatment. The study by Zimmerman (2019), which was based on a large sample of 11,794 participants, demonstrated that regular, consistent attendance yields better treatment outcomes than just attending a large number of sessions, despite typical dose-effect models that suggest the opposite. Similar to this finding, Xiao et al. (2017) theorized that absence during the first few therapy sessions can interfere with the formation of alliances and prevent therapy participation. Low attendance in this early stage could indicate a lack of involvement, either internal or external, and could also be indicative of the treatment plan as a whole. Their study on a sample of approximately 5000 clients who had attended a minimum of one therapy session, along with 83 therapists in Pennsylvania concurrently found that higher attendance rates of sessions is positively correlated with therapeutic outcomes. Additionally, according to Dacosta-Sanchez et al. (2022),

attending scheduled appointments in a constant matter is a better indicator of treatment success than the total number of months in treatment. This implies that maintaining a regular attendance schedule is more crucial than merely extending therapy. Therefore, attending psychotherapy sessions in a frequent manner is a predictor of better treatment outcomes, and will be analyzed in this study on this basis.

2. Duration of Treatment

The American Psychological Association (2017) posits that around 15-20 sessions normally are enough for about 50% of patients suffering from mental health disorders to recover from the chief complaint they present with. In 2002, Reardon et al. studied the dose-effect relationship in relevance to duration of treatment and outcomes. Their search had showed them that this association is mixed, in the sense that some evidence had pointed to better outcomes with longer duration, while others had indicated the opposite. Their findings revealed that if patients do not regularly attend sessions, then longer duration would actually indicate worse treatment outcomes. When clinicians are restricted to a certain number of sessions that they can offer the client, it is best that they prioritize frequent sessions over a shorter period of time rather than spreading out the sessions. This finding translates directly to IMC's services, as they are limited to 12-15 sessions with each beneficiary. Thus, an optimal practice would be to schedule weekly sessions to shorten the duration of treatment. Similarly, when de Beurs et al. (2018) compared performance data based on treatment outcome, length, and cost, they found that better treatment results and a decline in symptom severity was associated with shorter and less costly therapies. Evidence has also shown that in children and adolescents, after a total of 20 sessions, patient improvement plateaus and

added value becomes minimal (Bachmann et al., 2010). Additionally, Dacosta-Sanchez et al. (2022) challenged the notion that longer treatment length always results in better outcomes by indicating that a 3-month period of retention predicts treatment success more accurately than a 6-month period. Research has shown that duration of treatment is often moderated by the type of diagnosis. Examples include for obsessive compulsive disorder (OCD), the recommended duration of treatment was around 12-20 sessions, with an average of 12 weeks (Öst et al., 2015). For borderline personality disorder, treatments longer than 12 months are usually most effective, with frequencies of more than one session per week (Bateman & Fonagy, 2009). Thus, different disorders require different durations.

While the majority of the findings point towards shorter duration having a better outcome, some studies have yielded results to counteract this notion. King (2015) compared several studies done on the duration of psychotherapy and its association with patient recovery. The findings of his comparison were mixed, leading to no clear correlation between length of therapy and improvement in patient functionality. Various studies explored how an increase in the frequency of sessions – having more than one session per week – is the highest correlate to treatment outcomes (Gergov et al., 2021; Schleider et al., 2020; Ciharova et al., 2024; Tiemens et al., 2019). For the purpose of this study, duration of the course of treatment (i.e. length or number of weeks) will be considered as a variable in predicting treatment outcomes.

3. Adherence to Treatment Goals

Generally, setting goals may enhance the therapeutic process by helping to facilitate the first phase of treatment, directing the treatment plan, assisting in

maintaining concentration during treatment, and aiding in treatment evaluation (Geurtzen et al., 2020). Research has shown that setting specific goals could improve the therapeutic alliance, and, thus, the effectiveness of treatment (Flückiger et al., 2018; Lambert & Barley, 2001; Tryon & Winograd, 2011). According to the World Health Organization, adherence was defined as how closely a person's actions—such as taking medicine, adhering to a diet, and/or making lifestyle adjustments—match the advice given by a medical professional (Sabaté, 2003).

Wollburg and Braukhaus (2010) examined how specific goals can improve treatment outcomes in a sample of patients suffering from depression receiving their services at an inpatient clinic in Germany. CBT was administered to the participants over 7 weeks, and the results showed that approach-oriented (i.e. positive and growth-focused) goals were associated with better treatment outcomes. A study carried out by Tjelle et al. (2021) focused on adherence – the ability of clients to complete their therapeutic assignments – and treatment outcomes of obsessive-compulsive disorder (OCD) using psychotherapy. Their findings suggested that adequate adherence leads to better outcomes in terms of symptom severity as well as functioning. Moreover, in a study by Leeuwerik et al. (2019), poor adherence was studied based on four variables: refusing therapy, dropout from treatment, inconsistent attendance, and little compliance with assignments and goals. The researchers found that there is a substantial correlation between symptom reduction and adherence to tasks given between sessions as well as consistent session attendance. Unfortunately, little research has been done to investigate the relationship between goal completion and treatment outcomes, especially in the Middle East. While adhering to goals is an important definition of engagement, it is not an objective one. That is, client compliance can be highly linked to the therapeutic

relationship, the judgement of the therapist in assessing whether the beneficiary completed his/her goals, and the differences in the goals set. Not all of the goals set are the same, which makes it harder to measure them objectively. Hence, this study will not include adherence to goals as an operational definition of engagement.

4. Dropout from Psychotherapy

In psychotherapy, some patients choose to stop attending because they feel that they have gotten better, some do not see any value in what they are receiving, and some have structural and logistic reasons. While some individuals who discontinue therapy do end up recovering in the long-run, evidence has pointed heavily towards the negative impacts of dropping out. Lopes et al. (2017) revealed that therapy completion results in a quicker and more significant decrease in symptoms, highlighting the significance of participation and adherence. The notion that retention is a key indicator of treatment success is supported by the fact that early dropout results in inferior outcomes. A number of studies have shown that discontinuation of treatment, especially early discontinuation, frequently exposes clients to worse results than those who persist until the objectives are met (Sharf & Primavera, 2009). The most known research on dropout from therapy is a meta-analysis carried out by Wierzbicki and Pekarik (1993) which included 125 studies. One of their key findings is the association between dropping out of psychotherapy and negative treatment outcomes. This means that discontinuing therapy in an unplanned manner and solely based on the client's decision is not beneficial. Other studies have also confirmed this finding, such as Barrett et al. (2008), who conducted a literature review on dropout. The studies mainly highlighted that early discontinuation of therapy is associated with poor improvement in terms of

symptomatology and functionality. There is general consensus that premature termination has more detrimental effects than dropout that is nearer to the end of the course of treatment. It is crucial to emphasize that clients who discontinue therapy have a poorer rate of progress and a lower degree of ultimate adaptation in comparison to those who continue. As a result, even when the dropout group shows progress, this does not imply that their therapeutic objectives have been fulfilled or that they have improved to the same degree as if they had stayed in therapy (Romero et al., 2022). That is, the group that finishes treatment sees a noticeably bigger improvement than the group that discontinues therapy. Hence, dropout will be explored in this study as a predictor of treatment outcomes for psychotherapy in Lebanon.

D. Rationale

Engagement in psychotherapy is both impacted by sociodemographic factors and impacts the results of treatment. Little research has been done regarding psychotherapy engagement in the Middle East, particularly in Lebanon, as most of the research that is currently available concentrates on Western contexts. Although there is a lack of data from Lebanon, variables such as age, gender, nationality, disability, and marital status are likely to have an impact on engagement, which in turn affect treatment outcomes. Also, the majority of research in Lebanon focuses on access to mental health care, but scarcely on engagement of patients in those services. As a country that has undergone significant turmoil in the last few years and hosts a variety of nationalities, Lebanon offers a combination of events and factors worth studying. By understanding how engagement plays a mediating role between sociodemographic factors and

treatment outcomes of psychotherapy, interventions can be tailored based on these factors to provide a better practice of therapy.

If engagement in psychotherapy affects treatment outcomes by improving the client's functionality and their quality of life, then engagement should be considered any effort that the client makes towards achieving these modifications (Holdsworth et al., 2014).

E. Theoretical Framework

This research analyzes the predictive relationship between sociodemographic factors—such as age, sex, marital status, nationality, and disability status—and engagement in psychotherapy, as well as the subsequent impact of engagement on treatment outcomes. The recently developed framework by Kudo et al. (2023) is utilized to understand treatment engagement, by viewing it as an evolving, multifaceted process as opposed to being a static condition. This framework broadens the scope of conventional models by adding behavioral, psychological, social, and systemic elements that interact to influence engagement. Historically, the concept of treatment engagement has been limited and focused on attending sessions, adhering, or following certain treatment plans (Kazdin, 1996; Nock & Ferriter, 2005). On the contrary, Kudo et al. (2023) contend that active participation in therapy, commitment to therapeutic goals, cooperation with clinicians, and emotional investment in the therapeutic process are all valid and extended examples of engagement. This view of engagement translates directly to the operationalization of engagement in the present study. Three important behavioral markers are used in this study to operationalize engagement: dropout rates, treatment length, and session attendance.

Rodgers' evolutionary concept analysis, a methodical approach to defining, refining, and clarifying intangible ideas in healthcare research, was employed by Kudo et al. (2023) to construct their framework. In contrast to rigid definitions, Rodgers' model highlights that concepts are dynamic and ever-changing, influenced by their social and cultural contexts (Rodgers et al., 2000). Using this approach, Kudo et al. identified important characteristics, antecedents, and outcomes of treatment engagement by examining a large body of empirical and theoretical research. They suggested that three fundamental components impact engagement: antecedents, attributes, and consequences. The first refers to prerequisites of engagement that impact the start of therapy which include (a) individual elements, like attitudes, acceptance, and knowledge on mental health, (b) situational elements, like prior experiences and current circumstances of life, and (c) environmental elements, like social background and support and adaptive and tailored care. The second refers to the attributes, i.e. core components of engagement which includes both behavioral and psychosocial aspects. Behavioral is based on initiation of treatment, continuation, adherence to goals, and active involvement, whereas psychosocial is based on the attitudes of the clients and their cooperation with the therapist. The final one refers to the results of engagement (i.e. treatment outcomes), like a sustained recovery and a decrease in symptom severity. In an attempt to translate these concepts to the definitions presented in this study, the behavioral aspect of the attributes refers to the operationalization of engagement, and the consequences refer to the treatment outcomes of psychotherapy. These will be explored based on the available sociodemographic information by IMC.

A key factor in evaluating the effectiveness of treatment is engagement in therapy. Higher levels of engagement have been linked to better mental health

outcomes, such as better functional recovery, reduced relapse rates, and better reduction in symptoms (Swift & Greenberg, 2012; Wampold & Imel, 2015). On the other hand, poor treatment outcomes have been associated with low engagement, which is characterized by early dropout, frequent absenteeism, and poor commitment to treatment goals (Olfson et al., 2009). In order to investigate whether sociodemographic factors impact treatment engagement and if engagement mediates the association between these variables and therapy success, this study employs the paradigm developed by Kudo et al. (2023). Even though the antecedents proposed by Kudo et al. (2023) are not directly examined in this study, sociodemographic factors like age, sex, marital status, nationality, and disability are investigated as possible predictors of behavioral engagement. This study lays the foundation for future research on engagement interventions in humanitarian mental health services and advances the theoretical understanding of treatment engagement in low-resource, displacement-affected settings by applying this modified and context-specific model to actual programmatic data from Lebanon. Hence, the proposed topic intends to guide focused interventions to enhance mental health care retention by identifying factors of engagement and their subsequent impacts on therapy results.

The following is a visual representation of the proposed theoretical model for this study:

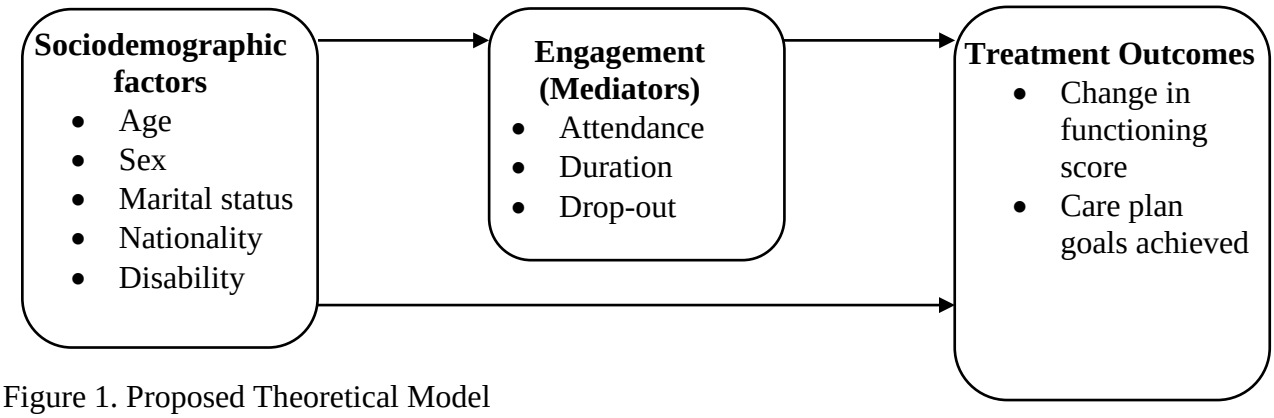

Figure 1. Proposed Theoretical Model

CHAPTER V

AIMS, RESEARCH QUESTIONS, AND HYPOTHESES

A. Aims

The current study will focus on several aims. The first aim is to identify which sociodemographic factors impact engagement in psychotherapy in Lebanon, and the second aim is to explore whether engagement is a predictor of treatment outcomes in psychotherapy. The third and final aim is to examine if engagement is a mediator between sociodemographic variables and treatment outcomes in psychotherapy. This study also seeks to enrich the literature on engagement and outcomes of therapy and improve the practice of psychotherapy in Lebanon.

B. Research Questions

1. Does engagement in treatment differ across age, sex, nationality, marital status, and/or disability?
2. Does treatment outcome differ according to attendance of sessions, duration of treatment, and/or dropout from psychotherapy?
3. Do sociodemographic factors predict treatment outcomes?
4. Does engagement in psychotherapy play a mediating role between sociodemographic factors and treatment outcomes?

C. Hypotheses

Based on the mentioned research questions, the following hypotheses were formed:

H1: Sociodemographic factors (age, sex, marital status, nationality, and disability) will be associated with engagement and treatment outcomes in psychotherapy

H2: Engagement in psychotherapy will predict treatment outcomes

H3: Engagement in psychotherapy will be a mediator between sociodemographic factors and treatment outcomes

CHAPTER IV

METHODOLOGY

A. Study Design

IMC in is an international NGO that provides medical and mental health services for all residents without any fees. Their mental health services include psychotherapy sessions by psychologists, psychiatric diagnoses and medical prescriptions by psychiatrists, and psychosocial support sessions by case managers. IMC offices are located in primary health care centers (PHCCs) all across Lebanon, spanning all 9 governorates. They have been offering services in Lebanon since 2006.

The present study is a comparative cross-sectional, retrospective design using secondary data. Engagement is considered a mediator between sociodemographic variables and treatment outcomes. The timeframe chosen for this analysis is between the periods of January 1, 2018, and November 30, 2024. During these dates, Lebanon underwent multiple crises including a revolution and economic crisis, COVID-19, the Beirut-Port blast, and most recently, a war. IMC was active and offering its services to the people during these events, both online and in-person when feasible. IMC collect routine data once a beneficiary begins receiving mental health services and this data includes age, sex, nationality, disability (if any), and marital status of each individual.

B. Procedure

IMC in Lebanon has several routes where people can access their mental health services. The first route is through direct contact with IMC staff and requesting an appointment. The second route is when people firstly access a PHCC in Lebanon for

medical concerns. Trained nurses in these PHCCs are obligated to complete the Patient Health Questionnaire-2 (PHQ-2) with every individual that receives services from a PHCC. If the results are positive, the nurses then move on to administer the PHQ-9. If the results of this test are also positive, then the individual is referred to IMC by the PHCC itself. The third and final route is through referral from another NGO.

Consent to participate in research is given once the beneficiary starts accessing mental health services at IMC. They are informed by the case manager that they are consenting to participate in psychotherapy in addition to utilizing their anonymous data for research and educational purposes. Once the first psychotherapy appointment is scheduled with the beneficiary, the case manager then meets with them, in a separate appointment, to fill out the biopsychosocial assessment – a form for gathering initial information about the client's demographics, chief complaint(s), history, level of distress, and assessing their safety needs. The case manager and the beneficiary also fill out the functioning scale at baseline using the client functioning scale. The former is the file which encompasses all the data present: age, sex, marital status, disability, and nationality. The latter is a scale administered every three months by the case manager. The client care plan is filled out by the psychologist, psychiatrist, and case manager, each based on their sessions with the beneficiary. The psychotherapist fills out the goals as discussed with the beneficiary, and each of the professionals would add their objectives and their respective interventions. The case manager then compiles all of the data relative to each beneficiary in a digital format.

IMC offers both in-person and online modalities of treatment. The choice of either mode is according to the beneficiary's preferences. During certain periods, such as the outbreak of the COVID-19 virus, IMC switched to fully remote sessions. During

the war on Lebanon, some IMC centers, such as in Beirut and the South of Lebanon, also switched to online modalities, while other centers remained operational in-person. Hence, both options are available and utilized based on preference and necessity.

Data was shared with the American University of Beirut (AUB) after receiving approval from the International Review Board (IRB) at AUB and after signing a data sharing agreement between Anil Kangal, Lebanon director of IMC, and Dr. Tania Bosqui, associate professor and director of the clinical psychology program at AUB.

C. Participant Characteristics

Participants in this study are people who accessed IMC and received psychotherapy during the periods of January 1, 2018, and November 30, 2024. In this study, IMC centers from 7 working areas including Akkar, Bekaa, Beirut Mount Lebanon, North Lebanon, South Lebanon, Saida, and Tripoli were included. Some areas have more than one IMC center. In this study, at least one center from each working area was included. Centers that were chosen were ones that have been operational for more than two years and have a beneficiary caseload of more than 100. The only exclusion criterion for participants is having a diagnosis of epilepsy. All other psychiatric conditions were included. This was done to standardize the data across time because IMC had stopped receiving patients with epilepsy. Participants are residents in Lebanon, mainly from the Lebanese, Syrian, and Palestinian nationalities, of all ages. Beneficiaries had to have had at least one session with a psychotherapist to be included in analysis. Beneficiaries who received services from other MHPSS services like case managers and psychiatrists, were excluded. The only type of therapy employed by IMC across all their centers is

cognitive behavioral therapy (CBT), thus type of treatment was not controlled for. Based on the chosen centers and participants, the sample size is 6,123 beneficiaries.

D. Ethics and Approvals

This study received approval from the IRB office at AUB as per the guidelines of an expedited review (SBS-2024-0513). All existing data for IMC is de-identified and there is no trace between a beneficiary's name and their case number. Participants had consented for their data to be used for research purposes as per the guidelines of the informed consent that is signed by each beneficiary once they sign up for mental health services at IMC. Access to IMC's data was provided by IMC personnel to the researchers in this study solely for the period of analysis.

This study used data obtained from IMC. The interpretation and reporting of research using this data are solely the responsibility of the authors and do not represent the official views of IMC.

E. Measures

1. Sociodemographic factors

a. Age: defined as the beneficiary's age when they first sought IMC.

b. Sex: defined as being female or male.

c. Marital status: defined as being married, single, or divorced/separated/widowed.

d. Nationality: defined as being Lebanese or non-Lebanese.

e. Disability: defined as having a disability or not (yes/no).

2. ***Engagement in psychotherapy***

   a. Attendance of sessions: the total number of consultations given by a psychotherapist to the beneficiary.

   b. Duration of treatment: the number of months spent receiving services from IMC, either less than 3 months, 3-6 months, 6-12 months, or 12+ months.

   c. Dropout Status: the beneficiaries who failed to attend three pre-scheduled appointments or who contact was lost with. This will be measured as either yes (dropped out) or no (did not drop out).

3. ***Treatment outcomes of psychotherapy***

   a. Client Functioning Scale (for men and women over 18): developed by IMC, this scale is used to measure the beneficiary's functioning according to baseline, follow-up, and endline scores. The functioning scale is administered every three months. While IMC regulates that each beneficiary stays in treatment for 3-6 months, some beneficiaries renew their treatment and remain for longer, necessitating an administration of the CFS every three months. It is intended to assess alterations in one's capacity to carry out everyday duties based on three areas in their life: self-care, family care, and community care and engagement. Beneficiaries are asked to rate the items based on the last two weeks, and the rating ranges from 0=did not face any difficulty, till 4=often cannot do it. Sample items include "Keeping yourself clean (e.g., showering) – self-care" and "engaging in activities with family members (e.g., engage in discussion, do leisure activities together, visit friends…) – family care". The change in functioning score, i.e. the difference between the endline score and the baseline score, in the functioning scale was analyzed. Higher scoring on the CFS

indicates lower functionality and lower scoring indicates better functionality. This scale is only used for individuals above 18. Those under 18 are not administered a functioning scale and thus were excluded from analysis on CFS. Other beneficiaries who do not have an active functioning scale are those registered in IMC for medication purposes only. They were also excluded from analysis. Since this scale was developed by IMC for its own use and is not universally used or available, there is no factorial analysis currently available. The CFS is presented in Appendix I and II.

b. Individual Care Plan: developed by IMC, this form is filled out by the psychotherapist, psychiatrist, and case manager for each beneficiary. It is used to specify the goals of the treatment, as discussed between the client and the professionals. The care plan is only filled out with those benefiting from psychotherapy sessions. Beneficiaries who only benefit from psychotropic medications do not fill out the care plan. The number of goals set for each beneficiary ranges between 0 and 3 which are usually set in the first few sessions. Analysis focused on the number of care plan goals achieved by each beneficiary at endline (i.e. once treatment was ended). The individual care plan is presented in Appendix III.

F. Statistical analysis

All analysis was run through the software SPSS. The independent variables of this study are the sociodemographic factors. The mediator, previously operationalized as attendance of sessions, duration of treatment, and dropout status, was analyzed in predicting treatment outcomes. The dependent variables – i.e. treatment outcomes –

were based on the client functioning scale (CFS) and care plan by IMC. The variables of this study are divided into categorical and numeric ones. Sex, nationality, marital status, disability, duration of treatment, dropout, service modality, and psychotropic medication prescribed represent the former while the number of attended sessions, goals completed by endline, and change in functioning score represent the latter. Descriptive statistics, both univariate and bivariate, were used to describe the variables in the study.

Analysis of the data was run using PROCESS Macro Model 4, developed by Andrew Hayes (2013), and is a regression-based, mediation model. The model uses bootstrapping to measure the relationship between one or more mediating or moderating variables and report the direct, indirect, and total effects between all the variables (Abu-Bader & Jones, 2021). The model was run several times to test for the effect of different variables on mediators and outcomes. For each sociodemographic variable (sex, age, marital status, nationality, and disability) the model was run to examine the indirect effect (i.e. the mediating effect) of engagement on treatment outcomes. Also, since, the model only accepts one dependent variable at a time, change in functioning score and care plan goals achieved at endline were separated during analysis, but they both remained predictors of treatment outcomes.

CHAPTER V

RESULTS

A. Overview

In the following results sections, the findings in relation to sociodemographic factors with engagement and treatment outcomes of psychotherapy, are presented as guided by the proposed theoretical model. Descriptive statistics are used to describe the variables using frequencies, percentages, means, and standard deviations. Regression analysis using PROCESS macro by Andrew Hayes (2013) was used to examine the direct and indirect effects between sociodemographic factors, engagement, and treatment outcomes.

B. Descriptive Statistics

Data in this study was described using descriptive statistics for both categorical and numeric variables. The sample consisted of 61.6% females and 38.4% males. More than half of the sample was non-Lebanese (60.1%) and the rest were Lebanese (39.9%). The sample was also almost fairly distributed between single (47.2%) and married (42.9%), with little remaining as divorced/separated/widowed (9.9%). Moreover, more than half the sample did not have a disability (52.8%). Around 45% utilized both in-person and remote service modalities, whereas only 4% received only in-person, and 8% only remote services. The sample was also almost fairly distributed between those who took medications (53.6%) and those who did not (41.5%). Finally, most of the sample remained in treatment for more than 12 months (32.5%). Table 1 represents the distribution of the categorical variables.

Table 1. Descriptive Statistics of Categorical Variables

		Frequency	Percent
Sex	Female	3772	61.6
	Male	2350	38.4
Nationality	Non-Lebanese	3677	60.1
	Lebanese	2446	39.9
Marital Status	Single	2891	47.2
	Married	2624	42.9
	Divorced/Separated/Widowed	608	9.9
Disability	Yes	853	13.9
	No	3232	52.8
Service Modality	All In-person	246	4.0
	All Remote	490	8.0
	Both	2755	45.0
Prescribed Medication	Yes	3279	53.6
	No	2541	41.5
Time in Treatment	< 3 months	700	11.4
	3-6 months	1013	16.5
	6-12 months	1646	26.9
	12+ months	1987	32.5

Table 2. Descriptive Statistics for Numeric Variables

	N	Minimum	Maximum	Mean	Std. Deviation
Age	6123	4	96	32.09	14.847
Session	3494	0	89	3.13	6.186
Goals	1035	.000	7.000	.84343	.741575
FS	2738	-40	22	-4.32	7.310

As for numeric variables, the mean age was 32.09 with a standard deviation of 14.847. The number of sessions provided by a psychotherapist averaged 3.13 with a standard deviation of 6.186. Also, the average number of care plan goals was 0.84

while the average score for change in FS was -4.32. Table 3 presented above shows the distribution of the current variables.

C. Binary Regression and Missing Values Analysis

Firstly, a binary logistic regression model was run to test for the relationship between dropout and the existing sociodemographic variables: age, sex, marital status, nationality, and disability. Results showed that only age (β=0.01, p=.005) and marital status (β=-0.22, p=.008) were significant predictors of dropout. That is, being of an older age predicted higher rates of dropout while being married predicted lower rates of dropout. Other demographics, however, like sex, nationality, and disability, were not significant predictors (p>.05). The overall model was statistically significant ($\chi^2(5)=14.61$, p=.012), but the variance explained only a small proportion of the model (R^2=.006). Hence, dropout was excluded from the mediators that define engagement, leaving engagement defined as the number of sessions given by a psychotherapist and the time spent in treatment.

Following that, a missing values analysis was run on SPSS. The variables with the highest percentages for missing values were the number of sessions given by a psychotherapist (42.9%), the change in FS scores (55.3%), and the number of care plan goals completed (83.1%). Little's MCAR test was significant (p<.001) and revealed that the data was not missing completely at random. It's important to note that for the change in functioning scores, the functioning scale is not administered to those below 18 years of age, which could explain some of the missing data for this variable. Nevertheless, no variables were excluded after this analysis. Table 1 shows the count and percentage of missing data in all the variables.

Table 3. Missing Values in the Dataset

	N	Mean	Std. Deviation	Missing		No. of Extremes[a]	
				Count	Percent	Low	High
Age	6123	32.09	14.847	0	.0	0	37
Session	3494	3.13	6.186	2629	42.9	0	340
FS	2738	-4.32	7.310	3385	55.3	110	22
Goals	1035	.84343	.741575	5088	83.1	0	9
Sex	6122			1	.0		
Nat	6123			0	.0		
MS	6123			0	.0		
Dis	4085			2038	33.3		
Mode	3491			2632	43.0		
Time	5346			777	12.7		
Drop	6123			0	.0		
Meds	5820			303	4.9		

a. Number of cases outside the range (Q1 - 1.5*IQR, Q3 + 1.5*IQR).

D. Mediation Analysis

1. DV 1: change in functioning score

The mediation analysis using PROCESS Macro Model 4 resulted in several findings. Two models were run for each dependent variable (DV). The first examined change in functioning score as a DV. Removing the missing values yielded a total sample size of 1852. Sex was a significant predictor of the number of sessions attended (β=-0.95, p=.0005), whereby males attended fewer sessions compared to females. It did not, however, predict time in treatment (β =-0.00, p=.93). Moreover, being of a younger age (b=-0.03, p=.006) and not having a disability (β =0.74, p=.011) were predictors of attending a fewer number of sessions. Other demographics, like marital status and nationality, were not predictors of the number of sessions attended. Sessions that were

attended online or in a hybrid format were also significant (β=1.72, p=.00) but medication was not significant (β=0.19, p=.5). Duration was better predicted by age (β=0.01, p=.00), nationality (β=-0.17, p=.0004), marital status (β=-0.13, p=.003), disability (β =0.16, p=.004), service modality (β =0.18, p=.00), and medication prescribed (β =-0.60, p=*.00*). That is, beneficiaries who were older, non-Lebanese, single, had a disability, attended sessions either online or in a hybrid format, and/or did not take any medications had a longer duration of treatment.

As for predictors of functioning score change, time spent in treatment was significant (β =-2.34, p=), whereby longer duration was associated with better functioning. The number of attended sessions, however, were not significant in predicting change in functioning score (β =-0.06, p=.06). Also, sex, age, nationality, and service modality were not predictors of treatment outcomes. Only marital status (β=-0.65, p=.036) and disability (β=-0.83, p=.036) were significant predictors of change in functioning score. Beneficiaries who were married and did not have a disability showed better scores on the functioning scale. Beneficiaries who took medications, however, showed lower FS scores (β=0.77, p=0.47).

2. DV 2: care plan goals achieved at endline

Mediation was also examined with the second dependent variable, number of care plan goals achieved at endline. Removing the missing variables resulted in a sample size of 781 beneficiaries. Results of the analysis of the overall model were significant (R^2=.024, F (9,771) =2.13, p=.025). Since the same variables were run to predict engagement and care plan goals instead of FS change, the results between the sociodemographic factors and engagement were the same as the first model. That is, males and beneficiaries who only utilized in-person services attended fewer sessions,

while those who were younger in age and with a disability attended more psychotherapy sessions. Nationality, marital status, and taking medication showed no significant effect. For duration of treatment, only older age and not taking medications predicted a longer time in treatment. As for the care plan goals achieved at endline, beneficiaries who were non-Lebanese (β=0.13, p=.033) and who had a disability (β =0.18, p=.010) completed more goals in treatment. Age (β= 0.005, p=.06), sex (β =-0.06, p=.27), marital status (β =-0.07, p=.2), type of modality (β =-0.003, p=.09), and medications (β=0.01, p=.83) did not predict completion of goals. Finally, both the number of sessions attended with a psychotherapist (β =-0.002, p=.55) and the time spent in treatment (β =0.07, p=.23) did not predict the number of goals achieved in the care plan by the end of treatment.

3. Indirect effects: engagement and DV 1

The effect of engagement as a mediator was observed based on the indirect effects of the model. Analysis was run for each demographic factor in predicting the indirect effects on treatment outcomes. Firstly, each factor will be presented with its results on DV 1. Engagement, as measured by the number of sessions (β =0.06, 95% CI [−0.01,0.16]) and time in treatment (β =0.01, 95% CI [−0.22,0.25]) did not significantly mediate the relationship between sex and change in functioning score. As for age, there was significant total effect on functioning score (β =-0.03, 95% CI [-0.04, -0.01]) as well as a significant indirect effect with time spent in treatment (β =-0.03, 95% [-0.04, -0.01]) but not significant for the sessions attended (β =0.002, 95% [-0.004, 0.005]). Between marital status and functioning score, the total direct effect and the indirect effect of session attendance were non-significant. However, the total indirect effect (b=0.3, 95% [0.08, 0.52]) and the indirect effect of time in treatment (β =0.3, 95%[0.09,

0.52]) were significant. Nationality was observed to have a significant direct total effect on change in FS (β =1.02, 95% [0.3, 1.74]) and indirect total effect (β =0.4, 95% [0.16, 0.64]). Session attendance was not indirectly significant, whereas time in treatment was indirectly significant (β =0.3, 95% [0.18, 0.64]). Disability had a significant total effect, both directly (β =-1.2, 95% [-2.06, -0.43]) and indirectly (β =-0.42, 95% [-0.7, -0.16]) on change in FS. While session attendance did not have a significant indirect effect, time in treatment did (β =-0.4, 95% [-0.64, -0.06]). Therefore, it can be said that, attending sessions given by the psychotherapist does not mediate the relationship between sociodemographic factors and better functioning scores. Duration of treatment, however, mediates the relationship between age, marital status, nationality, and disability with better functioning scores.

4. Indirect effects: engagement and DV 2

The following results will describe the findings between sociodemographic factors and their total and indirect effects on the care plan goals achieved at endline. Both total and indirect effects were non-significant between sex and care plan goals achieved. All indirect effects were non-significant between age and number of care plan goals achieved. The total effect, however, was significant (β =0.005, 95% [0.003, 0.01]). No significant effects were observed between the indirect effects of marital status and nationality with the goals achieved. Only direct total effects were significant between nationality and care plan goals achieved (β =0.12, 95% [0.06, 0.26]). Also, for disability, only a significant direct total effect was observed (β =0.18, 95% [0.04, 0.3]) whereas no significant indirect effects were found. Thus, engagement, as defined by

both session attendance and duration of treatment, does not mediate the relationship between sociodemographic factors and the number of goals that beneficiaries achieve.

E. Discussion

In light of the proposed theoretical model, the purpose of this study was to examine the relationship between sociodemographic factors, engagement, and mental health treatment outcomes in psychotherapy among patients accessing mental health services in Lebanon. More specifically, the aim was to explore engagement as a mediator between sociodemographic factors and outcomes. The results of the study showed that some demographics, like being male and of an older age predicted attending a fewer number of sessions. This result is similar to some studies in the literature on sex (Binnie & Boden, 2016; Ingenhoven et al., 2012) and age (Berke et al., 2019; Fenger et al., 2010). The results confirm the theories posed on males engaging less often because of the values they perceive in therapy is less than that given by females, or that males may decrease session frequency once they feel their symptoms got better (Eggenberger et al., 2021). Younger adults may also have more busy schedules compared to older adults. Moreover, results showed that beneficiaries who did not have a disability attended fewer sessions. Even though research has focused on barriers that individuals with disabilities often hinder their engagement in psychotherapy (Ahlström et al., 2020), our results found that beneficiaries at IMC often overcome these barriers. This could mean that the obstacles faced by this population are overcome when receiving services by IMC personnel. The last predictor of fewer session attendance was having the sessions being done completely all in-person. Some studies have reported lower engagement in online therapy (Lippke et al., 2021) while others have attested to the effectiveness of

remote therapies in an equal manner to in-person ones (Fernandez et al., 2021; Giovanetti et al., 2022). Recent research has focused on the importance of combining both in-person and online services as an effective modality (Ehrt-Schäfer, 2023). This makes the therapeutic process more flexible and convenient for the beneficiary. This study found that completely in-person sessions may decrease the likelihood of beneficiaries attending their sessions. This could be due to the idea that attending in-person is accompanied by certain barriers, especially for employed individuals, mothers of newborns, and people who cannot frequently access the center. Information on these specific barriers, however, are not present in the dataset. Hence, further interpretation was limited.

Engagement was also defined by the time spent by beneficiaries in treatment and was associated with most demographic variables. While contrary to previously presented studies on the relation between age and duration of treatment (Ingenhoven et al., 2012; Selinheimo et al., 2024), this study found that beneficiaries who were older in age spent more time in treatment. Similar to the first finding linking younger age to fewer session count, it could be explained in that older clients value help given to them more so than younger ones. This could encourage them to remain in treatment for a longer duration of time. Additionally, being single was an indicator of more time spent in therapy. Past studies have been inconclusive as to which marital status contributes to higher engagement (DiMatteo, 2004; Texeira et al., 2018). Because they have fewer conflicting demands, less informal emotional support, or more control over their care choices, single people may stay in treatment longer than married, divorced/separated, or widowed clients (Wu et al., 2012). Beneficiaries who were non-Lebanese and who had a disability were also reported to have remained in treatment for a longer duration of

time. Even though refugees/immigrants of a country as well as people with disabilities normally face barriers that make it difficult for them to benefit from mental health care (Ahlström et al., 2020; Boettcher et al., 2021; DeSa et al., 2022), engagement at IMC was higher for those under-represented groups. This could be explained by the fact that, at IMC, beneficiaries who have financial difficulties and cannot access the center easily because of the transportation cost are given a certain amount of money to cover their expense and thus ease their access and engagement. As for the confounding variables in this study, those who were not on medications remained in treatment for a longer time, while those who only attended services in-person had a shorter course of therapy. It is crucial to consider what factors influence duration of treatment, mainly the psychiatric diagnosis of an individual. Evidence has previously suggested that undergoing either online or in-person psychotherapy could increase engagement depending on the individual and the circumstances (Alavi et al., 2023). In this case for beneficiaries at IMC, attending sessions in-person might was more beneficial for some individuals and thus reduced the duration in treatment.

The results of the change in functioning score also varied. Being married and not having a disability were the only two demographics associated with better functioning scores. Research has often reported on the barriers that individuals with disabilities face, such as unequitable access to health care; however, eliminating those obstacles, while scarcely tested, has been theorized to improve treatment outcomes (Iezzoni, 2011; Mahmoudi & Meade, 2014). In this study, when individuals with disability were given equitable mental health care provided by IMC, they showed even better improvement than those without a disability. Also, even though married people did not engage as much as non-married individuals did, they reported better outcomes, which could be

based on initial higher functioning at baseline because of existing social support by the partner. The protective benefits of marital social support, which can boost resilience, promote the use of therapeutic techniques, and offer emotional resources to assist official therapy, might be reflected in this (Woods et al., 2022). Other demographics as well as modality of treatment had no association with functionality. In contrast, beneficiaries who were prescribed medications had poorer functioning outcomes compared to those who were not on medications. It's possible that higher baseline symptom severity necessitated medication (Schoenbaum, 2002). Because of the chronic nature of their diseases, these people may have continued to have functional impairments even after receiving pharmacological treatment (Delgadillo, 2016). Notably, beneficiaries on medication had lower engagement, which could explain the poor outcomes as well.

The goals reported to have been completed as per the individual care plan by IMC were not significantly related to most variables. Similar to the results in the change in FS, those with a disability reported higher completion of goals. Non-Lebanese citizens also reported higher goal achievement compared to Lebanese people. While it was commonly reported that disadvantaged populations have more barriers when accessing healthcare services (Boettcher et al., 2021; Dumke et al., 2024), our results showed that, once this access is provided, the results are better than those without these barriers. These results demonstrate how important it is to address contextual and structural issues in the therapeutic practice in order to promote positive outcomes and equitable engagement. Variables like age, gender, education, income, employment status, and marital status have been inconclusive on the direction of their effect on outcomes of psychotherapy (Joutsenniemi et al., 2012; Van Der Lem et al., 2012). In this study, all

other sociodemographic factors as well as the confounding ones did not have any impact on achievement of goals. This finding reflects highly of IMC as a mental health service. This could mean that, for IMC, treatment outcomes, particularly functionality and goal completion, do not differ across most demographic factors or the type of modality and medications. They offer their services fairly and accommodate for all groups, and thus the treatment outcomes are observed as similar among them all.

The only factors that demonstrated substantial indirect effects on care plan goals were age, nationality, and disability, indicating that engagement acted as a mediating factor in their impact on treatment effectiveness. In other words, these factors had an impact on clients' attendance and length of stay in treatment which in turn had an impact on whether or not they met their therapeutic objectives. Other sociodemographic factors, like marital status and sex, showed little to no impact on outcomes through engagement, as seen by the lack of a significant indirect pathway. Clinically, interventions may need to focus more on younger clients, Lebanese nationalities, and those without a disability in order to enhance completion of goals.

The disparity in what was presented in the literature with the results that were observed could be due to contextual variations in the way services are provided. The available literature had a Western focus, whereas this study utilizes data from Lebanon, which is often scarce, especially real-world data (Maalouf et al., 2019). These findings overall support the theoretical model that was proposed, highlighting the direct impact of marital status, nationality, and disability on treatment outcomes, the direct but different impact of age, sex, marital status, nationality and disability on engagement, and the impact of duration of treatment on functioning score changes.

CHAPTER III

STRENGTHS AND LIMITATIONS

A. Strengths

The current study which examines direct and indirect relationships between sociodemographic factors, engagement, and treatment outcomes, presents several strengths. Firstly, to our knowledge, no research has yet utilized all these variables in one study and observed pathways in this manner. Pathways from sociodemographic factors to engagement, from sociodemographic factors to treatment outcomes, and from engagement to outcomes, were all analyzed. Analyzing engagement as a mediator reflects a deeper understanding of psychotherapy and mental health processes in that they occur on deeper levels, and possibly reflect treatment outcomes. Also, this study focused on real-world data collected by IMC in Lebanon, who operate all across the country. This type of data has not been analyzed previously in the context of Lebanon. Finally, this study can contribute to personalized care in mental health humanitarian settings and inform better treatment practices.

B. Limitations

While this study poses interesting findings, it is not without its faults. The first limitation of this study is the limited number of sociodemographic factors. Other factors like employment or education status, as well as social determinants like socioeconomic status, social support, housing conditions, discrimination, etc. would have been important to explore as well. Since this is a secondary data analysis, the study was limited in its scope to the available data by IMC.

Another limitation in this study is the exclusion of the sessions offered by case managers and psychiatrists from the analysis of the data. While the number of sessions

conducted with each of these professionals was available, it was not feasible to include combinations of data. Since the main focus of this study is psychotherapeutic services, it was decided to include only this part. Hence, the results could be explained by the effect of case managers and psychiatrist alongside psychotherapists.

The high number of missing values, that were not missing at random, is also a limitation of this study. Data could have been underreported for many reasons, such as internal ones, which makes it subjective and outside the scope of this study. For change in functioning score specifically, data was missing mainly because this tool is not administered for individuals below 18, however, individuals under 18 were not excluded from the study. Another limitation could be the categorical division of variables like marital status and type of service modality. Since they are neither dichotomous nor ordinal variables, their division into categories might have limited the interpretation of their findings.

Another valid limitation is the low value of the variance explained by the models (R^2). This means that the relationship between the predictors and the outcomes may not have been fully captured. While the measures for engagement and treatment outcomes have been similarly present and utilized in earlier research, it is possible that they do not completely represent these two constructs in psychotherapy. This study only focused on the behavioral component of engagement and not the attitudinal one as well. Other measures like therapeutic alliance, therapist competence, and client motivation, were not considered, mainly due to their subjective nature and unavailability in the dataset. The tools used for treatment outcomes are ones specific to IMC, and thus have not been tested for their validity and reliability. These limitations play a role in the interpretability of the results as they may not fully depict real clinical improvement.

CHAPTER III

CONCLUSION

The current study investigated how sociodemographic factors affect clients receiving humanitarian services' engagement in psychotherapy and the results of their subsequent treatment. Overall, the results showed that sex, age, and disability predicted a fewer number of sessions whereas age, nationality, marital status, and disability predicted a longer duration of treatment. Treatment outcomes of functioning were predicted by marital status and disability whereas those of care plan goals were predicted by nationality and disability. A longer duration of psychotherapy also predicted better functioning scores. All other demographics were not associated with treatment outcomes, possibly meaning that IMC offers equitable services, eliminating any differences in treatment outcomes. Finally, engagement, particularly duration of treatment, was shown to be a mediator between age, nationality, and disability and treatment outcomes. In addition to highlighting the necessity for more thorough metrics of engagement quality and symptom change in subsequent research, the study emphasizes the significance of taking into account both social and clinical factors when analyzing client journeys in psychotherapy. Future research should look into how therapeutic alliance affects engagement and dropout rates, especially for patients who have low hopes for recovery or substantial amounts of psychological distress. As indicated by the study's findings, this might be combined with studies on individualized treatment programs that take into account each patient's requirements and expectations. These findings have implications on IMC and humanitarian contexts in general.

Engagement should be framed as a process and not a by-product. By identifying groups who seem at a high-risk of disengaging, services can track their engagement patterns and adapt more flexible approaches. Services should also learn to understand that disengagement may not come from individual non-compliance, but is rather also based on social, demographic, and structural barriers. Finally, this study highlights the importance of continuously monitoring determinants of engagement and outcomes in light of the Lebanese context. Beyond only offering sessions, services have to actively adjust to the reality that the people of Lebanon face as they deal with one crisis after another.

APPENDIX I

FUNCTIONING SCALE COVER PAGE

Functioning Scale Cover Page

Introduction: The functioning scale is used to measure how much client's symptoms affect his or her functioning in the day-to-day life. It's designed to help mental health providers understand how well the person can function in the everyday activities. The score can help figure out what level of care someone may need and it is essential to measure the progress of our clients.

مقدمة: يتم استخدام مقياس الأداء لقياس مدى تأثيرأعراض المستفيد على أدائه في حياته اليومية.
إنّه مصمّم لمساعدة مقدمي خدمات الصحة النّفسيّة على فهم مدى قدرة الشخص على أداء الأنشطة اليومية. يمكن أن تساعد النتيجة في تحديد مستوى الرعاية التي قد يحتاجها شخص ما ، ومن الضروري قياس تقدم المستفيدين.

General Instructions for Completing: The FS is a self-administered tool that is filled on baseline. The initial administering of this tool should be completed as a part of the overall assessment during the first or second session (Optimal for baseline data) noting that the initial assessment is due within maximum 30 days of intake. The FS is re-administered every 3 months for a total of 3 reviews. In addition, it should be administered at the time of discharge, for the endline assessment.

تعليمات عامة لإكمال مقياس الأداء: هي أداة ذاتية الإدارة يتم ملؤها في بداية فترة المتابعة. يجب إكمال تعبئة الأداة كجزء من التقييم الشامل خلال الجلسة الأولى أو الثانية (الأمثل لبيانات خط الأساس) مع ملاحظة أن التقييم الأولي سيكون في غضون 30 يومًا كحد أقصى من بداية فترة المتابعة. تتمّ إعادة تعبئة مقياس الأداء كل 3 أشهر ليصبح المجموع 3 مراجعات. بالإضافة إلى ذلك ، يجب أن يعبّئ في وقت إغلاق الحالة ، للتّقييم النهائي.

The FS should be filled with clients over 18 years old however some exceptions could be made with older adolescents who meet the criteria if considered applicable by the case managers. It is not recommended to be filled with unstable clients or clients who are currently suffering from severe disorders. However, in those specific cases the tool can be completed with the caregivers**. PS: Trust your clinical judgement during the analysis.**

يجب أن يملأ مقياس الأداء للمستفيدين الذين تزيد أعمارهم عن 18 عامًا ، لكن يمكن إجراء بعض الاستثناءات مع المراهقين الأكبر سناً الذين يستوفون المعايير إذا اعتبرها مديرالحالة قابلة للتطبيق. لا ينصح بملء مقياس الأداء للمستفيدين الذين هم بحالة غير مستقرة أو يعانون حاليًا من اضطرابات شديدة. ومع ذلك ، في هذه الحالات المحددة ، يمكن استكمال الأداة مع مقدمي الرعاية. **ملاحظة: ثق بحكمك السريري أثناء التحليل.**

In some cases, the question might not be relevant e.g.: “Earning money for the family” as it is usually considered the role of the man it might not be applicable with women. In that particular case you can remove the question and deduct 4 points from the final scoring. Meaning, every time you remove a question you should also remove 4 points. Make sure to ask the same questions during the initial assessment and on review so you cannot ask new questions on the review that were removed on baseline.

في بعض الحالات ، قد لا يكون السؤال ذا صلة على سبيل المثال: **"**كسب المال للعائلة**"** لأنه عادة ما يعتبر دورالرجل الذي قد لا ينطبق على النساء. في هذه الحالة بالذات ، يمكنك إزالة السؤال وخصم 4 نقاط من التسجيل النهائي. بمعنى ، في كل مرة تقوم فيها بإزالة سؤال ، يجب عليك أيضًا إزالة 4 نقاط. تأكد من طرح نفس الأسئلة أثناء التقييم الأولي وفي المراجعة ، لذا لا يمكنك طرح الأسئلة التي تمت إزالتها في الأساس خلال المراجعة.

Regarding the last question (AM10) the purpose is to ask the clients if there are any challenges faced related to functioning that were not reflected in the above questions. so you can add new questions only if relevant. PS: If not applicable or not answered make sure to remove it from the total scoring

فيما يتعلق بالسؤال الأخير (AM10) ، يتمثل الغرض من ذلك في سؤال المستفيدين عما إذا كانت هناك أي تحديات تواجههم تتعلق بالأداء لم تنعكس في الأسئلة أعلاه. حتى تتمكن من إضافة أسئلة جديدة فقط إذا كان ذلك مناسبًا. ملاحظة: إذا لم يكن قابلاً

للتطبيق أو لم تتم الإجابة عليه ، فتأكد من إزالته من مجموع النقاط

مثال على النقاط: إذا تم الرد على 8 من أصل 10 أسئلة:
يجب أن يكون إجمالي النقاط : $\frac{X}{(8*4)} = \frac{X}{(32)}$

Scoring example: if 8 out of 10 questions were answered:
the Total scoring should be: $\frac{X}{(8*4)} = \frac{X}{32}$

APPENDIX II

FUNCTIONING SCALE

Functioning Scale Men and Women Over 18
مقياس الأداء للرجال والنساء فوق سن 18

Client IMC Code/ رمز الهيئة الطبية الدولية: **Date/ التاريخ:**

Part A: Daily Functioning

Below are a list of tasks and activities. These are activities that other people around here told us were important for men to do regularly. For each task, we would like you to rate how much more difficulty you have had doing it in the last 2 weeks compared with other men your age. For each task, please indicate whether you have had no more difficulty, a little more, a moderate amount more, a lot more, or that you often cannot do the task.

القسم أ: الأداء اليومي
ستجد أدناه لائحة بالأعمال والنشاطات. إنها نشاطات أخبرنا سكان الجوار بأهميتها لدى الرجال ليقوموا بها بانتظام. لكل عمل، نريدك ان تحدد نسبة الصعوبة التي واجهتها في ممارسته في خلال الأسبوعين الأخيرين بالمقارنة مع رجال آخرين من الفئة العمرية ذاتها. لكل عمل، الرجاء تحديد إذا كنت تواجه صعوبة أكثر من غيرك، تواجه صعوبة أكثر بقليل، تواجه صعوبة أكثر بنسبة متوسطة، تواجه صعوبة أكثر بنسبة كبيرة، أو غالباً لا تستطيع فعله.

In the last two weeks, how much more difficulty did you have **than others** in doing the following…

في الأسبوعين الأخيرين، ما هي درجة الصعوبة التي واجهتها **مقارنة مع الآخرين** لدى القيام بالتالي...

Causes of Difficulty **أسباب الصعوبة**	Often Cannot Do It **غالباً لا تستطيع فعله**	Faced a Lot More Difficulty **واجهت صعوبة أكثر بنسبة كبيرة**	Faced a Moderate Amount More Difficulty**واجهت صعوبة أكثر بنسبة متوسطة**	Faced a Little More Difficulty **واجهت صعوبة أكثر بقليل**	Did not face More Difficulty **لم تواجه صعوبة أكثر**	
Self-Care العناية الشخصية						
	4	3	2	1	0	AM01. Keeping yourself clean [e.g. showering] المحافظة على النظافة الشخصية (مثلا، الاستحمام)
	4	3	2	1	0	AM02. Caring for your appearance [e.g.

						shaving hair/ dress/ hair/ make-up—as applicable to man/ woman client] الاهتمام بالمظهر (مثلا، الحلاقة, الملابس, التجميل) كما ينطبق على المستفيدالرجل/الإمرأة.
	4	3	2	1	0	AM03. Partaking in physical activity [e.g. exercise] المشاركة في أنشطة بدنية (مثلا، التمارين الرياضية)
رعاية العائلة \ Family Care						
	4	3	2	1	0	AM04. Earning money for the family (as applicable/ if it is the usual activity for man/ woman client) كسب المال للعائلة(حسب مقتضى الحال / إذا كان هذا هو النشاط المعتاد للعميل الرجل / الإمرأة)
	4	3	2	1	0	AM05. Engaging in activities with family members [e.g. engaging in discussion, doing leisure activities together, visiting friends, etc.] الانخراط في أنشطة مع أفراد العائلة (مثلا، نقاش أو القيام بأنشطة ترفيهية معا أو زيارة الأصدقاء، إلخ...)
	4	3	2	1	0	AM06. Carrying out household activities such as

						cleaning/cooking/ repairs [note: if this is an activity that you would usually do/ as applicable to man/ woman client] تنفيذ الأنشطة المنزلية مثل التنظيف / الطبخ / الإصلاح [ملاحظة: إذا كان هذا هو النشاط الذي كنت تفعله في العادة / تنطبق على المستفيدالرجل / المرأة]
Community Care and Engagement الرعاية المجتمعية والمشاركة						
	4	3	2	1	0	AM07. Visiting friends and relatives زيارة الأصدقاء والأقارب
	4	3	2	1	0	AM08. Participating in social events and activities المشاركة في الأنشطة والمناسبات الاجتماعية
	4	3	2	1	0	AM09. Helping out friends and relatives تقديم المساعدة للأصدقاء والأقارب
Other غيره						
	4	3	2	1	0	AM10.

مجموع العلامات/Total Score :

Thank you for your cooperation! Your answers have been very helpful.
شكراً لتعاونك! أجوبتك كانت مفيدة جداً.

APPENDIX III

INDIVIDUAL CARE PLAN

Individual Care Plan

Goals, Objectives& Treatment Interventions الأهداف العامة، والأهداف الخاصة، والتدخلات العلاجية

- **Target behavior/concern #1:**

Goal 1 (include date) الهدف العام			
Barriers المعيقات		**Strengths/ Resources نقاط القوة**	
Objectives الأهداف الخاصة	**Interventions التدخلات**	**Due Date تاريخ الاستحقاق**	**Progress towards objective and clients response to intervention التقدم المُحرز نحو تحقيق الهدف الخاص /استجابة المريض للتدخلات،**

- **السلوك المستهدف/الشأن المُقلِق #1**

- **Target behavior/concern #2:**
- **#2السلوك المستهدف/الشأن المُقلِق**

Goal 2 (include date)الهدف العام			
Barriers المعيقات		**Strengths/ Resourcesنقاط القوة**	
Objectives الأهداف الخاصة	**Interventions التدخلات**	**Due Date تاريخ الاستحقاق**	**Progress towards objectives and clients' response to intervention التقدم المُحرز نحو تحقيق الهدف الخاص /استجابة المريض للتدخلات**

Target behavior/concern #3:

- **#3السلوك المستهدف/الشأن المُقلِق**

Goal 3 (include date)الهدف العام			
Barriers المعيقات		**Strengths/ Resourcesنقاط القوة**	
Objectives الأهداف الخاصة	**Interventions التدخلات**	**Due Date تاريخ الاستحقاق**	**Progress towards objective and clients' response to intervention التقدم المُحرز نحو تحقيق الهدف الخاص /استجابة المريض للتدخلات**

- **Team Discussion Summary: [filled at baseline and every review] ملخص مناقشة الفريق**

Baseline: Review Entry 1, Date: _____ Signatures per position: Review Entry 2, Date: _____ Signatures per position: Review Entry 3, Date: _____ Signatures per position:

- **Progress toward Discharge / التقدم المُحرز نحو بلوغ الخروج المخطَط [to be filled in line with setting goals]**

Summarize the clear indications that the team & client are looking for in order to support a successful discharge. *(We will know it is time to discharge when…)*

تلخيص المؤشرات الواضحة على تطلّع الفريق والمريض إلى دعم خطة خروج ناجحة. ***(سوف نعلم أن وقت الخروج المخطط قد حان عندما...)***

- **Scoring**

Review	**Total number of Goals Set with Client** مجموع عدد الاهداف المحددة مع المستفيد	**Number of Goals achieved** عدد الاهداف التي تحققت
1		
2		
3		

Review	**Total number of Objectives Set (sum of objectives under goals)** مجموع عدد الاهداف الخاصة	**Number of Objectives not met** عدد الاهداف الخاصة التي لم تحقق	**Number of Objectives partially met** عدد الاهداف التي تحققت جزئياً	**Number of Objectives fully met** عدد الاهداف التي تحققت بالكامل
1				
2				

3				

REFERENCES

Abu-Bader, S., & Jones, T. V. (2021). Statistical mediation analysis using the Sobel Test and Hayes SPSS Process Macro. *SSRN Electronic Journal*. https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID3799204_code4552984.pdf?abstractid=3799204&mirid=1

Aguirre Velasco, A., Cruz, I. S. S., Billings, J., Jimenez, M., & Rowe, S. (2020). What are the barriers, facilitators and interventions targeting help-seeking behaviours for common mental health problems in adolescents? A systematic review. *BMC psychiatry*, *20*, 1-22. https://doi.org/10.1186/s12888-020-02659-0

Ahlström, G., Axmon, A., Sandberg, M., & Hultqvist, J. (2020). Specialist psychiatric health care utilization among older people with intellectual disability – predictors and comparisons with the general population: a national register study. *BMC Psychiatry*, *20*(1). https://doi.org/10.1186/s12888-020-02491-6

Alavi, N., Moghimi, E., Stephenson, C., Gutierrez, G., Jagayat, J., Kumar, A., Shao, Y., Miller, S., Yee, C. S., Stefatos, A., Gholamzadehmir, M., Abbaspour, Z., Shirazi, A., Gizzarelli, T., Khan, F., Patel, C., Patel, A., Yang, M., & Omrani, M. (2023). Comparison of online and in-person cognitive behavioral therapy in individuals diagnosed with major depressive disorder: a non-randomized controlled trial. *Frontiers in Psychiatry*, *14*. https://doi.org/10.3389/fpsyt.2023.1113956

Alegría, M., NeMoyer, A., Falgàs Bagué, I., Wang, Y., Alvarez, K. (2018). Social determinants of mental health: where we are and where we need to go. *Current Psychiatry Reports* (20). https://doi.org/10.1007/s11920-018-0969-9

Allen, J., Balfour, R., Bell, R., & Marmot, M. (2014). Social determinants of mental health. *International Review of Psychiatry*, *26*(4), 392–407. https://doi.org/10.3109/09540261.2014.928270

Al-Mahmoud, F. (2020). Lebanon's informal capital controls explained: why can't Lebanese access their money? *Alarabiya News.* https://english.alarabiya.net/features/2020/11/15/Lebanon-economy-Lebanon-s-informal-capital-controls-explained

American Psychological Association (2017). *How long will it take for treatment to work?* APA Division 12. https://www.apa.org/ptsd-guideline/patients-and-families/length-treatment

Barrett, M. S., Chua, W., Crits-Christoph, P., Gibbons, M. B., & Thompson, D. (2008). Early withdrawal from mental health treatment: Implications for psychotherapy practice. *Psychotherapy*, *45*(2), 247–267. https://doi.org/10.1037/0033-3204.45.2.247

Baruch, G., Vrouva, I., & Fearon, P. (2009). A follow-up study of characteristics of young people that dropout and continue psychotherapy: service implications for a clinic in the community. *Child and Adolescent Mental Health*, *14*(2), 69–75. https://doi.org/10.1111/j.1475-3588.2008.00492.x

Berke, D. S., Kline, N. K., Wachen, J. S., McLean, C. P., Yarvis, J. S., Mintz, J., Young-McCaughan, S., Peterson, A. L., Foa, E., Resick, P. A., & Litz, B. T. (2019). Predictors of attendance and dropout in three randomized controlled trials of PTSD treatment for active duty service members. *Behaviour Research and Therapy*, *118*, 7–17. https://doi.org/10.1016/j.brat.2019.03.003

Binnie, J., & Boden, Z. (2016). Non-attendance at psychological therapy appointments. *Mental Health Review Journal*, *21*(3), 231–248. https://doi.org/10.1108/mhrj-12-2015-0038

Boettcher, V. S., Nowak, A. C., & Neuner, F. (2021). Mental health service utilization and perceived barriers to treatment among adult refugees in Germany. *European Journal of Psychotraumatology*, *12*(1). https://doi.org/10.1080/20008198.2021.1910407

Branson, C. E., Clemmey, P., & Mukherjee, P. (2013). Text message reminders to improve outpatient therapy attendance among adolescents: A pilot study. *Psychological Services*, *10*(3), 298–303. https://doi.org/10.1037/a0026693

Brun, C., Fakih, A., Shuayb, M., & Hammoud, M. (2021). *The economic impact of the Syrian refugee crisis in Lebanon: What it means for current policies*. World Refugee & Migration Council Research Report. https://wrmcouncil.org/projects/syrian-refugees-in-jordan-and-the-region

Carod-Artal, F. J. (2017). Social determinants of mental health. In S. Bährer-Kohler & F. Carod-Artal (Eds.), *Global mental health* (pp. 33-46). Springer. https://doi.org/10.1007/978-3-319-59123-0_4

Carpallo-González, M., Muñoz-Navarro, R., González-Blanch, C., & Cano-Vindel, A. (2023). Symptoms of emotional disorders and sociodemographic factors as moderators of dropout in psychological treatment: A meta-review. *International Journal of Clinical and Health Psychology*, *23*(4), 100379. https://doi.org/10.1016/j.ijchp.2023.100379

Centorrino, F., Hernán, M. A., Drago-Ferrante, G., Rendall, M., Apicella, A., Längar, G., & Baldessarini, R. J. (2001). Factors associated with noncompliance with

psychiatric outpatient visits. *Psychiatric Services*, *52*(3), 378–380. https://doi.org/10.1176/appi.ps.52.3.378

Cherqaoui, S. (2024). *Navigating Lebanon's financial collapse: dollarization, banking dysfunction, and the road to recovery*. Arab Center for Research and Policy Studies. https://www.dohainstitute.org/en/Lists/ACRPS-PDFDocumentLibrary/navigating-lebanons-financial-collapse-dollarization-banking-dysfunction-and-the-road-to-recovery.pdf

Ciharova, M., Karyotaki, E., Miguel, C., Walsh, E., De Ponti, N., Amarnath, A., Van Ballegooijen, W., Riper, H., Arroll, B., & Cuijpers, P. (2024). Amount and frequency of psychotherapy as predictors of treatment outcome for adult depression: A meta-regression analysis. *Journal of Affective Disorders*, *359*, 92–99. https://doi.org/10.1016/j.jad.2024.05.070

Cooper, A. A., Strunk, D. R., Ryan, E. T., DeRubeis, R. J., Hollon, S. D., & Gallop, R. (2015). The therapeutic alliance and therapist adherence as predictors of dropout from cognitive therapy for depression when combined with antidepressant medication. *Journal of Behavior Therapy and Experimental Psychiatry*, *50*, 113–119. https://doi.org/10.1016/j.jbtep.2015.06.005

Dacosta-Sánchez, D., González-Ponce, B. M., Fernández-Calderón, F., Sánchez-García, M., & Lozano, O. M. (2022). Retention in treatment and therapeutic adherence: How are these associated with therapeutic success? An analysis using real-world data. *International Journal of Methods in Psychiatric Research*, *31*(4). https://doi.org/10.1002/mpr.1929

Dasgupta, S., Dierckxsens, M., & Verick, S. (2021). The impact of the COVID-19 crisis on middle-income countries. *The Indian Economic Journal*, *69*(3), 534–552. https://doi.org/10.1177/00194662211023847

de Beurs, E., Warmerdam, E. H., Oudejans, S. C. C., Spits, M., Dingemanse, P., de Graaf, S. D. D., de Groot, I. W., Houben, H., Kuyck, W. G. E., Noorthoorn, E. O., Nugter, M. A., Robbers, S. C. C., & van Son, G. E. (2018). Treatment outcome, duration, and costs: a comparison of performance indicators using data from eight mental health care providers in the Netherlands. *Administration and policy in mental health*, *45*(2), 212–223. https://doi.org/10.1007/s10488-017-0818-x

Delgadillo, J., Dawson, A., Gilbody, S., & Böhnke, J. R. (2016). Impact of long-term medical conditions on the outcomes of psychological therapy for depression and anxiety. *The British Journal of Psychiatry*, *210*(1), 47–53. https://doi.org/10.1192/bjp.bp.116.189027

DeSa, S., Gebremeskel, A.T., Omonaiye, O., Yaya, S. (2022). Barriers and facilitators to access mental health services among refugee women in high-income countries: a systematic review. *Systematic Reviews*, *11*(62). https://doi.org/10.1186/s13643-022-01936-1

DiMatteo, M. R. (2004). Social support and patient adherence to medical treatment: a meta-analysis. *Health Psychology*, *23*(2), 207–218. https://doi.org/10.1037/0278-6133.23.2.207

Dumke, L., Schmidt, T., Wittmann, J., Neldner, S., Weitkämper, A., Catani, C., Neuner, F., & Wilker, S. (2024). Low access and inadequate treatment in mental health care for asylum seekers and refugees in Germany—A prospective follow-up

study over 12 months and a nationwide cross-sectional study. *Applied Psychology Health and Well-Being*, *16*(3), 1141–1158. https://doi.org/10.1111/aphw.12523

Eggenberger, L., Fordschmid, C., Ludwig, C., Weber, S., Grub, J., Komlenac, N., & Walther, A. (2021). Men's psychotherapy use, male role norms, and male-typical depression symptoms: examining 716 men and women experiencing psychological distress. *Behavioral Sciences*, *11*(6), 83. https://doi.org/10.3390/bs11060083

Ehrt-Schäfer, Y., Rusmir, M., Vetter, J., Seifritz, E., Müller, M., & Kleim, B. (2023). Feasibility, adherence, and effectiveness of blended psychotherapy for severe mental illnesses: scoping review. *JMIR Mental Health*, *10*, e43882. https://doi.org/10.2196/43882

Fenger, M., Mortensen, E. L., Poulsen, S., & Lau, M. (2010). No-shows, drop-outs and completers in psychotherapeutic treatment: Demographic and clinical predictors in a large sample of non-psychotic patients. *Nordic Journal of Psychiatry*, *65*(3), 183–191. https://doi.org/10.3109/08039488.2010.515687

Fernandez, E., Woldgabreal, Y., Day, A., Pham, T., Gleich, B., & Aboujaoude, E. (2021). Live psychotherapy by video versus in-person: a meta-analysis of efficacy and its relationship to types and targets of treatment. *Clinical Psychology & Psychotherapy*, *28*(6), 1535-1549. https://doi.org/10.1002/cpp.2594

Flückiger, C., Del Re, A. C., Wampold, B. E., & Horvath, A. O. (2018). The alliance in adult psychotherapy: A meta-analytic synthesis. *Psychotherapy*, *55*(4), 316–340. https://doi.org/10.1037/pst0000172

Gergov, V., Lindberg, N., Lahti, J., Lipsanen, J., & Marttunen, M. (2021). Effectiveness and predictors of outcome for psychotherapeutic interventions in clinical settings among adolescents. *Frontiers in Psychology*, *12*. https://doi.org/10.3389/fpsyg.2021.628977

Geurtzen, N., Keijsers, G. P., Karremans, J. C., Tiemens, B. G., & Hutschemaekers, G. J. (2020). Patients' perceived lack of goal clarity in psychological treatments: Scale development and negative correlates. *Clinical Psychology & Psychotherapy*, *27*(6), 915–924. https://doi.org/10.1002/cpp.2479

Giovanetti A. K., Punt S. E. W., Nelson E. L., Ilardi S.S. (2022). Teletherapy versus in-person psychotherapy for depression: a meta-analysis of randomized controlled trials. *Telemed J E Health*, 8, 1077-1089. https://doi.org/10.1089/tmj.2021.0294.

Gréaux, M., Moro, M. F., Kamenov, K., Russell, A. M., Barrett, D., & Cieza, A. (2023). Health equity for persons with disabilities: a global scoping review on barriers and interventions in healthcare services. *International Journal for Equity in Health*, *22*(1). https://doi.org/10.1186/s12939-023-02035-w

Hankir, Z., & Chehayeb, K. (2020). Another explosion for Lebanon: the blast in Beirut made international headlines. Even before that the nation was in turmoil and it has only worsened the mental health crisis. *Index on Censorship*, *49*(4), 8–13. https://doi.org/10.1177/0306422020981249

Holdsworth, E., Bowen, E., Brown, S., Howat, D. (2014). Client engagement in psychotherapeutic treatment and associations with client characteristics, therapist characteristics, and treatment factors. *Clinical Psychology Review*, *34*(5), 428-450,. https://doi.org/10.1016/j.cpr.2014.06.004.

Huey, S. J., & Jones, E. O. (2013). Improving treatment engagement and psychotherapy outcomes for culturally diverse youth and families. In *Handbook of multicultural mental health*, 427–444. https://doi.org/10.1016/b978-0-12-394420-7.00022-9

Iezzoni, L. I. (2011). Eliminating health and health care disparities among the growing population of people with disabilities. *Health Affairs*, *30*(10), 1947–1954. https://doi.org/10.1377/hlthaff.2011.0613

Ingenhoven, T. J. M., Duivenvoorden, H. J., Passchier, J., Van Den Brink, W. (2012). Treatment duration and premature termination of psychotherapy in personality disorders: predictive performance of psychodynamic personality functioning. *Journal of Psychiatric Practice, 18*(3), 172-186. https://doi.org/10.1097/01.pra.0000415074.43744.29

Interian, A., Lewis-Fernández, R., & Dixon, L. B. (2013). Improving treatment engagement of underserved U.S. racial-ethnic groups: a review of recent interventions. *Psychiatric Services, 64*(3), 212–222. https://doi.org/10.1176/appi.ps.201100136

Jaspal, R., Assi, M., & Maatouk, I. (2020b). Potential impact of the COVID-19 pandemic on mental health outcomes in societies with economic and political instability: case of Lebanon. *Mental Health Review Journal, 25*(3), 215–219. https://doi.org/10.1108/mhrj-05-2020-0027

Joutsenniemi, K., Laaksonen, M., Knekt, P., Haaramo, P., & Lindfors, O. (2012). Prediction of the outcome of short- and long-term psychotherapy based on socio-demographic factors. *Journal of Affective Disorders, 141*(2–3), 331–342. https://doi.org/10.1016/j.jad.2012.03.027

Karam, E. G., El-Jamal, M., Osman, R., Toukan, S., Mouawad, G. I., & Barathie, J. A. (2025). The aftermath of multiple trauma on a nation: unraveling Lebanon's unique mental health struggle. *Frontiers in Psychiatry*, *15*. https://doi.org/10.3389/fpsyt.2024.1444245

Karam, E. G., Mneimneh, Z. N., Karam, A. N., Fayyad, J. A., Nasser, S. C., Chatterji, S., & Kessler, R. C. (2006). Prevalence and treatment of mental disorders in Lebanon: a national epidemiological survey. *The Lancet*, *367*(9515), 1000–1006. https://doi.org/10.1016/s0140-6736(06)68427-4

Karnouk, C., Böge, K., Hahn, E., Strasser, J., Schweininger, S., & Bajbouj, M. (2019). Psychotherapy in Jordan: an investigation of the host and Syrian refugee community's perspectives. *Frontiers in Psychiatry*, *10*. https://doi.org/10.3389/fpsyt.2019.00556

Karver, M. S., Handelsman, J. B., Fields, S., & Bickman, L. (2005). A theoretical model of common process factors in youth and family therapy. *Mental Health Services Research, 7*, 35–51. https://doi.org/10.1007/s11020-005-1964-4

Kazdin, A. E. (1996). Dropping out of child psychotherapy: issues for research and implications for practice. *Clinical Child Psychology and Psychiatry*, *1*(1), 133–156. https://doi.org/10.1177/1359104596011012

Khalil, R. B., Dagher, R., Zarzour, M., Sleilaty, G., Akl, H. A., Kallab, M., & Richa, S. (2022). The impact of lockdown and other stressors during the COVID-19 pandemic on depression and anxiety in a Lebanese opportunistic sample: an online cross-sectional survey. *Current Psychology*, *42*(20), 17424–17434. https://doi.org/10.1007/s12144-021-02644-0

Khatib, D. K. (2022). 17 October (2019) Revolution in Lebanon: a preliminary analysis. In *Perspectives on development in the Middle East and North Africa (MENA) region* (pp. 75–93). https://doi.org/10.1007/978-3-031-15135-4_4

Khazaie, H., Rezaie, L., & De Jong, D. M. (2012). Dropping out of outpatient psychiatric treatment: a preliminary report of a 2-year follow-up of 1500 psychiatric outpatients in Kermanshah, Iran. *General Hospital Psychiatry*, *35*(3), 314–319. https://doi.org/10.1016/j.genhosppsych.2012.10.008

Kim, H., Munson, M.R. & McKay, M.M. (2012). Engagement in mental health treatment among adolescents and young adults: a systematic review. *Child and Adolescent Social Work Journal, 29*, 241–266. https://doi.org/10.1007/s10560-012-0256-2

King, M. (2015). Duration of psychotherapy has little association with outcome. *British Journal of Psychiatry, 207*(2), 93–94. https://doi.org/10.1192/bjp.bp.114.160978

Kirkbride, J. B., Anglin, D. M., Colman, I., Dykxhoorn, J., Jones, P. B., Patalay, P., Pitman, A., Soneson, E., Steare, T., Wright, T., & Griffiths, S. L. (2024). The social determinants of mental health and disorder: evidence, prevention and recommendations. *World Psychiatry*, *23*(1), 58–90. https://doi.org/10.1002/wps.21160

Kiselev, N., Pfaltz, M., Haas, F., Schick, M., Kappen, M., Sijbrandij, M., De Graaff, A. M., Bird, M., Hansen, P., Ventevogel, P., Fuhr, D. C., Schnyder, U., & Morina, N. (2020). Structural and socio-cultural barriers to accessing mental healthcare among Syrian refugees and asylum seekers in Switzerland. *European Journal of Psychotraumatology*, *11*(1). https://doi.org/10.1080/20008198.2020.1717825

Kiwan, D. (2021). Inclusion and citizenship: Syrian and Palestinian refugees in Lebanon. *International Journal of Inclusive Education*, *25*(2), 283–297. https://doi.org/10.1080/13603116.2019.1707308

Kontar, J., Osseiran, A., Makki, F., & Chammay, R. E. (2022). Promoting follow-up attendance among mental health patients at a primary healthcare center in Lebanon: A randomized controlled trial. *SAGE Open Medicine, 10*. https://doi.org/10.1177/20503121221135990

Kudo, A., Deguchi, N., Omiya, T., & Sankai, T. (2023). Treatment engagement: A concept analysis. *Journal of International Nursing Research*, *2*(2), e2022-0012. https://doi.org/10.53044/jinr.2022-0012

Lambert, M. J., & Barley, D. E. (2001). Research summary on the therapeutic relationship and psychotherapy outcome. *Psychotherapy: Theory, Research, Practice, Training, 38*(4), 357–361. https://doi.org/10.1037/ 0033-3204.38.4.357

Lippke, S., Gao, L., Keller, F. M., Becker, P., & Dahmen, A. (2021). Adherence with online therapy vs face-to-face therapy and with nline therapy vs care as usual: secondary analysis of two randomized controlled trials. *Journal of Medical Internet Research*, *23*(11), e31274. https://doi.org/10.2196/31274

Liu, Y., Gellatly, J. (2021). Barriers and facilitators of engagement in psychological therapies among older adults with depression: A systematic review and thematic synthesis. *Journal of Psychiatric and Mental Health Nursing, 28.* 509-520. https://doi.org/10.1111/jpm.12697

Lopes, R. T., Gonçalves, M. M., Sinai, D., & Machado, P. P. (2017). Clinical outcomes of psychotherapy dropouts: does dropping out of psychotherapy necessarily

mean failure? *Brazilian Journal of Psychiatry*, *40*(2), 123–127. https://doi.org/10.1590/1516-4446-2017-2267

Maalouf, F. T., Alamri, B., Atweh, S., Becker, A. E., Cheour, M., Darwish, H., Ghandour, L. A, Ghuloum, S., Hamze, M., Karam, E., Khoury, B., Khoury, S. J., Mokdad, A., Meho, L. I., Okasha, T., Reed., G. M., Sbaity, E., Zeinoun, P., Akl, E., A. (2019). Mental health research in the Arab region: challenges and call for action. *Lancet Psychiatry.* http://dx.doi.org/10.1016/S2215-0366(19)30124-5

Maldonado, A. D., Simon, A., Barry, C., Hassler, C., Lenjalley, A., Giacobi, C., Moro, M. R., & Lachal, J. (2022). Adolescent attendance at transcultural psychotherapy: a retrospective cohort study. *European Child & Adolescent Psychiatry*, *31*(8), 1–8. https://doi.org/10.1007/s00787-021-01760-3

Mahmoudi, E., & Meade, M. A. (2014). Disparities in access to health care among adults with physical disabilities: Analysis of a representative national sample for a ten-year period. *Disability and Health Journal*, *8*(2), 182–190. https://doi.org/10.1016/j.dhjo.2014.08.007

Mojtabai, R., Olfson, M., Sampson, N. A., Jin, R., Druss, B., Wang, P. S., Wells, K. B., Pincus, H. A., & Kessler, R. C. (2010). Barriers to mental health treatment: results from the National Comorbidity Survey Replication. *Psychological Medicine*, *41*(8), 1751–1761. https://doi.org/10.1017/s0033291710002291

Nock, M. K., Ferriter, C. (2005). Parent management of attendance and adherence in child and adolescent therapy: a conceptual and empirical review. *Clinical Child and Family Psychology Review*, *8*(2). https://doi.org/10.1007/s10567-005-4753-0

Olfson, M., Mojtabai, R., Sampson, N. A., Hwang, I., Druss, B., Wang, P. S., Wells, K. B., Pincus, H. A., & Kessler, R. C. (2009). Dropout from outpatient mental health care in the United States. *Psychiatric Services*, *60*(7), 898–907. https://doi.org/10.1176/ps.2009.60.7.898

Öst, L. G., Havnen, A., Hansen, B., & Kvale, G. (2015). Cognitive behavioral treatments of obsessive–compulsive disorder. A systematic review and meta-analysis of studies published 1993–2014. *Clinical psychology review*, *40*, 156-169. http://dx.doi.org/10.1016/j.cpr.2015.06.003 0272-7358

Pei, J., Amanvermez, Y., Vigo, D., Puyat, J., Kessler, R. C., Mortier, P., Bruffaerts, R., Rankin, O., Chua, S. N., Martínez, V., Rapsey, C., Fodor, L. A., David, O. A., Garcia, C., & Cuijpers, P. (2024). Sociodemographic correlates of mental health treatment seeking among college students: a systematic review and meta-analysis. *Psychiatric services (Washington, D.C.)*, *75*(6), 556–569. https://doi.org/10.1176/appi.ps.20230414

Prinz, R. J., & Miller, G. E. (1991). Issues in understanding and treating childhood conduct problems in disadvantaged populations. *Journal of Clinical Child Psychology*, *20*(4), 379–385. https://doi.org/10.1207/s15374424jccp2004_6

Reardon, M., Cukrowicz, K., Reeves, M., & Joiner, T. (2002). Duration and regularity of therapy attendance as predictors of treatment outcome in an adult outpatient population. *Psychotherapy Research, 12*(3), 273–285. https://doi.org/10.1080/713664390

Religioni, U., Barrios-Rodríguez, R., Requena, P., Borowska, M., Ostrowski, J. (2025). Enhancing therapy adherence: impact on clinical outcomes, healthcare costs, and

patient quality of life. *Medicina*, *61*(1). 153. https://doi.org/10.3390/medicina61010153

Rickwood, D., & Thomas, N. (2012). Conceptual measurement framework for help-seeking for mental health problems. *Psychology Research and Behavior Management*, 173. https://doi.org/10.2147/prbm.s38707

Rodgers, B. L., & Knafl, K. A. (2000). *Concept development in nursing: Foundations, techniques, and applications* (2nd ed.). Saunders.

Romero, M., Casadevante, C., & Luque, A. (2022). Experiencing some improvement is associated with premature therapy dropout. *Escritos De Psicología / Psychological Writings*, *15*(2), 59–68. https://doi.org/10.24310/espsiescpsi.v15i2.14736

Ruggeri, K., Jarke, H., El-Zein, L., Verdeli, H., & Folke, T. (2021). Mental health and decisions under risk among refugees and the public in Lebanon. *Humanities and Social Sciences Communications*, *8*(1). https://doi.org/10.1057/s41599-021-00784-z

Sabaté, E. (Ed.). (2003). *Adherence to long-term therapies: evidence for action*. World Health Organization. https://apps.who.int/iris/handle/10665/42682

Schleider, J. L., Dobias, M. L., Mullarkey, M. C., & Ollendick, T. (2020). Retiring, rethinking, and reconstructing the norm of Once-Weekly psychotherapy. *Administration and Policy in Mental Health and Mental Health Services Research*, *48*(1), 4–8. https://doi.org/10.1007/s10488-020-01090-7

Schoenbaum, M., Unützer, J., McCaffrey, D., Duan, N., Sherbourne, C., & Wells, K. B. (2002). The effects of primary care depression treatment on patients' clinical

status and employment. *Health Services Research, 37*(5), 1145–1158. https://doi.org/10.1111/1475-6773.01086

Selinheimo, S., Gluschkoff, K., Kausto, J., Turunen, J., Väänänen, A. (2024). Sociodemographic factors as predictors of the duration of long-term psychotherapy: evidence from a Finnish nationwide register study. *Administration and Policy in Mental Health and Mental Health Services Research, 51*, 35–46. https://doi.org/10.1007/s10488-023-01305-7

Sharf, J., & Primavera, L. H. (2009). Meta-analysis of psychotherapy dropout. *Unpublished manuscript, Adelphi University*.

Siddique, H.A. (2022). The Lebanon crisis from international political economy perspective. *Review of Socio-Economic Perspectives, 7*(1), 15-22.

Nasser, S. C., & Salamoun, M. M (2011). Treatment of mental disorders and pathways to care in Arab countries. *International Journal of Psychiatry in Clinical Practice, 15*(1), 12-18. https://doi.org/10.3109/13651501.2010.512664

Staudt, M. (2006). Treatment engagement with caregivers of at-risk children: gaps in research and conceptualization. *Journal of Child and Family Studies*, *16*(2), 183–196. https://doi.org/10.1007/s10826-006-9077-2

Stoycos, S. A., Berzenski, S. R., Beck, J. G., Unger, W., Cappellano, J. M., Spofford, C. M., & Sloan, D. M. (2023). Predictors of treatment completion in group psychotherapy for male veterans with posttraumatic stress disorder. *Journal of Traumatic Stress*, *36*(2), 346–358. https://doi.org/10.1002/jts.22915

Swift, J. K., & Greenberg, R. P. (2012). Premature discontinuation in adult psychotherapy: a meta-analysis. *Journal of consulting and clinical psychology*, *80*(4), 547. https://doi.org/10.1037/a0028226

Tambling, R. R., Hynes, K. C., & D'Aniello, C. (2022). Are barriers to psychotherapy treatment seeking indicators of social determinants of health? a critical review of the literature. *The American Journal of Family Therapy*, *50*(5), 443-458. https://doi.org/10.1080/01926187.2020.1867931

Teixeira, R. J., Silva, S., Mota-Pereira, J., Monteiro, S., & Pereira, A. (2018). Influence of sociodemographic and clinical characteristics on the frequency of psychotherapy sessions. *Advances in Mental Health Studies*, 02–22. https://doi.org/10.29290/amhs.1.2.2018.2-22

Tiemens, B., Kloos, M., Spijker, J., Ingenhoven, T., Kampman, M., & Hendriks, G. (2019). Lower versus higher frequency of sessions in starting outpatient mental health care and the risk of a chronic course; a naturalistic cohort study. *BMC Psychiatry*, *19*(1). https://doi.org/10.1186/s12888-019-2214-4

Tjelle, K., Opstad, H. B., Solem, S., Launes, G., Hansen, B., Kvale, G., & Hagen, K. (2021). Treatment adherence as predictor of outcome in concentrated exposure Treatment for Obsessive-Compulsive Disorder. *Frontiers in Psychiatry*, *12*. https://doi.org/10.3389/fpsyt.2021.667167

Tryon, G. S., & Winograd, G. (2011). Goal consensus and collaboration. *Psychotherapy*, *48*(1), 50–57. https://doi.org/10.1037/a0022061

United Nations High Commissioner for Refugees (2016). *Global trends 2015 – UNHCR.* www.unhcr.org/576408cd7.pdf.

United Nations (2024). *Lebanon conflict at 'critical point' with more than 3,000 confirmed dead.* United Nations News. https://news.un.org/en/story/2024/11/1156571

Van Der Lem, R., Stamsnieder, P. M., Van Der Wee, N. J. A., Van Veen, T., & Zitman, F. G. (2012). Influence of sociodemographic and socioeconomic features on treatment outcome in RCTs versus daily psychiatric practice. *Social Psychiatry and Psychiatric Epidemiology*, *48*(6), 975–984. https://doi.org/10.1007/s00127-012-0624-4

Viana, M. C., Kazdin, A. E., Harris, M. G., Stein, D. J., Vigo, D. V., Hwang, I., Manoukian, S. M., Sampson, N. A., Alonso, J., Andrade, L. H., Borges, G., Bunting, B., Caldas-de-Almeida, J. M., de Girolamo, G., de Jonge, P., Gureje, O., Haro, J. M., Karam, E. G., Kovess-Masfety, V., Moskalewicz, J., Navarro-Mateu, F., Nishi, D., Piazza, M., Posada-Villa, J., Scott, K., Vladescu, C., Wojtyniak, B., Zarkov, Z., Kessler, R. C., Kessler, T. (2025). Barriers to 12-month treatment of common anxiety, mood, and substance use disorders in the World Mental Health (WMH) surveys. *International Journal of Mental Health Systems*, *19*(6). https://doi.org/10.1186/s13033-024-00658-2

Wampold, B. E., & Imel, Z. E. (2015). *The great psychotherapy debate: The evidence for what makes psychotherapy work*. Routledge.

Wierzbicki, M., & Pekarik, G. (1993). A meta-analysis of psychotherapy dropout. *Professional Psychology Research and Practice*, *24*(2), 190–195. https://doi.org/10.1037/0735-7028.24.2.190

Wollburg, E., & Braukhaus, C. (2010). Goal setting in psychotherapy: The relevance of approach and avoidance goals for treatment outcome. *Psychotherapy Research*, *20*(4), 488–494. https://doi.org/10.1080/10503301003796839

Woods, A., Solomonov, N., Liles, B., Guillod, A., Kales, H. C., & Sirey, J. A. (2021). Perceived social support and interpersonal functioning as predictors of treatment response among depressed older adults. *American Journal of Geriatric Psychiatry*, *29*(8), 843–852. https://doi.org/10.1016/j.jagp.2020.12.021

World Bank Group (n.d.). *The World Bank in Lebanon.* World Bank Group. https://www.worldbank.org/en/country/lebanon/overview#1

World Health Organization (2010). *WHO-AIMS report on mental health system in Lebanon.* World Health Organization. https://cdn.who.int/media/docs/default-source/mental-health/who-aims-country-reports/who_aims_report_lebanon.pdf?sfvrsn=e02b8172_3

Wu, Z., Schimmele, C. M., Penning, M. J., Zheng, C., & Noh, S. (2012). Effect of marital status on duration of treatment for mental illness. *Canadian Studies in Population*, *39*(1–2), 109. https://doi.org/10.25336/p6690z

Xiao, H., Hayes, J. A., Castonguay, L. G., McAleavey, A. A., & Locke, B. D. (2017). Therapist effects and the impacts of therapy nonattendance. *Psychotherapy*, *54*(1), 58–65. https://doi.org/10.1037/pst0000103

Zimmerman, E., L. (2019). *The effect of inconsistent therapy attendance by client and therapist on therapeutic outcomes* [Doctoral Dissertation, Birmingham Young Univeristy]. BYU Scholars Archive. https://scholarsarchive.byu.edu/etd/8630