

EXAMINING PSYCHOTHERAPY DROPOUT AMONG RACIALLY AND
ETHNICALLY DIVERSE YOUTH

A Dissertation

by

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ABSTRACT

Children and adolescents experience high rates of mental health disorders, yet few receive mental health services. Half of the youth who do receive professional help are likely to dropout and this pattern appears to be exacerbated for Black and Hispanic youth. There is little consistency in the current literature regarding which factors contribute to dropout or why youth stop attending therapy. This study aims to develop a theoretical base for psychotherapy dropout and delineate how this differs between Black, Hispanic, and White adolescents. Specifically, process-level variables such as time on a waitlist, rate of symptom reduction, therapeutic alliance, and time between sessions, are examined for their contribution to therapy dropout in adolescence. The current study utilizes an extant database from a university-based clinic. Logistic regressions examined the relationship between the binary outcome (dropout) and the proposed variables. The results indicated that a Black or mixed-race client was significantly more likely to dropout than a White client with each additional session attended. This suggests that engagement with both the client and parent are paramount in the first session for Black and mixed-race clients as they may only attend a few sessions. The exact mechanisms hypothesized to differentiate between White, Black, and Hispanic clients were not supported by the data, but there is emerging evidence that Black adolescents do not dropout of therapy for the same reasons as White or Hispanic youth.

DEDICATION

This dissertation is dedicated to my grandparents, Amelia and Carlín Pesante. I am so proud of our heritage and to carry on my grandmother's smile and my grandfather's name.

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CHAPTER I

INTRODUCTION

Youth experience high rates of mental illness, yet only a small percentage receive professional help (Schwarz, 2009). The number of Black and Hispanic youth who receive help is even smaller (Copeland, 2006; Lipson, Kern, Eisenberg, & Breland-Noble, 2018; Marrast, Himmelstein, & Woolhandler, 2016). When adolescents see a mental health professional, approximately 50% dropout (de Haan, Boon, de Jong, Hoeve, & Vermeiren, 2013). To better serve the adolescent population, there needs to be increased access to services as well as evidence-based practices to retain the youth that begin therapy. The first step in retaining adolescents in therapy is to understand why so many dropout.

The current research on adolescent psychotherapy dropout is sparse and contradictory. Often, studies on psychotherapy dropout focused on adults but not children or adolescents (Cooper, Kline, Baier, & Feeny, 2018; Swift & Greenberg, 2012; Wierzbicki & Pekarik, 1993). Predictors of adolescent psychotherapy dropout are inconsistent, and this may in part be due to the lack of standardized procedural definition (de Haan et al., 2013; de Haan et al., 2018). The definition of a “dropout” changes based on the study and there are a multitude of confounding factors: therapeutic orientation, race/ethnicity of the therapist and client, the experience of the therapist, the therapeutic setting, the client’s presenting problem, and comorbidity in the presenting problem to

name a few. The lack of consensus and controls limits the conclusions one can draw between studies as well as from formalized meta-analyses. In addition, many studies use demographic information to predict dropout without a strong theoretical basis (Armbruster & Kazdin, 1994).

Another striking problem is treating every adolescent as if they all experience the same risk of dropout. Black and Hispanic youth are less likely to utilize a mental health professional and more likely to dropout than their White peers (Kodjo & Auginer, 2004; McMiller & Weisz, 1996). Further, Black and Hispanic families are more likely to use informal systems to seek help and reluctant to receive professional help (Cauce et al., 2002). The cultural stigma of mental illness is the top reason people do not receive services (US Department of Health and Human Services, 2000). This is especially prevalent for Black and Hispanic adolescents as they may face “double stigma” due to stereotypes about the race (Gary, 2005). To understand psychotherapy dropout better, predictors for Black and Hispanic youth need to be examined using a strong theoretical basis.

In developing a theoretical understanding of the relevant predictors of dropout, I hope to bring meaning to the inconsistent findings in the broader literature. Examining unique predictors across Black, Hispanic, and White youth may also identify a coherent pattern that was not previously reported due to the lack of theoretical understanding about help seeking for ethnically and racially diverse families. Further, the use of process-level variables (e.g. referral source, time on the waitlist, the therapeutic working

relationship, commitment to therapy) contextualizes each participant's unique experience.

The following questions are posed by this dissertation: (1) are Black and Hispanic clients more likely to dropout of psychotherapy compared to White clients, and (2) are the predictors different for Black and Hispanic youth relative to White youth? I use an extant database from a university-based community health clinic to answer these questions. Adolescents who attended at least one session were included for a total of 107 participants in the sample. Within the sample, 29% were classified as dropout and 18% of the sample dropped out during the intake stage. Controlling for SES and gender, the hypothesized outcomes were that Black and Hispanic youth were more likely to dropout of therapy compared to White youth based on a prolonged time on the waitlist, poor therapeutic alliance, initial symptom data, and a lack of commitment to attending therapy sessions.

Across variables, missing data was prevalent. The missing data was determined to be missing completely at random and multiple imputations were used as a treatment. Multiple imputations are useful as they create multiple full datasets with a range of likely values based on conditional distributions which can then be further analyzed (Rubin, 1978). In order to answer my research questions, logistic regressions examined the relationship between the binary outcome (i.e. whether a client did or did not dropout) and process-level variables. More importantly, the interaction of race and process-level variables allowed me to determine differential effects of dropout predictors.

In summary, this dissertation extends the current literature on psychotherapy dropout for racially and ethnically diverse youth through a theoretical and empirical exploration of the unique factors that affect Black and Hispanic youth. The main contributions of my dissertation are in providing a strong theoretical basis on how Black and Hispanic youth enter therapy and how they leave it. These findings will also be disseminated to the community mental health clinic the data was collected from to share new insights and inform practice for adolescent clients and their families.

CHAPTER II

LITERATURE REVIEW

Adolescence is a time of transitions and change. Whereas most adolescents make the transition to adulthood without significant problems, between 7-20% of adolescents are predicted to have diagnosable mental health problems (de Haan, Boon, de Jong, Hoeve, & Vermeiren, 2013; Schwarz, 2009). An estimated 2.5% of adolescents use mental health services, with a third or less of adolescents that need mental health services receiving professional help (Schwarz, 2009).

Of the adolescents that receive treatment, estimates vary widely on the rates of dropout. It has been estimated that roughly 20-50% of all adult clients dropout of therapy, (Cooper, Kline, Baier, & Feeny, 2018; Swift & Greenberg, 2012; Wierzbicki & Pekarik, 1993) whereas 28-75% of children and adolescents terminate therapy prematurely (de Haan et al., 2013). The number of clients that end therapy early can be difficult to calculate as it varies based on the definition of dropout and the scope of the study or participant criteria (de Haan et al., 2013).

When examined by ethnicity, ethnically diverse adolescents (e.g. African American, Puerto Rican) are less likely to receive treatment than their White counterparts with 1.5% of ethnically diverse youth receiving treatment compared to 3.5% of White youth (Copeland, 2006; de Haan, Boon, Vermeiren, & de Jong, 2012). Not surprisingly, this pattern mirrors racial/ethnic disparities in mental health use (Kodjo

& Auinger, 2004). Racially and ethnically diverse youth are less likely to receive treatment and more likely to end treatment prematurely, due to factors such as culturally unresponsive treatment, stigma, and therapeutic alliance (Cauce et al., 2002; de Haan, Boon, de Jong, & Vermeiren, 2018). Racial and ethnic disparities in mental health treatment signal two areas for improvement and in intervention service delivery: increasing the number of racially and ethnically diverse youth who receive treatment and retaining the minority youth that do utilize mental health care. The purpose of this study is to investigate premature termination from therapy in racially and ethnically diverse youth, specifically Black and Hispanic youth, due to constraints of the data and the number of participants of other races/ethnicities. To investigate premature termination, or dropout, it is necessary to have a contextual understanding of the processes leading Black and Hispanic youth to therapy and their decisions to exit therapy.

Help Seeking Process

The initiation of the therapeutic process is globally characterized by help seeking. Within the help seeking process, dropout increases racial and ethnic disparities in mental health utilization and is a critical element to consider in the help seeking process (Sue et al., 2004). Process variables might perpetuate racially and ethnically diverse client's disparities in dropping out that was overlooked or not fully considered in utilization. If this is the case, the process of dropping out may be a problem of entry into mental health services instead of what happens in session or external circumstances. To fully understand the entry into, and exit from, formal mental health services the

overlooked process of how youth come to need mental health services should be examined.

Mental Health Services

One way to understand how clients interact with formal health systems is to examine utilization rates.¹ Kodjo and Auinger (2004) analyzed the National Longitudinal Study of Adolescent to Adult Health (Add Health) to document that different utilization rates exist between racial and ethnic groups. Adolescents who obtained scores in the top third of an emotional distress scale examined the mental health care utilization by race/ethnicity and. They found that ethnic and racial minority adolescents were no more likely to experience emotional problems compared to White adolescents. However, when it came to utilization, Black adolescents utilized mental health care significantly less (8%) compared to White and Hispanic adolescents (19% and 16%, respectively). Building off this work, a more recent study showed that Black and Hispanic youth visited formal mental health services 47% and 58% less, respectively, than White youth (Marrast, Himmelstein, & Woolhandler, 2016). Even when structural barriers such as family income, insurance coverage, parental education, and socioeconomic status (SES) were controlled for, Black and Hispanic adolescents reported lower rates of counseling (Kodjo & Auinger, 2004; Marrast, Himmelstein, & Woolhandler, 2016). When considering trends in health care usage, mental health care services are decreasing for

¹ While the astute reader will know “use” refers to employing something for its intended purpose and “utilize” means to give something a new use that it was not originally meant for, “utilization rates” is the key term the relevant literature has adopted and will be used in keeping with the published research.

Hispanic children as Hispanic youth are receiving fewer services than they did 15 years ago. In one of the few studies to disaggregate Hispanics service use by ethnicity, Kodjo and Auinger (2004) found no differences in utilization between Cubans, Puerto Ricans, and other people of Hispanic descent, thus suggesting that this decline in rates does not differ by cultural variations within Hispanics.

This is not to say Black and Hispanic children do not use mental health care resources. Racially and ethnically diverse clients seek out services when symptoms are severe, shown by similar usage of emergency services between Black, Hispanic, and White youth (Chow, Jaffee, & Snowden, 2003). Unfortunately, the trend for Hispanics to receive less services continues, even within emergency care Hispanics are now less likely than Black and White youth to use hospitalization as an emergency service (Marrast, Himmelstein, & Woolhandler, 2016).

Given that structural barriers did not explain low utilization rates in mental health care, adolescents were asked for their reasons for not accessing mental healthcare through a dichotomous survey. Whereas approximately 70% of distressed teens reported not having any barriers (Kodjo & Auinger, 2004), Black and Hispanic adolescents reported more barriers to treatment compared to White adolescents. Black and Hispanic youth indicated they did not know whom to see for mental health care and did not have anyone available to accompany them to therapy to seek care. Additionally, Black adolescents reported concerns surrounding the stigma of pursuing mental health care. They did not want their parents to know about their need for therapy, reported not having transportation to seek care, and fear of what the doctor would say to them if they

sought therapy (Kodjo & Auinger, 2004). Adolescents help seeking for therapy appears to be a culturally or racially/ethnically specific process that utilization rates do not fully convey. Models of help seeking behavior may better explain this process.

Models of Help Seeking

Models of help seeking first started in the field of general medical care. In their seminal paper, Anderson and Newman (1973) created a framework to examine the systematic impact of health care utilization. Their model was groundbreaking due to their inclusion of societal factors in addition to individual behaviors in help seeking. Anderson and Newman's systems level approach to health care included "societal determinants" such as the cultural norms that informed both the health services system and individual behaviors that then lead to health service utilization. Their framework of the utilization of health care systems is a stage model that included information about resources and the organizational structure of care.

Goldsmith et al. (1988) adapted Andersons and Newman's help seeking framework to address mental health problems specifically. Goldsmith's model also employed stages but took a more descriptive and detailed look at how clients approach mental health services. Within Goldsmith et al.'s help seeking model, clients become aware of a problem, then deciding to seek help, and finally choosing where they receive help from (Goldsmith et al., 1988). Although individuals may start this process independently, significant people in their lives can also dictate the help seeking process for them. Distinct factors affect the three stages of Goldsmith's help seeking model. The individual's level of distress, implicit thoughts on mental illness, endorsement of stigma,

functional impairment, and coping skills are all conceptualized as influencing an individual's ability to recognize they have a mental health problem. The decision to seek help is affected by an individual's functional impairment and coping skills, as well as the societal pressure they experience to seek help and the perceived supportive factors and barriers for help seeking. Finally, the helping resource is determined by societal pressure and supportive factors, as well as perceived barriers to help seeking. Whereas Goldsmith's model is a comprehensive framework for overall mental health help seeking, it does not consider its applicability to diverse populations. He and others argue that help seeking is universal and not culturally specific, such that the universality of the model outweighs the need to consider specific racial or ethnic differences in help seeking (Srebnik, Cauce, & Baydar, 1996). However, the fact that youth of all races have similar levels of distress, but Black and Hispanic families do not seek services as often as White families indicates cultural differences in the help-seeking process. Simply stating this model is universal is not an adequate argument to ignore a component of client's identity that clearly impacts help seeking behavior. In examining variables that impact the mental health help seeking process, the developmental needs and the choices of the families (instead of just the individual) need to be included.

Historically, children were not seen as having specific or specialized needs as compared to adults related to therapy. Developmentally appropriate services and models for treatment are necessary when examining youth. Srebnik, Cauce, and Baydar (1996) adapted Goldsmith's model by focusing specifically on youth with mental health concerns, given that children have developmental mental health needs distinct from

adults. Srebnik and colleagues iteration of Goldsmith's help seeking model includes the importance of the family context and the reality that youth are not the catalyst for initiating help seeking. Srebnik and colleagues conceptualizes youth help seeking as patterns of interactions with people in their social network that broaden to eventually include mental health professionals if the problem persists. Youth may ask their families for help and when parents cannot fix the problem, parents reach out to their social networks, which may include teachers and physicians.

Most recently, Cauce and colleagues (2002) expanded Srebnik's mental health help seeking model (1996) to include cultural and contextual elements. Cauce continues to divide the help seeking process into three broad stages: problem recognition, perceived need, and the decision to seek help, but differentiates from how Srebnik and colleagues conceptualized mental health needs for all children to include culturally relevant elements critical to the help seeking process.

Problem Recognition The recognition of problematic emotions or behavior in a child is bound by the cultural expectations of the family (Cauce et al., 2002). Displays of distress are a culture-bound experience and manifested through differing emotional or behavioral symptoms (Wampold, 2007). For example, in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), there is a disorder specified for Puerto Ricans, *ataque de nervios*. This is a recognized, cultural-specific presentation explaining the behavioral expectations and course that distressed Puerto Rican clients may display (American Psychiatric Association, 2013). Whereas this is one example of a professionally recognized cultural difference, culture-bound displays of emotions are not

specific to Puerto Ricans and develop through exposure. Parents of all cultural backgrounds first teach appropriate displays of emotions in childhood.

Emotional socialization refers to the practice parents adopt in helping their children understand and regulate their emotions (Eisenberg, Cumberland, & Spinrad, 1998). Parent practices in emotion socialization can either validate or minimize negative emotions which can lead children to suppress negative emotions (Fabes, Leonard, Kupanoff, & Martin, 2001). Black families are more likely to speak about positive and negative emotions compared to families of other races and ethnicities (Garrett-Peters et al., 2008). A wide range of emotional expression is valued in Black families (Parker et al., 2012), however, racial socialization practices in Black families also encourage neutral emotions in response to bias and racism (Thomas & Blackmon, 2015). Black children, boys especially, are stereotyped as more aggressive than non-Black children (Thomas, Coard, Stevenson, Bentley, & Zamel, 2009) which stems from the systematic racism and criminalization of Black men (Rios, 2007). The perception of increased aggression in Black children correlates with higher school discipline and juvenile justice contact (Bradshaw, Mitchell, O'Brennan, & Leaf, 2010; Skiba, Arredondo, & Williams, 2014). Systematic racism, also known as structural racism, refers to systems with a history of racism that has engrained policies and practices that perpetuate inequalities (Bailey et al., 2017). Systematic racism leads to increased behavioral problem recognition outside of the family for Black children. Within the family, value is placed on emotional expression and problematic emotional displays for a Black family may not

be the same for families of other racial and ethnic identities. Families of different cultural or ethnic groups have different socialization practices.

Hispanic families emotional and cultural socialization practices are harder to generalize across people who identify under the umbrella term of “Hispanic.” Broadly, Hispanic values include machismo and marianismo, traditional gender roles that are based on beliefs of masculinity and femininity. Concerning emotional socialization, these gender roles include emotional reservation in men and passive and self-sacrificing behavior in women (Nuñez et al., 2016). The cultural value of “respeto” is highly revered in Hispanic culture, which is the idea that children are obedient to authorities (Harwood, Leyendecker, Carlson, Asencio, & Miller, 2002). “Respeto” is the basis of Hispanic family’s expectations of children’s behavior and used to recognize problematic behavior in children (Calzada, Fernandez, & Cortes, 2010). Diverse cultural and racial groups may use different standards for identifying problematic behavior based on cultural variation in emotional socialization, however, there are some similarities. It appears that across races and ethnicities, mothers play a key role as emotional socialization agents. Broadly, research has shown the mother specifically determines what the help seeking process will entail for adolescents (Burns, Angold, & Costello, 1992; Combs-Orme, Chernoff, & Kager, 1991).

Decision to Seek Help Problem recognition is not a guarantee that a family or adolescent will choose to seek help from a mental health professional. Deciding that a problem is severe is not a guarantee of treatment. Cauce and colleagues diverge from Srebnik and colleagues with respect to youth of color in that Cauce argues the decision

to seek help is a distinctly culturally bound process, based on cultural beliefs and values surrounding the importance of independently coping with distress. Whereas cultural teachings will dictate the decision to seek help, the needs of the developmental stage of adolescence are consistent across groups. Adolescents are in a stage where self-reliance and independence are treasured. In a sample of mostly White teens, self-reliance was the most cited reason for not seeking help (Dubow, Lovko, & Kausch, 1990). A separate study of diverse youth indicated help seeking as the least preferred option as well (Copeland & Hess, 1995). It appears that culture and race/ethnicity do not impact how adolescents value self-reliance and independence, however, racially and ethnically diverse are coerced into receiving services.

As a function of structural racism, the help-seeking process for racially and ethnically diverse youth is not always a voluntary process. In some instances, the adolescent or family do not make the decision to seek help, but instead is a coerced decision by the justice system or other social programs. The use of coercion by outside sources, such as police and judges, is estimated to be 25% of all adults mandated to seek mental health services (Pescosolido, Brooks Gardner, & Lubell, 1998). Coercion to obtain mental health services is defined by social control and a lack of choice over an individual's treatment or lack thereof (Pescosolido, Brooks Gardner, & Lubell, 1998). Whereas no statistics on mandatory treatment exist for children or adolescents, it is expected that rates for adolescents would be like that of adults. Black youth specifically are more likely to come into contact with the juvenile justice system through the School to Prison Pipeline, which refers to the use of exclusionary discipline and its long-term

negative effects, compared to other youth (Skiba et al., 2014). The School to Prison Pipeline posits that Black students are more likely to face exclusionary discipline for subjective and minor infractions (Skiba et al., 2011) and pushed out of the education system and into the justice system as a result.

The disproportionate juvenile justice contact that Black youth face results in Black teenagers receiving mental health services through the juvenile justice system or involuntary commitment at the highest rates (Marrast, Himmelstein, & Woolhandler, 2016). The assumption behind these mandates is that mental health services are helpful regardless of the referral source despite the client's involuntary participation. Sbrenek et al. would not describe this as coercion, but as part of the pattern of interactions that racially and ethnically diverse youth face within the school or juvenile system that encourages help seeking (1996). Adolescents do not always make the decision to seek help, but the invisible threat of stigma may impact adolescents' attitudes towards mental health services.

Stigma The stigma of mental health problems is one of the top reasons that people who need mental health services do not receive them (US Department of Health and Human Services, 2000; World Health Organization, 2001). Family income, parental education, and barriers to treatment failed to explain Black adolescents' under-utilization of mental health care, but one element that Kodjo and Auinger (2004) were unable to examine is the impact of stigma of mental health problems. Stigma affects mental health care through a variety of mechanisms, namely stereotype, prejudice, and discrimination (Corrigan, 2004). Stigma conjures negative stereotypes people hold about mental illness,

which can then lead to the experience of discrimination in housing, employment, and receipt of health care (Corrigan, 2004). Negative stereotypes that people hold about mental illness can include the idea that people with mental illness are dangerous, incompetent, “crazy,” and frightening (Corrigan, 2004).

Stigma can be divided further into public stigma and self-stigma. Corrigan (2004) identified public stigma as the effects that a person labeled as mentally ill experiences within their community such as through difficulty finding employment and housing. Public stigma also influences social structures, like the criminal justice system criminalizing mental illness and health care systems where clients with mental illness are significantly less likely to receive adequate health care. Self-stigma affects self-esteem if clients internalize the stigmatized narrative of mental illness (Corrigan, 2004). Shame is also a part of self-stigma and individuals who endorsed feeling shame, or who perceived family shame, were more likely to avoid treatment (Sirey et al., 2001). Stigma is harmful both socially and physically and to combat this, people will hide or deny their mental health problems. In adolescents, there is an inverse relationship between mental health stigma and seeking services, which is mediated by the belief that treatment will work (Penn et al., 2015).

Stigma may partially explain why all adolescents, but specifically racially and ethnically diverse adolescents, are less likely to obtain mental health services and more likely to dropout of therapy (Gary, 2005). Racially and ethnically diverse youth not only have the stigma of mental illness, but also the added stigma and stereotype of not being White, so called the “double stigma” (Gary, 2005). Black youth are perceived as

aggressive (Thomas et al., 2009) and the stigma of Black youth as “dangerous” combined with the stigma that mentally ill people are also “dangerous” may be difficult to overcome. Hispanic youth are taught the values of emotional reservation and preserving family cohesions (Nuñez et al., 2016), which conflict with the stereotypes about people who receive mental health services. When comparing barriers to treatment between mental health services and medical services, racially and ethnically diverse parents were more likely to report barriers related to stigma and SES for mental health care than for medical care (Young & Rabiner, 2015). Protecting a client or family from stigma may outweigh the decision to seek help, or it could encourage the family to seek help in a way that does not conform to the traditional methods of help seeking (e.g. school, clinics, physician office).

Selection of a Help Provider If a family moves from problem recognition to the decision to seek help, the last step is selection of a help provider. Sbrénik and colleagues conceptualized help provider selection into three distinct domains: social networks, collateral services, and mental health professionals. Social networks include family, friends, and religious organizations and research does show positive effects on mental health when using these social supports. Strong family and community relationships are theorized to meet the needs of some adolescents (Tata & Leong, 1994). Whereas Sbrénik et al. (1996) acknowledged that ethnicity may change how social networks are used, Cauce et al. (2002) examined this in-depth. Racial/ethnic differences were found with respect to who adolescents are most likely to seek help from. White youth are more likely to confide in friends, whereas Black and Hispanic youth are more likely to turn to

family (Munsch & Wampler, 1993; Offer, Howard, Schonert, & Ostrov, 1991). This may be the result of collectivism embedded within both racial/ethnic groups, where there is an emphasis on family cohesion for Hispanic youth and respect for elders for Black youth (Lorenzo-Blanco, Unger, Baezconde-Garbanati, Ritt-Olson, & Soto, 2012; Smetana, 2000). Other social networks are helpful as well as Black and Hispanic families are more likely to utilize family, friends, and clergy.

Religion also correlates with coping and treatment adherence in people with serious mental illness (Smolak, 2013). The relationship between religiousness and well-being are associated with social support, optimism, and self-esteem (Salsman, Brown, Brechting, & Carlson, 2005; Sherkat & Reed, 1992). Religion plays a significant role in the daily lives of Black Americans. Black people in America compared to other races and ethnicities endorsed an absolute belief in God and the importance of religion most strongly (Pew Research Center, 2014). In a survey of clergy, Black ministers reported they use theological beliefs and religious practices in counseling (Mollica, Streets, Boscarino, & Redlich, 1986). Black ministers also stated they sought out congregation members who needed mental health help instead of waiting for members to ask for help. Referrals to mental health professionals were part of Black ministers' suggestions, however, most often they recommended another minister (Mollica et al., 1986). When a congregational member seeks help from a minister, they are often satisfied and do not seek further help. Conversely, when they first seek help from other resources, they were likely to consult a minister eventually and reported lower satisfaction (Neighbors, Musick, & Williams, 1998). Seeking help from clergy is helpful for Black adults, but

further research is needed on how Black and Hispanic families use religious coping for their children's mental health concerns.

Collateral services include the juvenile justice system and schools. Black youth are most likely to receive mental health services through the juvenile justice system; however, concerns about consent are relevant when youth do not willingly receive services (Marrast, Himmelstein, & Woolhandler, 2016). Schools do not currently possess the resources necessary to provide mental health services to all of the students that need them as schools allocate resources to legally mandated services, such as mental health services for those in special education (Adelman & Taylor, 1999). School psychologists, the mental health experts in most schools, can provide some of the necessary counseling that youth need but are understaffed. In the United States during the 2014-2015 school year, for each school psychologist there were 1,381 students (Walcott & Hyson, 2018), which surpasses the National Association of School Psychologists general recommendation of 500 to 700 students per school psychologist (2017). School psychologists often work across multiple schools in a district and their main job duties include the process of identifying students who might qualify for special education services and crisis management. Whereas they are a rich resource, school psychologists often do not have the availability to meet with students on a regular basis.

Finally, youth and their families can seek formal mental health services. White parents are more likely to contact a therapist than Hispanic or Black families (McMiller & Weisz, 1996). For Hispanic people, there are a variety of barriers, both structural and cultural that discourage families from seeking formal mental health services (Van

Voorhees, Walters, Prochaska, & Quinn, 2007). Structural barriers include a lack of insurance or financial means to support private pay for mental health services. Language barriers and cultural barriers include little mental health knowledge and reluctance to speak about personal problems with a stranger (Van Voorhees et al., 2007). For Black families, distrust of formal mental health services resultant of Black communities' history of racism inherent in medical facilities may thwart treatment exploration. The Tuskegee Syphilis Experiment is one appalling example of unethical medical conduct targeting the Black community. In 1932, 400 Black men with syphilis were observed to study the course of untreated syphilis. These men did not give informed consent and were deceived about the true purpose of the study. In addition, these men did not receive proper treatment and were prevented from seeking treatment. The Center for Disease Control reviewed the study in 1969 and decided the study could continue (Brandt, 1978). The study ended in 1972, 40 years later, due to journalistic investigations and subsequent news articles (Brandt, 1978). Formal health systems did not act in the best interest of the Black community and mental health systems are no better as there is a history of over diagnosis in schizophrenia and resulting institutionalization of Black patient with mild mental illness (McMiller & Weisz, 1996). Black families have little reason to trust formal health systems, as there has been a deep history of abuse through these systems targeted toward their community. The historical and cultural context embedded in families and youth in the United States dictate how the help-seeking process functions for each family.

Overall

The history of help seeking models has slowly evolved to describe the unique experiences of historically underserved populations. It is clear racially and ethnically diverse youth require a culturally specific model to understand their experience of treatment access at every point in the process of seeking, receiving, or terminating mental health services. The in-depth examination of experiences of racially and ethnically diverse youth in the help seeking process and should be extended to the other domains of mental health service access and service. To date, the relative efficacy of therapy on Black and Hispanic youth is easily discerned, but within the research there is little discussion on how Black and Hispanic youth access mental health services only to dropout before a full course of therapy can be accomplished. Further studies that examine dropout in addition to intervention efficacy are needed to fully combat racially and ethnically diverse disparities in youth mental health.

Defining Dropout

Understanding dropout for racially and ethnically diverse youth is important to improve Black and Hispanic youth treatment. The estimated rates of dropout for racially and ethnically diverse youth vary based on the study and broad estimates of dropout rates are approximately 35% for White youth, 50% for Hispanic youth, and 60% for Black youth (de Haan et al., 2018). Estimating how many youth dropout of therapy is variable in part because of differences in how dropout is defined. Premature termination in therapy, or dropout, has traditionally been defined in one of two ways: 1) through the client's attendance and 2) at the discretion of the therapist. When using attendance as the defining feature of dropout, premature termination has been operationalized in a variety

of ways: total number of attended sessions, number of sessions attended in a timeframe, or not attending a final scheduled session. There is no standard for how many sessions constitute dropout with some limiting lack of attendance to as few as one session and others considering as many as 21 sessions as a measure of dropout (de Haan et al., 2013). How dropout is operationalized is essential for estimating premature termination of therapy as the definitions used will impact the rates of dropout (de Haan et al., 2013; Wierzbicki, & Pekarik, 1993).

Pre-Determined Session Attendance as Dropout

Estimating dropout by using a predetermined number of sessions may appear to be an objective measurement approach, but it does not account for variability in the course of therapy between clients or the impact of therapist orientations to treatment. Whereas a client who undergoes exposure therapy might only need three or four sessions, a client who is undergoing psychodynamic therapy might meet multiple times a week with their therapist with a single course of therapy spanning multiple years. Using the same predetermined number of sessions across both scenarios may not give an accurate picture of whether the client successfully completed, or benefited from, treatment. A client who only requires a short course of therapy might classify as a “non-completer,” or a client who terminated prematurely or dropped out, even though they made satisfactory progress throughout their time in session. Using predetermined numbers of sessions as the definition of dropout produced an average of 44.5% of clients dropping out of therapy, although the range was 16-72% (de Haan et al., 2013). The

most significant problem in predetermining the number of sessions is considering how much therapy is *enough therapy* to yield treatment effects or the dose-effect.

There is some debate about the “dose-effect” of therapy. Studies of therapy dosage examines the number of sessions attended and the overall outcome, with the assumption that there is a preferred number of sessions that clients should attend to get an appropriate “dose” of therapy to alleviate symptoms. In a study combining psychotherapy and pharmacology to treat clients with depression, there was no difference between clients who attended 8 sessions versus 16 sessions (Molenaar et al., 2011). In this study, both groups had significantly improved from start to end with no statistical difference found in treatment groups. However, in a review of clinical trials literature, other studies show that 57-67% of clients had clinically significant improvement within an average of 12.7 sessions (Hansen, Lambert, & Forman, 2002). Unfortunately, these attendance rates are not representative of clinical practice. A review of a national database revealed that the average number of therapy sessions attended was less than five and that only 20% of the sample had clinically significant improvements (Hansen et al., 2002).

Whereas it may be assumed that the treatment modality impacts clinical improvement, there is a debate about the relative effectiveness of varying theoretical orientations. The so-called “Dodo Bird Verdict” states that all modalities are equivalent, but methodological weakness and theoretical debates about what makes therapy effective make the validity of this finding controversial (Budd & Hughes, 2009). Rosenzweig was the first to write about the comparison of outcomes across therapeutic

modalities in his seminal 1936 paper, beginning with a quote from *Alice in Wonderland*, “At last the Dodo said, ‘*Everybody* has won, and *all* must have prizes.’” Rosenzweig’s original argument did not focus on the specific techniques used in session, but of the guiding principles that define a therapeutic orientation (1936). It is argued having a good therapist with a consistent doctrine that the client can expect and depend on may be sufficient for addressing mental health outcomes and the specific techniques do not matter. Rosenzweig (1936) argues that therapy micro skills may be the reason clients improve and is the connection between different orientations. As this debate has spanned over 80 years, the arguments have moved from purely philosophical (e.g., Rosenzweig) to include methodological issues.

The first meta-analysis used to explore the dodo bird effect quantitatively was Smith and Glass (1977) who concluded there was a “negligible” difference between grouped behavioral and non-behavioral orientations. As meta-analysis was a new methodology, this finding was seen as untrustworthy (Budd & Hughes, 2009). Whereas meta-analysis is now generally accepted methodology, the findings have continued to be controversial. When examining treatment for depression and anxiety, some meta-analyses conclude that cognitive-behavioral therapy (CBT) is superior to other modalities whereas others point to similar efficacy between CBT and purely behavioral therapies (Budd & Hughes, 2009). In contemplating this decades long debate, Budd and Hughes (2009) reflect that because science is a “discourse that occurs in the public domain” (pg. 512) it has created clear divisions in psychology between theoretical

orientations, with each posturing that their orientation is superior yielding evidence for all sides of the argument.

Turning now to the adolescent and child literature, there is less research on the dose effect of therapy. The Fort Bragg Evaluation Project studied adolescents and children who received mental health services on a continuum of therapeutic services. This study attempted to find difference between outcomes for children who received a “negligible dose” of therapy compared to an “adequate dose” of treatment (Andrade, Lambert, & Bickman, 2000). Within this study four definitions were used to define negligible dose: a) fewer than 8 sessions attended, b) those who paid in the lowest 20% for services, c) those attending one session or less, and d) those who did not receive outpatient treatment. Adequate dose was defined as having more than a negligible dose. No matter which definition was used, there was no difference in outcomes between those that fell above or below the defined criteria of receiving a negligible dose of therapy. Even when the lowest criteria for a negligible dose of therapy was used, clients who did not receive treatment or only attended one session, there was no differences in outcomes between children who received a negligible or adequate dose of therapy (Andrade, Lambert, & Bickman, 2000). Whereas every client improved, there were also no differences found based on therapy dosage. It is important to note this sample is comprised entirely of children of US military families and there is no reported data on what, or if, these children had psychological diagnoses, how they were treated, or who treated them. None the less, the results of this study are concerning clients who receive treatment have no better outcomes than children or adolescents who do not receive

intervention. At a five-year follow-up, there continued to be no difference between clients who received services and those who received a negligible dose of therapy (Bickman, Lambert, Andrade, & Penaloza, 2000). It is important to note that these studies were conducted within a continuum of mental health services including residential placements and hospitalization. Trends for the dose-effect may vary by setting and these studies could be masking any results by including both routine and emergency mental health services. It is important to look at studies that address limitation of prior studies, namely in a single level of care (i.e., outpatient setting).

The Great Smoky Mountains Study was a longitudinal study examining mental health needs for rural and urban youth. The symptom trajectories for youth who received outpatient treatment demonstrated a clear dose-effect of treatment (Angold, Costello, Burns, Erkanli, & Farmer, 2000). Youth who attended eight or more sessions had better improvements than youth who had attended less than eight sessions. In addition, youth who had attended one or two sessions and then discontinued treatment had worse outcomes than youth who did not receive treatment (Angold et al., 2000). Youth who were not treated and did not need treatment had improved outcomes over time. The youth that attended one or two session of therapy had elevated level of symptoms and their trajectories continued to worsen after they did not continue with treatment. Overall, every child that attended therapy had elevated levels of symptoms and their outcomes varied based on the number of sessions attended. Those who attended eight or more sessions had less symptoms than the community sample, those who attended three to seven sessions had their trajectories returned to community levels, and those who

dropped out after one or two sessions had the worst outcomes (Angold et al., 2000). As opposed to the dose-effect model, the good-enough-level model proposes that treatment is terminated when results are satisfactory. This model posits that clients with faster symptom reduction will also have a shorter course of therapy (Falkenström, Josefsson, Berggren, & Holmqvist, 2016). Given that the rate of symptom reduction correlates with the length of therapy, it suggests that predetermined attendance rates are an inappropriate method for determining dropout.

Therapists Judgment

A more subjective method for defining dropout is using a therapist's clinical judgement. Asking the therapist to determine whether their clients have made adequate therapeutic gains leads to lower reported rates of dropout, as therapist defined dropout rates were 35.8% across multiple studies (de Haan et al., 2013). In a sample of therapist-defined dropouts, reasons for terminating therapy and symptom change from intake to termination were examined: 39% of those who dropped out were categorized as having "no need" for continued services, 35% had "environmental constraints," and 26% did not like the services they received (Pekarik, 1983). When examining symptom severity, those in the "no need" group and "environmental constraints" group experienced significant improvement in symptoms and those who did not like the services they received had not had a significant change in symptoms (Pekarik, 1983). Of the therapist-defined dropouts, 74% had significant symptom improvement and yet were still classified as non-completers. Therapist judgement is an imperfect measure but is used often in effectiveness studies to define therapy termination (Swift & Greenberg, 2012).

Study Design

Rates of dropout also change based on the scope of the study. Efficacy studies examine the possibility of beneficial outcomes on a tightly controlled population, often excluding clients for comorbid disorders or any other number of confounding variables (de Haan et al., 2013). Effectiveness studies then take interventions that work in pristine conditions and apply them to a wider range of clients, often people who may be more representative of clinical practice. Efficacy studies and effectiveness studies have distinctly different rates of dropout. Dropout percentages vary across the study design, with efficacy studies having an average of 28.4% dropout and effectiveness studies having a dropout rate of 50% (de Haan et al., 2013). Given the known differences of participant selection and control between efficacy studies and effectiveness studies, it is expected that effectiveness studies would have higher rates of dropout because it is more representative of clinical practice.

Predicting Dropout

Dropout is a problem that prevents clients from getting the services that they need. Identifying predictors of dropout is the first step in preventing premature treatment termination. Predictors of dropout can be classified into three discrete categories of factors: individual, family, and therapist variables (de Haan, Boon, de Jong, Geluk, & Vermeiren, 2014).

Individual Variables

Individual adolescent variables associated with dropout include client age, race, gender, and symptom severity (de Haan et al., 2014). In a meta-analysis of 27 studies

that examined ethnic minority clients, ethnic minority status was concluded to be a significant predictor for dropout or shorter treatment duration, (de Haan, Boon, de Jong, & Vermeiren, 2018) although six of the studies that were conducted in the US did not find that minority status predicted dropout. The term “ethnic minority” youth refers to such a broad category of people that it would be surprising if a unitary description of dropout predictors was identified. While it is clear that diverse youth have a different experience in therapy than White youth, disaggregating ethnicities might allow for a clearer understanding. Whereas this is a simple solution, previous studies have not always provided clear and detailed descriptions of their sample. When disaggregated by ethnicity, Black clients had the highest rates of dropout compared to Hispanic, Asian, and White clients (Austin & Wagner, 2010; de Haan et al., 2018; Kodjo & Auinger, 2004). Hispanic and Mexican American clients had similar rates of dropout compared to White clients and Asian American clients had similar and lower rates of dropout as compared to White clients (de Haan et al., 2018). These racial and ethnic group differences in dropout point to systematic differences in how clients of distinct cultural backgrounds experience therapy.

In a study of 352 teens in a community-based clinic in the Netherlands, client age, ethnicity, and higher externalizing and internalizing scores were predictors of dropout (de Haan et al., 2014). Adolescents who dropped out were more likely to be older in this study. Whereas older adolescents might be expected to be more independent and less reliant on their families for transportation, it is possible that this freedom did not encourage adolescents to make treatment a priority. Females were also more likely to

dropout. As this study was completed in the Netherlands, the ethnic and cultural diversity included are not typical of the United States. de Haan and colleagues found that Surinamese, Antillean, and other non-western ethnicities were more likely to dropout of therapy, although there was a smaller effect size than individuals from western ethnicities. Finally, symptom severity scores of internalizing and externalizing were predictive of both dropout and completers (de Haan et al., 2014). When symptom presentation was examined, youth were more likely to dropout if they had elevated parent and teacher reported externalizing scores and completers were more likely to have internalizing problems, although this only produces a small effect size (de Haan et al., 2013; Holm & Minton, 2016). Examining the more extensive adult literature may provide a more complete picture of individual factors related to dropout.

In a seminal meta-analysis of dropout across both children (under 18 years old) and adults, different patterns emerged between the two age groups (Wierzbicki, & Pekarik, 1993). Younger adults were more likely to dropout, but when mixed samples of children and adults were examined, adults were more likely to dropout. Between the two meta-analyses described, the results that older adolescents and younger adults are more likely to dropout points to the increased rates of dropout among emerging adults. Another area of agreement is that females are more likely to dropout of therapy across both the adolescent and adult literature (de Haan et al., 2014; Wierzbicki, & Pekarik, 1993). In comparing children and adults, females had a larger effect size if they were children (Wierzbicki, & Pekarik, 1993).

In an updated meta-analysis of adult dropout, gender, race, marital status, and employment status were not significant (Swift & Greenberg, 2012). Swift and Greenberg's 2012 meta-analysis of predictors of dropout conflict with the seminal work of Wierzbicki and Pekarik (1993). Conflicting results are a trend in the dropout predictors' literature, but this may also be the result of differing methods between the two meta-analyses. Inclusion criteria for Wierzbicki and Pekarik (1993) was limited to published studies, with the assumptions that this would be a control for study design as assumedly only well-designed studies would be published. Unfortunately, this also introduces publication bias and may inflate findings, as studies with nonsignificant findings are not often published (Easterbrook, Berlin, Gopalan, & Matthews, 1991). Another problematic aspect of Wierzbicki and Pekarik (1993)'s meta-analysis is a lack of information about the included studies, procedures, and findings that were non-significant. Swift and Greenberg (2012) created a more comprehensive meta-analysis using 669 studies (published and unpublished) compared to 125 studies used in Wierzbicki and Pekarik's meta-analysis. The dramatic increase in available studies lends more credibility to the finding that using client demographic information is an unpredictable indicator of dropout. Whereas an individual's background characteristics are an inconsistent predictor of dropout, there is an individual-level variable that is not based on demographic information: client expectations.

In the adult literature, client expectations are an important aspect of the therapeutic process. Clients who expected their therapists to have expertise in the problem area and provide directive and helpful problem-solving techniques had

significantly better outcomes (Patterson, Anderson, & Wei, 2014). Client expectations of the commitment required during therapy and therapist empathy were not correlated with symptom reduction (Patterson, Anderson, & Wei, 2014). This suggests a type of placebo effect, that client's expectation of therapist's expertise impacts their reduction of symptoms as opposed to the amount of therapeutic work they will engage in. Very few studies have examined youth's expectations of therapy.

Of the few studies examining youth and emerging adults' expectations of therapy, dropout has not been explored. In a qualitative examination of youth's expectations, 20 people between the ages of 12 and 24, with a wide variety of presenting problems, were interviewed directly before their intake appointment (Watsford, Rickwood, & Vanags, 2013). The most prevalent theme in their responses was uncertainty about what to expect during therapy. Secondary themes of expectations that emerged involved the readiness for therapy, the therapist's directedness and likeability, the use of talking therapy, and hope for better outcomes (Watsford, Rickwood, & Vanags, 2013). This finding is surprising as 17 of these youth had participated in therapy previously.

In a quantitative exploration of youth's expectations, the results replicated earlier qualitative findings (Watsford & Rickwood, 2015). Watsford and Rickwood differentiated between expectations for therapy (what they think will happen), preferences for therapy (what they would like to happen), and actual experience (what did happen) two months after completing therapy. Youth responded to the 66-item measure using a seven-point Likert scale. Expectations were neutral whereas preferences

were optimistic. Youth and emerging adults aged 12 to 25 were highly positive about the outcomes they would hope for from therapy (Watsford, & Rickwood, 2015).

Unfortunately, the experiences they had more closely aligned with their expectations (Watsford, & Rickwood, 2015). Whereas it may be disappointing that youth and emerging adult's experiences were perceived as neutral, their experiences met their expectations. How these expectations and experiences relate to racially and ethnically diverse client is unclear due to a lack of data. What is clear, though, is that client's individual characteristics have an impact on their experiences in therapy. These studies did not examine expectations and dropout, possibly because youth do not make the unilateral decision to dropout of psychotherapy. Therefore, it is important to examine the family input and context as well.

Family Variables

Family variables related to drop out include SES and family context. de Haan et al. (2014) found that parental SES contributed to adolescent's risk of dropout. Adolescents who dropped out were more likely to have the lowest SES levels, whereas completers were found to have the highest SES (de Haan et al., 2014). Similarly, in the adult literature, low SES was also a predictor of dropping out, as were low levels of education (Wierzbicki, & Pekarik, 1993). Given that SES and educational attainment are correlated it is unsurprising SES and educational attainment are significant predictors of dropout (Battin-Pearson et al., 2000). Interestingly, marital status impacted adults and children differentially and not in expected directions. Adults who were not married dropped out more often, but one study found that children whose parents were married

were more likely to dropout (Wierzbicki, & Pekarik, 1993). In the child and adolescent literature, a study found that clients from single parent households were more likely to dropout (de Haan et al., 2014). General outcomes for children who grow up in single parent households are not consistently positive or negative and parental marital status is not a proxy for SES in the psychotherapy dropout literature (Sarsour et al., 2011). The few studies that examine dropout and single-family headed households do not allow robust conclusions to be drawn and further investigation is needed.

Family and child characteristics were not uniformly predictive of dropout but varied within each racial or ethnic category. This is unsurprising due to the diverse cultural context's children of different racial and ethnic background are raised within. Whereas SES was broadly found to impact dropout in samples of children and adults, it was not found to be a predictor in samples of racially and ethnically diverse children and adolescents, and specifically among Black clients (de Haan et al., 2018). In keeping with Cauce et al.'s model (2002), it is plausible that the history of schizophrenic institutionalization, emphasis on overcoming hardship, and self-stigma of mental health in the Black community may affect Black youth more than the barriers of having a low SES. Having a younger mother and living in a single parent headed family were broadly found to be predictors of dropout only in White clients, but not Black clients (de Haan et al., 2018). As previous samples were predominantly White, this highlights trends in the therapeutic process, both the entry as well as exit, for White youth may not be the same for ethnically diverse youth.

Therapist Variables

Traditionally, static characteristics of the child and family (e.g., SES, race/ethnicity) were examined to predict dropout. As these child and family variables have not produced clear results, dynamic characteristics of the therapeutic process require examination. Therapist variables are the only variables that the therapist has some modicum of control over and may prove to be the most powerful in terms of dropout prediction and prevention. Therapists may directly address client expectations; however, client expectations are defined as beliefs that are formed before therapy. Negotiating with the client about what to expect in therapy is a significant part of the working alliance between client and therapist, which is predictive of dropout (de Haan et al., 2018). In a meta-analysis of dropout predictors, five statistically significant factors emerged that had large to exceptionally large effect-sizes. These included the barriers perceived by the patient in therapy, lower perceived relevance of treatment for both the client and therapist, focus of therapy, and cancelling or not showing up to appointments. In addition, client reported stress and therapist care and communication were also predictive of dropout and had medium effect sizes (de Haan et al., 2013).

In a recent review of adult psychotherapy dropout, Swift and Greenberg (2012) identified three therapy-level variables that moderated dropout rates. Therapy without a timeline, non-manualized treatment, and university-based clinics all experienced significantly higher rates of dropout. Without the direction and expectations that a timeline and manualized treatment convey, it is possible that client's dropout as they do not explicitly see the purpose of therapy. Client diagnosis was also a moderator, but the highest dropout rates were classified as "other" diagnoses that could not be grouped with

anxiety disorders, eating disorders, mood disorders, personality or psychotic, or trauma-related disorders (Swift & Greenberg, 2012). Whereas it would be an important finding to identify the dropout rates for each diagnosis, an “other” category does not convey useful information. There were no differences between therapist’s orientations or the format of individual or group therapy (Swift & Greenberg, 2012). Years of experience was the only significant predictor of dropout as student clinicians were found to have significantly higher rates of dropouts compared to clinicians who had obtained their degree. This finding is across all clinical settings, including inpatient, hospitals, outpatient, university-based clinics, and research or specialty clinics. Experience engaging in therapy may be impacted by varying levels of supervision that occur across settings which may account for differences in client care and outcomes. However, there are some conflicting findings within this area of research that warrants further investigation.

University clinics, including both those with trainees and degree carrying professionals, have the highest dropout rates compared to other settings (Swift & Greenberg, 2012). However, dropout rates did not differ between graduate trainees and graduate degree carrying full-time practitioners in the university clinic setting (Kearney, Draper, & Barón, 2005; Stein & Lambert, 1995). This suggests that there are variables other than experience which may lead to higher dropout specifically in university clinics. In other therapeutic settings, there is a significant relationship in dropout rates and years of therapist experience with more experienced therapists retaining clients longer (Stein & Lambert, 1995). Therapist experience can also be examined in the context of client

outcomes. In university clinics, more therapist experience was correlated with higher client satisfaction (Stein & Lambert, 1995). In other settings, a slight negative correlation was found between therapist experience and client satisfaction. When using pre-post tests for client symptom severity to determine outcomes, differences in settings could not be determined, but more therapist experience was correlated with better outcomes. Overall, more therapist experience was correlated with better client satisfaction and reduction of symptom severity but did not correlate with dropout (Stein & Lambert, 1995).

Spending time on a waitlist was also associated with dropout (de Haan et al., 2013; Westin, Barksdale, & Stephan, 2014). In a study examining predictors of dropout for adult clients with eating disorders, the amount of time spent on the waitlist was the only therapy factor that predicted dropout (Carter et al., 2012). Clients who completed therapy spent an average of 133 days on the waitlist, whereas clients who dropped out spent an average of 171 days on the waitlist (Carter et al., 2012). These results are replicated in the adolescent literature. In a study of a university-run community health clinic, adolescent clients who prematurely terminated were on the waitlist for an average of 72 days, whereas completers waited only 56 days on average (Holm & Minton, 2016). Time on the waitlist was a significant predictor of dropout in substance abuse therapy for Black adolescents, as well as US-born and foreign-born Hispanics (Austin & Wagner, 2010). In a general sample of youth and families seeking evidence-based family therapy, families were less likely to start services if they waited for a longer amount of time on a waitlist, although there was no connection between waiting time and dropout due to

engagement in therapy. Whereas this was true for the overall sample, African American, Hispanic, and families that fell in the “other race/ethnicity” category were more likely to dropout due to limited engagement in therapy after prolonged time on the waitlist as compared to their White counterparts. Whereas a waitlist was prohibitive for families in general, dropping out due to disengagement was specific to racially and ethnically diverse families.

Waitlist was defined uniformly across studies, as the amount of time a client first indicated they wanted to be seen and the first scheduled treatment session (Carter et al., 2012; Holm & Minton, 2016). The waitlist time represents a barrier for clients and represents the minimum amount of time a client has recognized a problem and attempted to address it. Waitlist has not been examined as a predictor of the quality of client and therapist relationship but should be further studied to determine if there is a moderating effect. The quality of the relationship between clients and their therapist has become more important in the literature.

The alliance between the therapist and client has proven to be a consistent predictor of outcomes. Alliance between the therapist and client is a multi-faceted concept; it refers to common objectives and methods of reaching therapeutic goals that the client and therapist share, in the context of a positive relationship (Bordin, 1979). Both working alliance and therapeutic alliance refers to this process. The perception of therapeutic alliance differs between the therapist and patient. The therapist’s positive thoughts or feelings about the session does not impact the client’s perception, although the therapist’s negative thoughts or emotions will negatively impact the client’s ratings

of alliance (Nissen-Lie, Havik, Høglend, Rønnestad, & Monsen, 2015). For ethnically diverse youth, decreasing rates of therapeutic alliance were also found to be a predictor of dropout (de Haan et al., 2018). The client's personal attributes inform the therapeutic alliance.

Higher symptom severity alone at the start of therapy negatively impacts therapeutic alliance by the third session (Falkenström et al., 2014; Patterson et al., 2014). Therapeutic alliance at session three is predictive of the symptom reduction during the remainder of therapy, so that higher alliance predicts larger symptom reduction even when controlling for initial symptom severity and the rate of change (Falkenström, et al., 2014; Patterson et al., 2014). Good therapeutic alliance can overcome severe symptomology and can influence the outcome of clients indicating that therapeutic alliance is an important part of the therapeutic relationship beyond the initial reduction of symptoms.

Therapeutic alliance includes working towards mutually agreed upon goals, but therapist often take a symptom-focused approach that may not directly or obviously address the family's concerns (Cauce et al., 2002). This mismatch in expectations can be described as a lack of cultural awareness on the part of the therapist. When the perceived need of the family and the case conceptualization of the therapist do not match, Cauce and colleagues (2002) explain this as a misalignment in the perception of the core problem resulting in forming a culturally irrelevant explanation for the client's symptom presentation and course of treatment. Frank and Frank (1993) describe this process as congruence of the illness myth.

Diverse cultures may explain the etiology of mental illness as spiritual, moral, or religious which would then dictate how they are treated. A therapist should then adopt the family's explanation and adapt treatment to be congruent. In a meta-analysis of culturally adapted therapy, the therapist's adoption of the family's illness myth was the only moderator between culturally adapted therapy and improved outcomes (Benish, Quintana, & Wampold, 2011). Culturally adapted therapy does not refer to a single type of adaptation as there are a variety of different models, frameworks, and guidelines to adapt interventions (Bernal & Domenech-Rodriguez, 2012). It is suggested then, that culturally adapted therapy acknowledges the client's perception and explanation of the illness and introduces an adaptive alternative (Wampold, 2007). Whereas it is expected therapists would always include their client's perspective in case conceptualization, there is a clear pattern of presupposing a concept is so universal, it does not require cultural adaptation. The idea that therapy has traditionally been centered in western culture and needs to be adapted to the culture of the client is a relatively new idea and further study is needed.

The relationship between the therapist and client is an integral part of the therapeutic process and ethnic match has been proposed to enhance the relationship. One assumption of an ethnic or racial match is that it may improve the cultural understanding between the therapist and client, although the research is not clear. Ethnic match was not found to impact dropout rates in the adult literature (Swift & Greenberg, 2012).

However, in a literature review of racially and ethnically diverse adolescents, four out of the six studies found ethnic mismatch increased the likelihood of dropout (de Haan et al.,

2018). Interestingly, across the four studies various combinations of mismatch contributed to dropout: Hispanic or Black therapist treating a White youth, any mismatch between parent and therapist, and mismatch for ethnically diverse clients but not White clients.

When examining Mexican American youth, ethnic match was not a predictor, but therapy focused on cultural competency and culturally relevant explanations of behavior were a priority for therapists (McCabe, 2002). Further, ethnic match was correlated with reduced drug use in Hispanic clients, but there was not an examination of cultural competence (Flicker, Waldron, Turner, Brody, & Hops, 2008). When the study examines setting, ethnic match was not correlated with reduced symptoms in a university-based counseling center (Kearney, Draper, & Barón, 2005). There is no clear relationship between ethnic match and outcomes. The assumption of ethnic match is that it increases cultural competence, but when therapy explicitly focused on cultural competence, ethnic match was not predictive of dropout (McCabe, 2002).

In one small scale study of culturally adapted therapy, Black and Hispanic adolescents did not differ in drug use compared to White adolescents (Imel et al., 2011). Of the 13 therapists included in this study, outcomes varied by individual therapists. Some therapists were effective regardless of the race or ethnicity of the client and some were ineffective regardless of the race or ethnicity of the client (Imel et al., 2011).

Cultural competence then is not simply a measure of outcomes between racial or ethnic groups, but an understanding of the client's attributional style and providing a congruent response to the client. When comparing culturally adapted therapy to

unadapted therapy, there were no differences in dropout rates (Benish et al., 2011). Instead, culturally adapted therapy produces better outcomes for racially or ethnically diverse clients (Benish et al., 2011; Pan, Huey, & Hernandez, 2011). It appears that when therapists have high levels of cultural competence, ethnic match is not significant.

Overall

In a review of the literature, de Haan et al. (2013) examined individual, family, and therapist variables and found only one child factor that had a large effect size on dropout—having deviant peers. The only family factor with a medium to large effect size found across studies was the mother’s age, where adolescents with younger mothers were more likely to dropout. However, when examining the therapy process variables, a multitude of treatment factors emerged with medium to large effect sizes: more cancellations and no shows, the elevation of eight components of the Barriers to Treatment Participation Scale (e.g. therapist reported treatment demands and lower therapeutic relationship, and both parent and therapist reported Total Barriers, stressor-obstacles, and perceived relevance of treatment), various measures of therapeutic alliance, parental expectations, and treatment modality (de Haan et al., 2013). Consistent predictors of dropout in the adolescent population are sparse, although therapy-level variables appear to be the most promising. Despite the multitude of studies, there are no clear results surrounding predictors of psychotherapy dropout.

Theories of Dropout

The random predictors of dropout have led researchers to look for a theory on the process of dropout. Armbruster and Kazdin (1994) did not find a profile for dropout and

hypothesized that examining static variables without conceptualizing the process would not further the literature and understanding of dropout. Despite this early recognition for the need for theory in this area, the strategy of studies that examine dropout generally use demographics and run as many correlations as possible to see what emerges as significant, sometimes called data dredging or p-hacking (Head, Holman, Lanfear, Kahn, & Jennions, 2015). P-hacking could be a response to the “publish or perish” mentality of academia and the increase in publication of positive-outcome studies or just a theoretical assumption about predictors of dropout (Fanelli, 2012). Not surprisingly, these “moderators of convenience” have yet to produce robust results (Kazdin, 2007). Examining variables of dropout within the framework of a theory on the process might produce more meaningful results.

One of the first models of dropout was the “barriers to treatment” model. This model attempted to show that families that experienced “barriers” to treatment would be more likely to dropout of therapy (Kazdin, Holland, & Crowley, 1997). The parent, family, and child variables were examined as well as the participation barriers. The barriers included stressors, treatment demands, perceived relevance, and therapeutic alliance from both the therapist’s and client’s perspectives. Kazdin, Holland, and Crowley (1997) found that both the client characteristics and treatment participation demands perceived by both the patient and therapist predicted dropout. When dividing the sample into three groups based on their total perceived barriers, the group with the fewest perceived barriers had a dropout rate of 16%, the middle group had a rate of 41%, and the highest group had 61.4% (Kazdin, Holland, & Crowley, 1997). Controlling for

parent, family, and child variables, the barriers to treatment still predicted dropout showing that they are separate, significant constructs to dropout. In addition, the absence of barriers was a protective factor for child and adolescent clients in therapy.

The barriers-to-treatment model is an empirically tested and robust model that illustrates the impact of perceived barriers to treatment dropout (Kazdin, Holland, & Crowley, 1997), however, it has a flawed design. To test the model, they sampled 26.9% African American families and 6.6% Hispanic families they operationalized as a minority and examined differences in barriers to treatment. Barriers to treatment were not examined by differing racial and ethnic categories, perhaps because of Kazdin et al.'s hypothesis that barriers to treatment would be significant beyond family and child characteristics, which includes racial and ethnic identity. It is not enough to know barriers to treatment predict dropout across a sample of children and families in psychotherapy, it is necessary to examine which racial and ethnic groups are more or less affected by barriers to treatment. Based on the literature reviewed so far, the predictive validity of a variable is in part determined by the racial or ethnic identity of the client (e.g., single parent households are a predictor for White but not Black clients). Identifying a targeted process by which racial and ethnic minority client's dropout that is "mechanism-oriented, transdiagnostic, and clinically relevant" (Cooper et al., 2018) is warranted as there is evidence dropping out of therapy is not a homogenous process for all racially and ethnically diverse clients.

Outcomes of Dropout

Very few studies examine the outcomes for clients who dropout. In part, this may be due to difficulty locating clients and the assumption that clients who have dropped out do not wish to be contacted. When the therapist defines dropout, 37% of clients defined as dropouts reported they had no need for services (Pekarik, 1983). Dropouts in general cited that the problem had improved, environmental barriers, or they were unsatisfied with therapy (Pekarik, 1992). When the reason for dropout was analyzed considering symptom improvement and satisfaction ratings, adults who reported their problem had improved had reduced symptoms and higher satisfaction and adults who were dissatisfied had the lowest ratings of symptom improvements (Pekarik, 1992). Children had more variable outcomes. There were no differences between groups on a behavior rating scale of symptom presentation, but there were differences in parental reports of improvement. Children who improved showed significant parental reports of improvement and dropouts identified as having environmental barriers and dissatisfaction had lower improvement ratings than continuing clients. The barriers and dissatisfaction group both had significantly lower ratings of satisfaction. Therapist's ratings improved similarly across both adults and children, with no differences across the three separate groups of noncompleters (Pekarik, 1992). Clients identified by therapists as dropouts communicated their reasons for discontinuing services, which correlated with their symptoms and satisfaction. Whereas no differences in behavioral ratings for children across groups existed, it is hard to hypothesize the reason as the modality and format of therapy are not specified.

Outcomes of therapy noncompleters then are still difficult to identify. Dropouts have a myriad of reasons for discontinuing treatment, but there do not seem to be differences in outcomes for children. Part of this problem is that the measures used to determine outcomes are completed by parents.

Present Study

This study examines predictors of dropout in therapy for Black and Hispanic adolescent clients that is culturally grounded and theoretically driven. Examined within the context of a theory, it is possible that predictors of dropout will cease to appear random. For the purposes of the current study, dropout is defined as “unilateral and unexpected treatment termination” determined by the therapist (Hatchett & Park, 2003; Swift & Greenberg, 2012). It is hypothesized that predictors of dropout will be unique to Black, Hispanic, and White youth and that therapist-level variables will be most predictive compared to client-level or family-level variables. Differences in referral sources will also be examined as a rudimentary variable for coercion. Controlling for income and gender, Black and Hispanic youth are expected to be more likely to dropout of therapy compared to White youth based on a prolonged time on the waitlist, poor therapeutic alliance, slower rates of symptom improvement, and a lack of commitment to attending therapy sessions. Specifically, a long waitlist time will be prohibitory for Black and Hispanic, but not for White clients. It is also hypothesized that therapeutic alliance and a lack of symptom reduction are the main predictors for dropout for White youth.

CHAPTER III

METHOD

Participants

All participants originally attended a university-based non-profit community health center (CHC) between 2014 and 2019. The CHC is a training clinic for doctoral-level School Psychology and Counseling Psychology students and licensed psychologists supervise every student. Service coordinators call prospective clients and document personal and demographic information during a confidential phone call to screen potential clients for appropriate service delivery. This clinic used a sliding fee scale determined by reported income level and family size. A reduction in fees could be requested at any time for clients who believed the fee to be a burden. Clients spent time on a waitlist and eventually assigned to a doctoral student clinician. During the intake appointment, student clinicians review and obtain informed consent documentation. This documentation included acknowledging the client's data may be used for archival research but was not necessary for client agreement to receive services.

Following the consent process, an intake questionnaire was used to gather a better understanding of the presenting problem. Student clinicians had three sessions to gather the necessary information to complete an Intake Report. An Intake Report is the formal evaluation formulating the initial diagnostic impressions of the case. In subsequent sessions, measures of symptom severity and therapeutic alliance (discussed

in detail below) were administered in every session. Participants included in the study sample experienced any range of reported symptoms (e.g., anxiety, depression, behavioral concerns), but did not need immediate emergency care (e.g., bipolar disorder, or schizophrenia). Clients needed to have attended at least one session for inclusion in the study sample.

After therapy ended or clients stopped attending session, student clinicians completed a termination report with their supervisor. The termination report included who initiated termination: the client, the therapist, or a mutual agreement. Client-initiated termination included people who did not return phone calls or stopped contacting the clinic. In addition, doctoral student clinicians indicated whether they believed the client had made adequate progress or not. Further, the termination report recorded how many sessions a client had attended and a narrative summary about the course of therapy.

The sample was restricted to adolescents between the ages of 12-18 and included 107 participants. Several clients participated in multiple courses of therapy, however, only the first course of therapy was included in analysis. In the sample, 46% were male and 55% were female. Regarding race/ethnicity: 53% were White Non-Hispanic, 34% were White Hispanic, 7% were Black non-Hispanic, and 6% were Black and White non-Hispanic (mixed-race).

Procedures

Due to the use of archival data, procedures for collecting data from the client files was already established. Consent to use data for research purposes was obtained

during the informed consent procedures that occurred in the first intake session. Consent was obtained from the Clinic Director and the appropriate Institutional Review Board (IRB). Data was deidentified by appropriate personnel in accordance with IRB procedures.

Measures

Dropout

Dropout was determined when clients initiated the end of treatment and the therapist indicated they did not make progress. These indicators were extracted from the termination report. Dropout was measured as stopping therapy at any point in the intake or active treatment. As this was a training clinic, the intake could take up to three sessions. Active treatment started after three sessions; however, dropout was classified as occurring at any point.

Referral Source

The referral source was obtained during the initial phone call with the service coordinators. As coercion is always a concern, different referral sources (e.g., school vs. physician) may have different outcomes. Four different referral sources were coded by the clinic's intake coordinators: parents, physicians, schools, or others.

Number of Sessions Attended

The number of sessions attended was extracted from the termination report to determine the average course of therapy and to examine if dropouts differed.

Waitlist

The length of time the client was on a waitlist for therapy was extracted from the intake sheet. The date that the client's caregiver first called and spoke with the service coordinator was recorded. The amount of time between caregiver's first referral call and the first intake session was extracted from the client file. The length of the waitlist varied between a few weeks and a few months and was dependent on the number of available counselors and supervisors in the community health clinic at that time.

Rate of Symptom Reduction

The Self Report Youth Outcome Questionnaire 30.2 (referred to as the YOQ) was administered as a brief measure of symptom severity. It was designed to be filled out in 5 minutes or less and clients 12 years and older complete the self-report 30-item measure. There is also a parent-report version that assesses the same domains as the self-report and is highly correlated with the self-report version (Burlingame et al., 2004). The YOQ was used to examine somatic complaints, social isolation, conduct problems, aggression, hyperactivity/distractibility, and depression/anxiety. The YOQ has internal reliability of .97, test-retest reliability of .83 (Warren, Nelson, Burlingame, & Mondragon, 2012), and adequate concurrent and discriminant validity (Burlingame et al., 2004). The YOQ was scored online, and a trend line of previous reports was plotted for the student clinicians. Each time the YOQ was completed, a score was generated and added to the overall trendline. The YOQ also provided a descriptive label based on the difference between the initial score and the most recent score. According to the manual, a change of 10 points indicated significant change for both the self-report and parent-

report YOQ. The YOQ included average scores from other samples, such as community, outpatient, inpatient, and juvenile justice based on the client's demographic information. The YOQ family of tests have been used previously to identify youth who may be at risk for poor outcomes in routine mental health services as well as mental distress in adolescents (Cannon, Warren, Nelson, & Burlingame, 2010; Di Blas et al., 2018).

Age

This variable was obtained by calculating the age of the client at the time they were assigned to a therapist. The intake form listed the client's age at the time the program coordinator completed the phone intake, but it was not an accurate measure of the client's age when they began therapy.

Race/Ethnicity

This variable was recorded on the intake sheet. Clients self-reported their race or ethnicity based on broad categories: Black, Hispanic, White, Asian, and five other categories. Only clients who self-identified as Black, Hispanic, Black and White (mixed-race), or White were included in this sample. Due to the relatively small sample, Black and mixed-race clients are collapsed into a single category. This decision was made based on literature that states when multiracial (Black and White) youth were asked to report the best single race to describe them, the majority chose Black (Harris & Sim, 2002).

Socioeconomic Status

For purposes of reporting, all clients were categorized into four reported income levels. These broad categories did not allow for in-depth analysis, so the self-reported

income on the intake sheet was used. Self-reported income was used as a control variable to better understand the impact of race and ethnicity. Some clients reported zero income and those clients were included in the lowest income category. This clinic used a sliding-fee scale and if paying a fee for therapy was a burden, clients could have their fee reduced to zero dollars per session.

Therapeutic Alliance

At the end of every session, adolescents completed a self-report measure of therapeutic reliance entitled the “Session Rating Scale.” The internal consistency ranged from .88 to .93 and test-retest reliability was .70 (Campbell & Hemsley, 2009; Duncan et al., 2003). The test-retest reliability is good, especially considering the constructs fluctuate one administration to the next. Compared to the Helping Alliance Questionnaire Revised scale, the concurrent validity was .48 (Duncan et al., 2003). The Working Alliance Inventory has also been compared with the SRS and the concurrent validity ranged between .37 and .63. The concurrent validity is inconclusive at best (Post, 2016). This is a general problem across therapeutic alliance measures, as the general construct of alliance is agreed upon but there is little consensus on how to measure the construct (Elvins & Green, 2008). The scale required clients to respond to four domains: “I feel listened to,” “I feel understood,” “I like what we did today,” and “Overall.” The client recorded their responses by drawing a vertical line on an empty number line that was 10 centimeters in length. The empty number line was along the continuum of “not at all” and “extremely” in response to the prompts. The adolescent

client was the only person to complete the measure as this clinic did not include a parent measure of therapeutic alliance.

Time Between Sessions

To examine the client's commitment to therapy, the regularity of attendance was calculated from client files. This was calculated by determining the number of days between each session and then taking the mean. Whereas there are limitations to using the time between sessions as a measure of commitment, the regularity of client's attendance provided insight into their experience and the relative dose of therapy.

Analytic Plan

Multiple statistical analyses were used to answer the following questions: (1) are Black and Hispanic clients more likely to dropout of psychotherapy compared to White clients, and (2) are the predictors different for Black and Hispanic youth relative to White youth. Controlling for SES and gender, the research hypotheses are that Black and Hispanic youth will be more likely to dropout of therapy compared to White youth. Black and Hispanic dropout should be predicted by a prolonged time on the waitlist, poor therapeutic alliance, slower rates of symptom improvement, and a lack of commitment to attending therapy sessions. Specifically, a long waitlist time will be prohibitory for Black and Hispanic, but not for White clients. It was also hypothesized that therapeutic alliance and a lack of symptom reduction are the main predictors for dropout for White youth.

This study used an extant database and sample size was limited by the available data. Preliminary analyses included descriptive statistics as well as chi square tests to

determine differences among clients dropouts. A logistic regression was used to determine the interaction effects between race and the proposed independent variables on whether a client was likely to dropout. Based on a review of the literature, this included referral source, symptom severity, waitlist, age, race or ethnicity, therapeutic alliance, and commitment to therapy. A logistic regression was chosen as it identified the strength of the relationship between a binary dependent variable and two or more independent variables. Missing data were replaced with multiple imputations of values across clients.

CHAPTER IV

RESULTS

There were 107 participants in this sample. Several clients participated in multiple courses of therapy, however, only the first course of therapy was included in analysis. In the sample, 46% were male and 55% were female. Regarding race/ethnicity: 53% were White Non-Hispanic, 34% were White Hispanic, 7% were Black non-Hispanic, and 6% were Black & White non-Hispanic. Referrals were classified as coming from 4 different sources: five were from parent, 34 were from schools, 23 were from healthcare services, 41 were from “other” sources, and four were not provided.

There was large variation in the income level of participants. The mean self-reported household income was \$54,000 and the standard deviation was \$49,000. Within the sample: 34% reported the family made \$30,000 or less, 25% of the sample made \$70,000 or more, and 16% representing families that made \$100,000 or more. The average time on the waitlist was approximately a month (34 days), although it ranged from the same day to waiting for 201 days to begin the intake process. The mean time between sessions was two weeks and ranged from 6 days to 32 days for each client. Clients average time between sessions was categorized based on how many days passed between sessions. Clients who only attended one session did not have an average time between sessions and were separately categorized.

Within the sample, 29% of client-initiated termination and did not make adequate progress. As intakes last three sessions in this clinic, 18% of the sample dropped out

before active treatment began. The mean number of sessions attended was 12 and ranged from 1-61 sessions. A total of 12 participants only attended one session, three attended two sessions, and 13 attended three sessions. A Chi Square Test of Association was conducted to determine association between the timing of dropout (i.e. before or after the intake phase) and race, gender, or income. The Chi Square Test of Association has the assumptions of independence, categorical data, and a large sample size such that the frequency for each cell is at least one and the majority are over five. Income was originally recorded as continuous data, but for this analysis it was recategorized as either falling above or below the mean income of the general sample. There was a significant association between dropout timing and gender ($X^2(2) = 10.7, p < 0.01$), however 25% of the expected frequencies were below five. As the sample size was small, Fisher's Exact Test was used as it maintains accuracy with small sample sizes (Raymond & Rousset, 1995). The Fisher Exact Test was then calculated and remained significant at $p < .01$. Boys were significantly more likely to dropout during the intake sessions. No association was found between dropout timing and race ($X^2(2) = 3.22, p = 0.200$) or dropout timing and income ($X^2(1) = 0.0615, p = 0.804$).

Before imputing data, a logistic regression was run using the variables of interest to examine outliers. In addition, multicollinearity was examined with the current dataset. As the VIF is under 2, multicollinearity is not an issue for the data. Using standardized Pearson residuals, there appears to be some spread in residuals, but no outliers appear extreme. Using deviance residuals, there does not appear to be significant outliers. The only outliers were on the income variable, where the average income was \$54,000,

however, there were two participants that self-reported income of \$300,000 or more. These participants were not significantly different on any other variables. Income was categorized into quartiles to provide a more nuanced examination of income (compared to above or below the mean used in the Chi Square test) while also preventing the outliers from skewing the data.

The YOQ data and SRS data had repeated measures as participants were administered the measures at every session. Logistic regressions have the assumption of independence, so aggregate variables were completed for each participant. The mean score and standard deviation for the SRS scores (alliance) were calculated as this would capture whether the average scores were high or low, and how much variability exists in alliance across sessions. The YOQ measures change in symptom severity and a measure of change as well as the initial score was used to determine symptom severity. In accordance with the YOQ manual, reliable change has occurred when there is a difference of 10 points between initial and last YOQ score. This reliable change is the same for both parent- and self-reports.

After examining outliers, the data was treated for missing data. Approximately 13% of YOQ data (symptom severity) was missing, 12% of the average SRS data (therapeutic alliance) was missing as well as 16% of the variation in SRS. Approximately 4% of referral reasons were missing and 2% of income data. Theoretically, multiple imputations should only be used on datasets where the missing data is not systematically different from the completed data. With a thorough understanding of the data and clinic procedures, it was not considered likely that there

were systematic differences in completed and missing data. In the case of the YOQ data, a busy receptionist, a temporary worker who had not trained, or the system not working could contribute to missing data. Some of the YOQ forms were also improperly administered such that adolescent clients completed adult Outcome Questionnaires (OQ), which did not measure the same domains as the YOQ. Due to the differences in the YOQ and OQ, OQ data was treated as missing data. Improper administration does not indicate that there were fundamental differences between clients who completed the YOQ successfully compared to clients who were administered the wrong measure. In addition, the missing SRS data was obtained at the end of the session and may simply have been forgotten by the student clinician. Little's Missing Completely at Random (MCAR) test was also used as an empirical test in order to determine if multiple imputations would be appropriate for this sample. The MCAR test was reasonable ($p=0.7357$, desired $p>.05$) and indicates multiple imputations was an appropriate data treatment.

Imputations in general are a useful missing data treatment as they replace values for the missing data. Multiple imputations are useful as they create multiple possible values (and full datasets) based on all available data which can then be analyzed with common statistical techniques that may not have been available with missing data (Rubin, 1978). Multiple imputations can be calculated through either joint multivariate normal distributions or using chained equations. One of the differences between these two methods assumes the distribution of the missing data. Multiple imputations based on chained equations was used as the missing data was not continuous (White, Royston, &

Wood, 2011). Initially, 17 imputations were generated based on the percent of missing SRS data. Using a logistic regression, YOQ change indicator, age, number of sessions attended, waitlist, gender, standard deviation in therapeutic alliance, average time between sessions, income, referral source, and race were first examined in order to determine predictors without the interaction of race. As the imputations needed to allow reproducibility is over 25 (FMIx100), the data was re-imputed with 30 imputations to meet this level. The model F test fails to reject the hypothesis that all coefficients are equal to zero and thus does not rule out a constant-only model for dropout [F (17, 94255) =1.10, p=.348]. The significant predictors were the number of sessions attended (p<.001), time between sessions (p<.05), and comparative income level (p<.05). With each additional session attended, client's odds of dropping out decreased by 28%. Compared to clients who on average attended sessions every 7 to 10 days, clients who averaged 13-15 days between sessions had 91% decreased odds of dropping out. Comparatively, clients who reported income between approximately \$40,000 to \$65,000 were 725% more likely to dropout than clients who reported income of \$28,000 or below. In the following analysis, there are both F tests and Chi Square Likelihood Ratio Test based on whether the analysis required imputed data or not. Odds ratios were used

Predictors were examined individually to investigate individual predictors without the problems of a small sample size. Controlling for income and gender, Table 1 indicates the model with waitlist did not significantly improve the predictive ability compared to the null model ($\chi^2(5) = 2.85, p = .723$).

Table 1*Logistic Regression Model of Dropout and Waitlist*

Dropout	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]
Gender	1.017	0.454	0.04	0.97	0.424 2.439
Income Quartile 2	1.081	0.638	0.13	0.895	0.340 3.437
Income Quartile 3	2.040	1.245	1.17	0.243	0.617 6.745
Income Quartile 4	0.842	0.527	-0.3	0.783	0.247 2.870
waitlist	1.006	0.006	0.93	0.352	0.994 1.018
_cons	0.288	0.160	-2.2	0.025	0.097 0.857

* $p < .05$. ** $p < .01$. *** $p < .001$

Controlling for income and gender, Table 2 shows the referral model F test fails to reject the hypothesis that all coefficients are equal to zero and thus does not rule out a constant-only model for dropout [$F(7, 686415.5) = 0.41, p = .899$].

Table 2*Logistic Regression Model of Dropout and Referral Source*

Dropout	Odds Ratio	Std. Err.	t	P>t	[95% Conf. Interval]
Gender	0.936	0.414	-0.2	0.882	0.393 2.230
Income Quartile 2	1.116	0.681	0.18	0.857	0.338 3.689
Income Quartile 3	2.069	1.270	1.18	0.236	0.621 6.890
Income Quartile 4	0.754	0.479	-0.4	0.657	0.217 2.622
Referral 2	1.563	1.918	0.36	0.716	0.141 17.320
Referral 3	1.625	2.055	0.38	0.701	0.136 19.377
Referral 4	2.292	2.799	0.68	0.497	0.209 25.098
_cons	0.205	0.265	-1.2	0.219	0.016 2.567

* $p < .05$. ** $p < .01$. *** $p < .001$

Controlling for income and gender, Table 3 shows the model with age did not significantly improve the predictive ability compared to the null model ($\chi^2(5) = 4.03, p = .544$).

Table 3*Logistic Regression Model of Dropout and Age*

Dropout	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]
Gender	1.017	0.4526	0.04	0.971	0.425 2.433
Income Quartile 2	1.061	0.628	0.1	0.92	0.333 3.384
Income Quartile 3	2.057	1.257	1.18	0.238	0.621 6.814
Income Quartile 4	0.863	0.542	-0.2	0.815	0.252 2.957
Age	1.000	0.000	-1.4	0.162	0.999 1.000
_cons	4.757095	8.885	0.84	0.404	0.122 184.975

* $p < .05$. ** $p < .01$. *** $p < .001$

Controlling for income and gender, Table 4 shows the average therapeutic alliance model F test fails to reject the hypothesis that all coefficients are equal to zero and thus does not rule out a constant-only model for dropout [F (5, 11399.2) =0.36, $p=.879$].

Table 4*Logistic Regression Model of Dropout and SD of Therapeutic Alliance*

Dropout	Odds Ratio	Std. Err.	t	P>t	[95% Conf. Interval]
Gender	0.960	0.437	-0.1	0.929	0.394 2.343
Income Quartile 2	1.044	0.619	0.07	0.942	0.327 3.339
Income Quartile 3	1.900	1.152	1.06	0.29	0.579 6.234
Income Quartile 4	0.819	0.512	-0.3	0.749	0.241 2.787
SD of Therapeutic Alliance	0.999	0.432	0	0.998	0.426 2.343
_cons	0.368	0.215	-1.7	0.088	0.117 1.160

* $p < .05$. ** $p < .01$. *** $p < .001$

Controlling for income and gender, Table 5 shows the model with race/ethnicity did not significantly improve the predictive ability compared to the null model ($\chi^2(6) =2.71, p=.844$).

Table 5*Logistic Regression Model of Dropout and Race*

Dropout	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]
Gender	0.995	0.448	-0	0.991	0.412 2.404
Income Quartile 2	1.002	0.595	0	0.997	0.313 3.208
Income Quartile 3	1.863	1.144	1.01	0.311	0.559 6.210
Income Quartile 4	0.771	0.505	-0.4	0.692	0.214 2.785
Black Mixed	1.321	0.877	0.42	0.676	0.359 4.857
Hispanic	0.754	0.383	-0.6	0.579	0.279 2.042
_cons	0.397	0.2230	-1.6	0.11	0.128 1.234

* $p < .05$. ** $p < .01$. *** $p < .001$

Controlling for income and gender, Table 6 shows the YOQ change model F test fails to reject the hypothesis that all coefficients are equal to zero and thus does not rule out a constant-only model for dropout [F (5, 36679.8) =0.45, p=.95].

Table 6*Logistic Regression Model of Dropout and Change in Symptom Severity*

Dropout	Odds Ratio	Std. Err.	t	P>t	[95% Conf. Interval]
Gender	0.964	0.432	-0.1	0.935	0.401 2.320
Income Quartile 2	1.293	0.793	0.42	0.675	0.389 4.300
Income Quartile 3	2.070	1.280	1.18	0.239	0.616 6.953
Income Quartile 4	0.925	0.589	-0.1	0.903	0.266 3.219
Symptom Severity Change	1.022	0.014	1.57	0.117	0.995 1.051
_cons	0.457	0.226	-1.6	0.114	0.173 1.206

* $p < .05$. ** $p < .01$. *** $p < .001$

Controlling for income and gender, Table 7 shows the model with average time between sessions significantly improved the predictive ability compared to the null model ($\chi^2(8) = 20.44$, $p < .01$). Compared to the null model, the model with three predictors reduced misfit by 16%. The average time between sessions was significant for

clients who averaged 13-15 days in between sessions or only attended one session ($p < .05$). Clients who only attended one session were 514% more likely to dropout than clients who attended weekly. Compared to clients who on average attended sessions every 7 to 10 days, clients who averaged 13-15 days between sessions had 85% decreased odds of dropping out. This result appears surprising, however, can be explained by the likelihood of dropout in the first few sessions. A longer course of therapy was more likely to have increased time in between sessions as compared to clients who came the first two weeks and never returned.

Table 7

Logistic Regression Model of Dropout and Average Time Between Sessions

Dropout	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]
Gender	1.342	0.672	0.59	0.557	0.503 3.583
Income Quartile 2	1.550	1.031	0.66	0.51	0.421 5.711
Income Quartile 3	1.539	1.029	0.65	0.519	0.415 5.704
Income Quartile 4	0.907	0.627	-0.1	0.888	0.235 3.510
Avg Time Btw Session 2	0.536	0.349	-1	0.338	0.149 1.923
Avg Time Btw Session 3	0.154	0.131	-2.2	0.028**	0.029 0.815
Avg Time Btw Session 4	0.731	0.486	-0.5	0.637	0.199 2.687
Avg Time Btw Session 9	6.143	4.908	2.27	0.023**	1.283 29.411
_cons	0.369	0.246	-1.5	0.135	0.100 1.361

* $p < .05$. ** $p < .01$. *** $p < .001$

Controlling for income and gender, Table 8 shows the model with number of sessions attended significantly improved the predictive ability compared to the null model ($\chi^2(5) = 47.52, p < .001$). Compared to the null model, the model with three predictors reduced misfit by 37%. For each additional session attended, the odds of

dropout decreased by 26% ($p < .001$). Comparatively, clients who reported income between approximately \$40,000 to \$65,000 were 433% more likely to dropout than clients who reported income of \$28,000 or below ($p < .05$).

Table 8

Logistic Regression Model of Dropout and Total Sessions

Dropout	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]
Gender	2.159	1.286	1.29	0.196	0.672 6.940
Income Quartile 2	3.542	2.709	1.65	0.098	0.791 15.857
Income Quartile 3	5.340	4.552	1.96	0.049*	1.004 28.390
Income Quartile 4	1.364	1.014	0.42	0.677	0.317 5.860
Total Sessions	0.745	0.051	-4.3	0.00***	0.651 0.852
_cons	1.353	0.820	0.5	0.617	0.413 4.436

* $p < .05$. ** $p < .01$. *** $p < .001$

The interactions between race and individual predictors were also examined. The interaction between race and total sessions attended was the only model that significantly predicted dropout and results are reported in Table 9. The model with the interaction of race and number of sessions attended significantly improved the predictive ability compared to the null model ($\chi^2(9) = 54.14$, $p < .001$). Compared to the null model, the model with three predictors reduced misfit by 42%. Holding all other variables constant, each additional session attended the odds of dropout decreased by 34% for White clients ($p < .01$). The interaction between clients who identified as Black or mixed-race and the number of sessions attended was also significant ($p < .05$); however, the interaction between Hispanic clients and number of sessions attended was not significant. Holding all other variables constant, Black or mixed-race clients had 36% higher odds of dropping out with each additional session compared to White client.

Additionally, income level was nearing significance with the interaction of race. Clients who reported income between approximately \$40,000 to \$65,000 were still more likely (530% higher odds) to dropout than clients who reported income of \$28,000 or below ($p=.057$).

Table 9

Logistic Regression Model of Dropout and Race Interaction with Total Sessions

Dropout	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]
Gender	2.553	1.674	1.43	0.153	0.706 9.229
Income Quartile 2	4.029	3.321	1.69	0.091	0.801 20.272
Income Quartile 3	6.301	6.082	1.91	0.057	0.950 41.784
Income Quartile 4	1.025	0.849	0.03	0.976	0.202 5.195
Total Sessions	0.666	0.083	-3.3	0.001**	0.522 0.850
Black or Mixed	0.253	0.315	-1.1	0.27	0.022 2.900
Hispanic	0.895	1.094	-0.1	0.928	0.082 9.827
Hispanic#Total Sessions	0.979	0.1833	-0.1	0.912	0.679 1.414
Black or Mixed#Total Sessions	1.356	0.189	2.18	0.029**	1.032 1.782
_cons	2.423	2.384	0.9	0.368	0.352 16.660

* $p < .05$. ** $p < .01$. *** $p < .001$

The model with the interaction between race and waitlist did not significantly improve the predictive ability compared to the null model ($\chi^2(9) = 4.43$, $p = .881$) and results are displayed in Table 10.

Table 10*Logistic Regression Model of Dropout and Race Interaction with Waitlist*

Dropout	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]
Income Quartile 2	0.867	0.544	-0.2	0.82	0.253 2.969
Income Quartile 3	1.799	1.148	0.92	0.357	0.515 6.282
Income Quartile 4	0.646	0.441	-0.6	0.522	0.169 2.463
Gender	1.024	0.470	0.05	0.958	0.417 2.519
Black or Mixed	1.804	1.572	0.68	0.498	0.327 9.957
Hispanic	0.549	0.434	-0.8	0.448	0.116 2.586
Waitlist	1.008	0.010	0.79	0.427	0.988 1.028
Black or Mixed#Waitlist	0.990	0.015	-0.7	0.506	0.962 1.019
Hispanic#Waitlist	1.006	0.016	0.35	0.724	0.974 1.038
_cons	0.341	0.223	-1.6	0.1	0.094 1.230

* $p < .05$. ** $p < .01$. *** $p < .001$

The model with the interaction between race and average time between sessions did not significantly improve the predictive ability compared to the null model ($\chi^2(16) = 24.7, p = .075$) and results are displayed in Table 11.

Table 11

Logistic Regression Model of Dropout and Race Interaction with Average Time Between Sessions

Dropout	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]	
Gender	1.873	1.151	1.02	0.307	0.562	6.248
Income Quartile 2	0.976	0.720	-0	0.974	0.230	4.143
Income Quartile 3	0.865	0.639	-0.2	0.844	0.203	3.676
Income Quartile 4	0.625	0.495	-0.6	0.553	0.132	2.955
Avg Time Btw Session 2	0.082	0.098	-2.1	0.036*	0.008	0.847
Avg Time Btw Session 3	0.190	0.176	-1.8	0.073	0.031	1.166
Avg Time Btw Session 4	0.445	0.411	-0.9	0.381	0.073	2.716
Avg Time Btw Session 9	7802477	9.61E+09	0.01	0.99	0	.
Black or Mixed	1.56E-07	0.000	-0	0.99	0	.
Hispanic	5.93E-07	0.000	-0	0.991	0	.
Avg Time Btw Session #Hispanic						
1 1	264552.1	3.26E+08	0.01	0.992	0	.
2 1	1.40E+07	1.72E+10	0.01	0.989	0	.
3 1	1	(empty)				
4 1	980978.4	1.21E+09	0.01	0.991	0	.
9 1	1	(omitted)				
Avg Time Btw Session #Black or Mixed						
1 1	2286775	2.82E+09	0.01	0.991	0	.
2 1	1.16E+08	1.43E+11	0.02	0.988	0	.
3 1	1	(empty)				
4 1	9973202	1.23E+10	0.01	0.99	0	.
9 1	1	(omitted)				
_cons	0.735	0.569	-0.4	0.691	0.161	3.353

* $p < .05$. ** $p < .01$. *** $p < .001$

The interaction between race and standard deviation in therapeutic alliance was examined and results are shown in Table 12. The model F test fails to reject the hypothesis that all coefficients are equal to zero and thus does not rule out a constant-only model for dropout [F (9, 4841.9) = 0.39, p=.943].

Table 12

Logistic Regression Model of Dropout and Race Interaction with the SD of Therapeutic Alliance

Dropout	Odds Ratio	Std. Err.	t	P>t	[95% Conf. Interval]
Gender	0.976	0.463	-0.1	0.96	0.385 2.476
Income Quartile 2	0.904	0.569	-0.2	0.872	0.263 3.106
Income Quartile 3	1.949	1.269	1.02	0.305	0.544 6.980
Income Quartile 4	0.774	0.540	-0.4	0.713	0.197 3.035
SD Therapeutic Alliance	1.558	0.906	0.76	0.446	0.497 4.881
Hispanic	1.752	1.385	0.71	0.479	0.371 8.262
Black or Mixed	2.142	2.422	0.67	0.501	0.233 19.674
Hispanic#SD Therapeutic Alliance	0.121	0.264	-1	0.335	0.002 9.220
Black or Mixed#SD Therapeutic Alliance	0.559	0.533	-0.6	0.542	0.086 3.626
_cons	0.290	0.219	-1.6	0.101	0.066 1.273

* $p < .05$. ** $p < .01$. *** $p < .001$

The interaction between race and change in symptom severity was examined and results are shown in Table 13. The model F test fails to reject the hypothesis that all coefficients are equal to zero and thus does not rule out a constant-only model for dropout [F (9, 29700.9) =0.68, p=.732].

Table 13*Logistic Regression Model of Dropout and Race Interaction with Change in Symptom Severity*

Dropout	Odds Ratio	Std. Err.	t	P>t	[95% Conf. Interval]
Gender	1.011	0.483	0.02	0.981	0.396 2.580
Income Quartile 2	1.348	0.876	0.46	0.646	0.377 4.816
Income Quartile 3	2.050	1.329	1.11	0.268	0.575 7.306
Income Quartile 4	0.896	0.611	-0.2	0.872	0.236 3.408
YOQ Change	1.013	0.020	0.68	0.497	0.975 1.053
Hispanic	0.840	0.529	-0.3	0.781	0.244 2.889
Black or Mixed	2.799	3.034	0.95	0.343	0.334 23.443
Hispanic#YOQ change	1.019	0.032	0.6	0.548	0.958 1.085
Black or Mixed#YOQ change	1.042	0.053	0.82	0.414	0.944 1.151
_cons	0.418	0.271	-1.4	0.178	0.117 1.489

* $p < .05$. ** $p < .01$. *** $p < .001$

CHAPTER V

CONCLUSIONS

The aims of this study were to examine how predictors of dropout were different for Black and Hispanic youth relative to White youth. The hypothesized outcomes were that Black and Hispanic youth would be more likely to dropout of therapy compared to White youth based on a prolonged time on the waitlist, poor therapeutic alliance, higher initial symptom data, and a lack of commitment to attending therapy sessions. None of the hypothesized findings were supported by the current data.

The results indicate that the time between sessions was a significant predictor but failed to remain significant when interaction effects were included. The total sessions attended was the only variable that remained significant with the interaction effect of race. Considering many clients who dropped out only attended one or two sessions, this intuitively makes sense and reflects the sample. A Black or mixed-race client was significantly more likely to dropout than a White client with each additional session attended. While the exact mechanisms hypothesized to differentiate between White and Black, mixed, or Hispanic clients were not correct, there is still evidence that Black and mixed clients are experiencing therapy differently.

Black clients expect that therapy is relevant and produces positive outcomes quickly (Santisteban et al., 1997). This may help explain the current finding of the likelihood of a Black or mixed-race client to attend less sessions and dropout earlier as

the extended intake process may not seem immediately helpful. The lack of support for therapeutic level variables in predicting dropout in the current study does not invalidate their potential importance. The literature suggests process-level variables are important in promoting positive outcomes and change during a course of therapy (de Haan et al., 2013, Swift & Greenberg, 2012). Stated in another way, process-level variables may not predict adolescent clients who will dropout, but they are associated with clients who receive the most benefits from a course of psychotherapy.

The lack of significant findings is rampant in the research on psychotherapy dropout (de Haan et al., 2013; de Haan et al., 2014; de Haan et al., 2018; Swift & Greenberg, 2012; Wierzbicki, & Pekarik, 1993). Throughout the literature there are often conflicting results between both individual studies and meta-analyses. There are few variables that are consistently predictive of dropout. In part, this is due to a lack of consistent definitions across studies. Defining what constitutes a dropout is openly contested (de Haan et al., 2013; Wierzbicki, & Pekarik, 1993). In the only study of its kind, adolescents and their therapists were interviewed about why they stopped attending therapy and several categories were found (O’Keefe et al., 2019). Clients who stopped attending therapy fell under three categories: those that got what they needed, those who were unhappy with therapy, and those that had stopped due to life circumstances. A more nuanced definition may be needed to understand the needs of these distinct categories of dropout. This presents a methodological and sampling problem as clients who stopped attending therapy can be hard to track-down or are unwilling to spend more time on something they perceive as not helpful. Few studies have successfully followed

clients after they dropout and the overall generalizability of these studies is poor due to the self-selection to participate.

The original intention of this study was to have a nuanced definition of dropout; however, the study was limited by sample size. The majority of clients dropped out during the intake sessions and due to the small number of participants, it was not possible to examine only clients who left in the intake stage or the active treatment stage due to the number of proposed independent variables. In addition, Black and mixed-race clients had to be collapsed into a single category, which may have contributed to a lack of significant findings. Further, the large amount of missing data and lack of variance in therapeutic alliance may have also masked any effects.

In future studies, increased sample size and the reliability and validity of each measure would be vital to examining dropout. There was a lack of consistency in administered the proper measure of symptom severity, which did impact the amount of available data. In addition, there was a lack of therapeutic alliance data which may help inform student clinicians on the course of therapy, even if it does not impact dropout. Creating a nuanced and consistent approach across studies to identifying clients who dropout may also be helpful.

As the findings of this study have real-world implications for a community mental health clinic, the following is recommended to better serve the adolescent population. The results of this dissertation suggest, the buy-in of both the client and parent are paramount in the first session for Black and mixed-race clients as they may only attend a few sessions. While White clients will remain in therapy for longer, the

window to impact the trajectory of a client of color is much smaller. The current study does not analyze exact behaviors that therapists engage in to retain clients, but the extant literature has some suggestions.

Recommendations to retain therapy clients often focus on adult populations and have not been assessed regarding the adolescent population. In addition, empirically based recommendations can be hard to discern from anecdotal advice. Swift and Greenberg completed the most recent and comprehensive meta-analysis of adult psychotherapy dropout (2012) and subsequently published recommendations that were garnered from this research. There are six literature-based recommendations for retaining clients in therapy (Swift, Greenberg, Whipple, & Kominiak, 2012). Client's expectations for the course or duration of therapy are often inaccurate (Pekarik, 1991; Pekarik & Wierzbicki, 1986) and providing education about the length of therapy and expected outcomes may help realign client's expectations (Swift & Callahan, 2011). Client's expectations for their role in therapy should also be addressed, as clients who were introduced to who should talk most and who dictates the structure of the session had lower rates of dropout (Reis & Brown, 2006). While inaccurate client expectations should be explicitly addressed, client's preferences should also be respected and incorporated (e.g. if homework is a problem, homework is not primarily used to teach concepts; Swift, Callahan, & Vollmer, 2011). In addition, hope should also be instilled in clients to expect positive change (Frank & Frank, 1991). Part of instilling hope is providing an explanation of the problem and how the treatment will fix that problem in a way that is culturally acceptable to the client (Benish, Quintana, & Wampold, 2011).

Therapeutic alliance is also integral to positive treatment outcomes and the client and therapist should have a set of goals they both agree to work towards (de Haan et al., 2013, Swift & Greenberg, 2012). Finally, progress monitoring is necessary to detect when clients are not progressing and changes are needed in their treatment plan (Swift et al., 2012). The previous six-steps provide a basis on how to retain clients as well as how to increase outcomes at the end of therapy. While identifying a coherent or universal theory for dropout is proving elusive, there are a variety of techniques to help clients achieve the change they want to see.

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