Rates of Mental Illnesses, Nativity and Generational Status in the U.S.: Heterogeneity Among Caribbean Born Blacks, Blacks of Caribbean Descent and U.S. Born Blacks

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Abstract

America has continued to be increasingly diverse in culture and ethnicities. As such, these diverse populations require those in health and mental health fields to adjust to the cultural differences that arise. Central to these conversations is the impact of the acculturation process on immigrant populations. Researchers posit the stress of immigration and the acculturation process leads to increased rates of mental illness (Lang, Munoz, Bernal & Sorenson 1982; Masten, Penland & Nayani 1994; Neff & Hoppe 1993). Assuming that the acculturation process impacts first generation immigrants most, this study investigated U.S. born Blacks with and without Caribbean descent and Caribbean born Blacks residing in the U.S. to determine if nativity status and generational status impacts rates of mental illness. Using the National Survey of American Life (NSAL) dataset which is one of three research projects conducted from 2001 to 2003 by the Program for Research on Black Americans (PBRA), as part of the Research Center for Group Dynamics project, analyses were conducted to determine if relationships existed for these groups. Results indicated that mental illness is dependent on country of origin and U.S. born Blacks do self-report mental illnesses significantly more than Caribbean Blacks. Caribbean Blacks who are first generation in the U.S. are significantly less likely to report mental illness than second generation Caribbean Blacks. Differences in gender, work, number of years living in the U.S., age at immigration and wealth and poverty indicators all show some relationships with mental illnesses.

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CHAPTER 1

INTRODUCTION

The Problem Statement

The importance of race and ethnicity in mental health research continues to be of national interest particularly due to the increasing diversity of American society and how culture contributes to differences in behavior (Cohen, Berment and Magai 1997; Jackson, Torres, Caldwell, Neighbors, Nesse, Taylor, Trierweller and Williams 2004; Neighbors, Caldwell, Williams, Neese, Taylor, Bullard, Torres and Jackson 2007). Culture is broadly defined as a common heritage or set of beliefs, norms, and values (U.S.DHHS, 1999). More specifically, culture can be defined as having fluidity that stems from traditional indigenous pasts which grows and changes in response to experiences (Akinyela 1995). To recognize there are elements of one's experiences that may produce different realities does not negate the commonalities African people share. Essential to including race and ethnicity in mental health research is to understand and acknowledge the cultural heterogeneity of Black people.

Oftentimes, medical research about Black people presents this group as culturally homogeneous. This may result in misleading results given their heterogeneity. Ignoring the differences within this group potentially impacts diagnosis and the care given to the members of the subgroups and investigating these differences should be deemed priority if the primary concern is to administer the best care to the various groups (Bhugra 2004); Brent and Callwood 1993; U.S.DHHS 2001; Govia 2012; Williams & Harris-Reed 1999). Compounding the importance of this topic is the growing size of the Black population of Caribbean descent. The 2010 U.S. census reports Blacks represent a sizable portion of the American population at approximately 13.6% totaling over 42 million persons (Rastogi, Johnson, Hoeffel & Drewery 2011). Of these individuals, 3.5 million are of Caribbean descent (McCabe 2011).

Research has shown that inter-group differences among people of color are as likely to be significant as they are between Blacks and Whites (Borrell, Lynch, Neighbors Burt and Gillespie 2002; Neighbors et al 2007; Williams and Harris-Reid 1999). Blacks encompass many ethnic, class, gender, religious, sexuality, age and nationality groups from all over the African Diaspora and on the African continent. To understand the impact of these differences does in no way remove the commonalities of experience, struggle and origin African people worldwide share. While researchers maintain a cultural similarity does exist among African people (Asante and Asante 1985), we cannot negate the impact of other elements of their lives that may produce alternative realities as it relates to mental health such as immigration, acculturation and assimilation (DHHS 2001).

Important and ever expanding groups in the U.S. are U.S. born Blacks of Caribbean descent and those born in the Caribbean who migrated to the U.S. It is important to focus studies on these African descended groups without contrasting them with other races so we can better understand the differences within the larger Black population in the U.S.

While there is a plethora of mental health research that target samples of Blacks and Whites, there is little research that attempts to look at within group differences of Blacks in the U.S. Of the existing research on within group differences, many have been conducted in Great Britain and involve small samples (Bhui, Stanfield, Hull, Priebe, Mole and Feder 2003; Harrison, Glazebrook, Brewin 1997; Sharpley, Hutchinson, McKensie, Murray 2001). The few that have researched within group differences in mental health in the U.S. indicate differences between African Americans and Caribbean Americans primarily in depression (Alegría, Chatterji, Wells, Cao, Chen, Takeuchi, Jackson, & Meng, 2008; Lincoln, Chatters, Taylor, & Jackson, 2007; Miranda Siddique, Belin, and Kohn-Wood 2005 and Williams, Gonzalez, Neighbors, Nesse, Abelson, Sweetman, & Jackson, 2007) Obsessive-Compulsive Disorder (Himle , Muroff, Taylor, Baser, Abelson, Hanna, Abelson, Jackson, 2008); or substance use

(Gonzalez, Croghan, West, Williams, Nesse, Tarraf, Taylor, Hinton, Neighbors, & Jackson, 2008; Broman, Neighbors, Delva, Torres, Jackson, 2008). Other types of mental illnesses have yet to be explored.

Another aspect of the lives of Blacks in America that has not been explored in depth is if the nativity and generational status of the within groups for this population impacts rates of mental illnesses. Although sparse, two studies illustrate differences in generational and nativity status. Both studies results have shown that first and second generation Caribbean Blacks have lower rates of mental health than both third and fourth generation Caribbean Blacks and U.S. born Blacks (Miranda Siddique, Belin, and Kohn-Wood 2005; Williams, Haile, Gonzalez, Neighbors, Baser, and Jackson 2007). Researchers are recognizing the importance of this topic as a recent article investigated the differences in ethnicity and nativity status among Blacks and mental health service use (Doyle, Joe & Caldwell 2013).

Whereas Miranda et al (2005) and Williams et al (2007) have researched rates of Major Depressive Disorder (MDD) and the impact of nativity and generational status among Caribbean and U.S. born Blacks, I seek to extend this by investigating rates of DSM-IV Generalized Anxiety Disorder (GAD), DSM-IV Bi-polar II, ICD and DSM-IV Hypomania with hierarchy, ICD Dysthymia w/ hierarchy, DSM-IV Oppositional Defiant Disorder with hierarchy, ICD & DSM-IV Panic Attack, ICD & DSM-IV Panic Disorder (PD) and ICD Conduct Disorder with hierarchy among Caribbean and U.S. born Blacks and the role of nativity and generational status. The study will also investigate if rates of mental illnesses differ per country of origin, age of immigration and number of years living in the U.S. for Caribbean Blacks.

The study will use a nationally sampled database called the National Survey of American Life (NSAL) to determine if any differences exist and how the length of residency may be impacting these rates. This database was collected with an emphasis on sampling Black participants who were born in the Caribbean and Blacks born in the U.S. with and without Caribbean descent. The NSAL is one of three research projects conducted from 2001 to 2003 by the program for Research on Black Americans (PBRA), as part of the Research Center for Group

Dynamics. According to the researchers who collected the data, the Institute for Social Research at the University of Michigan collected these data using methodological innovations to address three primary concerns: (a) ensuring proportional representation among members of the target populations for sampling; (b) understanding similarities and differences in the connotative meaning of various constructs across ethnic and racial groups, studying efficiently the importance of familial contributions to mental disorders within; and (c) across racial and ethnic groups. Another goal of NSAL was to examine mental health disorders in terms of social and economic contextual stressors on prevalence rates relative to social and cultural issues that affect self-reports (Jackson, Neighbors, Neese, Trierweiler and Torres 2004). The populations sampled were U.S. born Blacks with and without Caribbean descent as well as Caribbean born Blacks and Whites (the White sample's birth place was not distinguished) to create the most comprehensive and detailed study of mental disorders and the mental health of Americans of African descent ever compiled (Jackson et al 2004).

The Purpose of the Study

The purpose of this study was to explore the heterogeneity of Blacks relative to differences in manifestations of mental illnesses between U.S. born Blacks with and without Caribbean descent and Caribbean born Black and to contribute to the growing body of research for these diverse groups. Of primary concern was whether the nativity and generational status is impacting rates of mental illnesses. Other variables such as gender, employment, education, wealth, age of immigration, length of residency and country of origin were also explored.

Significance of the Study

The significance of this study lies in the ability to fill in the gaps and contribute to the mental health literature as it relates to the heterogeneity of people of African descent living in the U.S. and rates of mental illnesses. Research has revealed a few findings illustrating rates of MDD vary within the Black population based on nativity and generational status in the U.S. and Great Britain (Williams et al 2007; Miranda et al 2005). Therefore,

investigating nativity and generational status as it relates to rates of other forms of mental illnesses also contribute to the significance of the study.

Thus far, the vast majority of mental health research publications group people of African descent into one category, Black. More often than not, these publications analyze mental health by measuring this group against another heterogeneous group, Whites. While there is a need to investigate the heterogeneity of Whites, this study seeks to focus on the Black population in the U.S.

It is only within the last decade that research began to address within group differences among Blacks relative to mental health (Doyle, Joe & Caldwell 2013; Jackson et al 2004; Miranda et al 2005, Williams et al 2007). Previously, research that did not factor in cultural heterogeneity may have resulted in findings that are not applicable to the subgroups. The negative impact these findings may have on the diagnoses and treatment modalities for people of African descent could be extensive and because the aim of the mental health community is to diagnose and treat illness in a manner appropriate to the individual, research that illustrates the differences between the subgroups will be essential to understanding appropriate diagnosis and treatment approaches. Atdjian and Vega said it best

> …the discourse on disparities is not an academic exercise but rather a matter of life and death…it is our collective responsibility as a profession to address these disparities—it is our responsibility to our patients, to our communities, and to the pursuit of social justice (2005).

The significance of the study can also be attributed to the ingenuity of a set of researchers who with the foresight of considering the heterogeneity of Blacks in America, included large samples of Blacks from various ethnicities in the NSAL database so research such as what is described here can be conducted. The NSAL database includes a large nationally representative sample of Black participants who provided information on mental health and ethnicity that will allow for investigating within group variation whereas most prior studies lacked adequate sampling to conduct this type of analysis. This database also has the first nationally representative

sample of Caribbean Blacks which will allow identification of variation in mental health manifestations never before identified on a national scale. This database provides a rare opportunity to investigate the heterogeneity among people of African descent in the U.S.

Study Format

Chapter two of this study will review the history of immigration policy and how it affected the admission of foreign born individuals, specifically Caribbean natives into the United States. The chapter will also address general literature on the mental health of Blacks in the U.S and throughout the African Diaspora as well as literature on specific mental illnesses and how rates were impacted by nativity or generational status in the U.S. Chapter three of the study will provide the methodology used including specifics on the data set, the variables to be studied and strategies for analyzing the data. I will identify gaps in the literature relative to the differences in manifestation of mental illnesses by ethnic identity, nativity and generational status in the U.S. Chapter four of the study will include the results while chapter five will provide a discussion of the results. Chapter 6 will provide a conclusion, address limitations of the study and suggestions for future research endeavors.

CHAPTER 2

PATTERNS OF MENTAL ILLNESSES, NATIVITY AND GENERATIONAL STATUS FOR CARIBBEAN BORN BLACKS, BLACKS OF CARIBBEAN DESCENT AND U.S. BORN BLACKS

This chapter provides a review of the literature on Blacks in the U.S. and mental health. The section begins with an overview of research involving Blacks and Whites. Immigration to the United States and specifically immigration from the Caribbean to the United States is then addressed. A synopsis of mental health among immigrants will be provided followed by patterns of mental illnesses for both Blacks born in the Diaspora, specifically the Caribbean and Blacks born in the United States with and without Caribbean descent.

The U.S. Department of Health and Human Services (2001) used the National Comorbidity Survey (NCS) data to determine if African Americans who live in various communities across the U.S. have similar rates of mental illnesses to Whites even when controlled for income, education and other indices of social well-being however because many African Americans live in high-need populations, their mental illnesses are evidenced in much higher rates; they have less availability to healthcare professionals who are ethnically like them resulting in reduced utilization of services; they have less access to mental health services and are less likely to receive evidence based diagnosis and treatment.

Of the variables of mental illnesses researched, depression or Major Depressive Disorder (MDD) holds prominence in mental health research. MDD is a debilitating psychiatric disorder affecting individuals in the United States as the fourth leading cause of disability (Williams et al 2007). It is defined as a feeling of sadness and dejection which is marked by a number of symptoms including trouble sleeping, concentrating, and acting (Mirokowsy & Ross 1992). Researchers have extensively investigated various measures of mental illnesses but not found consistent results for these two groups.

Some researchers have found the mental health of Blacks is just as good if not better than Whites (Steele 1978) with lower prevalence of affective disorders, substance abuse disorders and lifetime comorbidity (Kessler, McGonagle, Zhao, Nelson, Hughes, Eshleman, Wittchen and Kendler 1994;) and others found minority status alone does not account for depression rates (Mirowsky and Ross 1992). Some studies show Blacks have lower lifetime rates of MDD and comparable or lower rates of 12-month rates as compared to non-Hispanic Whites (Robins and Regier 1991; Blazer, Kessler, McGonagle and Swartz 1994; Kessler, Berglund, Demler, Jin, Koretz, Merikangas, Rush, Walters and Wang 2003; Riolo, Nguyen, Greden and King 2005). George and Lynch (2003) indicate that in studies which involve depressive disorder, African Americans exhibit no differences or lower levels of risk of disorder than Whites, regardless of age. The latter part of 20th century brought the popularity of survey research like the Epidemiologic Catchment Area (ECA) a major large scale epidemiology study of that indicated no differences between Whites and African Americans in rates of schizophrenia when controlling for age, sex, socioeconomic status (SES), and marital status (Adebimpe 1994).

There are Black-White differences in the way mental health is perceived. Blacks are more than twice as likely as Whites to be relatively pessimistic about their health. There are also racial differences in assessments of mental illnesses. Neighbors (1996) provided a review of literature indicating disparities in diagnoses based on race. There is evidence based on one study that when no identifying information was given on the patient, diagnosis was more accurate however, when African Americans were identified as such, they were given more severe diagnosis regardless of the race of the psychiatrist. Additionally, another study found African Americans were given a diagnosis of schizophrenia more often than other racial groups regardless of the race of the psychiatrist.

More recent research yields varied results. Borowsky et al. (2000) found primary care physicians were less likely to identify mental health issues specifically symptoms of major depressive disorder in African Americans than

White patients. In 2003, findings suggested there were no differences in the proportion of diagnosis between Whites, African Americans (Crystal, Sambamoorthi, Walkup and Akincigil 2003).

There are also racial differences in how treatment is given. Several studies indicate treatment disparities are evident related to race. In a study of individuals receiving Medicaid during 1989-1994, African Americans were less likely to receive anti-depressant medication than White patients (Melfi, Croghan, Hanna and Robinson 2000). In another study of low income Medicaid patients, researchers found African Americans were least likely to receive drug treatment once diagnosed at 37.1% while Whites were treated at 22.4% (Strothers Rust, Minor, Fresh, Druss, and David Satcher 2005). Other researchers found African Americans were less likely to receive adequate care, medicine dosage or duration of treatment in relation to their White counterparts (Charbonneau, Rosen, Ash, Owen, Kader, Iii, Hankin, Herz, Pugh, Kazis, Miller, Berlowitz 2003). Unutzer, Katon, and Callahan. (2003) found African American patients were more likely to receive lower rates of care for depression than White patients. However, other researchers did not find these inequitable practices. One study demonstrated no differences in prescriptions of anti-depressant drugs based on race over a 20 month period (Rollman, Hanusa, Belnap, Gardner, Cooper, and Schulberg 2002). Furthermore, Crystal et al. (2003) found African Americans and Whites were just as likely to receive treatment once diagnosed.

There are a number of factors that could explain why the differences in prevalence rates, diagnosis and treatment by race occur. Racism, discrimination and institutional inequality has resulted in equitable access to resources and opportunities which has caused poverty among many Blacks in the U.S. Myers (1982) asserts poverty can generate illness as a result of the excessive and continuous pressures the person faces. Brown (2003) highlights the importance of understanding possible physical and mental health implications due to structural obstacles. He argues these obstacles are devised to exclude certain groups of individuals and it is imperative to understand this because of continued differential treatment between people of color and the dominant group in

society. He analyzes the situation by utilizing a critical race theoretical paradigm. Critical Race theorists posit laws are written in such a way that institutionalized racism exists without the actual wording alluding to racial differences thus giving the illusion of colorblindness when in fact disparities with how Blacks are treated in the legal system do exist and may contribute to the overall health and mental health of Blacks.

Additionally, Ruiz posits racism, discrimination and stereotyping function such that internalization of the resulting values leads to decreased self-esteem, a lack of self-respect and self-rejection (1990). Bruce Hare (1988) asserts Blacks are socialized to believe negative representations of themselves and of those in the group who don't believe the images deem themselves the exception to the stereotypical representations. Williams, Yu and Jackson (1997) concluded the measure of everyday discrimination is a more consistent predictor of health status than measures of major experiences with discrimination for Blacks. Furthermore, the following study highlights how a lack of control over experience directly affecting the individual as a result of discrimination can affect aspects of mental health. In 1989, Hughes and Demo conducted research on a sample of African Americans evaluating levels of self-efficacy. The findings suggest, African Americans have low personal efficacy which was more likely to be associated with one's position in the macro-order of institutional inequality. These findings point to the lack of opportunity robbing Blacks of efficacious experiences that could potentially build personal efficacy. That is, feelings of efficacy are developed through experiences which allow one to demonstrate efficaciousness thus building confidence in his or her ability to exercise control over events.

Social class variables have been an interest of researchers for a few decades now but the results have been less than consistent. Ruiz (1990) posits socioeconomic status is closely related to the mental health of Blacks and because the socioeconomic status of many Blacks in this country is so poor, it is likely that the general well-being and mental well-being will also be poor. Poussaint (1990) states poverty doesn't result in poor mental health but is a major contributing factor and unemployment rates are the most critical indicators of U.S. economic influence of

the mental health of Blacks. Myers (1982) claims poverty is an illness producing state as a result of constant pressures from a lack of resources which mainly affects people of color.

Socioeconomic status has been shown to affect rates of mental illnesses. Williams et al (1992) found most racial differences in mental illnesses can be accounted for by factors of socioeconomic status. Indeed, some researchers have found Blacks with low socioeconomic status have higher rates of distress (Kessler & Neighbors 1986, Ulbrich, Warheit & Zimmerman 1989). These researchers acknowledge there are multiplicative effects of being poor and Black which results in higher rates of distress. George & Lynch (2003) conducted a literature review finding studies indicate socioeconomic status does play a role in the manifestation of depression. Some studies report generally high levels of depressive symptoms at low levels of socioeconomic status with Blacks having higher levels than Whites while other studies indicate no difference.

Other research studies indicate Whites are more negatively affected by low socioeconomic status than Blacks. One study found Whites were more negatively affected by low socioeconomic status. Williams, Takeuchi and Adair found Whites with low socioeconomic status had higher rates of psychiatric illness than Blacks with low socioeconomic status (1992). Yu and Williams (1999) used the ECA data to determine those in the low socioeconomic category were several times more likely to meet the criteria for depressive symptoms. However, as cited in their article, depression is unrelated to socioeconomic status for African Americans but inversely related for Whites. Riolo et al. (2005) found those living in poverty had 1.5 times the prevalence of major depressive disorder but the results were also only significant for poverty with White participants in the study.

However, several studies indicate when the various socioeconomic status variables are controlled for there are no differences in stress levels by race (Warheit, Holzer, Schwab 1973; Warheit, Holzer, Arey 1975). Kessler and Neighbors (1986) found at low levels of socioeconomic status, African Americans had higher rates of distress than Whites but this difference disappeared as the level of socioeconomic status increased. Though there are a

multitude of findings, a pattern does emerge. It is evident in the mental health literature; Blacks don't fare as well as their White counterparts due to inequitable situations and reduced access to resources which result from racism and discrimination. However, the research also holds a great deal of promise in that when socioeconomic status is controlled for, the disparities disappear.

While the continued assessment of race in health disparities remains an important factor, ever increasing attention needs to be paid to the subgroups of racial categories as ethnicity is a neglected dimension of the heterogeneity of the Black population (Williams and Jackson 2000). The 2010 U.S. census reports Blacks represent a sizable portion of the American population at approximately 13.6% with Caribbean Blacks constituting a sizable portion of the Black population in the U.S. at 10-15% (Neighbors et al 2007). In April 2002, the Population Reference Bureau's publication *Population Today* stated that immigration is the cause of increased heterogeneity among Blacks and indicated an increase of 1.3% to 7.8% of foreign born Blacks between the years of 1970 to 2000 (2002). These changes suggest that as Blacks increase in population, they are also increasing in cultural differences and nationalities (Miranda et al 2005).

Immigration

Central to understanding these complexities is looking at the process immigrants of their journey to the U.S. The following section focuses on immigration policy and how those policies have impacted the influx of foreign-born individuals in the United States. According to the Immigration Policy in the U.S. document requested by the Congressional Budget Office in 2002, the history of immigration law has changed multiple times which has greatly affected who will be admitted in the U.S. and when they were allowed to come. Immigration policy as initiated by the Congress of the U. S. began in 1790, just fourteen years after their independence from Britain. It was in this year that Congress created a formal process by which those not born in the U.S. could come here and become citizens.

A look at Caribbean immigration may be necessary to understand the presence and importance of Caribbean's in the U.S. According to James (ND) there are 4 phases of Caribbean Migration that should be recognized. The first is prior to 1900, the second is 1900 to the 1930's, the third is 1930 to 1965 and the last is 1965 to the present. During the 18th century, the majority of enslaved Africans in the Northern states were born in the Caribbean or of Caribbean descent but James also draws attention to the free Black population who at the time consisted of many Caribbean and Caribbean descended people. The second phase saw exponential increases in Black immigration with 412 in 1899 and the numbers rose each year with an astounding 12,234 in 1924. As a result of the increased immigration, the foreign-born Black population increased from 20,000 in 1890 to about 100,000 in 1930. The economic depression in the 1930's had a major effect with more Caribbean people leaving the United States than entering it. During World War II, immigration picked back up as Caribbean's took advantage of the upward turn in the American economy. The McCaaran-Walter Act of 1952 did hinder many new immigrants from coming to the U.S. but thousands of family members to those already here were able to immigrate. With Lyndon Johnson taking on the presidency in 1964, a number of big changes followed like the Civil Rights Act of 1964 and the Voting Rights Act of 1965. This was a pivotal time for Caribbean's because many of the natives of British ruled colonies were still migrating to Britain until they closed their doors to them in 1962. The new immigration laws in the U.S. coupled with the rejection from Britain resulted in a stream of new immigrants from the Caribbean. The numbers from the Caribbean jumped from 120,000 in the 1950's to 470,000 in the 1960's. Following the Act of 1965, over one million West Indians have been granted legal immigrant status, with over 600,000 of these arriving between 1981 and 1996 alone (Crowder & Tedrow, 2001).

In 2004, the largest share of immigrant admission came from North America including the Caribbean but the numbers of Caribbean immigrant from 1997 to 2004 has decreased substantially. The actual numbers admitted and their corresponding years are as follows: 1,009-1997, 979-1998, 1,232-1999, 968-2000, 556-2001, 482-2002, 266-2003 and n/a-2004 (Caldera and Piper-Bauch 2006).

Why Move to the United States?

Emigration has always been a vital component of the Caribbean experience for a number of reasons. Journeys all over the globe have been undertaken in a search for a better life for themselves and their children. The United States has been a favorite destination due to its immigration policies and promising economy which provides opportunities for an improved quality of life for individuals whose native lands holds limited promise (Mahoney 2004). Another issue in Caribbean nations is the population growth.

The growth rates in Caribbean nations are very high, on average doubling every 21 years and their fledgling economies cannot provide employment and in some cases, food resources for the rising population rates. Therefore, they seek employment elsewhere, often in the United States primarily because of its close proximity but also cultural and familial ties (Bouvier and Simcox 1986). In 1995, Simcox noted the high rates at which citizens of Caribbean nations were coming to the United States. These nations have a population density that is 5 times that of the United States and are growing by 1.8 percent every year. Of that growth, 1/6 of them move to the United States every year. Nearly 10 percent of the immigrants coming to the U.S. each year come from a region that comprises six-one thousandths of the population on earth.

Immigrant Mental Health

According to Lum & Vandereaa (2010) the quality of data regarding racial and ethnic groups and immigrants has been insufficient to research large scale health disparities. This is largely based on the limited number of participants in the studies, studies targeting only specified ethnic groups and studies conducted with participants in small geographical areas (Ghaffarian 1987; Mui 1996). The results of some of these limited studies present an overall picture that immigrant mental health is adversely impacted by the stress of immigrating and subsequent social isolation (Lum & Vandereaa 2010). Although some research indicates that despite many immigrants experiencing lower levels of socio-economic status that those born in the U.S., experience lower rates of mental

and substance abuse disorders (Takeuchi et al 2007). Acculturation however, has been shown to have contrasting effects depending on the population in question. Acculturation appears to impact people differently given the circumstances around why the individual immigrates. For instance, refugees have experienced enhanced mental health when they have higher levels of acculturation (Nicassio 1985; Nicassio, Solomon, Guest, & McCullough 1986) whereas; non-refugee immigrants experience adverse impacts on mental health due to acculturation (Lang, Munoz, Bernal & Sorenson 1982; Masten, Penland & Nayani 1994; Neff & Hoppe 1993). However, some research indicated a positive association between acculturation and mental health for non-refugee immigrant populations (Burnam, Hough, Escobar, Karno, Timbers, Telles & Locke 1987; Lum & Vandereaa 2010; Nguyen & Peterson 1993). According to the U.S. Census Bureau (2013) the number of immigrants will surpass the natural increases (U.S. births minus deaths) in the U.S. population for the first time in almost two centuries. Given this, there will an increased need to study these populations in detail. The following section will begin exploring the within group differences for Blacks born the U.S. with and without Caribbean ancestry as well as Caribbean born Blacks.

Cultural Heterogeneity Among Blacks

Oftentimes, empirical research, particularly of concern in this study is mental health research that includes samples of Blacks, represent this group as homogeneous which is far from accurate. While there are many experiential commonalities as part of the Black experience both in the United States and throughout the African diaspora as a result of enslavement and colonization, the ethnic variation within Black people adds a level of differences that cannot be ignored. An outcome of research often ignoring these differences could be findings that are misleading because what is applicable for one portion of this population may not apply to another. In fact, research has shown people of color are likely to differ as much within their respective groups as they differ from Whites (Borrell et al 2002). Ignoring the differences within any group impacts diagnoses and treatment plans given to the members of the subgroups and investigating these differences should be deemed priority if the primary concern is to administer the best care to all individuals in the mental health care system.

Presently, little information on mental health among immigrant Black Americans is available (Miranda et al 2005; Takeuchi, Algeria, Jackson and Williams 2007). However, a few researchers who recognized there may be within-group differences of Blacks have conducted studies primarily in the United Kingdom where cultural differences account for some of the inequalities in diagnosis and treatment of the Caribbean population residing there (McLean, Campbell & Cornish 2003). Until recently, no large scale research has been conducted in the U.S. prior to the publication of a series of articles that delineates subgroups within the U.S. Black population (Neighbors, Caldwell, Williams, Nesse, Taylor, Bullard, Torres and Jackson 2007). The lack of research is due in part to limited data collection that differentiates inter-group differences in terms of ethnicity and nativity status for people of African descent. However, in 2004, a new database emerged which sampled a large number of Caribbean born and U.S. born Blacks allowing for new research that sheds light on this important topic. Below is a review of literature that highlights the major mental health findings for Caribbean Blacks and some studies that take into account inter-group differences in mental health conducted both in the United Kingdom and more recently in the U.S. through the use of the NSAL database. The studies will presented first by overall rates and then broken down by various disorders.

Overall Rates of Psychiatric Disorder

Although little research has been conducted on Caribbean Blacks, their immigration status became a focus of several medical researchers. It was assumed that the immigration process was difficult and therefore resulted in mental health issues for this portion of the population (Fabrega 1989; Locke, Kramer and Pasamanick 1960). This framework derived from the stress process model that posits repeated and prolonged exposure to stress results in mental illnesses (Pearlin, Lieberman, Menaghan & Mullan 1981; Pearlin 1999). Since then, studies have not shared consistent findings. In fact, more recent studies indicate immigrant populations may have lower rates of mental illnesses than their U.S. born counterparts (Vega, Kolody, Aguilar-Gaxiola, Alderete, Catalano and Caraveo-Anduaga 1998; Takeuchi, Chung, Lin, Kurasaki, Chun & Sue 1998).

In 2005, a U.S. study found in relation to nativity status, U.S. born Caribbean Blacks had higher rates of psychiatric disorder than Caribbean born Blacks which is consistent with prior research indicating longer residency in the U.S. is explained as a greater period of time exposed to minority status that is positively associated with increased risks for mental illnesses (Miranda et al 2005). An even more recent U.S. study determining the risk for mental disorders of Caribbean Blacks by ethnic origin, nativity status, duration of residence in the U.S., age at migration and generational status focused on 12-month rates of psychiatric disorders with Caribbean men experiencing higher rates for psychiatric disorders compared to Black American men (Williams et al 2007). The study found the reverse was true with Caribbean women having lower rates of psychiatric disorder than Black American women. Risks for mental health disorders not only varied by ethnic origin but also by immigration history and generation status within the Caribbean sample. The study found differences in risk for generation status with first-generation Caribbean Blacks experiencing lower rates of psychiatric disorder than second or third-generation Caribbean Blacks. Third generation Blacks were experiencing markedly increased rates of psychiatric disorder in comparison to first-generation Caribbean Blacks. So overall mental health risk profiles show 1st and 2nd generation Caribbean Blacks are experiencing less mental health issues than 3rd and 4th generation Caribbean Blacks. No explanations were provided for the gender differences or the generational variances in rates of mental illnesses while the nativity and acculturation differences were accounted for by prior research. One limitation is this study did not analyze the disorders individually, rather the researchers chose to group the disorders as follows; mood disorders (major depressive disorder, dysthymia), anxiety disorders (panic disorder, agoraphobia, social phobia, generalized anxiety disorder, post-traumatic stress disorder), substance disorders (alcohol abuse, alcohol dependence, drug abuse, drug dependence). Additional studies looking at each disorder may find variations in the findings thus further investigation is necessary.

All of the aforementioned findings are baffling to researchers because their primary way of explaining disorders as it relates to stress is that increased stress should bring with it additional physical and psychological

issues (Aneshensel 1999; Pearlin 1999; and Haines and Hulbert 1992). Specifically, immigrants may have had issues increasing wealth primarily through hardships associated with finding work in safe environments in addition to having smaller emotional support networks (Takeuchi et al 2007). Following in line with this theory, the stress of the immigration process in addition to the issues mentioned above, should have generated higher rates of mental illnesses for the 1st and 2nd generation immigrants but this group seemingly has better rates of mental illnesses that both the 3rd and 4th generation Caribbean Blacks and the U.S. born Blacks with no Caribbean ancestry. Further investigations into literature on the two major illnesses researchers have focused on, depression and schizophrenia, indicate mixed findings.

Depression/Alcohol Related Depression

Depression is playing a large role in the lives of those who live in America. In 1990, depressive disorders were the leading cause of disabilities that are not fatal. When considering the impact of depressive disorders measured by financial cost, mortality, or morbidity, these disorders are the fourth leading cause of disease burdening the U.S. population (Ustun, Ayuso-Mateos, Chatterji, Mathers and Murray, 2004). Depression and understanding its role in the lives of Caribbean Blacks has been an area of interest for researchers as indicated by the number of published reports. In 1997, a study of New York City psychiatric outpatients found differences in the symptoms patients were most likely to report. Blacks of non-Caribbean descent were more likely to report a history of alcohol abuse and delusions while Blacks who are Caribbean born were more likely to report symptoms of depression and aggression (Cohen, Berment and Magai 1997). Other researchers also found higher levels of depressive symptoms in Caribbean Blacks than in African American Blacks. A more recent study on depression found slightly higher rates of lifetime rates of Major Depressive Disorder (MDD) in Caribbean Blacks, 12.9% versus African Americans 10.4%. However, similar 12 month MDD rates were found between the two groups, 56.0% and 56.5% respectively (Williams, Gonzalez, Neighbors, Nesse, Abelson, Sweetman and Jackson 2007). Additionally, a

national study illustrated US Blacks are engaging in heavier drinking patterns than English-speaking Caribbean Blacks (Dawson 1998).

Nativity/Generational Differences

In 2005, an article interested in analyzing U.S., Caribbean and African born Black females for differences in probable depression found those foreign born were less likely to report probable depression and that the numbers of years living in the U.S. had a positive relationship with probable depression. The authors theorized Black women who grew up in the U.S. may be prone to more chronic stressors but did not study risk or protective factors in their research. The study also analyzed rates of depression after controlling for demographic differences such as age, marital status education and housing, indicating poor U.S. born Blacks are 2.49 times more likely to experience probable depression than poor Caribbean born Blacks. Additionally, the study determined differences between the groups relative to the length of time residing in the U.S. Controlling for the same demographics mentioned above, the study found an additional 10 years living in the U.S. increased rates of reporting probable depression by 1.35 times, a significant finding (Miranda et al 2005). These researchers theorized that the differences in depression may be as a result of differential exposure to protective and risk factors but the study did not include analyses of these factors. Furthermore, the results of the study would need to be duplicated to determine generalizability because the study sample only included 273 Caribbean born Blacks.

Williams et al (2007) produced a study that supported the findings of Miranda et al (2004). Using the National Survey of American Life Data, these researchers found third generation Caribbean Blacks, both men and women had the highest prevalence of disorders than 1st and 2nd generation Caribbean Blacks (Williams et al (2007)). However, because the illnesses were not studied individually, further investigation is necessary.

As mentioned previously, there are differing rates of mental illnesses by generation as noted by a number of researchers (Miranda et al 2005; Vega, Kolody, Aguilar-Gaxiola, Alderete, Catalano and Caraveo-Anduaga 1998;

Takeuchi, Chung, Lin, Kurasaki, Chun & Sue 1998); Williams, Gonzalez, Neighbors, Nesse, Abelson, Sweetman and Jackson 2007). However, analysis of a variety of disorders has not been completed to determine if the results found in these studies are generalizable to other illnesses.

Schizophrenia

Another mental illness of interest to researchers is schizophrenia. Researchers Bhugra and Bhui (2001) have identified some major issues with studying rates of schizophrenia including the lack of acknowledgement of the heterogeneity among ethnic groups and the lack of applicability of the western conception of schizophrenia. Prior to and since then, the identification of these studies have indicated higher rates of schizophrenia for Caribbean Blacks.

Studies in the United Kingdom indicate that rates of schizophrenia have been consistently high for Caribbean Blacks. After large scale migration to the United Kingdom in the 1950's and 1960's research was conducted in 1965 with results showing higher rates of schizophrenia in Caribbean Blacks than Whites (Sharpley, Hutchinson, McKensie, and Murray 2001). Another study completed in the 1980's concluded the same finding as above (Harrison, Owens, Holton, Nielson, and Boot 1988). Several other studies conducted all over the UK indicate consistently elevated rates of schizophrenia for Caribbean Blacks as compared to Whites in Nottingham, UK (Harrison, Owens, Holton, Nielson, and Boot 1988; Harrison, Glazebrook, Brewin 1997), Camberwell, South London (Selten, Slaets, and Khan 1997) and the Netherlands (Van Os, Castle, Takei, Der, and Murray 1996). However, it should be noted that many of the studies conducted prior to the 1980's produced unreliable results due to under-enumeration. Furthermore, one study has shown that Caribbean Blacks may not be the only group with higher incidences of schizophrenia as indicated in a study where multiple minority ethnic groups were deemed vulnerable to the disorder in comparison to Whites (King, Coker, Leavey, Hoare, and Johnson-Sabine 1994). Furthermore, researchers are beginning to question the meaning of manifestations of schizophrenia as it relates to

culture in the Black Caribbean populations. Hallucinations are one symptom that is not recognized in the Western world as a part of normal living however, evidence suggests hallucinations are not considered bizarre for Caribbean people and they are therefore more apt to report these behaviors than Western populations (Sharpley, et al 2001). Versola-Russo identifies non-White groups have cultural approaches to disease that are not recognized by Western medicine (2006) which may also account for differences in how symptoms of schizophrenia are viewed. Furthermore, Sharav acknowledges the concept of schizophrenia is one created in the White medical community and has not been determined to be valid among Caribbean Blacks (2000). In fact, Caribbean Blacks were more likely to attribute the symptoms associated with schizophrenia to supernatural causes (McCabe and Priebe 2004).

Nativity/Generational Differences

One study which differentiated generational status produced results indicating higher rates of schizophrenia in both first and second generation Caribbean immigrants when compared to Whites (Bhugra, Leff, Mallet, Der, Corridan, and Rudge 1997). However sample sizes were small with 38 Whites, 38 African-Caribbeans and 24 Asians. Another study found second generation British born Caribbean Blacks had higher rates of schizophrenia than those born in the Caribbean (Harrison, Owens, Holton, Nielson, and Boot 1988).

There are also several other research projects conducted with samples of Caribbean Blacks. One took place in the Netherlands where Caribbean Blacks versus the native Dutch population were investigated for rates of schizophrenia. Results showed 3-4 times higher rates for Caribbean Blacks than the native Dutch population (Selten, Slaets and Kahn 1997). This was followed by studies of Caribbean Blacks and schizophrenia in their native countries of Barbados, Jamaica and Trinidad respectively (Mahy, Mallet, Leff, and Bhugra 1999; Hickling and Rodgers-Johnson 1995; Bhugra, Hilwig, Hossein, Marcaeu, Neehall, Leff, Mallett and Der 1996). The results of all of these studies indicate much higher rates of schizophrenia in the populations who are no longer living in their native countries than those still living in their country of origin.

Another study indicated significant findings for second generation Caribbean Immigrants. This study illustrated Whites and first generation Caribbean Blacks had similar levels of risk for schizophrenia but the second generation Caribbean Blacks had seven times more risk in developing schizophrenia than Whites. The researchers posit strong environmental factors are acting on this population however, their research does not indicate the specific kinds of environmental factors that may be playing a role (Hutchinson et al 1996). Whether we would see differences within Black populations among various illnesses such as this study is attempting to do remains to be seen.

The Relevance of Wealth and Education to Mental Health

Unemployment has deleterious effects on the mental health of Blacks (Poussaint 1990). In fact, Poussaint (1990) states poverty doesn't directly result in poor mental health but is a major contributing factor and unemployment rates are the most critical indicators of U.S. economic influence of the mental health of Blacks. Myers (1982) claims poverty is an illness producing state as a result of constant pressures from a lack of resources which mainly affects people of color. Socioeconomic status has been shown to affect rates of mental illnesses. Williams et al (1992) found most racial differences in mental illnesses can be accounted for by factors of socioeconomic status. Indeed, some researchers have found Blacks with low socioeconomic status have higher rates of distress (Kessler & Neighbors 1986, Ulbrich, Warheit & Zimmerman 1989). These researchers acknowledge there are multiplicative effects of being poor and Black which results in higher rates of distress. George & Lynch (2003) conducted a literature review finding studies indicate socioeconomic status does play a role in the manifestation of depression. Rates of employment for Caribbean Blacks may be impacted by factors such as stereotyping by those who determine employment opportunities that they are different and maintain a different work ethic that produce a more advantageous situation for this group over U.S. born Blacks.

According to Lewis Gordon (2007) some sociological texts portray Caribbean communities as a "model minority," which has created friction with the non-Caribbean blacks who preceded them in the United States (Govia

2012). Some Caribbean blacks agree and see themselves as harder working than U.S. born Black populations. They believe this mentality has thus enabled them to take advantage of what the U.S. has to offer. Caribbean Blacks have also been referred to as the "Black success story" due to the large number of individuals who come to the United States and realize the American dream of upward mobility by taking advantage of what the U.S, have to offer that their native countries do not. Another explanation for the success of Caribbean Blacks is selectivity of migration. This phrase indicates that those who migrate from the Caribbean are more talented and determined to succeed (Model 2008). Regardless of the explanation, the resulting differences in social mobility between U.S. born Blacks and Caribbean Blacks have been used to draw comparisons and reinforce stereotypes about foreign-born versus U.S. born blacks (McAdoo, Younge & Getahun 2007; Govia 2012).

According to McAdoo et al (2007), Caribbean immigrant families have been historically characterized by higher than average educational and financial resources which allow them to migrate abroad. First-generation Caribbean immigrants differentiate themselves by presenting themselves as immigrants first and feel that this immigrant status may protect them from the negative stereotypes associated with being a Black American, although this attitude varies across social classes (Portes and Zhou 1993; Waters and Eschbach 1995). A study by Waters (1999) demonstrated a link between a strong Caribbean identity and economically disadvantaged immigrants. Waters found that a strong Caribbean identity was major component missing from economically disadvantaged immigrant youth. She indicated the reasons behind these findings may be guided by the forces of daily life in the American ghetto which repress the Caribbean identity. Researchers assert that for these second-generation immigrants, they may be subject to the same levels of racism and discrimination as native African Americans because of the salience of race in the United States (McAdoo et al. 2007). Some Caribbean immigrants and their children have demonstrated attempts to avoid racism directed toward the African American community by emphasizing ethnic over racial identity (Lorick-Wilmot 2010). Distinctive cultural traits and continued ties to their homeland, for instance, have been used to emphasize differences from Black Americans. Some Caribbean

immigrants have felt the need to internalize positive stereotypes attributed to individuals from the Caribbean and reject stereotypes of U.S. born Blacks such as laziness and being untrustworthy in order to become successful (Lorick-Wilmot 2010). Thomas Sowell (1978) suggests that Caribbean immigrants' view of work ethic operates in favor of the newer black groups. Mary Waters (1999) reports that Caribbean immigrants tend to agree with this thesis and that they often seek to distance themselves from an African American identity to take advantage of whites perception of them as hardworking; however, she also finds that employers favor Immigrant Caribbean workers, in part because they are perceived to be more compliant and more willing to accept inferior wages and working conditions.

Without providing much in the way of explanations, John Logan (2007) provides statistics highlighting differences between Caribbean and U.S. born Blacks as it relates to income, home ownership, unemployment, poverty and education. Logan begins by acknowledging that the social and economic profile of Caribbean Blacks is above that of U. S. born Blacks and even better than Hispanics. U.S. born Blacks have both lower educational attainment and median household income while experiencing higher unemployment and impoverishment than Caribbean Blacks. Caribbean Blacks generally compare favorably to the U.S. Hispanic population, while U.S. born Blacks often fare worse.

According to John Logan (2007) Caribbean Blacks median incomes average $43,000 annually while U.S. born Blacks average $30,000. Caribbean born Blacks experience unemployment at 9.4% while U.S. born Blacks experience unemployment at 12.5%. The percentage of Caribbean Blacks that are living below poverty is 17.8 but is almost double that for U.S. born Blacks at 32.8. Home ownership is an exception where the average neighborhood U.S. born Blacks reside in, 53.1% of individuals own their own home. The average for Caribbean Blacks is 49.8%. These differences can be attributed to two things: generations in the U.S. and large Caribbean populations in New York. Home ownership for U.S. born Blacks can be attributed to the number of generations having lived here versus the number of generations for Caribbean Blacks. Also, New York has been the place of

interest for relocation from their respective Caribbean nations since Caribbean Blacks began migrating to the United States.

Kasinitiz (1993) posits the attraction of New York is due to the preceding groups of Caribbean immigrants that have established welcoming accommodations, institutions and services for new arrivals. It is well known that in the United States, as in other modern societies, education is the principal gateway to socioeconomic attainment (Hirschman & Lee 2005). America's sluggish economy, a decreasing market for unskilled labor, and inadequate educational preparation in many Black communities are multiplicative aspects that make Blacks in America vulnerable to unemployment (Poussaint 1990). Research indicates that among Caribbean immigrants, education does mitigate some of the race/immigrant statuses but it functions in this capacity more so for women than men (Heron 2001; Chevalier and Feinstein 2006).

Researchers, Chevalier and Feinstein (2006) explain the potential reasons why education may have an effect on health. Education could directly impact health outcomes by making information easier to process resulting in more health conscious individuals and by improving the efficiency of treatment. The efficiency of treatment can happen in two ways, by reducing the time before help is sought or by aiding the individual in following prescribed therapy more accurately. This is in addition to the effect of education on health indirectly through income, employment, working conditions or family relations.

My Study

Whereas Miranda et al and Williams et al have researched rates of Major Depressive Disorder (MDD) and the impact of nativity and generational status among Caribbean and U.S. born Blacks, I seek to extend this by investigating rates of DSM-IV Generalized Anxiety Disorder (GAD), DSM-IV Bi-polar II, ICD and DSM-IV Hypomania with hierarchy, ICD Dysthymia w/ hierarchy, DSM-IV Oppositional Defiant Disorder with hierarchy, ICD & DSM-IV Panic Attack, ICD & DSM-IV Panic Disorder (PD) and ICD Conduct Disorder with hierarchy among Caribbean and U.S. born Blacks and the role of nativity and generational status. Additional demographic variables

will also be analyzed to provide greater detail in explaining what may be impacting the rates of mental illnesses. The generalizability of the findings of my study are greatly increased due to the sample size differences. Miranda et al (2005) included in total, 9,151 black women 7,965 of which were born in the U. S. and 273 were born in the Caribbean. My study will include 3,570 African Americans and 1,621 Caribbean Blacks.

CHAPTER 3

METHODOLOGY

This chapter will address the methodology this study used beginning with the theoretical framework, hypotheses and the data set. Next, the dependent, independent and control variables addressed in the study will be discussed. The analytic strategy for the data analysis will follow.

Theoretical Framework

Deculturation or the loss of one's ethnic group cultural traditions and knowledge has been known to have deleterious effects such as illicit drug use (Berry & Kim 1987). If one is losing aspects of their culture, it is likely they are replacing it with another (del Pilar & Udasco 2004). This process is referred to as acculturation and requires an individual or group to adopt and adapt to the culture, traditions and worldview of another group (Marsella & Yamada 2000). There are several models of acculturation present in existing literature. The first model refers to individuals who can successfully acculturate into the dominate culture if the economic opportunities are present to actualize the culture and lifestyle of the dominate culture. Those who do not have these opportunities may experience deleterious effects of acculturation (Graves, 1967). Limited economic opportunities to fully integrate into the dominate culture could result in deviance including mental illness but researchers have found the maintenance of traditional culture results in better psychological adjustments. This is a bicultural model whereby the individual functions in both cultures and is assumed to experience less psychological distress than those who have fully assimilated or those who are unassimilated (Buriel, Calzada, & Vasquez, 1982). The Acculturative Stress Model is posited by Gilbert & Cervantes,(1986) and Holck, Warren, Smith, & Rochat,(1984) whereby greater distress is found among those who are highly acculturated than those who are not. There is also the simple acculturation model whereby an immigrant slows acclimates to the dominate culture in a relatively stress free manner as individuals become more like the dominant culture (Gilbert & Cervantes 1986).

More recently, Marsella and Yamada (2000) argue the pressures of acculturation may leave the acculturating individual feeling as if their culture, traditions and worldview no longer have value, a process Cuellar (2000) claims can precipitate maladaptive reactions of mental health that are significant. The Immigrant Paradigm of Acculturation suggests the impact of acculturation occurs in first and second generation immigrants and while third and fourth generations still experience acculturative effects, they are also influencing the culture they are adopting and adapting to (Cuellar 2000). However, there are studies indicating findings that do not support this time frame of acculturation effects. In fact, some research demonstrates that changes can be seen within the first generation living in the U.S. For instance, Mexican immigrant populations have half the lifetime prevalence rates than the rates reported for the U.S. population. Furthermore, these researchers found the longer one lived in the U.S. the greater the prevalence of mental disorders with short-term immigrants (those living in the U.S. less than 13 years) experiencing nearly half the lifetime prevalence rates to long-term immigrants (those living in the U.S. more than 13 years (Vega, Kolody, Aguilar-Gaxiola, Aldrete, Catalano & Caraveo-Anduaga 1998). In fact, when investigating, long-term immigrants, short-term immigrants and native-born Mexican populations, they found prevalence rates increased with increased acculturation to U.S. culture and the longer one lived in the U.S., the higher prevalence rates were for depression, all affective disorders, and all psychiatric disorders (Vega et al 1998). A decade later, researchers are supporting these findings with studies demonstrating higher rates of MDD among Caribbean descendants who have lived in the U.S. for third and fourth generations versus first and second generation immigrant populations (Miranda et al 2005; Williams et al 2007). It has been argued that mental illnesses can result when Blacks attempt to construct their reality in a social reality that is foreign to them (Akbar 2003).

Hypothesis

Based on the limited research on within group analysis of mental illnesses among Blacks, the following hypotheses are being proposed considering the variables available in the study.

Is there a difference in rates of mental illnesses between U.S. born Blacks and Blacks born in the Caribbean across various mental illnesses?

Hypothesis 1: Caribbean born Blacks will have lower rates of mental illnesses.

Is there an association between the length of residency in the U.S. and rates of mental illnesses?

Hypothesis 2: Rates of mental illnesses will increase the longer one resides in the U.S.

Is there an association between the generational status of Caribbean Blacks born in the U.S. and rates of mental illnesses?

Hypothesis 3: Caribbean Blacks who are 1st generation in the U.S. will have lower rates of mental illnesses than or 2nd generation Caribbean Blacks.

Is there an association between where Blacks are born and rates of mental illnesses?

Hypothesis 4: Caribbean Blacks born in Anglophone countries will have lower rates of mental illnesses.

Is there an association between educational attainment and rates of mental illnesses?

Hypothesis 5: Higher levels of education will result in lower rates of mental illnesses. Because Caribbean Blacks have historically achieved higher levels of education, this group will have lower rates of mental illnesses.

Is there an association between gender and rates of mental illnesses?

Hypothesis 6: Females will have lower rates of mental illnesses.

Is there an association between employment and rates of mental illnesses?

Hypothesis 7: Higher rates of employment will correspond with lower rates of mental illnesses.

Is there an association between homeownership and rates of mental health?

Hypothesis 8: Higher rates of homeownership will result in lower rates of mental illnesses.

Is there an association between use of public assistance indicating poverty levels and rates of mental illnesses?

Hypothesis 9: Those on public assistance will have higher rates of mental illnesses.

Dataset

Engaging in research of this sort is possible because of a new data collection with an emphasis on obtaining participants who are Caribbean born Blacks, U.S. born Blacks with Caribbean descent and U.S. born Blacks without Caribbean descent called the National Survey of American Life (NSAL). NSAL is one of three research projects conducted from 2001 to 2003 by the Program for Research on Black Americans (PBRA), as part of the Research Center for Group Dynamics. According to Jackson et al (2004) the Institute for Social Research at the University of Michigan collected this data using methodological innovations to address three concerns: ensuring proportional representation among members of the target populations for sampling, understanding similarities and differences in the connotative meaning of various constructs across ethnic and racial groups, studying efficiently the importance of familial contributions to mental disorders within and across racial and ethnic groups. Another goal of NSAL is to examine mental health disorders in terms of social and economic contextual stressors on prevalence rates and in terms of social and cultural issues that affect self-reports. The populations sampled were African Americans (3,570) as well as Blacks with Caribbean descent (1,621) and non-Hispanic Whites (891) to create the most comprehensive and detailed study of mental disorders and the mental health of Americans of African descent ever completed. To be considered Caribbean, participants answered affirmatively to being Black and one of the following criteria: they were of West Indian or Caribbean descent or they were from a Caribbean area or county or they had parents or grandparents from a Caribbean area or country. This study will use the African American and Caribbean populations for a total of 5,191 participants. The data was obtained in interviews with individuals 18 and over. The overall response rates were as follows: African Americans 70.7%, Caribbean Blacks 77.7% and Whites 72.3%.

The NSAL dataset provided information on a number of disorders that I will include in the study. The questionnaire was structured to determine if a respondent would be diagnosed with an illness based on the

criterion appearing in the Diagnostic and Statistical Manual-IV (DSM-IV) or the International Statistical Classification of Diseases and Related Health Problem (ICD_10). Using the World Health Composite International Diagnostic Interview (WHO-CIDI), a number of questions were used for each illness to determine if the illness was present within the past 30 days, 12 months or existed at least once in the course of the respondents' lifetime. If the participant responded with a negative response then the questions pertaining to that illness stopped, whereas, if the participant continued to provide a positive response, questions continued until an endorsement of the illness was reached (Kessler, R., Abelson, J., Demler, O., Escobar, J., Gibbon, M., Guyer, M., Howes, M., Jin, R., Vega, W., Walters, E., Wang, P., Zaslavsky, A., Zheng, H. 2004). I focused on the lifetime, 12 month and 30 day rates of the following disorders where available.

Dependent Variables

The definitions of the disorders came from the DSM-IV and ICD_10 and are detailed here. The first set of illnesses are mood disorders which include DSM-IV and ICD Hypomania, DSM-IV Bi-Polar II, and ICD Dysthymia w/ hierarchy.

DSM-IV Hypomania- Defined as a distinct period during which there is an abnormally and persistently elevated, expansive, or irritable mood that lasts at least 4 days. This period of abnormal mood must be accompanied by at least three additional symptoms from a list that includes inflated self-esteem or grandiosity (nondelusional), decreased need for sleep, pressure of speech, flight of ideas, distractibility, increased involvement in goal-directed activities or psychomotor agitation, and excessive involvement in pleasurable activities that have a high potential for painful consequences. If the mood is irritable rather than elevated or expansive, at least four of the above symptoms must be present. The mood during a Hypomanic Episode must be clearly different from the individual's usual nondepressed mood, and there must be a clear change in functioning that is not characteristic of the

individual's usual functioning. A Hypomanic Episode typically begins suddenly, with a rapid escalation of symptoms within a day or two. Episodes may last for several weeks to months (DMS-IV 1994).

ICD Hypomania- A disorder characterized by a persistent mild elevation of mood, increased energy and activity, and usually marked feelings of well-being and both physical and mental efficiency. Increased sociability, talkativeness, over-familiarity, increased sexual energy, and a decreased need for sleep are often present but not to the extent that they lead to severe disruption of work or result in social rejection. Irritability, conceit, and boorish behaviour may take the place of the more usual euphoric sociability. The disturbances of mood and behaviour are not accompanied by hallucinations or delusions (ICD_10 2010).

DSM-IV Bipolar II- The essential feature of Bipolar II Disorder is a clinical course that is characterized by the occurrence of one or more Major Depressive Episodes accompanied by at least one Hypomanic Episode and must cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. DSM-IV Bipolar II has a duration of at least 4 days of mood change (distinct from the usual nondepressed mood) and an unequivocal change in functioning that is observable by others. (DSM-IV 1994).

ICD Dysthymia w/ hierarchy- This disorder includes a depressed mood for most of the day, for more days than not, and ongoing for at least two years. During this time, there must be two or more of the following symptoms: under– or over eating, sleep difficulties, fatigue, low self-esteem, difficulty with concentration or decision making, and feelings of hopelessness (ICD_10 2010).

The hierarchy distinction to this disorder adheres to a hierarchy rule where the definition is narrow such that no other disorder can be present otherwise that disorders presence can be higher in hierarchy and would replace the diagnosis of Dysthymia. For instance, there cannot be a diagnosis of Major Depression for the first two years of the disorder, nor a manic or hypomanic episode otherwise these may be the official diagnoses not Dysthymia.

The second set of illnesses are anxiety disorders and include ICD Panic Attack, DSM-IV Panic Attack, DSM-IV Panic Disorder and DSM-IV Generalized Anxiety Disorder.

ICD Panic Attack- The essential feature is recurrent attacks of severe anxiety (panic), which are not restricted to any particular situation or set of circumstances and are therefore unpredictable. As with other anxiety disorders, the dominant symptoms include sudden onset of palpitations, chest pain, choking sensations, dizziness, and feelings of unreality (depersonalization or derealization). There is often also a secondary fear of dying, losing control, or going mad (ICD_10 2010).

DSM-IV Panic Attack-The essential feature of a Panic Attack is a discrete period of intense fear or discomfort that is accompanied by at least 4 of 13 somatic or cognitive symptoms. The attack has a sudden onset and builds to a peak rapidly (usually in 10 minutes or less) and is often accompanied by a sense of imminent danger or impending doom and an urge to escape. The 13 somatic or cognitive symptoms are palpitations, sweating, trembling or shaking, sensations of shortness of breath or smothering, feeling of choking, chest pain or discomfort, nausea or abdominal distress, dizziness or lightheadedness, derealization or depersonalization, fear of losing control or "going crazy," fear of dying, paresthesias, and chills or hot flushes. Attacks that meet all other criteria but that have fewer than 4 somatic or cognitive symptoms are referred to as limited-symptom attacks. Individuals seeking care for unexpected Panic Attacks will usually describe the fear as intense and report that they thought they were about to die, lose control, have a heart attack or stroke, or "go crazy" (DSM-IV 1994)

DSM-IV Panic Disorder – Characterized by recurrent unexpected Panic Attacks about which there is persistent concern. Often the symptoms of this disorder come on rapidly and without an identifiable stressor. The individual may have had periods of high anxiety in the past, or may have been involved in a recent stressful situation. The underlying causes, however, are typically subtle. Panic Disorder is characterized by sudden attacks of intense fear or anxiety, usually associated with numerous physical symptoms such as heart palpitations, rapid breathing or

shortness of breath, blurred vision, dizziness, and racing thoughts. Often these symptoms are thought to be a heart attack by the individual, and many cases are diagnosed in hospital emergency rooms (DSM-IV 1994).

DSM-IV Generalized Anxiety Disorder- The essential feature of Generalized Anxiety Disorder is excessive anxiety and worry (apprehensive expectation), occurring more days than not for a period of at least 6 months, about a number of events or activities. The individual finds it difficult to control the worry. The anxiety and worry are accompanied by at least three additional symptoms from a list that includes restlessness, being easily fatigued, difficulty concentrating, irritability, muscle tension, and disturbed sleep. Although individuals with Generalized Anxiety Disorder may not always identify the worries as "excessive," they report subjective distress due to constant worry, have difficulty controlling the worry, or experience related impairment in social, occupational, or other important areas of functioning. Adults with Generalized Anxiety Disorder often worry about everyday, routine life circumstances such as possible job responsibilities, finances, the health of family members, misfortune to their children, or minor matters such as household chores, car repairs, or being late for appointments (DSM-IV 1994). The final two illnesses are conduct disorders related to being defiant. They are seen more often in children but because they are included in the dataset, it is worth looking at how the illnesses are manifesting in the adult population sampled.

ICD Conduct Disorder w/ hierarchy- Disorders characterized by a repetitive and persistent pattern of dissocial, aggressive, or defiant conduct. Such behaviour should amount to major violations of age-appropriate social expectations; it should therefore be more severe than ordinary childish mischief or adolescent rebelliousness and should imply an enduring pattern of behaviour for six months or longer (ICD_10 2010).

DSM-IV Oppositional Defiant Disorder- The essential feature of Oppositional Defiant Disorder is a recurrent pattern of negativistic, defiant, disobedient, and hostile behavior toward authority figures that persists for at least 6 months and is characterized by the frequent occurrence of at least four of the following behaviors: losing temper,

arguing with adults, actively defying or refusing to comply with the requests or rules of adults, deliberately doing things that will annoy other people, blaming others for his or her own mistakes or misbehavior, being touchy or easily annoyed by others, being angry and resentful, or being spiteful or vindictive. To qualify for Oppositional Defiant Disorder, the behaviors must occur more frequently than is typically observed in individuals of comparable age and developmental level and must lead to significant impairment in social, academic, or occupational functioning (DSM-IV 1994).

The recorded responses listed after each disorder are: (1) Endorsed, (5) Not Endorsed. I recoded the responses so for each disorder such that 0=Not Endorsed and 1= Endorsed.

Independent Variables

The following items were chosen from the NSAL dataset. Of these items, the primary independent variable determines whether the individual is from the Caribbean or not. The responses for this item were as follows: (2) Haiti, (3) Jamaica, (4) Trinidad and Tobago, and (5) other. The next independent variable is the age at the time of immigration. The responses for this item are as follows: (0) US Born, (1) Less than 12 years, (2) 13-17 years, (3) 18-34 years, and (4) 35 plus years. The final independent variable is the length of residency in the U.S. This item inquires how long the individual has been a citizen/resident in the U.S. The responses for this item are less than 5 years, 5-10 years, 10-20 years and 20 plus years.

Control Variables

Control variables were chosen to provide the most complete analysis of the relationship between origin of birth, nativity status, length of residency in the U.S. and rates of mental illnesses. The variables included are sex, working for pay, number of hours worked and high school diploma/equivalent earned, college diploma earned and number of years of education completed. The responses for sex are (1) male and (2) female. The responses for work for pay at present time are (1) yes, (5) no. The responses for number of hours worked span from 1-97 hours

per week in 1 hour increments. The responses for have HS diploma/equivalency are (1) yes, (5) no; have college degree (1) yes, (5) no and highest grade of school/college completed were (4) 4 or less, (5) 5, (6) 6 …(17) 17 or more.

Homeownership and poverty are also important aspects to analyze when they are used as indicators for wealth and the lack thereof. There are several variables included in the dataset that will help us understand their relationships to mental illnesses: If they have a mortgage on home (1) yes, (5) no, if they live in public housing (1) yes, (5) no, if they pay low/no rent because of government assistance (1) yes, (5) no, received public assistance since age 18 (1) yes, (5) no, and how much time received welfare before you turned 18 (1) Just Briefly, (2) Less than Half the Time, (3) About Half the Time, (4) Most of the Time and (5) Almost all of the Time. Refer to the codebook for a detailed description of the variables which may be viewed in the appendices section of this study.

Analytic Strategy

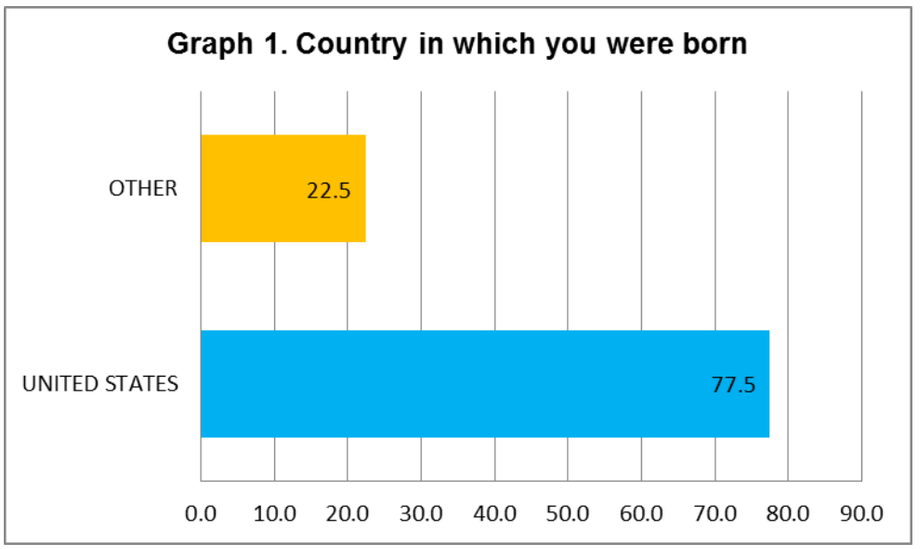
In order to determine the relationship between place of origin, nativity status, and generational status with rates of mental illness I will conduct statistical analysis using a variety of tests. I will begin with frequencies and measures of central tendency. Cross-tabulations can be used with several of the independent and control variables to determine if there are differences relative to the prevalence of the disorders. Chi squares tests of independence were used as they are more suitable when one of the variables is measured at the nominal or ordinal level whereas ANOVA is better when dealing with interval level measurements. Correlations will be used with some of the variables to determine if there is a relationship relative to the prevalence of the disorders. Logistic regression can be used to examine the demographic risk factors associated with the disorders.

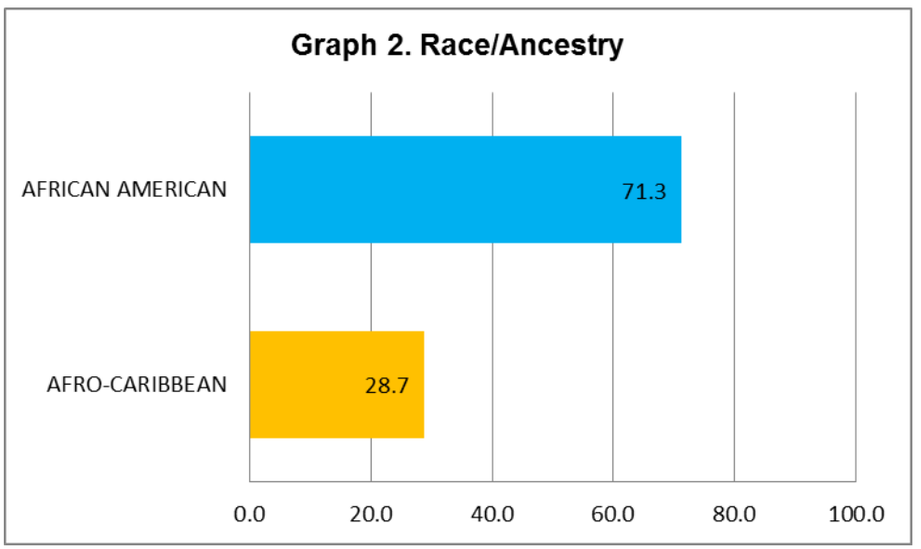
CHAPTER 4
RESULTS

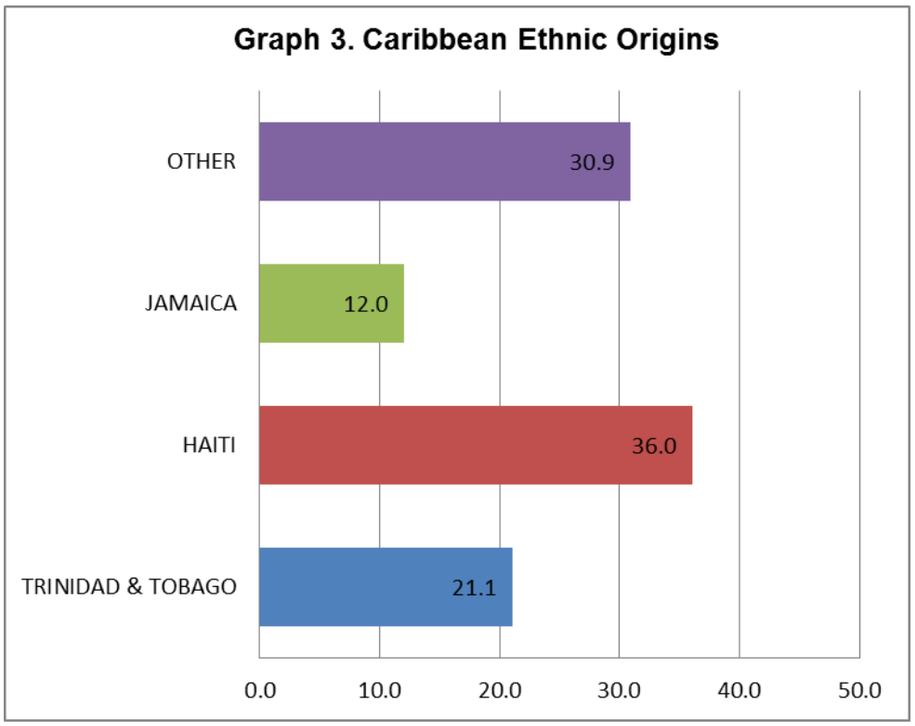
The purpose of this research was to explore the heterogeneity between U.S. born Blacks with and without Caribbean descent and Caribbean born Blacks relative to differences in manifestations of mental illnesses. Of primary concern were whether the nativity and generational status is impacting rates of mental illnesses to better understand diagnosis and treatment approaches. The more we know about differences between these groups, the better prepared the medical community will be to appropriately diagnose and create treatment plans for these diverse populations. This is particularly important as previous research is limited in investigating these differences and of the limited research, very few illness have been the focus of their studies. To fill this gap in the literature, several illnesses not previously analyzed were addressed. Whether an individual was born in the U.S. or not, the participant's country of origin if not born in the U.S., generational status for Caribbean Blacks and the number of years one lived in the U.S. were some of the variables considered to determine these differences. Additional variables such as gender, employment, education, wealth (using homeownership and welfare usage as wealth indicators and age at immigration were also explored to provide a clear picture of what elements of a person's life may be impacting rates of mental illnesses. The results of the analysis of these variables are presented below and the chapter following this will explore the elements that were found to be statistically significant in detail. The following tables include bivariate and multivariate statistics to analyze the aforementioned variables.

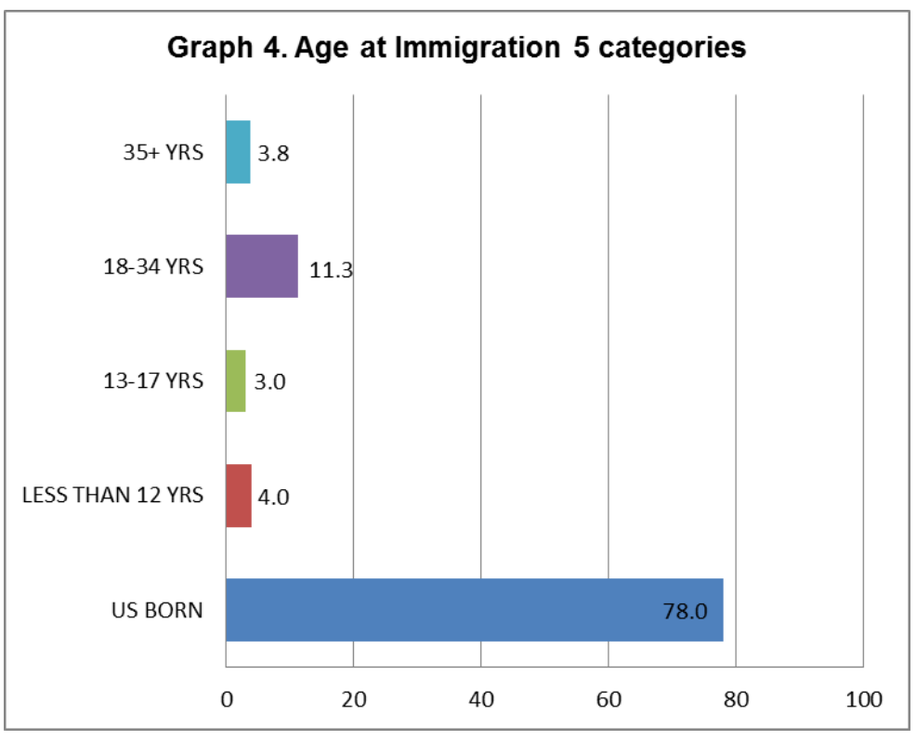
Graphs 1-5 illustrate descriptive statistics of the participants, race/ancestry, country participants were born in, age at immigration and number of years in the U.S. The participant sample is comprised of 3837 U.S. born Blacks (76.6%) and 1114 Caribbean Blacks (22.2%). The race/ancestry variable reports 1438 participants for the Black Caribbean population (28.7%) and U.S. born Blacks at 3570 (71.3%). Of the Caribbean born population, 298 are from Haiti, 510 from Jamaica, 170 from Trinidad. The majority of the Caribbean respondents (11.7%)

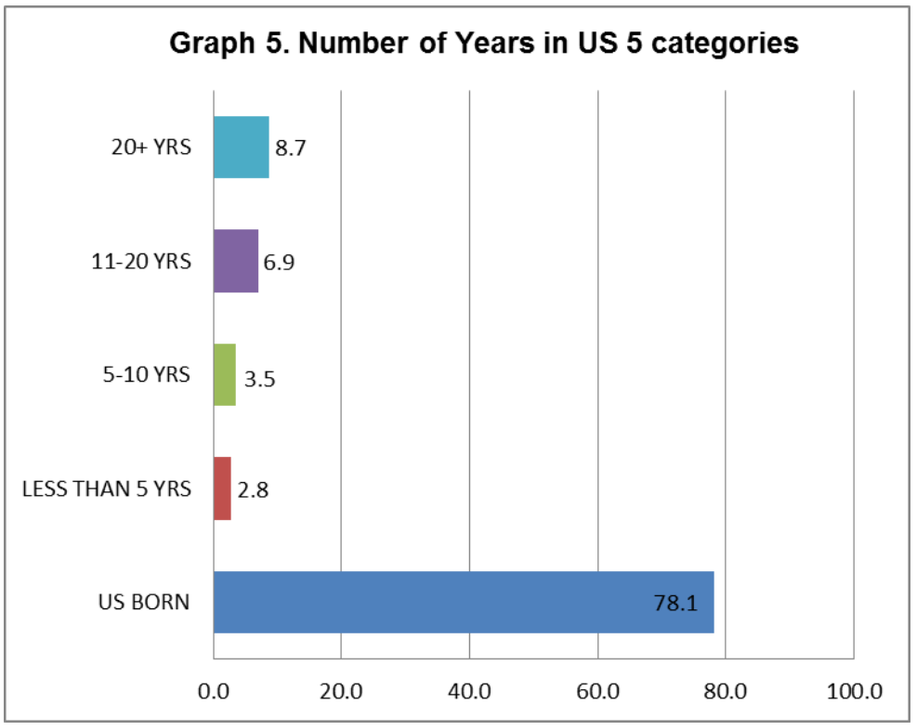
immigrated to the U.S. when they were adults between the ages of 18-34 years. Nearly 2/3 of this population (15.3%) has lived in the U.S. 11 or more years.



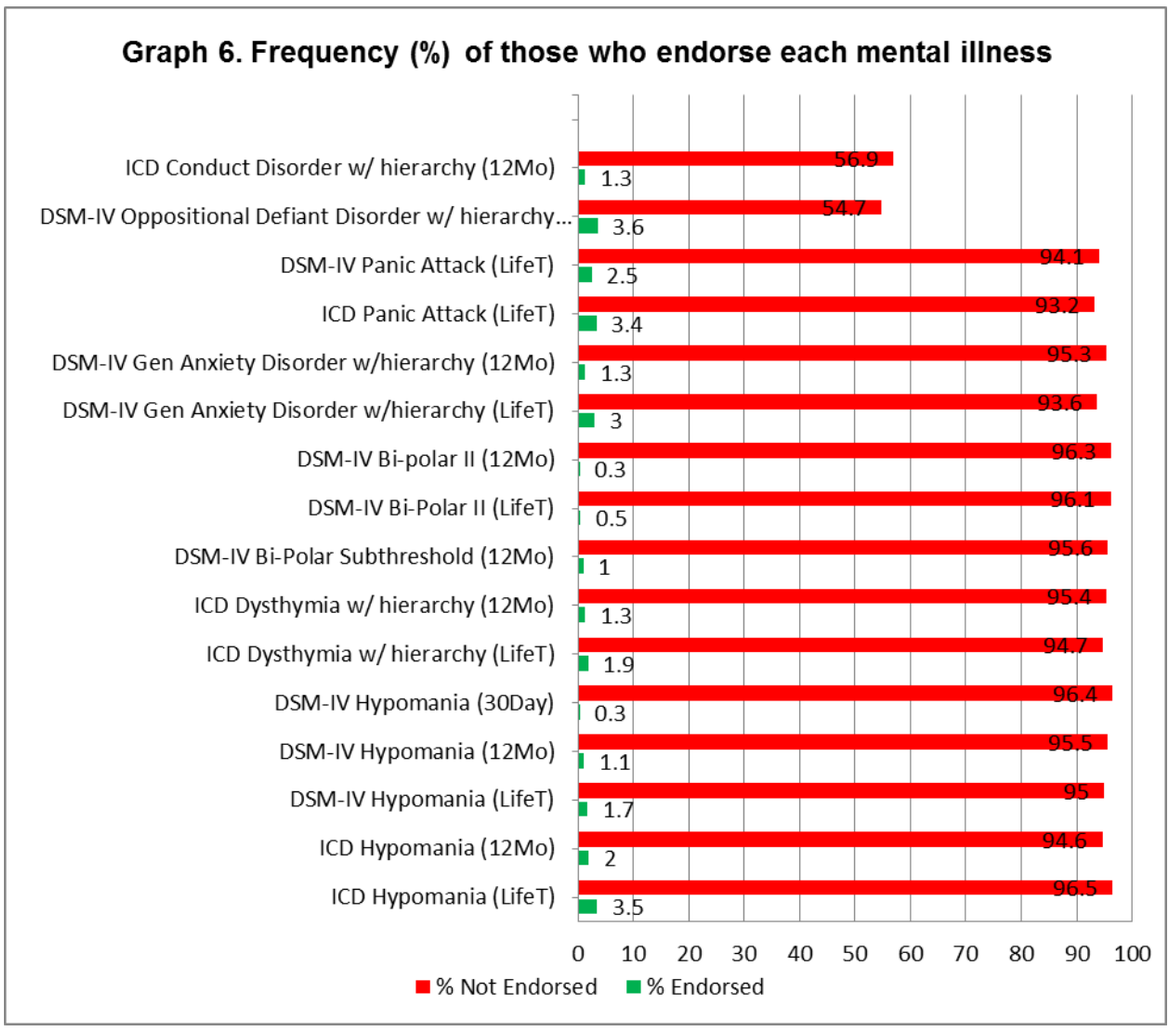



Graph 3. Caribbean Ethnic Origins
OTHER
30.9
JAMAICA
12.0
HAITI
36.0
TRINIDAD & TOBAGO
21.1
0.0
10.0
20.0
30.0
40.0
50.0

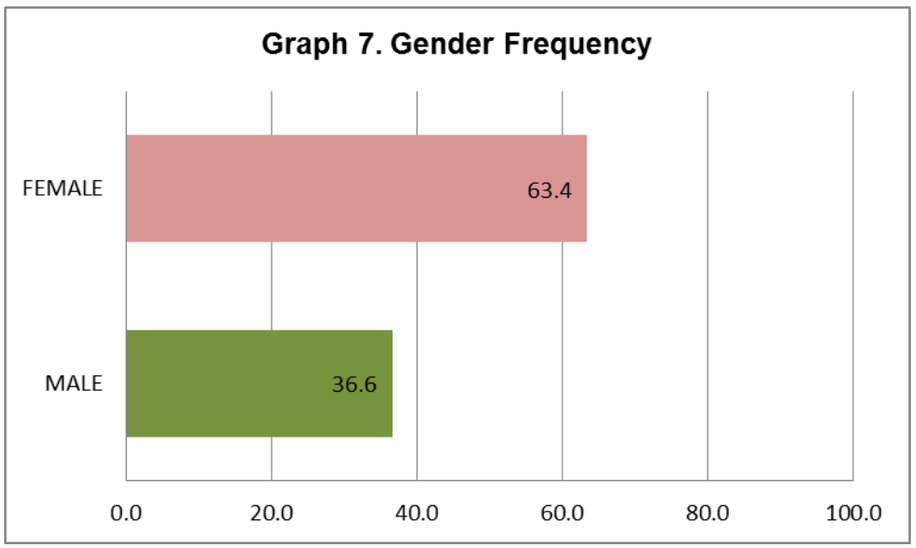

Graph 4. Age at Immigration 5 categories
35+ YRS
3.8
18-34 YRS
11.3
13-17 YRS
3.0
LESS THAN 12 YRS
4.0
US BORN
78.0
0
20
40
60
80
100

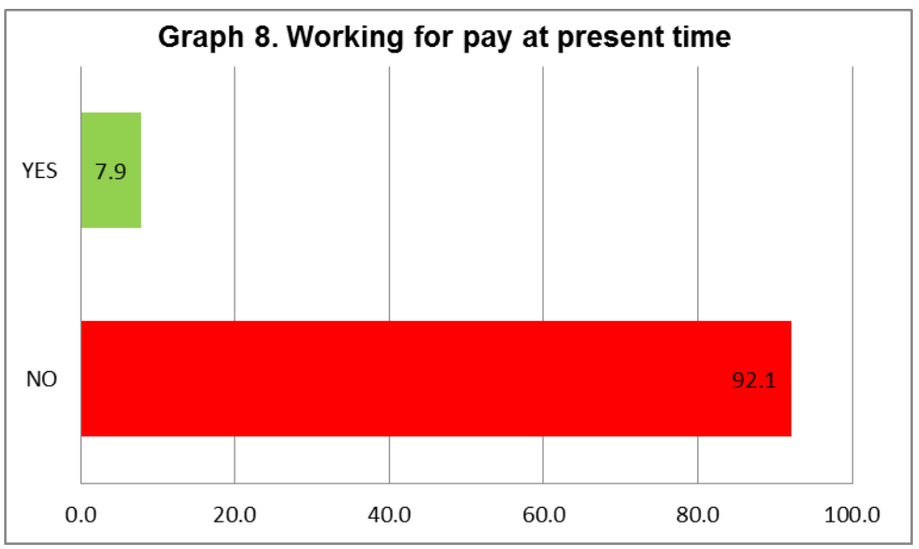


In graph 6, descriptive statistics were reported for the frequency of each illness represented in the U.S. born Black and Caribbean Black portion of the dataset. This is indicated as endorsed or not endorsed.

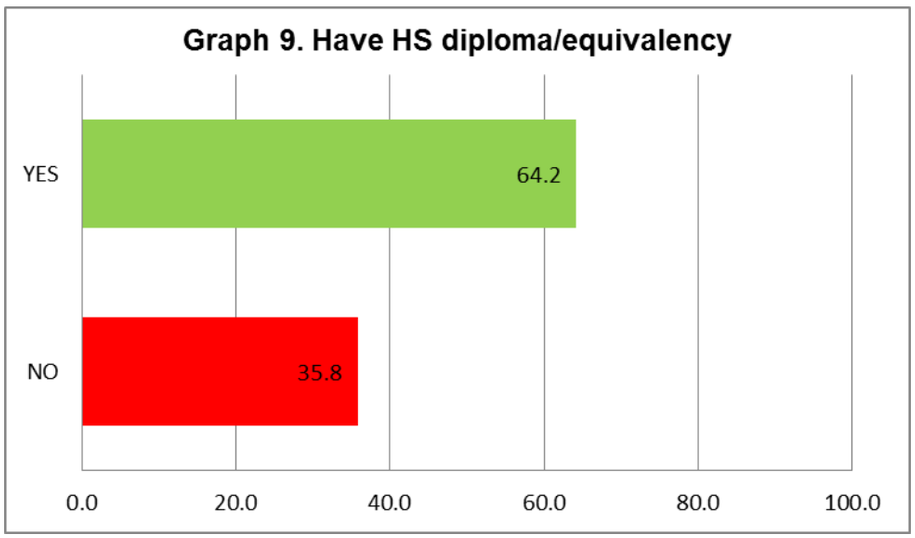


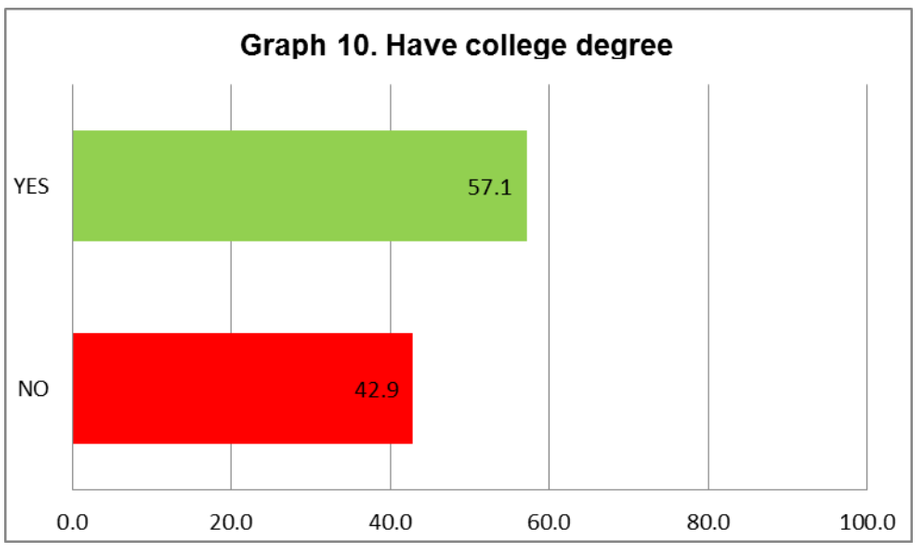
Additional descriptive statistics were reported including gender, employment status, level of education, welfare usage and home ownership in graphs 7-17. The majority of respondents were women at 63.4% while males constituted 36.6% of the population. Employment status was varied but 65.1%, the majority of participants did not provide if they were working or not. Of those who did provide this information, a large portion, 32.1% are not currently working and 2.8% are working.

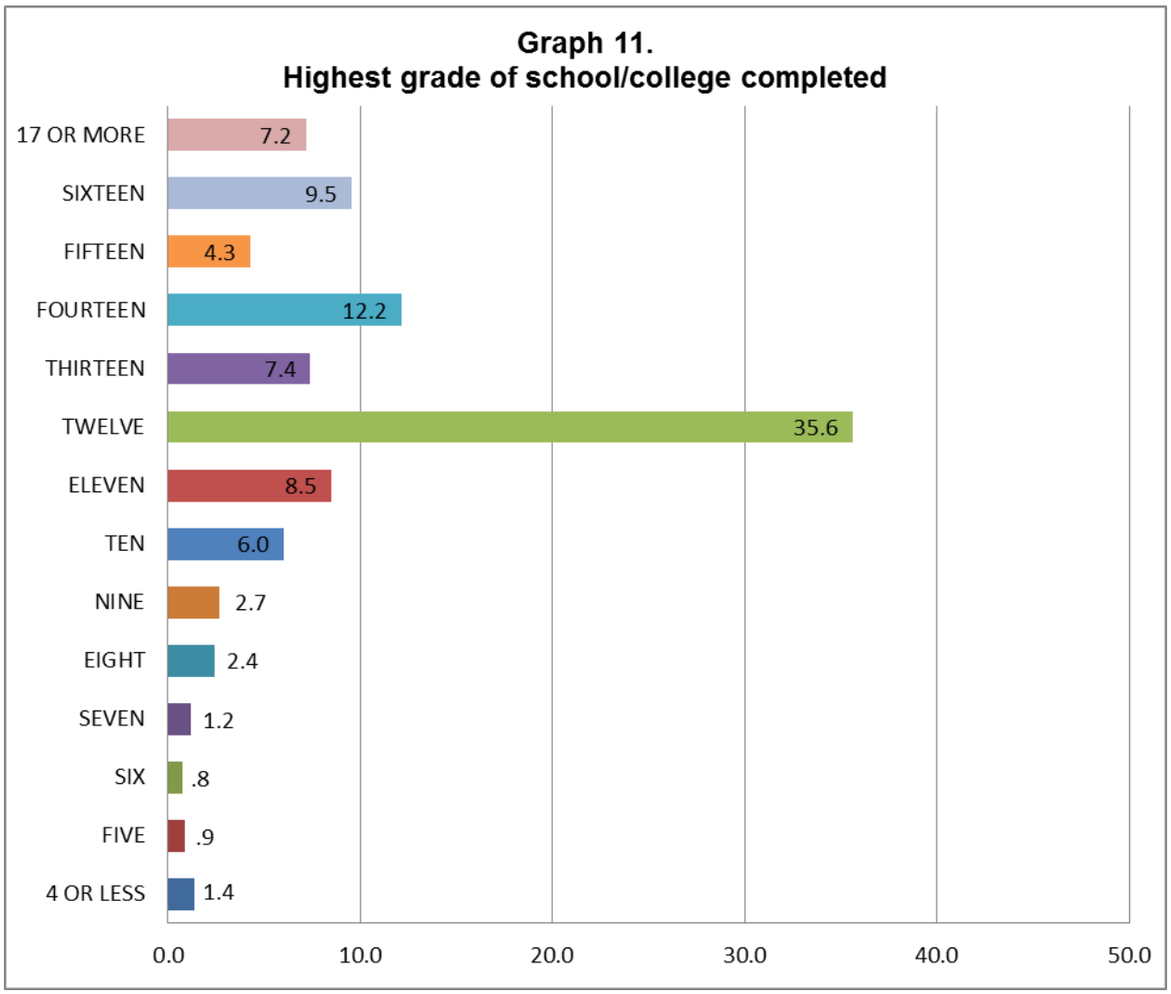




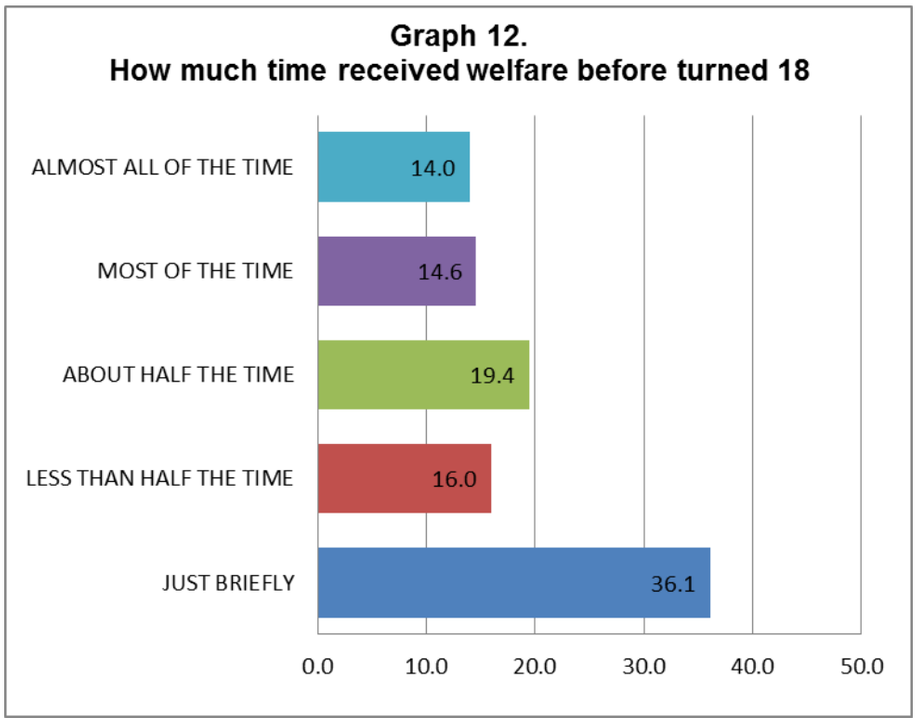
Graphs 9-11 illustrate there are 39.7% of the participants who earned a high school diploma or an equivalent and 21.1% that did not. There are 23% that have earned a college degree and 17.3% that did not. In total, 76.2% completed at least 12 years of school.

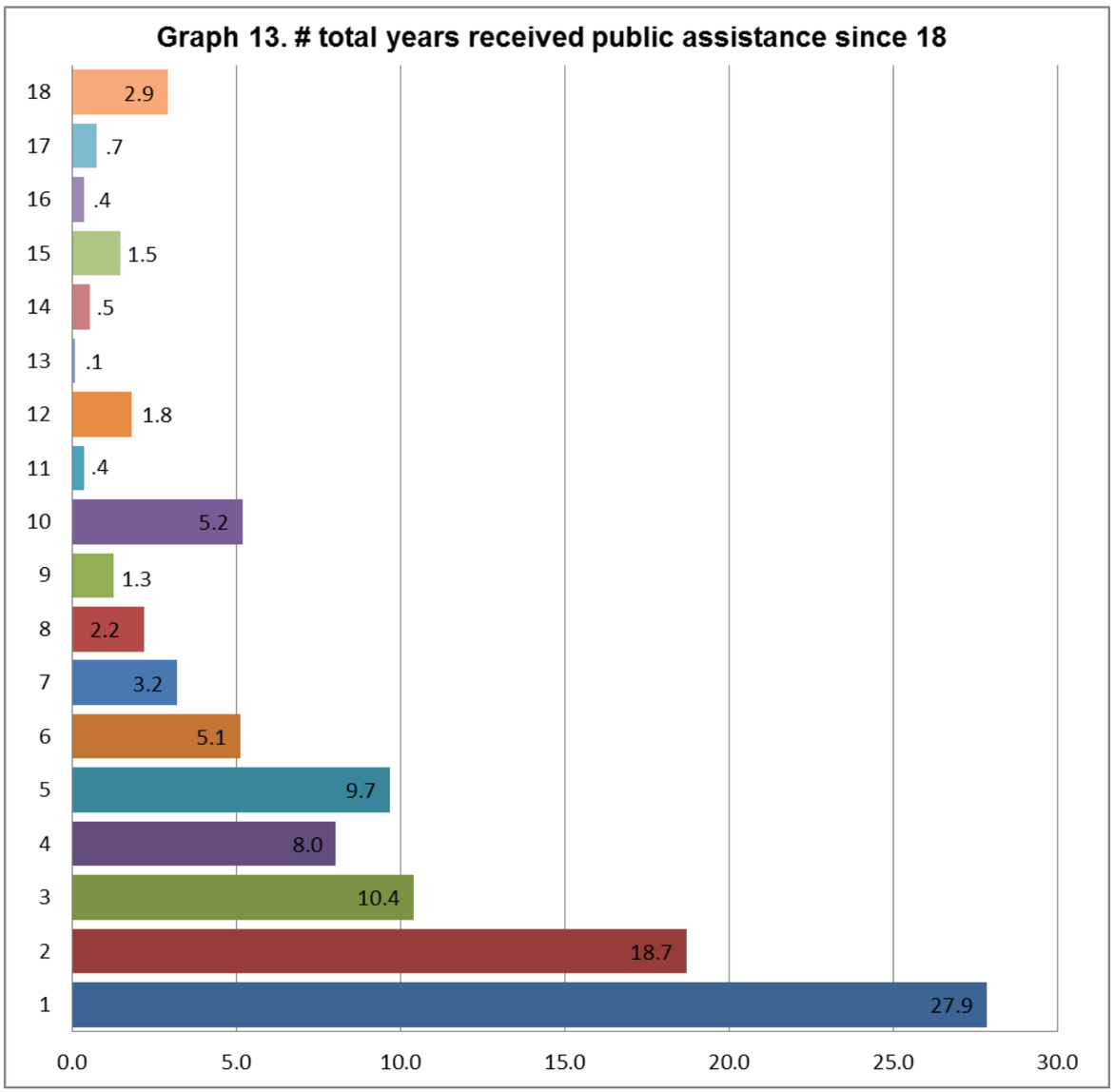

Graph 9. Have HS diploma/equivalency
YES
64.2
NO
35.8
0.0
20.0
40.0
60.0
80.0
100.0

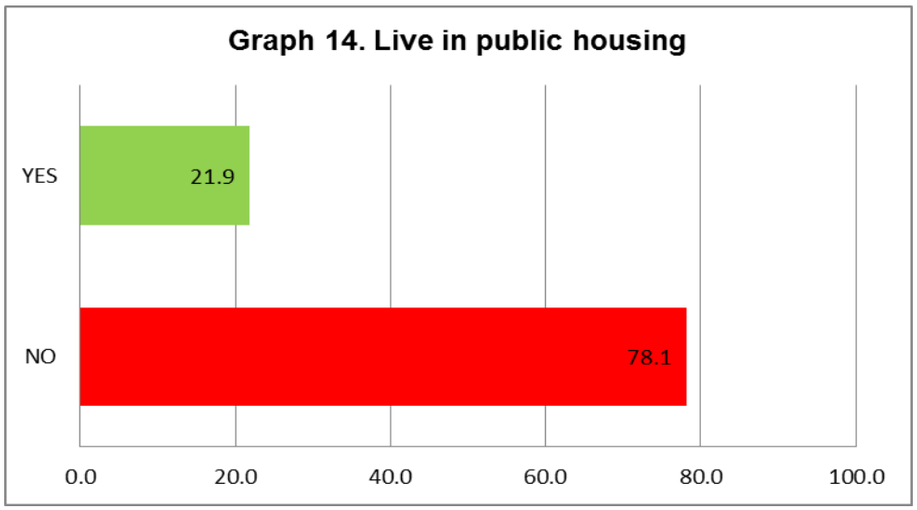

Graph 10. Have college degree
YES
57.1
NO
42.9
0.0
20.0
40.0
60.0
80.0
100.0

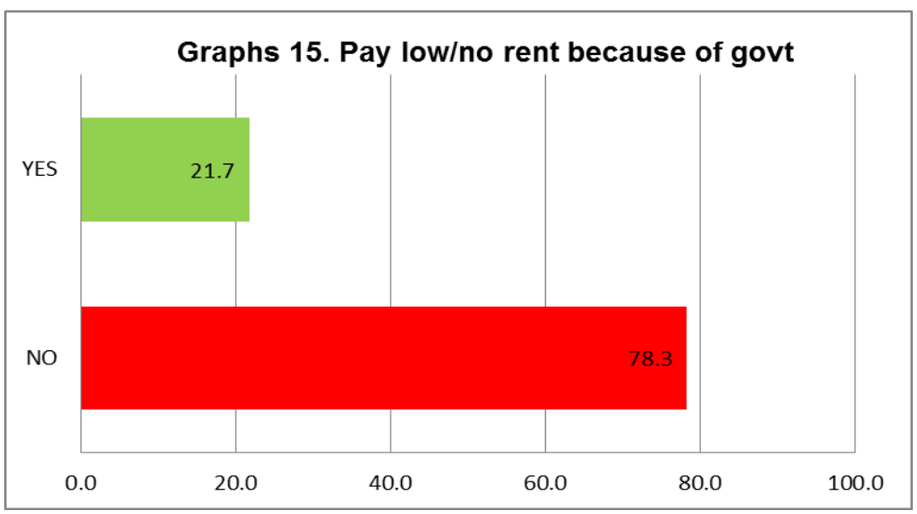


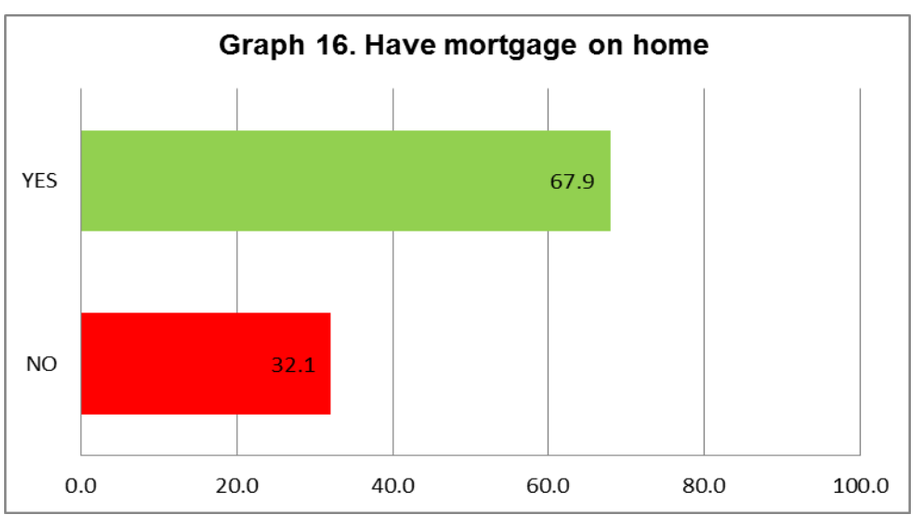
Graphs 12-17 show several results. A total of 17.3% of the population received welfare before they turned 18 with 6.2% receiving it just briefly before the age of 18. There is 23% of the population that has received welfare since turning 18 while 75.3% have not. There are 11.7% who live in public housing and 41.7% who do not. These numbers correspond closely to those who pay low or no rent with 11.6% who do and 41.8% who do not. Forty three percent of respondents provided information on owning their home with 29.7% of that 43% having a mortgage on their home. The majority of those working work a 40 hour work week.

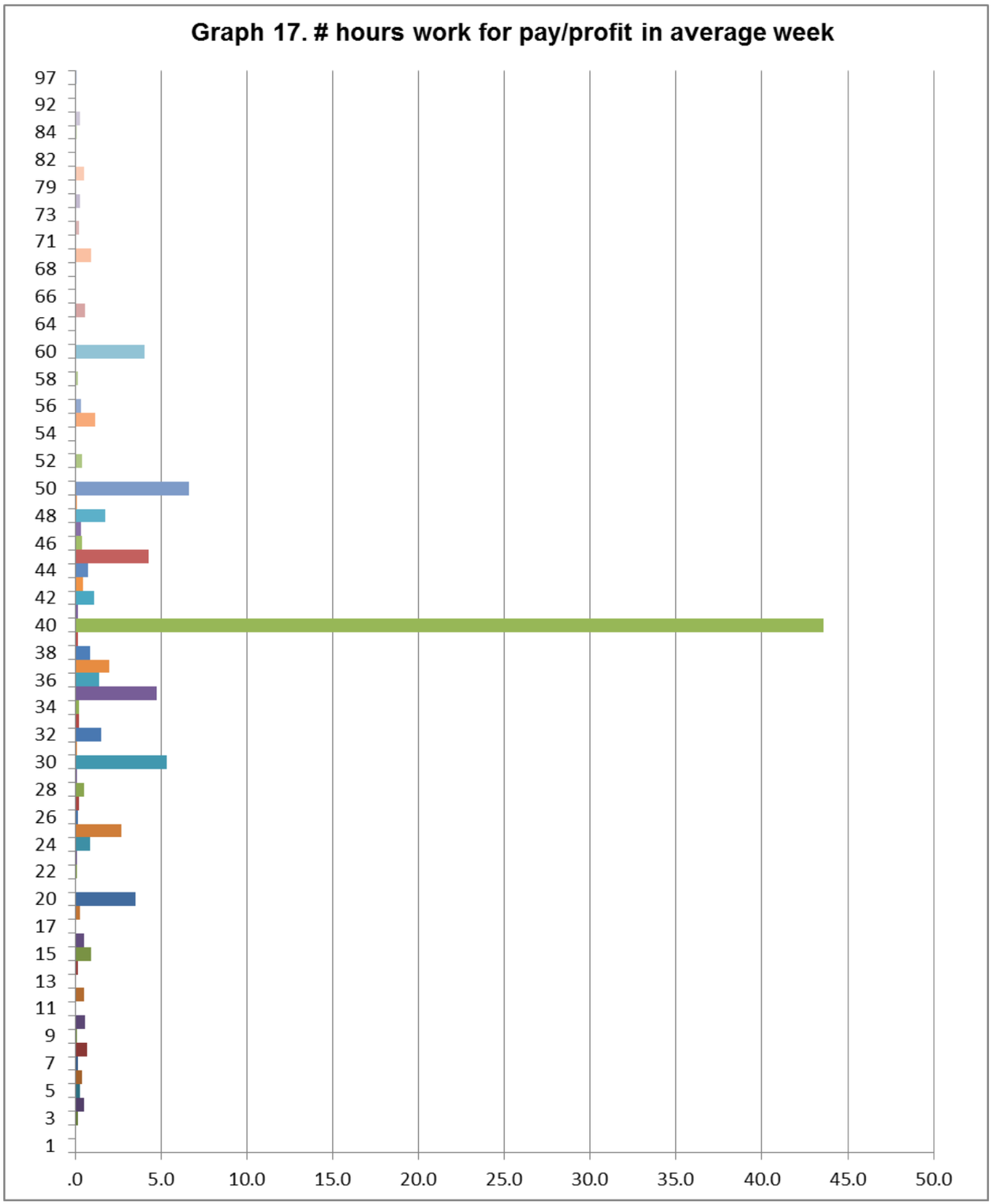

Graph 12.
How much time received welfare before turned 18
ALMOST ALL OF THE TIME
14.0
MOST OF THE TIME
14.6
ABOUT HALF THE TIME
19.4
LESS THAN HALF THE TIME
16.0
JUST BRIEFLY
36.1
0.0
10.0
20.0
30.0
40.0
50.0


Graph 13. # total years received public assistance since 18
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
2.9
.7
.4
1.5
.5
.1
1.8
.4
5.2
1.3
2.2
3.2
5.1
9.7
8.0
10.4
18.7
27.9
0.0
5.0
10.0
15.0
20.0
25.0
30.0

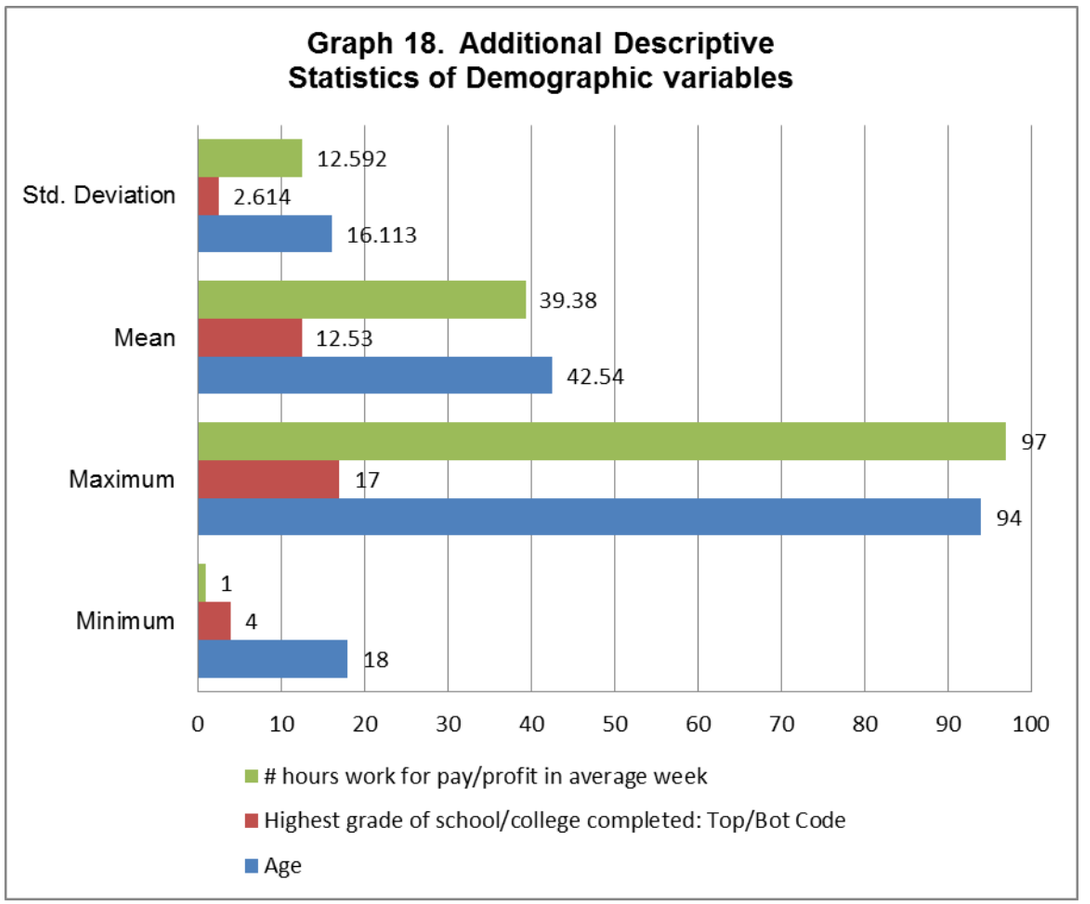

Graph 14. Live in public housing
YES
21.9
NO
78.1
0.0
20.0
40.0
60.0
80.0
100.0


Graphs 15. Pay low/no rent because of govt
YES
21.7
NO
78.3
0.0
20.0
40.0
60.0
80.0
100.0


Graph 16. Have mortgage on home
YES
67.9
NO
32.1
0.0
20.0
40.0
60.0
80.0
100.0


Graph 17. # hours work for pay/profit in average week
97
92
84
82
79
73
71
68
66
64
60
58
56
54
52
50
48
46
44
42
40
38
36
34
32
30
28
26
24
22
20
17
15
13
11
9
7
5
3
1
.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
45.0
50.0

As illustrated in graph 18, the mean age of those that participated in the study is 42.54 years. The average number of years of school completed is 12.53 and of those who were working, the average number of hours worked per week was 39.38.



Rates of Mental Illnesses U.S. Blacks vs. Caribbean Blacks

Chi-square tests of independence were used to determine whether significantly higher rates of illness appear in U.S. Born Blacks or Caribbean Blacks depending on where they were born and the results are presented in table 1. In all of the significant results, U.S. born Blacks are more likely to experience the illness than Caribbean Blacks. This was evident for ICD Hypomania over the course of their lifetime and in the past 12 months (1, N=4799) =10.42, p=.001 and (1, N=4700) =7.8, p=.005 respectively. Similarly, DSM-IV Hypomania over the lifetime

(1, N=4719) =8.27, p=.004, DSM-IV Hypomania for the past 12 months (1, N=4745) =5.66, p=.017 and DSM-IV Hypomania at the 30 day mark illustrate U.S. born Blacks are significantly more likely to experience this illness than Caribbean Blacks (1, N=4785) =4.14, p=.042. This is also true for ICD Dysthymia w/ hierarchy over their lifetime and during the previous 12 months, (1, N=4707) =10.55, p=.001 and (1, N=4739) =8.95, p=.003 respectively and DSM-IV Generalized Anxiety Disorder w/hierarchy over the course of one's lifetime (1, N=4655) =12.86, p<.001 and in the previous 12 months (1, N=4739) =4.25, p=.039. DSM-IV Panic disorder yields the same results at the lifetime mark (1, N=4629) =10.85, p=.001. ICD Panic disorder at 12 months (1, N=4673) =6.32, p=.012 and 30 days (1, N=4747) =6.79, p=.009 does as well. ICD Panic Attack at lifetime (1, N=3837) =33.11, p<.00) and DSM-IV Panic Attack at lifetime (1, N=3843) =39.10, p<.001 demonstrate U.S. born Blacks are significantly more likely to experience panic attacks than Caribbean Blacks. DSM-IV Oppositional Defiant Disorder w/ hierarchy over their lifetime (1, N=2726) =5.69, p=.017 and ICD Conduct Disorder w/ hierarchy during the previous 12 months (1, N=2839) =5.49, p=.019 also produced significantly rates for U.S. born Blacks than Caribbean Blacks.

Table 1. Mental Illness by Birth in the U.S. or Not

Illness		Total Population	U.S. born frequency	Carib born frequency	χ^2	P value
ICD Hypomania (Lifetime)	Not Endorsed	4631	76.9%	23.1%	10.42	.001***
	Endorsed	168	87.5%	12.5%		
DSM-IV Bi-Polar II (Lifetime)	Not Endorsed	4773	77.2%	22.8%	3.37	.066
	Endorsed	26	92.3%	7.7%		
DSM-IV Hypomania (Lifetime)	Not Endorsed	4716	77.0%	23.0%	8.27	.004**
	Endorsed	83	90.4%	9.6%		
ICD Dysthymia w/ hierarchy (Lifetime)	Not Endorsed	4707	77.0%	23.0%	10.55	.001***
	Endorsed	92	91.3%	8.7%		
DSM-IV Panic Attack (Lifetime)	Not Endorsed	3843	75.4%	24.6%	39.10	.000***

	Endorsed	956	84.8%	15.2%		
ICD Panic Attack (Lifetime)	Not Endorsed	3837	75.5%	24.5%	33.11	.000***
	Endorsed	962	84.2%	15.8%		
DSM-IV Panic Disorder (Lifetime)	Not Endorsed	4629	76.9%	23.1%	10.85	.001***
	Endorsed	170	87.6%	12.4%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)	Not Endorsed	4655	76.9%	23.1%	12.86	.000***
	Endorsed	144	89.6%	10.4%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	Not Endorsed	2726	76.4%	23.6%	5.69	.017*
	Endorsed	177	84.2%	15.8%		
DSM-IV Hypomania (12 month)	Not Endorsed	4745	77.1%	22.9%	5.66	.017*
	Endorsed	54	90.7%	9.3%		
ICD Hypomania (12 month)	Not Endorsed	4700	77.0%	23.0%	7.80	.005**
	Endorsed	99	88.9%	11.1%		
DSM-IV Bi-polar II (12Mo)	Not Endorsed	4782	77.2%	22.8%	1.17	.279
	Endorsed	17	88.2%	11.8%		
ICD Dysthymia with hierarchy (12 month)	Not Endorsed	4739	77.0%	23.0%	8.95	.003**
	Endorsed	60	93.3%	6.7%		
ICD Conduct Disorder w/ hierarchy (12Mo)	Not Endorsed	2839	76.6%	23.4%	5.49	.019*
	Endorsed	64	89.1%	10.9%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	Not Endorsed	4739	77.1%	22.9%	4.25	.039*
	Endorsed	60	88.3%	11.7%		
ICD Panic Disorder (12 month)	Not Endorsed	4673	77.0%	23.0%	6.32	.012*
	Endorsed	126	86.5%	13.5%		
DSM-IV Hypomania (30 day)	Not	4785	77.2%	22.8%	4.14	.042*

	Endorsed Endorsed	14	100.0%	0%			
ICD Panic Disorder (30 day)	Not Endorsed	4747	77.1%	22.9%	6.79	.009**	
	Endorsed	52	92.3%	7.7%			

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

Length of Residency in the U.S. Among Caribbean Blacks

Cross tabulations were calculated for Caribbean immigrants and the length of residency to determine if the amount of time one lives in the U.S. has an impact on rates of mental illnesses. In table 2, there are 4 categories for this variable: less than 5 years, 5-10 years, 11-20 years and more than 20 years. No significant results were found for these tests across all illnesses.

Table 2. Mental Illness by the number of years residing in the U.S. for Caribbean respondents

Illness		Total Population	< 5 years	5-10 years	11-20 years	20+ years	χ^2	P value
ICD Hypomania (Lifetime)	Not Endorsed	1032	13.0%	15.9%	31.4%	39.7%	3.90	.273
Total Population	Endorsed	19	5.3%	31.6%	26.3%	36.8%		
DSM-IV Bi-Polar II (Lifetime)	Not Endorsed	1049	12.9%	16.1%	31.3%	39.8%	2.69	.441
	Endorsed	2	0%	.6%	.3%	0%		
DSM-IV Hypomania (Lifetime)	Not Endorsed	1043	12.9%	16.0%	31.3%	39.8%	3.84	.279
	Endorsed	8	0%	37.5%	37.5%	25.0%		
ICD Dysthymia w/ hierarchy (Lifetime)	Not Endorsed	1043	12.9%	16.1%	31.4%	39.5%	3.39	.335
	Endorsed	8	0%	25.0%	12.5%	62.5%		
DSM-IV Panic Attack (Lifetime)	Not	908	13.1%	15.5%	31.3%	40.1%	2.36	.500

	Endorsed							
	Endorsed	143	11.2%	20.3%	31.5%	37.1%		
ICD Panic Attack (Lifetime)	Not Endorsed	901	13.3%	15.5%	31.4%	39.7%	2.71	.438
	Endorsed	150	10.0%	20.0%	30.7%	39.3%		
DSM-IV Panic Disorder (Lifetime)	Not Endorsed	1030	12.7%	15.9%	31.4%	40.0%	4.09	.252
	Endorsed	21	19.0%	28.6%	28.6%	23.8%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)	Not Endorsed	1037	13.0%	16.0%	31.3%	39.6%	3.24	.356
	Endorsed	14	0%	28.6%	28.6%	42.9%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	Not Endorsed	612	18.3%	21.4%	38.2%	22.1%	2.04	.564
	Endorsed	28	14.3%	28.6%	28.6%	28.6%		
DSM-IV Hypomania (12 month)	Not Endorsed	1046	12.9%	16.2%	31.3%	39.7%	.81	.847
	Endorsed	5	0%	20%	40%	40%		
ICD Hypomania (12 month)	Not Endorsed	1041	13.0%	16.0%	31.3%	39.7%	2.50	.476
	Endorsed	10	0%	30.0%	30.0%	40.0%		
DSM-IV Bi-polar II (12Mo)1049	Not Endorsed	1049	12.9%	16.1%	31.3%	39.8%	2.69	.441
	Endorsed	2	0%	50.0%	50.0%	0%		
ICD Dysthymia with hierarchy (12 month)	Not Endorsed	1047	12.9%	16.0%	31.4%	39.6%	4.72	.193
	Endorsed	4	0%	50.0%	0%	50.0%		
ICD Conduct Disorder w/ hierarchy	Not Endorsed	633	18.2%	21.8%	37.8%	22.3%	.41	.939

(12Mo)	Endorsed	7	14.3%	14.3%	42.9%	28.6%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	Not Endorsed	1044	12.9%	16.1%	31.4%	39.6%	2.77	.429
	Endorsed	7	0%	28.6%	14.3%	57.1%		
ICD Panic Disorder (12 month)	Not Endorsed	1034	12.6%	16.1%	31.4%	39.9%	5.74	.125
	Endorsed	17	29.4%	23.5%	23.5%	23.5%		
DSM-IV Hypomania (30 day)****	Not Endorsed	1051	12.8%	16.2%	31.3%	39.7%		
	Endorsed	0	0%	0%	0%	0%		
ICD Panic Disorder (30 day)	Not Endorsed	1047	12.9%	16.1%	31.2%	39.7%	1.38	.711
	Endorsed	4	0%	25%	50%	25%		

*p < .05, **p < .01, ***p < .001
****No respondents endorsed this disorder at the 30 day mark therefore no Chi-square computation could be completed.

Generational Status and Rates of Mental Illnesses

There are a number of significant outcomes when we examine generational status and rates of mental illnesses. Presented in table 3, at the lifetime mark, ICD Hypomania (1, N=1345) =9.49, p=.002, DSM-IV Hypomania (1, N=1362) =8.27, p=.004, DSM-IV Bi-polar II (1, N=1373) =7.54, p=.006, ICD Panic Attack (1, N=1147) =14.67, p<.001, DSM-IV Panic Attack (1, N=1155) =17.90, p<.001, DSM-IV Generalized Anxiety Disorder (1, N=1354) =5.58, p=.018, DSM-IV Panic Disorder (1, N=1342) =7.12, p=.008 were all significant. At the 12 month mark, DSM-IV Hypomania (1, N=1368) =6.57, p=.010, ICD Hypomania (1, N=1359) =7.70, p=.006 and ICD Conduct Disorder w/ hierarchy (1, N=867) =5.12, p=.024 were all significant. At the 30 day mark, DSM-IV Hypomania (1, N=1378) =5.70, p=.017 and ICD Panic Disorder (1, N=1370) =6.05, p=.014 were significant.

Table 3. Mental Illness by Generational Status

Illness		Generational Status				
		Total Population	First Generation 1021	Second Generation 359	X^2	P value
ICD Hypomania (Lifetime)	Not Endorsed	1345	74.6%	25.4%	9.49**	.002
	Endorsed	35	51.4%	48.6%		
DSM-IV Bi-Polar II (Lifetime)	Not Endorsed	1373	74.2%	25.8%	7.54**	.006
	Endorsed	7	28.6%	71.4%		
DSM-IV Hypomania (Lifetime)	Not Endorsed	1362	74.4%	25.6%	8.27**	.004
	Endorsed	18	44.4%	55.6%		
ICD Dysthymia w/ hierarchy (Lifetime)	Not Endorsed	1366	74.2%	25.8%	2.09	.149
	Endorsed	14	57.1%	42.9%		
DSM-IV Panic Attack (Lifetime)	Not Endorsed	1155	76.2%	23.8%	17.90***	.000
	Endorsed	225	62.7%	37.3%		
ICD Panic Attack (Lifetime)	Not Endorsed	1147	76.0%	24.0%	14.67***	.000
	Endorsed	233	63.9%	36.1%		
DSM-IV Panic Disorder (Lifetime)	Not Endorsed	1342	74.5%	25.5%	7.12**	.008
	Endorsed	38	55.3%	44.7%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)	Not Endorsed	1354	74.4%	25.6%	5.58**	.018
	Endorsed	26	53.8%	46.2%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	Not Endorsed	839	69.8%	30.2%	.76	.383

	Endorsed	44	63.6%	36.4%		
DSM-IV Hypomania (12 month)	Not Endorsed	1368	74.3%	25.7%	6.57**	.010
	Endorsed	12	41.7%	58.3%		
ICD Hypomania (12 month)	Not Endorsed	1359	74.4%	25.6%	7.70***	.006
	Endorsed	21	47.6%	52.4%		
DSM-IV Bi-polar II (12Mo)	Not Endorsed	1376	74.1%	25.9%	1.20	.274
	Endorsed	4	50%	50%		
ICD Dysthymia with hierarchy (12 month)	Not Endorsed	1374	74.0%	26.0%	.17	.682
	Endorsed	6	66.7%	33.3%		
ICD Conduct Disorder w/ hierarchy (12Mo)	Not Endorsed	867	70.0%	30.0%	5.12**	.024
	Endorsed	16	43.8%	56.2%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	Not Endorsed	1368	74.1%	25.9%	1.54	.214
	Endorsed	12	58.3%	41.7%		
ICD Panic Disorder (12 month)	Not Endorsed	1353	74.2%	25.8%	1.74	.187
	Endorsed	27	63.0%	37.0%		
DSM-IV Hypomania (30 day)	Not Endorsed	1378	74.1%	25.9%	5.70**	.017
	Endorsed	2	0%	100%		
ICD Panic Disorder (30 day)	Not Endorsed	1370	74.2%	25.8%	6.05**	.014
	Endorsed	10	40.0%	60.0%		

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

Country of Origin

Additional cross tabulations were computed for each illness and the Caribbean country participants were born in to determine if rates of illness are impacted by the colonizing country's influence of language when it is not the same as English. The results of this analysis appear in table 4. I hypothesized those participants from Anglophone countries, countries that primarily speak English, will have lower rates of mental illnesses. DSM-IV Panic Attack (1, N=1387) =16.36, p=.001, ICD Panic Attack (1, N=1387) =17.73, p=.001 and DSM-IV Oppositional Defiant Disorder w/ hierarchy (1, N=890) =12.51, p=.006 at the Lifetime mark show significant results. The Phi coefficients were .109, .113 and .119 respectively indicating the associations between the variables were weak.

Table 4. Mental Illness by the Caribbean Ethnic Origins 5 categories respondents

Illness		Total Population	Haiti	Jamaica	Trinidad & Tobago	Other	χ^2	P value
Total Population		1387	290	502	164	431		
ICD Hypomania (Lifetime)	Not Endorsed	1351	97.9%	97.6%	96.3%	97.2%	1.20	.754
	Endorsed	36	2.1%	2.4%	3.7%	2.8%		
DSM-IV Bi-Polar II (Lifetime)	Not Endorsed	1380	99.7%	99.4%	99.4%	99.5%	.28	.963
	Endorsed	7	0.3%	0.6%	0.6%	0.5%		
DSM-IV Hypomania (Lifetime)	Not Endorsed	1369	99.3%	98.8%	98.2%	98.4%	1.60	.660
	Endorsed	18	0.7%	1.2%	1.8%	1.6%		
ICD Dysthymia w/ hierarchy (Lifetime)	Not Endorsed	1373	99.3%	98.8%	99.4%	98.8%	.83	.842
	Endorsed	14	0.7%	1.2%	0.6%	1.2%		
DSM-IV Panic Attack (Lifetime)	Not Endorsed	1162	91.0%	82.9%	78.0%	82.1%	16.36	.001***
	Endorsed	225	9.0%	17.1%	22.0%	17.9%		

ICD Panic Attack (Lifetime)	Not Endorsed	1154	90.7%	82.7%	76.8%	81.2%	17.73	.001***
	Endorsed	233	9.3%	17.3%	23.2%	18.8%		
DSM-IV Panic Disorder (Lifetime)	Not Endorsed	1349	98.3%	97.0%	97.6%	96.8%	1.71	.634
	Endorsed	38	1.7%	3.0%	2.4%	3.2%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)	Not Endorsed	1361	98.6%	98.2%	97.6%	97.9%	.80	.850
	Endorsed	26	1.4%	1.8%	2.4%	2.1%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	Not Endorsed	846	97.7%	94.9%	88.7%	95.6%	12.51	.006**
	Endorsed	44	2.3%	2.1%	11.3%	4.4%		
DSM-IV Hypomania (12 month)	Not Endorsed	1375	99.3%	99.4%	98.2%	99.1%	2.32	.509
	Endorsed	12	0.7%	0.6%	1.8%	0.9%		
ICD Hypomania (12 month)	Not Endorsed	1365	99.0%	98.8%	97.6%	97.9	2.52	.472
	Endorsed	22	1.0%	1.2%	2.4%	2.1%		
DSM-IV Bi-polar II (12Mo)	Not Endorsed	1383	100%	99.4%	99.4%	100%	4.34	.227
	Endorsed	4	0%	0.6%	0.6%	0%		
ICD Dysthymia with hierarchy (12 month)	Not Endorsed	1381	99.7%	99.6%	100%	99.3%	1.47	.689
	Endorsed	6	0.3%	0.4%	0%	0.7%		
ICD Conduct Disorder w/ hierarchy (12Mo)	Not Endorsed	874	98.1%	99.3%	97.2%	97.4%	3.63	.304
	Endorsed	16	1.9%	0.7%	2.8%	2.6%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	Not Endorsed	1375	99.7%	99.2%	99.4$	98.6%	2.46	.482
	Endorsed	12	0.3%	0.8%	0.6%	1.4%		
ICD Panic Disorder (12 month)	Not Endorsed	1360	98.6%	98.0%	98.2%	97.7%	.82	.844
	Endorsed	27	1.4%	2.0%	1.8%	2.3%		

DSM-IV Hypomania (30 day)	Not Endorsed	1385	100%	100%	99.4%	99.8%	3.84	.279
	Endorsed	2	0%	0%	0.6%	0%		
ICD Panic Disorder (30 day)	Not Endorsed	1377	99.7%	99.2%	100%	98.8%	3.00	.397
	Endorsed	10	0.3%	0.8%	0%	0.7%		

*p < .05, **p < .01, ***p < .001

Education

Cross tabulations were reported for the impact of education on rates of mental illnesses. The two variables representing education are having a high school diploma or an equivalent or having a college degree. A third variable analyzed is the number of years of education completed. The results of these variables are represented in the tables below. As seen in table 5, the outcomes for DSM-IV Panic Disorder (1, N=2745) =7.20, p=.007 and DSM-IV Generalized Anxiety Disorder w/hierarchy (1, N=2777) =4.33, p=.037 illustrate that those with a high school diploma will experience significantly less rates of these disorders than those who do not over the course of their lifetime. These illnesses had Phi coefficients of -.050 and -0.39 respectively which indicates a very weak association. Similar results were found with ICD Dysthymia with hierarchy (1, N=2811) =4.89, p=.027 and ICD Panic Disorder (1, N=2773) =6.99, p=.008 in the last 12 months of respondents and ICD Panic Disorder (1, N=2818) =6.85, p=.009 in the last 30 days. These illnesses had Phi coefficients of -.041, -.049 and -0.49 respectively which indicates a very weak association between the variables.

Table 5. Mental Illness by High School Diploma or Equivalent Earned

Illness		Total Population	H.S. Diploma Earned			
			No	Yes	χ^2	P value
ICD Hypomania (Lifetime)	Not Endorsed	2755	35.8%	64.2%	.12	.731
	Endorsed	96	37.5%	62.5%		

DSM-IV Bi-Polar II (Lifetime)	Not Endorsed	2833	35.8%	64.2%	.07	.787
	Endorsed	18	38.5%	61.1%		
DSM-IV Hypomania (Lifetime)	Not Endorsed	2800	35.8%	64.2%	.64	.423
	Endorsed	51	41.2%	58.8%		
ICD Dysthymia w/ hierarchy (Lifetime)	Not Endorsed	2786	35.7%	64.3%	.94	.333
	Endorsed	65	41.5%	58.5%		
DSM-IV Panic Attack (Lifetime)	Not Endorsed	2258	35.7%	64.3%	.11	.742
	Endorsed	593	36.4%	63.6%		
ICD Panic Attack (Lifetime)	Not Endorsed	2256	35.8%	64.2%	.03	.869
	Endorsed	595	36.1%	63.9%		
DSM-IV Panic Disorder (Lifetime)**	Not Endorsed	2745	35.4%	64.6%	7.20	.007
	Endorsed	106	48.1%	51.9%		
DSM-IV Gen Anxiety Disorder* w/hierarchy (LifeT)	Not Endorsed	2777	35.5%	64.5%	4.33	.037
	Endorsed	74	47.3%	52.7%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	Not Endorsed	1528	26.7%	73.3%	1.66	.197
	Endorsed	108	32.4%	67.6%		
DSM-IV Hypomania (12 month)	Not Endorsed	2816	35.8%	64.2%	.26	.606
	Endorsed	35	40.0%	60.0%		

ICD Hypomania (12 month)	Not Endorsed	2792	35.8%	64.2%	.05	.816
	Endorsed	59	37.3%	62.7%		
DSM-IV Bi-polar II (12Mo)	Not Endorsed	2838	35.8%	64.2%	.04	.844
	Endorsed	13	38.5%	61.5%		
ICD Dysthymia with hierarchy (12 month)	Not Endorsed	2811	35.6%	64.4%	4.89	.027
	Endorsed	40	52.5%	47.5%		
ICD Conduct Disorder w/ hierarchy (12Mo)	Not Endorsed	1584	26.9%	73.1%	.86	.355
	Endorsed	52	32.7%	67.3%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	Not Endorsed	2819	35.8%	64.2%	.04	.845
	Endorsed	32	37.5%	62.5%		
ICD Panic Disorder (12 month)	Not Endorsed	2773	35.4%	64.6%	6.99	.008
	Endorsed	78	50%	50%		
DSM-IV Hypomania (30 day)	Not Endorsed	2842	35.8%	64.2%	.29	.590
	Endorsed	9	44.4%	55.6%		
ICD Panic Disorder (30 day)	Not Endorsed	2818	35.6%	64.4%	6.85	.009
	Endorsed	33	57.6%	42.4%		

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

Per table 6, there are significant results for the U.S. born Black population as it relates to earning a high school diploma. The results for DSM-IV Panic Disorder (1, N=2200) =7.76, p=.005 with a Phi coefficient of -.058,

DSM-IV Generalized Anxiety Disorder (1, N=2230) =4.90, p=.027 with a Phi coefficient of -.046, over the course of their lifetime and ICD Dysthymia with hierarchy at 12 months (1, N=2258) =4.87, p=.027 with a Phi coefficient of -.046,, and ICD Panic Disorder at 12 months (1, N=2225) =5.97, p=.015 with a Phi coefficient of -.051 and 30 days (1, N=2263) =7.03, p=.008 with a Phi coefficient of -.055 all illustrate that U.S. born Blacks have significantly higher rates of individuals not endorsing these disorders when they have a high school diploma than those who do not. All of the associations for these variables are very weak.

Table 6. Mental Illness by High School Diploma or Equivalent Earned and U.S. Born or Caribbean Born

Illness		Total Population	High School Diploma Earned			
			No	Yes	χ^2	P value
ICD Hypomania (Lifetime)						
U.S. born	Not Endorsed	2207	35.5%	64.5%	.27	.605
	Endorsed	89	38.2%	61.8%		
Caribbean born	Not Endorsed	547	36.9%	63.1%	.21	.649
	Endorsed	7	28.6%	71.4%		
DSM-IV Bi-Polar II (Lifetime)						
U.S. born	Not Endorsed	2280	35.6%	64.4%	.46	.496
	Endorsed	16	43.8%	56.2%		
Caribbean born	Not Endorsed	552	37.0%	63.0%	1.17	.28
	Endorsed	2	0%	100%		
DSM-IV Hypomania (Lifetime)						
U.S. born	Not Endorsed	2249	35.4%	64.6%	1.72	.190
	Endorsed	47	44.7%	55.3%		
Caribbean born	Not Endorsed	550	37.1%	62.9%	2.35	.125
	Endorsed	4	0%	100%		

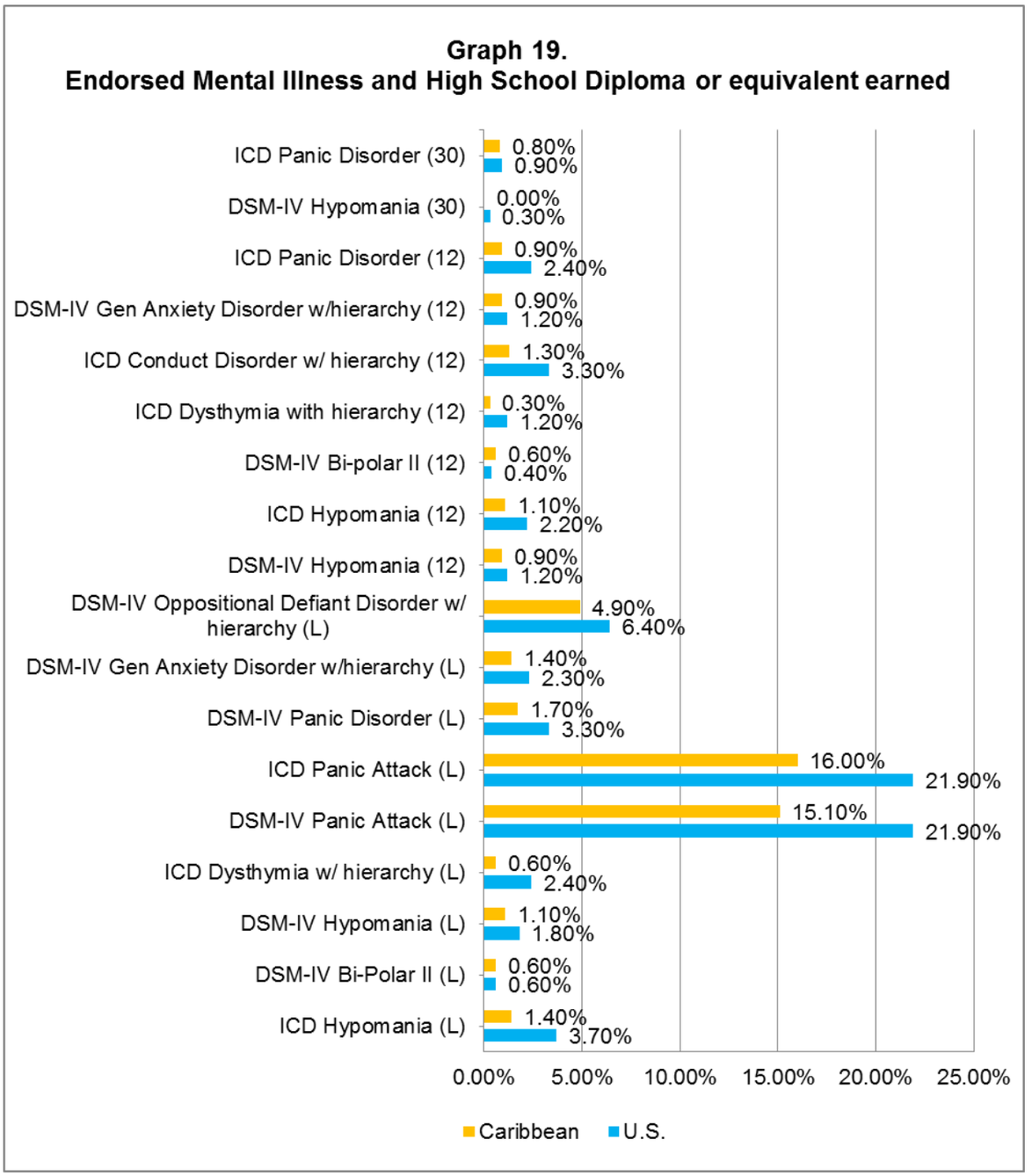
ICD Dysthymia w/ hierarchy (Lifetime)						
‘U.S. born	Not Endorsed	2235	35.5%	64.5%	.78	.376
	Endorsed	61	41.0%	59.0%		
Caribbean born	Not Endorsed	550	36.7%	63.3%	.30	.583
	Endorsed	4	50%	50%		
DSM-IV Panic Attack (Lifetime)						
U.S. born	Not Endorsed	1779	35.1%	64.9%	.84	.358
	Endorsed	517	37.3%	62.7%		
Caribbean born	Not Endorsed	478	37.9%	62.1%	1.63	.202
	Endorsed	76	30.3%	69.7%		
ICD Panic Attack (Lifetime)						
U.S. born	Not Endorsed	1782	35.2%	64.8%	.52	.472
	Endorsed	514	37.0%	63.0%		
Caribbean born	Not Endorsed	473	37.8%	62.2%	1.45	.229
	Endorsed	81	30.9%	69.1%		
DSM-IV Panic Disorder (Lifetime)						
U.S. born	Not Endorsed	2200	35.0%	65.0%	7.76	.005**
	Endorsed	96	49.0%	51.0%		
Caribbean born	Not Endorsed	544	36.8%	63.2%	.04	.834
	Endorsed	10	40.0%	60.0%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)						
U.S. born	Not Endorsed	2230	35.2%	64.8%	4.9	.027*
	Endorsed	66	48.5%	51.5%		
Caribbean born	Not Endorsed	546	36.8%	63.2%	.00	.968
	Endorsed	8	37.5%	62.5%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)						

U.S. born	Not Endorsed	1224	26.0%	74.0%	2.91	.088
	Endorsed	94	34.0%	66.0%		
Caribbean born	Not Endorsed	303	29.7%	70.3%	.44	.506
	Endorsed	14	21.4%	78.6%		
DSM-IV Hypomania (12 month)						
U.S. born	Not Endorsed	2264	35.5%	64.5%	.93	.334
	Endorsed	32	43.8%	56.2%		
Caribbean born	Not Endorsed	551	37.0%	63.0%	1.76	.185
	Endorsed	3	0%	100%		
ICD Hypomania (12 month)						
U.S. born	Not Endorsed	2242	35.5%	64.5%	.26	.613
	Endorsed	54	38.9%	61.1%		
Caribbean born	Not Endorsed	549	37.0%	63.0%	.61	.433
	Endorsed	5	20.0%	80.0%		
DSM-IV Bi-polar II (12Mo)						
U.S. born	Not Endorsed	2285	35.6%	64.4%	.47	.495
	Endorsed	11	45.5%	54.5%		
Caribbean born	Not Endorsed	552	37.0%	63.0%	1.17	.279
	Endorsed	2	0%	100.0%		
ICD Dysthymia with hierarchy (12 month)						
U.S. born	Not Endorsed	2258	35.3%	64.7%	4.87	.027*
	Endorsed	38	52.6%	47.4%		
Caribbean born	Not Endorsed	552	36.8%	63.2%	.15	.699
	Endorsed	2	50%	50%		
ICD Conduct Disorder w/ hierarchy (12Mo)						
U.S. born	Not Endorsed	1272	26.4%	73.6%	.37	.544
	Endorsed	46	30.4%	69.6%		

Caribbean born	Not Endorsed	311	28.9%	71.1%	1.26	.262
	Endorsed	6	50.0%	50.0%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)						
U.S. born	Not Endorsed	2267	35.6%	64.4%	.42	.515
	Endorsed	29	41.4%	58.6%		
Caribbean born	Not Endorsed	551	37.0%	63.0%	1.76	.185
	Endorsed	3	0%	100.0%		
ICD Panic Disorder (12 month)						
U.S. born	Not Endorsed	2225	35.2%	64.8%	5.99	.015*
	Endorsed	71	49.3%	50.7%		
Caribbean born	Not Endorsed	547	36.6%	63.4%	1.26	.262
	Endorsed	7	57.1%	42.9%		
DSM-IV Hypomania (30 day)						
U.S. born	Not Endorsed	2287	35.6%	64.4%	.31	.580
	Endorsed	9	44.4%	55.6%		
Caribbean born	Not Endorsed	554	36.8%	63.2%	.29	.591
	Endorsed	0	0%	0%		
ICD Panic Disorder (30 day)						
U.S. born	Not Endorsed	2263	35.3%	64.7%	7.03	.008**
	Endorsed	33	57.9%	42.4%		
Caribbean born	Not Endorsed	554	36.8%	63.2%	6.85	.009**
	Endorsed	0	0%	0%		

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

The percentages of those who endorsed an illness and earned a high school diploma or equivalent were consistently higher for U.S. born Blacks than Caribbean Blacks as illustrated in Graph 19.



When looking at the impact of having a college degree, table 7 illustrated ICD Dysthymia with hierarchy at the 12 month mark is the only illness with significant results, (1, N=1957) =4.09, p=.043 indicating that those who

do not have a college degree are more likely to endorse this illness in the last 12 months. This illness had a Phi coefficient of -.043 so the association between these variables is very weak.

Table 7. Mental Illness by College Degree Earned

Illness		Total Population	College Diploma Earned			
			Yes	No	χ^2	P value
ICD Hypomania (Lifetime)	Not Endorsed	1905	42.6%	57.4%	.61	.434
	Endorsed	72	47.2%	52.8%		
DSM-IV Bi-Polar II (Lifetime)	Not Endorsed	1969	42.9%	57.1%	3.00	.083
	Endorsed	8	12.5%	87.5%		
DSM-IV Hypomania (Lifetime)	Not Endorsed	1945	42.8%	57.2%	.06	.807
	Endorsed	32	40.6%	59.4%		
ICD Dysthymia w/ hierarchy (Lifetime)	Not Endorsed	1950	42.5%	57.5%	3.05	.081
	Endorsed	27	59.3%	40.7%		
DSM-IV Panic Attack (Lifetime)	Not Endorsed	1612	42.9%	57.1%	.12	.725
	Endorsed	365	41.9%	58.1%		
ICD Panic Attack (Lifetime)	Not Endorsed	1607	42.9%	57.1%	.06	.803
	Endorsed	370	42.2%	57.8%		
DSM-IV Panic Disorder (Lifetime)	Not Endorsed	1912	42.7%	57.3%	.00	.956
	Endorsed	65	43.1%	56.9%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)	Not Endorsed	1906	42.5%	57.5%	.80	.372
	Endorsed	71	47.9%	52.1%		

DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	Not Endorsed	1214	46.0%	54.0%	2.18	.140
	Endorsed	69	55.1%	44.9%		
DSM-IV Hypomania (12 month)	Not Endorsed	1958	42.8%	57.2%	.27	.601
	Endorsed	19	36.8%	56.7%		
ICD Hypomania (12 month)	Not Endorsed	1937	42.7%	57.3%	.09	.771
	Endorsed	40	45%	55.0%		
DSM-IV Bi-polar II (12Mo)	Not Endorsed	1973	42.8%	57.2%	.52	.473
	Endorsed	4	25%	75%		
ICD Dysthymia with hierarchy (12 month)	Not Endorsed	1957	42.5%	57.5%	4.09	.043*
	Endorsed	20	65%	35%		
ICD Conduct Disorder w/ hierarchy (12Mo)	Not Endorsed	1271	46.3%	53.7%	1.99	.158
	Endorsed	12	66.7%	33.3%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	Not Endorsed	1949	42.7%	57.3%	.16	.691
	Endorsed	28	46.4%	53.6%		
ICD Panic Disorder (12 month)	Not Endorsed	1928	42.8%	57.2%	.08	.783
	Endorsed	49	40.8%	59.2%		
DSM-IV Hypomania (30 day)	Not Endorsed	1972	42.7%	57.3%	.61	.435
	Endorsed	5	60.0%	40.0%		
ICD Panic Disorder (30 day)	Not Endorsed	1958	42.6%	57.4%	.77	.381
	Endorsed	19	52.6%	47.4%		

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

When we analyze the impact of a earning a college degree by ethnic origin on rates of mental illnesses, different results are seen than when ethnic origin was not analyzed. The results are presented in table 8. ICD Panic Disorder at the 12 month (1, N=561) =5.16, p=.023 and 30 day (1, N=561) =6.15, p=.013 levels illustrate significant results but only for the Caribbean population. These illnesses have a Phi coefficient of -.096 and -.105 respectively which indicates the relationship between the variables is weak.

Table 8. Mental Illness by College Degree Earned and U.S. Born or Caribbean Born

Illness		Total Population	College Degree			
			No	Yes	χ^2	P value
ICD Hypomania (Lifetime)						
U.S. born	Not Endorsed	1358	43.7%	56.3%	1.47	.226
	Endorsed	58	51.7%	48.3%		
Caribbean born	Not Endorsed	547	39.9%	60.1%	.73	.394
	Endorsed	14	28.6%	71.4%		
DSM-IV Bi-Polar II (Lifetime)						
U.S. born	Not Endorsed	1408	44.2%	55.8%	3.24	.072
	Endorsed	8	12.5%	87.5%		
Caribbean born	Not Endorsed	561	39.6%	60.4%	0	0
	Endorsed	0	0%	0%		
DSM-IV Hypomania (Lifetime)						
U.S. born	Not Endorsed	1388	44.0%	56.0%	.02	.902
	Endorsed	28	42.9%	57.1%		
Caribbean born	Not Endorsed	557	39.7%	60.3%	.36	.550
	Endorsed	4	25.0%	75.0%		
ICD Dysthymia w/ hierarchy (Lifetime)						
U.S. born	Not Endorsed	1393	43.7%	56.3%	2.70	.100
	Endorsed	23	60.9%	39.1%		
Caribbean born	Not	557	39.5%	60.5%	.18	.669

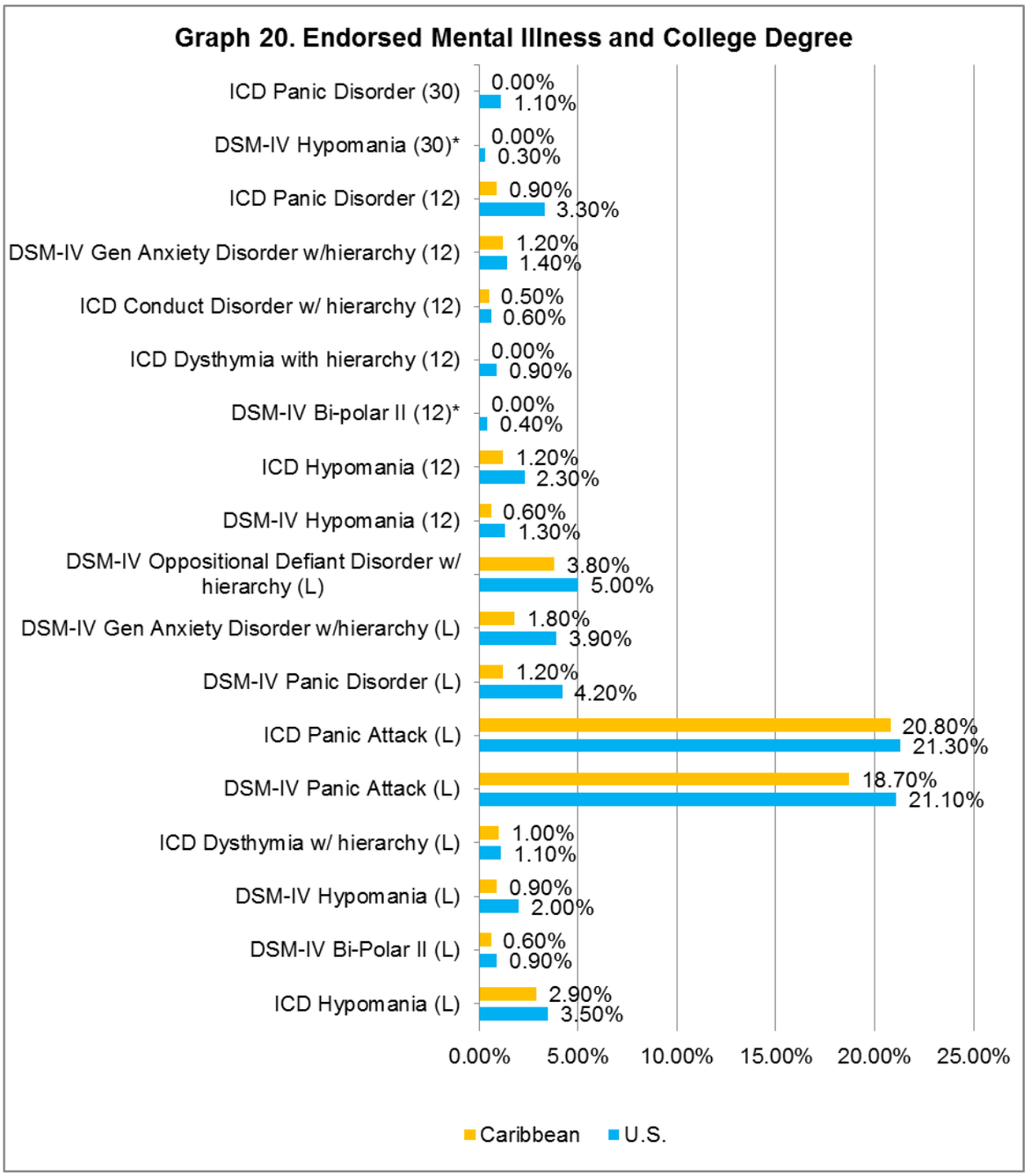
	Endorsed					
	Endorsed	4	50.0%	50.0%		
DSM-IV Panic Attack (Lifetime)						
U.S. born	Not Endorsed	1123	44.3%	55.7%	.15	.700
	Endorsed	293	43.0%	57.0%		
Caribbean born	Not Endorsed	489	39.9%	60.1%	.15	.700
	Endorsed	72	37.5%	62.5%		
ICD Panic Attack (Lifetime)						
U.S. born	Not Endorsed	1121	44.3%	55.7%	.25	.617
	Endorsed	295	42.7%	57.3%		
Caribbean born	Not Endorsed	486	39.5%	60.5%	.01	.935
	Endorsed	75	40.0%	60.0%		
DSM-IV Panic Disorder (Lifetime)						
U.S. born	Not Endorsed	1363	44.2%	55.8%	.88	.349
	Endorsed	53	37.7%	62.3%		
Caribbean born	Not Endorsed	549	39.0%	61.0%	3.76	.052
	Endorsed	12	66.7%	33.3%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)						
U.S. born	Not Endorsed	1352	43.6%	56.4%	1.56	.212
	Endorsed	64	51.6%	48.4%		
Caribbean born	Not Endorsed	554	39.9%	60.1%	1.9	.169
	Endorsed	7	14.3%	85.7%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)						
U.S. born	Not Endorsed	864	47.2%	52.8%	1.73	.188
	Endorsed	55	56.4%	43.6%		
Caribbean born	Not Endorsed	350	42.9%	57.1%	.28	.597
	Endorsed	14	50.0%	50.0%		

DSM-IV Hypomania (12 month)						
U.S. born	Not Endorsed	1399	44.0%	56.0%	.06	.814
	Endorsed	17	41.2%	58.8%		
Caribbean born	Not Endorsed	559	39.7%	60.3%	1.31	.252
	Endorsed	2	0%	100%		
ICD Hypomania (12 month)						
U.S. born	Not Endorsed	1382	43.9%	56.1%	.13	.716
	Endorsed	34	47.1%	52.9%		
Caribbean born	Not Endorsed	555	39.6%	60.4%	.10	.753
	Endorsed	6	33.3%	66.7%		
DSM-IV Bi-polar II (12Mo)						
U.S. born	Not Endorsed	1412	44.1%	55.9%	.59	.443
	Endorsed	4	25.0%	75.0%		
Caribbean born	Not Endorsed	561	39.8%	60.4%	0	0
	Endorsed	0	0%	0%		
ICD Dysthymia with hierarchy (12 month)						
U.S. born	Not Endorsed	1398	43.8%	56.2%	2.17	.141
	Endorsed	18	61.1%	38.9%		
Caribbean born	Not Endorsed	559	39.4%	60.6%	3.07	.080
	Endorsed	2	100.0%	0%		
ICD Conduct Disorder w/ hierarchy (12Mo)						
U.S. born	Not Endorsed	908	47.5%	52.5%	2.78	.095
	Endorsed	11	72.7%	27.3%		
Caribbean born	Not Endorsed	363	43.3%	56.7%	.76	.383
	Endorsed	1	0%	100%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)						
U.S. born	Not Endorsed	1392	43.8%	56.2%	1.03	.311
	Endorsed	24	54.2%	45.8%		

Caribbean born	Not Endorsed	557	39.6%	60.4%	2.64	.104
	Endorsed	4	25.0%	75.0%		
ICD Panic Disorder (12 month)						
U.S. born	Not Endorsed	1378	44.3%	55.7%	2.44	.118
	Endorsed	38	31.6%	68.4%		
Caribbean born	Not Endorsed	550	38.9%	61.1%	5.16	.023*
	Endorsed	11	72.7%	27.3%		
DSM-IV Hypomania (30 day)						
U.S. born	Not Endorsed	1411	43.9%	56.1%	.52	.470
	Endorsed	5	60.0%	40.0%		
Caribbean born	Not Endorsed	1972	39.6%	60.4%	0	0
	Endorsed	5	0	0		
ICD Panic Disorder (30 day)						
U.S. born	Not Endorsed	1401	44.0%	56.0%	.10	.754
	Endorsed	15	40.0%	60.0%		
Caribbean born	Not Endorsed	557	39.1%	60.9%	6.15	.013*
	Endorsed	4	100%	0%		

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

The percentages of those who endorsed an illness and earned a college diploma were consistently higher for U.S. born Blacks than Caribbean Blacks as illustrated in Graph 20.



There were a number of significant results for the highest grade of school completed and mental illnesses as demonstrated in table 9. DSM-IV Bi-Polar II, DSM-IV Hypomania, ICD Dysthymia w/ hierarchy, DSM-IV Panic

Attack, ICD Panic Attack, DSM-IV Panic Disorder, ICD Conduct Disorder, and DSM-IV Generalized Anxiety Disorder at the lifetime mark are all significant. DSM-IV Bi-Polar II, DSM-IV Hypomania, ICD Conduct Disorder, ICD Panic Disorder and DSM-IV Generalized Anxiety Disorder at the 12 month mark and ICD Panic Disorder at the 30 day mark were also significant and all are positive correlations.

Table 9. Correlates of Mental Illness and Highest grade of school completed

	Pearson Correlation	Sig. (2-tailed)	N
ICD Hypomania (Lifetime)	-.002	.872	4840
DSM-IV Bi-Polar II (Lifetime)	-.016	.266	4840
DSM-IV Hypomania (Lifetime)	.553**	.000	4840
ICD Dysthymia w/ hierarchy (Lifetime)	.381**	.000	4840
DSM-IV Panic Attack (Lifetime)	.124**	.000	4838
ICD Panic Attack (Lifetime)	.982**	.000	4838
DSM-IV Panic Disorder (Lifetime)	.382**	.000	4838
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)	.076**	.000	4836
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	.113**	.000	2915
DSM-IV Hypomania (12 month)	-.017	.251	4840
ICD Hypomania (12 month)	.628**	.000	4840
DSM-IV Bi-polar II (12Mo)	.261**	.000	4840
ICD Dysthymia with hierarchy (12 month)	-.012	.414	4840
ICD Conduct Disorder w/ hierarchy (12Mo)	.045*	.015	2916
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	.040*	.030	2915
ICD Panic Disorder (12 month)	.071**	.000	4836
DSM-IV Hypomania (30 day)	-.005	.719	4829
ICD Panic Disorder (30 day)	.075**	.000	4838

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

Gender

Gender and its impact on rates of mental illnesses are considered in the following cross tabulations presented in table 10. ICD Dysthymia with hierarchy (1, N=4745) =7.47, p=.006 with a Phi coefficient of .039, DSM-IV Panic Attack (1, N=3878) =33.94, p<.001 with a Phi coefficient of .084, ICD Panic Attack (1, N=3872) =36.61, p<.001 with a Phi coefficient of .087, DSM-IV Panic Disorder (1, N=4668) =8.64, p=.003 with a Phi coefficient of .042, and

DSM-IV Generalized Anxiety Disorder with hierarchy (1, N=4687) =6.25, p=.012 with a Phi coefficient of .036 all had significant findings with women more likely to endorse the illness than males over the course of their lifetime. ICD Dysthymia with hierarchy (1, N=4777) =8.41, p=.004 with a Phi coefficient of .042, ICD Conduct Disorder with hierarchy (1, N=2852) =4.07, p=.044 with a Phi coefficient of -.037, Generalized Anxiety Disorder with hierarchy (1, N=4771) =5.16, p=.023 with a Phi coefficient of .033 and ICD Panic Disorder (1, N=4712) =10.21, p=.001 with a Phi coefficient of .046, were all significant with females more likely to endorse the illness than males in the past 12 months. ICD Panic Disorder in the last 30 days was also significant (1, N=4786) =4.11, p=.043 with a Phi coefficient of .029. The Phi coefficients all indicate very weak associations between the variables.

Table 10. Mental Illness by Gender

Illness		Total Population	Gender			
			Male	Female	χ^2	P value
ICD Hypomania (Lifetime)	Not Endorsed	4671	36.5%	63.5%	.14	.712
	Endorsed	169	37.9%	62.1%		
DSM-IV Bi-Polar II (Lifetime)	Not Endorsed	4814	36.5%	63.5%	.38	.539
	Endorsed	26	42.3%	57.7%		
DSM-IV Hypomania (Lifetime)	Not Endorsed	4756	36.6%	63.4%	1.69	.194
	Endorsed	84	29.8%	70.2%		
ICD Dysthymia w/ hierarchy (Lifetime)	Not Endorsed	4745	36.8%	63.2%	7.47	.006**
	Endorsed	95	23.2%	76.8%		
DSM-IV Panic Attack (Lifetime)	Not Endorsed	3878	38.6%	61.4%	33.94	.000***
	Endorsed	960	28.4%	71.6%		
ICD Panic Attack (Lifetime)	Not Endorsed	3872	38.6%	61.4%	36.61	.000***
	Endorsed	966	28.2%	71.8%		
DSM-IV Panic Disorder (Lifetime)	Not Endorsed	4668	36.9%	63.1%	8.64	.003**
	Endorsed	170	25.9%	74.1%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)	Not Endorsed	4687	36.9%	63.1%	6.25	.012**
	Endorsed	149	26.8%	73.2%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	Not Endorsed	2739	35.6%	64.4%	1.36	.243
	Endorsed	178	39.9%	60.1%		
DSM-IV Hypomania (12 month)	Not Endorsed	4785	36.6%	63.4%	1.33	.249

	Endorsed	55	29.1%	70.9%		
ICD Hypomania (12 month)	Not Endorsed	4740	36.6%	63.4%	.10	.748
	Endorsed	100	36.0%	65.0%		
DSM-IV Bi-polar II (12Mo)	Not Endorsed	4823	36.5%	63.5%	1.98	.159
	Endorsed	17	52.9%	47.1%		
ICD Dysthymia with hierarchy (12 month)	Not Endorsed	4777	36.8%	63.2%	8.41	.004**
	Endorsed	63	19.0%	81.0%		
ICD Conduct Disorder w/ hierarchy (12Mo)	Not Endorsed	2852	35.6%	64.4%	4.07	.044*
	Endorsed	65	47.7%	52.3%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	Not Endorsed	4771	36.7%	63.3%	5.16	.023*
	Endorsed	65	23.1%	76.9%		
ICD Panic Disorder (12 month)	Not Endorsed	4712	36.9%	63.1%	10.21	.001***
	Endorsed	126	23.0%	77.0%		
DSM-IV Hypomania (30 day)	Not Endorsed	4826	36.6%	63.4%	2.30	.083
	Endorsed	14	14.3%	85.7%		
ICD Panic Disorder (30 day)	Not Endorsed	4786	36.7%	63.3%	4.11	.043*
	Endorsed	52	23.1%	76.9%		

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

When considering ethnic origin and the gender, we see a number of significant results on the rates of mental illnesses shown in table 11. ICD Dysthymia w/ hierarchy (1, N=3623) =4.12, p=.042 with a Phi coefficient of .033, DSM-IV Panic Attack (1, N=2896) =30.67, p<.001 with a Phi coefficient of .091, ICD Panic Attack (1, N=2897) =32.28, p<.001 with a Phi coefficient of .093, DSM-IV Panic Disorder (1, N=3558) =10.86, p=.001 with a Phi coefficient of .054 and DSM-IV Generalized Anxiety Disorder w/hierarchy (1, N=3578) =5.71, p=017 with a Phi coefficient of .039 were all significant for the U.S. born population with females more likely to endorse the illness than males over the course of their lifetime. ICD Dysthymia with hierarchy (1, N=3651) =4.9, p=027 with a Phi coefficient of .036, DSM-IV Generalized Anxiety Disorder w/hierarchy (1, N=3654) =5.09, p=024 with a Phi coefficient of .037 and ICD Panic Disorder (1, N=3598) =12.88, p<.001 with a Phi coefficient of .059 in the past 12 months and ICD Panic Disorder (1, N=3659) =4.55, p=033 with a Phi coefficient of .035 at the 30 day mark yielded the same interaction for females in the U.S. born population. The Phi coefficients illustrate there are very weak

associations between the variables analyzed. There were no significant findings for gender and the rates of mental illnesses in the Caribbean population.

Table 11. Mental Illness by Gender and U.S. Born or Caribbean Born

Illness		College Degree				
		Total Population	Male	Female	χ^2	P value
ICD Hypomania (Lifetime)						
U.S. born	Not Endorsed	3560	35.4%	64.6%	.02	.881
	Endorsed	147	36.1%	63.9%		
Caribbean born	Not Endorsed	1071	39.9%	60.1%	.52	.473
	Endorsed	21	47.6%	52.4%		
DSM-IV Bi-Polar II (Lifetime)						
U.S. born	Not Endorsed	3683	35.4%	64.6%	.41	.525
	Endorsed	24	41.7%	58.3%		
Caribbean born	Not Endorsed	1090	40.0%	60.0%	.08	.773
	Endorsed	2	50.0%	50.0%		
DSM-IV Hypomania (Lifetime)						
U.S. born	Not Endorsed	3632	35.6%	64.4%	1.87	.172
	Endorsed	75	28.0%	72.0%		
Caribbean born	Not Endorsed	1084	40.0%	60.0%	.02	.884
	Endorsed	8	37.5%	62.5%		
ICD Dysthymia w/ hierarchy (Lifetime)						
U.S. born	Not Endorsed	3623	35.7%	64.3%	4.12	.042*
	Endorsed	84	25.0%	75.0%		
Caribbean born	Not Endorsed	1084	40.2%	59.8%	2.54	.111
	Endorsed	8	12.5%	87.5%		
DSM-IV Panic Attack (LifeT)						
U.S. born	Not Endorsed	2896	37.8%	62.2%	30.67	.000***
	Endorsed	811	27.3%	72.7%		
Caribbean born	Not Endorsed	947	40.7%	59.3%	1.02	.273
	Endorsed	145	35.9%	64.1%		
ICD Panic Attack (Lifetime)						
U.S. born	Not Endorsed	2897	37.8%	62.2%	32.23	.000***
	Endorsed	810	27.0%	73.0%		

Caribbean born	Not Endorsed	940	40.9%	59.1%	1.95	.162
	Endorsed	152	34.9%	65.1%		
DSM-IV Panic Disorder (LifeT)						
U.S. born	Not Endorsed	3558	36.0%	64.0%	10.86	.001***
	Endorsed	149	22.8%	77.2%		
Caribbean born	Not Endorsed	1071	39.9%	60.1%	.52	.473
	Endorsed	21	47.6%	52.4%		
DSM-IV Gen Anxiety Disorder w/ hierarchy (LifeT)						
U.S. born	Not Endorsed	3578	35.8%	64.2%	5.71	.017*
	Endorsed	129	25.6%	74.4%		
Caribbean born	Not Endorsed	1077	40.1%	59.9%	.28	.595
	Endorsed	15	33.3%	66.7%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)						
U.S. born	Not Endorsed	2082	34.4%	65.6%	.38	.540
	Endorsed	149	36.9%	63.1%		
Caribbean born	Not Endorsed	644	39.0%	61.0%	2.39	.122
	Endorsed	28	53.6%	46.4%		
DSM-IV Hypomania (12 Mo)						
U.S. born	Not Endorsed	3658	35.6%	64.4%	1.73	.188
	Endorsed	49	26.5%	73.5%		
Caribbean born	Not Endorsed	1087	40.0%	60.0%	.00	.999
	Endorsed	5	40.0%	60.0%		
ICD Hypomania (12 month)						
U.S. born	Not Endorsed	3619	35.6%	64.4%	.53	.468
	Endorsed	88	31.8%	68.2%		
Caribbean born	Not Endorsed	1081	39.9%	60.1%	.98	.323
	Endorsed	11	54.5%	45.5%		
DSM-IV Bi-polar II (12Mo)						
U.S. born	Not Endorsed	3692	35.4%	64.6%	2.10	.147
	Endorsed	15	53.3%	46.7%		
Caribbean born	Not Endorsed	1090	40.0%	60.0%	.02	.884
	Endorsed	2	50.0%	50.0%		
ICD Dysthymia with hierarchy (12 month)						
U.S. born	Not Endorsed	3651	35.7%	64.3%	4.90	.027*

	Endorsed	56	21.4%	78.6%		
Caribbean born	Not Endorsed	1088	40.2%	59.8%	2.68	.102
	Endorsed	4	0%	100.0%		
ICD Conduct Disorder w/ hierarchy (12Mo)						
U.S. born	Not Endorsed	2174	34.4%	65.6%	2.22	.137
	Endorsed	57	43.9%	56.1%		
Caribbean born	Not Endorsed	665	39.2%	60.8%	3.00	.083
	Endorsed	7	71.4%	28.6%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)						
U.S. born	Not Endorsed	3654	35.7%	64.3%	5.09	.024*
	Endorsed	53	20.8%	79.2%		
Caribbean born	Not Endorsed	1085	40.1%	59.9%	.39	.535
	Endorsed	7	28.6%	71.4%		
ICD Panic Disorder (12Mo)						
U.S. born	Not Endorsed	3598	36.0%	64.0%	12.89	.000***
	Endorsed	109	19.3%	80.7%		
Caribbean born	Not Endorsed	1075	39.9%	60.1%	.36	.550
	Endorsed	17	47.1%	52.9%		
DSM-IV Hypomania (30 day)						
U.S. born	Not Endorsed	3693	35.6%	64.4%	2.76	.097
	Endorsed	14	14.3%	85.7%		
Caribbean born	Not Endorsed	1092	40.0%	60.0%		
	Endorsed	0	0%	0%		
ICD Panic Disorder (30 day)						
U.S. born	Not Endorsed	3659	35.7%	64.3%	4.55	.033*
	Endorsed	48	20.8%	79.2%		
Caribbean born	Not Endorsed	1088	40.0%	60.0%	.17	.683
	Endorsed	4	50.0%	50.0%		

*p < .05, **p < .01, ***p < .001

Employment

Cross tabulations were performed to determine if employment indicated by working for pay at present time impacts rates of mental illnesses for the entire Black sample and then broken down by U.S. born and Caribbean

Blacks. There are no significant findings when the entire Black population sample was analyzed in relation to being employed at the present time which is indicated in table 12.

Table 12. Mental Illness by Employment

Illness		Total Population	Working for pay at present time			
			No	Yes	χ^2	P value
ICD Hypomania (Lifetime)	Not Endorsed	1629	92.1%	7.9%	.09	.770
	Endorsed	56	91.1%	8.9%		
DSM-IV Bi-Polar II (Lifetime)	Not Endorsed	1678	92.1%	7.9%	.60	.438
	Endorsed	7	100%	0%		
DSM-IV Hypomania (Lifetime)	Not Endorsed	1658	92.1%	7.9%	.01	.925
	Endorsed	27	92.6%	7.4%		
ICD Dysthymia w/ hierarchy (Lifetime)	Not Endorsed	1638	91.9%	8.1%	2.21	.137
	Endorsed	47	97.9%	2.1%		
DSM-IV Panic Attack (Lifetime)	Not Endorsed	1319	92.0%	8.0%	.04	.846
	Endorsed	366	92.3%	7.7%		
ICD Panic Attack (Lifetime)	Not Endorsed	1318	92.0%	8.0%	.05	.832
	Endorsed	367	92.4%	7.6%		
DSM-IV Panic Disorder (LifeT)	Not Endorsed	1604	92.0%	8.0%	.35	.556
	Endorsed	81	93.8%	6.2%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)	Not Endorsed	1623	92.3%	7.7%	2.22	.136
	Endorsed	62	87.1%	12.9%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	Not Endorsed	693	90.0%	1.0%	.95	.329
	Endorsed	57	86.0%	14.0%		
DSM-IV Hypomania (12 month)	Not Endorsed	1671	92.0%	8.0%	1.21	.271
	Endorsed	14	100.0%	0%		
ICD Hypomania (12 month)	Not Endorsed		92.0%	8.0%	.80	.371

	Endorsed	29	96.6%	3.4%		
DSM-IV Bi-polar II (12Mo)	Not Endorsed	1680	92.1%	7.9%	.43	.512
	Endorsed	5	100.0%	0%		
ICD Dysthymia with hierarchy (12 mo)	Not Endorsed	1656	92.0%	8.0%	.80	.371
	Endorsed	29	96.6%	3.4%		
ICD Conduct Disorder w/ hierarchy (12Mo)	Not Endorsed	724	89.8%	10.2%	.05	.828
	Endorsed	26	88.5%	11.5%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	Not Endorsed	1655	92.3%	7.7%	3.23	.072
	Endorsed	30	83.3%	16.7%		
ICD Panic Disorder (12 month)	Not Endorsed	1621	92.0%	8.0%	.25	.619
	Endorsed	64	93.8%	6.2%		
DSM-IV Hypomania (30 day)	Not Endorsed	1680	92.1%	7.9%	.43	.512
	Endorsed	5	100.0%	0%		
ICD Panic Disorder (30 day)	Not Endorsed	1656	92.0%	8.0%	.80	.371
	Endorsed	29	96.6%	3.4%		

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

The null hypothesis was not rejected as there are no significant findings when looking at being employed at the present time and ethnic origin as indicated in table 13.

Table 13. Mental Illness by employment and U.S. Born or Caribbean Born

Illness			Working for pay at present time			
			No	Yes	χ^2	P value
ICD Hypomania (Lifetime)						
U.S. born	Not Endorsed	1335	91.8%	8.2%	.02	.888
	Endorsed	52	92.3%	7.7%		
Caribbean born	Not Endorsed	283	93.6%	6.4%	2.22	.137
	Endorsed	4	75.0%	25.0%		
DSM-IV Bi-Polar II (LifeT)****						
U.S. born	Not Endorsed	1380	91.7%	8.3%	.63	.427
	Endorsed	7	100.0%	0%		
Caribbean born	Not Endorsed	287	93.4%	6.6%		

	Endorsed	0	0%	0%		
DSM-IV Hypomania (LifeT)****						
U.S. born	Not Endorsed	1360	91.8%	8.2%	.02	.877
	Endorsed	27	92.6%	7.4%		
Caribbean born	Not Endorsed	287	93.4%	6.6%		
	Endorsed	19	0%	0%		
ICD Dysthymia w/ hierarchy (Lifetime)						
U.S. born	Not Endorsed	1343	91.6%	8.4%	2.13	.144
	Endorsed	44	97.7%	2.3%		
Caribbean born	Not Endorsed	285	93.3%	6.7%	.14	.706
	Endorsed	2	100%	0%		
DSM-IV Panic Attack (Lifetime)						
U.S. born	Not Endorsed	1065	91.6%	8.4%	.12	.734
	Endorsed	322	92.2%	7.8%		
Caribbean born	Not Endorsed	245	93.5%	6.5%	.02	.883
	Endorsed	42	92.9%	7.1%		
ICD Panic Attack (Lifetime)						
U.S. born	Not Endorsed	1067	91.7%	8.3%	.09	.763
	Endorsed	320	92.2%	7.8%		
Caribbean born	Not Endorsed	242	93.4%	6.6%	.00	.989
	Endorsed	45	93.3%	6.7%		
DSM-IV Panic Disorder (LifeT)						
U.S. born	Not Endorsed	1312	91.6%	8.4%	.88	.349
	Endorsed	75	94.7%	5.3%		
Caribbean born	Not Endorsed	281	93.6%	6.4%	1.00	.317
	Endorsed	6	83.3%	16.7%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)						
U.S. born	Not Endorsed	1330	92.0%	8.0%	1.30	.254
	Endorsed	57	87.7%	12.3%		
Caribbean born	Not Endorsed	283	93.6%	6.4%	2.22	.137
	Endorsed	4	75.0%	25.0%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)						
U.S. born	Not Endorsed	557	90.1%	9.9%	.40	.528
	Endorsed	47	87.2%	12.8%		
Caribbean born	Not Endorsed	133	89.5%	10.5%	.84	.359
	Endorsed	10	80.0%	20.0%		

DSM-IV Hypomania (12Mo)****						
U.S. born	Not Endorsed	1373	91.7%	8.3%	1.27	.260
	Endorsed	14	100.0%	0%		
Caribbean born	Not Endorsed	287	93.4%	6.6%		
	Endorsed	0	0%	0%		
ICD Hypomania (12 month)						
U.S. born	Not Endorsed	1360	91.7%	8.3%	.74	.388
	Endorsed	27	96.3%	3.7%		
Caribbean born	Not Endorsed	285	93.3%	6.7%	.14	.706
	Endorsed	2	100.0%	0%		
DSM-IV Bi-polar II (12Mo)****						
U.S. born	Not Endorsed	1382	91.8%	8.2%	.45	.503
	Endorsed	5	100.0%	0%		
Caribbean born	Not Endorsed	287	93.4%	6.6%		
	Endorsed	0	0%	0%		
ICD Dysthymia with hierarchy (12 month)****						
U.S. born	Not Endorsed	1359	91.7%	8.3%	.82	.366
	Endorsed	28	96.4%	3.6%		
Caribbean born	Not Endorsed	287	93.4%	6.6%		
	Endorsed	0	0%	0%		
ICD Conduct Disorder w/ hierarchy (12Mo)						
U.S. born	Not Endorsed	581	90.0%	10.0%	.23	.633
	Endorsed	23	87.3%	13.0%		
Caribbean born	Not Endorsed	140	88.6%	11.4%	.39	.534
	Endorsed	3	100.0%	0%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)						
U.S. born	Not Endorsed	1360	91.9%	8.1%	1.59	.208
	Endorsed	27	85.2%	14.8%		
Caribbean born	Not Endorsed	285	93.7%	6.3%	6.13	.013*
	Endorsed	2	50.0%	50.0%		
ICD Panic Disorder (12 month)						
U.S. born	Not Endorsed	1329	91.6%	8.4%	.75	.388
	Endorsed	58	94.8%	5.2%		
Caribbean born	Not Endorsed	281	93.6%	6.4%	1.00	.317
	Endorsed	6	83.3%	16.7%		

DSM-IV Hypomania (30a day)****						
U.S. born	Not Endorsed	1382	91.8%	8.2%	.45	.503
	Endorsed	5	100.0%	0%		
Caribbean born	Not Endorsed	287	93.4%	6.6%		
	Endorsed	0	0%	0%		
ICD Panic Disorder (30 day)****						
U.S. born	Not Endorsed	1358	91.7%	8.3%	.89	.344
	Endorsed	29	96.6%	3.4%		
Caribbean born	Not Endorsed	287	93.4%	6.6%		
	Endorsed	0	0%	0%		

*p < .05, **p < .01, ***p < .001 ****No respondents endorsed this disorder therefore no computation could be completed.

There were a number of significant findings when looking at the number of hours for all Black respondents that worked for pay which are illustrated in table 14. DSM-IV Hypomania, ICD Panic Attack, DSM-IV Panic Disorder, DSM-IV Generalized Anxiety Disorder w/hierarchy, DSM-IV Oppositional Defiant Disorder w/ hierarchy all have significant results. ICD Dysthymia w/ hierarchy and DSM-IV Panic Attack also have significant results over the course of the lifetime. ICD Hypomania, DSM-IV Bi-polar II, ICD Conduct Disorder w/ hierarchy, DSM-IV Gen Anxiety Disorder w/hierarchy and ICD Panic Disorder at the 12 month mark and ICD Panic Disorder at the 30 day mark have significant results.

Table 14. Correlates of Mental Illness and # of hours worked per week

	Pearson Correlation	Sig. (2-tailed)	N
ICD Hypomania (Lifetime)	-.008	.637	3270
DSM-IV Bi-Polar II (Lifetime)	-.016	.266	4840
DSM-IV Hypomania (Lifetime)	.553***	.000	4840
ICD Dysthymia w/ hierarchy (LifeT)	-.381***	.000	4840
DSM-IV Panic Attack (Lifetime)	-.124***	.000	4838
ICD Panic Attack (Lifetime)	.982***	.000	4838
DSM-IV Panic Disorder (Lifetime)	.382***	.000	4838
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)	.076***	.000	4836
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	.113***	.000	2915
DSM-IV Hypomania (12 month)	-.017	.251	4840
ICD Hypomania (12 month)	.628***	.000	4840
DSM-IV Bi-polar II (12Mo)	.261***	.000	4840
ICD Dysthymia with hierarchy (12Mo)	-.012	.414	

ICD Conduct Disorder w/ hierarchy (12Mo)	.045*	.015	2916
DSM-IV Gen Anxiety Disorder w/ hierarchy (12Mo)	.040*	.030	2915
ICD Panic Disorder (12 month)	.071***	.000	4836
DSM-IV Hypomania (30 day)	-.005	.719	4829
ICD Panic Disorder (30 day)	.075***	.000	4838

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

Table 15 provides correlates for the number of hours worked and the relationship to the illnesses for Caribbean respondents. DSM-IV Hypomania, ICD Panic Attack, DSM-IV Panic Attack, Dysthymia w/ hierarchy, DSM-IV Panic Disorder, DSM-IV Generalized Anxiety Disorder, ICD Conduct Disorder w/ hierarchy and DSM-IV Oppositional Defiant Disorder over the course of the lifetime, ICD Hypomania and DSM-IV Bi-polar II over the last 12 months and ICD Panic Disorder for the last 30 days show significant results with a positive relationship to number of hours worked.

Table 15. Correlates of Mental Illness and # of hours worked per week for Caribbean respondents

	Pearson Correlation	Sig. (2-tailed)	N
ICD Hypomania (Lifetime)	.039	.210	1036
DSM-IV Bi-Polar II (Lifetime)	-.015	.576	1407
DSM-IV Hypomania (Lifetime)	.621***	.000	1407
ICD Dysthymia w/ hierarchy (LifeT)	.270***	.000	1407
DSM-IV Panic Attack (Lifetime)	.153***	.000	1407
ICD Panic Attack (Lifetime)	.974***	.000	1407
DSM-IV Panic Disorder (Lifetime)	.371***	.000	1407
DSM-IV Gen Anxiety Disorder w/ hierarchy (LifeT)	.102***	.000	1406
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	.113***	.001	901
DSM-IV Hypomania (12 month)	-.013	.627	1407
ICD Hypomania (12 month)	.549***	.000	1407
DSM-IV Bi-polar II (12Mo)	.208***	.000	1407
ICD Dysthymia with hierarchy (12Mo)	-.007	.801	1407
ICD Conduct Disorder w/hierarchy (12Mo)	-.011	.734	901
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	-.015	.660	901
ICD Panic Disorder (12 month)	.038	.153	1406
DSM-IV Hypomania (30 day)	-.002	.948	1403
ICD Panic Disorder (30 day)	.221***	.000	1407

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

Table 16 presents correlates for the number of hours worked and the relationship to the illnesses for U.S. born Black respondents. DSM-IV Hypomania, ICD Dysthymia w/ hierarchy, ICD Panic Attack, DSM-IV Panic Attack, DSM-IV Generalized Anxiety Disorder and DSM-IV Oppositional Defiant Disorder over the course of the lifetime, ICD Hypomania and DSM-IV Bi-polar II, ICD Conduct Disorder w/ hierarchy, DSM-IV Gen Anxiety Disorder w/hierarchy and ICD Panic Disorder over the last 12 months and ICD Panic Disorder for the last 30 days show significant results.

Table 16. Correlates of # hours work for pay a week – U.S. born respondents

	Pearson Correlation	Sig. (2-tailed)	N
ICD Hypomania (Lifetime)	-.027	.201	2234
DSM-IV Bi-Polar II (Lifetime)	-.016	.336	3433
DSM-IV Hypomania (Lifetime)	.533***	.000	3433
ICD Dysthymia w/ hierarchy (LifeT)	.413***	.000	3433
DSM-IV Panic Attack (Lifetime)	.115***	.000	3431
ICD Panic Attack (Lifetime)	.984***	.000	3431
DSM-IV Panic Disorder (Lifetime)	.385***	.000	3431
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)	.069***	.000	3430
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	.112***	.000	2014
DSM-IV Hypomania (12 month)	-.018	.293	3433
ICD Hypomania (12 month)	.651***	.000	3433
DSM-IV Bi-polar II (12Mo)	.277***	.000	3433
ICD Dysthymia with hierarchy (12Mo)	-.014	.423	3433
ICD Conduct Disorder w/hierarchy (12Mo)	.060**	.007	2015
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	.058**	.009	204
ICD Panic Disorder (12 month)	.080***	.000	3430
DSM-IV Hypomania (30 day)	-.007	.703	3426
ICD Panic Disorder (30 day)	.043*	.011	3431

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

Home Ownership

Cross tabs were analyzed to determine if owning one's home impacts rates of mental illnesses, the results of which are included in table 16. ICD Panic Attack (1, N=2115) =5.07, p=.024 with a Phi coefficient of .049 and DSM-IV Panic Attack (1, N=2115) =5.33, p=.021 with a Phi coefficient of .050 over the course of their lifetime was

shown to be significant. The Phi coefficients illustrate there are very weak associations between the variables analyzed. These results are shown in table 17.

Table 17. Mental Illness by Mortgage on Home

Illness		Total Population	Mortgage on Home			
			No	Yes	χ^2	P value
ICD Hypomania (Lifetime)	Not Endorsed	2067	32.3%	67.7%	.02	.882
	Endorsed	48	33.3%	66.7%		
DSM-IV Bi-Polar II (Lifetime)	Not Endorsed	2107	32.4%	67.6%	.20	.657
	Endorsed	8	25.0%	75.0%		
DSM-IV Hypomania (Lifetime)	Not Endorsed	2086	32.5%	67.5%	.90	.342
	Endorsed	29	24.1	75.9%		
ICD Dysthymia w/ hierarchy (Lifetime)	Not Endorsed	2086	32.3%	67.7%	.42	.517
	Endorsed	29	37.9%	62.1%		
DSM-IV Panic Attack (Lifetime)	Not Endorsed	1741	33.4%	66.6%	5.30 *	.021
	Endorsed	374	27.3%	72.7%		
ICD Panic Attack (Lifetime)	Not Endorsed	1736	33.4%	66.6%	5.10 *	.024
	Endorsed	379	27.4%	72.6%		
DSM-IV Panic Disorder (LifeT)	Not Endorsed	2056	32.6%	67.4%	2.06	1.52
	Endorsed	59	23.7%	76.3%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)	Not Endorsed	2055	32.3%	67.7%	.03	.868
	Endorsed	60	33.3%	66.7%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	Not Endorsed	963	23.8%	76.2%	.12	.726
	Endorsed	42	21.4%	78.0%		
DSM-IV Hypomania (12 month)	Not Endorsed	2095	32.5%	67.5%	2.78	.096
	Endorsed	20	15.0%	85.0%		
ICD Hypomania (12 month)	Not Endorsed	2087	32.3%	67.7%	.15	.701
	Endorsed	28	35.7%	64.3%		

DSM-IV Bi-polar II (12Mo)	Not Endorsed	2108	32.4%	67.6%	.05	.831
	Endorsed	7	28.6%	71.4%		
ICD Dysthymia with hierarchy (12 month)	Not Endorsed	2097	32.2%	67.8%	1.22	.270
	Endorsed	18	44.4%	55.6%		
ICD Conduct Disorder w/ hierarchy (12Mo)	Not Endorsed	990	23.5%	76.5%	.79	.376
	Endorsed	15	33.3%	66.7%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	Not Endorsed	2093	32.4%	67.6%	.26	.609
	Endorsed	22	27.3%	72.7%		
ICD Panic Disorder (12 month)	Not Endorsed	2071	32.3%	67.7%	.06	.802
	Endorsed	44	34.1%	65.9%		
DSM-IV Hypomania (30 day)	Not Endorsed	2111	32.4%	67.6%	.10	.753
	Endorsed	4	25.0%	75.0%		
ICD Panic Disorder (30 day)	Not Endorsed	2099	32.3%	67.7%	.96	.327
	Endorsed	16	43.8%	56.2%		

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

Home ownership was analyzed considering the ethnic origin of the two groups. ICD Panic Attack (1, N=1684) =8.47, p=.004 with a Phi coefficient of .071 and DSM-IV Panic Attack (1, N=1684) =8.97, p=.003 with a Phi coefficient of .073 at the lifetime level were significant for U.S. born Blacks. The Phi coefficients illustrate there are very weak associations between the variables analyzed. The results are presented in table 18.

Table 18. Mental Illness by Mortgage on Home and U.S. Born vs. Caribbean Born

Illness		Total Population	Mortgage on home			
			No	Yes	χ^2	P value
ICD Hypomania (Lifetime)						
U.S. born	Not Endorsed	1642	36.5%	63.5%	.01	.913
	Endorsed	42	35.7%	64.3%		
Caribbean born	Not Endorsed	424	16.0%	84.0%	.00	.967
	Endorsed	6	16.7%	83.3%		

DSM-IV Bi-Polar II (Lifetime)						
U.S. born	Not Endorsed	1677	36.4%	63.2%	.19	.662
	Endorsed	7	28.6%	71.4%		
Caribbean born	Not Endorsed	429	16.1%	83.9%	.19	.662
	Endorsed	1	0%	100.0%		
DSM-IV Hypomania (Lifetime)						
U.S. born	Not Endorsed	1659	36.6%	63.4%	.80	.373
	Endorsed	25	28.0%	72.0%		
Caribbean born	Not Endorsed	426	16.2%	83.8%	.77	.380
	Endorsed	4	0%	100.0%		
ICD Dysthymia w/ hierarchy (Lifetime)						
U.S. born	Not Endorsed	1658	36.5%	63.5%	.04	.836
	Endorsed	26	38.5%	61.5%		
Caribbean born	Not Endorsed	427	15.9%	84.1%	.67	.413
	Endorsed	3	33.3%	66.7%		
DSM-IV Panic Attack (Lifetime)						
U.S. born	Not Endorsed	1360	38.2%	61.8%	8.97**	.003
	Endorsed	324	29.3%	70.7%		
Caribbean born	Not Endorsed	380	16.3%	83.7%	.18	.675
	Endorsed	50	14.0%	86.0%		
ICD Panic Attack (Lifetime)						
U.S. born	Not Endorsed	1359	38.2%	61.8%	8.47**	.004
	Endorsed	325	29.5%	70.5%		
Caribbean born	Not Endorsed	376	16.2%	83.8%	.07	.792
	Endorsed	54	14.8%	85.2%		

DSM-IV Panic Disorder (Lifetime)						
U.S. born	Not Endorsed	1630	36.9%	63.1%	2.70	.100
	Endorsed	54	25.9%	74.1%		
Caribbean born	Not Endorsed	425	16.2%	83.8%	.97	.325
	Endorsed	5	0%	100.0%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)						
U.S. born	Not Endorsed	1629	36.6%	63.4%	.35	.553
	Endorsed	55	32.7%	67.3%		
Caribbean born	Not Endorsed	425	15.8%	84.2%	2.16	.142
	Endorsed	5	40.0%	60.0%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)						
U.S. born	Not Endorsed	769	27.6%	72.4%	.27	.605
	Endorsed	34	23.5%	76.5%		
Caribbean born	Not Endorsed	193	8.8%	91.2%	.13	.720
	Endorsed	8	12.5%	87.5%		
DSM-IV Hypomania (12 month)						
U.S. born	Not Endorsed	1667	36.7%	63.3%	2.64	.104
	Endorsed	17	17.6%	82.4%		
Caribbean born	Not Endorsed	427	16.2%	83.8%	.58	.447
	Endorsed	3	0%	100.0%		
ICD Hypomania (12 month)						
U.S. born	Not Endorsed	1659	36.3%	63.5%	.13	.716
	Endorsed	25	40.0%	60.0%		
Caribbean born	Not Endorsed	427	16.2%	63.5%	.58	.447
	Endorsed	3	0%	100.0%		

DSM-IV Bi-polar II (12Mo)						
U.S. born	Not Endorsed	1678	36.5%	63.5%	.03	.871
	Endorsed	6	33.3%	66.7%		
Caribbean born	Not Endorsed	429	16.1%	83.9%	.19	.662
	Endorsed	1	0%	100.0%		
ICD Dysthymia with hierarchy (12 month)						
U.S. born	Not Endorsed	1667	36.4%	63.6%	.82	.364
	Endorsed	17	47.1%	52.9%		
Caribbean born	Not Endorsed	429	16.1%	83.9%	.19	.662
	Endorsed	1	0%	100.0%		
ICD Conduct Disorder w/ hierarchy (12Mo)****						
U.S. born	Not Endorsed	788	27.3%	72.7%	.27	.603
	Endorsed	15	33.3%	66.7%		
Caribbean born	Not Endorsed	201	9.0%	91.0%	0	0
	Endorsed	0	0%	0%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)						
U.S. born	Not Endorsed	1666	36.7%	63.3%	1.60	.205
	Endorsed	18	22.2%	77.8%		
Caribbean born	Not Endorsed	426	15.7%	84.3%	3.46	.063
	Endorsed	4	50.0%	50.0%		
ICD Panic Disorder (12 month)						
U.S. born	Not Endorsed	1643	36.5%	63.5%	.00	.993
	Endorsed	41	36.8%	63.4%		
Caribbean born	Not Endorsed	427	16.2%	83.8%	.58	.447

	Endorsed	3	0%	100.0%		
DSM-IV Hypomania (30 day)****						
U.S. born	Not Endorsed	1680	36.5%	63.5%	.23	.632
	Endorsed	4	25.0%	75.0%		
Caribbean born	Not Endorsed	430	16.0%	84.0%	0	0
	Endorsed	0	0%	0%		
ICD Panic Disorder (30 day)						
U.S. born	Not Endorsed	1669	36.4%	63.6%	.67	.412
	Endorsed	15	46.7%	53.3%		
Caribbean born	Not Endorsed	429	16.1%	83.9%	.19	.662
	Endorsed	1	0%	100.0%		

*p < .05, **p < .01, ***p < .001 ****No Caribbean respondents endorsed this disorder therefore no computation could be completed.

Welfare and Government Housing Assistance

Additional analyses were run to determine if an association with the use of welfare or government assistance impacts rates of mental illnesses. Over the course of the lifetime, those who do not live in public housing are more likely to not endorse DSM-IV Panic Attack (1, N=2041) =5.97, p=.015, with a Phi coefficient of .048, ICD Panic Attack (1, N=2040) =5.84, p=.016 with a Phi coefficient of .047 and DSM-IV Panic Disorder (1, N=2499) =7.51, p=.016 with a Phi coefficient of .054 than those that do but they are also more likely to endorse the illness as well. The same was true for ICD Conduct Disorder w/ hierarchy (1, N=1802) =4.18, p=.041 with a Phi coefficient of .048 over the last 12 months. The Phi coefficients illustrate there are very weak associations between the variables analyzed. These results are illustrated below in table 19.

Table 19. Mental Illness by Live in public housing

Illness		Total Population	Live in public housing			
			No	Yes	χ^2	P value
ICD Hypomania (Lifetime)	Not Endorsed	2491	77.8%	22.2%	.06	.803
	Endorsed	118	78.8%	21.2%		
DSM-IV Bi-Polar II (Lifetime)	Not Endorsed	2592	77.9%	22.1%	.20	.656
	Endorsed	17	82.4%	17.6%		
DSM-IV Hypomania (Lifetime)	Not Endorsed	2556	78.0%	22.0%	1.20	.273
	Endorsed	53	71.7%	28.3%		
ICD Dysthymia w/ hierarchy (LifeT)	Not Endorsed	2547	78.0%	22.0%	.50	.479
	Endorsed	62	74.2%	25.8%		
DSM-IV Panic Attack (Lifetime)	Not Endorsed	2041	78.9%	21.1%	5.97*	.015
	Endorsed	568	74.1%	25.9%		
ICD Panic Attack (Lifetime)	Not Endorsed	2040	78.9%	21.1%	5.84*	.016
	Endorsed	569	74.2%	25.8%		
DSM-IV Panic Disorder (Lifetime)	Not Endorsed	2499	78.4%	21.6%	7.51*	.006
	Endorsed	110	67.3%	32.7%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)	Not Endorsed	2527	78.1%	21.9%	1.73	.188
	Endorsed	82	72.0%	28.0%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	Not Endorsed	1718	79.9%	20.1%	.02	.884
	Endorsed	131	79.4%	20.6%		
DSM-IV Hypomania (12 month)	Not	2576	78.0%	22.0%	2.44	.118

	Endorsed					
	Endorsed	33	66.7%	33.3%		
ICD Hypomania (12 month)	Not Endorsed	2539	77.8%	22.2%	.53	.469
	Endorsed	70	81.4%	18.6%		
DSM-IV Bi-polar II (12Mo)	Not Endorsed	2599	77.9%	22.1%	.03	.872
	Endorsed	10	80.0%	20.0%		
ICD Dysthymia with hierarchy (12Mo)	Not Endorsed	2568	77.9%	22.1%	.13	.724
	Endorsed	41	75.6%	24.4%		
ICD Conduct Disorder w/ hierarchy (12Mo)	Not Endorsed	1802	80.2%	19.8%	4.18*	.041
	Endorsed	47	68.1%	31.9%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	Not Endorsed	2571	77.9%	22.1%	.40	.530
	Endorsed	38	73.7%	26.3%		
ICD Panic Disorder (12 month)	Not Endorsed	2527	78.1%	21.9%	1.73	.188
	Endorsed	82	72.0%	28.0%		
DSM-IV Hypomania (30 day)	Not Endorsed	2599	78.0%	22.0%	1.86	.172
	Endorsed	10	60.0%	40.0%		
ICD Panic Disorder (30 day)	Not Endorsed	2573	78.0%	22.0%	2.67	.102
	Endorsed	36	66.7%	33.3%		

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

Over the course of the lifetime, those who do not pay low/no rent through government assistance are more likely to not endorse DSM-IV Panic Attack than those that do but they are also more likely to endorse the illness as

well (1, N=2041) =18.29, p<.001 with a Phi coefficient of .084. The same outcome is true for ICD Panic Attack over the course of the lifetime (1, N=2040) =18.06, p<.001 with a Phi coefficient of .083.

Those not receiving low/no rent through government assistance are significantly more likely to not endorse the following disorders: over the course of the lifetime, DSM-IV Panic Disorder (1, N=2496) =21.93, p<.001 with a Phi coefficient of .092 and DSM-IV Generalized Anxiety Disorder (1, N=2524) =8.83, p=.003 with a Phi coefficient of .058, over the last 12 months ICD Panic Disorder (1, N=2525) =21.91, p< .001 with a Phi coefficient of .092 and in the last 30 days, ICD Panic Disorder (1, N=2571) =20.73, p<.001 with a Phi coefficient of .089 and DSM-IV Hypomania (1, N=2597) =4.73, p=.030 with a Phi coefficient of .043 were significant. These results are demonstrated in table 20. The Phi coefficients illustrate there are very weak associations between the variables analyzed.

Table 20. Mental Illness by Pay low/no rent because of government assistance

Illness		Total Population	Pay low/no rent because of govt			
			No	Yes	χ^2	P value
ICD Hypomania (Lifetime)	Not Endorsed	2489	78.6%	21.4%	2.85	.092
	Endorsed	118	72.0%	28.0%		
DSM-IV Bi-Polar II (Lifetime)	Not Endorsed	2589	78.3%	21.7%	.27	.602
	Endorsed	18	83.3%	16.7%		
DSM-IV Hypomania (Lifetime)	Not Endorsed	2553	78.5%	21.5%	2.03	.154
	Endorsed	54	70.4%	29.6%		
ICD Dysthymia w/ hierarchy (LifeT)	Not Endorsed	2545	78.5%	21.5%	2.00	.157
	Endorsed	62	71.0%	29.0%		
DSM-IV Panic Attack (Lifetime)	Not Endorsed	2041	80.1%	19.9%	18.29***	.000
	Endorsed	566	71.7%	28.3%		
ICD Panic Attack (Lifetime)	Not Endorsed	2040	80.1%	19.9%	18.06***	.000
	Endorsed	567	71.8%	28.2%		

DSM-IV Panic Disorder (Lifetime)	Not Endorsed	2496	79.1%	20.9%	21.93***	.000
	Endorsed	111	60.4%	39.6%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)	Not Endorsed	2524	78.7%	21.3%	8.83**	.003
	Endorsed	83	65.1%	34.9%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	Not Endorsed	1721	80.0%	20.0%	.81	.367
	Endorsed	133	76.7%	23.3%		
DSM-IV Hypomania (12 month)	Not Endorsed	2573	78.4%	21.6%	1.20	.273
	Endorsed	34	70.6%	29.4%		
ICD Hypomania (12 month)	Not Endorsed	2537	78.5%	21.5%	2.91	.088
	Endorsed	70	70.0%	30.0%		
DSM-IV Bi-polar II (12Mo)	Not Endorsed	2597	78.3%	21.7%	.02	.895
	Endorsed	10	80.0%	20.0%		
ICD Dysthymia with hierarchy (12 mo)	Not Endorsed	2566	78.4%	21.6%	.64	.423
	Endorsed	41	73.2%	26.8%		
ICD Conduct Disorder w/ hierarchy (12Mo)	Not Endorsed	1805	80.0%	20.0%	3.32	.068
	Endorsed	49	69.4%	30.6%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	Not Endorsed	2569	78.5%	21.5%	3.55	.060
	Endorsed	38	65.8%	34.2%		
ICD Panic Disorder (12 month)	Not Endorsed	2525	79.0%	21.0%	21.91***	.000
	Endorsed	82	57.3%	42.7%		
DSM-IV Hypomania (30 day)	Not Endorsed	2597	78.4%	21.6%	4.73*	.030
	Endorsed	10	50.0%	50.0%		
ICD Panic Disorder (30 day)	Not Endorsed	2571	78.7%	21.3%	20.73***	.000
	Endorsed	36	47.2%	52.8%		

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

There were no significant differences for those who received welfare before 18 and those that did not for any of the mental illnesses analyzed as illustrated in table 21.

Table 21. Mental Illness by How much time received welfare before turned 18

Illness		How much time received welfare before turned 18							
		Total Population	Just Briefly	Less Than Half The Time	About Half The Time	Most of The Time	Almost All of The Time	X^2	P value
ICD Hypomania (Lifetime)	Not Endorsed	795	35.7%	16.4%	19.5%	14.2%	14.2%	2.33	.675
	Endorsed	47	40.4%	10.6%	18.4%	13.4%	13.4%		
DSM-IV Bi-Polar II (Lifetime)	Not Endorsed	837	35.8%	16.1%	19.5%	14.6%	14.0%	2.47	.650
	Endorsed	5	60.0%	0%	20.0%	0.0%	20.0%		
DSM-IV Hypomania (Lifetime)	Not Endorsed	819	36.1%	16.2%	19.3%	14.3%	14.0%	2.40	.663
	Endorsed	23	30.4%	8.7%	26.1%	21.7%	13.0%		
ICD Dysthymia w/ hierarchy (Lifetime)	Not Endorsed	818	35.9%	16.0%	19.6%	14.4%	14.1%	.24	.993
	Endorsed	24	37.5%	16.7%	16.7%	16.7%	12.5%		
DSM-IV Panic Attack (Lifetime)	Not Endorsed	617	35.8%	16.7%	19.6%	14.7%	13.1%	2.07	.723
	Endorsed	225	36.4%	14.2%	19.1%	13.8%	16.4%		
ICD Panic Attack (Lifetime)	Not Endorsed	618	35.9%	16.5%	19.6%	14.9%	13.1%	1.96	.744
	Endorsed	224	36.2%	14.7%	19.2%	13.4%	16.5%		
DSM-IV Panic Disorder (Lifetime)	Not Endorsed	788	36.0%	15.9%	20.1%	14.3%	13.7%	3.33	.504
	Endorsed	54	35.2%	18.5%	11.1%	16.7%	18.5%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)	Not Endorsed	800	36.1%	16.1%	19.9%	14.2%	13.6%	3.84	.428
	Endorsed	42	33.3%	14.3%	11.9%	19.0%	21.4%		
DSM-IV Oppositional Defiant	Not Endorsed	600	35.5%	15.2%	19.7%	16.8%	12.8%	6.21	.184

Disorder w/ hierarchy (LifeT)	Endorsed	57	31.6%	22.8%	21.1%	7.0%	17.5%		
DSM-IV Hypomania (12 month)	Not Endorsed	825	36.1%	16.2%	19.3%	14.2%	14.2%	5.69	.224
	Endorsed	17	29.4%	5.9%	29.4%	29.4%	5.9%		
ICD Hypomania (12 month)	Not Endorsed	806	36.0%	16.4%	19.4%	14.0%	14.3%	5.27	.261
	Endorsed	36	36.1%	8.3%	22.2%	25.0%	8.3%		
DSM-IV Bi-polar II (12Mo)	Not Endorsed	838	35.9%	16.1%	19.5%	14.6%	14.0%	1.86	.762
	Endorsed	4	50%	0%	25.0%	0.0%	25.0%		
ICD Dysthymia with hierarchy (12 month)	Not Endorsed	827	35.9%	16.0%	19.5%	14.6%	14.0%	.87	.929
	Endorsed	15	40.0%	20.0%	20.0%	6.7%	13.3%		
ICD Conduct Disorder w/ hierarchy (12Mo)	Not Endorsed	634	35.3%	16.1%	19.9%	16.1%	12.6%	6.44	.169
	Endorsed	23	30.4%	8.7%	17.4%	13.0%	30.4%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	Not Endorsed	823	36.1%	16.0%	19.6%	14.3%	14.0%	.86	.930
	Endorsed	19	31.6%	15.8%	15.8%	21.1%	15.8%		
ICD Panic Disorder (12 month)	Not Endorsed	801	36.2%	16.0%	20.0%	14.1%	13.7%	4.93	.295
	Endorsed	41	31.7%	17.1%	9.8%	22.0%	19.5%		
DSM-IV Hypomania (30 day)	Not Endorsed	838	35.9%	16.0%	19.6%	14.4%	14.1%	2.07	.722
	Endorsed	4	50.0%	25.0%	0%	25.0%	0%		
ICD Panic Disorder (30 day)	Not Endorsed	825	36.1%	15.9%	19.6%	14.5%	13.8%	2.56	.635
	Endorsed	17	29.4%	23.5%	11.8%	11.8%	23.5%		

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

There are a number of significant results when analyzing those who have received welfare after the age of 18 as illustrated in table 22. Those who have not received welfare since the age of 18 are more likely to not endorse the following illnesses. DSM-IV Panic Attack (1, N=3823) =137.88, p<.001 with a Phi coefficient of .170, ICD Hypomania (1, N=4606) =42.20, p<.001 with a Phi coefficient of .094, DSM-IV Bi-Polar II(1, N=4757) =21.42,

p<.001 with a Phi coefficient of .067, DSM-IV Hypomania (1, N=4691) =29.45, p<.001 with a Phi coefficient of .079, ICD Panic Attack (1, N=3817) =128.56, p<.001 with a Phi coefficient of .164, DSM-IV Panic Disorder (1, N=4604) =45.47, p<.001 with a Phi coefficient of .098 and DSM-IV Generalized Anxiety Disorder (1, N=4631) =51.63, p<.001 with a Phi coefficient of .104 over the course of the lifetime.

The same results are seen with ICD Hypomania (1, N=4675) =33.24, p<.001 with a Phi coefficient of .083, DSM-IV Bi-Polar II (1, N=4757) =21.42, p<.001 with a Phi coefficient of .067, DSM-IV Hypomania (1, N=4720) =18.97, p<.001 with a Phi coefficient of .063, ICD Dysthymia w/ hierarchy (1, N=4715) =12.24, p<.001 with a Phi coefficient of .051, DSM-IV Generalized Anxiety Disorder (1, N=4714) =18.67, p<.001 with a Phi coefficient of .063, ICD Conduct Disorder w/ hierarchy (1, N=2828) =4.85, p=.028 with a Phi coefficient of .041, ICD Panic Disorder (1, N=4648) =30.18, p<.001 with a Phi coefficient of .080 at the 12 month mark and DSM-IV Hypomania (1, N=4760) =24.08, p<.001 with a Phi coefficient of .071 and ICD Panic Disorder w/ hierarchy (1, N=4722) =21.08, p<.001 with a Phi coefficient of .066 at the 30 day mark. All of the Phi coefficients illustrates very weak to weak associations between the variables analyzed.

Table 22. Mental Illness by Received welfare/pub assistance since turning 18

Illness		Total Population	Received welfare/pub assistance since turning 18			
			No	Yes	χ^2	P value
ICD Hypomania (Lifetime)	Not Endorsed	4606	77.5%	22.5%	42.20***	.000
	Endorsed	168	56.0%	44.0%		
DSM-IV Bi-Polar II (Lifetime)	Not Endorsed	4748	77.0%	23.0%	21.48***	.000
	Endorsed	26	38.5	61.5%		
DSM-IV Hypomania (Lifetime)	Not Endorsed	4691	77.2%	22.8%	29.45***	.000
	Endorsed	83	51.8%	48.2%		

ICD Dysthymia w/ hierarchy (Lifetime)	Not Endorsed	4684	77.1%	22.9%	14.42***	.000
	Endorsed	90	60.0%	40.0%		
DSM-IV Panic Attack (LifeT)	Not Endorsed	3823	80.3%	19.7%	137.88***	.000
	Endorsed	951	62.4%	37.6%		
ICD Panic Attack (Lifetime)	Not Endorsed	3817	80.2%	19.8%	128.56***	.000
	Endorsed	957	62.9%	37.1%		
DSM-IV Panic Disorder (LifeT)	Not Endorsed	4604	77.5%	22.5%	45.47***	.000
	Endorsed	170	55.3%	44.7%		
DSM-IV Gen Anxiety Disorder w/hierarchy (LifeT)	Not Endorsed	4631	77.5%	22.5%	51.63***	.000
	Endorsed	143	51.7%	48.3%		
DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)	Not Endorsed	2714	74.3%	25.7%	3.06	.080
	Endorsed	177	68.4%	31.6%		
DSM-IV Hypomania (12 Mo)	Not Endorsed	4720	77.0%	23.0%	18.97***	.000
	Endorsed	54	51.9%	48.1%		
ICD Hypomania (12 month)	Not Endorsed	4675	77.3%	22.7%	33.24***	.000
	Endorsed	99	52.5%	47.5%		
DSM-IV Bi-polar II (12Mo)	Not Endorsed	4757	76.9%	23.1%	21.42***	.000
	Endorsed	17	29.4%	70.6%		
ICD Dysthymia with hierarchy (12 month)	Not Endorsed	4715	77.0%	23.0%	12.24***	.000
	Endorsed	59	57.6%	42.4%		
ICD Conduct Disorder w/ hierarchy (12Mo)	Not	2828	74.2%	25.8%	4.85*	.028

	Endorsed					
	Endorsed	63	61.9%	38.1%		
DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)	Not Endorsed	4714	77.0%	23.0%	18.67***	.000
	Endorsed	60	53.3%	46.7%		
ICD Panic Disorder (12 Mo)	Not Endorsed	4648	77.3%	22.7%	30.18***	.000
	Endorsed	126	56.3%	43.7%		
DSM-IV Hypomania (30 day)	Not Endorsed	4760	76.9%	23.1%	24.08***	.000
	Endorsed	14	21.4%	78.6%		
ICD Panic Disorder (30 day)	Not Endorsed	4722	77.0%	23.0%	21.08***	.000
	Endorsed	52	50.0%	50.0%		

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

Logistic Regressions

Logistic regressions were calculated to analyze predictors for gender, country of origin, age at immigration and the number of years living in the U.S. on each illness among the Caribbean Black population in the dataset. I attempted to weight the data but the point estimates did not change substantially. The significant outcomes will be discussed.

The model predicting ICD Hypomania over a lifetime illustrated in table 23 is statistically significant. Being from Trinidad and Tobago is significantly predicted the endorsement of hypomania *(b= 1.737; p <.042; C.I. 1.063-30.325)* with those from that country having a higher endorsement for this disorder than Haitians. The age group 18-34 for time of immigration significantly predicted the endorsement of hypomania *(b= -1.130; p <.047; C.I. .106-.986)*.

Table 23. ICD Hypomania (Lifetime)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	-.177	.490	.131	.718	.838
Country (Haiti reference)					
Jamaica	.989	.804	1.512	.219	2.688
Trinidad & Tobago	1.737*	.855	4.128	.042	5.678
Other	.408	.924	.195	.659	1.504
Age of Immigration (>12 reference)					
13-17	-.557	.724	.592	.442	.573
18-34	-1.130*	.569	3.937	.047	.323
35+	-2.100	1.095	3.678	.055	.122
Years Living in US (<5 reference)					
5-10	17.781	3633.366	.000	.996	****
11-20	16.721	3633.366	.000	.996	****
20+	16.651	3633.366	.000	.996	****
Constant	-20.756	3633.366	.000	.995	.000
Model x2	18.792 (df=6: p=043)				
Nagelkerke	.113				

*p < .05, **p < .01, ***p < .001, ****the odds ratio could not be estimated

The model predicting DSM-IV Panic Attack over a Lifetime illustrated in table 24 is statistically significant. Being from Jamaica *(b= .692; p =.014; C.I. 1.148-3.473)*, Trinidad and Tobago *(b= 1.193; p <.001; C.I. 1.730-6.284)* and those from other Caribbean nations *(b= .746; p =.012; C.I. 1.175-3.783)* significantly predicted the endorsement of DSM-IV Panic Attack with those from these countries having a higher endorsement for this disorder than those from Haiti. There are no significant differences that exist regarding gender, age of immigration or the number of years one has lived in the U.S.

Table 24. DSM-IV Panic Attack (Lifetime)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	.131	.191	.468	.494	1.140
Country (Haiti reference)					
Jamaica	.692	.282	6.005	.014*	1.997
Trinidad & Tobago	1.193	.329	13.147	.000***	3.297
Other	.746	.298	6.260	.012*	2.109
Age of Immigration (>12 reference)					
13-17	-.030	.311	.009	.923	.970
18-34	-.332	.249	1.769	.184	.718
35+	-.498	.318	2.455	.117	.608
Years Living in US (<5 reference)					
5-10	.463	.356	1.695	.193	1.589
11-20	.101	.335	.090	.764	1.106
20+	-.047	.333	.020	.887	.954
Constant	-2.395	.444	29.046	.000	.091
Model x2	789.719 (df=10 p=.022)				
Nagelkerke	.037				

*p < .05, **p < .01, ***p < .001

The model predicting ICD Panic Attack over a Lifetime illustrated in table 25 is statistically significant. Being from Jamaica *(b*= .644*; p* =.020*; C.I.* 1.106-3.278*)*, Trinidad and Tobago *(b*= 1.232*; p <.001; C.I.* 1.827-6.434*)* and those from other Caribbean nations *(b*= .790*; p =.006; C.I.* 1.248-3.887*)* significantly predicted the endorsement of ICD Panic Attack with those from these countries having a higher endorsement for this disorder than those from Haiti. There are no significant differences that exist regarding gender, age of immigration or the number of years one has lived in the U.S. for ICD Panic Attack over the course of a Lifetime.

Table 25. ICD Panic Attack (Lifetime)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	.200	.188	1.124	.289	1.221
Country (Haiti reference)					
Jamaica	.644	.277	5.405	.020*	1.904
Trinidad & Tobago	1.232	.321	14.710	.000***	3.428
Other	.790	.290	7.423	.006**	2.203
Age of Immigration (>12 reference)					
13-17	.100	.302	.110	.740	1.105
18-34	-.308	.246	1.571	.210	.735
35+	-.396	.309	1.640	.200	.673
Years Living in US (<5 reference)					
5-10	.515	.354	2.115	.146	1.674
11-20	.142	.335	.179	.672	1.152
20+	.099	.330	.090	.764	1.104
Constant	-2.501	.440	32.257	.000	.082
Model x2	815.541 (df=10: p=.009)				
Nagelkerke	.041				

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

The model predicting ICD Panic Disorder for the last 12 months illustrated in table 26 is statistically significant. Being in the U.S. for 20 or more years significantly predicted the endorsement of ICD Panic Disorder with this group having a lower endorsement for this disorder than those living in the U.S. less than 5 years countries. The research hypothesis for those living in the country longer experiencing higher rates of this disorder is not supported. There are no significant differences that exist regarding gender, country of origin or age of immigration for ICD Panic Disorder for the last 12 months.

Table 26. ICD Panic Disorder (12 month)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	-.213	.507	.177	.674	.808
Country (Haiti reference)					
Jamaica	1.173	.815	2.069	.150	3.232
Trinidad & Tobago	.858	1.024	.702	.402	2.359
Other	.910	.857	1.127	.288	2.483
Age of Immigration (>12 reference)					
13-17	2.078	1.088	3.649	.056	7.985
18-34	.204	1.124	.033	.856	1.226
35+	.597	1.190	.252	.616	1.817
Years Living in US (<5 reference)					
5-10	-.544	.696	.610	.435	.581
11-20	-1.201	.704	2.912	.088	.301
20+	-1.526	.711	4.609	.032*	.217
Constant	-4.649	1.351	11.837	.001	.010
Model x2	152.835 (df=10: p=.035)				
Nagelkerke	.122				

*p < .05, **p < .01, ***p < .001

The model predicting DSM-IV Oppositional Defiant Disorder w/ hierarchy over a lifetime illustrated in table 27 is statistically significant. Being from Trinidad and Tobago is significantly predicted the endorsement of DSM-IV Oppositional Defiant Disorder w/ hierarchy *(b= 1.983; p <.005; C.I. 1.814-29.118)* with those from that country having a higher outcome for this disorder than Haitians. The research hypothesis for those coming from Anglophone countries experiencing lower rates of this disorder is not supported. The age group 18-34 for time of immigration is significantly associated *(b= -1.130; p <.047; C.I. .102-.974)* and as a negative association, those who immigrated during this time are less likely to endorse DSM-IV Oppositional Defiant Disorder w/hierarchy than who immigrated before the age of 13. This could indicate that the age these individuals came to the U.S. means they have not been here longer than those you came at younger ages and are therefore endorsing lower rates of DSM-

IV Oppositional Defiant Disorder w/hierarchy. It is important to note that those who immigrated even later, ages 35 and over have even lower odds of endorsing the illness than the reference group. The research hypothesis of living in the U.S. longer will result in higher rates of mental illnesses is partially supported.

Table 27. DSM-IV Oppositional Defiant Disorder w/ hierarchy (LifeT)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	-.518	.403	1.651	.199	.596
Country (Haiti reference)					
Jamaica	.991	.677	2.141	.143	2.693
Trinidad & Tobago	1.983	.708	7.843	.005**	7.267
Other	.933	.708	1.736	.188	2.542
Age of Immigration (>12 reference)					
13-17	.255	.518	.243	.622	1.291
18-34	-1.154	.575	4.022	.045*	.315
35+	-18.717	9545.483	.000	.998	.000
Years Living in US (<5 reference)					
5-10	.297	.655	.206	.650	1.346
11-20	-.469	.677	.480	.488	.626
20+	-.388	.734	.279	.597	.678
Constant	-3.105	.927	11.231	.001	.045
Model x2	204.010 (df=10: p=.010)				
Nagelkerke	.120				

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

The models predicting the following illnesses did not significantly predict the outcomes therefore, there are no significant differences that exist regarding gender, the country of origin, age of immigration or the number of years one has lived in the U.S. which is illustrated in tables 28-39: DSM-IV Hypomania Lifetime, ICD and DSM-IV Hypomania over the last 12 months, DSM-IV Bi-Polar II Lifetime and 12 months, ICD Dysthymia w/ hierarchy Lifetime and 12 months, DSM-IV Panic Disorder Lifetime and ICD Panic Disorder 30 days, DSM-IV Generalized Anxiety Disorder w/hierarchy Lifetime and 12 months and ICD Conduct Disorder w/ hierarchy.

Table 28. DSM-IV Hypomania (Lifetime)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	.006	.742	.000	.993	1.006
Country (Haiti reference)					
Jamaica	1.077	1.129	.910	.340	2.934
Trinidad & Tobago	.828	1.429	.336	.562	2.288
Other	.869	1.241	.490	.484	2.384
Age of Immigration (>12 reference)					
13-17	16.250	2950.244	.000	.996	****
18-34	16.874	2950.244	.000	.995	****
35+	-.099	4150.370	.000	1.000	.906
Years Living in US (<5 reference)					
5-10	17.215	3557.542	.000	.996	****
11-20	16.578	3557.542	.000	.996	****
20+	16.015	3557.542	.000	.996	****
Constant	-38.365	4621.692	.000	.993	.000
Model x2	80.647 (df=10: p=.248)				
Nagelkerke	.140				

*p < .05, **p < .01, ***p < .001, ****the odds ratio could not be estimated

Table 29. ICD Hypomania (12 month)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	-.456	.643	.503	.478	.634
Country (Haiti reference)					
Jamaica	.880	1.129	.608	.436	2.411
Trinidad & Tobago	1.830	1.168	2.454	.117	6.233
Other	.674	1.235	.298	.585	1.963
Age of Immigration (>12 reference)					
13-17	-1.109	1.152	.928	.336	.330
18-34	-1.058	.741	2.036	.154	.347
35+	-1.445	1.150	1.578	.209	.236

Years Living in US (<5 reference)					
5-10	17.098	3661.162	.000	.996	****
11-20	16.261	3661.162	.000	.996	****
20+	16.147	3661.162	.000	.996	****
Constant	-20.704	3661.162	.000	.995	.000
Model x2	102.388 (df=10: p=.471)				
Nagelkerke	.091				

*p < .05, **p < .01, ***p < .001, ****the odds ratio could not be estimated

Table 30. DSM-IV Hypomania (12 month)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	-.058	.922	.004	.950	.944
Country (Haiti reference)					
Jamaica	.336	1.237	.074	.786	1.399
Trinidad & Tobago	.799	1.432	.312	.577	2.224
Other	.132	1.429	.008	.927	1.141
Age of Immigration (>12 reference)					
13-17	.233	4446.022	.000	1.000	1.263
18-34	16.743	2984.668	.000	.996	****
35+	.204	4203.594	.000	1.000	1.226
Years Living in US (<5 reference)					
5-10	16.084	3474.845	.000	.996	****
11-20	16.163	3474.845	.000	.996	****
20+	16.081	3474.845	.000	.996	****
Constant	-37.568	4580.697	.000	.993	.000
Model x2	54.307 (df=10 p=.564)				
Nagelkerke	.141				

*p < .05, **p < .01, ***p < .001, ****the odds ratio could not be estimated

Table 31. DSM-IV Bi-Polar II (Lifetime)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	-.455	1.431	.101	.750	.634
Country (Haiti reference)					
Jamaica	15.893	2252.767	.000	.994	****
Trinidad & Tobago	.296	3822.812	.000	1.000	1.344
Other	.570	3071.545	.000	1.000	1.768
Age of Immigration (<12 reference)					
13-17	.344	3598.623	.000	1.000	1.411
18-34	15.019	2405.224	.000	.995	****
35+	-.568	3508.997	.000	1.000	.566
Years Living in US (<5 reference)					
5-10	15.518	3101.324	.000	.996	****
11-20	15.107	3101.324	.000	.996	****
20+	.107	3505.870	.000	1.000	1.113
Constant	-49.812	4525.292	.000	.991	.000
Model x2	19.304 (df=10: p=.480)				
Nagelkerke	.334				

*p < .05, **p < .01, ***p < .001, ****the odds ratio could not be estimated

Table 32. DSM-IV Bi-polar II (12Mo)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	-.455	1.431	.101	.750	.634
Country (Haiti reference)					
Jamaica	15.893	2252.767	.000	.994	****
Trinidad & Tobago	.296	3822.812	.000	1.000	1.344
Other	.570	3071.545	.000	1.000	1.768
Age of Immigration (>12 reference)					
13-17	.344	3598.623	.000	1.000	1.411
18-34	15.019	2405.224	.000	.995	****
35+	-.568	3508.997	.000	1.000	.566

Years Living in US (<5 reference)					
5-10	15.518	3101.324	.000	.996	****
11-20	15.107	3101.324	.000	.996	****
20+	.107	3505.870	.000	1.000	1.113
Constant	-49.812	4525.292	.000	.991	.000
Model x2	19.304 (df=10: p=.480)				
Nagelkerke	.334				

*p < .05, **p < .01, ***p < .001, ****the odds ratio could not be estimated

Table 33. ICD Dysthymia w/ hierarchy (Lifetime)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	1.498	1.106	1.834	.176	4.474
Country (Haiti reference)					
Jamaica	1.186	1.157	1.050	.306	3.272
Trinidad & Tobago	-15.339	3305.041	.000	.996	.000
Other	.627	1.243	.254	.614	1.872
Age of Immigration (>12 reference)					
13-17	-.208	.945	.049	.825	.812
18-34	-1.562	.983	2.522	.112	.210
35+	-17.201	2761.568	.000	.995	.000
Years Living in US (<5 reference)					
5-10	16.453	3364.373	.000	.996	****
11-20	14.517	3364.373	.000	.997	****
20+	15.538	3364.373	.000	.996	****
Constant	-21.232	3364.373	.000	.995	.000
Model x2	69.384 (df=10: p=.170)				
Nagelkerke	.174				

*p < .05, **p < .01, ***p < .001, ****the odds ratio could not be estimated

Table 34. ICD Dysthymia with hierarchy (12 month)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	16.351	1625.468	.000	.992	****
Country (Haiti reference)					
Jamaica	1.168	1.495	.610	.435	3.215
Trinidad & Tobago	-14.855	2914.373	.000	.996	.000
Other	.085	1.471	.003	.954	1.088
Age of Immigration (>12 reference)					
13-17	-.761	1.300	.342	.558	.467
18-34	-2.594	1.548	2.807	.094	.075
35+	-17.348	2441.083	.000	.994	.000
Years Living in US (<5 reference)					
5-10	16.245	3152.077	.000	.996	****
11-20	-1.296	3662.677	.000	1.000	.274
20+	14.091	3152.077	.000	.996	****
Constant	-34.792	3546.511	.000	.992	.000
Model x2	36.218 (df=10: p=.101)				
Nagelkerke	.311				

*p < .05, **p < .01, ***p <.001, ****the odds ratio could not be estimated

Table 35. DSM-IV Panic Disorder (Lifetime)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	-.351	.463	.572	.449	.704
Country (Haiti reference)					
Jamaica	.868	.688	1.592	.207	2.382
Trinidad & Tobago	.860	.839	1.051	.305	2.363
Other	.534	.749	.508	.476	1.705
Age of Immigration (>12 reference)					
13-17	1.441	.821	3.082	.079	4.225
18-34	-.100	.829	.014	.904	.905
35+	-.010	.945	.000	.992	.990

Years Living in US (<5 reference)					
5-10	.101	.669	.023	.880	1.106
11-20	-.564	.677	.695	.404	.569
20+	-1.295	.743	3.040	.081	.274
Constant	-4.092	1.093	14.027	.000	.017
Model x2	179.827 (df=10: p=.091)				
Nagelkerke	.091				

*p < .05, **p < .01, ***p < .001,

Table 36. ICD Panic Disorder (30 day)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	-.491	1.017	.233	.629	.612
Country (Haiti reference)					
Jamaica	16.295	2484.044	.000	.995	****
Trinidad & Tobago	.137	4265.275	.000	1.000	1.147
Other	15.543	2484.044	.000	.995	****
Age of Immigration (>12 reference)					
13-17	.425	1.435	.088	.767	1.530
18-34	-.987	1.439	.470	.493	.373
35+	-.133	1.449	.008	.927	.875
Years Living in US (<5 reference)					
5-10	15.879	3395.687	.000	.996	****
11-20	15.802	3395.687	.000	.996	****
20+	14.741	3395.687	.000	.997	****
Constant	-35.893	4207.275	.000	.993	.000
Model x2	45.238 (df=10: p=.732)				
Nagelkerke	.007				

*p < .05, **p < .01, ***p < .001, ****the odds ratio could not be estimated

Table 37. DSM-IV Generalized Anxiety Disorder w/hierarchy (LifeT)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	.431	.600	.516	.473	1.538
Country (Haiti reference)					
Jamaica	.427	.848	.254	.614	1.533
Trinidad & Tobago	1.077	.928	1.345	.246	2.935
Other	.739	.878	.708	.400	2.093
Age of Immigration (>12 reference)					
13-17	-17.549	3255.815	.000	.996	.000
18-34	-.545	.600	.823	.364	.580
35+	-1.616	1.121	2.077	.150	.199
Years Living in US (<5 reference)					
5-10	17.398	3584.008	.000	.996	****
11-20	16.479	3584.008	.000	.996	****
20+	16.608	3584.008	.000	.996	****
Constant	-21.033	3584.008	.000	.995	.000
Model x2	133.688 (df=10: p=.187)				
Nagelkerke	.099				

*p < .05, **p < .01, ***p < .001, ****the odds ratio could not be estimated

Table 38. DSM-IV Gen Anxiety Disorder w/hierarchy (12Mo)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	.474	.854	.307	.579	1.606
Country (Haiti reference)					
Jamaica	.622	1.173	.281	.596	1.863
Trinidad & Tobago	.598	1.432	.174	.676	1.819
Other	.745	1.242	.360	.549	2.107
Age of Immigration (>12 reference)					
13-17	-17.367	3229.136	.000	.996	.000
18-34	-1.332	.815	2.670	.102	.264
35+	-17.400	2891.815	.000	.995	.000

Years Living in US (<5 reference)					
5-10	16.362	3470.335	.000	.996	****
11-20	14.511	3470.335	.000	.997	****
20+	15.549	3470.335	.000	.996	****
Constant	-20.032	3470.335	.000	.995	.000
Model x2	71.094 (df=10: p=.262)				
Nagelkerke	.153				

*p < .05, **p < .01, ***p < .001, ****the odds ratio could not be estimated

Table 39. ICD Conduct Disorder w/ hierarchy (12Mo)

	B	S.E.	Wald	Sig.	Exp (β)
Gender (male reference)	-1.404	.849	2.735	.098	.246
Country (Haiti reference)					
Jamaica	-1.094	1.243	.774	.379	.335
Trinidad & Tobago	.805	1.036	.604	.437	2.236
Other	-.031	1.024	.001	.976	.970
Age of Immigration (>12 reference)					
13-17	-.245	1.035	.056	.813	.783
18-34	-1.205	1.072	1.262	.261	.300
35+	-17.216	9290.198	.000	.999	.000
Years Living in US (<5 reference)					
5-10	-.406	1.444	.079	.779	.667
11-20	.027	1.257	.000	.983	1.027
20+	-.292	1.426	.042	.838	.747
Constant	-2.993	1.563	3.666	.056	.050
Model x2	68.440 (df=10: p=.626)				
Nagelkerke	.111				

*p < .05, **p < .01, ***p < .001

CHAPTER 5
DISCUSSION

The purpose of this research was to explore the heterogeneity of Blacks relative to differences in manifestations of mental illnesses between U.S. born Blacks with and without Caribbean descent and Caribbean born Blacks. Of primary concern were whether the nativity and generational status is impacting rates of mental illnesses. The factors associated with mental health for Blacks in the U.S were assessed using a dataset that included the largest sample of Caribbean Blacks compiled thus far in mental health research, the National Survey of American Life (NSAL) obtained from the Inter-University Consortium for Political and Social Science Research (ICPSR).

Historically, medical research about Black people presents this group as culturally homogeneous. This may result in misleading results given their heterogeneity. Ignoring the differences within this group potentially impacts diagnosis and the care given to the members of the subgroups and investigating these differences should be deemed priority if the primary concern is to administer the best care to the various groups (Bhugra 2004; Brent and Callwood 1993; Govia 2012; U.S. DHHS 2001; Williams & Harris-Reed 1999). To determine if differences exist, several variables were analyzed including whether an individual was born in the U.S. or not, one's country of origin if not born in the U.S., generational status for Caribbean Blacks and the number of years one lived in the U.S. were considered to determine these differences. Additional demographic variables such as gender, employment, education, wealth (using homeownership and welfare usage as wealth indicators), length of residency in the U.S., age of immigration and country of origin were also explored to provide a clearer picture of how these variables can impact rates of mental health.

As previously mentioned, the lack of research for the differences between groups of Blacks in America was the impetus for this research study. The results of the study fill gaps in the literature about how groups of Blacks in America differ as it relates to mental health. While literature has established the impact of some of the demographic

variables used in this study for other ethnic groups in the U.S., the limited research on the sub-groups of Blacks has not investigated these elements at length. Furthermore, the lack of large samples of the sub-groups has contributed to the lack of thorough research. This study seeks to fill in the gaps in the literature here as well. Looking at Caribbean Blacks and their generational status, age at immigration, length of residency and country of origin can now produce more generalizable results compared to previous research due in large part to the sample size of this group in the NSAL dataset.

There are a number of significant findings that will be discussed at length in this chapter. Chi-square tests of independence, correlations and logistic regressions were used to analyze the variables. The chi-square test is a statistical test used to examine differences with categorical variables. A test of independence is used to determine if observations on two variables are independent of each other. For this study, the illnesses are categorical with two possible responses, endorsed and not endorsed. All of the selected illnesses were analyzed to see if another categorical variable was related to the endorsement of the illness. Correlations were also used where appropriate to determine if relationships existed between some of the variables. Lastly logistic regressions were also used to determine the best statistical predictors of rates of mental illness.

U.S. Born vs. Caribbean Born Respondents

I hypothesized Caribbean born Blacks would have lower rates of mental illnesses than U.S. Born Blacks. The null hypothesis was rejected and the research hypothesis was supported for all but one illness. Each illness is dependent on where the respondents were born except for DSM-IV Bi-Polar II. All other illnesses at the lifetime, 12 month and 30 day marks illustrate significantly higher rates of endorsement for U.S. born respondents. These findings support the research hypothesis that those born in the U.S. experience higher rates of mental illnesses. This is in line with previous research that indicated those born in the U.S. experience higher rates of MDD than those not born in the U.S. (Miranda et al 2005; Vega, Kolody, Aguilar-Gaxiola, Aldrete, Catalano & Caraveo-

Anduaga 1998; Williams et al 2007). This finding demonstrates that when considering mental illness diagnosis, looking at where the client is born is an important consideration. Nobles states “The African-centered behavioral change model specifically indicates that behavioral change occurs through a process of ‘culturalization’, wherein the person minimizes negative social conditions and maximizes conditions that are pro-social and life affirming” (2009). This could be an explanation for why Caribbean Blacks are endorsing lower rates of mental illnesses. Looking at the length of time one resides in the U.S. when foreign born may shed further light on dynamics of acculturation for Caribbean Blacks and how it relates to rates of mental illnesses.

Length of Residency in the U.S. Among Caribbean Blacks

I hypothesized rates of mental illnesses will increase the longer one resides in the U.S. The null hypothesis was accepted as no significant results were found for these tests across all illnesses. However, it is important to note that several illness did experience increases in rates of endorsement of illnesses the longer the Caribbean population lived in the U.S. DSM-IV Bi-Polar II lifetime saw increases in percentages as follows 12.8%, 16.2%, 31.3% and 39.7% for each of the four categories, less than 5 years, 5-10 years, 11-20 years and more than 20 years respectively. ICD Dysthymia lifetime 12.8%, 16.2%, 31,3% and 62.5% and Generalized Anxiety Disorder lifetime 12.8%, 15.8%, 30.9% and 3.1% also saw increases in percentages for the four categories. DSM-IV Panic Attack, 11.2%, 20.3%, 31.5% and 37.1% and Panic Disorder at the lifetime mark saw increases as well 12.7%, 15.9%, 31.4% and 39.7%. DSM-IV Hypomania 12 months and DSM-IV Hypomania 30 days 12.8%, 16.2%, 31.3% and 39.7% showed increases in a similar pattern to the aforementioned disorders. While not significant findings, these patterns provide evidence that the longer one resides in the U.S. indicates a greater period of time exposed to minority status and chronic stressors (Miranda et al 2005; Vega et al 1998) as well as acculturation which is positively associated with increased risks for mental illnesses (Lang, Munoz, Bernal & Sorenson 1982; Masten, Penland & Nayani 1994; Neff & Hoppe 1993).

Generational Status and Rates of Mental Illnesses

There are a number of significant outcomes when we examine generational status and rates of mental illnesses. I hypothesized that Caribbean Blacks who are 1st generation in the U.S. will have lower rates of mental illnesses than 2nd generation Caribbean Blacks. The first generation was significantly more likely to not endorse the disorder than the second generation for the following illness: At the lifetime mark, ICD and DSM-IV Hypomania, DSM-IV Bi-polar II, ICD and DSM-IV Panic Attack, DSM-IV Generalized Anxiety Disorder, DSM-IV Panic Disorder; at the 12 month mark, ICD and DSM-IV Hypomania, and ICD Conduct Disorder w/ hierarchy; at the 30 day mark, DSM-IV Hypomania and ICD Panic Disorder. The null hypothesis is rejected and the research hypothesis is supported for these illnesses. These results are supported by previous research which indicated first generation Blacks were less likely to experience Major Depressive Disorder (Miranda et al 2005 & Williams et al 2007) and lifetime psychiatric disorders (Vega, Kolody, Aguilar-Gaxiola, Aldrete, Catalano & Caraveo-Anduaga 1998). These findings could also support the theory of acculturation used in this research. Because those who have lived in the U.S. and the Caribbean are experiencing lower rates of mental illnesses, the argument can be made that those who have only lived in the U.S. have experienced more acculturation and this could be attributed to the higher rates of mental illnesses. Waters (1999) suggest that the success of Caribbean Blacks comes from several sources. First, they have an enthusiastic attitude toward work, they come with transferable qualifications and their expectations of race relations allows them to navigate the American racial structures better. These elements in addition to having high expectations of Blacks as their experiences back in their country was one where Blacks are in high positions aids in their success which could be staving off mental illnesses to some degree. However, Waters also notes that persistent racism creates experiences where this resiliency and attitude towards success deteriorates leaving subsequent generations to fare much like their Black counterparts who do not have Caribbean ancestry. Recent research supports health advantages among immigrants decreases with each generation after immigration (Williams and Sternthal 2010).

Country of Origin

It was important to look at which Caribbean country participants were born in as it relates to speaking English to determine if rates of illness are impacted when they do not speak English. The impetus being those who do not speak English will have a more difficult time acclimating to U.S. given its official language is English. The resulting stress could be a factor in increased rates in mental illnesses. I hypothesized those participants from Anglophone countries, countries that primarily speak English, will have lower rates of mental illnesses. The Anglophone countries included in the study were Jamaica and Trinidad and Tobago. The Francophone country included is Haiti. There were a few disorders that had significant results. These are DSM-IV Panic Attack, ICD Panic Attack and DSM-IV Oppositional Defiant Disorder w/ hierarchy at the lifetime mark. For the first two illnesses, the significance was found with the English speaking countries of Jamaica and Trinidad as well as the fourth other category. All of these categories were significantly more likely to endorse these illnesses than Haitians. For DSM-IV Oppositional Defiant Disorder w/ hierarchy at the lifetime mark, the significance was found with Trinidad & Tobago. Those from this country were more significantly more likely to endorse this illness than the other countries. As such, the null hypothesis cannot be rejected and the research hypothesis is not supported. The idea that if one speaks the language of the country they have migrated to, navigating the health care system, finding and corresponding possible symptoms with doctors and following treatment plans would be easier and thus results in better mental health. However, this is not supported given the findings. When looking at ICD and DSM-IV Panic Attacks, the Acculturation stress model posited by Gilbert & Cervantes, Holck and Warren, Smith, & Rochat, , it is possible that those who come from countries where they do not speak or it is not their primary or official language do not acculturate as quickly as those who speak English. This lack of acculturation could then be serving as a buffer or protective factor much like those who have spent less time in the U.S.

Education

The dataset included three variables that allowed for the exploration of the impact of education on mental illnesses. The first is having a high school diploma or an equivalent and because I hypothesized higher levels of education will result in lower rates of mental illnesses, I expected for those with a high school diploma or equivalent to have endorsed the illnesses less than those that did not. The null hypothesis was rejected for some disorders but not others. DSM-IV Panic Disorder and DSM-IV Generalized Anxiety Disorder w/hierarchy at the lifetime mark, ICD Dysthymia with hierarchy and ICD Panic Disorder at the 12 month mark and ICD Panic Disorder at the 30 day mark all illustrated that those with a high school diploma will experience significantly less rates of these disorders than those who do not. When analyzing whether having a high school diploma and if the respondent was born in the U.S. or not impacted rates of mental illnesses, we see slightly different results. The same illnesses that were significant when looking at the entire Black population were also significant for U.S Blacks but no illnesses were significant for Caribbean Blacks. This suggests U.S. born Blacks who have a high school diploma or equivalent are significantly less likely to endorse these illnesses. A high school diploma or equivalent is independent of mental illnesses for Caribbean Blacks. Despite the lack of significant results, it should be noted that Caribbean Blacks consistently endorsed all of the illnesses less than U.S. Blacks which lends support for the research hypothesis that Caribbean Blacks experience lower rates of mental illnesses when the same level of education is attained.

Investigating the impact of having a college degree on rates of mental illnesses resulted in only ICD Dysthymia with hierarchy at the 12 month mark being significant for the entire Black population. The research hypothesis that having more education will result in lower rates of mental illnesses is not supported so we cannot reject the null hypothesis when we look at the entire Black population in the dataset. When we include ethnic origin and earning college degrees, ICD Panic Disorder at the 12 month and 30 day levels illustrate significant results but only for the Caribbean population. The numbers of those who did not endorse this disorder were significantly higher

when they had a college degree. With this disorder and this segment of the Black population, we can reject the null hypothesis. It is also important to note similar percentages of endorsement were found when analyzing the attainment of a college degree as we saw when endorsing the illnesses and having a high school diploma or equivalent. Although not significant, Caribbean Blacks who earned college degrees consistently endorsed all of the illnesses less than U.S. Blacks who earned college degrees which lends support for the research hypothesis that Caribbean Blacks experienced lower rates of mental illnesses than their U.S. born counterparts.

Correlates for the number of years of education were able to be computed with the illnesses to determine if there was a relationship between them. DSM-IV Bi-Polar II, DSM-IV Hypomania, ICD Dysthymia w/ hierarchy, DSM-IV Panic Attack, ICD Panic Attack, DSM-IV Panic Disorder, ICD Conduct Disorder, and DSM-IV Generalized Anxiety Disorder at the lifetime mark, DSM-IV Bi-Polar II, DSM-IV Hypomania, ICD Conduct Disorder, ICD Panic Disorder and DSM-IV Generalized Anxiety Disorder at the 12 month mark and ICD Panic Disorder at the 30 day mark are all significant and illustrated a positive correlation. However, the results were not as expected. As the years of completed school increased so did the likelihood of endorsing these disorders. These results do not support the research hypothesis and the null hypothesis could not be rejected. Based on prior research, the expectation was higher levels of education could serve to impact health outcomes by making information easier to process resulting in more health conscious individuals and by improving the efficiency of treatment. The efficiency of treatment can happen in two ways, by reducing the time before help is sought or by aiding the individual in following prescribed therapy more accurately (Chevalier and Feinstein 2006). This theory is not supported by the findings of my study. It is possible that increased education allows for individuals to better understand issues of inequitable opportunity and discrimination faced by Blacks in the U.S. which can result in additional stress and ultimately decreased mental well-being. It is also possible that the experience of attaining higher education itself embodies struggles that include stress and discrimination which can also lead to decreased mental well-being for Blacks (Grasgreen 2011).

Gender

The first set of analysis that included gender looked at the entire Black population to determine if there were differences in the rates of mental illnesses based on gender. I hypothesized that females will have lower rates of mental illnesses. There were significant findings among some of the illnesses however the null hypothesis could not be rejected as females were more likely to endorse the illness than males for each illness showing significant results. ICD Dysthymia with hierarchy, DSM-IV Panic Attack, ICD Panic Attack, DSM-IV Panic Disorder, and DSM-IV Generalized Anxiety Disorder with hierarchy over the course of their lifetime, ICD Dysthymia with hierarchy, ICD Conduct Disorder with hierarchy, Generalized Anxiety Disorder with hierarchy, and ICD Panic Disorder at the 12 month mark and ICD Panic Disorder in the last 30 days were all significant. There is research indicating females are more likely to respond to stressful situations with affective disorders like anxiety and mood disorders (Hill & Needham 2013) which explains the majority of the significant findings here. Researchers Hill and Needham (2013) indicate males are more likely to respond to stressful situations with conduct disorders however, the findings for ICD Conduct Disorder do not reflect this.

When ethnic origin is included to determine if differences between genders within the two groups exist, a number of significant findings surfaced. ICD Dysthymia w/ hierarchy, DSM-IV Panic Attack, ICD Panic Attack, DSM-IV Panic Disorder and DSM-IV Generalized Anxiety Disorder w/hierarchy were all significant for the U.S. born population with females more likely to endorse the illness than males. ICD Dysthymia with hierarchy, DSM-IV Generalized Anxiety Disorder w/hierarchy and ICD Panic Disorder in the past 12 months and ICD Panic Disorder at the 30 day mark yielded the same interaction for females in the U.S. born population. These findings are all supported by the aforementioned research with Hill and Needham (2013) where these illnesses are more common among females. There were no significant findings for gender and the rates of mental illnesses in the Caribbean population which indicates the two variables are independent of each other.

Employment

The two employment variables analyzed to determine if employment impacts rates of mental illnesses for U.S. born and Caribbean Blacks were working for pay at the present time and the number of hours worked for pay in a week. The null hypothesis was not rejected as there are no significant findings when the entire Black sample was analyzed in relation to being employed at the present time.

When analyzing being employed at the present time and ethnic origin, the null hypothesis was not rejected as there are no significant findings for any illness. Because unemployment has been shown to adversely impact mental well-being (Paul & Moser 2006), being employed was thought to have reduced rates of mental illness for respondents. However, the research hypothesis is not supported in this situation. All of the illnesses are independent of the variable employed at the present time for both groups.

There were a number of significant findings when looking at the number of hours for all Black respondents that worked for pay. I hypothesized higher rates of employment will correspond with lower rates of mental illnesses. In this situation, the more hours worked will result in the lower rates of mental illnesses. The research hypothesis was not supported and the null hypothesis could not be rejected for some of the illnesses as the opposite of what I hypothesized is indicated. DSM-IV Hypomania, ICD Panic Attack, DSM-IV Panic Disorder, DSM-IV Generalized Anxiety Disorder w/hierarchy, DSM-IV Oppositional Defiant Disorder w/ hierarchy over the course of the lifetime, ICD Hypomania, DSM-IV Bi-polar II, ICD Conduct Disorder w/ hierarchy, DSM-IV Gen Anxiety Disorder w/hierarchy and ICD Panic Disorder at the 12 month mark and ICD Panic Disorder at the 30 day mark have significant results but demonstrated a positive relationship which illustrated that as the number of hours worked per week increases, so do the rates of mental illnesses. ICD Dysthymia w/ hierarchy and DSM-IV Panic Attack also had significant results but there was a negative relationship such that as the hours worked increase the number of endorsements

for these disorders decreased over the course of the lifetime. The research hypothesis is partially supported by these findings.

There is some support in research that stressful workplace conditions may be a causal factor in the onset of depressive symptoms (Kivimaki, Hotoph & Hnederson 2010) however further exploration into the nature of the workplace for the respondents would be necessary to begin investigating this relationship for the illnesses presented in this study that illustrated a positive relationship between number of hours worked and the illness.

When including ethnic origin to determine if there are differences between the groups and the number of hours worked and rates of mental illnesses, I hypothesized higher rates of employment will correspond with lower rates of mental illnesses. The Caribbean population was analyzed first. DSM-IV Hypomania, ICD Panic Attack, DSM-IV Panic Attack, Dysthymia w/ hierarchy, DSM-IV Panic Disorder, DSM-IV Generalized Anxiety Disorder, ICD Conduct Disorder w/ hierarchy and DSM-IV Oppositional Defiant Disorder over the course of the lifetime, ICD Hypomania and DSM-IV Bi-polar II over the last 12 months and ICD Panic Disorder for the last 30 days show significant results with a positive relationship to number of hours worked. This again meant as the number of hours increased, the likelihood of endorsing the disorders for the Caribbean population also increased. Based on these results, the null hypothesis is not rejected and the research hypothesis is not supported for the Caribbean born respondents.

The results of the correlates for the U.S. born Black population showed DSM-IV Hypomania, ICD Dysthymia w/ hierarchy, ICD Panic Attack, DSM-IV Panic Attack, DSM-IV Generalized Anxiety Disorder and DSM-IV Oppositional Defiant Disorder over the course of the lifetime, ICD Hypomania and DSM-IV Bi-polar II, ICD Conduct Disorder w/ hierarchy, DSM-IV Gen Anxiety Disorder w/hierarchy and ICD Panic Disorder over the last 12 months and ICD Panic Disorder for the last 30 days showed significant results of a positive relationship to number of hours worked. The null hypothesis is not rejected and the research hypothesis is not supported for the U.S. born

respondents as the results indicate that as the number of hours worked increased so did the endorsement of the illnesses listed above.

Further analysis should be conducted to determine how the number of hours, if broken into more meaningful sections is related to the rates of diagnoses. For instance an analysis of part time, full-time and over-time should be conducted to see how the number of hours worked relates to the rates of endorsement of the mental illnesses. It is possible that what we are seeing here is hours above full time is yielding this positive relationship with mental illnesses for the entire Black sample and for both populations.

Home Ownership

There were only a few variables that allowed for the analysis of wealth as it relates to mental illnesses. One of these variables is if there is a mortgage on the home indicating home ownership. The idea that owning one's home is a positive indicator of wealth is how this variable was used. I hypothesized that higher rates of homeownership will result in lower rates of mental illnesses. When investigating the entire Black sample, ICD Panic Attack and DSM-IV Panic Attack over the course of the lifetime were shown to be significant but of those that endorsed the disease the percentage was much higher for those who owned their home than those who do not. The null hypothesis was not rejected for this variable and the research hypothesis was not supported. Home ownership was independent of mental illnesses for the remaining illnesses.

When analyzing the role of ethnic origin and home ownership, ICD Panic Attack and DSM-IV Panic Attack at the lifetime level were significant for U.S. born Blacks however the null hypothesis could not be rejected because those that owned a home were significantly more likely to endorse the illness. Again the research hypothesis was not supported and home ownership was independent of mental illnesses for the remaining illnesses for U.S. born Blacks and for all illnesses for Caribbean Blacks. Explanations for why these results were found could be the financial burden of caring for a home which extends beyond that of renting a home or apartment impacts rates of

mental illnesses. Williams et al (1992) found most racial differences in mental illness can be accounted for by factors of socioeconomic status. Indeed, some researchers have found Blacks with low socioeconomic status have higher rates of distress (Kessler & Neighbors 1986, Ulbrich, Warheit & Zimmerman 1989). These researchers acknowledge there are multiplicative effects of being poor and Black which results in higher rates of distress. Because these research studies look at Blacks as a homogeneous group versus Whites, the findings of this study may illustrate that differences between these sub-groups do indeed exist although further investigation into variables indicating wealth need to be conducted.

Welfare and Government Housing Assistance

Another indicator of socioeconomic status is welfare usage. Additional analyses were run to determine if an association with the use of welfare or government assistance impacts rates of mental illnesses. The variables used to analyze this are living in public housing, if respondents pay low/no rent, the number of total years received public assistance since age 18 and how much time received welfare before turning 18. I hypothesized those on welfare and government assistance would have higher rates of mental illnesses.

The results for those who do not live in public housing are more likely to not endorse DSM-IV Panic Attack, ICD Panic Attack and DSM-IV Panic Disorder than those that do but they are also more likely to endorse the illnesses as well over the course of the lifetime. The same was true for ICD Conduct Disorder w/ hierarchy over the last 12 months. Researchers acknowledge violence is more prevalent in neighborhoods of low SES residents (Buka, Stichick, Birdthistle, & Felton 2001) which could understandably result in symptoms of Panic Attacks and Panic Disorder such as a sense of imminent danger or impending doom and an urge to escape as well a feeling of losing control. This could explain why we are seeing lower rates of endorsement for those who do not live in public housing. The remaining illnesses were independent of living in public housing. The research hypothesis is partially supported by these findings.

Over the course of the lifetime, those who do not pay low/no rent through government assistance are more likely to not endorse DSM-IV Panic Attack and ICD Panic Attack than those that do but they are also more likely to endorse the illness as well. The research hypothesis is partially supported for these illnesses.

Those not receiving low/no rent through government assistance are also significantly more likely to not endorse the following disorders: over the course of the lifetime, DSM-IV Panic Disorder and DSM-IV Generalized Anxiety Disorder, over the last 12 months ICD Panic Disorder and in the last 30 days, ICD Panic Disorder and DSM-IV Hypomania were significant. In addition to understanding Panic Attack and Panic Disorder among people living in low SES neighborhoods, Generalized Anxiety Disorder also has symptoms that can be a normal part of living in a high stress situation due to increased violence. The relevant symptoms for this illness are excessive worry and anxiety. A lack of financial resources which can be a consistent factor for these individuals could also play a factor in manifesting these symptoms. The persistent irritable mood symptom of Hypomania could be why we are also seeing less endorsement among those who do not receive no/low rent through government assistance for this illness. Irritability may very well be a normal part of life if there are unmet needs due to a lack of funds. The null hypothesis is rejected and the research hypothesis supported for these illnesses. The remaining illnesses are independent of paying low or no rent through government assistance.

Respondents who received welfare before the age of 18 were analyzed to see if there was an impact on mental illnesses. The null hypothesis could not be rejected nor is the research hypothesis supported as there were no significant differences for those who received welfare before 18 and those that did not for any of the mental illnesses analyzed. We may be seeing these results because children are not usually a part of the decision making when it comes to finances so they may not be fully aware of the challenges entailed with this aspect of life. Therefore, the long lasting impact was minimal.

Those who have not received welfare since the age of 18 were also analyzed and are more likely to not endorse the following illnesses: DSM-IV Panic Attack, ICD Hypomania, DSM-IV Bi-Polar II, DSM-IV Hypomania, ICD Panic Attack, DSM-IV Panic Disorder and DSM-IV Generalized Anxiety Disorder over the course of the lifetime, ICD Hypomania, DSM-IV Bi-Polar II, DSM-IV Hypomania, ICD Dysthymia w/ hierarchy, DSM-IV Generalized Anxiety Disorder, ICD Conduct Disorder w/ hierarchy, ICD Panic Disorder at the 12 month mark and DSM-IV Hypomania and ICD Panic Disorder w/ hierarchy at the 30 day mark. The null hypothesis is rejected and the research hypothesis supported for this variable.

As a whole, those not receiving welfare or government assistance for housing has significant findings that indicated they were endorsing mental illnesses significantly lower than those receiving these benefits. In the one case where this was not true, those receiving welfare before the age of 18, the impact of receiving this aid prior to becoming an adult may have had a negligible impact versus being an adult and experiencing the stress of requiring this kind of support. The overall findings were supported by previous research as Poussaint (1990) stated while poverty doesn't result in poor mental health, it is a major contributing factor and unemployment rates are the most critical indicators of U.S. economic influence of the mental health of Blacks. Since the receipt of welfare is oftentimes contingent on the lack of employment, we may be seeing the impacts of that in these findings. Myers (1982) claims poverty is an illness producing state as a result of constant pressures from a lack of resources which mainly affects people of color.

Logistic Regression Models

Logistic regressions were calculated to analyze predictors for gender, country of origin, age at immigration and the number of years living in the U.S. on each illness among the Caribbean Black population in the dataset. The variables were recoded so males, Haitians, immigration before the age of 13 and less than 5 years living in the U.S. are the reference categories. The Haitian population became the preferred choice for the reference category

given it is the only distinct category where the official language was not English. Of the other three categories, 2 were English speaking nations and the third is a mixture of unidentified Caribbean nations that may or may not be English speaking. There were only a few significant predictors for a limited number of illnesses.

ICD Hypomania (Lifetime)

The model analyzing ICD Hypomania over a lifetime is statistically significant. Being from Trinidad and Tobago significantly predicted the endorsement of ICD Hypomania with those from that country having a higher endorsement for this disorder than Haitians. The research hypothesis for those coming from Anglophone countries experiencing lower rates of this disorder is not supported. This was also the case when the analysis of country of origin and the rates for ICD Hypomania were conducted. Those from the Anglophone country Jamaica had the highest rates of endorsement for that analysis and now those from another English speaking nation, Trinidad and Tobago, had significantly higher rates than those from Haiti. When considering the symptoms of the illness, (elevated mood, an increase in energy and activity, feelings of well-being and efficiency in both mental and physical capacity, increased sociability, talkativeness, over-familiarity, sexual energy, and a decreased need for sleep) it would appear that one would desire this diagnosis particularly because these symptoms do not lead to severe disruption of work or result in social rejection. The DSM-IV characteristics of Hypomania is similar but also includes that these behaviors can lead to painful consequences however, DSM-IV Hypomania was not statistically significant. Of these nations, Haiti is the most financially challenged. Because many immigrants work and send money back to family members living in their country of origin, it is possible that Haitians do not allow themselves the luxury of feeling the symptoms of Hypomania and instead keep their head down and work to send more money to their country of origin. Because Jamaica and Trinidad and Tobago are wealthier (that is not to say they are wealthy), family members may not feel the need to send as many resources to their country of origin and can therefore more fully enjoy the opportunities in the U.S. for self-gain. The age group 18-34 for time of immigration

significantly predicted the endorsement of ICD Hypomania and suggested that those who immigrated during this time are less likely to endorse ICD Hypomania than who immigrated before the age of 13. This could indicate that the age these individuals came to the U.S. means they have not been here longer than those who came at younger ages and have therefore not experienced as much effects of acculturation and are endorsing lower rates of ICD Hypomania. It is important to note that those who immigrated even later, ages 35 and over have even lower rates of endorsement and the results approached significance. The research hypothesis of living in the U.S. longer will result in higher rates of mental illnesses is supported.

DSM-IV Panic Attack (Lifetime) & ICD Panic Attack (Lifetime)

The model predicting DSM-IV Panic Attack over a lifetime is statistically significant. Being from Jamaica, Trinidad and Tobago and those from other Caribbean nations significantly predicted the endorsement of DSM-IV Panic Attack and ICD Panic Attack over the course of the respondents' lifetime with those from these countries having a higher endorsement for this disorder than those from Haiti. The research hypothesis for those coming from Anglophone countries experiencing lower rates of these disorders is not supported. When reviewing the symptoms of the disorder, intense fear or discomfort accompanied by a sense of imminent danger or impending doom and an urge to escape, there may be a difference in where Haitians have chosen to reside that does not place them in precarious situations where fear or discomfort is present. Investigating this may prove useful in understanding the differences we are seeing here. It does not appear that the native language from the country of origin plays a role with the manifestation of the symptoms of this disorder.

ICD Panic Disorder (12 months)

The model predicting ICD Panic Disorder for the last 12 months is statistically significant. Being in the U.S. for 20 or more years significantly predicted the endorsement of ICD Panic Disorder with this group having a lower

endorsement for this disorder than those living in the U.S. less than 5 years countries. Because the symptoms of this disorder feel very much like a heart attack and the majority of the Caribbean Blacks in this study came to the U.S between ages of 18-34, the portion of the population indicating a significant relationship with Panic Disorder has been living here for 20 years or more, it is possible that what is being endorsed as Panic Disorder is actually physical precursors to a heart attack. The age demographic would better fit the physical profile for medical ailments. The research hypothesis for those living in the country longer experiencing higher rates of this disorder is not supported.

DSM-IV Oppositional Defiant Disorder w/ Hierarchy (Lifetime)

The model predicting DSM-IV Oppositional Defiant Disorder w/ hierarchy over a lifetime is statistically significant. Being from Trinidad and Tobago is significantly predicted the endorsement of DSM-IV Oppositional Defiant Disorder w/ hierarchy with those from that country having a higher outcome for this disorder than Haitians. The research hypothesis for those coming from Anglophone countries experiencing lower rates of this disorder is not supported. Understanding when and with whom the patterns of negativistic, defiant, disobedient, and hostile behavior toward authority figures which persists for at least 6 months would be helpful in determining why this disorder is appearing in those from Trinidad and Tobago. Looking at family and work dynamics may prove useful. Because this disorder does have a distinction of with hierarchy, there is no potential that other disorders are also at play here as well. This would indicate we cannot look to another disorder to explain the symptoms so other areas of their lives must be more fully explored. The age group 18-34 for time of immigration is significantly associated and as a negative association. This suggests those who immigrated during this time are less likely to endorse DSM-IV Oppositional Defiant Disorder w/hierarchy than who immigrated before the age of 13. This could indicate that the age these individuals came to the U.S. means they have not been here longer than those you came at younger ages and are therefore experiencing less acculturative effects thus they are endorsing lower rates of DSM-IV

Oppositional Defiant Disorder w/hierarchy. It is important to note that those who immigrated even later, ages 35 and over have even lower odds of endorsing the illness than the reference group. The research hypothesis of living in the U.S. longer will result in higher rates of mental illnesses is partially supported.

Overall, the regression models only showed significance with a few illnesses. Of these illnesses, we see patterns of those coming from Anglophone countries endorsing the illnesses more than those that came from the Francophone country. We also see that those who immigrate to the U.S. later in life endorse illness less than those who immigrate earlier in their lives.

Doyle et al (2013) highlights the risk of mental illnesses increases with acculturation. It is possible that Haitians speaking French and Creole has provide a buffer from acculturative effects and even helped them maintain cultural traditions that do the same. A similar effect may be seen with those who live in the U.S. less than those who are here longer. Less time living in the U.S. equals less opportunity to be negatively impacted by acculturation.

CHAPTER 6

CONCLUSION

The objective of this study was to contribute to the growing body of research on the mental health profiles of U.S. born Blacks, U.S. born Blacks of Caribbean descent and Caribbean Blacks by analyzing relationships between mental illnesses and nativity and generational status, ethnic origin, length of residency in the U.S and age of immigration. In addition to this, several demographic variables are also analyzed which help provide a clearer picture of how various areas of U.S. life impact rates of mental illnesses for these groups. This is particularly important due to the growth and presence of these groups in the U.S.

The findings expand upon previous knowledge of mental illnesses among Black sub-groups. There are clear differences in rates of mental illnesses for those born in the U.S. compared to those born in the Caribbean. Bi-Polar II was the only illness that did not demonstrate significant results where U.S. born Blacks has higher rates mental illnesses than Caribbean Blacks. Although no significant results were found for length of residency, results suggest that the longer one lives in the U.S. as an immigrant, the higher the endorsement of mental illnesses. Those born in the Caribbean are less likely to endorse mental illnesses than those of Caribbean descent born in the U.S. Theoretically, these findings are supported by the bicultural model of acculturation where maintenance of the traditional culture posited by Buriel et al (1982) could be yielding better psychological results for first generation Caribbean Blacks.

I did not find support for lower rates of mental illnesses for Caribbean immigrant born in English speaking countries. Again, the bicultural model of acculturation could explain that speaking ones native language is a part of maintaining one culture and is acting as a buffer to yield better psychological results (Buriel, Calzada, & Vasquez, 1982). Education has a relationship with some illnesses which demonstrates that those with a high school diploma are less likely to endorse illnesses for the general population and for U.S. Blacks but not for Caribbean Blacks. Only one illness is significant for the entire Black population when a college degree is earned and only two are

significant for the Caribbean population but none are for the U.S. born Black group. Those who earned a college degree in the Caribbean population are more likely to not endorse the illnesses. Years of school completed indicates the more years completed the greater the likelihood to endorse the illnesses for Blacks in general. In Merton's (1957) Social Structure and Anomie, he theorized that issues can occur when there are discrepancies between expectations and aspirations. Perhaps those with high school diplomas and college degrees have high aspirations and are achieving educationally but their expectations in terms of success are not being met.

Overall, females were more likely to endorse illnesses and U.S. born females were more likely to endorse illnesses. No significant findings were found for the Caribbean population. Only one illness was significant when looking at home ownership for the entire sample and the results illustrated that those who owned their home were more likely to endorse the illness. The same result was apparent for U.S. Blacks but there were no significant results for the Caribbean group. Not receiving welfare demonstrated less likelihood to endorse mental illnesses except for those who received welfare before turning 18. No significant findings were illustrated for that group.

Overall, the regression models only showed significance with a few illnesses and the Caribbean portion of the sample population. Of these illnesses, we see patterns of those coming from Anglophone countries endorsing the illnesses more than those that came from the Francophone country. We also see that those who immigrate to the U.S. later in life endorse illness less than those who immigrate earlier in their lives. Recognizing the symptoms required to be present for diagnosis of any of the researched illnesses to occur allowed for a deeper understanding of how and why these particular illnesses may interact with any of the variables present in this study. A more in depth and detailed analysis will prove useful in understanding each illness which in turn would better prepare the mental health community to diagnose and treat the heterogeneity among groups of Blacks in the U.S. All of the findings presented, significant or not have contributed to the body of literature investigating mental illnesses among Blacks and the sub-groups within Blacks.

Limitations

There are questions of validity that were not addressed in the dataset but deserve mention. For instance, there are high numbers of Black males incarcerated across the U.S. nation who because of budgetary restraints, were not able to participate in the NSAL data. As a result, males between18-34 may not be as well represented in the dataset. In an attempt to rectify this, the researchers conducted a pilot study designed to determine if respondents would divulge information about household members who do not live at home, i.e., college students, nursing homes and incarcerated individuals. The study found that respondents are likely to give this type of information (Jackson, Neighbors, Neese, Trierweiler and Torres 2004). The Caribbean population had high refusal rates after 9/11 due to fears about immigration status. To deal with this, the primary investigators spoke on talk shows in cities where participation was anticipated to be high given the number of Caribbean Blacks located there to increase respondent participation (Jackson et al 2004). Other limitations are threats of historical validity such that the political and economic climate as it relates to race is not addressed. By this I mean, what are the effects of social projects like ghettoization, gentrification, excessive incarceration, chronic unemployment and notions like the declining significance of race (Wilson 1980) on the mental well-being of Blacks living in the U.S. Also worth mentioning is the socialization process by which racial identity develops in the United States which includes social projects like ghettoization (Omi and Winant 1994). The desire to conform to Eurocentric ideals such that some participants may identify themselves as something other than an individual of African descent could also lead to underrepresentation of the Blacks in the study. The dataset could also suffer from immigrant respondents underreporting symptoms due to fear about their residency status.

Because the definitions of the disorders came from the Diagnostic and Statistical Manual-IV (DSM-IV) and International Statistical Classification of Diseases and Related Health Problem (ICD_10) and the World Health Composite International Diagnostic Interview (WHO-CIDI) we are limited in understanding disease from a viewpoint

that may not support Blacks in the U.S. There are African-centered psychologists who argue that the definitions of mental health and mental illnesses for Blacks in the U.S. differ significantly from how the bodies mentioned above define disease (Akbar 1981; Kambon 1998).

Future Research

The present study has contributed to the body of literature that explains patterns of mental health among sub-groups of Blacks in the U.S. When we consider the findings of this study, there are a few areas where future research would be advantageous. Further investigation into why we may be seeing increases in rates of mental illnesses the longer an immigrant lives in the U.S. will yield insight in how to diagnose and treatment immigrant populations residing in the U.S. for extended periods of time. Looking at elements of acculturation as it relates to rates of mental illnesses is certain to be revealing.

The NSAL dataset has variables that would allow for further investigation in language use such as creole where future research can offer explanations of its use possibly serving as a barrier to negative impacts of acculturation and/or negative manifestations of mental health. Investigating this would provide some clarity on whether this is serving foreign born Blacks as well as other foreigners who do not speak English some measure of protection against mental illnesses. Being able to discern if language is impacting how one acculturates would also be helpful in understanding patterns of mental illness.

Further investigation of how employment impacts rates of mental illnesses would be fruitful. One approach could be analyzing the number of hours worked broken into categories such as part-time, full-time and longer than full-time hours worked may allow for meaningful indicators to appear. For instance, we may see very few hours and many hours above full-time related to higher levels of mental disorder.

When looking at welfare usage as a poverty indicator, we see that using welfare services as an adult does indicate higher rates of endorsing mental illnesses. However, because an income variable was not available, further research could determine if the subgroups are attainting different levels of wealth to ascertain if there is more variation that what we are seeing here.

Some research indicates discrimination that took place primarily in the workplace is what contributed to mental illnesses, specifically depression and anxiety (Pernice, 1996). As a result, future research that investigates workplace discrimination for Blacks and the sub-groups would be enlightening.

A number of other exploratory studies can be utilized to further understand the role of various aspects of life in the U.S. on rates of mental illnesses. Music, technology, cultural support systems along with what aside from potentially acquiring a new language and culture is involved in the acculturation process that could be negatively or positively impact rates of mental illnesses would be interesting and informative studies.

Finally, future studies should investigate intra-Caribbean differences if the medical community is to adequately tap into the realities of Caribbean ethnicities in the U.S. The failure to do so could be detrimental to advancements in health care research (Govia 2012).

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Appendix A. DSM-IV Definition of Illnesses in Alphabetical Order

Bipolar II- The essential feature of Bipolar II Disorder is a clinical course that is characterized by the occurrence of one or more Major Depressive Episodes accompanied by at least one Hypomanic Episode and must cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. DSM-IV Bipolar II has a duration of at least 4 days of mood change (distinct from the usual nondepressed mood) and an unequivocal change in functioning that is observable by others.

Generalized Anxiety Disorder- The essential feature of Generalized Anxiety Disorder is excessive anxiety and worry (apprehensive expectation), occurring more days than not for a period of at least 6 months, about a number of events or activities. The individual finds it difficult to control the worry. The anxiety and worry are accompanied by at least three additional symptoms from a list that includes restlessness, being easily fatigued, difficulty concentrating, irritability, muscle tension, and disturbed sleep. Although individuals with Generalized Anxiety Disorder may not always identify the worries as "excessive," they report subjective distress due to constant worry, have difficulty controlling the worry, or experience related impairment in social, occupational, or other important areas of functioning. Adults with Generalized Anxiety Disorder often worry about everyday, routine life circumstances such as possible job responsibilities, finances, the health of family members, misfortune to their children, or minor matters such as household chores, car repairs, or being late for appointments.

Hypomania- Defined as a distinct period during which there is an abnormally and persistently elevated, expansive, or irritable mood that lasts at least 4 days. This period of abnormal mood must be accompanied by at least three additional symptoms from a list that includes inflated self-esteem or grandiosity (nondelusional), decreased need for sleep, pressure of speech, flight of ideas, distractibility, increased involvement in goal-directed activities or psychomotor agitation, and excessive involvement in pleasurable activities that have a high potential for painful consequences. If the mood is irritable rather than elevated or expansive, at least four of the above symptoms must

be present. The mood during a Hypomanic Episode must be clearly different from the individual's usual nondepressed mood, and there must be a clear change in functioning that is not characteristic of the individual's usual functioning. A Hypomanic Episode typically begins suddenly, with a rapid escalation of symptoms within a day or two. Episodes may last for several weeks to months

Oppositional Defiant Disorder- The essential feature of Oppositional Defiant Disorder is a recurrent pattern of negativistic, defiant, disobedient, and hostile behavior toward authority figures that persists for at least 6 months and is characterized by the frequent occurrence of at least four of the following behaviors: losing temper, arguing with adults, actively defying or refusing to comply with the requests or rules of adults, deliberately doing things that will annoy other people, blaming others for his or her own mistakes or misbehavior, being touchy or easily annoyed by others, being angry and resentful, or being spiteful or vindictive. To qualify for Oppositional Defiant Disorder, the behaviors must occur more frequently than is typically observed in individuals of comparable age and developmental level and must lead to significant impairment in social, academic, or occupational functioning.

DSM-IV Panic Attack-The essential feature of a Panic Attack is a discrete period of intense fear or discomfort that is accompanied by at least 4 of 13 somatic or cognitive symptoms. The attack has a sudden onset and builds to a peak rapidly (usually in 10 minutes or less) and is often accompanied by a sense of imminent danger or impending doom and an urge to escape. The 13 somatic or cognitive symptoms are palpitations, sweating, trembling or shaking, sensations of shortness of breath or smothering, feeling of choking, chest pain or discomfort, nausea or abdominal distress, dizziness or lightheadedness, derealization or depersonalization, fear of losing control or "going crazy," fear of dying, paresthesias, and chills or hot flushes. Attacks that meet all other criteria but that have fewer than 4 somatic or cognitive symptoms are referred to as limited-symptom attacks. Individuals seeking care for unexpected Panic Attacks will usually describe the fear as intense and report that they thought they were about to die, lose control, have a heart attack or stroke, or "go crazy".

DSM-IV Panic Disorder – Characterized by recurrent unexpected Panic Attacks about which there is persistent concern. Often the symptoms of this disorder come on rapidly and without an identifiable stressor. The individual may have had periods of high anxiety in the past, or may have been involved in a recent stressful situation. The underlying causes, however, are typically subtle. Panic Disorder is characterized by sudden attacks of intense fear or anxiety, usually associated with numerous physical symptoms such as heart palpitations, rapid breathing or shortness of breath, blurred vision, dizziness, and racing thoughts. Often these symptoms are thought to be a heart attack by the individual, and many cases are diagnosed in hospital emergency rooms.

Appendix B. ICD-10 Definition of Illnesses in Alphabetical Order

Conduct Disorder w/ hierarchy- Disorders characterized by a repetitive and persistent pattern of dissocial, aggressive, or defiant conduct. Such behaviour should amount to major violations of age-appropriate social expectations; it should therefore be more severe than ordinary childish mischief or adolescent rebelliousness and should imply an enduring pattern of behaviour for six months or longer

Dysthymia w/ hierarchy-Depressed mood for most of the day, for more days than not, and ongoing for at least two years. During this time, there must be two or more of the following symptoms: under– or over eating, sleep difficulties, fatigue, low self-esteem, difficulty with concentration or decision making, and feelings of hopelessness.

Hypomania- A disorder characterized by a persistent mild elevation of mood, increased energy and activity, and usually marked feelings of well-being and both physical and mental efficiency. Increased sociability, talkativeness, over-familiarity, increased sexual energy, and a decreased need for sleep are often present but not to the extent that they lead to severe disruption of work or result in social rejection. Irritability, conceit, and boorish behaviour may take the place of the more usual euphoric sociability. The disturbances of mood and behaviour are not accompanied by hallucinations or delusions.

Panic Attack- The essential feature is recurrent attacks of severe anxiety (panic), which are not restricted to any particular situation or set of circumstances and are therefore unpredictable. As with other anxiety disorders, the dominant symptoms include sudden onset of palpitations, chest pain, choking sensations, dizziness, and feelings of unreality (depersonalization or derealization). There is often also a secondary fear of dying, losing control, or going mad.