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CONSEQUENCES OF PSYCHIATRIC AND SUBSTANCE USE DISORDERS FOR SOCIAL CONTACT AND PSYCHOSOCIAL RESOURCES

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To Cassy—thank you for all
of your encouragement, support
and patience. And to my
mother—a light in any darkness.

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ABSTRACT

Researchers employing the stress process model have long identified the importance of social and psychosocial resources in understanding how health disparities arise and are reproduced. However, most previous sociological investigations employing this theoretical framework have considered these resources as antecedents of mental health, rather than as consequences of mental health problems. Using panel data from a community sample of Miami-Dade youths transitioning into adulthood (N = 1,174), the current investigation assesses the potential for the history and the timing of onset of psychiatric disorders and substance dependence to impact the acquisition of social contact and a wide range of psychosocial resources. Results indicate that the consequences of the history – and timing of onset – of psychiatric and substance use disorders for the availability of coping resources vary by both gender and race-ethnicity. These group variations suggest that the translation of a particular disorder to a particular resource may be culturally driven.

CONSEQUENCES OF PSYCHIATRIC AND SUBSTANCE USE DISORDERS FOR SOCIAL CONTACT AND PSYCHOSOCIAL RESOURCES

INTRODUCTION

People vary considerably in the degree to which they perceive the world around them as being supportive and experience a sense of personal mastery. There are reasons to expect that such perceptions and experiences may be shaped by a person's psychological health or substance use problems. Further, it may also be important to consider whether the timing of such problems during the life-course might differentially influence the acquisition of these social and psychosocial resources. The current investigation assesses the potential for the history and the timing of onset of psychiatric disorders and substance dependence to impact the degree of social contact and the acquisition of a wide range of psychosocial resources.

Researchers employing the stress process model have long identified the importance of social contact and psychosocial resources in understanding how health disparities arise and are reproduced (Boyce 1985; Broadhead et al. 1983; Cobb 1976; Cohen et al. 1997; Gecas 1989; House et al. 1988; Pearlin and Skaff 1996; Turner 1983; Turner and Roszell 1994; Turner and Turner 1999). However, most sociological investigations employing the stress process model have considered these resources as predictors of mental health; rather than as consequences of mental health problems.

Although observed nearly 20 years ago (House et al. 1988), to date, relatively few studies explore those factors that underlie the acquisition and distribution of social contact and psychosocial resources. However, a limited number of recent studies consider mental health as a predictor coping resources. For example, research supports the conclusion that greater depressive symptoms are associated with subsequently lower levels of perceived social support (Gracia and Herrero 2004; Lakey 1989; Lakey and Dickinson 1994). Major depressive disorder experienced during adolescence has also been linked to lower quality in family relations, smaller social networks in young adulthood (Lewinsohn et al. 2003). Using a community-based longitudinal study of youths transitioning into young adulthood, Turner and colleagues (unpublished) found that prior lifetime psychiatric and substance use disorders predict perceived social support from both family and friends in young adulthood; net of early family experiences including perceived family support in adolescence. Additional longitudinal research demonstrates a link between depression and subsequent reports of self-esteem. Fleming and colleagues found that depressed adolescents reported lower self-esteem four years later compared to their non-depressed counterparts (Fleming, Boyle, and Offord 1993).

While much of the previous research considering the relationship between psychiatric or substance use disorders and social outcomes does not consider these disorders as predictors of adverse social consequences (Regier 1980), even fewer studies assess how the timing of onset of psychiatric and substance use disorders predicts subsequent resources such as social contact, perceived social support, mastery, and self-esteem. Because these resources are important for overcoming life-hardships, evaluating the significance of the timing of onset of psychiatric and substance use disorders for the acquisition of these resources will prove useful from both prevention and intervention standpoints.

Moreover, the differential impact of these disorders on these resources between earlier and later onset of a disorder, for example during childhood versus adolescence, is becoming

more important as some evidence suggests that the average age of onset for many psychiatric and substance use disorders is declining (Burke et al. 1991; Sandanger et al. 1999). Additionally, there is ample evidence demonstrating that psychiatric and substance use disorders are not uncommon among children-adolescents and young adults (Cuffe et al. 1998; Kashani et al. 1987; Reinherz et al. 1993; Turner and Gil 2002). For example, Kashani and colleagues (1987) find that approximately 19 percent of adolescents meet the criteria for a psychiatric disorder. At the same time, early onset of psychiatric disorders, such as depression, can affect critical life-transitions (e.g., transitions into adolescence and young adulthood) throughout the life-course (Kessler 2002).

In addition to evaluating the consequences of the history and timing of onset of psychiatric and substance use disorders for coping resource, it is also important to consider to what extent might these disorder-resource relationships vary across gender and race-ethnicity. This is an important gap because previous research reveals gender and race-ethnic differences in relation to both disorders (Anthony and Helzer 1991; Breslau et al. 1997; Cuffe et al. 1998; Grant et al. 2006; Helzer, Burnam, and McEvoy 1991; Kessler et al. 1994; Kessler et al. 1995; Poznanski and Mokros 1994; Reinherz et al. 1993; Turner and Gil 2002; Turner and Lloyd 2003; Weissman et al. 1991) and the level of resources (Turner and Lloyd 1999; Turner, Taylor, and Van Gundy 2004). Gender and race-ethnic differences in acquired social and psychosocial resources may be consequences of differential effects of the history of psychiatric and substance use disorders.

Information on group variations serve both prevention and intervention aims by helping to identify those populations that are at most risk for failing to develop these important resources as a result of the history (and the timing of onset) of psychiatric and substance use disorders. The lack of knowledge regarding the consequences of psychiatric and substance use disorder for the development of coping resources is problematic because the availability of these resources is critical for successfully navigating the social world and overcoming hardships over the life-course.

BACKGROUND

The acquisition of social and psychosocial resources inevitably begins early in the life-course. Indeed, children between 6 and 12 years begin to establish a sense of mastery as they engage and interact with peers and non-familial adults (Cicchetti, Rogosch, and Toth 1994). Thus, childhood and adolescence are likely to be sensitive periods of human development in relation to these resources. Sensitive periods are times in the life-course when exposure to negative life events or noxious environments has a greater impact on subsequent health (or coping resources) than similar exposure would have at other points in the life-course (Kuh et al. 2003). The onset of a psychiatric or substance use disorder (and those experiences surrounding such disorders) occurring during a sensitive period may be experienced as more stressful and put one at greater risk for failing to fully develop an adequate reservoir of social and psychosocial resources.

To the extent that the acquisition of these resources is shaped by psychiatric or substance use disorders during sensitive periods of social development, the onset of a disorder during sensitive periods early in the life-course may also increase the likelihood that one follows a trajectory involving similarly limited resources available later in adulthood. A life-course trajectory refers to the long-term course of social and psychological states over time **(**Elder 1998). For example, without any major life-disruptions, a strong sense of mastery developed during childhood and adolescence is likely to translate into a strong sense of mastery during young, middle, and older adulthood. However, the translation of mastery from youth to adulthood may be disrupted by the onset of a psychiatric or substance disorder (and related symptoms).

Further, it may also be important to consider whether the timing of such problems might differentially influence the acquisition of social and psychosocial resources. For example, the onset of a psychiatric or substance use disorder at the age of 10 (during childhood) may have greater (or lesser) detrimental effects on one's ability to establish social and psychosocial resources compared to the onset of such a disorder at the age of 16 years. On the one hand, childhood-onset may equate to more harmful consequences because of the greater length of time one experiences the symptoms and negative societal reactions that often surround psychiatric and substance use disorders. On the other hand, those with a childhood-onset have more time to adapt to those problem symptoms and negative societal reactions.

In either case, the onset of a psychiatric or substance disorder during childhood or adolescence may lead to problems with developmental outcomes such as socio-cognitive development (Beck et al. 1979; Beck 1983; Kaslow, Brown, and Mee 1994; Kovacs and Goldston 1991), social competency (Norris and Rubin 1984), self and identity (Craig-Bray, Adams, and Dobson 1988; Erikson 1968), and social rejection and isolation (Link 1987; Link et al. 1989; Link and Cullen 1990; Link and Phelan 1999; Wright, Gronfein, and Owens 2000; Garber and Horowitz 2002). These developmental related factors, in turn, may have harmful consequences for the acquisition of social and psychosocial resources.

Sociologists have long recognized the social stigma surrounding mental illness and substance use problems in the United States. Goffman's (1963) work underscores much of the work on stigma surrounding mental illness over the past half-century. According to Goffman, social stigma involves those circumstances where individuals are not viewed by others as socially acceptable but rather as socially deviant. However, he points out that, while stigma refers to a socially discredited attribute, social stigma must be viewed within the "language of relationships" (1963:3). In other words, stigmatization is a process that is only realized through

social interactions and that the social interactions often experienced by those expressing symptoms of mental health (or substance use) problems are viewed and reacted upon as though they are socially deviant and unacceptable. Indeed, psychiatric disorders are recognized as undesirable (Link 1987).

Since Goffman's seminal work, researchers have amassed a large body of evidence demonstrating the negative social experiences experienced by persons exhibiting symptoms of mental health problems (Link 1987; Link and Cullen 1990; Wright, Gronfein, and Owens 2000; Link and Phelan 2001). From a social-developmental perspective the stigma surrounding a psychiatric or substance use disorder (and related symptoms) may impede the acquisition of social connections and psychosocial resources in two important ways. Experiences of social rejection and isolation stemming from the stigma surrounding mental health problems may impair one's ability to develop and maintain healthy social networks and psychosocial resources, especially if the onset occurs during sensitive periods of social development—childhood and adolescence. In addition, experiences of social rejection and isolation stemming from the stigma surrounding mental illness may also erode the social ties and psychosocial resources previously established.

Prior research demonstrates that psychiatric disorders are often associated with social rejection (Nieradzik and Cochrane 1985; Riley et al. 1998) and poor social functioning (Klerman 1989; Kovacs 1997). Psychiatric disorders are also shown to be associated with fewer subsequent social relationships (Johnson 1991). For example, compared to their non-depressed counterparts, depressed adolescents report smaller social networks (Lewinsohn et al. 2003) and greater problems with self-esteem and interpersonal relations (Kandel and Davies 1986; Reinherz et al. 1999) in young adulthood. In order to fully appreciate how psychiatric and substance use disorders are linked with social contact and psychosocial resources, it is important to first understand the nature of these resources.

The Nature of Social Contact and Psychosocial Resources

Information is sparse regarding those factors that influence the development of social contact and psychosocial resources and our knowledge regarding such factors is crucial in our attempts to understand the relationship between social relationships and health (House, Landis, and Umberson 1988). What consequences of the history and timing of onset of psychiatric and substance use disorders on social and psychosocial resources would be expected? Understanding the nature of these resources may help us begin to answer such questions.

Social Contact

The distinction made between social contact and perceived social support is an important one. While perceived social support, viewed as a psychosocial resource, has been shown to be a better predictor of health than other types of social support it may not be representative of the support one actually receives (Kessler 1992). Social contact with family and peers is tangible in nature and is also protective against poor health (for review see Turner and Turner 1999). As discussed, because the stigma often surrounding mental illness can lead to social isolation and rejection, those with a history of a psychiatric or substance use disorder may experience limited contact with family and friends.

Perceived Social Support

A large body of research supports the conclusion that perceived social support is protective against depression and psychological distress (Cassel 1976; Cohen and Syme 1985; House, Landis, and Umberson 1988; Turner and Turner 1999). Perceived social support is defined by Cobb (1976) as information that leads an individual to feel: (1) cared for and loved; (2) esteemed and valued; and (3) a member of a network of communication and mutual obligation. Although social support has been conceptualized in many ways (Boyce 1985), it has long been established that emotional or perceived support provides the most compelling evidence with respect to the association between social support and health (House 1981, Turner 1983, Wethington and Kessler 1986). Given that one's ability to perceive those around them as being supportive is inevitably linked to their day-to-day social interactions, the stigma surrounding symptoms of psychiatric and substance use disorders is likely to impede one's ability to perceive the world around them as being supportive.

Mastery

A large body of evidence supports the conclusion that a greater sense of mastery is associated with better mental health (Pearlin and Schooler 1978; Pearlin et al. 1981; Turner and Lloyd 1999; Turner, Taylor, and Van Gundy 2004). Pearlin and Schooler (1978:5) define mastery as "the extent to which one regards one's life-chances as being under one's own control in contrast to being fatalistically ruled." As with the other psychosocial resources discussed here, the extent to which one perceives life-chances as being under one's control is likely to be diminished as the result of experiencing negative, stigmatizing, interactions with others. If, in fact, one experiences social isolation due to the negative social preconceptions surrounding mental illness and these experiences are viewed as externally driven, then individuals experiencing symptoms of mental health problems may be more likely to perceive most (or all) of their life-chances as being out of their control.

Mattering

Mattering is also associated with mental health (Taylor and Turner 2001; Turner, Taylor and Van Gundy 2004). Mattering is defined as "the feeling that others depend upon us, are interested in us, are concerned with our fate, or experience us as an ego-extension" (Rosenberg and McCullough 1981:165). The ability to develop and maintain a sense of mattering to those around us may be partially shaped by one's ability to accurately assess and cognitively process information from the social environment. Given that psychiatric disorders experienced during childhood and adolescence can have negative implications for one's socio-cognitive development (Beck et al. 1979; Beck 1983; Kaslow, Brown, and Mee 1994; Kovacs and Goldston 1991), children-adolescents who experience psychological problems may be less likely to perceive themselves as mattering to others due to problems with socio-cognitive development and errors in processing social information.

At the same time, persons exhibiting stigmatized symptoms related to psychiatric and substance use disorders may also lack a sense of belongingness or social integration. Indeed, it has been argued that perceptions of mattering are tied to interpersonal experiences and that these experiences can shape one's sense of belonging (Schieman and Taylor 2001).

Because mattering and perceived social support appear to share some conceptual commonalities, it is important to distinguish between the two constructs. As mentioned, perceived social support refers to perceptions of being cared for and valued by members of one's social network. Mattering involves the extent that others depend on us. Thus, the central distinction between the two constructs is that perceived social support refers to the extent that others care about us (inward reflection) and mattering refers to the extent that we are important to others (outward reflection).

Optimism

Optimism has been defined as a general tendency to believe one will experience good versus bad outcomes throughout life (Scheier and Carver 1985; Scheier and Carver 1992). A wide range of empirical studies demonstrate that greater optimism is associated with healthier behaviors and well-being (see review in Scheier and Carver 1992). Because those with a psychiatric or substance use disorder are often stigmatized, their everyday interactions likely involve negative connotations. Such negative social experiences may increase the likelihood that one perceives him- or herself on a trajectory of negative social interactions and failures. In turn, those with a psychiatric or substance use disorder may anticipate bad experiences and outcomes from their actions. In addition, on a socio-cognitive level, inaccurate processing of information from the social environment may also prevent one from anticipating the consequences of their actions to be positive ones.

Self-Esteem

Similar to the other psychosocial resources discussed, greater self-esteem is associated better mental health and well-being (Pearlin and Lieberman 1979; Rosenberg 1985; Turner and Lloyd 1999; Turner, Taylor, and Van Gundy 2004). Rosenberg (1965:5) defines self-esteem as "the evaluation which the individual makes and customarily maintains with regard to himself or herself: it expresses an attitude of approval or disapproval toward oneself." It has been argued that there are three essential factors involved in the development of self-esteem: reflected appraisal, social comparison, and self-attribution (Rosenberg 1986). Because self-esteem emerges from ongoing social interactions this psychosocial resource is likely poorly developed among those who are stigmatized—those exhibiting symptoms of a psychiatric or substance use disorder.

Social contact and psychosocial resources are invariably tied to the social relationships and interactions humans have with each other. The onset of psychiatric or substance use disorders may disrupt and hamper otherwise healthy social interactions and, in turn, lead to poorly developed social and psychosocial resources. Prior to discussing those studies that consider such issues, I provide a brief description of the prevalence, distribution, nature, and age of onset of the psychiatric and substance use disorders considered in the current investigation.

Prevalence and Distribution of Psychiatric and Substance Use Disorders

Over the past decade, researchers have demonstrated that the prevalence rates for both psychiatric and substance use disorders are higher than previously anticipated. Kessler and colleagues (1994), who conducted the National Comorbidity Survey (NCS), found that among

individuals between the ages of 18 and 54 approximately one-half of the U.S. population met criteria for at least one lifetime psychiatric or substance use disorder.

Similarly, the lifetime prevalence of psychiatric and substance use disorders among young adults in Miami are also considerably high (Turner and Gil 2002). Specifically, the lifetime prevalence of major depression is approximately 17 percent; 12 percent for post-traumatic stress disorder (PTSD); and 36 percent for any substance abuse-dependence disorder (Turner and Gil 2002). There is also evidence demonstrating that rates of particular disorders vary by socio-demographics (i.e., race-ethnicity, gender, and socioeconomic status).

Race-Ethnicity

Compared to non-Hispanic Whites, young African Americans typically report lower rates of affective and substance use disorders (Helzer, Burnam, and McEvoy 1991; Anthony and Helzer 1991; Weissman et al. 1991; Kessler et al. 1994; Turner and Gil 2002). Rates of PTSD are higher among African Americans and U.S.-born non-Cuban Hispanics compared to non-Hispanic Whites (Cuffe et al. 1998; Turner and Gil 2002). However, overall, there are no differences between African Americans and non-Hispanic Whites in regards to lifetime anxiety disorders (Kessler et al. 1994; Turner and Gil 2002). In general, Hispanics and non-Hispanic Whites report relatively equivalent lifetime rates of affective, anxiety, and substance use disorders (Kessler et al. 1994; Turner and Gil 2002). The two exceptions are found when comparing U.S.-born non-Cuban Hispanics with non-Hispanic Whites. Specifically, compared to non-Hispanic Whites, U.S.-born non-Cuban Hispanics have higher rates of anxiety disorders and lower rates of substance abuse-dependence (Turner and Gil 2002).

Gender

Variations in rates of psychiatric and substance use disorders by gender are also well established. Researchers consistently demonstrate that women typically report higher rates of lifetime affective and anxiety disorders than men, but men report higher rates of substance use disorders (Kessler et al. 1994; Turner and Gil 2002). However, while females tend to report higher rates of depression than their male counterparts, this pattern does not emerge until adolescence (Poznanski and Mokros 1994). Also compared to males, females report higher lifetime rates of panic disorder (Grant et al. 2006) and PTSD (Breslau et al. 1997; Cuffe et al. 1998; Kessler et al. 1995; Reinherz et al. 1993; Turner and Gil 2002).

Socioeconomic Status

Socioeconomic status (SES) has been found to be inversely associated with psychiatric and substance use disorders (Kessler 1979; Dohrenwend et al. 1992; Kessler et al. 1994). For example, compared to those with higher SES, affective disorders are more common among those within the lower SES stratum (Kessler et al. 1994). While depression, phobias, and drug abuse/dependence are more prevalent among those in the lower socioeconomic class, there is, however, no difference in PTSD between those in the upper or lower socio-economic class (Reinherz et al. 1993).

This evidence demonstrates that psychiatric and substance use disorders not only vary by socio-demographic factors but that such disorders are relatively common within the U.S.

population and often first emerge early in the life-course. Indeed, lifetime rates of psychiatric and substance disorders are highest among young adults (Robins and Regier 1991; Kessler et al. 1994). Moreover, there is some evidence suggesting that the age of onset is declining for many psychiatric and substance disorders (Burke et al. 1991; Sandanger et al. 1999). What does prior research tell us about the timing of onset of each specific disorder and how might these disorders impact the acquisition of social and psychosocial resources? Let us turn to these questions.

Nature and Age of Onset of Psychiatric and Substance Use Disorders

A large body of evidence regarding psychiatric and substance use disorders informs us that the age of onset varies by disorder. Three of the major diagnostic classifications of psychiatric and substance use disorders in the DSM-IV (APA 1994) include affective (or mood) disorders, anxiety disorders, and substance abuse-dependence. The following briefly discusses prior research informing us of the age of onset of psychiatric and substance use disorders, as well as the nature of these disorders in relation to social contact and psychosocial resources.

Major Depression

Among individuals between the ages of 18 and 54 in the general U.S. population, approximately 17 percent meet criteria for major depression at some time in their lives (Kessler et al. 1994). Between nine and seventeen percent of older adolescents and young adults report lifetime major depression (Reinherz et al. 1993; Turner and Gil 2002). This suggests that many individuals experience the onset of major depression during or prior to adolescence.

While there is an ongoing debate as to the variation in the nature of depression across age or developmental stages (Cicchetti & Schneider-Rosen 1984), there is general consensus that both adolescents and children experience depression (Garber and Horowitz 2002; Lewinsohn and Essau 2002). For example, although relatively rare, depression has been detected among those in pre-school, with a dramatic increase post-puberty (Poznanski and Mokros 1994).

While some studies report the average age of onset for major depression is in the mid-to-late-twenties (Weissman et al. 1991), major depressive episodes may first emerge earlier in life (Burke et al. 1990). For example, there is evidence that among a sample of adolescents the mean age of major depressive disorder is approximately 15 years for both males and females (Lewinsohn and Essau 2002). In a large community-based sample of adults aged 18-97, one-fourth of those with a lifetime major depressive disorder report the onset during childhood or adolescence (Soreson, Rutter, and Aneshensel 1991). The age range for the two samples likely accounts for the differences in the age of onset for major depression—youths are right-censored for the onset of psychiatric and substance use disorders to a greater degree. While the former study suggests a higher percentage of individuals experiencing the first onset of depression in childhood or adolescence than the latter study, both studies highlight that major depression often begins to emerge early in the life-course.

Indeed, more than one-half of respondents report their first episode of major depression occurring before the age of 24 (Soreson, Rutter, and Aneshensel 1991) and approximately forty percent of males and thirty percent of females who ever met diagnostic criteria for major depression report the onset occurring between the ages of 10 and 19 years (Bland, Newman, and Orn 1988). The mean age of first onset of major depression among older adults is approximately nineteen years (Giaconia et al. 1994) and the hazard rate for major depression peaks between 15

and 19 years and then again between 25 and 29 years (Burke et al. 1990; Burke et al. 1991; Giaconia et al. 1994). How might the onset of major depression early in the life-course impact the development of social and psychosocial resources?

Peirce and colleagues (2000) find that depressed individuals report less perceived social support than their non-depressed counterparts. There is also evidence that contact with family and friends is protective against the onset of major depression (Bruce and Hoff 1994) and that depressed youths exhibit impaired functioning in their relationships with family and friends (Kovacs 1997).

Indeed, a wide range of social skills and interpersonal problems are associated with depression among children and adolescents (see Joiner 2002). For example, compared to their non-depressed counterparts, depressed adolescents report greater problems developing intimate relationships and maintaining peer relationships in early adulthood (Kandel and Davies 1986). Depressed youths also report greater interpersonal conflict and rejection (Reinherz et al. 1993; Riley et al. 1998; Reinherz et al. 1999; Garber and Horowitz 2002). Social rejection may stem from the fact that individuals with depression are more likely than non-depressed persons to engage in negative self-disclosures (Segrin and Flora 1998) and/or the social stigma often surrounding mental illness (Goffman 1963; Link 1987; Link, and Phelan 1999; Wright, Gronfein, and Owens 2000). These points may be underscored by the finding that adolescents who experience major depression also report smaller social networks later in young adulthood (Lewinsohn et al. 2003). It has been argued that a key to community-based intervention and treatment is the removal of the stigma associated with mental illness (Kovacs 1997).

Researchers have also demonstrated that depression is associated with having a negative self-concept (Hammen 1988), lower psychosocial functioning (Coryell et al. 1993), and lower self-esteem (Fleming, Boyle, and Offord 1993; Reinherz et al. 1993; Reinherz et al. 1999). In a recent study of adolescent girls, depressed girls are more likely than their non-depressed counterparts to report a lower sense of self-worth three years later (Franko et al. 2005). Depressive symptoms are also inversely associated with mastery, mattering, self-esteem and social support and positively associated with emotional reliance (Lewinsohn et al. 1994; Taylor and Turner 2001; Turner and Lloyd 1999; Turner, Taylor, and Van Gundy 2004). However, these coping resources are generally interpreted as predictors of mental health rather than consequences.

The timing of onset of depression may also have negative consequences for the frequency of social contact and the acquisition of psychosocial resources. While adolescents with a history of depression report greater interpersonal problems than their non-depressed counterparts, only those with a later onset of depression (15 to 18 years old) report lower self-esteem than those with no history of depression (Giaconia et al. 1994).

The degree of social contact and the development of psychosocial resources are likely shaped by the emergence of a psychiatric or substance use disorder. Moreover, the timing of onset in the life-course may pose special challenges for the development of these resources. Like major depression, anxiety disorders (generalized anxiety disorder, panic disorder, and social phobia disorder) also first manifest early in the life-course.

Anxiety Disorders (GAD, Panic, Social Phobia, PTSD)

Generalized Anxiety Disorder (GAD) – GAD is one of the least studied anxiety disorders (Rapee 1991). Within the general U.S. population, four to seven percent of respondents meet

criteria for lifetime generalized anxiety disorder (Blazer et al. 1991; Kessler et al. 1994). Among young adults, approximately one-and-one-half percent experienced lifetime GAD (Turner and Gil 2002).

Generalized anxiety disorder can first emerge early in the life-course. The mean age of onset for GAD is approximately 23 years (Thyer et al. 1985). Between 35 to 45 percent of those eighteen years or older with a history of GAD, report an onset prior to the age of 25 years (Blazer et al. 1991).

Unfortunately there is relatively little information on how GAD may be associated with social contact and psychosocial resources. There is, however, evidence demonstrating that college students with GAD reported greater childhood rejection than their non-anxious counterparts (Cassidy et al. unpublished). Evidence also suggests those with GAD report greater negative meta-cognitive problems concerning uncontrollability and danger than those with other types of psychiatric disorders (social phobia, panic disorder and depression) and the non-disordered (Wells and Carter 2001). To the extent that other types of anxiety disorders are related to social contact and psychosocial resources, GAD is also likely to be associated with these resources. For example, the excessive feeling of uncontrollability that characterizes GAD is likely to be associated with a lower sense of optimism and mastery.

Persons with a history of GAD are also more likely to report interpersonal difficulties (Eng and Heimberg 2006). Among comparative samples of Vietnam veterans and non-veterans, those who experience GAD report less social support (Boscarino 1995). Also, compared to those without a history of GAD, persons with a history of GAD are at greater risk for divorce (Kessler, Walters, and Forthofer 1998). Unfortunately, there is limited information regarding the impact of the timing of onset of GAD predicting social contact and psychosocial resources. However, some insight may be gained by the nature and consequences of the timing of onset of other anxiety disorders. Panic and social phobia disorders are two of the most prevalent anxiety disorders.

Panic Disorder – Among individuals in the general U.S. population, approximately four percent have experienced panic disorder in their lifetime (Grant et al. 2006; Kessler et al. 1994). Similar, but slightly lower, rates have been observed among young adults: where approximately two percent of individuals reportedly experienced lifetime panic disorder (Turner and Gil 2002).

Panic disorder often first occurs in young adulthood (Burke et al. 1990; Eaton, Dryman, and Weissman 1991; Grant et al. 2006). Depending on the sample and inclusion-criteria, the hazard rate for panic disorder peaks between the ages of 25 and 30 years old (Burke et al. 1990; Grant et al. 2006). Except for those between the ages of 25 and 34, the highest hazard rate for panic disorder falls between 15 and 19 years (Burke et al. 1990; Burke et al. 1991). Thus, while young adults may be at greatest risk for panic disorder, many experience the onset of panic disorder earlier in the life-course (Burke et al. 1990; Eaton, Dryman, Weissman 1991; Grant et al. 2006). A history of panic disorder can have negative consequences for social and psychosocial resources.

Compared to those without a history of panic disorder, married persons with a history of panic disorder are at greater risk for divorce (Kessler, Walters, and Forthofer 1998) and social impairment (Markowitz et al. 1989). In addition, compared to their non-anxious counterparts, those with panic disorder report higher costs associated with social outcomes (Uren, Szabó, and Lovibond 2004) and are more likely to report social inhibitions during childhood (Reznick et al. 1992). Social inhibitions are likely to impact both the extent and nature of social support

networks as well as psychosocial resources that emerge through successfully navigating the social world. Unfortunately, as with GAD, there is little information regarding the impact of the timing of onset of panic disorders predicting social contact and psychosocial resources. There is, however, information – albeit limited – regarding the consequences of the timing of onset of social phobias for these types of resources.

Social Phobia – Among individuals in the general U.S. population, approximately thirteen percent experience social phobia at some point in their life (Kessler et al. 1994)[1]. Among young adults living in Miami, approximately three percent reportedly experience lifetime social phobia (Turner and Gil 2002).

While the mean age of onset for social phobia ranges from 11 to 24 years (Amies, Gelder, and Shaw 1983; Giaconia et al. 1994; Marks and Gelder 1966; Thyer et al. 1985), social phobia is also observed during childhood (Strauss and Last 1993). Indeed, the hazard rates for social phobia are highest between 5 and 13 years (Burke et al. 1990; Giaconia et al. 1994).

Generally speaking, phobias involve unreasonable fear in particular circumstances (Eaton, Dryman, and Weissman 1991). Social phobia involves a fear of social circumstances that can be general or specific in nature. Social phobia can manifest as social avoidance with unfamiliar people (Steketee et al. 1998). Such avoidance may influence one's ability to development and/or maintain social networks as well as psychosocial resources.

For example, compared to those with no history of phobia, those who experience a phobia disorder over the past six months report lower levels of self-esteem and greater interpersonal conflict (Reinherz et al. 1993). Greater interpersonal conflict might help explain why persons with a history of social phobia may be at greater risk for divorce (Kessler, Walters, and Forthofer 1998). In addition, compared to youths with *simple phobia*, youths with *social phobia* report greater loneliness (Strauss and Last 1993).

The timing of onset for social phobia also has implications for ones' social prowess. While those with either an earlier onset (≤ 14 years old) or later onset (15 to 18 years old) of social phobia report less self-esteem than those with no history of social phobia, only those with a later onset report greater interpersonal problems than those with no history of social phobia (Giaconia et al. 1994). While phobias often occur earlier than many other psychiatric or substance disorders (at least relative to those discussed here), other disorders such as posttraumatic stress disorder can also manifest early in the life-course.

Posttraumatic Stress Disorder (PTSD) – Among individuals in the general U.S. population, approximately eight percent experience PTSD during their lifetime (Kessler et al. 1995). Among older adolescents and young adults, approximately 4 to 12 percent meet DSM-III-R or DSM-IV criteria for PTSD (Reinherz et al. 1993; Cuffe et al. 1998; Turner and Gil 2002).

The mean age of onset of PTSD among older adults is approximately 15 years and the hazard rates are highest between the ages of 16 and 17 years (Giaconia et al. 1994). The mean age of onset for PTSD may not be as meaningful as the age of onset for other disorders when considered as an outcome. This is due to the fact that there is wide variability in the age of onset of PTSD because it occurs in response to an infinite number of traumatic events that may occur at any time over the life-course and within various social contexts (Ell and Aisenberg 1998).

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[1] This estimate involves a more relaxed criterion that includes avoidant personality disorder and generalized subtype social phobia.

However, as a predictor, the timing of the onset of PTSD may impede and/or limit the degree of social contact and the acquisition of psychosocial resources.

Similar to Erikson's (1959) crisis theory and event resolution, Caplan (1964) argues that traumatic experiences can have positive or negative consequences for one's development of personal resources. For example, on the one hand, overcoming a traumatic life experience may lead to a greater sense of mastery. On the other hand, failure to successfully overcome such an experience may lead to a weaker sense of mastery, self-esteem, or optimism.

While PTSD can occur at any time during the life-course (Parson 1994), little is known about PTSD among children (Saigh, Green, and Korol 1996). Recent studies on children with PTSD, however, demonstrate an association between PTSD and various social and psychosocial outcomes. For example, children with PTSD may no longer engage in social activities once enjoyed by the individual (Ell and Aisenberg 1998) and become detached from others (Amaya-Jackson and March 1995). The onset of PTSD may have negative consequences for one's ability to develop strong social contacts and personal resources because one symptom of PTSD is avoiding certain social situations. Indeed, research demonstrates that children exposed to traumatic life events may be more withdrawn from their social environment (Keane 1996). Additional research shows that compared to those with no history of PTSD, those who have experienced PTSD in the past six months report lower levels of self-esteem and greater interpersonal problems (Reinherz et al. 1993). Ell and Aisenberg (1998) also find that trauma-related violence may have profound effects on one's sense of mastery.

The timing of onset of PTSD also has negative implications for one's social aptitude. Giaconia and colleagues (1994) find that compared to those with no lifetime PTSD, those with an earlier onset (≤ 14 years old), but not later onset (15 to 18 years old), of PTSD report more interpersonal problems.

Alcohol and Drug Dependence

Among individuals in the general U.S. population, approximately 14 percent and 7.5 percent have experienced lifetime alcohol or drug dependence, respectively (Kessler et al. 1994). Among older adolescents, approximately 32 percent meet the criteria for lifetime alcohol abuse/dependence and 10 percent meet the criteria for lifetime drug abuse/dependence (Reinherz et al. 1993). Higher rates of lifetime substance use problems reported by Reinherz and colleagues (1993) stems from the combination of both alcohol and drug abuse/dependence versus dependence alone and their focus on older adolescents. When alcohol dependence is considered alone among young adults, approximately nine percent meet the criteria for a lifetime diagnosis (Turner and Gil 2002).

As with the other psychiatric disorders presented above, alcohol abuse and dependence is common within young populations and the onset can occur early in the life-course. Over fifty percent of respondents with lifetime alcohol and drug abuse-dependence report an onset between 10 and 19 years (Bland, Newman, and Orn 1988). The mean age of onset for both alcohol and drug abuse/dependence among older adolescents is approximately 15 years and the highest hazard rates fall between the ages of 14 and 17 (Giaconia et al. 1994).

Because the preoccupation with alcohol and drug use can decrease the amount of time and energy spent with family and friends—symptoms of dependence in DSM-IV, substance dependence is also likely to influence the degree one receives and/or perceives support from

others. Indeed, an increase in alcohol use diminishes the degree of family and friend contact (Peirce et al. 2000).

From a biopsychosocial perspective, substance-users may also experience problems with cognitive functioning whereby a person's miscues in thinking may lead to problems with social interactions (Leukefeld and Walker 1998). This might help explain why persons with a history of alcohol and drug dependence are at greater risk for divorce (Kessler, Walters, and Forthofer 1998) and first partnership breakdown (Maughan and Taylor 2001).

The availability of psychosocial resources is also linked to the history of alcohol and drug use. For example, compared to their non-drug using adolescent counterparts, drug-using adolescents report a lower sense of mastery and fewer coping resources (Needle et al. 1988). Interestingly, however, unlike with major depression, phobias, and PTSD, Reinherz and colleagues (1993) find that neither alcohol nor drug abuse/dependence among older adolescents is associated with self-esteem or interpersonal problems.

The timing of onset of alcohol and drug abuse-dependence also has negative consequences for acquisition of social and psychosocial resources. Giaconia and colleagues (1994) find that compared to those with no dependence or later onset (15 to 18 years old) of alcohol abuse/dependence, those who report an earlier onset (≤ 14 years old) also report a greater number of interpersonal problems.

Summary of Evidence

Based on the evidence presented above, while individuals are at greater risk for social phobia earlier in the life-course than for major depression, GAD, panic disorder, PTSD, and alcohol and drug dependence, the onset for all of these disorders often occurs early in the life-course. I argue that childhood and adolescence represent sensitive periods of human social development and the presence of a psychiatric or substance use disorder during these developmental stages may have deleterious effects on the acquisition of social and psychosocial resources.

The sensitive nature of childhood and adolescence for the acquisition of these resources may be so because one is also developing a sense of "self" and "identity" during these social-developmental years. Because the hazard rates for many psychiatric and substance disorders are highest during these years, the link between disorders and resources during this time in the life-course is a logical one. Although, contrary to popular belief, most children do not deem adolescence as a difficult time in their life (see Simmons 1987) and self-esteem consistently increases, on average, from early to late adolescence (Kaplan 1975; O'Malley and Bachman 1983), those with a history psychiatric and substance use problems may have very different experiences in the development and availability of social and psychosocial resources.

The importance of psychiatric and substance use disorders during such developmental periods in the life-course has been noted for some time now (Burke et al. 1990; Burke et al. 1991) and extensive evidence demonstrates a correlation between psychiatric and substance use disorders with social support and psychosocial resources (Cobb 1976; Turner 1983; Boyce 1985; House, Landis, and Umberson 1988; Gecas 1989; Turner and Roszell 1994; Pearlin and Skaff 1996; Cohen et al. 1997; Turner and Turner 1999). In addition to assessing the implications of these disorders (and the timing of onset) for a wide range of social and psychosocial resources, researchers also need to consider the stability of associations across and within gender and race-ethnicity. Information regarding the consequences of the history of psychiatric and substance

use disorder – and the timing of onset – for coping resources across social groups advances our understanding of the nature of the disorder-resource relationship and how these relationships vary across social groups.

METHOD

The current investigation, using data from a two-wave panel study involving a community sample of youths transitioning into young adulthood, has seven central goals: (1) provide a description of the availability of social and psychosocial resources across gender and race-ethnicity; (2) provide a description of the prevalence of psychiatric disorders and substance dependence and the timing of onset by gender and race-ethnicity; (3) assess differences in availability of social and psychosocial resources between those with a history of a psychiatric or substance use disorder and those without such a history; (4) assess the consequences of the timing of onset of psychiatric and substance use disorders predicting social and psychosocial resources; (5) in those instances where earlier onset is more problematic for the acquisition of these resources compared to later onset, assess the extent that the duration of the disorder explains this difference; (6) assess the extent that the history of a psychiatric or substance use disorder explains gender and race-ethnic differences in the availability of social and psychosocial resources, net of socio-contextual factors and proximal measures of social stress; and (7) assess the degree to which a history of these disorders predicts changes in these resources during the transition to young adulthood.

Depicted in Figure 1, childhood and adolescence are considered sensitive periods of human social development in relation to the acquisition of social and psychosocial resources. Attaining these resources may be impeded by the onset of a psychiatric or substance use disorder (and related symptoms) during these sensitive periods of development. Specifically, the current study will consider the extent to which childhood and adolescent onset of these disorders have negative consequences for the availability of social and psychosocial resources in the transition to young adulthood. The first set of analyses considers the consequences of the history and timing of onset of these disorders (retrospectively measured at T1) predicting these resources in young adulthood (measured at T2). However, while temporal order can be accounted for by measuring these resources approximately two years after the measurement of the disorders, the causal direction is not clear in this first set of analyses. For example, it is possible, and in many cases likely, that the availability of social and psychosocial resources prior to the onset of a disorder influenced the onset of the disorder to begin with. While this explanation cannot be ruled out in the current investigation, it is possible to explore the impact of the history of these disorders on the changes in these resources during the transition into young adulthood. Thus, a second set of analyses assesses the extent to which the history of these disorders predicts the changes in resources from T1 to T2, allowing for a more confident interpretation of temporal order (depicted as a dashed lines in Figure 1).

While the author expects to find more positive outcomes in regard to social contact and psychosocial resources among those who do not meet lifetime criteria for psychiatric or substance use disorders than their “disordered” counterparts, there are plausible explanations for why earlier *or* later onset may be more detrimental to the degree of social contact and the availability of psychosocial resources. On the one hand, an earlier onset may be more detrimental than later onset to the acquisition of resources simply due to the duration of the disorder. For example, the extended period of time spent managing symptoms of these disorders, as well as the “social baggage” that often accompanies them (i.e., social stigma, social rejection and isolation), may having eroding effects on the availability of resources over time.

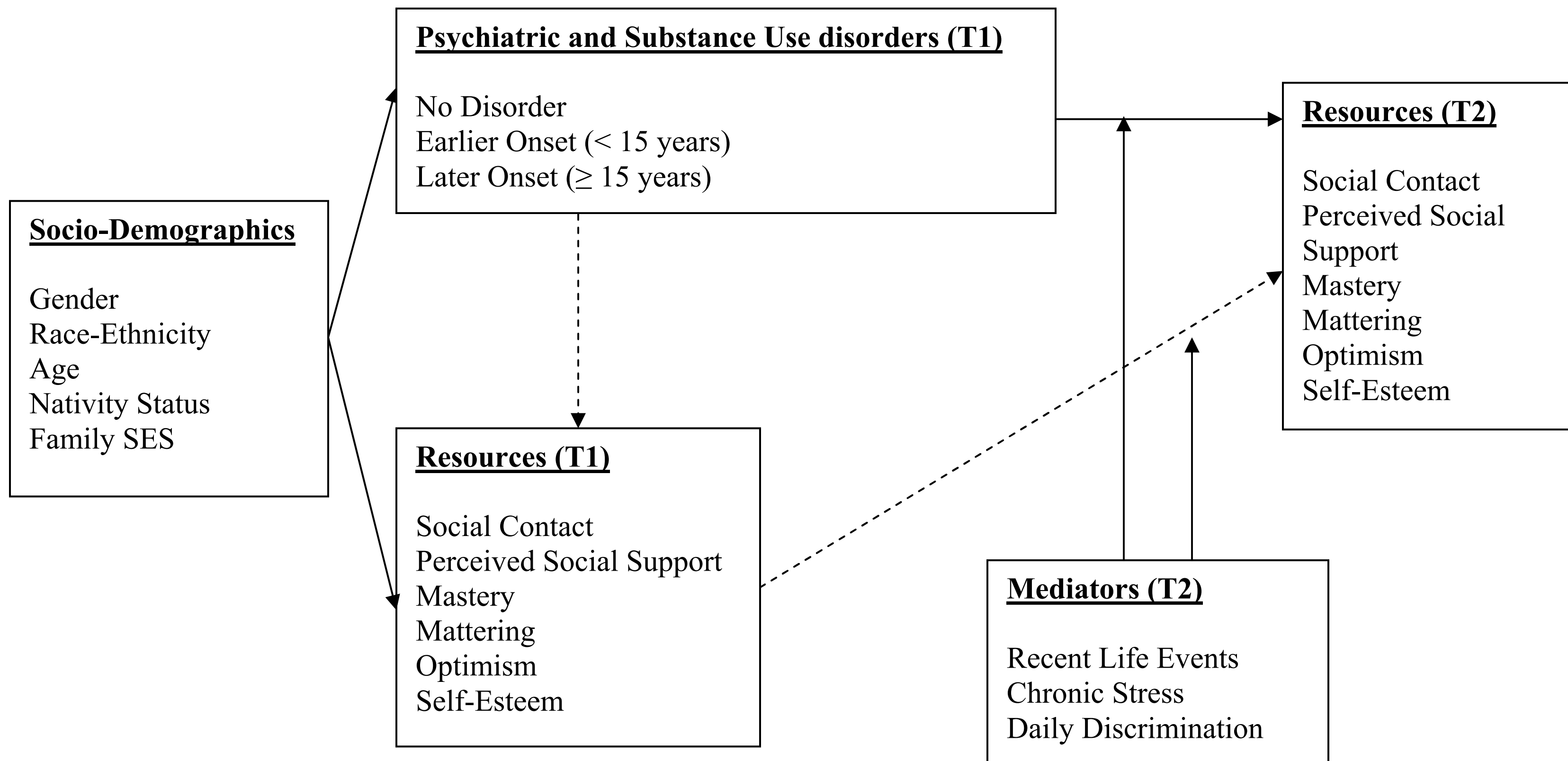

Figure 1. Study Diagram: Lifetime psychiatric and substance use disorders (T1) predicting social support and psychosocial resources (T2) as well as predicting changes in resources (dashed lines) during the transition into young adulthood (T1-T2).

On the other hand, earlier onset may have fewer long-term consequences because those who experience an earlier onset have more time to adjust and adapt to the problems that often accompany such disorders. In addition, those with an earlier onset have had more time to seek and receive treatment for their disorders.

Sample

The data employed in the current investigation come from a two-wave panel study that builds upon a previous three-wave study conducted by Vega and Gil (1998) in the Miami-Dade public school system. In the original study, all 48 of the county's public middle schools and 25 public high schools, as well as alternative schools, participated. Surveys were administered to participating students annually between 1990 and 1993 – beginning in grades 6 and 7 and finishing in grades 8 and 9. The original study was designed as an all male study with the aim of assessing drug use among adolescents. However, a small number of girls (n = 410) were surveyed because of the development of inclusiveness policies at the time. A total of 5,924 youths remained in the 3rd wave of the original Vega and Gil (1998) study. While there was nearly 20% attrition between waves 1 and 3 of the original study, analyses revealed that the participants in wave 3 were highly representative of those participants in wave 1 (Vega and Gil 1998). Thus, a large and representative sample of 8th and 9th grade boys and a smaller representative sample of 8th and 9th grade girls provide the data used here.

From these 5,924 study participants a sampling selection of 1,683 youths (1,273 boys and 410 girls) and a supplementary sample of females (n = 517)[2] were interviewed between 1997 and 2000 (T1) and followed up two years later between 2000 and 2002 (T2) (Turner and Gil 2002). Along with a 76.4% success rate *from the original sample*, detailed analyses demonstrated no significant differences in early-adolescent behaviors and family characteristics between those participants in the original Vega and Gil study and the Turner study (Turner and Gil 2002). The *overall* success rate of 70.1% for T1, however, largely stemmed from the mere 58.2% success rate in the supplementary sample of young females. It is important to note that there was a significant parental socioeconomic status bias associated with the supplementary sample of females: females from families of lower SES background were more likely to be represented at T1. All descriptive and bivariate analyses were considered with and without weights. Because there was no substantive difference in the results only the unweighted data are presented here.

The total sample at T1 is 1,803 (956 boys, 330 original girls, and 517 supplementary girls). The mean age of respondents at T1 is 20 years (range = 18-23 years). The sample was also designed such that 25 percent were non-Hispanic White, 25 percent were African American, 25 percent were of Cuban ancestry and 25 percent represented non-Cuban Hispanic backgrounds.

The second wave of data (T2) was collected two years later and included a random sample of the T1 participants such that approximately half were female and 25 percent fell within each of the four racial-ethnic categories (n = 1,205). The current investigation includes youths participating at both T1 and T2 and who have valid data for all study variables (n = 1,174).

[2] Because of the small number of female participants included in the original Vega and Gil (1998) study, supplementary samples of females were randomly drawn from the Miami-Dade county 1990 sixth and seventh-grade class roster (Turner and Gil 2002).

Measures

Just as it is important to consider a variety of health related outcomes when assessing the impact of stress on mental health in order to avoid underestimating the effects of stress (Pearlin 1989; Horwitz, White, and Howell-White 1996), I argue that it is also important to consider a wide-range of social and psychosocial resources when assessing the impact that psychiatric and substance use disorders may have on these types of resources.

Using the same sample as employed in the current investigation, Turner, Taylor and Van Gundy (2004) found that, on the one hand, African Americans report more emotional reliance than non-Hispanic Whites, Cuban Americans, and non-Cuban Hispanics. On the other hand, African Americans report greater self-esteem than non-Hispanic Whites and non-Cuban Hispanics (Turner, Taylor, Van Gundy 2004). Failure to account for a wide range of resources that may be impacted by the onset of a psychiatric or substance use disorder may underestimate the magnitude these experiences have on the degree of social contact and the development of psychosocial resources for certain social groups. Also, in order to account for temporal order, social support and psychosocial resource measures are measured at Time 2.

Social Contact and Psychosocial Resources

Social Contact – The frequency of contact with both family and friends is measured using two separate single-items asking respondents "How often do you see relatives[friends] or talk to them on the phone?" Response categories include: (1) Every day or about every day; (2) Once or twice a week; (3) Once or twice a month; and (4) You hardly ever see them or talk to them. Responses are coded so higher values equate to more frequent contact.

Perceived Social Support – Turner and Marino's (1994) nine- and eight-item scales are employed to measure one's perception of being supported by family and friends, respectively. Respondents were presented with statements such as "You feel very close to your family[friends]" and "You often feel really appreciated by your family[friends]." Response categories range from "strongly agree" to "strongly disagree" on a 5-point scale for family support and from "strongly agree" to "strongly disagree" on a 4-point scale for friend support[3]. Higher scores equate to greater perceived support from family and friends. The internal reliabilities (Cronbach 1951) for family support and friend support are .90 and .93, respectively.

Mastery – Pearlin and Schooler's (1978) seven-item scale is employed to assess one's sense of mastery. Respondents are presented with statements such as "You have little control over the things that happen to you" and "You can do just about anything you really set your mind to." Response categories range from "strongly agree" to strongly disagree" on a 5-point scale. All responses are coded such that higher values equate to greater mastery. The internal reliability is .72 for the summed measure of mastery.

[3] The response categories for family and friend support slightly vary: Family support includes 5-items with a response option of "neither agree nor disagree" and friend support includes 4-items with the omission of the response option "neither agree nor disagree."

Mattering – Rosenberg's (Rosenberg and McCullough 1981) 5-item scale is employed in order to assess one's sense of mattering. Items include, for example, "How important do you feel you are to other people?" and "How interested are people generally in what you say?" The response categories include: (1) not at all; (2) a little; (3) somewhat; and (4) a lot. Higher scores equate to a greater sense of mattering. The internal reliability is .79 for the summed measure of mattering.

Optimism – Scheier and Carver's (1985) six-item scale is employed to assess optimism. Respondents are presented with statements such as "In uncertain times, you usually expect the best" and "You rarely count on good things happening to you." Response categories range from "strongly agree" to strongly disagree" on a 5-point scale. All responses are coded such that higher values equate to greater optimism. The internal reliability is .68 for the summed measure of optimism.

Self-Esteem – A subset of Rosenberg's (1979) measure is employed in order to assess self-esteem. Respondents are presented with six-items that include statements such as "You feel that you have a number of good qualities" and "All in all, you are inclined to feel that you are a failure." Response categories range from "strongly agree" to strongly disagree" on a 5-point scale. All responses are coded so higher values equate to greater self-esteem. The internal reliability is .80 for the summed measure of self-esteem.

Psychiatric Disorders and Substance Dependence

Psychiatric and substance use disorders are measured retrospectively at Time 1. Data on the lifetime history of psychiatric and substance use disorders are obtained using computer-assisted personal interviews based upon DSM-IV diagnostic criteria (APA 1994). Designed to be administered by trained non-clinical interviewers, the Michigan Composite International Diagnostic Interview (CIDI) is employed to index major depression, generalized anxiety disorder, panic disorder, social phobia, and alcohol and drug dependence. These measures were also employed in the National Comorbidity Study (Kessler et al. 1994). Posttraumatic stress disorder is assessed using a module from the Diagnostic Interview Schedule (Robins et al. 1981), which was also employed in the National Comorbidity study. Evidence supports good reliability and validity for all the CIDI diagnoses considered in the current study (Wittchen et al. 1991; Blazer et al. 1994; Wittchen et al. 1995; Wittchen et al. 1996; Nelson et al. 1996; Warner et al. 1995).

Major Depression – Depression falls into a larger category of psychiatric disorder commonly referred to as mood (or affective) disorders. According to the DSM-IV (APA 1994)[4] there are five general considerations in diagnosing a major depressive episode. First, five or more of the following symptoms must have occurred within the same 2-week period and occurring nearly every day: (a) depressed mood most of the day (can be irritable mood in children and adolescents); (b) markedly diminished interest or pleasure in all, or almost all, daily activities; (c) significant weight loss in the absence of dieting; (d) insomnia or hypersomnia; (e) psychomotor agitation or retardation; (f) fatigue or loss of energy; (g) feelings of worthlessness

[4] While descriptions for all the diagnostic criteria presented in this paper are not placed in direct quotes, these criteria are taken straight from the DSM-IV— verbatim in most instances.

or excessive or inappropriate guilt; (h) diminished ability to think or concentrate or indecisiveness; and (i) recurrent thoughts of death, suicidal ideation without a plan, or suicide attempt with a plan.

Second, symptoms must not involve a mixed episode[5] – those cases that also meet the criteria for a Manic Episode, instances where mood disturbances are caused by impairment in occupational functioning, cases involving unusual social activities or relationships, or those cases that necessitate hospitalization to prevent harm to self or others (or other psychotic features). Mixed episodes also include those cases involving symptoms that stem from direct physiological effects of a substance or a general medical condition.

Third, symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. Fourth, symptoms are not due to direct physiological effects of a substance or a general medical condition. Fifth, symptoms are not better accounted for by bereavement[6], the symptoms persist for longer than 2 months or are characterized by marked functional impairment, morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms, or psychomotor retardation.

Anxiety Disorders – The diagnostic criteria for generalized anxiety disorder (GAD) includes six areas of consideration (APA 1994). First, symptoms include excessive anxiety and worry, occurring more days than not for at least 6 months, about a number of events or activities. Second, persons have difficulty controlling their worrying. Third, the anxiety and worry are associated with three (or more) of the following symptoms (with at least some symptoms present for more days than not for the past six months and only one item is required in children: (a) restlessness or feeling keyed up or on edge; (b) being easily fatigued; (c) difficulty concentrating or mind going blank; (d) irritability; (e) muscle tension; and (f) sleep disturbance.

Fourth, the focus of the anxiety and worry is not confined to features of a Panic Disorder, Social Phobia, Obsessive-Compulsive Disorder, Separation Anxiety Disorder, Anorexia Nervosa, Somatization Disorder, Hypochondriasis, or PTSD. Fifth, the anxiety, worry, or physical symptoms cause clinical significant distress or impairment in social, occupational, or other important areas of functioning. Sixth, the disturbance is not due to the direct physiological effects of a substance or a general medical condition and does not occur exclusively during a Mood Disorder, a Psychotic Disorder, or a Pervasive Developmental Disorder.

The diagnostic criterion for panic disorder (without agoraphobia)[7] involves three areas of consideration (APA 1994). First, both recurrent unexpected panic attacks must occur and at least one of the attacks has been followed by one month (or more) of one (or more) of the following: (a) persistent concern about having additional attacks; (b) worry about the implications of the attack or its consequences; and (c) a significant change in behavior related to the attacks.

Second, panic attacks are not due to the direct physiological effects of a substance or a general medical condition. Third, panic attacks are not better explained by another mental disorder (e.g., Social Phobia, Specific Phobia, Obsessive-Compulsive Disorder, PTSD or Separation Anxiety Disorder).

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[5] Note that mixed episodes were not measured in the study these data originate from.

[6] Bereavement was not accounted for in the measurement of depression because the loss of a loved one is a stressor not a contra-indication for research purposes – though the distinction is relevant for treatment.

[7] According to the DSM-IV (1994:403), Agoraphobia involves those situations where "the focus of fear is on the occurrence of incapacitating or extremely embarrassing panic-like symptoms or limited-symptom attacks rather than full Panic Attacks."

The diagnostic criterion for social phobia includes eight areas of consideration (APA 1994). First, there must be a marked and persistent fear of one or more social or performance situations involving unfamiliar people or the possibility of scrutiny by others. Second, exposure to the feared social situation almost invariably provokes anxiety, which may take the form of a situationally bound or situationally predisposed panic attack. Third, the person recognizes that the fear is excessive or unreasonable. Fourth, the feared social or performance situations are avoided or else are endured with intense anxiety or distress.

Fifth, the avoidance, anxious anticipation, or distress in the feared social or performance situation(s) interferes significantly with the person's normal routine (occupationally or socially). Sixth, among individuals under 18 years, the duration is at least six months. Seventh, the fear or avoidance is not due to physiological effects of a substance or a general medical condition and is not better accounted for by another mental disorder (e.g., Panic Disorder with or without Agoraphobia, Separation Anxiety Disorder, Body Dysmorphic Disorder, a Pervasive Developmental Disorder, or Schizoid Personality Disorder). Eighth, if a general medical condition or another mental disorder is present, the fear in the first criterion is unrelated to it.

The diagnostic criterion for posttraumatic stress disorder (PTSD) consists of six general areas of consideration (APA 1994). First, the person has been exposed to a traumatic event in which both of the following were present: (a) the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others and (b) the person's response involved intense fear, helplessness, or horror. Note that among children this latter criterion can be expressed instead by disorganized or agitated behavior.

Second, the traumatic event is persistently reexperienced in one (or more) of the following ways: (a) recurrent and intrusive recollections of the event; (b) recurrent distressing dreams of the event; (c) acting or feeling as if the traumatic event were recurring; (d) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event; and (e) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.

Third, persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following: (a) efforts to avoid thoughts, feelings, or conversations associated with the trauma; (b) efforts to avoid activities, places, or people that arouse recollections of the trauma; (c) inability to recall an important aspect of the trauma; (d) markedly diminished interest or participation in significant activities; (e) feeling of detachment or estrangement from others; (f) restricted range of affect; and (g) sense of a foreshortened future.

Fourth, persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following: (a) difficulty falling or staying asleep; (b) irritability or outbursts of anger; (c) difficulty concentrating; (d) hypervigilance; and (e) exaggerated startle response.

Fifth, the duration of the disturbance for diagnostic considerations two, three, and four is more than one month. Sixth, the disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

The current data differ from both the NCS and the ECA (Robins and Regier 1991) studies in regards to the estimation of posttraumatic stress disorder. Specifically, in addition to the standard procedure of estimating PTSD by respondents' nomination of events deemed as being the worst, interviewers began by asking respondents about the occurrence of events within a

battery of 41 items aimed at capturing major and potentially traumatic experiences. Moreover, those who did not meet diagnostic criteria for PTSD after the first pass were asked if they ever experienced any of the major PTSD symptoms in relation to any other event. In those cases involving a positive response, the PTSD module was repeated in relation to that particular event. Because a relatively small number of participants met criteria for social phobia, generalized anxiety disorder, panic disorder, and PTSD, these disorders were collapsed into one general measure of anxiety disorder for present analyses.

Alcohol and Drug Dependence – According to the DSM-IV (APA 1994), the diagnostic criteria for substance dependence are based upon seven general considerations. Substance dependence involves a maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following and occurring at any time in the same 12-month period.

First, tolerance, as defined by either of the following: (a) a need for markedly increased amounts of the substance to achieve intoxication or desired effect or (b) markedly diminished effect with continued use of the same amount of the substance. Second, withdrawal, as manifested by either of the following: (a) the characteristic withdrawal syndrome for the substance or (b) the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms.

Third, the substance is often taken in larger amounts or over a longer period than was intended. Fourth, there is a persistent desire or unsuccessful efforts to cut down or control substance use. Fifth, a great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects.

Sixth, important social, occupational, or recreational activities are given up or reduced because of substance use. Seventh, the substance use is continued despite knowledge of having a persistent or recurrent physical or physiological problem that is likely to have been caused or exacerbated by the substance.

The current study includes only alcohol and drug *dependence* and omits *abuse* from consideration. My rationale for this decision is based upon several factors. First, substance abuse is role dependent. For example, you can’t be fired or reprimanded for showing up late to work because of a hang-over if you don't have a job. Second, alcohol-drug dependence represents a more serious substance use problem than abuse (Taylor, Lloyd, and Warheit 2005). In this same vein, socio-cognitive problems are likely to exist for those with substance dependence rather than abuse. In the current investigation, lifetime substance dependence includes the following substances: alcohol, sedatives, tranquilizers, stimulants, analgesics, inhalants, marijuana, cocaine, hallucinogens, and heroin.

Age of Onset – The age of onset for psychiatric and substance use disorders is estimated by using a similar approach to the Life History Calendar (LHC) developed by Freedman and colleagues (1988). Specifically, a chronological context is established within which respondents answered specific questions about the age at which symptom clusters first and last occurred. This procedure is designed to aid in accuracy and accounting for temporal order.

Among those who meet DSM-IV criteria for a given disorder, those who first reportedly experienced *symptoms* of major depression and anxiety disorders *before* the age of 15 are considered earlier onset and later onset if symptoms reportedly first occurred *at or after* 15 years. However, due to low frequencies in early alcohol and drug dependence using this age-criterion,

those who experience *symptoms* for alcohol and drug dependence *before* the age of 16 are considered earlier onset and later onset if they first occur *at or after* 16 years. Three categories were created for major depression, anxiety disorders, and alcohol-drug dependence: no history; earlier onset; and later onset. When assessing the relative consequences of earlier versus later onset in relation to the acquisition of social and personal resources later onset serves as the reference group (1 = earlier onset).

Duration of Disorder – In those instances where earlier onset is more problematic for the availability of resources compared to later onset, it is important to consider whether this difference is a function of the duration of disorder. Duration of the disorders is based on the difference between the age symptoms are last reportedly experienced (measured at T2) and the age one first reports experiences symptoms (measured at T1). In those cases involving comorbidity, the duration of the disorder experienced longest is employed. For OLS regression analyses among those with the lifetime occurrence of a psychiatric or substance use disorder, a continuous measure (in years) for duration of depression, anxiety, and alcohol/substance dependence is employed.

Social Stress

Social stress is a major determinant of mental health (Aneshensel and Stone 1982; Mirowsky and Ross 1986; Avison and Turner 1988; Turner, Wheaton, and Lloyd 1995). Moreover, stress is not only correlated with a variety of psychosocial resources (Turner, Taylor, and Van Gundy 2004) but social support and various psychosocial resources are also considered as important moderators and/or mediators in the stress-mental health relationship (Turner 1981, 1983; Turner and Roszell 1994). This study considers the potential mediating effects of three potential sources of stress in the disorder-resource relationship that include: recent life events, chronic stress, and daily discrimination. In order to assure the reasonable assumption of temporal order these measures of stress are considered at T2 (approximately two years after lifetime psychiatric and substance use disorders are measured). It is important to control on proximal stress exposure in relation to the measurement of these resources in order to adequately assess the independent effects of these disorders.

Recent Life Events – Data on major life events occurring in the past twelve months are collected using a 33-item checklist (Turner and Avison 2003). Respondents are asked, for example, if they or if their significant others (intimates, parents, friends/relatives) has had "a serious accident or injury" or if anyone was "beaten up or physically attacked." The number of events are counted and standardized for analysis. The rationale for standardizing all continuous measures is to allow for consistency in the interpretation of regression coefficients—a change of one standard deviation predicting a one standard deviation change in the resources considered.

Chronic Stress – Ongoing stressful experiences are measured using 36 items. For example, respondents are asked to what extent they agree that they are "Trying to take on too many things at once" and "Too much is expected of you by others." Response categories range from 0=not true, 1=somewhat true, and 2=very true. All responses are coded so higher values equate to greater chronic stress and the mean score across the 41 items are standardized for analysis. Out of the 36 items, inquiries are also made about chronic stressors experienced within

a variety of social roles (e.g., employee, intimate relationships, parenthood, residence, school, not in school, child-parent relationship). Naturally those individuals with a greater number of social roles will inevitably have a greater chance of experience such stressors. However, the current investigation seeks out information on how the total amount of stress one experiences may confound the impact that having a disorder on the availability of social contact and psychosocial resources. Ignoring stressors that are only applicable to certain individuals because of role-dependence may underestimate the amount and significance of chronic stress that some individuals experience. Responses are coded as zero for those who do not hold particular roles.

Daily Discrimination – Day-to-day discrimination is measured using nine items. For example, respondents are presented with statements such as "You are treated with less courtesy than other people" and "You receive worse service than other people at restaurants or stores." Response categories range from "almost always" to "never" on a 5-point scale. All responses are coded such that higher values equate to greater discrimination. This measure is standardized for all analyses.

Socio-Contextual Factors

In order to assess the independent effects of lifetime psychiatric and substance use disorders predicting social contact and psychosocial resources, it is important to consider these effects net of the variation found in socio-contextual factors known to be associated with both disorders and resources. Thus, measured at T1, the following variables serve as controls in multivariate analyses: family of origin socioeconomic status, gender, race-ethnicity, nativity status, and age.

Family Socioeconomic Status – Because of the youth of the respondents in this study, SES is measured using a composite of parents' SES score that includes parental income level, occupational prestige (Hollingshead 1957), and parental educational attainment. When available, these data were obtained from the parents. Using information from these three status domains, scores are standardized, summed, divided by the number of status domains containing valid data, and then restandardized to the sample employed in the current investigation.

Gender – is a dichotomous variable with males serving as the reference group in all regression analyses. *Race-ethnicity* – is indexed using self-reports to construct four dichotomous indicators that include: non-Hispanic White, Cubans American, non-Cuban Hispanic, and African American. Non-Hispanic Whites serve as the reference category for regression analysis. Prior research demonstrates variations in health status according to country of origin—those born outside the U.S. often fare better in terms of physical and mental health compared to native U.S. born (Markides and Coreil 1986; Hummer et al. 1999; Landale et al. 1999; Turner and Gil 2002). *Nativity status* – is indexed using self-reports and responses are dichotomized with native US-born serving as the reference group in all regression analysis (foreign born = 1). *Age* – is measured as a continuous variable (in years).

Plan of Analysis

The consequences of the history and timing of onset of psychiatric and substance use disorders for social contact and psychosocial resources are assessed in this study. After presenting descriptive statistics on all study disorders and variations in study disorders and

coping resources by gender and race-ethnicity (Tables 1-3), ANOVA analyses are conducted to evaluate the consequences of the history and timing of onset of psychiatric and substance use disorders for the availability of coping resources by both gender and race-ethnicity (Table 4 and Appendices A-F). Where earlier onset of a study disorders is identified as being more problematic than later onset for the availability coping resources, multivariate analyses (OLS regression) are conducted to evaluate the more harmful effects of earlier onset after controlling on the duration (in years) of the disorder (Table 5).

The next set of analyses involves multivariate statistics (OLS regression) where the independent effects of the history of psychiatric and substance use disorders for the availability of coping resources are considered net of socio-contextual factors and stress exposure. Within this set of analyses, the extent to which having a lifetime disorder predicts changes in available coping resources is also considered (Tables 6-13). Finally, in order to parse out the independent effects of lifetime disorders net of other social stressors, multivariate analyses are conducted to determine if, and to what degree, the association between lifetime disorders predicts stress exposure proximal to the assessment of available coping resources (Table 14).

RESULTS

Prevalence and Distribution of Study Resources and Disorders

I first address the question of whether there are gender and race-ethnic differences in the availability of resources and the lifetime occurrence of disorders in young adulthood (Table 1). Results indicate that young adult females report greater family contact, friend support, and mattering than their male counterparts. Males, however, report greater mastery and self-esteem than females. As previously reported (Turner, Taylor, and Van Gundy 2004), there are also important race-ethnic differences in both social contact and psychosocial resources. Non-Hispanic Whites report the highest levels of family support, friend support, and optimism. Cubans, however, report the highest levels of mastery and mattering, and African Americans report the highest level of self-esteem.

Table 2 provides the prevalence and the timing of onset of psychiatric and substance use disorders. Approximately 18 percent of the sample meets lifetime diagnostic criteria for major depression (6% earlier onset and 12% later onset) with a mean age of onset of 15 years (S.D. = 4). In relation to anxiety disorders, 15 percent meet lifetime criteria (7% earlier onset and 8% later onset) with a mean age of onset of approximately 14 years (S.D. = 5). Twenty percent of the sample meets lifetime criteria for alcohol/drug dependence (5% earlier onset and 16% later onset) with a mean age of onset of approximately 17 years (S.D. = 2). Comorbidity of study disorders is present in approximately 14 percent of the sample and the overall duration of study disorders is five years (major depression = 5 years; anxiety disorders = 6 years; and alcohol/drug dependence = 2 years).

Table 3 presents both gender and race-ethnic contrasts in relation to the study disorders. As anticipated, females are more likely to experience lifetime major depression and anxiety disorders. Although not statistically significant, a higher proportion of males meet criteria for alcohol/drug dependence compared to their female counterparts. These results are consistent with prior research using the same data employed in the current investigation, where young males are more likely than young females to meet criteria for alcohol and drug abuse but not alcohol dependence (Turner and Gil 2002).

With regard to race-ethnic contrasts, rates of depression and anxiety disorders are relatively equivalent across the groups. Parallel analyses (not shown) collapsing those with earlier and later onset of depression and anxiety disorders produces identical results. However, compared to non-Hispanic whites and Hispanics, African Americans are less likely to meet criteria for alcohol/drug dependence. Figure 2 provides a graphical depiction of the hazard rates using survival analysis for the study disorders by gender and race-ethnicity.

Consequences of Study Disorders for Resources

Table 4 presents results regarding the central research question in this study—the consequences of the history and timing of onset of psychiatric and substance use disorders for social contact and psychosocial resources. In general, compared to those with no history of a psychiatric disorder or substance dependence, childhood- and adolescent-onset of disorders have negative consequences for the acquisition of family support, mastery, mattering, optimism, and self-esteem. The history of these disorders, however, does not appear to diminish the degree of family or friend contact or perceived support from friends.

Table 1. Mean Scores on Social and Psychosocial Resources (N=1,174)

	Total	Male	Female	*Sig. t-test*	Non-Hispanic White	Cuban	Non-Cuban Hispanic	African American	*sig. F-test*
Family Contact	2.75 (1.00)	2.64 (.97)	2.89 (1.02)	***	2.74 (.99)	2.75 (.99)	2.71 (1.04)	2.80 (.98)	
Friend Contact	3.47 (.76)	3.49 (.73)	3.46 (.80)		3.53 (.71)	3.47 (.72)	3.46 (.75)	3.43 (.87)	
Family Support	3.80 (.58)	3.82 (.53)	3.77 (.64)		3.93 (.56)	3.81 (.61)	3.69 (.57)	3.73 (.57)	w/c^{+} w/nc*** w/aa***
Friend Support	3.47 (.56)	3.44 (.54)	3.51 (.57)	*	3.57 (.47)	3.52 (.51)	3.43 (.55)	3.34 (.67)	w/nc* w/aa*** c/aa***
Mastery	4.00 (.64)	4.05 (.62)	3.94 (.66)	**	4.05 (.63)	4.10 (.62)	3.92 (.61)	3.93 (.69)	w/nc^{+} c/nc** c/aa**
Mattering	3.49 (.46)	3.45 (.47)	3.56 (.43)	***	3.54 (.45)	3.56 (.41)	3.44 (.44)	3.45 (.50)	w/nc* c/nc* c/aa*
Optimism	3.75 (.69)	3.77 (.69)	3.74 (.68)		3.83 (.73)	3.82 (.67)	3.66 (.67)	3.69 (.65)	w/nc* w/aa* c/nc*
Self-Esteem	4.63 (.47)	4.66 (.42)	4.58 (.52)	**	4.62 (.47)	4.66 (.42)	4.56 (.51)	4.67 (4.67)	c/nc^{+} nc/aa*

$^{+}$p<.10, *p<.05, **p< .01; ***p<.001. *Notes*: Standard deviations in parentheses. Possible range is 1-5 for family support, emotional reliance, optimism, mastery and self-esteem and 1-4 for friend support, family contact, friend contact, and mattering. For race-ethnic contrasts: w=non-Hispanic whites; c=Cubans; nc=Non-Cuban Hispanics; and aa=African Americans.

Table 2. Descriptives for Study Disorders (N = 1,174)

Variable		N	%	Age of Onset (years)
Depression [a]				$\overline{X}$ = 15.44; SD = 3.53
	No Disorder	966	82.28	
	Earlier Onset	66	5.62	
	Later Onset	142	12.10	
Any Anxiety Disorder [a, c]				$\overline{X}$ = 13.50; SD = 4.66
	No Disorder	998	85.01	
	Earlier Onset	84	7.16	
	Later Onset	92	7.84	
Alcohol/Drug Dependence[b, d]				$\overline{X}$ = 16.52; SD = 1.79
	No Disorder	928	79.05	
	Earlier Onset	56	4.77	
	Later Onset	190	16.18	
Comorbidity[e]				
	No Study Disorders	721	61.41	
	One Study Disorder	283	24.11	
	Two or More Study Disorders	170	14.48	
		$\overline{X}$	**SD**	
Overall Duration of Study Disorders (years)[f]		4.74	4.42	
	Major Depression	4.75	4.09	
	Anxiety Disorders	6.40	5.02	
	Alcohol/Drug Dependence[b]	2.08	1.69	

[a] Early onset < 15 years; later onset ≥ 15 years.
[b] Early onset < 16 years; later onset ≥ 16 years.
[c] Anxiety disorders include: social phobia, panic disorder, generalized anxiety disorder, and PTSD
[d] Dependence includes: alcohol, sedative, tranquilizer, stimulant, analgesic, inhalant, marijuana, cocaine, hallucinogen, heroin.
[e] Comorbidity considers: major depression, social phobia, panic disorder, generalized anxiety, PTSD, alcohol, sedative, tranquilizer, stimulant, analgesic, inhalant, marijuana, cocaine, hallucinogen, heroin.
[f] Duration of study disorder consists of the last age when a respondent reports experiencing the symptoms of a study disorder minus the age of onset. In cases of comorbidity for overall duration of study disorders, the longest duration of those disorders a respondent meets diagnostic criteria is employed.

Table 3. Study Disorders by Gender and Race-Ethnicity (N=1,174)

	Male	Female		Non-Hispanic White	Cuban	Non-Cuban Hispanic	African American	
Depression								
No Disorder	569 (87.40)	397 (75.91)		254 (79.87)	228 (80.85)	238 (82.35)	246 (86.32)	
Earlier Onset	28 (4.30)	38 (7.27)	$\chi^2 = 26.64$, $p = 0.000$	23 (7.23)	22 (7.80)	14 (4.84)	7 (2.46)	$\chi^2 = 10.69$, $p = 0.098$
Later Onset	54 (8.29)	88 (16.83)		41 (12.89)	32 (11.35)	37 (12.80)	32 (11.23)	
Any Anxiety Disorder								
No Disorder	587 (90.17)	411 (78.59)		269 (84.59)	245 (86.88)	247 (85.47)	237 (83.16)	
Earlier Onset	34 (5.22)	50 (9.56)	$\chi^2 = 31.64$, $p = 0.000$	25 (7.86)	22 (7.80)	17 (5.88)	20 (7.02)	$\chi^2 = 5.29$, $p = 0.507$
Later Onset	30 (4.61)	62 (11.85)		24 (7.55)	15 (5.32)	25 (8.65)	28 (9.82)	
Alcohol/Drug Dependence								
No Disorder	502 (77.11)	426 (81.45)		233 (73.27)	220 (78.01)	224 (77.51)	251 (88.07)	
Earlier Onset	33 (5.07)	23 (4.40)	$\chi^2 = 3.38$, $p = 0.185$	21 (6.60)	14 (4.96)	16 (5.54)	5 (1.75)	$\chi^2 = 22.10$, $p = 0.001$
Later Onset	116 (17.82)	74 (14.15)		64 (20.13)	48 (17.02)	49 (16.96)	29 (10.18)	

Note: Percentages in ( ).

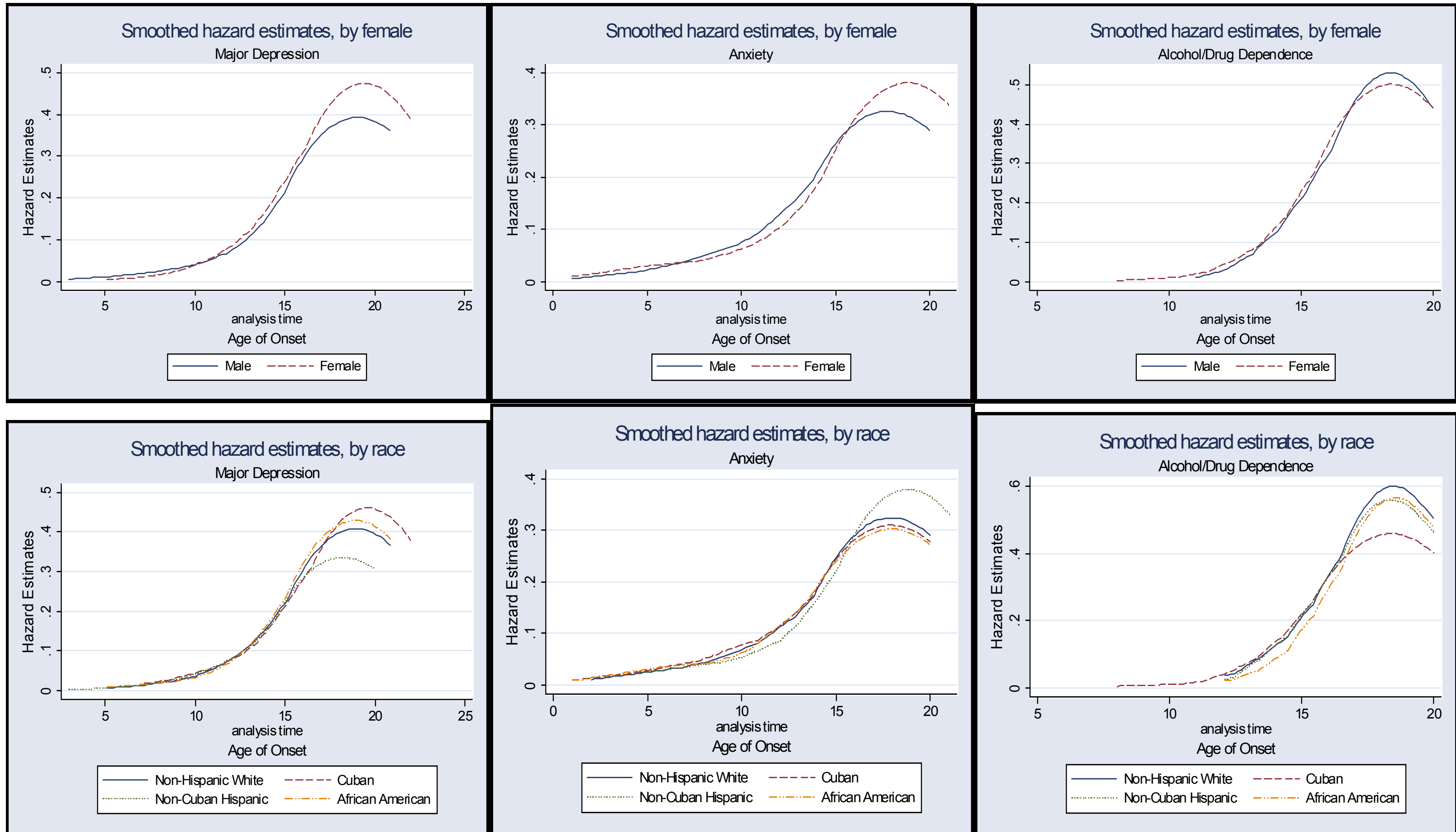

Figure 2. Survival Analysis (Hazard Rates) for Study Disorders by Gender and Race-Ethnicity

Table 4. Means on Social Support and Psychosocial Resources by Disorder and Age of Onset (N = 1,174)

		Family Contact				Friend Contact				Family Support				Friend Support			
	N	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts
Depression[a]																	
No Disorder	*966*	2.76	1.00	0.48		3.47	0.77	0.22		3.84	0.56	18.23***	E, L < N	3.48	0.55	0.80	
Earlier Onset	*66*	2.64	0.92			3.47	0.75			3.43	0.66		E < L	3.39	0.59		
Later Onset	*142*	2.77	1.01			3.51	0.74			3.69	0.64			3.47	0.59		
Anxiety Disorders[a]																	
No Disorder	*998*	2.76	1.00	0.23		3.48	0.75	1.00		3.84	0.56	17.69***	E,L < N	3.49	0.54	3.57*	
Earlier Onset	*84*	2.70	0.97			3.51	0.83			3.60	0.66			3.39	0.65		
Later Onset	*92*	2.71	1.06			3.37	0.81			3.52	0.64			3.35	0.66		
Alcohol/Drug Dependence[b]																	
No Disorder	*928*	2.78	0.99	2.22		3.47	0.76	0.09		3.83	0.58	6.94***	L < N	3.49	0.55	1.95	
Earlier Onset	*56*	2.59	1.04			3.48	0.76			3.66	0.58			3.41	0.60		
Later Onset	*190*	2.65	1.02			3.49	0.77			3.68	0.58			3.41	0.57		

		Mastery				Mattering				Optimism				Self-Esteem			
	N	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts
Depression[a]																	
No Disorder	*966*	4.01	0.64	3.38*	E < N	3.53	0.43	13.59***	E,L < N	3.78	0.67	7.29***	E < N	4.66	0.43	15.50***	E, L < N
Earlier Onset	*66*	3.80	0.69			3.25	0.70		E < L	3.48	0.85			4.36	0.76		E < L
Later Onset	*142*	4.02	0.64			3.43	0.47			3.67	0.69			4.53	0.53		
Anxiety Disorders[a]																	
No Disorder	*998*	4.03	0.64	4.59*	L < N	3.51	0.45	2.52		3.79	0.68	10.01***	L < N	4.64	0.45	4.16*	
Earlier Onset	*84*	3.92	0.63			3.44	0.48			3.61	0.70			4.54	0.59		
Later Onset	*92*	3.83	0.62			3.42	0.49			3.49	0.71			4.52	0.49		
Alcohol/Drug Dependence[b]																	
No Disorder	*928*	4.01	0.65	0.64		3.52	0.43	7.70***	E,L < N	3.79	0.66	7.61***	E,L < N	4.65	0.45	6.53***	E,L < N
Earlier Onset	*56*	4.04	0.63			3.34	0.53			3.51	0.84			4.46	0.63		
Later Onset	*190*	3.96	0.62			3.42	0.52			3.64	0.72			4.56	0.49		

*p < .05; **p < .01; ***p < .001. *Notes*: N=no onset; E=ealier onset; L=later onset. All significant group contrasts (post hoc) are at the .05 level or greater (.01, .001). Possible range is 1-5 for family support, emotional reliance, optimism, mastery and self-esteem and 1-4 for friend support, family contact, friend contact, and mattering. [a]Cut-off for early vs. late onset is 15 years old (early is less than 15 years; late is equal to or greater than 15 years). [b]Cut-off for early vs. late onset is 16 years old (early is less than 16 years; late is equal to or greater than 16 years).

Moreover, these results indicate that the harmful effects of the history of a given disorder on a particular resource vary by the disorder-resource contrast under consideration. For example, the lifetime occurrence of substance dependence is not associated with friend contact but is linked to lower levels of mattering. Also, while the history of depression and substance dependence is related to mattering, anxiety disorders are not associated with one's sense of mattering.

Among the study disorders, depression appears to be the most consistent in its negative consequences for the availability of social and psychosocial resources in general. In addition, only in relation to major depression is there support for the hypothesis that the onset of a disorder during childhood is more problematic for the acquisition of these resources compared to adolescent onset.

Consequences of Study Disorders for Resources by Gender and Race-Ethnicity

Parallel analyses are conducted within gender and race-ethnicity (see Appendices A-F). These results further indicate that the relationship between disorders and resources not only varies by the disorder-resource relationship under consideration but that these relationships also differ across both gender and race-ethnicity. For example, the history of substance dependence has negative consequences for self-esteem among females but not males. Substance dependence is also associated with lower self-esteem among all race-ethnic groups except for non-Hispanic Whites.

The importance of the timing of onset also varies by gender and race-ethnicity. For example, males with childhood-onset of depression report significantly less family support and mattering than their adolescent-onset counterparts. Among females, however, there are no differences in any resources between those with childhood- or adolescent-onset of any disorders. With regard to race-ethnicity, non-Hispanic Whites who experience the onset of depression during childhood report less family support than their adolescent-onset depressed counterparts. Earlier onset of depression among non-Cuban Hispanics is more harmful for one's sense of optimism and self-esteem compared to adolescent onset. This same pattern also holds true for optimism among African Americans. Among Cubans, however, there are no differences in any resources between those with childhood- or adolescent-onset of any disorders.

While there are clear gender and race-ethnic differences in significance of the history and the timing of onset of disorders predicting the availability of resources, only in relation to major depression is there support for the hypothesis that the onset of a disorder during childhood is more problematic for the acquisition of these resources compared to adolescent-onset. The unique consequences of earlier onset depression will be discussed later. To what extent might the duration of a disorder explain the relatively greater harmful effects of earlier onset depression compared to later onset predicting the acquisition of resources?

Impact of the Duration of Study Disorders

Table 5 presents each instance where earlier onset depression was found to be more problematic than later onset depression in predicting the availability of social and psychosocial resources (results taken from Table 4 and Appendices A-F). The first column provides a list of each of these circumstances. The second column shows the mean difference in duration of a disorder (in years) between those with an earlier onset versus later onset. As one might

anticipate, those who meet criteria for earlier onset experience a longer duration of depression (in overall years) than those who meet criteria for later onset.

Using OLS regression, results in Model 1 confirm the findings presented in Table 4 and Appendices A-F where earlier onset depression is more problematic than later onset (reference group) for the availability of the respective resources. Model 2 provides the coefficients for earlier versus later onset depression but also controls on the duration of depressive symptoms experienced (duration coefficient not shown). What is important to note here is the reduction in the coefficient for earlier versus later onset from Model 1 to Model 2. The percent reduction is presented in the final column for ease of interpretation. For example, the difference between earlier and later onset depression predicting family support in the total sample is almost fully explained by the duration of depression. In other words, the relatively harmful consequences of earlier onset depression predicting family support compared to later onset are largely a function of the longer duration of depression experienced by those with an earlier onset.

However, the extent to which the duration of depression explains the increased risk among those with an earlier onset varies considerably depending on the gender-race group and the resource. For example, the duration of depression explains a substantial proportion of the difference between earlier and later onset predicting family support among males and non-Hispanic whites. However, the duration does very little to explain the difference in the timing of onset predicting self-esteem among non-Cuban Hispanics or optimism among African Americans. Thus, while the duration of depression is one explanatory factor in relation to the difference in the availability of resources by timing of onset, the significance of duration varies depending on the gender-race group and the resource under consideration. We now turn to the questions of whether the history of a disorder explains the observed gender and race-ethnic differences in resources, the extent to which social stress mediates the disorder-resource relationship, and the degree to which the history of a psychiatric or substance disorder predicts changes in the availability of resources during young adulthood.

Study Resources, Disorders, and Social Stress

Social contact and psychosocial resources are regressed (OLS) on lifetime disorders and measures of social stress (Tables 6-13). Table 6 reports the results predicting family contact. Consistent with the findings presented above, females report greater family contact than males, net of any variation in race-ethnicity, age, nativity status, or family of origin socioeconomic status. Also consistent with results presented above, there is no association between the history of any lifetime disorders and family contact.

Table 7 presents parallel analyses and results are also consistent with those presented above. Among all study variables, only family SES is related to contact with friends: where greater family SES is associated with greater friend contact.

Table 8 presents results predicting family support. Findings indicate that non-Cuban Hispanics report less family support than non-Hispanic whites. While the occurrence lifetime psychiatric and substance use disorders does not explain these ethnic-group differences in family support, the difference in family support between non-Hispanic whites and African Americans is nearly fully mediated by reports of social stress measured proximal to Time 2 family support.

Table 5. Earlier versus Later Onset – The Importance of the Duration of Disorder

	Mean Difference in Duration – Earlier vs. Later Onset [a]	1[b]	2[c]	*% Reduction (1 to 2)*
Total Sample	*6.04****			
Earlier Depression – Family Support		-.264** (.096)	-.028 (.131)	*89*
Earlier Depression – Mattering		-.181* (.082)	.117 (.110)	*35*
Earlier Depression – Self-Esteem		-.170^{+} (.091)	.196 (.120)	100
Males	*7.14****			
Earlier Depression – Family Support		-.312* (.139)	-.089 (.201)	*71*[d]
Earlier Depression – Mattering		-.305* (.147)	.173 (.204)	*43*
Non-Hispanic Whites	*5.68****			
Earlier Depression – Friend Contact		-.452** (.164)	-.200 (.221)	*56*
Earlier Depression – Family Support		-.371* (.172)	-.089 (.233)	*76*
Non-Cuban Hispanics	*6.41****			
Earlier Depression – Mastery		-.468* (.193)	-.533 (.309)	[d]
Earlier Depression – Optimism		-.620* (.241)	-.927* (.382)	[d]
Earlier Depression – Self-Esteem		-.448* (.181)	-.337 (.290)	*25*[d]
African Americans	*6.54****			
Earlier Depression – Optimism		-.644* (.287)	-.548 (.366)	*15*[d]

Notes: $^{+}p < .10$; $*p < .05$; $**p < .01$; $***p < .001$. All resource measures are standardized with standard errors in ( ). Among those with lifetime depression, analyses considered here include only those conditions where earlier onset is identified as more problematic than later onset for support and psychosocial resources. [a]Mean difference for duration of major depression (in years) between those with earlier versus later onset (significance levels are based on t-tests where duration is consistently longer among those with an earlier onset). [b]Coffienent for early onset (reference group is later onset). [c]Model 2 controls on duration of disorder (years). [d]Coefficient for duration of disorder in the multivariate model is not statistically significant.

Table 6. Family Contact (T2) Regressed on Study Disorders and Social Stress (N=1,174)

	(1)	(2)	(3)	(4)
Female	0.240**	0.247**	0.234**	0.166**
	(0.059)	(0.060)	(0.061)	(0.058)
Cuban[a]	0.041	0.034	0.026	-0.116
	(0.087)	(0.087)	(0.087)	(0.083)
Non-Cuban Hispanic[a]	0.024	0.021	0.027	-0.102
	(0.095)	(0.095)	(0.095)	(0.090)
African American[a]	0.065	0.044	0.081	-0.121
	(0.087)	(0.088)	(0.089)	(0.085)
Age (T1)	0.066	0.067	0.064	0.041
	(0.034)	(0.034)	(0.034)	(0.032)
Foreign-Born[b]	-0.122	-0.134	-0.139	-0.070
	(0.084)	(0.084)	(0.085)	(0.080)
Family of Origin SES (T1)	0.012	0.009	-0.005	0.010
	(0.033)	(0.033)	(0.033)	(0.031)
Lifetime Depression		-0.023	0.001	0.056
		(0.080)	(0.081)	(0.076)
Lifetime Anxiety		-0.088	-0.069	-0.051
		(0.086)	(0.086)	(0.081)
Lifetime Alcohol/Drug Dependence		-0.119	-0.105	-0.104
		(0.074)	(0.074)	(0.070)
Recent Life Events (T2)			0.008	0.017
			(0.032)	(0.030)
Chronic Stress (T2)			-0.061	-0.054
			(0.033)	(0.031)
Daily Discrimination (T2)			-0.042	-0.024
			(0.033)	(0.031)
Family Contact (T1)[c]				0.355**
				(0.028)
Constant	-1.428*	-1.399*	-1.350*	-0.787
	(0.686)	(0.686)	(0.686)	(0.648)
R-squared	0.02	0.02	0.03	0.15

*p<.05, **p< .01; ***p<.001. *Notes*: Unstandardized coefficients for OLS Regression. All resource measures are standardized with standard errors in ( ). [a]Reference group = Non-Hispanic Whites. [b]Reference group = U.S.-born. [c]T1 family contact predicting T2 family contact is interpreted as the degree of stability in family contact during the transition into young adulthood and all other coefficients in the final model (5) should be interpreted as predicting changes in family contact during this time-interval.

Comparing Models 2 and 3, the impact of lifetime depression, anxiety, and alcohol/drug dependence on family support is mediated by approximately 42 percent, 33 percent, and 39 percent, respectively, after controlling for social stress. Chronic stress and daily discrimination are both significant independent predictors of family support at T2. These results indicate that a moderate degree of the linkage between psychiatric and substance use disorders with family support is a function of daily stress exposure.

Family support at T1 is introduced in Model 4—coefficients in this model should be interpreted as predicting changes in family support from T1 to T2. Results demonstrate that both chronic stress and daily discrimination predict changes in family support during the transition from adolescence to young adulthood. Lifetime disorders, however, do not predict changes in family support, net of all other study variables.

Table 9 presents results predicting friend support. Again, females report more friend support than males—though partially mediated by social stress—and non-Hispanic whites report more friend support than African Americans. Similar to the results predicting family support, greater family SES is associated with more friend support.

Lifetime depression and anxiety disorders are associated with less friend support with partial mediation (22% and 17%, respectively) through social stress (Models 2 and 3). However, among the measures of social stress, only daily discrimination independently predicts T2 friend support and changes in friend support (Models 3 and 4).

Presented in Table 10, females report a lower sense of mastery than their male counterparts and Cubans report greater mastery than non-Hispanic whites. The difference in mastery between Cubans and non-Hispanic whites is partially mediated by the study disorders and social stress (37% reduction comparing Models 1 and 3). Also, persons from families of higher SES report a greater sense of mastery.

Unlike the results presented earlier using ANOVA tests, major depression is not a significant predictor of mastery after controlling on variations in gender, race-ethnicity, age, nativity status, and family socioeconomic status (Model 2). Among the measures of perceived social stress, chronic stress and daily discrimination both independently predict T2 mastery and changes in mastery in the transition into young adulthood (Models 3 and 4).

Table 11 presents results predicting a sense of mattering. Again, females report a greater sense of mattering than males and non-Cuban Hispanics report lower levels of mattering than non-Hispanic whites. Persons from families of higher SES report a greater sense of mattering but this difference is substantially explained (54%) by stress exposure.

Lifetime depression and substance dependence both predict mattering. Comparing Models 2 and 3, approximately 21 and 26 percent of these associations, respectively, are explained by stress exposure. However, even after controlling on stress exposure and socio-contextual factors, both major depression and substance dependence predict mattering at T2 (Model 3). In addition, major depressive disorder also predicts changes in mattering from T1 to T2, net of controls (Model 4). This evidence provides support for the hypothesis that earlier psychiatric disorders can negatively influence the availability of later resources and allows for a more confident interpretation in terms of temporal order, at least with respect to depressive disorder, although the availability of early resources may still influence the initial onset of disorders. Also shown in Models 4 and 5, chronic stress and daily discrimination independently predict both T2 mattering and changes in mattering during the transition to young adulthood.

Table 7. Friend Contact (T2) Regressed on Study Disorders and Social Stress (N=1,174)

	(1)	(2)	(3)	(4)
Female	-0.023	-0.023	-0.033	-0.014
	(0.059)	(0.060)	(0.061)	(0.061)
Cuban[a]	0.006	0.005	-0.003	0.030
	(0.087)	(0.087)	(0.088)	(0.087)
Non-Cuban Hispanic[a]	0.023	0.022	0.014	0.018
	(0.095)	(0.095)	(0.095)	(0.094)
African American[a]	-0.031	-0.028	-0.017	-0.003
	(0.087)	(0.088)	(0.089)	(0.088)
Age (T1)	-0.061	-0.060	-0.059	-0.037
	(0.034)	(0.034)	(0.034)	(0.034)
Foreign-Born[b]	-0.027	-0.027	-0.024	-0.001
	(0.084)	(0.084)	(0.085)	(0.084)
Family of Origin SES (T1)	0.097**	0.096**	0.094**	0.090**
	(0.033)	(0.033)	(0.033)	(0.033)
Lifetime Depression		0.044	0.042	0.072
		(0.081)	(0.081)	(0.080)
Lifetime Anxiety		-0.039	-0.040	-0.046
		(0.086)	(0.086)	(0.085)
Lifetime Alcohol/Drug Dependence		0.009	-0.001	-0.005
		(0.074)	(0.075)	(0.074)
Recent Life Events (T2)			0.055	0.048
			(0.032)	(0.032)
Chronic Stress (T2)			-0.006	-0.004
			(0.034)	(0.033)
Daily Discrimination (T2)			-0.038	-0.032
			(0.033)	(0.033)
Friend Contact (T1)[c]				0.176**
				(0.029)
Constant	1.220	1.206	1.187	0.722
	(0.687)	(0.688)	(0.688)	(0.688)
R-squared	0.02	0.02	0.02	0.05

*p<.05, **p< .01; ***p<.001. *Notes*: Unstandardized coefficients for OLS Regression. All resource measures are standardized with standard errors in ( ). [a]Reference group = Non-Hispanic Whites. [b]Reference group = U.S.-born. [c]T1 friend contact predicting T2 friend contact is interpreted as the degree of stability in friend contact during the transition into young adulthood and all other coefficients in the final model (5) should be interpreted as predicting changes in friend contact during this time-interval.

Table 8. Family Support (T2) Regressed on Study Disorders and Social Stress (N=1,174)

	(1)	(2)	(3)	(4)
Female	-0.028	0.034	-0.015	-0.027
	(0.057)	(0.057)	(0.053)	(0.046)
Cuban[a]	-0.057	-0.080	-0.105	-0.095
	(0.085)	(0.083)	(0.076)	(0.066)
Non-Cuban Hispanic[a]	-0.201*	-0.222*	-0.177*	-0.164*
	(0.093)	(0.090)	(0.082)	(0.072)
African American[a]	-0.151	-0.206*	-0.025	-0.027
	(0.085)	(0.084)	(0.077)	(0.067)
Age (T1)	-0.048	-0.046	-0.064*	-0.044
	(0.034)	(0.033)	(0.030)	(0.026)
Foreign-Born[b]	-0.013	-0.029	-0.058	0.049
	(0.082)	(0.080)	(0.073)	(0.064)
Family of Origin SES (T1)	0.194**	0.187**	0.117**	0.065*
	(0.032)	(0.031)	(0.029)	(0.025)
Lifetime Depression		-0.306**	-0.176*	-0.055
		(0.077)	(0.070)	(0.062)
Lifetime Anxiety		-0.315**	-0.211**	-0.061
		(0.082)	(0.075)	(0.066)
Lifetime Alcohol/Drug Dependence		-0.210**	-0.128*	-0.014
		(0.071)	(0.065)	(0.057)
Recent Life Events (T2)			-0.027	0.005
			(0.028)	(0.024)
Chronic Stress (T2)			-0.330**	-0.242**
			(0.029)	(0.026)
Daily Discrimination (T2)			-0.158**	-0.096**
			(0.029)	(0.025)
Family Support (T1)[c]				0.469**
				(0.024)
Constant	1.066	1.177	1.450*	0.971
	(0.672)	(0.657)	(0.596)	(0.520)
R-squared	0.06	0.11	0.27	0.45

*p<.05, **p< .01; ***p<.001. *Notes*: Unstandardized coefficients for OLS Regression. All resource measures are standardized with standard errors in ( ). [a]Reference group = Non-Hispanic Whites. [b]Reference group = U.S.-born. [c]T1 family support predicting T2 family support is interpreted as the degree of stability in family support during the transition into young adulthood and all other coefficients in the final model (5) should be interpreted as predicting changes in family support during this time-interval.

Table 9. Friend Support (T2) Regressed on Study Disorders and Social Stress (N=1,174)

	(1)	(2)	(3)	(4)
Female	0.138*	0.156**	0.103	0.073
	(0.056)	(0.057)	(0.057)	(0.051)
Cuban[a]	0.026	0.014	-0.019	0.040
	(0.083)	(0.083)	(0.082)	(0.072)
Non-Cuban Hispanic[a]	-0.111	-0.118	-0.123	-0.075
	(0.090)	(0.090)	(0.089)	(0.078)
African American[a]	-0.260**	-0.287**	-0.217**	-0.160*
	(0.083)	(0.083)	(0.083)	(0.074)
Age (T1)	-0.004	-0.002	-0.009	0.021
	(0.033)	(0.033)	(0.032)	(0.029)
Foreign-Born[b]	-0.011	-0.025	-0.061	-0.008
	(0.080)	(0.080)	(0.079)	(0.070)
Family of Origin SES (T1)	0.136**	0.132**	0.107**	0.078**
	(0.031)	(0.031)	(0.031)	(0.027)
Lifetime Depression		-0.050	-0.011	0.044
		(0.076)	(0.076)	(0.067)
Lifetime Anxiety		-0.165*	-0.129	-0.070
		(0.081)	(0.081)	(0.071)
Lifetime Alcohol/Drug Dependence		-0.146*	-0.121	-0.039
		(0.070)	(0.070)	(0.062)
Recent Life Events (T2)			0.004	-0.005
			(0.030)	(0.027)
Chronic Stress (T2)			-0.043	-0.029
			(0.031)	(0.028)
Daily Discrimination (T2)			-0.148**	-0.105**
			(0.031)	(0.028)
Friend Support (T1)[c]				0.456**
				(0.025)
Constant	0.117	0.156	0.292	-0.381
	(0.653)	(0.651)	(0.644)	(0.572)
R-squared	0.05	0.06	0.08	0.29

*p<.05, **p< .01; ***p<.001. *Notes*: Unstandardized coefficients for OLS Regression. All resource measures are standardized with standard errors in ( ). [a]Reference group = Non-Hispanic Whites. [b]Reference group = U.S.-born. [c]T1 friend support predicting T2 friend support is interpreted as the degree of stability in friend support during the transition into young adulthood and all other coefficients in the final model (5) should be interpreted as predicting changes in friend support during this time-interval.

Table 10. Mastery (T2) Regressed on Study Disorders and Social Stress (N=1,174)

	(1)	(2)	(3)	(4)
Female	-0.136*	-0.116*	-0.205**	-0.154**
	(0.058)	(0.059)	(0.057)	(0.053)
Cuban[a]	0.177*	0.169*	0.113	0.082
	(0.086)	(0.086)	(0.082)	(0.076)
Non-Cuban Hispanic[a]	-0.083	-0.089	-0.090	-0.047
	(0.093)	(0.093)	(0.089)	(0.082)
African American[a]	-0.016	-0.029	0.120	0.138
	(0.086)	(0.087)	(0.083)	(0.077)
Age (T1)	-0.043	-0.042	-0.055	-0.019
	(0.034)	(0.034)	(0.032)	(0.030)
Foreign-Born[b]	0.116	0.111	0.058	0.071
	(0.082)	(0.083)	(0.079)	(0.073)
Family of Origin SES (T1)	0.171**	0.168**	0.115**	0.080**
	(0.032)	(0.032)	(0.031)	(0.029)
Lifetime Depression		-0.054	0.031	0.090
		(0.079)	(0.076)	(0.070)
Lifetime Anxiety		-0.140	-0.066	-0.042
		(0.085)	(0.081)	(0.075)
Lifetime Alcohol/Drug Dependence		-0.052	-0.003	0.012
		(0.073)	(0.070)	(0.065)
Recent Life Events (T2)			0.035	0.024
			(0.030)	(0.028)
Chronic Stress (T2)			-0.149**	-0.103**
			(0.031)	(0.029)
Daily Discrimination (T2)			-0.263**	-0.182**
			(0.031)	(0.029)
Mastery (T1)[c]				0.377**
				(0.027)
Constant	0.884	0.904	1.144	0.371
	(0.676)	(0.676)	(0.642)	(0.597)
R-squared	0.05	0.05	0.15	0.27

*p<.05, **p< .01; ***p<.001. *Notes*: Unstandardized coefficients for OLS Regression. All resource measures are standardized with standard errors in ( ). [a]Reference group = Non-Hispanic Whites. [b]Reference group = U.S.-born. [c]T1 mastery predicting T2 mastery is interpreted as the degree of stability in mastery during the transition into young adulthood and all other coefficients in the final model (5) should be interpreted as predicting changes in mastery during this time-interval.

Table 11. Mattering (T2) Regressed on Study Disorders and Social Stress (N=1,174)

	(1)	(2)	(3)	(4)
Female	0.239**	0.281**	0.196**	0.134**
	(0.058)	(0.058)	(0.057)	(0.051)
Cuban[a]	0.087	0.074	0.021	0.012
	(0.086)	(0.085)	(0.082)	(0.072)
Non-Cuban Hispanic[a]	-0.164	-0.177	-0.178*	-0.182*
	(0.093)	(0.092)	(0.088)	(0.078)
African American[a]	-0.106	-0.158	-0.034	-0.074
	(0.086)	(0.085)	(0.083)	(0.073)
Age (T1)	0.017	0.017	0.004	-0.003
	(0.034)	(0.033)	(0.032)	(0.028)
Foreign-Born[b]	0.020	0.006	-0.057	-0.007
	(0.082)	(0.081)	(0.079)	(0.070)
Family of Origin SES (T1)	0.083**	0.083**	0.038	0.014
	(0.032)	(0.032)	(0.031)	(0.027)
Lifetime Depression		-0.347**	-0.273**	-0.177**
		(0.078)	(0.076)	(0.067)
Lifetime Anxiety		-0.089	-0.023	0.062
		(0.083)	(0.080)	(0.071)
Lifetime Alcohol/Drug Dependence		-0.199**	-0.147*	-0.061
		(0.072)	(0.070)	(0.062)
Recent Life Events (T2)			-0.021	-0.011
			(0.030)	(0.026)
Chronic Stress (T2)			-0.090**	-0.067*
			(0.031)	(0.028)
Daily Discrimination (T2)			-0.237**	-0.168**
			(0.031)	(0.028)
Mattering (T1)[c]				0.449**
				(0.025)
Constant	-0.402	-0.278	-0.027	0.106
	(0.676)	(0.666)	(0.641)	(0.566)
R-squared	0.03	0.06	0.14	0.33

*p<.05, **p< .01; ***p<.001. *Notes*: Unstandardized coefficients for OLS Regression. All resource measures are standardized with standard errors in ( ). [a]Reference group = Non-Hispanic Whites. [b]Reference group = U.S.-born. [c]T1 mattering predicting T2 mattering is interpreted as the degree of stability in mattering during the transition into young adulthood and all other coefficients in the final model (5) should be interpreted as predicting changes in mattering during this time-interval.

Table 12 shows results predicting optimism. Unlike the results presented earlier, there are differences in optimism between non-Hispanic whites compared with Hispanics or African Americans after controlling on variations in gender, age, nativity status, and family socioeconomic status. Family SES is independently associated with optimism—though partially mediated (26%) by social stress.

Lifetime depression, anxiety, and substance dependence are all negatively associated with reports of optimism; however, approximately 50 percent, 36 percent, and 25 percent of these respective associations are explained by stress exposure. However, net of stress exposure and any variations in socio-contextual factors, lifetime substance dependence predicts lower levels of optimism at T2 (Model 3). Chronic stress and daily discrimination predict both optimism at T2 and changes in optimism from adolescence to young adulthood (Models 3 and 4).

Table 13 presents results predicting self-esteem. Females report less self-esteem than males and African Americans report greater self-esteem than non-Hispanic whites. Higher family SES is also associated with greater self-esteem.

Lifetime depression and substance dependence are both inversely associated with self-esteem but, unlike substance dependence, depression also predicts self-esteem at T2 net of stress exposure (Models 2 and 3). In addition, while both chronic stress and daily discrimination independently predict optimism at T2, only daily discrimination predicts changes in optimism (Model 4).

These results provide no evidence for the conclusion that gender or race-ethnic differences in any of the resources considered in this investigation are explained away by lifetime psychiatric disorders or substance dependence. Similarly, stress exposure explains little in the gender or race-ethnic differences in these resources. However, disorders and stress exposure both aid in our understanding of the availability and changes in psychosocial resources among individuals. Moreover, the impact that psychiatric and substance use disorders have on these resources is partially explained by ongoing stress exposure—with varying degrees of explanatory power depending on the disorder-resource relationship under consideration. However, it is possible that lifetime disorders predict the stress exposure found to be associated with the resources considered in this study.

Study Disorders Predicting Social Stress

Table 14 presents stress exposure and changes in stress exposure regressed on lifetime psychiatric and substance use disorders. Results indicate that lifetime disorders are important predictors of the stress exposure reported in the transition from late adolescence to young adulthood. However, the variance in stress exposure explained by lifetime disorders is minimal and lifetime disorders do not predict changes in stress exposure from late adolescence to young adulthood. These results suggest that, while psychiatric-substance disorders and stress exposure help explain the availability in psychosocial resources among young adults, the impact of lifetime disorders on resources *through* stress exposure is likely negligible. Nevertheless, lifetime disorders and stress exposure are both important independent predictors of the social and psychosocial resources available to young adults.

Table 12. Optimism (T2) Regressed on Study Disorders and Social Stress (N=1,174)

	(1)	(2)	(3)	(4)
Female	-0.001	0.035	-0.037	-0.026
	(0.058)	(0.058)	(0.057)	(0.050)
Cuban[a]	0.136	0.119	0.076	-0.018
	(0.085)	(0.085)	(0.081)	(0.071)
Non-Cuban Hispanic[a]	-0.066	-0.079	-0.066	-0.143
	(0.093)	(0.092)	(0.088)	(0.077)
African American[a]	0.009	-0.040	0.103	0.034
	(0.086)	(0.085)	(0.082)	(0.072)
Age (T1)	-0.040	-0.038	-0.051	-0.017
	(0.034)	(0.033)	(0.032)	(0.028)
Foreign-Born[b]	0.071	0.052	0.005	0.060
	(0.082)	(0.081)	(0.078)	(0.069)
Family of Origin SES (T1)	0.227**	0.222**	0.169**	0.099**
	(0.032)	(0.032)	(0.031)	(0.027)
Lifetime Depression		-0.183*	-0.092	0.060
		(0.078)	(0.075)	(0.066)
Lifetime Anxiety		-0.214*	-0.137	-0.063
		(0.083)	(0.080)	(0.070)
Lifetime Alcohol/Drug Dependence		-0.229**	-0.171*	-0.097
		(0.072)	(0.069)	(0.061)
Recent Life Events (T2)			-0.005	-0.019
			(0.030)	(0.026)
Chronic Stress (T2)			-0.175**	-0.106**
			(0.031)	(0.027)
Daily Discrimination (T2)			-0.210**	-0.137**
			(0.031)	(0.027)
Optimism (T1)[c]				0.473**
				(0.025)
Constant	0.752	0.840	1.082	0.392
	(0.674)	(0.666)	(0.635)	(0.559)
R-squared	0.06	0.08	0.17	0.36

*p<.05, **p< .01; ***p<.001. *Notes*: Unstandardized coefficients for OLS Regression. All resource measures are standardized with standard errors in ( ). [a]Reference group = Non-Hispanic Whites. [b]Reference group = U.S.-born. [c]T1 optimism predicting T2 optimism is interpreted as the degree of stability in optimism during the transition into young adulthood and all other coefficients in the final model (5) should be interpreted as predicting changes in optimism during this time-interval.

Table 13. Self-Esteem (T2) Regressed on Study Disorders and Social Stress (N=1,174)

	(1)	(2)	(3)	(4)
Female	-0.139*	-0.102	-0.174**	-0.102
	(0.058)	(0.059)	(0.059)	(0.053)
Cuban[a]	0.144	0.134	0.089	0.037
	(0.086)	(0.086)	(0.084)	(0.076)
Non-Cuban Hispanic[a]	-0.078	-0.089	-0.093	-0.080
	(0.094)	(0.093)	(0.091)	(0.082)
African American[a]	0.245**	0.200*	0.301**	0.155*
	(0.087)	(0.086)	(0.085)	(0.077)
Age (T1)	-0.021	-0.021	-0.032	0.008
	(0.034)	(0.034)	(0.033)	(0.030)
Foreign-Born[b]	0.159	0.148	0.095	0.106
	(0.083)	(0.082)	(0.081)	(0.073)
Family of Origin SES (T1)	0.147**	0.147**	0.111**	0.088**
	(0.032)	(0.032)	(0.032)	(0.029)
Lifetime Depression		-0.312**	-0.253**	-0.050
		(0.079)	(0.078)	(0.071)
Lifetime Anxiety		-0.066	-0.014	0.030
		(0.084)	(0.083)	(0.074)
Lifetime Alcohol/Drug Dependence		-0.166*	-0.125	-0.076
		(0.073)	(0.072)	(0.065)
Recent Life Events (T2)			-0.012	-0.023
			(0.031)	(0.028)
Chronic Stress (T2)			-0.065*	-0.035
			(0.032)	(0.029)
Daily Discrimination (T2)			-0.201**	-0.119**
			(0.032)	(0.029)
Self-Esteem (T1)[c]				0.444**
				(0.027)
Constant	0.376	0.484	0.688	-0.133
	(0.681)	(0.674)	(0.659)	(0.595)
R-squared	0.04	0.06	0.11	0.28

*p<.05, **p< .01; ***p<.001. *Notes*: Unstandardized coefficients for OLS Regression. All resource measures are standardized with standard errors in ( ). [a]Reference group = Non-Hispanic Whites. [b]Reference group = U.S.-born. [c]T1 self-esteem predicting T2 self-esteem is interpreted as the degree of stability in self-esteem during the transition into young adulthood and all other coefficients in the final model (5) should be interpreted as predicting changes in self-esteem during this time-interval.

Table 14. Lifetime Psychiatric and Substance Use Disorders Predicting Social Stress and Changes in Social Stress (N = 1,174)

	RLE (T2)	ΔRLE	CS (T2)	ΔCS	DD (T2)	ΔDD
Depression	.168*	.018	.259***	.106	.074	.022
	(.078)	(.075)	(.079)	(.072)	(.079)	(.068)
Anxiety	.178*	.037	.277***	.104	.179*	-.023
	(.084)	(.080)	(.084)	(.076)	(.085)	(.073)
Alcohol/Drug Dependence	.290***	.170*	.100	.036	.118	-.021
	(.072)	(.069)	(.072)	(.065)	(.073)	(.063)
R^2	0.030	0.139	0.029	0.217	0.010	0.279

*p<.05, **p< .01; ***p<.001. *Notes*: Unstandardized coefficients for OLS Regression with standard errors in ( ). Δ = Changes in stress measures from T1 to T2, where T1 stress measures are controlled (not shown). RLE = Recent Life Events. CS = Chronic Stress. DD = Daily Discrimination.

DISCUSSION

This study builds on prior research regarding the prevalence of psychiatric and substance use disorders among youths and examines the impact of the history and the timing of onset of psychiatric and substance use disorders for social contact and psychosocial resources available in young adulthood. The findings indicate that nearly 40 percent of young adults between the ages of 18 and 23 years meet diagnostic criteria for at least one study disorder (major depression, anxiety, and alcohol/drug dependence). These results reinforce prior research demonstrating that psychiatric and substance use disorders are common and often first emerge early in the life-course.

Also consistent with prior research, results indicate gender and race-ethnic differences in both disorders and resources. Lifetime occurrence of psychiatric and substance use disorders, however, fail to account for the gender or race-ethnic differences in social contact or psychosocial resources.

The results do, however, demonstrate that compared to young adults with no history of a psychiatric disorder or substance dependence, those with a history of a disorder report less family support, mastery, mattering, optimism, and self-esteem. However, the history of these disorders does not appear to diminish one's ability to experience family contact, friend contact, or friend support. Moreover, these results indicate that the harmful effects of the history of a given disorder for a particular resource vary by the disorder-resource contrast under consideration. This highlights the importance of considering the nature of the disorder and resource when contemplating their possible linkages. In other words, researchers should not assume that all disorders have the same (and harmful) implications for all social and psychosocial resources.

Moreover, the results also indicate that the relationship between disorders and resources not only varies by the disorder-resource relationship under consideration but that these relationships also vary by gender and race-ethnicity. These group variations suggest that the potential negative consequences of a psychiatric or substance use disorder for social contact and psychosocial resources may be culturally driven. This proposition is based upon the rationale that if there is something inherent about a given disorder and its consequences for the acquisition of these resources then one should expect to find similar patterns across the gender and race-ethnic groups. However, the relationship between disorders and resources varies considerably by these social categories. For example, substance dependence is not associated with lower self-esteem among males, non-Hispanic Whites and African Americans but the linkage is present among females and all of the other race-ethnic groups considered.

Might it be socially unacceptable for young females and Hispanics to exhibit symptoms or engage in behaviors associated with substance dependence but allowed for young males, non-Hispanic Whites and African Americans? At a minimum, it appears that for some groups the impact of substance dependence does not translate into problems with one's sense of self-worth, though it may be translated in relation to other resources. Indeed, while substance dependence is not associated with self-esteem among young males, non-Hispanics whites, or African Americans, a history of substance dependence predicts the availability of subsequent family support among these groups. These findings might suggest that there are cultural expectations towards certain members of society that, when deviated from, have negative consequences on the availability of certain coping resources.

Further research is needed to describe the processes involved in the translation of a particular disorder to a particular resource across social groups. Nevertheless, the results do suggest that there are potentially modifiable cultural expectations and norms that drive these disorder-resource relationships.

In addition, researchers have long highlighted the importance of considering multiple outcomes if we are to avoid underestimating the consequences of social stress (Aneshensel 1996; Pearlin 1989). The results in the current study reinforce the need to consider multiple resource outcomes when assessing the impact of psychiatric and substance use disorders—themselves potential sources of stress—across social groups.

Results in the current investigation provide evidence suggesting that disorders and stress exposure both play important independent roles in predicting psychosocial resources available during young adulthood. However, while lifetime disorders predict stress exposure that is, in turn, related to psychosocial resources, there is minimal evidence supporting the conclusion that the disorder-resource relationship is translated through stress exposure.

Among the study disorders, major depression appears to be the most consistent in its negative consequences for the acquisition of psychosocial resources. In addition, only in relation to major depression is there support for the hypothesis that the onset of a disorder during childhood is more problematic for the availability of these resources compared to adolescent-onset. This finding is consistent across both gender and race-ethnicity. These results indicated that, at least for some social groups, childhood is a particularly sensitive period of human development in relation to the onset of depression and acquisition of the psychosocial resources.

In order to explain the relative importance of the history and childhood-onset of depression in relation to the acquisition of these resources, I believe that one must first acknowledge that these social and psychosocial resources emerge (to some large extent) from the social environment and through social interactions. Indeed, like social stress, the degree of social contact and psychosocial resources do not occur in a vacuum but rather are non-randomly distributed throughout the social system as a function of the social conditions that one experiences (Pearlin et al. 1981).

Together with the argument that "earlier onset" depression in the current investigation refers to a particularly sensitive period of human development generally speaking—childhood, it is a logical conclusion that childhood-onset depression would be highly problematic for the acquisition of these resources. Depression is characterized as involving reduced interest in social relationships and activities. Thus, to the extent that individuals have limited social contact during highly sensitive periods of human development the likely result will involve a limited degree of social contact in young adulthood as well as the availability of psychosocial resources.

However, some anxiety disorders also share some of these characteristics. Why, then, do childhood-onset anxiety disorders not have a greater impact on the degree of social contact or the development of psychosocial resources compared to adolescent-onset? Part of the answer to this question may result in the collapsing of several different types of anxiety disorders due to a lack of statistical power. It might be that certain types of anxiety disorders are more similar to depression in terms of their consequences for the acquisition of these resources. For example, generalized anxiety disorders and certain types of panic and social phobias, by definition, can be limiting in relation to a wide-range of social activities-settings. In other words, to the degree that a disorder limits individuals from engaging in social activities and relationships in general, as opposed to specific types of activities and relationships, those disorders may have greater negative consequences in relation to those resources that emerge through ongoing social

interactions. Conversely, those disorders that are more limited in the range of activities one avoids (i.e., PTSD and other types of panic and social phobias) may not have as detrimental effects on the acquisition of social and psychosocial resources.

Alcohol and drug dependence, especially among youths, is likely tied to high levels of social engagement. Moreover, those who are engaging problem drinking from childhood to young adulthood are likely doing so within a socially accepting environment. This might explain why earlier onset of alcohol/drug dependence is not more problematic for the acquisition of psychosocial resources compared to adolescent-onset.

Finally, it is important to acknowledge that some researchers question the appropriateness of considering psychiatric and substance use disorders as dichotomous entities. Szasz (1961) not only cautions American society of the dangers in over-diagnosing its members but also suggests that mental illness should only be understood on a metaphorical level – not as a discrete entity. More recently, researchers have expanded upon this idea and suggest that, while mental health problems are real, psychiatric diagnoses as *entities* fail to capture the true nature and full range of mental health problems (Mirowsky and Ross 1989). Some argue that psychiatric diagnoses have as much to do with votes by committee as they do with actual psychiatric disorders (Kirk and Hutchins 1992).

The debate over whether scientists should assess psychiatric problems as a discrete versus a continuous measure can be traced back to early studies employing dimensional scales following WWII (Midtown Manhattan Study—Srole et al. 1962; Stirling County Study—Leighton et al. 1963). While there are good reasons for using one of these alternative approaches (or both) depending on the research question, the fundamental question of whether psychiatric disorders are "real entities" or not still remains. It was not within the scope of this work to address this question. However, the author argues that it is one thing to propose that psychiatric disorders are not "real entities" and it is quite another to suggest that they do not have "real consequences." While not referring to psychiatric disorders, this is a lesson that W. I. Thomas (1966) so eloquently conveyed some time ago. Thus, even if one speaks against the relatively arbitrary nature of the diagnostic criteria found in the DSM-IV, the labeling and symptom-related behaviors that are deemed as socially deviant surrounding these "psychiatric and substance use disorders" may lead to real social and psychosocial consequences.

The current investigation assessed the social and psychosocial consequences of those who meet a pre-determined criteria for psychiatric and substance use disorders. Because of the arguably arbitrary, "cut-off" threshold used for diagnostic criteria, many individuals who experience sub-threshold symptoms of mental health problems fall into the "non-case" category resulting in conservative estimates. Thus, possible differences between those with and without a history of a psychiatric or substance use disorder, as deemed by DSM-IV diagnostic criteria, are diminished. This means that the consequences of the history psychiatric and substance use disorders for available coping resources reported in this study are conservative.

LIMITATIONS

There are several noteworthy limitations in the current study. First, because Miami is a unique social landscape with regard to its racial-ethnic make-up the generalizability of the results is not clear. At the same time, given that Hispanics and African Americans constitute a substantial proportion of the population in Miami, these data allows one to consider the central research questions in this study within and across multiple race-ethnic groups. This is the first study that the author is aware of that considers the consequences of the history and the timing of onset of psychiatric and substance use disorders predicting social contact and psychosocial resources by gender and race-ethnicity.

A second limitation is also associated with the youthfulness of the sample. The current data do not allow one to assess the longer-term social and psychosocial consequences of the history and the timing of onset of psychiatric and substance use disorders beyond young-adulthood. While this is an important limitation, I propose that the benefits of using such a sample outweigh this limitation. Specifically, this sample allows one to assess the impact of disorders during what are, arguably, the most sensitive periods of human development (i.e., childhood and adolescence) in relation to the acquisition of resources available to individuals at a critical transition in the life-course—the transition into young adulthood.

A third limitation is the potential for false-positive results (Type I error). Because there are numerous statistical comparisons being made in this study there is a greater chance for any one particular contrast to be statistically significant when; in fact, such a conclusion is simply due to chance. Due to this potential source of error, the author cautions the reader in drawing any conclusions from any one particular contrast presented. Nevertheless, one can be confident that there are important group differences in the consequences of psychiatric and substance use disorder for social contact and psychosocial resources.

The fourth limitation is in relation to the measurement of the duration of disorder. Due to the nature of the data available, the duration of a particular study disorder was operationalized using the difference between the age one first reportedly experienced symptoms (measured at T1) and the age at which symptoms were last experienced (measured at T2). While this approach itself has value in assessing the relative impact between earlier and later onset, this approach assumes that experiencing a psychiatric or substance use disorder is relatively stable over time. The problem stems from the fact that many psychiatric disorders are known to be episodic in nature. This is problematic because, on the one hand, an individual may experience only two episodes of major depression separated by nine years and, on the other hand, another individual may experience numerous episodes of major depression over a four-year period. Using a measure of duration that is based upon the difference between the initial and most recent episode may suggest that the former hypothetical case is more problematic than the latter hypothetical case. However, those experiencing the latter case may be impacted to a greater degree than those experiencing the former case due to the persistent nature of their episodes. While research is needed to explore the episodic nature of disorders and its predictive significance in relation to social and psychosocial resources, this is the first study that the author is aware of that considers the extent to which the timing of onset of a disorder predicting these resources is a function of the duration of a disorder.

Finally, the fifth limitation to the current study is in relation to causal reference. While all attempts were made to control for temporality in the current investigation, in virtually all instances conclusions regarding causality are withheld. For example, while the results indicate a

relationship between retrospectively measured psychiatric-substance disorders predicting resources measured at least two-years later, it is possible that experiences of social contact and psychosocial resources available to the individual prior to the onset of a disorder play an important role in the manifestation of the disorder to begin with. Although this explanation cannot be ruled out in the current investigation, analyses were conducted and demonstrate that some disorders predicted changes in some resources from adolescence to young adulthood. These analyses provide some assurance that the history of a psychiatric or substance use disorder has negative consequences for the availability of resources in young adulthood.

CONCLUSION

Such limitations notwithstanding, the present study builds on prior research in several important ways. Results indicate that psychiatric and substance use disorders are relatively common and often first emerge early in the life-course. Results also demonstrate that young adults with a history of a psychiatric disorder or substance dependence report less social contact and psychosocial resources. However, these associations vary not only by the specific disorder-resource relationship under consideration but also by gender and race-ethnicity. These group variations may indicate that the translation of the history of a psychiatric or substance use disorder to social contact and psychosocial resources may be culturally driven. By demonstrating differential consequences of psychiatric and substance use disorders in relation to social and psychosocial resources across sub-groups these results reinforce the need to consider a wide range of outcomes when attempting to determine the consequences psychiatric and substance use disorders.

Appendix A. Means on Social Support and Psychosocial Resources by Disorder and Age of Onset among *Females* (N = 523)

	N	Family Contact				Friend Contact				Family Support				Friend Support			
		Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts
Depression[a]																	
No Disorder	*397*	2.91	1.02	0.77		3.45	0.82	0.06		3.83	0.62	7.24***	E < N	3.51	0.58	0.03	
Earlier Onset	*38*	2.71	0.93			3.50	0.73			3.45	0.60			3.48	0.54		
Later Onset	*88*	2.84	1.04			3.45	0.76			3.68	0.72			3.51	0.54		
Anxiety Disorders[a]																	
No Disorder	*411*	2.90	1.02	0.24		3.48	0.77	1.86		3.83	0.63	7.02***	E, L < N	3.54	0.53	3.58*	
Earlier Onset	*50*	2.86	0.95			3.44	0.95			3.55	0.66			3.40	0.75		
Later Onset	*62*	2.81	1.11			3.27	0.87			3.59	0.66			3.36	0.64		
Alcohol/Drug Dependence[b]																	
No Disorder	*426*	2.90	1.02	0.90		3.46	0.79	0.18		3.78	0.65	0.23		3.52	0.56	0.42	
Earlier Onset	*23*	2.61	0.94			3.39	0.84			3.70	0.52			3.46	0.71		
Later Onset	*74*	2.88	1.03			3.42	0.84			3.75	0.63			3.46	0.62		

	N	Mastery				Mattering				Optimism				Self-Esteem			
		Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts
Depression[a]																	
No Disorder	*397*	3.95	0.65	1.45		3.59	0.42	4.50*	E < N	3.77	0.64	3.23*	E < N	4.62	0.47	5.07**	E < N
Earlier Onset	*38*	3.77	0.80			3.41	0.56			3.48	0.90			4.35	0.77		
Later Onset	*88*	3.97	0.65			3.48	0.43			3.71	0.72			4.54	0.56		
Anxiety Disorders[a]																	
No Disorder	*411*	3.96	0.67	0.86		3.58	0.41	2.95		3.77	0.66	3.09*	L < N	4.61	0.50	1.75	
Earlier Onset	*50*	3.92	0.70			3.46	0.53			3.69	0.76			4.50	0.67		
Later Onset	*62*	3.84	0.61			3.47	0.47			3.55	0.69			4.50	0.52		
Alcohol/Drug Dependence[b]																	
No Disorder	*426*	3.96	0.66	0.51		3.57	0.40	2.36		3.78	0.64	4.95**	E < N	4.62	0.48	5.79**	E < N
Earlier Onset	*23*	3.89	0.72			3.42	0.45			3.41	0.97			4.31	0.81		
Later Onset	*74*	3.88	0.68			3.49	0.57			3.60	0.76			4.47	0.60		

*p < .05; **p < .01; ***p < .001. *Notes*: N=no onset; E=ealier onset; L=later onset. All significant group contrasts (post hoc) are at the .05 level or greater (.01, .001). Possible range is 1-5 for family support, emotional reliance, optimism, mastery and self-esteem and 1-4 for friend support, family contact, friend contact, and mattering. [a]Cut-off for early vs. late onset is 15 years old (early is less than 15 years; late is equal to or greater than 15 years). [b]Cut-off for early vs. late onset is 16 years old (early is less than 16 years; late is equal to or greater than 16 years).

Appendix B. Means on Social Support and Psychosocial Resources by Disorder and Age of Onset among *Males* (N = 651)

	N	Family Contact				Friend Contact				Family Support				Friend Support			
		Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts
Depression[a]																	
No Disorder	*569*	2.65	0.98	0.19		3.48	0.73	0.87		3.85	0.51	10.74***	E < N	3.45	0.53	1.99	
Earlier Onset	*28*	2.54	0.92			3.43	0.79			3.40	0.75		E < L	3.25	0.65		
Later Onset	*54*	2.67	0.95			3.61	0.71			3.71	0.50			3.40	0.60		
Anxiety Disorders[a]																	
No Disorder	*587*	2.66	0.97	0.96		3.48	0.74	0.75		3.85	0.51	12.59***	L < N	3.45	0.54	1.11	
Earlier Onset	*34*	2.47	0.96			3.62	0.60			3.68	0.67			3.39	0.46		
Later Onset	*30*	2.50	0.94			3.57	0.63			3.38	0.57			3.31	0.69		
Alcohol/Drug Dependence[b]																	
No Disorder	*502*	2.68	0.95	1.74		3.47	0.74	0.52		3.87	0.52	11.64***	E, L < N	3.46	0.54	1.44	
Earlier Onset	*33*	2.58	1.12			3.55	0.71			3.63	0.62			3.39	0.53		
Later Onset	*116*	2.50	0.99			3.54	0.71			3.64	0.53			3.37	0.54		

	N	Mastery				Mattering				Optimism				Self-Esteem			
		Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts
Depression[a]																	
No Disorder	*569*	4.06	0.63	1.62		3.48	0.43	14.55***	E < N	3.79	0.68	4.32*	L < N	4.69	0.39	9.98***	E, L < N
Earlier Onset	*28*	3.85	0.53			3.04	0.81		E < L	3.48	0.79			4.39	0.76		
Later Onset	*54*	4.10	0.61			3.34	0.52			3.61	0.66			4.52	0.47		
Anxiety Disorders[a]																	
No Disorder	*587*	4.07	0.62	3.37*		3.46	0.47	1.88		3.80	0.68	8.34***	E, L < N	4.67	0.42	1.16	
Earlier Onset	*34*	3.92	0.52			3.41	0.39			3.50	0.59			4.60	0.46		
Later Onset	*30*	3.80	0.66			3.30	0.51			3.38	0.76			4.57	0.45		
Alcohol/Drug Dependence[b]																	
No Disorder	*502*	4.06	0.64	0.66		3.48	0.45	4.70**	E < N	3.80	0.68	3.22*		4.68	0.43	1.91	
Earlier Onset	*33*	4.14	0.55			3.28	0.58			3.59	0.74			4.57	0.44		
Later Onset	*116*	4.00	0.58			3.38	0.48			3.66	0.69			4.61	0.40		

*p < .05; **p < .01; ***p < .001. *Notes*: N=no onset; E=ealier onset; L=later onset. All significant group contrasts (post hoc) are at the .05 level or greater (.01, .001). Possible range is 1-5 for family support, emotional reliance, optimism, mastery and self-esteem and 1-4 for friend support, family contact, friend contact, and mattering. [a]Cut-off for early vs. late onset is 15 years old (early is less than 15 years; late is equal to or greater than 15 years). [b]Cut-off for early vs. late onset is 16 years old (early is less than 16 years; late is equal to or greater than 16 years).

Appendix C. Means on Social Support and Psychosocial Resources by Disorder and Age of Onset among *Non-Hispanic Whites* (N = 318)

		Family Contact				Friend Contact				Family Support				Friend Support			
	N	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts
Depression[a]																	
No Disorder	*254*	2.72	1.00	0.22		3.52	0.73	3.31*		4.00	0.51	13.01***	E < N	3.57	0.46	1.29	
Earlier Onset	*23*	2.83	0.94			3.30	0.82		E < L	3.43	0.73		E < L	3.43	0.63		
Later Onset	*41*	2.80	0.98			3.76	0.49			3.80	0.62			3.63	0.44		
Anxiety Disorders[a]																	
No Disorder	*269*	2.71	1.00	1.98		3.54	0.73	0.43		3.97	0.53	6.22**	E < N	3.59	0.44	1.21	
Earlier Onset	*25*	2.72	0.89			3.60	0.58			3.57	0.80			3.49	0.49		
Later Onset	*24*	3.13	0.95			3.42	0.72			3.90	0.54			3.46	0.72		
Alcohol/Drug Dependence[b]																	
No Disorder	*233*	2.79	0.96	2.19		3.55	0.70	0.56		3.99	0.56	3.77*	L < N	3.60	0.43	2.23	
Earlier Onset	*21*	2.90	1.09			3.38	0.92			3.78	0.59			3.45	0.74		
Later Onset	*64*	2.52	1.04			3.52	0.69			3.79	0.55			3.49	0.49		

		Mastery				Mattering				Optimism				Self-Esteem			
	N	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts
Depression[a]																	
No Disorder	*254*	4.08	0.63	2.10		3.57	0.42	6.56***	E < N	3.90	0.71	4.45*	L < N	4.66	0.43	3.55*	
Earlier Onset	*23*	3.80	0.72			3.23	0.74			3.59	0.79			4.43	0.72		
Later Onset	*41*	4.05	0.60			3.50	0.41			3.60	0.79			4.52	0.50		
Anxiety Disorders[a]																	
No Disorder	*269*	4.07	0.63	0.68		3.55	0.46	2.42		3.88	0.71	3.08*		4.64	0.46	1.47	
Earlier Onset	*25*	3.96	0.63			3.35	0.46			3.58	0.82			4.47	0.58		
Later Onset	*24*	3.95	0.71			3.59	0.36			3.62	0.76			4.61	0.45		
Alcohol/Drug Dependence[b]																	
No Disorder	*233*	4.06	0.65	0.49		3.57	0.42	3.08*		3.87	0.71	1.29		4.63	0.47	0.44	
Earlier Onset	*21*	4.16	0.61			3.33	0.52			3.76	0.92			4.53	0.50		
Later Onset	*64*	4.01	0.60			3.49	0.53			3.72	0.73			4.63	0.44		

*p < .05; **p < .01; ***p < .001. *Notes*: N=no onset; E=ealier onset; L=later onset. All significant group contrasts (post hoc) are at the .05 level or greater (.01, .001). Possible range is 1-5 for family support, emotional reliance, optimism, mastery and self-esteem and 1-4 for friend support, family contact, friend contact, and mattering. [a]Cut-off for early vs. late onset is 15 years old (early is less than 15 years; late is equal to or greater than 15 years). [b]Cut-off for early vs. late onset is 16 years old (early is less than 16 years; late is equal to or greater than 16 years).

Appendix D. Means on Social Support and Psychosocial Resources by Disorder and Age of Onset among *Cubans* (N = 282)

		Family Contact				Friend Contact				Family Support				Friend Support			
	N	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts
Depression[a]																	
No Disorder	*228*	2.77	0.99	1.06		3.45	0.74	0.68		3.87	0.58	6.24**	E < N	3.54	0.50	0.62	
Earlier Onset	*22*	2.45	0.74			3.59	0.67			3.43	0.68			3.41	0.49		
Later Onset	*32*	2.78	1.07			3.56	0.62			3.67	0.65			3.52	0.57		
Anxiety Disorders[a]																	
No Disorder	*245*	2.77	1.00	0.36		3.47	0.73	0.12		3.86	0.58	7.93***	L < N	3.54	0.51	1.11	
Earlier Onset	*22*	2.64	0.95			3.55	0.67			3.55	0.73			3.47	0.53		
Later Onset	*15*	2.60	0.91			3.47	0.64			3.33	0.63			3.35	0.54		
Alcohol/Drug Dependence[b]																	
No Disorder	*220*	2.72	1.02	1.64		3.45	0.73	1.05		3.86	0.59	3.93*		3.53	0.52	0.11	
Earlier Onset	*14*	2.50	0.94			3.71	0.47			3.54	0.64			3.51	0.50		
Later Onset	*48*	2.96	0.82			3.52	0.74			3.65	0.63			3.49	0.48		

		Mastery				Mattering				Optimism				Self-Esteem			
	N	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts
Depression[a]																	
No Disorder	*228*	4.12	0.62	0.70		3.58	0.39	1.92		3.85	0.67	0.78		4.70	0.41	5.46**	E < N
Earlier Onset	*22*	4.06	0.63			3.42	0.49			3.72	0.76			4.45	0.55		
Later Onset	*32*	3.98	0.66			3.49	0.53			3.72	0.60			4.52	0.39		
Anxiety Disorders[a]																	
No Disorder	*245*	4.12	0.64	1.09		3.57	0.41	0.96		3.85	0.67	2.03		4.68	0.41	2.26	
Earlier Onset	*22*	3.95	0.55			3.55	0.40			3.71	0.63			4.57	0.47		
Later Onset	*15*	3.96	0.35			3.41	0.46			3.52	0.58			4.47	0.52		
Alcohol/Drug Dependence[b]																	
No Disorder	*220*	4.13	0.62	1.19		3.60	0.39	5.83**	E < N	3.87	0.66	2.95		4.69	0.42	3.71*	
Earlier Onset	*14*	4.01	0.54			3.27	0.53			3.48	0.56			4.46	0.44		
Later Onset	*48*	3.99	0.68			3.46	0.45			3.72	0.71			4.55	0.44		

*p < .05; **p < .01; ***p < .001. *Notes*: N=no onset; E=ealier onset; L=later onset. All significant group contrasts (post hoc) are at the .05 level or greater (.01, .001). Possible range is 1-5 for family support, emotional reliance, optimism, mastery and self-esteem and 1-4 for friend support, family contact, friend contact, and mattering. [a]Cut-off for early vs. late onset is 15 years old (early is less than 15 years; late is equal to or greater than 15 years). [b]Cut-off for early vs. late onset is 16 years old (early is less than 16 years; late is equal to or greater than 16 years).

Appendix E. Means on Social Support and Psychosocial Resources by Disorder and Age of Onset among *Non-Cuban Hispanic* (N = 289)

		Family Contact				Friend Contact				Family Support				Friend Support			
	N	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts
Depression[a]																	
No Disorder	*238*	2.68	1.06	0.80		3.46	0.74	0.80		3.71	0.57	0.99		3.42	0.54	0.09	
Earlier Onset	*14*	2.86	0.95			3.64	0.63			3.49	0.60			3.46	0.52		
Later Onset	*37*	2.89	0.91			3.35	0.82			3.72	0.60			3.46	0.59		
Anxiety Disorders[a]																	
No Disorder	*247*	2.74	1.03	1.77		3.47	0.73	0.27		3.73	0.56	5.76**	L < N	3.45	0.53	0.67	
Earlier Onset	*17*	2.88	0.86			3.41	1.00			3.72	0.53			3.31	0.74		
Later Onset	*25*	2.36	1.15			3.36	0.81			3.33	0.59			3.37	0.56		
Alcohol/Drug Dependence[b]																	
No Disorder	*224*	2.76	1.02	1.49		3.45	0.74	0.06		3.72	0.59	1.05		3.44	0.55	0.33	
Earlier Onset	*16*	2.31	0.95			3.44	0.81			3.51	0.53			3.36	0.53		
Later Onset	*49*	2.65	1.15			3.49	0.77			3.67	0.51			3.39	0.54		

		Mastery				Mattering				Optimism				Self-Esteem			
	N	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts
Depression[a]																	
No Disorder	*238*	3.91	0.60	3.62*		3.46	0.42	2.86		3.67	0.63	4.54*	E < N	4.56	0.49	4.00*	E < N
Earlier Onset	*14*	3.66	0.74		E < L	3.20	0.65			3.19	1.04		E < L	4.21	0.91		E < L
Later Onset	*37*	4.13	0.57			3.37	0.50			3.81	0.64			4.66	0.40		
Anxiety Disorders[a]																	
No Disorder	*247*	3.94	0.62	0.65		3.45	0.42	1.64		3.69	0.65	3.56*	L < N	4.56	0.49	0.84	
Earlier Onset	*17*	3.91	0.57			3.48	0.42			3.73	0.65			4.61	0.60		
Later Onset	*25*	3.79	0.51			3.29	0.62			3.33	0.76			4.43	0.61		
Alcohol/Drug Dependence[b]																	
No Disorder	*224*	3.93	0.61	0.02		3.46	0.42	1.03		3.72	0.62	4.83**	E < N	4.59	0.46	3.13*	
Earlier Onset	*16*	3.89	0.79			3.33	0.61			3.24	0.94			4.28	0.92		
Later Onset	*49*	3.92	0.52			3.39	0.50			3.55	0.72			4.50	0.52		

*p < .05; **p < .01; ***p < .001. *Notes*: N=no onset; E=ealier onset; L=later onset. All significant group contrasts (post hoc) are at the .05 level or greater (.01, .001). Possible range is 1-5 for family support, emotional reliance, optimism, mastery and self-esteem and 1-4 for friend support, family contact, friend contact, and mattering. [a]Cut-off for early vs. late onset is 15 years old (early is less than 15 years; late is equal to or greater than 15 years). [b]Cut-off for early vs. late onset is 16 years old (early is less than 16 years; late is equal to or greater than 16 years).

Appendix F. Means on Social Support and Psychosocial Resources by Disorder and Age of Onset among *African Americans* (N = 285)

		Family Contact				Friend Contact				Family Support				Friend Support			
	N	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts
Depression[a]																	
No Disorder	*246*	2.85	0.95	2.60		3.45	0.86	0.30		3.77	0.55	4.70**		3.37	0.66	1.77	
Earlier Onset	*7*	2.14	1.21			3.29	0.95			3.29	0.62			3.00	0.88		
Later Onset	*32*	2.59	1.10			3.34	0.94			3.53	0.69			3.21	0.63		
Anxiety Disorders[a]																	
No Disorder	*237*	2.83	0.96	0.64		3.45	0.84	0.44		3.77	0.56	3.92*	L < N	3.36	0.64	0.7	
Earlier Onset	*20*	2.60	1.19			3.45	1.10			3.61	0.52			3.26	0.85		
Later Onset	*28*	2.71	1.08			3.29	0.98			3.48	0.65			3.23	0.74		
Alcohol/Drug Dependence[b]																	
No Disorder	*251*	2.86	0.97	3.11*		3.43	0.86	0.01		3.76	0.56	3.37*	L < N	3.38	0.65	2.52	
Earlier Onset	*5*	2.40	1.34			3.40	0.55			3.94	0.36			3.20	0.56		
Later Onset	*29*	2.41	0.98			3.41	0.98			3.48	0.61			3.09	0.80		

		Mastery				Mattering				Optimism				Self-Esteem			
	N	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts	Mean	SD	F	Sig. Contrasts
Depression[a]																	
No Disorder	*246*	3.95	0.69	3.36*	E < N	3.49	0.47	6.24**	E < N	3.72	0.63	5.78**	E < N	4.72	0.36	10.84***	E, L < N
Earlier Onset	*7*	3.29	0.34			2.89	1.12			2.93	0.54		E < L	4.17	1.20		
Later Onset	*32*	3.88	0.73			3.34	0.45			3.57	0.71			4.41	0.75		
Anxiety Disorders[a]																	
No Disorder	*237*	3.96	0.67	2.16		3.47	0.49	0.48		3.73	0.64	2.79		4.69	0.44	1.79	
Earlier Onset	*20*	3.85	0.78			3.40	0.61			3.45	0.67			4.54	0.74		
Later Onset	*28*	3.69	0.73			3.39	0.45			3.51	0.69			4.56	0.39		
Alcohol/Drug Dependence[b]																	
No Disorder	*251*	3.94	0.69	0.27		3.48	0.48	2.55		3.71	0.64	2.02		4.68	0.45	2.03	
Earlier Onset	*5*	4.03	0.42			3.56	0.33			3.47	0.73			4.77	0.25		
Later Onset	*29*	3.85	0.73			3.26	0.60			3.48	0.68			4.51	0.62		

*p < .05; **p < .01; ***p < .001. *Notes*: N=no onset; E=ealier onset; L=later onset. All significant group contrasts (post hoc) are at the .05 level or greater (.01, .001). Possible range is 1-5 for family support, emotional reliance, optimism, mastery and self-esteem and 1-4 for friend support, family contact, friend contact, and mattering. [a]Cut-off for early vs. late onset is 15 years old (early is less than 15 years; late is equal to or greater than 15 years). [b]Cut-off for early vs. late onset is 16 years old (early is less than 16 years; late is equal to or greater than 16 years).

Appendix G. Study Consent Form

University of Miami Consent Form

Project Titled: Understanding Drug Use Trajectories: Ethic Contrasts

Investigators: R. Jay Turner, PhD, Dale Chitwood, PhD, George Warheit, PhD.

We are asking you to participate in a research project. The researcher/interviewer will explain the present study to you. Please ask the researcher/interviewer any questions you have to help you understand this project. If you decide to participate in this project, please sign this form. You will be given a copy of this form to keep.

1. You are invited to participate in a study that aims to find out how young adults feel about themselves, their family and friends and about social and emotional problems they may have experienced in their lifetime. We will also be asking some questions about cigarettes, alcohol and drug use. You have been selected for this study because you took part in a similar study when you were in middle school or junior high school (NOTE: will delete this statement for the 500 girls who will be new to the study.)

2. If you decide to participate, a researcher/interviewer will ask you questions about your social support, mood, drug use and background information. The interview will take about 90 minutes to complete. All participants will be asked to complete a similar interview in approximately two years. In return for completing each interview, we will pay you $25.

3. Your participation in this study will help us develop programs focused on young adult developmental problems. However, we cannot promise that you will personally receive any benefits from the study.

4. Participation in voluntary. Do not feel obliged to answer any questions that cause you emotional discomfort. Names of counselors can be provided if you do feel emotionally upset as a result of this interview.

5. The information you give us will never be shared with your parents. Code numbers, not names, will be written on the questionnaires, and the list which links code numbers to names will remain locked in the files of the director of the research project. Your records will be kept confidential to the extent permitted by law. Your records may also be reviewed for audit purposes by authorized University of Miami employees or other agents who will be bound by the same provisions of confidentiality.

Appendix G (continued). Study Consent Form

6. As an additional protection, we have obtained a Certification of Confidentiality (DA-97-74) from the Department of Health and Human Services. This certificate affords the Principal Investigator the privilege of withholding the names and other identifying information from all persons not connected with the conduct of this research.

7. Your decision whether or not to participate will not prejudice your present or future relations with the University of Miami. If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time.

8. If you have any questions, please ask us now. If you have any additional questions later, Dr. Turner, Department of Sociology, University of Miami, 284-3129, will be happy to answer them. If you have questions regarding your rights as a research subject, you may contact Maria Arnold, Institutional Review Board, 243-3327.

9. Your signature acknowledges that you have read the information provided, have asked any questions you have about the project, and agree to participate in the study. You will be given a copy of this form.

Participant ____________________________________ Date _____________

Appendix H. IRB Approval

Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(850) 644-8673 · FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 5/17/2006

To:
Mathew Gayman
526 Bellamy Building
Tallahassee, FL 32306

Dept.: **SOCIOLOGY**

From: **Thomas L. Jacobson, Chair**

Re: **Use of Human Subjects in Research**
Social and Psychosocial Consequences of the Age at Onset for Psychiatric and Substance Problems

The forms that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be Exempt per 45 CFR § 46.101(b) 2 and has been approved by an accelerated review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If the project has not been completed by **5/16/2007** you must request renewed approval for continuation of the project.

You are advised that any change in protocol in this project must be approved by resubmission of the project to the Committee for approval. Also, the principal investigator must promptly report, in writing, any unexpected problems causing risks to research subjects or others.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols of such investigations as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Protection from Research Risks. The Assurance Number is IRB00000446.

Cc: Donald Lloyd
HSC No. 2006.0415

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BIOGRAPHICAL SKETCH

I received my B.S. in Business—Marketing (1999) and M.A. in Sociology (2003) at Indiana University, Indianapolis. I received my M.S. (2005) and Ph.D. (2008) in Sociology at Florida State University. In 2008, I was awarded a Postdoctoral Fellowship from the Cecil G. Sheps Center for Health Services Research—University of North Carolina, Chapel Hill. In 2007, I was awarded a research fellowship from the National Hispanic Science Network (NIH, NIDA) and the Louise Johnson Scholar Award (ASA, Medical Sociology). I have served as the project manager of a NIMH funded study under the direction of Dr. Eric R. Wright (*Indiana HIV/AIDS Risk and Services Study*) and served as a research assistant on two large-scale community-based epidemiological studies funded by NIDA under the direction of Dr. R. Jay Turner (*Transitions: A Study of Stress and Well Being in Young Adulthood* and *Physical Challenge and Health Study*). I have published in *AIDS and Behavior* and *Journal of Emergency Nursing*. My research interests include health services, life-course epidemiology, mental health, medical sociology, race-ethnicity and health, social psychology, health and aging, social networks, gender and health, and HIV/AIDS.