PREDICTORS OF PSYCHOLOGICAL WELL-BEING IN INNER-CITY WOMEN: EXAMINING TRAJECTORIES OF RESISTANCE, RESILIENCE, AND DISTRESS

A dissertation submitted to Kent State University in partial fulfillment of the requirements for the degree of Doctor of Philosophy

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DEDICATION

This dissertation is dedicated to my father, Lucien Francois Lamoureux, Jr., who taught me the transformative power of knowledge and inspired me to never stop learning.
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CHAPTER 1

Introduction

The lives of inner-city women are inherently stressful. They are more likely to encounter poverty, poor access to education, stress related to gender and ethnic minority status, and experiences of both childhood and adult abuse (Albee, 1986; Belle, 1990; Bowen, Desimone, & McKay, 1995; Cadzow, Armstrong, & Fraser, 1999; Jones & McCurdy, 1992; Kotch et al., 1995; McLoyd, 1990; Neighbors & Jackson, 1997; Turner, Wheaton, & Lloyd, 1995). These chronic stressors also increase inner-city women’s likelihood of encountering more acute stressors and their vulnerability to such stressful experiences (e.g., Schumm, Stines, Hobfoll, & Jackson, 2005). Despite these various risk factors for symptoms of psychopathology, a significant portion of these women are able to cope and experience little distress. Using conservation of resources (COR; Hobfoll, 1988, 1989, 1998) as a theoretical backdrop, the present study seeks to elucidate factors that differentiate inner-city women who are experiencing few or no symptoms of posttraumatic stress and depression from those women who are experiencing more symptoms of psychological distress. In so doing, this study ventures to reveal pathways through which chronic and acute stressors, as well as personal and social resources, impact psychological resilience for these women. Importantly, these pathways would highlight potential avenues through which to foster resilience in inner-city women.
1.1 Psychological Resilience

Psychological resilience first emerged as a topic of interest in the human development literature of the 1970’s (Masten & Coatsworth, 1998). In this literature, resilience is identified as children or adolescents “doing well” in spite of various factors which threaten positive developmental outcomes (Anthony, 1974; Garmezy, 1974; Murphy & Moriarty, 1976; Rutter, 1979). More recently, investigations of adult resilience have emerged. Bonanno (2004) defines adult resilience as “the ability of adults in otherwise normal circumstances who are exposed to an isolated and potentially highly disruptive event, such as the death of a close relation or a violent or life-threatening situation, to maintain relatively stable, healthy levels of psychological and physical functioning,” (p.20). This definition reflects that the majority of researchers who study adult resilience have been concerned with the effects of bereavement and traumatic stress. As in the developmental research, studies indicate that adult resilience in the face of adversity is quite common (Bonanno, 2004). Across a body of research, Bonanno and colleagues have found that 35-65% of individuals exposed to potentially traumatic events exhibit resilience (Bonanno, Mancini, DeRoon-Cassini, & Rusch, 2010).

Thus, the majority of the research has examined adult resilience in the context of an isolated, or acute, major stressor, such as the loss of a loved one (Bonanno, Moskowitz, Papa, & Folkman, 2005; Bonanno et al., 2002) or a terrorist attack (Bonanno, Rennicke, & Dekel, 2005; Galea et al., 2002). Less research has examined the prevalence of adult resilience in the face of significant ongoing, or chronic, stressors. Bonanno and colleagues (2007) considered this discrepancy and found that both recent and past life
stressors, including prior trauma, were significant predictors of resilience in the face of an acute stressor. Yet, stress research reveals that chronic and acute stressors may impact psychological functioning differently (Eckenrode, 1984; Hobfoll, 1989; Turner et al., 1995). Importantly, chronic stress often has both direct and indirect (i.e., leading to more acute stresses) consequences for psychological well-being (Hall, Williams, & Greenberg, 1985; Holahan, Moos, Holahan, & Brennan, 1997; McFarlane, Norman, & Streiner, 1983; Pearlin, Lieberman, Menaghan, & Mullan, 1981; Ross & Huber, 1985). An exception to this focus on acute stress events is a recent study by Hobfoll and colleagues (2009) investigating resilience in a national sample of Israeli Jews and Arabs subjected to ongoing terrorism and likelihood of war. Notably, they found that resilience in response to chronic stressors may not be as common as resilience in the face of acute stress, with 22.1% and 13.5% demonstrating resistance and resilience, respectively (Hobfoll et al., 2009).

Importantly, adult resilience research is not concerned with the presence or absence of a psychiatric diagnosis, nor with the prevalence of happiness or optimism, though these constructs are certainly related. Resilience is instead characterized by a relative lack of symptoms of psychopathology, which indicate “healthy” psychological functioning in the face of significant threat or adversity. Most commonly, researchers have operationalized resilience in terms of posttraumatic stress and depressive symptoms (Bonanno, Galea, Bucciarelli, & Vlahov, 2006, 2007; Hobfoll, Palmieri, Johnson, Canetti-Nisim, Hall, & Galea, 2009). Definitions of resilience also indicate the importance of looking at resilience over time, as a process rather than a discrete outcome.
Thus, recent research has examined trajectories of psychological well-being determined by a relative lack of symptoms at two or more time points (Bonanno et al., 2007; Hobfoll et al., 2009; Layne, Warren, Shalev, & Watson, 2007; Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2007).

1.2  The Role of Resources in Resilience

A central tenet of conservation of resources (COR) theory is that people strive to obtain and maintain resources (Hobfoll, 1988, 1989, 1998). Critical resources include material resources (e.g., personal transportation, adequate clothing), work-related resources (e.g., stable employment, support from coworkers), energy resources (e.g., time for adequate sleep, money for transportation), family interpersonal resources (e.g., intimacy with spouse or partner, family stability), and general interpersonal resources (e.g., feeling valuable to others, affection from others). Both the acute loss and chronic lack of critical resources are stressful. During times of stress, people mobilize their available resources to cope with initial resource loss and to prevent additional loss.

COR theory hypothesizes that resource loss increases risk for symptoms of psychological distress, including PTSD and depression (Hobfoll, 1988, 1989, 2001; Hobfoll & Lilly, 1993). COR theory further posits that there is a bidirectional downward spiral between resource loss and psychological distress, such that resource loss contributes to psychological distress, which, in turn, leads to a further loss of resources. These phenomena have been termed resource loss spirals, and both directions of this effect have been borne out in empirical investigations (Holahan, Moos, Holahan, &
Cronkite, 1999; Johnson et al., 2007; Lamoureux, Palmieri, Jackson, Johnson, & Hobfoll, 2010; King, King, Foy, Keane, & Fairbank, 1999; Schumm, Hobfoll, & Keogh, 2004). When individuals face a chronic lack of resources, they may be ill equipped to cope with even minor stressors and may be unable to halt loss spirals once they begin.

Because resources are an essential component of people’s strategies for coping with stress, they are fundamentally tied to the study of resilience. Those people who consistently experience less resource loss demonstrate more resiliency and fewer negative outcomes from stressful or traumatic events over time (Hobfoll, Johnson, Ennis, & Jackson, 2003; Holahan et al., 1999; King et al., 1999). Likewise, the presence of resources appropriate to offset a particular stressor can prevent further loss, thereby fostering resilience (Hobfoll, Ennis, & Kay, 2000). Empirical investigations of the relationship between resiliency and resources have consistently found that maintaining resources in the face of both chronic and acute stressors is a robust predictor of resilience (Bonanno et al., 2007; Hobfoll et al, 2009; Norris, Friedman, Watson, Byrne, Diaz, & Kaniasty, 2002).

A few key resources seem to be essential to one’s ability to cope in stressful situations. These resiliency resources reflect “a sense of competency and esteem... and of connectedness to the broader community,” (Moen, 1997, p. 133). Research consistently demonstrates that people with stronger personal (self-esteem, self-efficacy) and social (social support) resources may better withstand both chronic and acute stress (Bandura, 1997; Belle, 1990; Bleich, Gelkopf, Melamed, & Solomon, 2006; Bonanno et al., 2007; Bolger, Vinokur, Foster, & Ng, 1996; Cohen & Wills, 1985; Kobasa &
Puccetti, 1983; Galea et al., 2002; Norris et al., 2002; Norris & Kaniasty, 1996; Parry, 
1986; Sarason, Sarason, Shearin, & Pierce, 1987). Yet, ongoing stress may eventually 
diminish these resources, increasing vulnerability to both depression and PTSD (Brewin, 
Andrews, and Valantine, 2000; Cutrona & Troutman, 1986; Dohrenwend, 2000; Pearlin 

1.3 Resilience in Inner-City Women

A sizable body of literature has documented inner-city women’s disproportionate 
experience of poverty, lack of education, stress due to minority status, and gender power 
imbalances (Albee, 1986; Belle, 1990; Bowen et al., 1995; McLoyd, 1990; Turner et al., 
1995). These experiences have been linked to greater symptoms of both PTSD and 
depression (Benotsch et al., 2000; Bonanno et al., 2007; Ennis, Hobfoll, & Schröder, 
2000; Hobfoll et al., 2003; Holohan, Moos, Holohan, & Cronkite, 1999, 2000; Kaniasty 
These factors are hypothesized to impact psychological functioning insofar as they reflect 
having less access to psychosocial and financial resources (Belle, 1990; Bonanno et al., 
these women more vulnerable to acute stressors and heightens the impact of these events 
as loss begets further loss and chronic resource lack makes recovery more difficult 
(Bowen et al., 1995; Dohrenwend & Dohrenwend, 1981; Jackson, 1993; Johnson & 
Zlotnick, 2006; Kessler & Cleary, 1980; Parry, 1986).
Inner-city women are also more likely than other women to have experienced childhood abuse (CA) (Cadzow et al., 1999; Jones & McCurdy, 1992; Kotch et al., 1995). The negative effects of CA on psychological functioning in adulthood are well-documented, particularly related to increased risk of PTSD and depression (Breslau et al., 1998; Kessler, 2000; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; King et al., 1999; Lamoureux et al., 2009; Schumm et al., 2004, 2005; Stines, Suniga, Keogh, & Hobfoll, 2005; Vranceanu, Hobfoll, & Johnson, 2007, 2010; Widom, 1999). It is important to note, however, that the effects of CA may vary. Many women in non-clinical samples may experience far less distress in response to CA than some research may suggest (Rind & Tromovich, 1997; Rind, Tromovich, & Bauserman, 1998). That said, findings indicate that for inner-city women the experience of CA may lead to more stressful experiences in adulthood and act as an experiential diathesis, increasing their vulnerability to these future stressors (Schumm et al., 2005). One example of this effect is the greater incidence of adulthood sexual abuse among women who have experienced CA, which in turn may lead to further symptoms of PTSD and depression (King et al., 1999; Nishith, Mechanic, & Resick, 2000; Schaaf & McCanne, 1998; Schumm et al., 2004).

In addition to experiencing more life stress and resources loss in general, inner-city women who have experienced CA are more likely to have difficulty maintaining personal and social resiliency resources. Early experiences of abuse may undermine the development of the personal resiliency resources self-esteem and self-efficacy as they lead children to feel worthless, unloved (or loved conditionally), powerless to improve
their situation, and defeated. Deficits in self-esteem and self-efficacy can, in turn, increase vulnerability to symptoms of PTSD and depression (Benight & Bandura, 2004; Johnson, Palmieri, Jackson, & Hobfoll, 2007; McCann, Sakheim, & Abrahamson, 1988; Vranceanu et al., 2010; Zlotnick, Johnson, & Kohn, 2006). Early interpersonal traumas may also have a profound impact on interpersonal functioning later in life, and this translates into losses of interpersonal resources that worsen over time (Lamoureux et al., 2010; Neumann, Houskamp, Pollock, & Briere, 1996). Conversely, if these women are able to maintain positive relationships by establishing trust and intimacy with others, these interpersonal resources can serve as a powerful resiliency resource. A number of studies have tested models in which interpersonal or social resources mediate the relationship between CA experiences and symptoms of PTSD or depression and have found that interpersonal resource loss in particular is related to increased symptoms of PTSD and depression (Schumm et al., 2004, 2005, 2006; Stines et al., 2005; Vranceanu, et al., 2007, 2010). Moreover, worsening symptoms of PTSD and depression may lead to further loss of interpersonal resiliency resources, making for a powerful resource loss spiral (Johnson et al., 2007; Lamoureux et al., 2010).

1.4 The Present Study

To date, the vast majority of the research on psychological functioning in inner-city women has focused on psychopathology, rather than psychological resilience. So, although the impact of both chronic and acute stressors for inner-city women has been demonstrated in the aforementioned literature in terms of psychopathology, we know
little about how these factors relate to psychological resilience. The present study sought to integrate the existing research on psychological resilience with what is known about the impact of these life stresses on symptoms of psychopathology for inner-city women. In so doing, the present study endeavored to identify factors that impact psychological resilience in inner-city women.

Although much of the extant literature on resilience has focused on individuals who have experienced a common, discrete event, this study focused on women who experience a multitude of stressors in the course of their daily lives. This approach is somewhat similar to Hobfoll and colleagues’ (2009) investigation of resilience in the face of ongoing terrorist attacks, but differs in some potentially important ways. First, the chronic stressors that these women face, such as poverty, ethnic minority status, and lack of access to education, are embedded in the modern society and are thus often present from birth. It is possible that these women have never known life to be any other way. The current investigation took a lifetime perspective on the effects of chronic stress on psychological well-being by considering the impact of past experiences of abuse on adulthood resilience and the tendency of chronic stressors to lead to more acute stressors over time. Second, because these stressors are so intertwined in the fabric of society and would require extensive public resources over a lengthy period of time to alter, it is critical to understand what more immediate, person-level factors may foster resilience in these women (Albee, 1986; Belle, 1990). These factors of influence potentially highlight pathways for more immediately meaningful intervention in these women’s lives, both at an individual and community level.
To this end, the present study proposed four trajectories of psychological well-being to characterize the resiliency that inner-city women exhibit in the face of these ongoing stressors. First, women who consistently exhibit symptoms of disorder comprised the *chronic distress* trajectory. Second, women who consistently function in this stressful environment with minimal symptoms of disorder comprised the *resistance* trajectory. Third, women who initially exhibit more symptoms of disorder yet demonstrate improvements in psychological functioning comprised the *resilience* trajectory. Fourth and finally, women who initially exhibit minimal symptoms of disorder but evidence increased symptoms over time comprised the *delayed distress* trajectory. This study investigated the influence of demographic characteristics related to chronic stressors, more acute stressors, and personal and social resources with respect to these four trajectories via the following hypotheses.

1. Women in the resistance trajectory would demonstrate consistently lower levels of resource loss than women in the chronic distress trajectory over time as evidenced by higher levels of demographic characteristics associated with having more economic and material resources (e.g., higher income, higher education, and being a member of the majority ethnic group), lower levels of abuse (child physical, emotional, sexual; adult sexual), fewer acute stressors (resource loss and social conflict), and more resiliency resources (social support, self-efficacy, and self-esteem).

2. Women in the resilience trajectory will demonstrate decreasing levels of resource loss as compared to women in the chronic distress trajectory as evidenced by
fewer acute stressors and more resiliency resources over time. Furthermore, women with higher levels of demographic characteristics associated with having more economic and material resources and lower levels of abuse will be more likely to belong to the resilience trajectory than the chronic distress trajectory.

3. Women in the delayed distress trajectory will demonstrate increasing levels of resource loss as compared to women in the resistance trajectory as evidenced by more acute stressors and fewer resiliency resources over time. Additionally, women with lower levels of demographic characteristics associated with having more economic and material resources and higher levels of abuse will be more likely to belong to the delayed distress trajectory than the resistance trajectory.
CHAPTER 2

Method

2.1 Data Collection and Sample

A sample of 374 women was recruited from two obstetrics and gynecological clinics serving primarily low-income, inner-city populations as part of an ongoing HIV risk reduction project. Prior research has found these women to be representative of inner-city women because women come to the clinics free of charge, come when they are healthy (e.g., for birth control) or ill, and the clinics are the two main such service sites in the catchment area (Hobfoll, Jackson, Lavin, Johnson, & Schroder, 2002). Potential participants were approached by trained female psychology graduate students as they waited for their medical appointments. Women were considered eligible to participate in the study if they were between the ages of 16 and 29, not living with a partner for more than 6 months, and not in the third trimester of pregnancy. They were further required to respond positively to at least one of the following sexual risk factors: (a) having unprotected sex in the past 6 months, (b) having sex with more than one person in the past 6 months, (c) partner possibly having sex with more than one partner in the past six months, (d) self or partner using intravenous drugs, (e) partner in prison during the past five years, or (f) ever having a sexually transmitted disease. Women who met criteria for participation then provided informed consent. If the participant was under the age of 18, consent of the parent or guardian was obtained in addition to participant assent.
Questionnaires were administered orally by female psychology graduate students who underwent extensive training and ongoing supervision by two experienced, multiculturally-expert clinicians who themselves were women of color. This method ensured consistency of participants’ responses and proper understanding of the questions. The interviewers were trained to administer the questionnaire in a standard format, to provide proper explanation for questions should the content not be correctly comprehended, and in techniques for handling the sensitive issues addressed by the questionnaire. Interviewers reported to a clinical supervisor any symptom endorsement that met or exceeded recommended clinical cutoffs for depression or PTSD. Such participants were referred and contacted for follow-up accordingly. This study utilizes responses from pretest (time 1) and a 12-month follow-up (time 2).

Following the initial interview, participants were randomly assigned to one of three conditions in the Women’s Health Empowerment Study (for a more detailed description see Hobfoll et al., 2002): a small group, 6-session communally oriented HIV prevention intervention (ACCENT), a general health promotion intervention control (GAC) or (3) a standard care control (SCC). These interventions were designed to target sexual behavior, not psychological well-being. Thus, group membership was included in these analyses as two dummy-coded control variables to detect any unexpected effects of either intervention on study variables and remove any such effects from further steps of the regression.

2.2 Measures
Demographic variables included in the questionnaire were age, education (eighth grade or less, some high school, high school graduate, some college, college graduate), income (less than $10,000, $10,000 – $15,000, $15,000 – $25,000, more than $25,000), and race (African American, European American, Hispanic American, Asian American, other).

2.2.1 Experiences of Abuse

Childhood experiences of abuse were assessed at time 1 via the Childhood Trauma Questionnaire (CTQ; Bernstein et al., 1994). This questionnaire measures the frequency of abuse on a 5-point scale, with possible responses of “never true”, “rarely true”, “sometimes true”, “often true”, and “very often true”. These experiences were further divided into physical/emotional abuse and sexual abuse so that any separate influence of these types of abuse could be detected. Child physical and emotional abuse (CP/EA) was measured using the first five items of this scale which describe physical and emotional experiences of abuse. Child sexual abuse (CSA) was measured using 6 items from this scale which specifically relate to sexual experiences of abuse. Each of these subscales was summed to yield a total score. Adulthood sexual abuse (ASA) was measured using 6 items from the National Women’s Survey (NWS; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993) that assess frequency of various forced sexual experiences from the age of 16 onward. Responses are given as a numerical answer to the question “How many times has this occurred?” Items in each of these scales were summed to yield an overall severity score for each of these experiences of abuse. Because scores on each of these
scales reflect degrees of diverse experiences (such as with life events scales), there is no reason to expect that responses should be consistent across items. Thus, it is not appropriate to subject responses on these scales to analyses of internal consistency.

2.2.2 Detriments to Psychological Well-Being

Loss of resources and social conflict were assessed at both time 1 and time 2. The Conservation of Resources Evaluation (COR-E; Hobfoll & Lilly, 1993) was used to evaluate participants’ Loss of resources in the previous 3 months. Participants indicated the degree of loss (or threat of loss) of various interpersonal resources they had experienced along a 4 point scale, with possible responses of “no threat or loss”, “some threat or loss”, “a great deal of threat or loss”, or “not applicable”. Importantly, “loss” is reported relative to the amount of that particular resource the interviewee previously had so that the response reflects an actual loss of that resource in the previous 3 month time period and not a more chronic lack of that resource. Items in this scale were summed to yield a total score for loss of resources (possible range = 0-90). The COR-E has demonstrated adequate internal reliability and concurrent and predictive validity in community based samples (Hobfoll & Lilly, 1993; Schumm et al., 2004). Alpha for this sample was 0.92. Social conflict was assessed using 5 items addressing the frequency of interpersonal conflicts in the past 4 weeks. Participants indicated whether they had experienced problems, arguments, serious disagreements, excessive demands, and angry or upset feelings in their close relationships by responding from 1 (“never”) to 5 (“very often”). As with similar life events scales, responses to the items in this scale should not
necessarily be consistent across items, as having one kind of conflict does not portend having another. Thus, it is not appropriate to subject these responses to analysis of internal consistency. Items in this scale were summed to yield a total score for relationship conflict (possible range = 5-25).

2.2.3 Assets to Psychological Well-Being

Social support, self-efficacy, and self-esteem were assessed at both time 1 and time 2. Social support was measured using 10 items from the Social Provisions Scale (SPS; Cutrona & Russell, 1987). Women responded to questions about their current relationships with their friends and family by answering “no”, “sometimes”, “yes”, or “not sure”. Responses of not sure were treated as missing for these analyses. Items in this scale were summed to yield a total score to reflect lack of social support (possible range 0-30; \( \alpha > 0.83 \)). Self-Efficacy was measured using the General Self-Efficacy Scale (Schwarzer & Jerusalem, 1995). This 10 item self-report inventory assesses a general level of perceived self-efficacy using a 7 point Likert scale, ranging from 1 (“not at all true”) to 7 (“exactly true”). This instrument has been shown to demonstrate sufficient reliability (\( \alpha = .76-.90 \)) and criterion validity (Schwarzer & Born, 1997; Luszczynska, Scholz, & Schwarzer, 2005). Items in this scale were summed to yield a total self-efficacy score (possible range 10-70; \( \alpha > 0.81 \)). Self-Esteem was measured using the Rosenberg (1965) Self-Esteem Scale, a ten item self-report inventory. Participants responded to items along a 4 point Likert scale from 0 (“strongly agree”) to 3 (“strongly
disagree”). Item responses were summed to yield a total self-esteem score (possible range 0-30; α > 0.89).

2.2.4 Indicators of Psychological Well-Being.

Symptom severity for both depression and PTSD were measured at time 1 and time 2. Depressive symptom severity was assessed using the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). Women responded to 20 items assessing how often they had experienced the symptoms of depression in the past week on a 4 point scale from 0 (“rarely or none of the time”) to 3 (“most or all of the time”). Items in this scale which participants endorsed at the level of moderate or higher (i.e., a response of 2 or 3) were summed to yield a total severity score for depressive symptomatology. Internal consistency of the CES-D ranges from .76-.91 (Roberts, 1980), and alpha levels for this sample were greater than 0.89. PTSD symptom severity related to abuse or assault was measured using the PTSD Symptom Scale Interview (PSS-I; Foa, Riggs, Dancu, & Rothbaum, 1993). Participants were asked whether they had experienced a period in their lives when they felt very troubled or upset due to abuse or assault. Those women who responded negatively to this item were not asked any further questions about their PTSD symptoms and were assigned a scale score of zero. Those women who responded positively to this item then were asked to indicate how much they had experienced the various symptoms in the prior week from 1 (not at all) to 4 (very much). This scale has demonstrated strong reliability (α > .80-.90) and validity among similar, trauma-based populations (Foa et al., 1993; Norris & Riad, 1997;
Schumm et al., 2005). Items in this scale which participants endorsed at the level of moderate or higher (i.e., a response of 3 or 4) were summed to yield a total severity score for PTSD symptomatology ($\alpha > 0.95$).

### 2.3 Operationalizing Resilience and Creating Trajectories

The most common methods of operationalizing resilience involve using zero or one symptom of PTSD and/or depression to indicate resilience and more than one symptom to indicate distress (Bonanno et al., 2006, 2007; Hobfoll et al., 2009). These criteria are taken from the standard of depression and bereavement researchers in operationalizing the absence of depression (Judd, Akiskal, & Paulus, 1997; Zisook, Paulus, Shuchter, & Judd, 1997). Although data on the prevalence of PTSD symptoms in the absence of exposure to a traumatic event are relatively limited, one previous study reported that the normal range for PTSD symptoms for healthy functioning was two or fewer symptoms (Bonanno et al., 2005). Because the baseline symptoms of PTSD and depression for inner-city women are typically higher than in the general population, the current study will utilize a more liberal definition of psychological well-being.

To assess participants’ psychological well-being over time, each participant was categorized as either resistant or distressed at baseline (time 1) and 12-month follow-up (time 2). Participants in this study were considered to be demonstrating psychological resistance at a given time point if they endorsed three or fewer symptoms of both PTSD and depression at a level of moderate or higher. For example, a resistant participant at time 1 would have endorsed no more than three PTSD symptoms and no more than three
Participants were then categorized into one of four trajectories based on their psychological well-being at these two time points (as in Hobfoll et al., 2009). Those participants who were distressed at both time 1 and time 2 were assigned to the chronic distress trajectory. Alternately, those participants who were resistant at both time 1 and time 2 were assigned to the resistance trajectory. Those participants who were distressed at time 1 but resistant at time 2 were assigned to the resilience trajectory. Finally, those participants who were resistant at time 1, but distressed at time 2 were assigned to the delayed distress trajectory.

2.4 Analytic Plan

To investigate hypotheses 1 and 2, I conducted parallel bivariate logistic regression analyses in which the resistance and resilience trajectory groups were compared to the chronic distress trajectory group. To investigate hypothesis 3, I conducted a bivariate logistic regression comparing the delayed distress trajectory to the resistance trajectory. Predictors were entered hierarchically into each regression model as follows: the first block included demographic variables with race coded as European American (0) versus Ethnic Minority (1); the second block included two dummy-coded intervention variables, ACCENT (1) versus not (0) and GAC (1) versus not (0); the third block included abuse variables; the fourth block included time 1 loss of resources and social conflict; the fifth block included time 1 social support, self-efficacy, and self-esteem; the sixth block included time 2 loss of resources and social conflict; the seventh block included time 2
social support, self-efficacy, and self-esteem. All analyses were conducted with SPSS 13.0 software (SPSS Inc., 2005). Statistical tests within the logistic regressions were evaluated for significance at the alpha less than .05.

Effect sizes for study results were evaluated in terms of odds ratios (OR), with an OR $\geq 1.3$ corresponding to a small effect size, an OR $\geq 1.5$ corresponding to a medium effect size, and an OR $\geq 2$ corresponding to a large effect size (Bedard, Krzyzanowska, Pintilie, & Tannock, 2007). *A priori* power analyses indicated sufficient sample sizes to detect a medium to large effect for each analysis using a power level of .80 and an alpha level of .05. However, there was some concern that the low response rate for the delayed distress trajectory and a possible lack of power would be problematic for the analysis investigating hypothesis 3. All power analyses were conducted with PASS 2008 software (Hintze, 2008).
CHAPTER 3

Results

3.1 Sample Characteristics

Sample characteristics for both the full sample and organized by trajectory are presented in Tables 1 and 2. The following demographics describe the total sample. African American women comprised over two-thirds of the sample (265; 70.9%), with European American women constituting nearly one quarter (89; 23.8%). The mean age of participating women was 22 years (SD = 3.73), with a range of 16 to 29 years of age. In terms of formal education, 216 (57.8%) women had attained at least high school diploma. The majority (223; 59.6%) of women reported an annual household income of less than $10,000. Women were relatively evenly divided into each of the three intervention groups, with 137 (36.6%), 113 (30.2%), and 124 (33.2%) women in ACCENT, GAC, and SCC, respectively. In terms of childhood abuse exposure, 357 (95.5%) of participants reported experiencing some degree of physical or emotional abuse while less than half (152; 40.6%) reported experiences of sexual abuse. Slightly over one-third (138; 36.9%) of participants reported adulthood experiences of sexual abuse.
Table 1
Sample Characteristics and Bivariate Associations between Study Variables and Resilience Trajectories for Categorical Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Full Sample ( (N = 374^1) )</th>
<th>Chronic Distress ( (n = 122^2) )</th>
<th>Resistance ( (n = 110^3) )</th>
<th>Resilience ( (n = 110^3) )</th>
<th>Delayed Distress ( (n = 32^2) )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>( \chi^2_a )</td>
<td>n (%)</td>
<td>( \chi^2_b )</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \leq ) eighth grade</td>
<td>6(1.6%)</td>
<td>4(3.3%)</td>
<td>-</td>
<td>-</td>
<td>2(6.3%)</td>
</tr>
<tr>
<td>Some HS</td>
<td>150(40.1%)</td>
<td>59(48.4%)</td>
<td>37(33.6%)</td>
<td>43(39.1%)</td>
<td>11(34.4%)</td>
</tr>
<tr>
<td>HS graduate</td>
<td>121(32.4%)</td>
<td>37(30.3%)</td>
<td>36(32.7%)</td>
<td>40(36.4%)</td>
<td>8(25.0%)</td>
</tr>
<tr>
<td>Some college</td>
<td>83(22.2%)</td>
<td>20(16.4%)</td>
<td>30(27.3%)</td>
<td>23(20.9%)</td>
<td>10(31.3%)</td>
</tr>
<tr>
<td>College graduate</td>
<td>12(3.2%)</td>
<td>2(1.6%)</td>
<td>6(5.5%)</td>
<td>4(3.6%)</td>
<td>-</td>
</tr>
<tr>
<td>Income</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $10,000</td>
<td>223(59.6%)</td>
<td>88(72.1%)</td>
<td>56(50.9%)</td>
<td>61(55.5%)</td>
<td>18(56.3%)</td>
</tr>
<tr>
<td>$10,000 – $15,000</td>
<td>65(17.4%)</td>
<td>14(11.5%)</td>
<td>28(25.5%)</td>
<td>19(17.3%)</td>
<td>4(12.5%)</td>
</tr>
<tr>
<td>$15,000 – $25,000</td>
<td>40(10.7%)</td>
<td>9(7.4%)</td>
<td>12(10.9%)</td>
<td>14(12.7%)</td>
<td>5(15.6%)</td>
</tr>
<tr>
<td>More than $25,000</td>
<td>43(11.5%)</td>
<td>10(8.2%)</td>
<td>13(11.8%)</td>
<td>15(13.6%)</td>
<td>5(15.6%)</td>
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<tr>
<td>Race</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>African American</td>
<td>265(70.9%)</td>
<td>86(70.5%)</td>
<td>87(79.1%)</td>
<td>73(66.4%)</td>
<td>19(59.4%)</td>
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<tr>
<td>European American</td>
<td>89(23.8%)</td>
<td>25(20.5%)</td>
<td>22(20.0%)</td>
<td>29(26.4%)</td>
<td>13(40.6%)</td>
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<td>Hispanic American</td>
<td>2(0.5%)</td>
<td>1(0.8%)</td>
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<td>1(0.9%)</td>
<td>-</td>
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<tr>
<td>Asian American</td>
<td>2(0.5%)</td>
<td>1(0.8%)</td>
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<td>1(0.9%)</td>
<td>-</td>
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<tr>
<td>Other</td>
<td>16(4.3%)</td>
<td>9(7.4%)</td>
<td>1(0.9%)</td>
<td>6(5.5%)</td>
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<td>Group</td>
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<tr>
<td>ACCENT</td>
<td>137(36.6%)</td>
<td>47(38.5%)</td>
<td>48(43.6%)</td>
<td>28(25.5%)</td>
<td>14(43.8%)</td>
</tr>
<tr>
<td>GAC</td>
<td>113(30.2%)</td>
<td>38(31.1%)</td>
<td>33(30.0%)</td>
<td>35(31.8%)</td>
<td>7(21.9%)</td>
</tr>
<tr>
<td>SCC</td>
<td>124(33.2%)</td>
<td>37(30.0%)</td>
<td>29(26.4%)</td>
<td>47(42.7%)</td>
<td>11(34.4%)</td>
</tr>
</tbody>
</table>

Note.  \( a = \) comparison to chronic distress trajectory; \( b = \) comparison to resistance trajectory; HS = high school.

\( \$ p < .10. \ * p < .05. \ ** p < .01. \ *** p < .001. \)
### Table 2
Sample Characteristics and Bivariate Associations between Study Variables and Resilience Trajectories for Continuous Variables

<table>
<thead>
<tr>
<th></th>
<th>Full Sample (N = 374)</th>
<th>Chronic Distress (n = 122)</th>
<th>Resistance (n = 110)</th>
<th>Resilience (n = 110)</th>
<th>Delayed Distress (n = 32)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>21.58(3.73)</td>
<td>22.20(3.84)</td>
<td>21.30(3.78)</td>
<td>1.79§</td>
<td>21.55(3.67)</td>
</tr>
<tr>
<td><strong>CP/EA</strong></td>
<td>7.74(5.35)</td>
<td>9.94(5.86)</td>
<td>5.37(3.92)</td>
<td>6.89***</td>
<td>7.55(5.18)</td>
</tr>
<tr>
<td><strong>CSA</strong></td>
<td>3.70(6.23)</td>
<td>6.21(7.44)</td>
<td>1.73(4.53)</td>
<td>5.47***</td>
<td>2.99(5.41)</td>
</tr>
<tr>
<td><strong>ASA</strong></td>
<td>2.79(11.23)</td>
<td>4.23(12.10)</td>
<td>1.75(10.98)</td>
<td>1.63</td>
<td>2.82(11.96)</td>
</tr>
<tr>
<td><strong>T1</strong></td>
<td><strong>Resource Loss</strong></td>
<td>19.36(13.44)</td>
<td>25.84(13.86)</td>
<td>13.18(10.47)</td>
<td>7.73***</td>
</tr>
<tr>
<td><strong>Social Conflict</strong></td>
<td>17.20(5.29)</td>
<td>19.84(4.68)</td>
<td>14.40(5.11)</td>
<td>8.46***</td>
<td>17.14(4.74)</td>
</tr>
<tr>
<td><strong>T2</strong></td>
<td><strong>Resource Loss</strong></td>
<td>16.07(12.30)</td>
<td>23.75(13.34)</td>
<td>10.60(9.60)</td>
<td>8.52***</td>
</tr>
<tr>
<td><strong>Social Conflict</strong></td>
<td>15.38(5.78)</td>
<td>18.61(5.15)</td>
<td>19.92(2.38)</td>
<td>8.14***</td>
<td>18.76(3.38)</td>
</tr>
<tr>
<td><strong>Social Support</strong></td>
<td>16.15(4.71)</td>
<td>13.25(4.89)</td>
<td>18.45(3.80)</td>
<td>-8.67***</td>
<td>16.83(3.94)</td>
</tr>
<tr>
<td><strong>Self-Efficacy</strong></td>
<td>52.60(10.16)</td>
<td>46.91(10.27)</td>
<td>57.47(7.48)</td>
<td>-8.83***</td>
<td>53.29(10.11)</td>
</tr>
<tr>
<td><strong>Self-Esteem</strong></td>
<td>21.56(5.11)</td>
<td>18.01(4.84)</td>
<td>24.78(3.72)</td>
<td>-11.86***</td>
<td>22.00(4.51)</td>
</tr>
<tr>
<td><strong>T2</strong></td>
<td><strong>Social Support</strong></td>
<td>17.54(4.40)</td>
<td>14.21(4.83)</td>
<td>19.92(2.38)</td>
<td>-10.98***</td>
</tr>
<tr>
<td><strong>Self-Efficacy</strong></td>
<td>54.74(9.12)</td>
<td>49.66(9.79)</td>
<td>58.65(7.41)</td>
<td>-7.83***</td>
<td>56.52(7.41)</td>
</tr>
<tr>
<td><strong>Self-Esteem</strong></td>
<td>22.28(4.92)</td>
<td>19.01(4.28)</td>
<td>24.65(3.97)</td>
<td>-10.37***</td>
<td>23.41(4.55)</td>
</tr>
</tbody>
</table>

Note.  
- **a** = comparison to chronic distress trajectory;  
- **b** = comparison to resistance trajectory;  
- CP/EA = child physical and emotional abuse;  
- CSA = child sexual abuse;  
- ASA = adult sexual abuse;  
- T1 = baseline;  
- T2 = 12-month follow-up.  

§ p < .10.  
* p < .05.  
** p < .01.  
*** p < .001
3.2 Descriptive Statistics

Mean levels of hypothesized predictor variables were calculated at both baseline (time 1) and 12-month follow-up (time 2). The mean severity levels for childhood experiences of abuse were 7.74 ($SD = 5.35$; range = 0-20) for physical and emotional abuse and 3.70 ($SD = 6.23$; range = 0-20) for sexual abuse. For adult sexual abuse, the mean severity level was 2.79 ($SD = 11.23$; range = 0-114). The average level of resource loss for all participants was relatively low at both time 1 (19.36; $SD = 13.44$; range = 0-84) and time 2 (16.07; $SD = 12.30$; range = 0-71). Social conflict, however, was reasonably high at time 1 (17.20; $SD = 5.29$; range = 5-25) and remained somewhat high at time 2 (15.38; $SD = 5.78$; range = 5-25). Social support means were approximately mid-range for both time 1 (16.15; $SD = 4.71$; range = 1-22) and time 2 (17.54; $SD = 4.40$; range = 3-22). Mean reports of self-efficacy were relatively high across both time 1 and 2, 52.60 ($SD = 10.16$; range = 14-70) and 54.74 ($SD = 9.12$; range = 19-70), respectively. Mean reports of self-esteem were similarly high at both time 1 (21.56; $SD = 5.11$; range = 5-30) and time 2 (22.28; $SD = 4.92$; range = 9-30).

All continuous variables in the study were examined to determine if they sufficiently normally distributed for the analyses. I used skewness of less than 2 and kurtosis less than 7 as the criteria for this evaluation (van Dulmen, 2005). Severity of adulthood sexual abuse was the only continuous variable that did not satisfy these criteria (skewness = 7.53; kurtosis = 62.82). All scores for this variable reflected fixed, valid responses, and thus it is not necessarily advisable to make adjustments to this variable (Tabachnick & Fidell, 2001). That said, secondary analyses were conducted to further investigate
whether removing outliers two standard deviations above the mean to improve normality would improve the predictive power of this variable. Bivariate correlations for all study variables were examined for both the entire sample (see Table 3) and for the sample of each proposed analysis separately (i.e., the chronic distress and resistance trajectories, the chronic distress and resilience trajectories, and the resistance and delayed distress trajectories) to detect any issues of multicollinearity. A correlation of .80 or higher indicates multicollinearity between two variables (Tabachnick & Fidell, 2001). All bivariate correlations were less than .80.

At time 1, over one-third of the sample (142; 38.0%) qualified as resistant (i.e., no more than 3 symptoms of either PTSD or depression). The proportion of resistant individuals was much higher at time 2 (220; 58.8%). In terms of trajectories, 122 (32.6%) exhibited the chronically distressed trajectory, 110 (29.4%) exhibited each of the resistance and resilience trajectories, and 32 (8.6%) exhibited the delayed distress trajectory. The sample sizes for the proposed analyses were thus as follows. The binomial logistic regressions comparing the resistance and resilience trajectories to the chronic distress trajectory each had a sample size of 232. The binomial logistic regression comparing the delayed distress trajectory to the resistance trajectory had a sample size of 142. Bivariate comparisons ($\chi^2$ for categorical predictors and independent-samples t-tests for continuous variables) indicated meaningful differences between trajectories on hypothesized predictors (see Tables 1 and 2).
Table 3
Correlations of Study Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>-</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>2. Education</td>
<td>0.27***</td>
<td>-</td>
<td></td>
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</tr>
<tr>
<td>3. Income</td>
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</tr>
<tr>
<td>4. Race</td>
<td>0.09</td>
<td>-0.09§</td>
<td>-24***</td>
<td>-</td>
<td></td>
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<td></td>
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<tr>
<td>5. ACCENT vs. not</td>
<td>0.05</td>
<td>-0.11§</td>
<td>-0.08</td>
<td>0.14*</td>
<td>-</td>
<td></td>
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</tr>
<tr>
<td>6. GAC vs. not</td>
<td>-0.03</td>
<td>0.05</td>
<td>0.12*</td>
<td>-0.02</td>
<td>-49***</td>
<td>-</td>
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</tr>
<tr>
<td>7. CP/EA</td>
<td>0.13*</td>
<td>0.08</td>
<td>-0.08</td>
<td>0.18**</td>
<td>-0.06</td>
<td>0.07</td>
<td>-</td>
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<td></td>
</tr>
<tr>
<td>8. CSA</td>
<td>0.15**</td>
<td>0.07</td>
<td>0.00</td>
<td>0.11§</td>
<td>0.05</td>
<td>-0.04</td>
<td>0.45***</td>
<td>-</td>
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</tr>
<tr>
<td>9. ASA</td>
<td>0.10§</td>
<td>-0.01</td>
<td>-0.07</td>
<td>-0.08</td>
<td>0.03</td>
<td>0.03</td>
<td>0.16**</td>
<td>0.32***</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>10. T1 Resource Loss</td>
<td>0.24***</td>
<td>0.00</td>
<td>-0.19**</td>
<td>0.07</td>
<td>-0.08</td>
<td>0.05</td>
<td>0.33***</td>
<td>0.14*</td>
<td>0.16**</td>
<td>-</td>
</tr>
<tr>
<td>11. T1 Social Conflict</td>
<td>-0.03</td>
<td>-0.16**</td>
<td>-0.13*</td>
<td>0.03</td>
<td>-0.09</td>
<td>0.05</td>
<td>0.31***</td>
<td>0.20***</td>
<td>0.16**</td>
<td>0.30***</td>
</tr>
<tr>
<td>12. T1 Social Support</td>
<td>-0.12*</td>
<td>0.20**</td>
<td>0.26***</td>
<td>-0.15**</td>
<td>0.05</td>
<td>0.04</td>
<td>-0.35***</td>
<td>-0.21***</td>
<td>-0.21***</td>
<td>-0.42***</td>
</tr>
<tr>
<td>13. T1 Self-Efficacy</td>
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<td>0.21***</td>
<td>0.12*</td>
<td>-0.08</td>
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<td>-0.18**</td>
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<td>-0.08</td>
<td>-0.35***</td>
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<tr>
<td>14. T1 Self-Esteem</td>
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<td>0.20***</td>
<td>0.09</td>
<td>0.04</td>
<td>-0.01</td>
<td>0.08</td>
<td>-0.22***</td>
<td>-0.19**</td>
<td>-0.15**</td>
<td>-0.33***</td>
</tr>
<tr>
<td>15. T2 Resource Loss</td>
<td>0.21***</td>
<td>0.01</td>
<td>-0.06</td>
<td>0.01</td>
<td>-0.03</td>
<td>0.02</td>
<td>0.24***</td>
<td>0.21***</td>
<td>0.08</td>
<td>0.54***</td>
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<tr>
<td>16. T2 Social Conflict</td>
<td>-0.04</td>
<td>-0.07</td>
<td>-0.14*</td>
<td>0.05</td>
<td>-0.01</td>
<td>0.03</td>
<td>0.30***</td>
<td>0.26***</td>
<td>0.14*</td>
<td>0.18**</td>
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<tr>
<td>17. T2 Social Support</td>
<td>-0.06</td>
<td>0.20***</td>
<td>0.19**</td>
<td>-0.24**</td>
<td>0.00</td>
<td>0.02</td>
<td>-0.31***</td>
<td>-0.19**</td>
<td>-0.04</td>
<td>-0.30***</td>
</tr>
<tr>
<td>18. T2 Self-Efficacy</td>
<td>0.05</td>
<td>0.17**</td>
<td>0.12*</td>
<td>-0.14*</td>
<td>0.05</td>
<td>0.07</td>
<td>-0.20***</td>
<td>-0.17**</td>
<td>-0.01</td>
<td>-0.27***</td>
</tr>
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<td>19. T2 Self-Esteem</td>
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<td>0.19**</td>
<td>0.13*</td>
<td>-0.08</td>
<td>0.00</td>
<td>0.04</td>
<td>-0.11§</td>
<td>-0.22***</td>
<td>0.00</td>
<td>-0.20***</td>
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</table>

Note. CP/EA = child physical and emotional abuse; CSA = child sexual abuse; ASA = adult sexual abuse; T1 = baseline; T2 = 12-month follow-up. § p < .10. * p < .05. ** p < .01. *** p < .001
Table 3  
Correlations of Study Variables

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1. Age</td>
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<td>2. Education</td>
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<td>3. Income</td>
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<td>4. Race</td>
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<td>5. ACCENT vs. not</td>
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<td>6. GAC vs. not</td>
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<td>7. CP/EA</td>
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<td>8. CSA</td>
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<tr>
<td>9. ASA</td>
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<tr>
<td>10. T1 Resource Loss</td>
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<tr>
<td>11. T1 Social Conflict</td>
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<tr>
<td>12. T1 Social Support</td>
<td>-.42***</td>
<td>-</td>
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<tr>
<td>13. T1 Self-Efficacy</td>
<td>-.32***</td>
<td>.44***</td>
<td>-</td>
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<tr>
<td>14. T1 Self-Esteem</td>
<td>-.38***</td>
<td>.46***</td>
<td>.61***</td>
<td>-</td>
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<td></td>
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</tr>
<tr>
<td>15. T2 Resource Loss</td>
<td>.27***</td>
<td>-.36***</td>
<td>-.25***</td>
<td>-.26***</td>
<td>-</td>
<td></td>
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<tr>
<td>16. T2 Social Conflict</td>
<td>.51***</td>
<td>-.30***</td>
<td>-.30***</td>
<td>-.29***</td>
<td>.35***</td>
<td>-</td>
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<tr>
<td>17. T2 Social Support</td>
<td>-.38***</td>
<td>.60***</td>
<td>.38***</td>
<td>.44***</td>
<td>-.46***</td>
<td>-.40***</td>
<td>-</td>
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<td></td>
</tr>
<tr>
<td>18. T2 Self-Efficacy</td>
<td>-.26***</td>
<td>.38***</td>
<td>.61***</td>
<td>.53***</td>
<td>-.30***</td>
<td>-.33***</td>
<td>.51***</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>19. T2 Self-Esteem</td>
<td>-.29***</td>
<td>.35***</td>
<td>.48***</td>
<td>.64***</td>
<td>-.30***</td>
<td>-.35***</td>
<td>.46***</td>
<td>.64***</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. CP/EA = child physical and emotional abuse; CSA = child sexual abuse; ASA = adult sexual abuse; T1 = baseline; T2 = 12-month follow-up. § p < .10. * p < .05. ** p < .01. *** p < .001
3.3 Classification Confirmation

To examine whether these four trajectories captured meaningful differences in psychological functioning, I conducted two separate 4 (trajectory group) x 2 (time) repeated measures analyses of variance (ANOVAs) with the number depressive or posttraumatic stress symptoms as the dependent variables. Both the means and standard deviations (see Table 4) and ANOVA results clearly indicate that the groups represented the intended trajectories through demonstrating significant group and group x time effects. For symptoms of depression, there were significant main effects for both trajectory group, $F(3, 370) = 239.92$, $\eta^2_p = .66$, $p < .001$, and time, $F(1, 370) = 8.48$, $\eta^2_p = .02$, $p < .01$, as well as a significant group x time interaction, $F(3, 370) = 70.76$, $\eta^2_p = .37$, $p < .001$. For symptoms of PTSD, there was a significant main effect for trajectory group, $F(3, 370) = 46.40$, $\eta^2_p = .27$, $p < .001$, and a significant group x time interaction, $F(3, 370) = 7.32$, $\eta^2_p = .06$, $p < .001$. The main effect for time did not approach significance for symptoms of posttraumatic stress ($p = .82$).

Table 4
Descriptive Statistics for Mean (SD) PTSD and Depression Symptoms by Trajectory and Time

<table>
<thead>
<tr>
<th>Symptom and time</th>
<th>Full sample</th>
<th>Chronic distress</th>
<th>Resistance</th>
<th>Resilience</th>
<th>Delayed Distress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>374</td>
<td>122</td>
<td>110</td>
<td>110</td>
<td>32</td>
</tr>
<tr>
<td>T1</td>
<td>6.18 (4.74)</td>
<td>10.11 (4.11)</td>
<td>1.76 (0.96)</td>
<td>7.48 (3.60)</td>
<td>1.94 (0.95)</td>
</tr>
<tr>
<td>T2</td>
<td>4.43 (4.58)</td>
<td>9.10 (4.67)</td>
<td>1.32 (0.89)</td>
<td>1.77 (1.06)</td>
<td>6.38 (3.48)</td>
</tr>
<tr>
<td>PTSD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>1.86 (3.53)</td>
<td>4.12 (4.76)</td>
<td>0.23 (0.67)</td>
<td>1.37 (2.76)</td>
<td>0.50 (1.02)</td>
</tr>
<tr>
<td>T2</td>
<td>1.58 (3.36)</td>
<td>3.89 (4.61)</td>
<td>0.17 (0.57)</td>
<td>0.28 (0.72)</td>
<td>2.03 (3.91)</td>
</tr>
</tbody>
</table>

Note. PTSD = posttraumatic stress disorder; T1 = baseline; T2 = 12-month follow-up
Post hoc tests further supported that these groups reflected their intended differences. As expected, the following paired trajectory groups had significant group x time interactions: chronic distress/resilience, chronic distress/delayed distress, resistance/resilience, resistance/delayed distress, and resilience/delayed distress. For symptoms of depression, these interactions were all significant at $p < .001$. For symptoms of posttraumatic stress, these interactions were significant at $p < .001$ for the resistance/resilience, resistance/delayed distress, and resilience/delayed distress pairs, and at $p < .05$ for the chronic distress/delayed distress. For the chronic distress/resilience trajectory pair, the group x time interaction was marginally significant at $p = .05$.

Furthermore, for the pair of trajectories that were expected to remain unchanged (the chronic distress and the resistance group) there was no significant group x time interaction for symptoms of either depression ($p = .28$) or posttraumatic stress ($p = .64$).

### 3.4 Predictors of the Resistance Trajectory Compared with the Chronic Distress Trajectory

To investigate hypothesis 1, I conducted a hierarchical bivariate logistic regression comparing the resistance trajectory group to the chronic distress trajectory group. Odds ratios and 95% confidence intervals for the hypothesized predictor variables are presented in Table 5. Because the chronic distress trajectory was used as the reference group for the analysis, all findings will be presented in terms of predicting membership in the resistance trajectory. Odds ratios reported in the text do not necessarily match those
Table 5
*Multivariate Associations Comparing the Resistance Trajectory to the Chronic Distress Trajectory (N=195)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
<th>Step 6</th>
<th>Step 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.91(0.83–0.99)*</td>
<td>0.91(0.83–0.98)*</td>
<td>0.93(0.85–1.02)</td>
<td>0.99(0.88–1.11)</td>
<td>0.97(0.83–1.13)</td>
<td>0.99(0.84–1.17)</td>
<td>1.00(0.84–1.19)</td>
</tr>
<tr>
<td>Education</td>
<td>1.73(1.20–2.51)**</td>
<td>1.78(1.22–2.60)**</td>
<td>1.95(1.27–3.00)**</td>
<td>1.99(1.19–3.32)**</td>
<td>1.24(0.66–2.32)</td>
<td>1.30(0.65–2.58)</td>
<td>1.22(0.59–2.53)</td>
</tr>
<tr>
<td>Income</td>
<td>1.22(0.89–1.67)</td>
<td>1.19(0.86–1.64)</td>
<td>1.18(0.82–1.69)</td>
<td>1.02(0.66–1.58)</td>
<td>1.11(0.66–1.85)</td>
<td>1.17(0.66–2.07)</td>
<td>1.20(0.65–2.20)</td>
</tr>
<tr>
<td>Race (EA)</td>
<td>1.56(0.74–3.28)</td>
<td>1.47(0.69–3.14)</td>
<td>1.98(0.86–4.56)</td>
<td>2.85(1.07–7.57)**</td>
<td>1.92(0.55–6.67)</td>
<td>2.43(0.64–9.21)</td>
<td>2.65(0.63–11.12)</td>
</tr>
<tr>
<td>ACCvnot</td>
<td>0.65(0.32–1.34)</td>
<td>0.66(0.30–1.47)</td>
<td>0.88(0.34–2.29)</td>
<td>0.69(0.20–2.38)</td>
<td>0.64(0.17–2.39)</td>
<td>0.61(0.15–2.52)</td>
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</tr>
<tr>
<td>GACvnot</td>
<td>0.62(0.28–1.35)</td>
<td>0.65(0.28–1.52)</td>
<td>0.60(0.22–1.67)</td>
<td>0.60(0.16–2.20)</td>
<td>0.52(0.13–2.10)</td>
<td>0.44(0.10–1.99)</td>
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</tr>
<tr>
<td>CP/EA</td>
<td>0.87(0.81–0.94)**</td>
<td>0.93(0.85–1.02)</td>
<td>0.96(0.85–1.09)</td>
<td>0.97(0.85–1.12)</td>
<td>0.98(0.84–1.13)</td>
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</tr>
<tr>
<td>CSA</td>
<td>0.92(0.86–0.98)*</td>
<td>0.91(0.84–0.98)*</td>
<td>0.87(0.78–0.96)**</td>
<td>0.88(0.78–0.98)*</td>
<td>0.88(0.79–0.99)*</td>
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</tr>
<tr>
<td>ASA</td>
<td>1.02(0.99–1.05)</td>
<td>1.05(1.02–1.08)**</td>
<td>1.07(1.03–1.11)**</td>
<td>1.07(1.03–1.12)**</td>
<td>1.06(1.01–1.11)*</td>
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</tr>
<tr>
<td>T1 Resources Loss</td>
<td>0.89(0.85–0.94)**</td>
<td>0.89(0.84–0.95)***</td>
<td>0.91(0.85–0.97)**</td>
<td>0.90(0.84–0.96)**</td>
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</tr>
<tr>
<td>T1 Social Conflict</td>
<td>0.85(0.78–0.93)***</td>
<td>0.92(0.83–1.02)</td>
<td>0.96(0.85–1.08)</td>
<td>0.96(0.85–1.09)</td>
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<tr>
<td>T1 Social Support</td>
<td>1.09(0.95–1.27)</td>
<td>1.10(0.94–1.29)</td>
<td>1.06(0.89–1.27)</td>
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<tr>
<td>T1 Self-Efficacy</td>
<td>1.03(0.95–1.11)</td>
<td>1.02(0.94–1.10)</td>
<td>1.02(0.93–1.11)</td>
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<tr>
<td>T1 Self-Esteem</td>
<td>1.48(1.24–1.75)***</td>
<td>1.50(1.25–1.81)***</td>
<td>1.37(1.12–1.67)***</td>
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<tr>
<td>T2 Resources Loss</td>
<td>0.94(0.89–1.00)*</td>
<td>0.95(0.90–1.01)$</td>
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</tr>
<tr>
<td>T2 Social Conflict</td>
<td>0.89(0.78–1.00)*</td>
<td>0.92(0.80–1.05)</td>
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<tr>
<td>T2 Social Support</td>
<td>1.12(0.92–1.38)</td>
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<tr>
<td>T2 Self-Efficacy</td>
<td>0.94(0.86–1.04)</td>
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</tr>
<tr>
<td>T2 Self-Esteem</td>
<td>1.22(1.00–1.50)$</td>
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</tbody>
</table>

Note. EA = European American; ACCvnot = ACCENT versus not; GACvnot = GAC versus not; CP/EA = Child physical and emotional abuse; CSA = Child sexual abuse; ASA = adult sexual abuse; T1 = baseline; T2 = 12-month follow-up.

$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$. 

§$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$. 

30
values reported in the table as they have been altered to reflect the effect size for each reported finding.

In step one of the regression, participant age, education, income, and race were entered to investigate the hypothesis that women in the resistance trajectory would demonstrate higher levels of demographic characteristics associated with having more economic and material resources. As predicted, both age (effect size OR = 1.11) and education (effect size OR = 1.73) significantly predicted membership in the resistance versus chronic distress trajectory. Younger participants and participants with more advanced education were more likely to be members of the resistance trajectory. Income and race did not significantly predict trajectory membership. In step two, the two dummy-coded intervention group variables (ACCENT versus not, GAC versus not) were entered into the regression to account for any effects of intervention group membership on trajectory membership. As predicted, intervention group membership did not significantly predict membership in the resistance trajectory as compared to the chronic distress trajectory.

In step three, childhood physical/emotional abuse, childhood sexual abuse, and adulthood abuse variables were added to the regression to investigate the hypothesis that women in the resistance trajectory would endorse less experiences of past abuse. As predicted, childhood physical/emotional abuse (effect size OR = 1.15) and childhood sexual abuse (effect size OR = 1.09) both significantly predicted trajectory membership, such that less severe experiences of abuse predicted membership in the resistance
trajectory. Adult sexual abuse, however, was not significantly associated with trajectory membership.

In step four, resource loss and social conflict at time 1 were entered into the regression to investigate the hypothesis that women in the resistance trajectory would demonstrate less incidence of these acute stressors. As predicted, less resource loss (effect size OR = 1.12) and social conflict (effect size OR = 1.18) significantly predicted membership in the resistance trajectory rather than the chronic distress trajectory. In step five of the regression, time 1 social support, self-efficacy, and self-esteem were added to investigate the hypothesis that women in the resistance trajectory would evidence more of these resiliency resources. As predicted, time 1 self-esteem predicted trajectory membership such that participants with higher self-esteem were more likely to be in the resistance trajectory (effect size OR = 1.48). Time 1 social support and self-efficacy, however, were not significantly associated with trajectory membership.

In step six, time 2 resource loss and social conflict were entered into the regression to investigate the hypothesis that women in the resistance trajectory would consistently demonstrate less of these acute stressors. As predicted, less resource loss (effect size OR = 1.06) and social conflict (effect size OR = 1.13) at time 2 significantly predicted membership in the resistance trajectory rather than the chronic distress trajectory. In the seventh and final step of the regression, time 2 social support, self-efficacy, and self-esteem were added to investigate the hypothesis that women in the resistance trajectory

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1 In secondary analyses, removing all outliers two standard deviations above the mean for adult sexual abuse (ASA), both of these variables were only marginally significant predictors of trajectory membership in step six of the regression.
would consistently evidence more of these resiliency resources. Time 2 self-esteem was
marginally significantly related to trajectory membership in the predicted direction.\(^2\)
Participants with higher self-esteem at time 2 were somewhat more likely to be in the
resistance trajectory than the chronic distress trajectory. Time 2 social support and self-
efficacy, however, were not significantly associated with trajectory membership. In this
final model CSA, ASA, time 1 resource loss, and time 1 self-esteem all significantly
predicted membership in the resistance trajectory versus the chronic distress trajectory.\(^3\)
Time 2 resource loss and self-esteem marginally predicted trajectory membership in the
predicted direction.\(^4\)

3.5 Predictors of the Resilience Trajectory Compared with the Chronic Distress
Trajectory

To investigate hypothesis 2, I conducted a hierarchical bivariate logistic regression
comparing the resilience trajectory group to the chronic distress trajectory group. Odds
ratios and 95% confidence intervals for the hypothesized predictor variables are
presented in Table 6. Because the chronic distress trajectory was used as the reference
group for the analysis, all findings will be presented in terms of predicting membership in
the resilience trajectory. Odds ratios reported in the text do not necessarily match those

\(^2\) When ASA outliers were removed, higher time 2 self-esteem predicted membership in the resistance
trajectory as predicted at \(p < .05\) (OR = 1.28, 95 % CI = 1.04 – 1.58).

\(^3\) When ASA outliers were removed, ASA did not significantly predict trajectory membership for this
comparison.

\(^4\) With ASA outliers removed, time 2 resource loss did not predict trajectory membership, marginally or
otherwise. The effect for time 2 self-esteem, however, was statistically significant at \(p < .05\) (OR = 1.28,
95 % CI = 1.04 – 1.58).
Table 6  
Multivariate Associations Comparing the Resilience Trajectory to the Chronic Distress Trajectory (N=197)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
<th>Step 6</th>
<th>Step 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.94 (0.87–1.02)</td>
<td>0.95 (0.88–1.04)</td>
<td>0.97 (0.88–1.06)</td>
<td>0.97 (0.88–1.07)</td>
<td>1.01 (0.91–1.12)</td>
<td>1.00 (0.89–1.14)</td>
<td>1.03 (0.90–1.17)</td>
</tr>
<tr>
<td>Education</td>
<td>1.34 (0.92–1.95)</td>
<td>1.27 (0.87–1.86)</td>
<td>1.39 (0.93–2.08)</td>
<td>1.37 (0.89–2.09)</td>
<td>1.06 (0.66–1.69)</td>
<td>1.34 (0.76–2.36)</td>
<td>1.28 (0.71–2.30)</td>
</tr>
<tr>
<td>Income</td>
<td>1.19 (0.87–1.63)</td>
<td>1.16 (0.84–1.60)</td>
<td>1.12 (0.80–1.56)</td>
<td>1.02 (0.72–1.45)</td>
<td>1.00 (0.69–1.46)</td>
<td>1.18 (0.77–1.80)</td>
<td>1.25 (0.80–1.96)</td>
</tr>
<tr>
<td>Race (EA)</td>
<td>0.88 (0.44–1.76)</td>
<td>0.90 (0.44–1.83)</td>
<td>0.97 (0.47–2.00)</td>
<td>1.07 (0.49–2.31)</td>
<td>0.71 (0.30–1.68)</td>
<td>1.20 (0.45–3.20)</td>
<td>1.27 (0.45–3.58)</td>
</tr>
<tr>
<td>ACCvnot</td>
<td>1.80 (0.90–3.62)§</td>
<td>1.90 (0.92–3.92)§</td>
<td>2.30 (1.07–4.96)*</td>
<td>2.73 (1.20–6.23)*</td>
<td>3.21 (1.21–8.53)*</td>
<td>3.40 (1.23–9.41)*</td>
<td></td>
</tr>
<tr>
<td>GACvnot</td>
<td>1.09 (0.49–2.05)</td>
<td>0.96 (0.45–2.02)</td>
<td>0.89 (0.41–1.93)</td>
<td>1.28 (0.54–3.01)</td>
<td>1.10 (0.41–2.94)</td>
<td>1.06 (0.38–2.97)</td>
<td></td>
</tr>
<tr>
<td>CP/EA</td>
<td>0.95 (0.90–1.01)</td>
<td>0.98 (0.92–1.04)</td>
<td>1.00 (0.93–1.07)</td>
<td>0.97 (0.89–1.05)</td>
<td>0.95 (0.87–1.04)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSA</td>
<td>0.94 (0.90–1.00)*</td>
<td>0.94 (0.89–1.00)*</td>
<td>0.95 (0.89–1.00)§</td>
<td>0.96 (0.90–1.03)</td>
<td>0.97 (0.90–1.04)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASA</td>
<td>1.01 (0.99–1.04)</td>
<td>1.02 (1.00–1.04)</td>
<td>1.02 (0.99–1.05)</td>
<td>1.03 (0.99–1.07)</td>
<td>1.02 (0.98–1.07)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1 Resources Loss</td>
<td>0.97 (0.95–1.00)§</td>
<td>0.99 (0.96–1.02)</td>
<td>1.02 (0.98–1.06)</td>
<td>1.01 (0.97–1.05)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1 Social Conflict</td>
<td>0.90 (0.84–0.96)**</td>
<td>0.94 (0.87–1.01)§</td>
<td>1.01 (0.92–1.11)</td>
<td>1.02 (0.91–1.15)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1 Self-Efficacy</td>
<td>1.11 (1.01–1.21)*</td>
<td>1.07 (0.96–1.19)</td>
<td>1.02 (0.91–1.15)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1 Self-Esteem</td>
<td>0.99 (0.95–1.04)</td>
<td>0.97 (0.92–1.03)</td>
<td>0.96 (0.90–1.02)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2 Resources Loss</td>
<td>1.17 (1.06–1.30)**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2 Social Conflict</td>
<td>0.90 (0.86–0.95)***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2 Self-Esteem</td>
<td>0.99 (0.92–1.06)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. EA = European American; ACCvnot = ACCENT versus not; GACvnot = GAC versus not; CP/EA = Child physical and emotional abuse; CSA = Child sexual abuse; ASA = adult sexual abuse; T1 = baseline; T2 = 12-month follow-up.  
§ p < .10.  * p < .05.  ** p < .01.  *** p < .001.
values reported in the table as they have been altered to reflect the effect size for each reported finding.

In step one of the regression, demographic variables age, education, income, and race were entered to investigate the hypothesis that women in the resilience trajectory would demonstrate higher levels of demographic characteristics associated with having more economic and material resources. None of the demographic variables significantly predicted membership in the resilience versus chronic distress trajectory. In step two, the two dummy-coded intervention group variables were entered into the regression to account for any effects of intervention group membership on trajectory membership. Analyses indicated, however, that participants who were assigned to the ACCENT intervention were somewhat more likely to be in the resilience trajectory than participants in either GAC or SCC, though this result was only marginally significant.

In step three of the regression, childhood physical/emotional abuse, childhood sexual abuse, and adulthood abuse variables were added to the regression to investigate the hypothesis that women in the resilience trajectory would endorse less experience of past abuse. As predicted, childhood sexual abuse significantly predicted trajectory membership such that less severe experience of abuse predicted membership in the resilience trajectory (effect size OR = 1.06). Childhood physical/emotional abuse and adult sexual abuse, however, were not significantly associated with trajectory membership.

In step four, resource loss and social conflict at time 1 were entered into the regression to establish a baseline for the hypothesis that women in the resilience
trajectory would demonstrate decreasing amounts of these acute stressors. Though not predicted, less social conflict at time 1 significantly predicted membership in the resilience trajectory rather than the chronic distress trajectory (effect size OR = 1.11). Resource loss at time 1 was also marginally significantly predictive of trajectory membership such that less resource loss was associated with membership in the resilience trajectory. In step five of the regression, time 1 social support, self-efficacy, and self-esteem were added to establish a baseline for the hypothesis that women in the resilience trajectory would demonstrate increasing amounts of these resiliency resources. Though not predicted, both social support (effect size OR = 1.11) and self-esteem (effect size OR = 1.17) at time 1 significantly predicted trajectory membership such that participants with higher levels of each variable were more likely to be in the resilience trajectory. As expected, time 1 self-efficacy, was not significantly associated with trajectory membership.

In step six, time 2 resource loss and social conflict were entered into the regression to investigate the hypothesis that women in the resilience trajectory would evidence decreasing amounts of these acute stressors. As predicted, less resource loss (effect size OR = 1.11) and social conflict (effect size OR = 1.18) at time 2 significantly predicted membership in the resilience trajectory rather than the chronic distress trajectory. In the seventh and final step of the regression, time 2 social support, self-efficacy, and self-esteem were added to investigate the hypothesis that women in the resilience trajectory

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5 After removing ASA outliers, time 1 resource loss did not significantly predict trajectory membership for this comparison, marginally or otherwise.
6 More social support at time 1 only marginally predicted membership in the resistance trajectory when ASA outliers were removed.
would evidence increasing amounts of these resiliency resources. Higher self-esteem at
time 2 was related to increased likelihood of being in the resilience trajectory, though
only marginally so.\textsuperscript{7} Social support and self-efficacy at time 2 were not significantly
associated with trajectory membership. In this final model ACCENT versus not, time 2
resource loss, and time 2 social conflict all significantly predicted membership in the
resilience trajectory versus the chronic distress trajectory. Both time 1 and time 2 self-
esteeem marginally significantly predicted trajectory membership.\textsuperscript{8}

3.6 Predictors of the Delayed Distress Trajectory Compared with the Resistance
Trajectory

To investigate hypothesis 3, I conducted a hierarchical bivariate logistic regression
comparing the delayed distress trajectory group to the resistance trajectory group. Odds
ratios and 95% confidence intervals for the hypothesized predictor variables are
presented in Table 7. The resistance trajectory was used as the reference group for the
analysis, and so all findings will be presented in terms of predicting membership in the
delayed distress trajectory. Odds ratios reported in the text do not necessarily match
those values reported in the table as they have been altered to reflect the effect size for
each reported finding.

In step one of the regression, participant age, education, income, and race were
entered to investigate the hypothesis that women in the resistance trajectory would

\textsuperscript{7} When ASA outliers were removed, higher time 2 self-esteem predicted membership in the resistance
trajectory as predicted at \( p < .05 \) (OR = 1.21, 95% CI = 1.03 – 1.42).

\textsuperscript{8} When ASA outliers were removed, time 2 self-esteem significantly predicted membership trajectory in
the predicted direction (OR = 1.21, 95% CI = 1.03 – 1.42).
## Table 7

**Multivariate Associations Comparing the Delayed Distress Trajectory to the Resistance Trajectory (N=118)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
<th>Step 6</th>
<th>Step 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.94(0.80–1.10)</td>
<td>0.94(0.80–1.10)</td>
<td>0.93(0.78–1.11)</td>
<td>0.92(0.76–1.10)</td>
<td>0.96(0.77–1.20)</td>
<td>0.96(0.76–1.22)</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>1.10(0.58–2.09)</td>
<td>1.09(0.57–2.11)</td>
<td>1.13(0.55–2.29)</td>
<td>1.22(0.58–2.55)</td>
<td>1.25(0.57–2.73)</td>
<td>1.45(0.57–3.72)</td>
<td>1.51(0.58–3.95)</td>
</tr>
<tr>
<td>Income</td>
<td>1.05(0.67–1.64)</td>
<td>1.05(0.67–1.65)</td>
<td>1.08(0.66–1.76)</td>
<td>1.12(0.68–1.84)</td>
<td>1.07(0.63–1.81)</td>
<td>1.29(0.70–2.40)</td>
<td>1.45(0.73–2.87)</td>
</tr>
<tr>
<td>Race (EA)</td>
<td>0.31(0.11–0.86)*</td>
<td>0.31(0.11–0.88)*</td>
<td>0.27(0.08–0.89)*</td>
<td>0.24(0.07–0.82)*</td>
<td>0.33(0.09–1.20)§</td>
<td>0.29(0.06–1.40)§</td>
<td>0.36(0.07–1.96)§</td>
</tr>
<tr>
<td>ACCvnot</td>
<td>1.03(0.29–3.60)</td>
<td>0.67(0.16–2.88)</td>
<td>0.63(0.14–2.80)</td>
<td>0.97(0.20–4.82)</td>
<td>1.49(0.22–10.27)</td>
<td>1.59(0.22–11.63)</td>
<td></td>
</tr>
<tr>
<td>GACvnot</td>
<td>1.05(0.29–3.80)</td>
<td>0.76(0.18–3.24)</td>
<td>0.82(0.18–3.65)</td>
<td>0.95(0.20–4.47)</td>
<td>1.29(0.19–8.81)</td>
<td>1.42(0.20–10.35)</td>
<td></td>
</tr>
<tr>
<td>CP/EA</td>
<td>1.26(1.10–1.44)**</td>
<td>1.22(1.06–1.40)**</td>
<td>1.19(1.04–1.38)*</td>
<td>1.16(0.97–1.38)§</td>
<td>1.16(0.94–1.42)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSA</td>
<td>0.91(0.78–1.06)</td>
<td>0.93(0.80–1.08)</td>
<td>0.96(0.82–1.13)</td>
<td>0.89(0.73–1.09)§</td>
<td>0.91(0.74–1.11)</td>
<td></td>
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</tr>
<tr>
<td>ASA</td>
<td>0.91(0.67–1.22)</td>
<td>0.88(0.65–1.21)</td>
<td>0.86(0.63–1.17)</td>
<td>0.78(0.49–1.24)</td>
<td>0.80(0.50–1.28)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1 Resources Loss</td>
<td>1.01(0.95–1.08)</td>
<td>1.03(0.96–1.11)</td>
<td>0.95(0.85–1.06)</td>
<td>0.96(0.86–1.07)</td>
<td>1.10(0.94–1.28)</td>
<td>1.10(0.94–1.29)</td>
<td></td>
</tr>
<tr>
<td>T1 Social Conflict</td>
<td>1.10(0.98–1.25)</td>
<td>1.12(0.98–1.27)§</td>
<td>1.10(0.94–1.28)</td>
<td>1.10(0.94–1.29)</td>
<td>1.10(0.94–1.29)</td>
<td>1.10(0.94–1.29)</td>
<td></td>
</tr>
<tr>
<td>T1 Self-Efficacy</td>
<td>1.02(0.84–1.23)</td>
<td>0.96(0.77–1.21)</td>
<td>1.01(0.79–1.31)</td>
<td>1.01(0.79–1.31)</td>
<td>1.01(0.79–1.31)</td>
<td>1.01(0.79–1.31)</td>
<td></td>
</tr>
<tr>
<td>T1 Self-Esteem</td>
<td>1.06(0.96–1.17)</td>
<td>1.08(0.97–1.21)</td>
<td>1.07(0.94–1.22)</td>
<td>1.07(0.94–1.22)</td>
<td>1.07(0.94–1.22)</td>
<td>1.07(0.94–1.22)</td>
<td></td>
</tr>
<tr>
<td>T2 Resources Loss</td>
<td>0.81(0.67–0.98)*</td>
<td>0.81(0.65–1.00)§</td>
<td>0.82(0.64–1.05)</td>
<td>0.82(0.64–1.05)§</td>
<td>0.82(0.64–1.05)§</td>
<td>0.82(0.64–1.05)§</td>
<td></td>
</tr>
<tr>
<td>T2 Social Conflict</td>
<td>1.12(1.04–1.21)**</td>
<td>1.11(1.03–1.19)**</td>
<td>1.11(0.95–1.30)</td>
<td>1.11(0.95–1.30)</td>
<td>1.11(0.95–1.30)</td>
<td>1.11(0.95–1.30)</td>
<td></td>
</tr>
<tr>
<td>T2 Social Support</td>
<td>0.88(0.66–1.16)</td>
<td>1.03(0.68–1.80)</td>
<td>1.03(0.68–1.80)</td>
<td>1.03(0.68–1.80)</td>
<td>1.03(0.68–1.80)</td>
<td>1.03(0.68–1.80)</td>
<td></td>
</tr>
<tr>
<td>T2 Self-Efficacy</td>
<td>0.96(0.72–1.27)</td>
<td>0.96(0.72–1.27)</td>
<td>0.96(0.72–1.27)</td>
<td>0.96(0.72–1.27)</td>
<td>0.96(0.72–1.27)</td>
<td>0.96(0.72–1.27)</td>
<td></td>
</tr>
<tr>
<td>T2 Self-Esteem</td>
<td>0.96(0.72–1.27)</td>
<td>0.96(0.72–1.27)</td>
<td>0.96(0.72–1.27)</td>
<td>0.96(0.72–1.27)</td>
<td>0.96(0.72–1.27)</td>
<td>0.96(0.72–1.27)</td>
<td></td>
</tr>
</tbody>
</table>

**Note.** EA = European American; ACCvnot = ACCENT versus not; GACvnot = GAC versus not; CP/EA = Child physical and emotional abuse; CSA = Child sexual abuse; ASA = adult sexual abuse; T1 = baseline; T2 = 12-month follow-up.

§ $p < .10$.  * $p < .05$.  ** $p < .01$.  *** $p < .001$.
demonstrate higher levels of demographic characteristics associated with having more economic and material resources. As predicted, race significantly predicted membership in the delayed distress versus the resistance trajectory (effect size OR = 3.27), though not in the hypothesized direction. Ethnic minority participants were more likely to be members of the resistance trajectory than were European American participants. Age, education, and income did not significantly predict trajectory membership. In step two, the two dummy-coded intervention group variables were entered into the regression to account for any effects of intervention group membership on trajectory membership. As predicted, intervention group membership did not significantly predict membership in the delayed distress trajectory as compared to the resistance trajectory.

In step three, childhood physical/emotional abuse, childhood sexual abuse, and adulthood abuse variables were added to the regression to investigate the hypothesis that women in the resistance trajectory would endorse less experiences of past abuse. As predicted, childhood physical/emotional abuse (effect size OR = 1.26) significantly predicted trajectory membership, such that more severe experiences of abuse predicted membership in the delayed distress trajectory. Neither childhood nor adulthood sexual abuse was significantly associated with trajectory membership.

In step four, resource loss and social conflict at time 1 were entered into the regression to establish a baseline for the hypothesis that women in the delayed distress trajectory would demonstrate increasing amounts of these acute stressors. As predicted, neither of the acute stress variables significantly predicted trajectory membership at this time point. In step five of the regression, time 1 social support, self-efficacy, and self-
esteem were added to establish a baseline for the hypothesis that women in the delayed distress trajectory would demonstrate decreasing amounts of these resiliency resources. Though not predicted, time 1 self-esteem predicted trajectory membership such that participants with lower self-esteem were more likely to be in the delayed distress trajectory (effect size OR = 1.23). As expected, time 1 social support and self-efficacy were not significantly associated with trajectory membership.

In step six, time 2 resource loss and social conflict were entered into the regression to investigate the hypothesis that women in the delayed distress trajectory would evidence increasing amounts of these acute stressors. As predicted, more resource loss (effect size OR = 1.12) at time 2 significantly predicted membership in the delayed distress trajectory rather than the resistance trajectory. Social conflict at time 2 marginally significantly predicted trajectory membership such that higher levels of social conflict were associated with membership in the delayed distress trajectory. In the seventh and final step of the regression, time 2 social support, self-efficacy, and self-esteem were added to investigate the hypothesis that women in the delayed distress trajectory would evidence decreasing amounts of these resiliency resources. All of these variables failed to significantly predict trajectory membership. In this final model, time 1 resource loss alone predicted membership in the delayed distress trajectory versus the resistance trajectory.
CHAPTER 4

Discussion

The present study represents the first known effort to identify factors that impact psychological resilience in inner-city women using longitudinal data. I proposed four trajectories of psychological well-being that capture the resiliency inner-city women exhibit in the face of these ongoing stressors: chronic distress, resistance, resilience, and delayed distress. I then investigated the influence of demographic characteristics related to chronic stressors, abuse history, more acute stressors, and personal and social resiliency resources on trajectory membership. Across all analyses, less resource loss and higher self-esteem significantly predicted membership in the more desirable trajectory, indicating that these factors are related to psychological resilience in general. Findings for other predictors varied by analysis and will be discussed within the context of each specific comparison, below. Overall, however, effect sizes were very small (i.e., OR < 1.3). Exceptions will be noted below.

4.1 Predictors of the Resistance Trajectory Compared with the Chronic Distress Trajectory

I hypothesized that women in the resistance distress trajectory would evidence fewer indicators of chronic stress and, over time, would show consistently less acute stressors and consistently more resiliency resources as compared to women in the resistance trajectory. This hypothesis was largely supported. Participants’ demographic
characteristics (age and education), abuse history (childhood physical/emotional and sexual abuse, adult sexual abuse), indicators of acute stress (resource loss, social conflict), and self-esteem were significantly related to trajectory membership. When considering all variables in the final model, less severe experience of childhood sexual abuse, lower initial resource loss, and higher initial self-esteem significantly predicted membership in the resistance trajectory versus the chronic distress trajectory. As a whole, these results suggest that these two groups may be distinguished by considering women’s histories of childhood sexual abuse and more chronic disparities in resource loss and self-esteem.

In terms of demographic indicators of economic and material resources, age and education were significantly related to trajectory membership. Participant age predicted trajectory membership such that younger participants were more likely to be in the resistance trajectory. For the demographic variables associated with chronic deficits in economic and material resources age represents a proxy for the length of time facing these chronic stressors, so increases in age would therefore correspond with decreases in psychological resilience. Level of education also significantly predicted trajectory membership, such that participants completing more years of formal education were more likely to be in the resistance trajectory, with a medium to large effect size (OR = 1.73). This finding is consistent with research by Bonanno and colleagues (2007) which demonstrated that higher educational attainment was related to greater likelihood of resilience. This result may also indicate that education impacts trajectory membership for this comparison insofar as greater educational attainment leads to higher levels of
resiliency resources. Indeed, longitudinal research has established education as an important factor in self-esteem across the life-span (Orth, Trzesniewski, & Robins, 2010). It is also possible that protective factors associated with greater educational opportunities, such as family support and values, lead to greater resiliency resources. Conversely, greater resiliency resources may lead to greater educational attainment, as has been suggested by research on self-efficacy in African American high school students (Kerpelman, Eryigit, & Stephen, 2008). Participant race and income were not significantly related to membership in the resistance versus the chronic distress trajectory. Also, intervention group membership demonstrated no significant relationship to trajectory membership for this comparison, as hypothesized.

In terms of the impact of past abuse experiences, as hypothesized, less severe experiences of both childhood physical/emotional abuse and childhood sexual abuse were also related to resistance trajectory membership. Though a large body of research has demonstrated the impact of these childhood experiences of abuse on psychopathology, these results point to an effect of childhood abuse on psychological resilience in adulthood. Other research focusing on psychopathology (Stines et al., 2005; Vranceanu et al., 2007; 2010) has suggested that the impact of these physical and emotional abuse experiences are mediated by inner city women’s more proximal experiences of resource loss and social conflict, which would be consistent with these results. Interestingly, in the final model, more severe experiences of adulthood sexual abuse were related to being resistant, rather than chronically distressed as hypothesized. This finding may point to a similar phenomenon as suggested by the popular phrase “that which does not kill us
makes us stronger” (Nietzsche, n.d.). Perhaps women who have more severe experiences of sexual abuse as adults are able to overcome these abuse experiences and harness that strength for future coping, so long as they are not overburdened by acute stressors. It is important to note, however, that ASA was not a significant predictor of trajectory membership once statistical outliers were removed and this finding should be interpreted cautiously.

In terms of the hypothesized patterns of acute stressors and resiliency resources, the results supported the prediction that women in the resistance trajectory consistently have less resource loss and social conflict and higher self-esteem. Initial levels of resource loss, social conflict, and self-esteem significantly predicted psychological resilience over time as hypothesized, with a small to medium effect evidenced for time 1 self-esteem (OR = 1.48). In the final regression model, changes in both resource loss and self-esteem over and above initial levels were only marginally significant and both initial and follow-up levels of social conflict were nonsignificant. This pattern of results suggests that these ongoing trends in higher self-esteem and less resource loss may differentiate women who are resistant from women are in chronic distress as hypothesized. Social support and self-efficacy did not significantly predict trajectory membership for this comparison.

### 4.2 Predictors of the Resilience Trajectory Compared with the Chronic Distress Trajectory

I hypothesized that women in the resilience trajectory would evidence fewer indicators of chronic stress and over time would show decreasing acute stressors and
increasing resiliency resources as compared to women in the chronic distress trajectory. This hypothesis was partially supported. Participants’ intervention group membership, experiences of childhood sexual abuse, initial levels of resiliency resources (social support, self-esteem), and indicators of acute stress (social conflict at Time 1, resource loss and social conflict at Time 2) were significantly related to trajectory membership as hypothesized. When considering all variables in the final model, participation in the ACCENT intervention and decreases in acute stressors (resource loss and social conflict) over time significantly predicted membership in the resilience trajectory versus the chronic distress trajectory. As a whole, these results suggest that changes in acute stressors, rather than more stable indications of ongoing stress, may differentiate inner-city women who are psychologically resilient from those who are chronically distressed and that appropriate intervention may foster psychological resilience.

Participants’ demographic characteristics were not significantly related to trajectory membership when comparing the resilience and chronic distress trajectories. A notable finding which was not predicted was that women in the ACCENT intervention group were significantly more likely to evidence psychological resilience than women in either the GAC or SCC intervention groups with a medium to large effect (OR = 1.80). This result will be discussed further as relates to implications of study findings for psychological intervention.

In terms of abuse history, less severe experiences of childhood sexual abuse significantly predicted psychological resilience versus chronic distress. However, this effect was nonsignificant in the final model. Though not specifically tested, this pattern
of results may indicate that the experience of childhood sexual abuse influences psychological resilience as it leads to decrements in resiliency resources and increases in acute stressors, as noted elsewhere (Stines et al., 2005; Vranceanu et al., 2007; 2010; Schumm et al., 2005). Neither childhood physical/emotional nor adult sexual abuse predicted psychological resilience over chronic distress.

In terms of the hypothesized patterns of acute stressors and resiliency resource, decreases in both resource loss and social conflict predicted resilience over chronic distress as hypothesized. Though initial levels of acute stressors and resiliency resources were not hypothesized to predict trajectory membership for this comparison, less resource loss (marginal) and social conflict and higher social support and self-esteem at baseline also predicted resilience trajectory membership. In the final model, higher levels of self-esteem at both baseline and follow-up were marginally significantly related to resilience trajectory membership. Self-efficacy did not predict psychological resilience over chronic distress at either time point. Taken together, these findings suggest that it is the change in acute stressors that has more bearing on being resilient versus chronically distressed, as hypothesized.

4.3 Predictors of the Delayed Distress Trajectory Compared with the Resistance Trajectory

I hypothesized that women in the delayed distress trajectory would evidence more indicators of chronic stress and, over time, would show increasing acute stressors and decreasing resiliency resources as compared to women in the resistance trajectory. This
hypothesis was partially supported, and again resource loss emerged as a significant predictor of trajectory membership. Participants’ race, histories of childhood physical/emotional, initial levels of self-esteem, and changes in resource loss were significantly related to trajectory membership. When considering all variables in the final model, only increases in resource loss emerged as a significant predictor of membership in the delayed distress trajectory over the resistance trajectory. Other proposed relationships may not have emerged in this analysis due to a lack of power for detecting small effect sizes, as indicated by \textit{a priori} power analyses.

In terms of demographic indicators of economic and material resources, only race was significantly related to trajectory membership, though not in the predicted direction. Ethnic minority participants (99.1% of whom were African American) were more likely to be members of the resistance trajectory than were European American participants with a very large effect size (OR = 3.27). This finding may point to the strong influence of world view on reactions to stressors as highlighted in the theory of \textit{Shattered Assumptions} (Janoff-Bulman, 1992). In accordance with this theory, European American women may hold personal beliefs of the world as a benevolent place which are then shattered by greater than expected personal experiences of stress, leading to an increased perception of trauma and a potential inability to adapt. African American women, on the other hand, may not have these expectations for the world. Their stressful experiences may not be as “life shattering” because they expect life to be fraught with hardship. This difference in perspective may enable them to adapt in important ways to the stressful situations they encounter, and has been cited by other research to explain similar
instances of African American women coping more effectively than European American women (Chipman, Palmieri, & Hobfoll, 2010; Lamoureux, Chipman, & Hobfoll, 2010). These results can really only speak to differences between European and African American women, as there were insufficient numbers of other ethnic minority women in this sample to draw meaningful conclusions. To be sure, these patterns of results warrant further investigation of the possibility that women of different ethnic groups may cope differently, and that these differences have implications for their psychological resilience. Participants’ age, educational attainment, and income did not seem to have any significant bearing on trajectory membership for this comparison, potentially due to a lack of statistical power. As expected, intervention group membership demonstrated no significant relationship to trajectory membership for this comparison.

In terms of abuse history, women in the delayed distress trajectory did endorse more severe experiences of childhood physical/emotional abuse than women in the resistance trajectory as predicted. As previously mentioned, the research of Vranceanu and colleagues (2007, 2010) indicated that childhood abuse may lead to more acute stressors and less resiliency resources over time. Early experiences of abuse may undermine the healthy development of resiliency resources, in turn increasing vulnerability to future resource loss and other stressful experiences (Vranceanu, Stines, Schumm, Lamoureux, & Hobfoll, 2008). Though not specifically tested, results of the present investigation may reflect this phenomenon. Neither childhood nor adulthood sexual abuse predicted psychological delayed distress over resistance.
In terms of the hypothesized patterns of acute stressors and resiliency resources, women in the delayed distress trajectory did endorse increases in resource loss over time as compared to women in the resistance trajectory. Increases in social conflict also marginally predicted membership in the delayed distress trajectory. Decrements in resiliency resources did not themselves significantly predict membership in the delayed distress trajectory over the resistance trajectory as expected. Again, it is possible that this effect was present and I was unable to detect it due to a lack of power. Though this effect was not hypothesized, lower initial levels of self-esteem predicted membership in the delayed distress trajectory. In the final regression model, increases in resource loss stood as the sole significant predictor of membership in the delayed distress trajectory.

4.4 Conclusions

This study examined the impact of demographic variables related to enduring levels of economic and material resources, abuse history, and levels of acute stressors and resiliency resources within the past year on inner-city women’s psychological resilience. Women who consistently demonstrated few or no symptoms of psychopathology (i.e., resistance) were compared to women who endorsed more psychological distress (i.e., chronic distress) to determine which of these variables might differentiate more stable trajectories of psychological well-being. Women who first endorsed more psychological distress and later reported little or no symptoms of psychopathology (i.e., resilience) were compared to women who exhibited chronic distress to examine which of these variables might be related to this positive change in psychological functioning. Women who first
endorsed few or no symptoms of psychological distress and later endorsed more symptoms of psychopathology (i.e., delayed distress) were compared to women who consistently exhibited resistance to elucidate factors associated with this increase in symptoms. I have thus far focused on the results of each individual comparison, yet there are some interesting conclusions that may be drawn when viewing these findings more broadly.

First, the proposed relationship between demographic variables reflecting more longstanding patterns of economic and material resources (age, education, income, and race) and trajectory membership, such that less exposure to chronic lack of these resources would correspond to healthy psychological functioning (i.e., resistance or resilience), was not obtained across analyses. In general, the findings may suggest that some of these demographic variables (age, education, and race, specifically) may help distinguish women who exhibited more healthy psychological functioning over time in the resistance trajectory from women who either consistently demonstrated more psychological distress over time or who evidenced delayed psychological distress. None of these variables helped to identify women who were resilient rather than chronically distressed, however. Though no other research specific to the construct of resilience can be cited to bolster this claim, perhaps these variables are predictive of consistent healthy psychological functioning over time, but not able to distinguish women who may demonstrate resilience. In other words, it is possible that women’s resilience may function independent of these more longstanding patterns of material and economic resources associated with socioeconomic status, providing more opportunity to
demonstrate resilience than one’s background may suggest. Certainly, more research on inner-city women’s resilience is needed to support this hopeful interpretation. It is also important to note that the null findings for income may be due to the restricted range for this sample, with 88.5% of women earning less than $25,000 per year. Unfortunately, this issue may be unavoidable for research with inner-city women.

Furthermore, these results collectively suggest that childhood experiences of abuse impact psychological resilience in adulthood. Less severe experiences of childhood abuse were related to membership in the more desirable trajectory across analyses. Previous research by Bonanno and colleagues (2007) similarly found that trauma history was related to psychological resilience. In the current investigation, adult sexual abuse only demonstrated a significant effect in the resistance/chronic distress comparison and this effect was opposite to the hypothesized direction. Yet, once statistical outliers were removed this effect was no longer statistically significant, indicating that this finding should be interpreted cautiously. Perhaps further research will shed more light on the impact of adulthood sexual abuse on psychological resilience for inner-city women, as well as provide more nuanced information on the implications of childhood abuse experiences on psychological resilience in adulthood.

Across analyses, the results of the current investigation indicated that the acute stressors of resource loss and social conflict are related to psychological resilience. For all three comparisons, less experience of resource loss predicted membership in the more desirable trajectory (e.g., resistance or resilience) consistent with COR theory. These results are consistent with the results obtained by Bonanno and colleagues (2007), as well
as the findings of Hobfoll and colleagues (2009) in the only other known study investigating psychological resilience in a more chronically stressed sample. In the present study, the findings reflected patterns of these acute stressors consistent with hypotheses. Consistently lower levels of resource loss over the twelve-month period differentiated women who were resistant from women who were chronically distressed. Changes in resource loss over the twelve-month period predicted trajectory membership as hypothesized in each of the change comparisons. Decreases in resource loss distinguished women in the resilient trajectory from women in the chronic distress trajectory, indicating that experiencing more of these acute stressors impacts psychological resilience. The findings for social conflict mirrored these effects for the resistant/chronic distress and resilient/chronic distress comparisons, but not for the delayed distress/resistant comparison (perhaps due to lack of power, as mentioned previously). Taken together, these results support the notion that less experience of acute stress is related to more healthy psychological functioning, though effect sizes for these variables were notably quite small.

Finally, I investigated the hypothesis that endorsing more of the “resiliency resources” social support, self-esteem, and self-efficacy would be related to healthier psychological functioning. Indeed, across analyses higher initial levels of self-esteem were related to membership in the more desirable trajectory (i.e., resistant or resilient). This pattern is not consistent with hypotheses, which proposed changing levels of self-esteem over time in accordance with psychological functioning. Though in some cases this change was marginally significantly related to trajectory membership, these findings
may suggest that more enduring levels of self-esteem are more meaningful in predicting psychological resilience. Many researchers have debated the stability of self-esteem as a construct and whether it should be considered more a “state” or “trait” variable. The results of the current investigation suggest that it is the stability of self-esteem which may be more relevant to the study of psychological resilience. In an examination of the stability of self-esteem across the life-span, Trzesniewski, Donnellan, and Robins (2003) found that self-esteem was comparably stable to other personality traits, with general fluctuations in different broader periods of life. Findings for social support and self-efficacy across analyses suggest that these resources are not significantly related to differentiating resilience trajectories in general. The results for social support are particularly surprising given the previous findings that this construct is related to psychological resilience (Bonanno et al., 2007; Hobfoll et al., 2009). It is quite possible, however, that by including social conflict in this model prior to entering social support the important aspects of social functioning were accounted for by the earlier variable.

4.5 Implications for Intervention

Clearly, being resistant or resilient in the face of both chronic and acute stressors is desirable, and this research endeavor highlights some potential pathways through which to influence psychological resilience. The results of this study that are most interesting from an intervention standpoint are the results related to predictions of change: the comparison of the chronic distress and resilience trajectories and the comparison of the resistance and delayed distress trajectories. Increases in resource loss clearly predicted
belonging to the less desirable trajectory for both comparisons. These results suggest that working to prevent increases in these women’s experiences of resource loss would facilitate their psychological resilience. One viable option for targeting further losses of resources is to train inner-city women to better utilize those resources that are available to them. Such a program would not only educate women about the various resources available to them of which they may be unaware, but would also help women to feel more competent to affect change in their lives. This secondary benefit would likely lead to increases in resiliency resources, which may in turn protect them from further loss.

The unexpected finding that women in the ACCENT group were significantly more likely to demonstrate resilience over time than women in either the GAC or SCC groups may provide further information for fostering resilience in inner-city women. Aspects that were unique to the ACCENT intervention were primarily related to more advanced training in negotiating high-risk sexual scenarios that these women were likely to encounter. This training consisted of structured and challenging role-play enactments of these scenarios in which women could actually practice using the skills needed to negotiate these dangerous situations. Care was taken on the part of the researchers to make the enactments “true to life” for these women. By applying these same strategies to other stressful situations that inner-city women are likely to encounter and providing them the opportunity for “true to life” practice using the resources that they have at hand, these women may be able to effectively decrease or halt the further loss of resources. Through their own efforts, inner-city women may then determine their own psychological resilience trajectory.
4.6 Limitations and Future Research

Given that this study is the first attempt to identify factors that influence the psychological resilience of inner-city women, this effort raises a number of considerations for future research. The present study utilized longitudinal data from a large community sample. Although this sample was collected for a larger study focusing on health intervention, the sample itself and the types of data collected were appropriate to test the current hypotheses. Many study hypotheses were supported, yet most effect sizes were very small. Such small effect sizes could reflect a number of issues, including the possibility that these results may not generalize to other samples or may omit other important predictors of psychological resilience. Indeed, other research related to childhood sexual abuse has raised the important point that this abuse occurs within a larger context and that perhaps other contextual factors are responsible for some of the deleterious outcomes associated with these abusive experiences (Rind et al., 1998). Future research should make efforts to include more contextual variables, such as aspects of the family environment, to account for the larger environmental context within which abuse occurs.

In this study, psychological resilience was assessed via number of symptoms of depression and posttraumatic stress at baseline and a 12-month follow-up. Though this method was based on the practices commonly utilized in other studies of resilience, it is important to note its potential short-comings. First, psychological distress may be indicated in ways that assessing for symptoms of depression and posttraumatic stress may not detect. Distress may manifest in symptoms of other disorders or as somatic
complaints. Second, symptoms of posttraumatic stress must necessarily be assessed relative to a specific traumatic experience. In this study women were asked to report symptoms of PTSD related to the past experience of interpersonal trauma only. Thus, the PTSD symptoms reported by these inner-city women may be an underrepresentation of their actual experience of posttraumatic stress symptoms if they were experiencing symptoms related to another type of trauma. That said, it is important to note that interpersonal traumas are widely recognized to be the most common trauma class for women in general, and inner-city women in particular.

Also, the current investigation used theoretically-based trajectories of psychological resilience as a foundation for study hypotheses. Investigating trajectories has the advantage of providing more nuanced information than focusing on group means, as averaging necessarily cancels out high and low values. Investigating trajectories based on theory, and not on statistically determined groups, has the added advantage of being able to test constructs chosen based on theory. Trajectories based on statistical analysis may be obscured by what is most common without reflecting what is theoretically of interest. The present study did suffer a lack of power for detecting relationships relevant to the delayed distress trajectory due to the small occurrence of this group (8.6%). This issue was not unexpected, as Hobfoll and colleagues noted a similarly smaller occurrence of this trajectory (10.3%) in their sample.

Importantly, conclusions from this study only have bearing on the construct of psychological resilience for inner-city women. These results do not speak to the presence or absence of psychological disorder for these women, nor can the results be used to
predict who might develop such a disorder. Conversely, the current results also do not speak to the difference between those individuals who are relatively symptom free (or resilient) and those individuals who endorse doing much better than that (such as feeling happiness). Though individuals who are relatively free of symptoms of depression and PTSD are probably more likely to experience such higher levels of well-being, identifying these individuals was not an aim of the present investigation. Identifying predictors of either psychopathology or these higher levels of well-being is another research question altogether.

To be sure, the current data represents a one-year snapshot in these women’s lives. Certainly, we may learn more about how these variables interact to inform psychological resilience by following inner-city women over longer periods of time. Perhaps most importantly, the results of this investigation strongly suggest the need to consider more chronic stressors in people’s lives when examining how they respond to acutely stressful events in order to get a more complete picture of issues impacting psychological resilience.
REFERENCES


Ennis, N. E., Hobfoll, S. E., & Schröder, K. E. E. (2000). Money doesn't talk, it swears:


van Dulmen, M. (2005, Fall). Lecture presented to the Quantitative Statistical Analysis I course, Kent State University, OH.


Vranceanu, A. M., Hobfoll, S. E, & Johnson, R. J. (2010). Personal and social resources as mediators between child abuse and adult depression and PTSD. Unpublished manuscript.

