Identifying Moderators of Resilience following Sexual Victimization: The Role of Resource Loss, Self-Efficacy and Social Support

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ABSTRACT

Research suggests that the experience of sexual victimization leads to higher levels of psychopathology. It has been noted, however, that resource loss following the victimization, as opposed to the act of victimization itself, is the driving factor in adaptation following the victimization. The current study attempted to address the impact of resource loss following sexual victimization on resilience, as defined by a lack of psychology. In addition, the current study sought to gain a better understanding of the roles of social support and self-efficacy in this relationship. It is hypothesized that higher levels of resource loss following victimization will lead to lower levels of resilience. In addition, it is hypothesized that social support and self-efficacy will moderate this relationship. Data was collected using a female, undergraduate sample at Virginia Tech. Results indicated that total resource loss and personal characteristic loss were found to positively predict depression, anxiety and total psychopathology. It was also found to negatively predict school performance, and satisfaction with friends. Neither type of loss significantly predicted alcohol use, change in G.P.A., number of hookups and PTSD. No significant moderation was found for either social or support or self-efficacy. Implications of these results will be discussed.

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1.0 - Introduction

Sexual victimization is a widespread problem on college campuses. Although statistics vary by survey, it has been noted that anywhere from 20% (Testa, 2004) to 74.8% (Smith, White & Holland, 2003) of women have been exposed to sexual victimization by their fourth year of college. When asked about the past year, up to 46.3% of women have experienced some form of sexual victimization, while as many as 6.5% had been raped (Fisher, Daigle, & Cullen, 2010). Sexual victimization experiences can range from unwanted sex play (e.g., fondling, kissing), to attempted or successful forced intercourse (Fisher, et al., 2010). Rape, the most severe category of sexual victimization, includes any type of unwanted sexual intercourse, whether achieved through physical force, drugs or alcohol or psychological manipulation (Koss, Gidycz, & Wisniewski, 1987). Although rape is typically thought of as the primary form of victimization, as previously noted, other forms of sexual victimizations are extremely prevalent on college campuses. The negative psychological and social effects of these unwanted sexual experiences have been well documented (Fisher, et al., 2010; Harned, 2004; Koss, et al., 1987).

It should be noted, however, that a significant proportion of women who have experienced victimization do not label it as victimization. In fact, up to 81% of women who meet criteria for sexual victimization do not label it as such (Koss, Dinero, Sibel & Cox, 1988). While it has been argued that if an individual does not label it as victimization that the effects are significantly lessened (e.g. Gilbert, 1992, Sommers, 1994), studies have demonstrated negative outcomes regardless of whether or not an individual identified as being victimized (Harned, 2004, Littleton, 2003). In order to avoid the issue of whether or not an individual has labeled their experiences as such, it has been suggested to use a behavioral definition of sexual experiences (Fisher, et al., 2010; Koss, et al., 1987).

Common mental health outcomes following sexual victimization include depression (Schumm, Stines, Hobfoll, & Jackson, 2005), anxiety (Littleton, Axsom, & Grills-Taquechel, 2009a) and post-traumatic stress disorder (PTSD) (Kaysen, Rosen, Bowman, & Resick, 2010). In addition, individuals who experience victimization may experience difficulties academically and socially (Letourneau, Resnick, Kilpatrick, Saunders, & et al., 1996).

Although sexual victimization often leads to negative outcomes, many continue to function normally. The ability to preserve in the face of trauma without significant declines in functioning has been termed “resilience”. Specifically, resilience has been defined as positive

adaptation during or following adversity (Masten, 2006). Based on this definition, two judgments must be inferred regarding an individual's adaptation. In particular, an individual needs to be doing "ok", or more specifically, meeting a set of predetermined criteria that has been judged to indicate normal adaptation and this adaptation has to occur following some form of adversity. Without the experience of stress or adversity, one would be considered competent or "doing well", rather than displaying resilience. It should be noted that adversity refers to a subset of overall risk factors or environmental conditions that may impede an individual's ability to accomplish age-appropriate developmental tasks (Wright & Masten, 2005), and therefore is quite broad. For the purposes of the current model, adversity is conceptualized as sexual victimization or unwanted sexual experiences.

Despite the widespread prevalence of victimization, little has been done examining the effects of sexual victimization on resilience. Within the sexual literature, the focus has been on avoiding revictimization, as opposed to a focus on a combination of current mental and physical functioning. For example, in a study of undergraduate students, resilience was conceptualized as avoidance of victimization as an adult (Walsh, Blaustein, Knight, Spinazzola, & van der Kolk, 2007). While a few studies have examined resilience as a lack of psychopathology (Katerndahl, Burge, & Kellogg, 2005; Suzuki, Geffner, & Bucky, 2008), at this time, no study has utilized a comprehensive definition of resilience in the study of the effects of sexual victimization.

The Conservation of Resources (COR) model has been previously utilized to better understand the impact of sexual victimization on outcomes (Banou, Hobfoll, & Trochelman, 2009; Schumm, Stines, Hobfoll, & Jackson, 2006; Walter & Hobfoll, 2009). Following sexual victimization, the types of resource loss most frequently reported include personal characteristics (i.e., self-esteem), energies (i.e., good marriage) and conditions (i.e., time, energy) (Schumm, et al., 2006). Loss has been found to predict negative psychological outcomes including depression (Banou, et al., 2009; Hobfoll, et al., 2002; Schumm, et al., 2006), and PTSD (Hall, et al., 2008; Schumm, et al., 2006; Walter & Hobfoll, 2009). Loss has also been found to predict lower levels of resilience, a defined as a lack of mental distress (Hobfoll, et al., 2002). In addition, since resources allow individuals to have a sense of competency, it can be expected that resource loss would predict a loss of competence, such as satisfaction with friends or success in school. Loss also directly affects resilience as continued loss cycle depletes existing resources, undermining attempts at recovery processes (Walter & Hobfoll, 2009).

As previously noted, exposure to sexual victimization often leads to negative outcomes, however, many individuals continue to function in a manner similar to their level of functioning prior to the victimization. Research has examined the role of resource loss in predicting psychopathology following sexual victimization, however, at this time, no study has examined the role between victimization and resilience as conceptualized in this manner. Therefore, the current study will seek to examine the role of resource loss in the relationship between sexual victimization and resilience in college students.

1.1 - The Impact of Sexual Victimization

Unwanted sexual experiences (USEs) (i.e. those that are the result of victimization) are associated with a variety of negative psychological and social outcomes including PTSD, depression and social maladjustment (Dickinson, de Gruy, Dickinson, & Candib, 1999; Koss, Figueredo, & Prince, 2002; Rothbaum, Foa, Riggs, Murdock, & et al., 1992). These experiences include sexual coercion (i.e., sexual intercourse obtained through verbal coercion) as well as other types of unwanted sexual contact (i.e., instances where the perpetrator intentionally touches the victims body in a sexual manner) (Fisher, et al., 2010).

As stated earlier, instances of sexual victimization lead to a variety of negative outcomes including depression, anxiety and PTSD. For example, in one study, individuals who had been raped were 3 times as likely to meet criteria for Major Depressive Disorder, and almost 2 times as likely to qualify for a diagnosis of dysthymia (Dickinson, et al., 1999). In addition, victimization may lead to negative behavioral consequences such as physical health problems (Brener, McMahon, Warren, & Douglas, 1999), the engagement in risky behaviors (i.e. substance use, sexual risk-taking) (Kaltman, Krupnick, Stockton, Hooper, & Green, 2005) and negative social outcomes (Letourneau, et al., 1996). For example, in a sample of sexual assault victims, work function was impaired up to 8 months post-assault (Letourneau, et al., 1996).

Most individuals who experience rape or assault to not label it as such, particularly in a college population (Littleton, et al., 2009a). In contrast, many of these experiences are labeled as a miscommunication, seduction or as “an instance of bad sex”. While it has been noted that while individuals who fail to label their experience as rape often experienced an event less violent than those who label it as rape (Fisher, Daigle, Cullen, & Turner, 2003; Littleton, Axsom, Breitkopf, & Berenson, 2006) and had an experience that likely occurred in the context of a relationship, whether romantic or platonic (Koss, Dinero, Seibel, & Cox, 1988), negative

outcomes still occur. Although there has been some argument regarding the importance of labeling a sexual experience as "rape" or "assault", it is generally accepted that negative sexual experiences lead to distress regardless of the label (Harned, 2004; Layman, Gidycz, & Lynn, 1996; Littleton, et al., 2006). In fact, although those who label their victimization may experience higher levels of distress, those who do not label their experience as victimization may be more likely to experience higher levels of revictimization, putting them at a greater risk for psychopathology (Littleton, et al., 2009a). As studies have been inconsistent in their findings regarding the importance of labeling victimization, it may be more useful to utilize a more specific method of defining and conceptualizing exposure to an event.

1.2 - Resilience

Despite exposure to significant adversity, many individuals do not develop psychopathology and continue to function at a level comparable to his/her functioning prior to the trauma. This stable trajectory of functioning in the face of stress has been termed resilience. Traditionally, resilience has been defined as positive adaptation during or following adversity (Masten, 2006). In order for an adult to be considered as displaying resilience, individuals are often expected to perform at a comparable level to how they were functioning prior to the traumatic event (Bonanno & Mancini, 2008). The exact determination of this criterion is subjective; however, and must be defined clearly in each instance.

The specifics of what should be included in the definition of resilience have been a central debate in the literature. Theorists and researchers have argued about what constructs are necessary to constitute "resilience" and what features define adaptive functioning. Discussions of resilience originally began in the developmental psychopathology literature where studies of resilience focused on behavioral competence (i.e., academic functioning, social functioning, overall appropriate behaviors) as the resilience construct (Garmezy, 1993; Garmezy, Masten, & Tellegen, 1984; Werner, 1996). It should be noted that psychopathology was not a central construct within this definition.

As the discussion regarding resilience has branched to the adult trauma literature, resilience is often defined as a lack of psychopathology. Specifically, within much of the trauma literature, resilience has been defined as " the ability of adults in otherwise normal circumstances who are exposed to an isolated and potentially high 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, as well as the capacity for generative experiences and positive emotions" (Bonanno & Mancini, 2008). The focus in this definition lies in mental and psychological wellness, as opposed to competence constructs. It has been noted, however, that conceptualization of resilience should include both competence/behavioral measures and a lack of psychopathology (Friborg, Hjemdal, Martinussen, & Rosenvinge, 2009).

When examining resilience in adulthood, it has been argued that the domains of importance depend on the research question or specific situation; however, it can also be argued that there should be universal areas that we expect individuals to be doing well in order to make a judgment that they are "doing well" or displaying resilience post-trauma. In addition, by examining other areas of functioning, we are better able to understand the mechanisms that promote healthy adjustment across domains, rather than simply preventing psychopathology (Layne, et al., 2009). For the current project, the goal will be to gain a comprehensive understanding of functioning following a traumatic event, while at the same time, considering the areas that are most often affected by sexual victimization. As previously stated, exposure to sexual victimization has significant mental health outcomes (Littleton, et al., 2006; Schumm, et al., 2006). In addition, individuals often engage in heavy alcohol use (Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004) and risky sexual behaviors (Testa, Hoffman, & Livingston, 2010). Therefore, in addition to the commonly utilized constructs of a lack of psychopathology, social functioning and academic functioning, alcohol use and risky sexual behaviors will also be considered as important components of resilient functioning.

For the purposes of the current project, resilience will be considered an "outcome" as opposed to a process. In the literature, resilience has been conceptualized as both an outgoing process and as a final outcome or level of adjustment. Although often thought of as mutually exclusive, these definitions are often used interchangeably (Luthar, Cicchetti, & Becker, 2000). Specifically, it has been defined as "positive patterns of functioning or development during (i.e. process) and following adversity (i.e. outcome)" (Masten, 2006). In addition, it has been defined as "a dynamic process encompassing positive adaptation within the context of significant adversity"(Luthar, et al., 2000). When conceptualized is this manner, resilience is viewed as dynamic (versus static) change where various individual strengths and weaknesses emerge as the individual develops. Despite referring to an ongoing, changing state of being, a judgment is still being made that resilience is an outcome describing positive functioning. While it should be

recognized that the factors that constitute resilience are in constant flux (i.e. psychopathology, sexual behaviors), for the purposes of the current examination, an assessment will only occur at one time point, necessitating the use of resilience as an outcome.

1.3 - Risky Sexual Behaviors

Individuals who have experienced sexual victimization are at an increased risk to engage in risky sexual behaviors, such as an increased number of sexual partners (Testa, et al., 2010). The engagement in these behaviors leads to a greater risk for future victimization (Littleton, et al., 2009a). For example, in a study of first year college students, it was found that risky sexual behaviors, along with heavy drinking, significantly predicted both initial sexual victimization and revictimization (Testa, et al., 2010). Risky sexual behaviors include increased numbers of sexual partners as well as increased numbers of "hookups", which may or may not include sexual intercourse.

The role of risky behaviors in revictimization is of particular importance as these individuals are more likely to be diagnosed with a psychiatric disorder including PTSD and Major Depressive Disorder (Kaltman, et al., 2005). Therefore, due to the implications for the likelihood of revictimization and the future development of psychopathology, risky sexual behaviors following sexual victimization will be considered in the present investigation. Specifically, the lack of engagement in these behaviors will be conconceptualized as a behavioral component of resilience.

1.4 - Alcohol Use

Alcohol use and abuse has been widely recognized as both a proximal and distal risk factor for sexual victimization, particularly in the college population (Abbey, et al., 2004; Testa, 2004). The primary focus of this research is the effects of heavy episodic drinking (HED) or binge drinking. Binge drinking (HED) has been defined as a pattern of drinking that "corresponds to consuming 4 or more drinks (female) in less than two hours ("NIAAA Newsletter," 2004). Binge drinking is of particular interest for a college population as it is extremely common on college campuses (Grucza, Norberg, & Bierut, 2009). Alcohol abuse has been closely linked to both initial sexual victimization as well as revictimization (Najdowski & Ullman, 2009). For example, HED was found to be the strongest predictor of rape in college students when compared to other school and social factors (Mohler-Kuo, Dowdall, Koss, & Wechsler, 2004). If individuals are intoxicated, they are less likely to recognize and remove

themselves from risky situations, resulting in an increased risk for victimization. It should also be noted that longitudinal studies have demonstrated that sexual victimization alone is not related to an increase in binge drinking behavior but that subsequent drinking is related to prior drinking behaviors (Testa, Livingston, & Hoffman, 2007). Therefore, binge drinking often plays a strong role in both initial victimization as well as revictimization. As binge drinking appears to be a significant risk factor for later difficulties including revictimization, a lack of binge drinking will be included in the conceptualization of resilience.

1.5 – Conservation of Resources (COR) Theory

The Conservation of Resources (COR) model provides a framework from which to understand individual reactions following a traumatic event. The COR model is based on the tenet that individuals seek to obtain, retain and protect their resources (Hobfoll, 1989). Resources include items valued for survival either directly or indirectly and can include physical objects (i.e. home, toys, clothing), conditions (i.e. employment, education, health), personal resources (i.e. self-esteem, optimism, hopefulness) and energies (i.e. time, knowledge). Resource loss can be defined as the loss of personal and social resources which results in diminished coping capacity and psychological distress (Freedy, Shaw, Jarrell, & Masters, 1992). Resources allow individuals to achieve a sense of competence and mastery as well as fulfill their psychological and physical needs.

It is suggested that any event that results in actual or perceived loss of resources (i.e., victimization) will produce psychological stress. Specifically, it has been posited that psychological distress (i.e. PTSD, depression) can be conceptualized as the result of a rapid loss of material and psychosocial resources (Hobfoll, 1991).

Following a traumatic event, such as sexual victimization, resources are threatened or lost, leading to psychological distress (Banou, et al., 2009; Schumm, et al., 2006). Individuals inherently aim to protect their resources, as well as prevent future loss of resources. In order to do this, individuals must increase their resource reservoir through the investment of current resources. If an attempt to gain resources is successful, an individual may be protected against distress, however, if they are unsuccessful, distress will ensue (Hobfoll, 1998).

Although it has been argued that changes in environment are stressful, COR theory argues that distress is a result of resource loss rather than on the specific changes that occur during a stressful time (Layne, et al., 2009). Therefore, stress is due to changes in resources

rather than the specific change in routine or environment. For example, if a woman leaves a relationship after victimization, the stress is incurred due to the loss of the home she previously lived in or the loss of sources of support rather than the actual change. In fact, it has been found that the negative consequences of change only occurred when it was accompanied by the loss of resources (Hobfoll, Dunahoo & Monnier, 1995).

It should be noted that the COR model emphasizes specific aspects of an event which are conceptualized as the associated resource changes. Rather than viewing each trauma as a standalone event (i.e. rape, natural disaster, act of terrorism), the goal is to unpack each event into resources whose specific impact can be further analyzed (Schumm, et al., 2005).

The basic tenets of COR theory provide a way to understand the impact of sexual victimization and provide an explanation for differential outcomes among individuals who have experienced the same type of trauma such as sexual victimization. For example, one central principle of COR theory is that resource loss is more salient than resource gain (Hobfoll, 1995). Following a traumatic event, such as sexual victimization, a loss of resources typically ensues. For example, following victimization, one may lose, self-esteem, a sense of safety, hopefulness, time and energy. If the individual knew the perpetrator, they may feel as though they lost a friend or other sources of support.

COR theory also seeks to explain why individuals who have experienced a traumatic event are at an increased likelihood to experience additional traumatic events. Without a base of initial resources, individuals are more susceptible to future loss in addition to feeling a greater impact from the loss of resources during the trauma. For example, in a study of women with cancer, those who had experienced prior interpersonal traumas were significantly more at risk for psychopathology following the cancer diagnosis (Banou, et al., 2009). This relationship is hypothesized to exist as those who have already experienced traumatic events have depleted their resource reservoirs and therefore struggle to meet the demands they are now faced with. Within the sexual victimization literature, this issue is particularly salient as individuals who have been victimized are at greater risk for revictimization (Fisher, et al., 2010). Therefore, individuals are at an increased likelihood of experiencing continuing losses. Specifically, a traumatic event leads to a loss of essential resources at the precise time that an individual would seek to utilize these resources. In addition, during attempts at recovery from the initial trauma, additional stressors often materialize, further taxing an individual's ability to cope. Additional resources are

often needed to cope with additional stressors; however, this demand may overwhelm the individual's reservoir as they are already utilizing whatever resources are available (Schumm, et al., 2005). As a result, an individual may become engaged in an accelerated loss cycle, leading to increased levels of distress and psychopathology as resource losses continue.

1.6 - Resource Loss and Sexual Victimization

As documented above, resource loss has repeatedly been found to predict psychopathology, including depression and PTSD (Hobfoll, Horsey, & Lamoureux, 2009; Palmieri, Canetti-Nisim, Galea, Johnson, & Hobfoll, 2008; Schum, Hobfoll, & Keogh, 2004; Schumm, et al., 2005). Following a traumatic event, individuals often experience a loss of resources, leading to both an increased risk of psychopathology, as well as a decreased likelihood of displaying resilience. Resource loss is believed to lead to distress due to its influence on an individual's way of living (Hall, et al., 2008). If one experiences a substantial loss of resources (i.e. sources of support, a sense of safety in one's environment, time, energy), their previous way of life is unable to be sustained. For example, in a study of inner-city women, abuse as a child predicted later PTSD and depression (Schumm, et al., 2005). In addition to predicting immediate psychopathology, initial loss was related to future loss and the development of psychopathology. It is hypothesized that abuse as a child (or other traumatic events) shatters certain assumptions about the safety of oneself as well as the ability of support in one's environment (Hall, et al., 2008). Exposure to interpersonal violence or victimization may have significant negative effects on one's beliefs about themselves and the world, leading to significant distress.

Borrowing from the disaster literature, resource loss has been a strong predictor of post-traumatic stress and major depression (Benight, Swift, Sanger, Smith, & Zeppelin, 1999; Hall, et al., 2008). For example, during the disengagement in Gaza, economic and psychosocial losses were significantly related to PTSD and depression. In addition, following the Virginia Tech shooting on April 16th, 2007, resource loss was found to strongly predict distress 6 months post-shooting. In the same study, resource loss at 2 months was significantly related to resource loss at 6 months, further highlighting the impact of initial loss on one's ability to recover(Littleton, Axsom, & Grills-Taquechel, 2009b)

Loss from all categories (e.g. personal, energy) may occur following an interpersonal trauma, however, personal characteristic loss appears to have a particularly effect on psychopathology (Banou, et al., 2009; Benight, et al., 2000; Sattler, et al., 2006; Schumm, et al.,

2005). In a study of inner-city women who had experienced sexual abuse as a child, personal characteristic resource loss was found to be significantly predictive of PTSD and depression, whereas work and financial resources were not (Banou, et al., 2009). Borrowing from the disaster literature, personal characteristic loss was found to be the strongest predictor of distress in a multi-national study of the effects of Hurricane Georges (Sattler, et al., 2006). This finding was replicated following a series of earthquakes in El Salvador in 2001 (Sattler, et al., 2006). Although studies within the sexual victimization literature have not examined the unique role of personal resources, the loss of interpersonal resources (i.e., resources related to support and relationships) were significantly predictive of distress (Banou, et al., 2009).

1.7 - Self-Efficacy

Once victimized, an individual must call upon their personal resources to cope with the challenges of the trauma. Whether or not someone will mobilize the appropriate resources is related to their beliefs in their capability to manage the demands of the traumatic event (Benight & Bandura, 2004). Self-efficacy beliefs not only influence how a person construes a situation, but also influence the degree to which they utilize their resources in order to cope with the situation. Once a situation is appraised at being conquerable, individuals often experience a decrease in stress and anxiety as coping effects are mobilized.

Research has demonstrated that those with high self-efficacy are more likely to persevere under stress and have positive outcomes following a trauma. In a study of women who had experienced sexual abuse as a child, self-efficacy was found to be a significant predictor of psychopathology (Cieslak, Benight, & Lehman, 2008). Specifically, low self-efficacy beliefs at one time point predicted psychopathology at the next time point. In another instance, after the Oklahoma City Bombing in 1995, those with high coping self-efficacy beliefs were found to have less psychological distress and PTSD symptoms (Benight, et al., 2000). In fact, self-efficacy beliefs were found to account for 23 % of the variance in predicting psychological distress after controlling for loss and exposure variables. It also contributed to 28% of the variance in predicting PTSD symptoms after taking these same control variables into account. Interesting, although self-efficacy could be conceptualized as a specific personal resource, it has been found to explain unique amounts of variance in the prediction of outcomes (Benight, et al., 2000; Benight, et al., 1999).

Feeling as though one has the ability to cope with a situation has been found to reduce the negative impact of a stressful event (Wingood & DiClemente, 1997). In a study of Native American women who had a history of abuse, a sense of control over the situation was related to lower levels of depressive mood and anger (Hobfoll, et al., 2002).

Although little has been done examining the effects of self-efficacy beliefs on the relationship between sexual victimization and resilience, self-efficacy beliefs may predict lower levels of revictimization (Walsh, et al., 2007). In a study of a program intended to reduce rates of revictimization, an increase in self-efficacy was related to the utilization of more self-defensive strategies (Gidycz, Rich, Orchowski, King, & Miller, 2006).

Borrowing from the disaster literature, self-efficacy beliefs have been found to be important in influencing recovery following natural disasters. For example, after Hurricane Andrew, the role of coping self-efficacy beliefs were found to be a significant predictor of psychological distress in HIV + men (Benight, et al., 1997). It was found that specific coping self-efficacy beliefs related to the hurricane accounted for 51% of the variance in PTSD symptoms after and above threat to life, CD4 counts, estimated damage (i.e. loss), income and education. These beliefs also accounted for 27% of the variation in generally psychological distress. Therefore, a belief in one's ability to recover from the hurricane was an important predictor of one's resilience. In a second study of Hurricane Andrew survivors, it was found that the greater the loss of resources from the hurricane, the lower the perceived self-efficacy. In addition, greater levels of self-efficacy beliefs were related to lower levels of distress. Therefore, this study suggests that the relationship between loss and psychological distress significantly affected by self-efficacy beliefs (Benight & Harper, 2002). Self-efficacy beliefs will help to determine coping efforts following this loss of personal resources. Therefore, when self-efficacy beliefs are high, one will likely be focused on alleviating environmental demands. This may help to explain the relationship between resource loss and PSTD symptoms.

Coping self-efficacy beliefs have also been shown to contribute to resilience, as defined by a lack of psychopathology. Although research has yet to examine this relationship in the sexual victimization literature, it has been demonstrated within the general trauma literature. For example, in a study of individual who had experienced a traumatic injury, coping self-efficacy beliefs were strongly related to resilient outcomes (deRoon-Cassini, Mancini, Rusch, & Bonanno, 2010). In addition, it has been suggested that self-efficacy beliefs are strongly related

to positive outcomes following a traumatic event (Westphal & Bonanno, 2007). Self-efficacy beliefs may also lead to lower levels of resource loss, resulting in better outcomes (Schumm, et al., 2005). This study will seek to better understand the role of self-efficacy beliefs in the relationship between sexual victimization and resilience.

Self-Efficacy as a Moderator

Although self-efficacy is often examined as a mediator or direct predictor of distress following a traumatic event, there are limited instances when self-efficacy has been used examined as potential moderator of the relationship between stress and negative outcomes (Goldsmith, Thompson, Black, Tran, & Smith, 2011; Lu, Chang, & Lai, 2011). For example, self-efficacy beliefs related to drinking behaviors moderated the relationship between stress and anxiety and drinking behaviors (Goldsmith, et al., 2011). Although research in this area has been limited, self-efficacy beliefs may operate similarly in the sexual victimization population. Specifically, there may be a weaker relationship between resource loss and resilience in those with high levels of self-efficacy as opposed to those with low-levels of self-efficacy.

1.8 - Social Support

One pathway through which sexual victimization is thought to lead to negative outcomes is through the undermining of important psychosocial resources such as social support (Hill, Kaplan, French, & Johnson, 2010). Therefore, if social support is preserved, the effects of sexual victimization will be lessened (Schumm, et al., 2006). In a study of women who had experienced both sexual abuse as a child, as well as victimization as adults, the presence of social support was found to buffer against the development of both PTSD and depression (Schumm, et al., 2006).

In addition to main effects, social support has been found to moderate the relationship between sexual victimization and mental health outcomes (Hill, et al., 2010). Specifically, emotional support was found to moderate the relationship between unwanted sexual experiences and distress in young adults. In another study, social support was found to moderate the relationship between injury and psychopathology (Haden, Scarpa, Jones, & Ollendick, 2007).

Research has also demonstrated the importance of social support in resilience as it may reduce the risk of revictimization. For example, in an ethnically diverse study of 625 individuals who had experienced sexual victimization, those who had not experienced a second instance of victimization had significantly higher levels of social support than those who had experienced a second instance (Mason, Ullman, Long, Long, & Srarzynski, 2009)

Social support is often conceptualized within the COR framework as a personal resource. Although it is useful to view it in this manner, support may also act to help an individual retain other personal resources. For example, the presence of social support was found to reduce personal characteristic losses of optimism and self-esteem in an adult sample of child sexual abuse survivors (Murthi & Espelage, 2005). Therefore, social support will also be examined independently of personal characteristic resources in the prediction of resilience.

1.9 - Measurement of Sexual Experiences and Sexual Victimization

In order to accurately assess unwanted sexual experiences, two main approaches have been utilized (Fisher, et al., 2003). The first approach allows the victim to self-label their experience. Specifically, the individual is generally asked whether they have ever been *sexually abused, sexually assaulted*, or *raped.* With this method, only individuals who believe they have experienced sexual victimization and have labeled it as such are included. In contrast, a second method utilizes a behavioral approach where individuals are asked questions regarding unwanted sexual experiences, however, these experiences are not labeled (i.e. rape, assault). This allows individuals to endorse experiences without labeling them as victimization (Harned, 2004). For example, one item of the Sexual Experiences Survey (SES; Koss & Gidycz, 1985) asks, "Have you had any sexual intercourse when you didn't want to because a man threatened or used some degree of physical force to make you? (Koss et al, 1987). It is of particular importance to assess sexual experiences using this behavioral approach as many individuals do not report rape when it does not adhere to the typical stereotype of sexual assault (Kilpatrick, Resnick, Saunders, & Best, 1998). For example, individuals often fail to label experiences as "rape" when perpetrated by acquaintances or friends.

For the present examination, a behavioral approach will be utilized to gain an understanding of sexual experiences. This second method is preferable over the first approach as a broader base of individuals will be included. Specifically, individuals who may not have labeled their experience as rape but who experienced an incident that legally meet the definition for rape will still be assessed. In addition, the term "rape" is open to many diverse interpretations (Fisher, et al., 2010). By providing behaviorally specific criteria, there is significantly less unexplained variance as there are clear descriptions of each event.

The present examination sought to gain a comprehensive understanding of the impact of sexual victimization on resilience as few studies have examined this relationship. Specifically, the study aimed to understand the impact on both internal functioning (i.e., psychopathology), as well as behavioral competence (i.e., academic and social functioning). In addition, the present assessment utilized the Conservation of Resources (COR) model to understand the relationship between victimization and resilience. Data was collected online as women have reported that they are more likely to report victimization on a survey as compared to in-person (Orchowski, Meyer, & Gidycz, 2009).

1.10 – Rationale for the Project and Hypotheses

I. It was hypothesized that total resource loss would negatively predict resilience following sexual victimization.
II. It was also hypothesized that personal characteristic loss alone would predict resilience following sexual victimization.
III. In addition, it was hypothesized that other loss (i.e., energy loss, condition loss and object loss) would negatively predict resilience.
IV. It is hypothesized that the personal resource of self-efficacy will moderate the relationship between exposure and resilience whereas the negative link between exposure and resilience will be strongest for those with low self-efficacy.
V. It is hypothesized that social support will moderate the relationship between exposure and resilience whereas the negative link between exposure and resilience will be strongest for those with low social support.

2.0 - Methods

2.1 – Participants

The population for this study was 147 female undergrads from Virginia Tech. Female students were recruited using the SONA system through the Psychology Department. In addition, participants were recruited from undergraduate psychology classes after they were given information about the study and the opportunity to sign up with the experimenter. All females who reported experiences consistent with definitions of rape, attempted rape, and/or sexual coercion were included in the study.

2.2 - Measures

Demographic Information. Individual's age, year in college, ethnicity, socio-economic status and other demographic information were obtained via self-report.

Trauma History: Participants completed the Stressful Life Events Screening Questionnaire, revised (Goodman, Corocran, Turner, Yuan, & Green, 1998) to provide a measure regarding a trauma history. The SLESQ is a 13-item self-report measure that assesses lifetime exposure to traumatic events. It is comprised of eleven specific and two general categories of events, such as life threatening accident, and physical and sexual abuse. Respondents are asked to indicate whether or not the event occurred ("yes" or "no"), their age at the time of the event, as well as the frequency, duration, and other specific events.

Premorbid Functioning: Individuals were asked about their experience of panic, anxiety, depression and suicidal ideation prior to the victimization. Participants were also asked to provide an estimation of their GPA before the victimization and a general rating of whether their grades "improved", "got worse" or "stayed the same" following the victimization. Specifically, individuals will be provided with a likert-type scale from 0 (got significantly worse) to 5 (significantly improved).

Sexual Victimization: Sexual Experiences Scale (SES) (Koss et al. 1987) is a 10-item self-report questionnaire, which aims to assess various types and degrees of sexual victimization (i.e. unwanted sexual contact, sexual coercion, attempted rape, completed rape) since the age of 14. The SES utilizes the behavioral approach for assessing sexual experiences, which provides individuals with a description of an event and then asks whether or not the event occurred. According to Koss and Gigycz (1985), the SES has an internal consistency of $\alpha = .74$. All individuals who endorsed unwanted sexual experiences were included in the study. For the current study, the internal reliability was found to be .912.

Depression: Center for Epidemiologic Studies Depression Scale (CES-D)(Radloff, 1977). The CES-D is a 20-item, self-report measure primarily assessing the affective component of depression. Each item is rated on a 4-point Likert scale ranging from 0(rarely or none of the time/less than one day) and 3 (most or all of the time/5-7 days). Scores range from 0 to 80 with a score of 16 or above indicating significant depressive symptoms. Internal reliabilities were found to be >.85 across a variety of populations, including college undergraduates (Hann, Winter, & Jacobsen, 1999). For the current study, the reliability was found to be .923.

Posttraumatic Stress Disorder: PSS-SR version (Foa, Riggs, Dancu & Rothbaum, 1993). The PSS-SR is a 17-item self-report scale that contains items who relate to the Diagnostic and Statistical Manual of Mental Disorders, fourth edition, text revision (DSM-IV-TR; (Association, 2000). Individuals rate each item on a four-point scale ranging from 0 (not at all) to 3 (very much) indicating the severity of the symptom in the previous two weeks. In order for the symptom to be considered present, a score of 1 or higher must be endorsed. The PSS has been found to have good internal reliability ($\alpha = .85$) in a sexual victimization population. For the current study, there was also good internal reliability ($\alpha = .91$)

Anxiety: The Four-Dimensional Symptom Questionnaire (4DSQ) anxiety scale. The 4DSQ is a self-report questionnaire consisting of 50 items comprising four scales. For the current study, only the anxiety scale will be used, which consists of 12 items and has a score range of 0-24. Possible answer choices include "no", "sometimes", "regularly", "often", "very often or constantly". Scoring involves the following, 0 for "no", 1 for "sometimes" and 2 for all other responses. The anxiety subscale has been found to have strong validity (Terluin, et al., 2006) and reliability ($\alpha = .79$) (Terluin, Van Rhenen, Schaufeli, & De Haan, 2004). In the current study, good reliability was found ($\alpha = .898$)

Heavy Episodic Drinking: AUDIT (Babor, 1989). The AUDIT was developed by the World Health Organization and is used to identify instances of heavy episodic drinking. The AUDIT is a self-report measure consisting of 10 items rated on a Likert scale ranging from 0 (never) to 4 (daily or almost daily). Participants are asked to report on their alcohol behavior during the past 12 months. A total score is derived from the summation of each item. The scale has been shown to have high reliability ($\alpha > .8$) across a variety of populations (Reinert & Allen, 2002) and is similar to other self-report alcohol screening tests (Rumpf et al., 2002). According to the AUDIT, a score of 15 or greater indicates a high level of alcohol problems (Babor et al, 1989). For the current study, internal reliability was found to be .798.

Risky Sexual Behaviors: Number of hookups: Consensual sexual activity is likely to increase vulnerability to sexual victimization whether or not it involves intercourse. Therefore, the number of hookups experienced before and after victimization were examined as a measure of sexual risk exposure. The questionnaire defined a hookup as "a romantic or sexual encounter between two people who are strangers or acquaintances. Some physical interaction is typical but

it may or may not involve sexual intercourse" (Paul et al., 2000, p. 79). Similarly to other research (Testa, et al., 2010), women were asked how many hookups they had prior to their victimization and how many hookups following it.

Resource Loss: Conservation of Resources-Evaluation (COR-E) (Hobfoll & Lilly, 1993). The COR-E is a self-report measure consisting of 74 resources (Hobfoll, Lilly, & Jackson, 1992). Participants will be asked to rate from 1-7 (1= little loss, 7= great loss) the amount of loss experienced as a result of the sexual victimization. Individuals will also be asked to rate the threat of loss experienced as well. It should be noted that the original measure asks about both loss and gain, whereas only loss will be assessed in the present study. In addition, actual loss and threat of loss were combined into a general loss construct. Factor analyses have revealed four categories of loss: personal characteristic resources, object resources, energy resources and condition resources. The internal reliability for the current study is .975.

Self-Efficacy: The General Self-Efficacy scale (Jerusalem & Schwarzer, 1992) is a 10-item self-report measuring examining general self-efficacy. Individuals rank each item on a 4 point Likert-type scale ranging from "1" (not at all true) to "4" (exactly true) with higher scores indicating a stronger belief in self-efficacy. The GSE has been shown to have high reliability, stability and construct validity (Leganger, Kraft, & Roysamb, 2000). Cronbach alpha ranges from .75 to. 94 across the different language versions and across samples (Luszczynska, Scholz, & Schwarzer, 2005). For the current sample, the internal reliability was .89.

Social Support: The Multidimenionsal Scale of Perceived Social Support (Zimet, Dahlem, Zimet & Farley, 1988). The MSPSS is a 12-item self-report measure examining the perception of support available from three sources: family, friends and a significant other. Each item is rated on a Likert-type scale ranging from "1" (very strongly disagree) to "7" (very strongly agree). This scale has been shown to have good overall reliability (.88), and each sub-scale has also been found to be reliable (Significant other = .91; Family = .87; Friends = .85). Lastly, this scale has been shown to be valid across various populations including college students (Zimet, Dahlem, Zimet, & Farley, 1988).

Social and Academic Functioning: Inventory of Functional Impairment (IFI; Marx & Rodriguez, personal communication, 2010). The IFI is a self-report measure assessing functional impairment in traumatized populations. The measure consists of seven subscales assessing one's relationships with a partner, friends, family members, and children, as well as scales assessing

work and educational impairment. For the current study, the social functioning (i.e., relationships with friends) and educational impairment scales will be utilized. The friends scale consists of 10 items and the educational impairment scale consists of 15 items. Individuals are asked to rate how item applies to them. For example, one question on the educational impairment scale states, "I attended classes regularly". Each item is rated on a Likert-type scale ranging from "1" (never) to "7" (always). It should be noted that the scale is currently in development right now and therefore psychometric properties have not yet been established. For the current sample, this scale has been shown to have good overall reliability (.861), and each sub-scale has also been found to be reliable (School performance = .839; Satisfaction with friends = .820).

2.3 - Statistical Analyses

A mental health resilience score was computed for each participant. Specifically, a z-score was created for the following the depression and anxiety variables. A composite score was then created by summing the two z-scores. As high scores are related to higher levels of psychopathology, low scores were related to greater resilience. It should be noted that while PTSD was initially considered to be part of this variable, the low response rate to the PTSD questionnaire prevented the inclusion of this variable within the composite. Therefore, PTSD was examined independently.

The current study proposed to examine the moderational role of social support and self-efficacy in the relationship between sexual victimization (as measured by resource loss) and resilience. Resource loss was measured by three constructs: total resource loss (personal characteristic loss, energy loss, condition loss, object loss) personal characteristic loss alone, and other resource loss (energy loss, condition loss, object loss). Separate hierarchical regression analyses were conducted in order to examine the hypothesized moderating roles of both of these variables. In each of these analyses, time since the most recent victimization, time since the most severe instance of victimization, relationship status, premorbid anxiety, premorbid depression, and premorbid alcohol difficulties were entered first into the regression, followed by resource loss. The proposed moderating variables social support, and self-efficacy were entered separately followed by their interaction terms (i.e., resource loss x social support). This process was repeated for each of the types of loss for a total of three times.

Due to the non-normality of the data, separate analyses were also conducted with that included log transformations of the predictor variables. These regressions, however, yielded the same results as those conducted without the log transformations and therefore the non-log transformed analyses were used for interpretation and discussion purposes.

If any interactions were found to be significant, post-hoc analyses would have been conducted probing each significant interaction. For each interaction, simple regression equations would have been derived, allowing the examination of simple slopes at three levels of the moderating variable. Specifically, values would have been tested at one standard deviation above the mean of the moderating variable, at the mean of the variable and at one standard deviation below the mean (Cohen, Cohen, West, & Aiken, 2003).

3.0 - Results

3.1 - Measure Descriptions

A summary of all demographic variables is presented with their means and standard deviations (see Table 1). Frequencies, means, standard deviations and internal consistency coefficients obtained for each measure used are also presented (see Table 2). Each measured utilized in this study was found to have acceptable internal consistency.

3.2 - Relationships Among Variables

Correlations were calculated among scores of depression, anxiety, PTSD, change in GPA, number of "hookups" post trauma, alcohol use, total loss, social support, self-efficacy, and the demographic variable of year in school (Table 3). The demographic variable of year in school was found to be significantly related to PTSD, indicating that those who were underclassmen endorsed higher levels of PTSD.

Total loss was found to be significantly related to total social support ($r = -.258$, $p = .002$) and total friendships indicating that those with higher levels of social support and friendships reported less overall loss. Loss was also significantly related to anxiety ($r = .143$, $p = .002$), and depression ($r = .606$, $p < .001$), indicating that those with higher levels of loss also reported higher levels of psychopathology. Lastly, total loss was found to be significantly correlated with self-efficacy ($r = -.331$, $p < .001$) and school functioning ($r = -.374$, $p < .001$) demonstrating that loss was negatively related to feelings of self-efficacy and positive school functioning.

Social support was also found to be significantly correlated with a number of variables. Specifically, it was found to be related to PTSD ($r = -.327$, $p < .001$), anxiety ($r = -.435$, $p < .001$), and depression ($r = -.466$, $p < .001$), indicating that those with lower levels of social support reported higher levels of distress. Social support was also significantly positively related to relationships with friends ($r = .488$, $p < .001$), school functioning ($r = .269$, $p < .001$), indicating that those reporting higher levels of social support were more likely to report satisfaction with friends, and improved school functioning. Lastly, social support was found to be significantly correlated with self-efficacy ($r = .359$, $p = <.001$), demonstrating that those with higher levels of social support reported higher levels of self-efficacy.

Self-efficacy was found to be significantly related to both anxiety ($r = -.271$, $p = .001$) and depression ($r = -.675$, $p < .001$), indicating that those reporting higher levels of self-efficacy reported lower levels of anxiety and depression. Self-efficacy was also found to be significantly related to alcohol problems ($r = -.169$, $p = .043$), demonstrating that those with higher levels of self-efficacy reported lower levels of problems related to alcohol. Lastly, self-efficacy was positively significantly correlated with satisfaction with friends ($r = .347$, $p < .001$) and school performance ($r = .495$, $p < .001$), demonstrating that those with higher levels of self-efficacy reported higher levels of satisfaction with friends and their performance in school.

Ethnicity was not included due to the low n size of any ethnic group besides Caucasian/European American.

ANOVAs were also calculated for socio-economic status and each resilience measure. No significant differences were found (Table 4).

3.3 - Prediction of Resilience Variables

Hierarchical regression analyses were conducted to explore total loss (personal characteristic loss, energy loss, condition loss and object loss), personal characteristic loss only, and other loss (energy loss, condition loss and object loss) as potential predictors of total psychopathology, depression, anxiety, posttraumatic stress, satisfaction with friendships, performance in school, grade point average change, and number of hookups post-trauma. In addition, the potential moderating role of each of these variables on the relationship between the predictor variables (i.e., total loss and personal characteristic loss) and each resilience variable (i.e., total psychopathology, depression, anxiety, PTSD, satisfaction with friends, school performance, GPA and number of post-trauma hookups) was examined.

In each of these analyses, number of months since the most recent incident of victimization, number of months since the most severe instance of victimization, relationship status, presence of premorbid anxiety, presence of premorbid depression and presence of premorbid alcohol problems were entered in into the regression to control for their effects. In the analyses examining the predictive role of personal characteristic loss, other loss was also entered in as a covariate. In the analyses examining the predictive ability of other types of loss, personal characteristic loss was entered as a covariate. The second step in each regression included the loss variable examined (i.e., total loss, personal loss, other loss). It should be noted that each loss variable was centered prior to the analysis to eliminate multicollinearity effects (Holmbeck, 1997). In the third step, the proposed moderator (i.e., social support of self-efficacy) was entered. The last step involved entering the proposed interaction term (i.e., social support x total loss). A moderation effect was interpreted as significant if the interaction term is found to be significant after accounting for the effects of the variable alone (i.e., main effect) (Aiken & West, 1991).

Total Loss and Resilience

The first hierarchical regression analysis examined the relationship between total loss and total psychopathology after controlling for the aforementioned covariates. The model indicated a significant relationship between total loss and psychopathology, indicating that the higher the level of loss, the greater the level of psychopathology, $\beta = .493$, $p < .001$. It should also be noted that the covariate of premorbid anxiety was also found to be significant predictor of total psychopathology, $\beta = .356$, $p < .001$, indicating that those endorsing premorbid anxiety were more likely to experiencing post-trauma psychopathology. In the analysis examining self-efficacy as a potential moderator, self-efficacy was found to have a direct effect on psychopathology ($\beta = -.170$, $p = .012$), however, no moderation was found (Table 5). The interaction term of total loss X self-efficacy, however, was not found to be significant, $\beta = .096$, $p = .116$. Together with loss and the covariates, 50.1% of the variance in psychopathology was accounted for, $R^2 = .447$, $F(7, 133) = 13.587$, $p < .001$. In the examination of social support was found to be a significant predictor of psychopathology, $\beta = -.311$, $p < .001$, indicating that those who experience a high level of social support have lower levels of psychopathology (Table 6). The interaction term of total loss X social support was not significant, suggesting that social

support was not a moderator between loss and psychopathology, β = .061, p =.335. The full model accounted for 50.1% of the variance in psychopathology, R^2 = .501, F (7, 133) = 16.63, p <.001.

The second regression analysis examined the relationship between total loss and anxiety. The model indicated a significant positive relationship between loss and anxiety after controlling for the covariates, β = .382, p<.001. These results indicate that those experiencing higher levels of loss, exhibited higher levels of anxiety symptoms. Neither self-efficacy alone, nor the interaction term of self-efficacy X loss was found to be a significant predictor of anxiety, β = -.095, p = .183, β = .142, p = .051, respectively (Table 7). Including the covariates, the model including self-efficacy was found to predict 39.1% of the variance in anxiety symptoms, R^2 = .391, F (6, 134) = 10.984, p <.001. When examined as a main effect, social support emerged as a significant predictor of anxiety, β = -.276, p <.001 (Table 8). The interaction term of total loss X anxiety was not found to be significant, β = .068, p = .312. Total loss, social support and the covariates accounted for 43.7 % of the variance in anxiety, R^2 = .437, F (6, 134) = 14.556, p <.001.

The third regression analysis tested the relationship between total loss and depression. A significant relationship was found after controlling for the effect of the covariates, whereas those with higher levels of loss experienced higher levels of depression, β = .532, p <.001. Premorbid anxiety was also found to significantly predict depression, β = .238, p =.008, indicating that those endorsing higher levels of anxiety prior to the traumatic event, endorsed higher levels of depression. Self-efficacy was found to be a significant predictor of depressive symptoms, with those endorsing higher levels of self-efficacy being less likely to endorse depressive symptoms, β = -.220, p =.002 (Table 9). The interaction term of self-efficacy X total loss, however, was not found to be significant, β = .030, p = .591. Along with the covariates, the entire model with self-efficacy was found to predict 41.0% of the variance in depressive symptoms, R^2 = .410, F (9, 131) = 11.823, p <.001. In the model testing the role of social support, a significant main effect was found, β = -.302, p <.001 (Table 10). A significant interaction, however, was not found, β = .046, p = .491. The model with social support accounted for 44.7% of the variance in depressive symptoms, R^2 = .447, F (6, 134) = 13.558, p <.001.

The relationship between total loss and PTSD was examined in the next regression. The relationship was not found to be significant, β = .151, p = .296. None of the covariates were

found to be significantly related to PTSD. In the model testing the role of self-efficacy, neither the main effect nor the interaction term were significant, β = -.235, p = .134, β = -.044, p = .771 (Table 11). Along with the covariates, the entire model with self-efficacy was found to predict 4.3% of the variance in PTSD, R^2 = .043, F (9, 47) = 1.282, p =.272. In the model examining the role of social support, once again, neither a main effect nor an interaction effect were found, β = -.214, p = .177, β = -.166, p = .437 (Table 12). The entire model accounted for 4.5% of the variance in PTSD symptoms, R^2 = .045, F (9, 47) = 1.296, p =.265.

The next regression model examined the relationship between total loss and alcohol use. The relationship was not found to be significant, β = .085, p = .329. Although the main predictor was not significant, the covariates of relationship status and premorbid alcohol use were found to be significant predictors of alcohol use, β = -.182, p = .032, β = .302, p<.001, respectively. These results suggest that those not in a relationship endorsed higher levels of alcohol use than those dating or in a serious relationship. In addition, there was a significant positive relationship between premorbid alcohol use and post-trauma alcohol use. When self-efficacy was entered into the model, no significant relationship emerged with alcohol use, β = -.157, p =.070 (Table 13). Self-efficacy also failed to act as a moderator in the relationship between total loss and alcohol use, β = -.033, p = .710. Together with total loss and the covariates, the model accounted for 8.7% of the variance in alcohol use, R^2 = .087, F (9,131) = 2.490, p =.012. In the analyses examining the role of social support, neither a main effect nor an interactive effect emerged, β = -014, p = .872, β = .113, p = .194, respectively (Table 14). The model accounted for 7.6% of the variance in alcohol use, R^2 = .076, F (6, 134) = 2.270, p <.021.

The relationship between total loss and satisfaction with friends was examined in the sixth regression model. Total loss was found to negatively predict satisfaction with friendships, β = -.305, p =.001. Self-efficacy was also found to be a significant predictor of friendships, β = .264, p = .002, with those indicating higher levels of self-efficacy, also indicating higher levels of satisfaction with friends (Table 15). The model was found to predict 8.8% of the total variance in friendships, R^2 = .088, F (6, 134) = 2.930, p <.007. When examining the predictive ability of social support, a significant main effect emerged, β = .437, p <.001 (Table 16). The interaction term of total loss X social support was not found to be significant, however, β = -.137, p = .079. Along with social support, the model accounted for 26.1% of the variance in satisfaction with friends, R^2 = 261, F (9,131) = 6.506, p <.001

The seventh hierarchical regression analysis tested the predictive role of total loss on school performance. The relationship was found to be significant, with those endorsing higher levels of loss, indicating lower levels of school performance, $\beta = -.350$, $p < .001$. Self-efficacy was also found to be a significant predictor of school performance, with those endorsing higher levels of self-efficacy also endorsing higher levels of school performance, $\beta = .418$, $p < .001$ (Table 17). The interaction terms of total loss X self-efficacy was not found, however, to be significant, $\beta = .149$, $p = .054$. The entire model was found to be significant, predicting 31.1% of the variance in school performance, $R^2 = .311$, $F (9, 131) = 8.017$, $p < .001$. When examining the role of social support, neither a main effect nor an interactive effect was found, $\beta = .151$, $p = .079$, $\beta = .049$, $p = .551$, respectively (Table 18). The model, along with social support, accounted for 14.9 % of the variance in school performance, $R^2 = .149$, $F (9, 131) = 3.728$, $p < .001$.

The predictive ability of total loss was examined for a change in GPA post-trauma. Neither the relationship, nor the model was found to be significant, $\beta = .031$, $p = .728$, $R^2 = .009$ $F (6, 134) = 1.172$, $p = .323$. Premorbid depression, however, was found to be a significant predictor of an decrease in GPA with those endorsing the presence of premorbid depression, also endorsing a larger decrease in post-trauma GPA, $\beta = -.214$, $p = .023$. Neither self-efficacy, nor the interaction term of self-efficacy X total loss was found to be significant, $\beta = .139$, $p = .122$, $\beta = .113$, $p = .219$, respectively (Table 19). Total loss, along with self-efficacy and the covariates, accounted for 2.3% of the variance in G.P.A., $R^2 = .023$, $F (9, 130) = 1.365$, $p = .211$. In the analyses including social support, neither a main effect nor an interactive effect was found, $\beta = .003$, $p = .970$, $\beta = .045$, $p = .617$, respectively. Along with total loss and the covariates, social support accounted for -.05% of the variance in GPA, $R^2 = -.005$, $F (9, 131) = .928$, $p = .504$ (Table 20).

The ninth hierarchical regression examined the relationship between total loss and the number of hookups post-trauma, as compared to the number of hookups pre-trauma. The relationship was not found to be significant, $\beta = .133$, $p = .144$. Self-efficacy did not emerge as a significant predictor of post-trauma hookups, $\beta = .012$, $p = .896$ (Table 21). The interaction term of self-efficacy X total loss also failed to emerge as a significant predictor, $\beta = -.107$, $p = .255$. The entire model accounted for -1% of the variance in hookups and was not significant, $R^2 = -.010$, $F (9, 131) = .847$, $p = .574$. In the analyses examining the role of social support, neither a

main effect nor an interactive effect was found, β = .099, p = .291, β = -.133, p = .143, respectively (Table 22).

Personal Characteristic Loss and Resilience

The next set of regressions focused on the predictive utility of personal characteristic loss on the various resilience variables. The first regression examined the relationship between personal characteristic loss and total psychopathology. This relationship was found to be significant, with those experiencing higher levels of loss, endorsing higher levels of psychopathology, β = .540, p <.001. Premorbid anxiety was also found to be a significant positive predictor of total psychopathology, β = .356, p <.001. In the model examining the role of self-efficacy, a main effect did emerge with self-efficacy negatively predicting psychopathology, β = -.138, p =.038 (Table 23). The interaction term of self-efficacy X personal characteristic loss was not significant, β = .056, p = .390. The entire model, including self-efficacy, was found to account for 47.8% of variance in psychopathology, R^2 = .478, F (9, 131) = 15.270, p <.001. When examining the role of social support, a significant, negative, main effect was found, β = -.291, p <.001 (Table 24). The interaction term of personal characteristic loss X social support was not found to be significant, β = .065, p = .296. Social support, along with personal characteristic loss and the covariates, accounted for 53.6 % of the variance in total psychopathology, R^2 = .53.6, F (9, 131) =19.003, p <.001.

The second hierarchical regression examined the role of personal loss in the prediction of anxiety. The relationship was found to be significant, with those indicating higher levels of loss, also indicating higher levels of anxiety, β = .381, p < .001. Premorbid anxiety was also found to positive predict post-trauma anxiety, β = .430, p<.001. In the model examining the role of self-efficacy, neither a main effect, nor an interactive effect emerged, β = -.079, p = .273 and β =.100, p = .158, respectively (Table 25). Self-efficacy, along with the rest of the model, accounted for 38.6% of the variance in anxiety symptoms, R^2 = .386, F (9, 131) = 10.780, p <.001. In the model examining the role of social support, a significant main effect was found, β = -.268, p <.001 (Table 26). The interaction term, however, was not found to be significant, β = .108, p =.113. Social support, along with personal characteristic loss and the covariates, accounted for 45.5% of the variance in anxiety, R^2 = .455, F (9, 131) = 13.646, p <.001.

The relationship between personal characteristic loss and depression was examined in the next regression analysis. The relationship was found to be significant with personal characteristic

loss being a positive predictor of depression, β = .601, p <.001. Premorbid anxiety was also found to be a significant predictor of depression, β = .238, p =.001. In the model examining the role of self-efficacy, self-efficacy emerged as a significant, negative predictor of depressive symptoms, β = -.176, p = 008. (Table 27) The interaction term of personal characteristic loss X self-efficacy, was not found to be significant, β = .006, p = .925. Together with the covariates, personal characteristic loss and self-efficacy accounted for 47.6% of variance in depressive symptoms, R^2 = .476, F (9, 131) = 15.141, p < .001. In the model examining the role of social support, a significant, negative, main effect was found, β = -.274, p < .001 (Table 28). The interaction term of personal characteristic loss X social support was not found to be significant β = .015, p .816. The entire model accounted for 51.4% of variance in depressive symptoms, R^2 = .514, F (9, 131) = 17.443, p <.001.

The relationship between personal characteristic loss and PTSD was examined in the next regression. The relationship was not found to be significant, β = .156, p = .259. None of the covariates were found to be significantly related to PTSD. In the model testing the role of self-efficacy, neither the main effect nor the interaction term were significant, β = -.233, p = .150, β = -.046, p = .763. Along with the covariates, the entire model with self-efficacy was found to predict 4.4% of the variance in PTSD, R^2 = .044, F (9, 47) = 1.283, p =.271 (Table 29). In the model examining the role of social support, once again, neither a main effect nor an interaction effect were found, β = -.212, p = .185, β = -.064, p = .661 (Table 30). Social support, along with the covariates, accounted for 3.9% of the variance in PTSD symptoms, R^2 = .039, F (9, 47) = 1.254, p - .287.

The fifth hierarchical regression analysis tested the relationship between personal characteristic loss and alcohol use. The relationship was not found to be significant, however, premorbid alcohol difficulties did significantly predict post-trauma alcohol use, β = .100 p = .247, β = .305, p <.001, respectively. In addition, relationship status was found to be significant, with those reporting that they were in a relationship being less likely than those who reported being single to report alcohol problems, β = -.182, p =.033. In the model examining the predictive role of self-efficacy, no significant effects were found, β = -.151, p = .085 (Table 31). The interaction term of personal characteristic loss X self-efficacy also failed to emerge as significant, β = -.034, p = .698. The overall model including self-efficacy was found to be

significant and predicted 8.9% of the variance in alcohol use, $R^2 = .089$, $F (9, 131) = 2.512$, $p = .011$. In the model examining the role of social support, neither a main effect nor an interactive effect was found, $\beta = -.008$, $p = .929$, $\beta = .126$, $p = .150$, respectively (Table 32). Social support, along with personal characteristic loss and the covariates, accounted for 8.1% of the variance in alcohol use $R^2 = .081$, $F (9, 131) = 2.379$, $p = .016$.

The relationship between personal characteristic loss and satisfaction with friends was examined in the next regression. The relationship was found to be significant, with those reporting higher levels of loss being less likely to endorse satisfaction with friends, $\beta = -.382$, $p < .001$. In the model examining the role of self-efficacy, a positive relationship emerged, $\beta = .227$ $p = .007$ (Table 33). The interaction term of personal characteristic loss X self-efficacy was not found to be a significant predictor of satisfaction with friends, $\beta = -.105$, $p = .197$. The entire model accounted for 18.9% of the variance in friendships, $R^2 = .189$, $F (9, 131) = 15.141$, $p < .001$. In the model exploring the predictive ability of social support, a significant main effect emerged, $\beta = .413$, $p < .001$ (Table 34). The interaction term of personal characteristic loss X social support was not found to be significant, however, $\beta = -.162$, $p = .051$. The entire amount accounted for 30.6% of the variance in satisfaction with friends, $R^2 = .306$, $F (9, 131) = 7.845$, $p < .001$.

The next regression analyses tested the predictive ability of personal characteristic loss on school performance. The relationship was found to be significant with those endorsing higher levels of loss being more likely to report lower levels of school performance, $\beta = -.332$, $p < .001$. In the model examining the predictive role of self-efficacy, a significant, positive, relationship emerged, $\beta = .418$, $p < .00l$ (Table 35). The interaction term of personal characteristic loss X self-efficacy was not found to be significant, however. The entire model was found to account for

28.5% of the variance in school performance, $R^2 = .285$, $F (9, 131) = 7.197$, $p < .001$. In the model testing the role of social support, neither a main effect nor an interactive effect was found, $\beta = .147$, $p = .091$, $\beta = -.006$, $p = .944$, respectively (Table 36).

The last two regressions examined the relationships between personal characteristic loss and both GPA (Tables 37, 38) and number of post-trauma hookups (Tables 39, 40). No significant relationships emerged involving personal characteristic loss, self-efficacy or social support.

Other Loss and Resilience

The next set of hierarchical regressions examined the predictive utility of other loss (i.e., energy loss, object loss and condition loss), while controlling for the effects of personal characteristic loss. The first regression analyses examined the relationship between other loss and total psychopathology. The relationship was not found to be significant, $\beta = -.041$, $p = .594$. Premorbid anxiety was, however, significantly related to post-trauma psychopathology $\beta = .356$, $p < .001$. In the model examining the role of self-efficacy, a significant, negative relationship emerged, $\beta = -.253$, $p < .001$ (Table 41). The interaction term of other loss X self-efficacy was not found to be significant, $\beta = .007$, $p = .928$. The entire model accounted for 27.4% of variance in psychopathology $R^2 = .274$, $F (9, 131) = 6.877$, $p < .001$. In the model examining the role of social support, social support was found to negatively predict total psychopathology, $\beta = -.399$, $p < .001$ (Table 42). The interaction term of other loss X total psychopathology, however, was not significant, $\beta = -.059$, $p = .404$. Other loss, along with social support and the covariates, accounted for 33.7 % of the variance in total psychopathology, $R^2 = .337$, $F (9, 131) = 6.877$, $p < .001$.

The second hierarchical regression tested the predictive ability of other loss on anxiety. The relationship was not found to be significant, $\beta = .093$, $p = .179$. Both premorbid anxiety and personal loss were both found to be significant predictors of anxiety, $\beta = .337$, $p < .001$, and $\beta = .361$, $p < .001$, respectively. In the model examining the role of self-efficacy, once again, a main effect emerged, $\beta = -.195$, $p < .001$ (Table 43). The interaction term of other loss X self-efficacy was not found to be significant. Other loss, along with self-efficacy and the covariates, accounted for 26.8% of the variance in anxiety symptoms, $R^2 = .268$, $F (9, 131) = 8.916$, $p < .001$. In the model examining the role of social support, a significant main effect emerged, $\beta = -.344$, $p < .001$

(Table 44). The interaction term of other loss X social support was not found to be significant, β = -.105, p = .132. The model accounted for 34.9% of the variance in anxiety symptoms, R^2 = .349, F (9, 131) = 9.344, p <.001.

The relationship between other loss and depression was not found to be significant, in the third regression analysis, β = .027, p = .679. The covariates of personal characteristic loss and premorbid anxiety were, however, significant, β = .596, p < .001, β = .141, p = .041. In the model examining the role of self-efficacy, a significant, negative, main effect was found, β = -.347, p <.001 (Table 45). The interaction term of personal characteristic loss X self-efficacy was not found to be significant, β = -.004, p = .958. The model accounted for 23.1% of the variance in depressive symptoms, R^2 = .231, F (9, 131) = 5.660, p <.001. When examining the predictive role of social support, a significant main effect emerged, β = -.398, p < .001 (Table 46). The interaction term, however, was not found to be significant, β = -.006, p = .936. Other loss, social support and the covariates accounted for 25.3% of the variance in depressive symptoms, R^2 = .253, F (9, 131) = 6.277, p <.001.

The relationship between other loss and PTSD was examined in the next regression. The relationship was not found to be significant, β = -.032, p = .817. None of the covariates were found to be significantly related to PTSD. In the model testing the role of self-efficacy, neither the main effect nor the interaction term were significant, β = -.248, p = .072, β = -.096, p = .771 (Table 47). Along with the covariates, the entire model with self-efficacy was found to predict 5.1% of the variance in PTSD R^2 = .051, F (9, 47) = 1.333, p = .246. In the model examining the role of social support, once again, neither a main effect nor an interaction effect were found, β = -.238, p = .132, β = -.094, p = .534 (Table 48). The entire model, along with the covariates, accounted for 2.9% of the variance in PTSD symptoms, R^2 = .029, F (9, 47) = 1.89, p =.320.

The next regression analysis examined the relationship between other loss and alcohol use. The relationship was not found to be significant, β = -.006, p = .941. Premorbid alcohol, was found to be significant, with those endorsing higher levels of premorbid alcohol use predicting post-trauma alcohol use, β = .294, p =.001. In the model examining the predictive ability of self-efficacy on alcohol use, a significant, negative, relationship emerged (Table 49). Self-efficacy was not found, however, to moderate the relationship between other loss and alcohol use, β = -.003, p = .969. Other loss, self-efficacy and the covariates, accounted for 8.6% of the variance in

alcohol use problems R^2 = .086, F (9, 131) =2.450, p =.013. In the model examining the role of social support, neither a main effect, nor an interactive effect emerge, β = -.031, p = .725, β = -.002, p = .985, respectively (Table 50). The entire model accounted for 5.8% of the variance in alcohol use, R^2 = .058, F (9, 131) = 1.959, p = .049.

The relationship between other loss and satisfaction with friends was examined in the next regression analysis. This relationship was not found to be significant, β = .050, p = .539. Personal characteristic loss was found to be a significant predictor, however, B = -.382, p <.001. In the model including self-efficacy, self-efficacy emerged as a significant main effect occurred, β = .332, p <.001 (Table 51). The interaction term of other loss X self-efficacy, however, was not found to be significant, β = .083, p = .304. The entire model accounted for 11.6% of the variance in satisfaction with friends, R^2 = .116, F (9, 131) = 3.047, p = .002. In the model examining the predictive ability of social support, a significant, positive relationship was found, β = .479, p <.001 (Table 52). The interaction term of other loss X social support was not found to be significant, however, β = .041, p = .589. Other loss, along with social support and the covariates, accounted for 21.7% of the variance in satisfaction with friends, R^2 = .217, F (9, 131) = 5.313, p <.001.

The seventh regression analysis tested the relationship between other loss and school performance. This relationship was not found to be significant, however, personal characteristic loss was found to be a significant predictor, β = -.113, p = .168, β = -.332, p<.001, respectively. In the model including self-efficacy, a significant, positive, relationship emerged, with those endorsing higher levels of self-efficacy being more likely to endorse higher levels of school performance, β = .483, p = <.001 (Table 53). The interaction term of other loss X self-efficacy was not found to be significant, β = .025, p = .202. The entire model was found to account for 30.6% of the variance in school performance, R^2 = .306, F (9, 131) = 3.047, p < .001. In the model examining the relationship between social support and school performance, a significant, positive, relationship emerged, β = .218, p = .014 (Table 54). The interaction term was not found to be significant, β = .169, p = .051. The model accounted for 8.9% of the variance in school performance, R^2 = .089, F (9, 131) = 2.513, p = .011.

The next relationship examined included other loss and number of hookups post-trauma. Other loss was not found to be a significant predictor of hookups, B = .115, p = .196. In the model including self-efficacy, nor the interaction term of other loss X self-efficacy, was found to be significant, β = .001, p =.994, and β = .024, p = .782, respectively. (Table 55) Along with the covariates, other loss and self-efficacy predicted -.07% of the variance in hookups, R^2 = -.007, F (9, 131) = .898, p = .529. In the model examining the role of social support, neither a significant main effect nor a significant interactive effect emerged, β = .086, p = .346, β = -.168, p = .051 (Table 56). Other loss, along with social support and the covariates, accounted for 2.9% of the variance in hookups, R^2 = .029, F (9, 131) = 1.468, p = .167.

The last regression analysis tested the relationship between other loss and G.P.A. The relationship was not found to be significant, β = .146, p = .099. In the model including self-efficacy, neither a main effect, nor an interaction effect emerged, β = .084, p = .330, β = .085, p = .325 (Table 58). The entire model accounted for .09% of the variance in G.P.A., R^2 = .009, F (9, 131) = 1.134, p = .344. In the model examining the role of social support, neither a main effect nor an interactive effect emerged, β = -.028, p = .762, β = .144, p = .096, respectively (Table 59). Other loss, along with social support and the covariates, accounted for 1.6% of the variance in GPA, R^2 = .016, F (9, 131) = 1.249, p = .271β.

4.0 - Discussion

4.1 - Summary of Findings

The purpose of this study was to examine the role of resource loss following sexual victimization. In addition, the project was developed in order to further understand the construct of resilience as it applies to those who have experienced sexual victimization. Lastly, the project sought to examine the role of social support and self-efficacy in the relationship between resource loss after a traumatic event and the resilience constructs. Specifically, it was hypothesized that the relationship between resource loss and each resilience variable would be moderated by each of these constructs (i.e., social support and self-efficacy).

Previous research has focused on the negative effects of sexual victimization; however, research examining resilience following victimization has been scarce. In the few articles that have examined resilience, it is typically conceptualized as avoiding revictimization (Testa, et al., 2010). While avoiding revictimization is important, this conceptualization neglects other mental

health outcomes such as psychopathology and behavioral competence (i.e., school functioning, social functioning). This study was the first examination of a comprehensive conceptualization of resilience following instances of sexual victimization.

Resource loss has been found to be one of the strongest predictors of psychopathology following a variety of traumatic events, including sexual victimization (Hobfoll, et al., 2002; Schumm, Hobfoll, & Keogh, 2004). Resource loss has consistently been found to predict PTSD, depression, and anxiety. However, it has not been studied in the context of competence. This study sought to further examine of the role of three levels of loss: 1.overall loss (i.e., object loss, personal characteristic loss, energy loss, condition loss), 2. personal characteristic loss alone, and 3. other loss (energy loss, condition loss, object loss) in predicting resilience.

The first set of hypotheses examined the predictive ability of overall loss on the various constructs of resilience. Specifically, it was hypothesized that resource loss following sexual victimization would positively predict the constructs of resilience that were measures of psychopathology (overall psychopathology, anxiety, depression, PTSD), and alcohol use problems. In addition, it was hypothesized that loss would positively predict an increase in number of sexual partners or "hookups". It was also hypothesized that loss would negatively predict the competence based measures of psychopathology (i.e., satisfaction with friends, school performance, and change in G.P.A). The second and third set of hypotheses examined the predictive role of personal characteristic loss, and "other types of loss" on the various constructs of resilience. Similarly to total loss, it was hypothesized that personal characteristic loss and other loss would positively predict psychopathology, alcohol use and number of sexual partners. It was also hypothesized that these types of loss would negatively predict competence as measured by satisfaction with friends, school performance and change in G.P.A. With the exception of the hypotheses concerning the predictive ability of "other loss", these hypotheses were generally supported by the current data and will be discussed in turn below.

Both total loss and personal characteristic loss were found to significantly predict total psychopathology, which included both anxiety and depression. Loss also predicted these constructs individually, as well. This finding has been well supported by the literature (Banou, et al., 2009; Hobfoll, et al., 2002; Hobfoll, Johnson, Ennis, & Jackson, 2003). Conservation of Resources (COR) theory posits that to maintain mental and physical health, individuals must preserve resources across all four domains (i.e., personal characteristic, energy, condition,

object) (Hobfoll, 1998). These resources allow an individual to continue their functioning and adapt effectively in the face of stress. When losses are threatened or lost, due to a traumatic event such as sexual victimization, distress ensues. As demonstrated by the first set of findings, higher levels of both threatened and actual loss contributed to higher levels of psychopathology. That is, those who experienced higher levels of loss experienced greater difficulty in recovering from the victimization.

Although initial hypothesis predicted that the construct of "other" loss would positively predict psychopathology, this hypothesis was not substantiated by the data. As a result, this study highlights the importance of personal characteristic loss following sexual victimization. While object, condition, and energy resources may play a significant role in predicting functioning following other types of traumatic events such as natural or technological disasters, their role following victimization may be significantly less. For example, during Hurricane Katrina, may individuals lost housing, possessions (i.e., clothing, personal belongings), employment, time and other resources that are affected by wide-scale disasters (Zwiebach, Rhodes, & Roemer, 2010). Following sexual victimization; however, there are typically fewer of these resources lost. For those in college, such as the current sample, it is highly unlikely that an individual would lose any object resources and both condition and energy resource loss may be low in comparison to personal characteristic loss.

Contrary to initial hypotheses, none of the constructs of loss significantly predicted post-traumatic stress symptoms. There may be a few reasons for this contradictory finding. Due to the nature of the online survey, an individual had to endorse the experience of a traumatic event at the beginning of the measure in order to be given the entire measure. These events ranged from experiencing a severe illness to a sexual victimization experience. If they failed to endorse the experience of a traumatic event, they were not given the measure assessing post-traumatic stress but rather were moved on to the next measure resulting in them not answering the questions inquiring about post-traumatic stress. Among the 147 individuals who had previously endorsed sexual victimization on the Sexual Experiences Survey, only 56 endorsed any type of trauma when asked on this measure.

There are a few reasons why individuals may have failed to endorse traumatic experiences, even if they have experienced one. Research suggests that many individuals who experience unwanted sexual attention do not label it as such (Fisher, et al., 2003; Harned, 2004).

For example, it has been found that up to 57% of individuals who meet the behavioral definition of "rape" do not label it as such (Botta & Pingree, 1997; Frazier & Seales, 1997; Kahn, Jackson, Kully, Badger, & Halvorsen, 2003). Individuals are particularly likely to avoid labeling their experience as rape or victimization if they knew the person, particularly if it was a significant other. In contrast, women are more likely to view their experience as rape if they do not have previous knowledge of their assailant and the person uses considerable force during the victimization experience (Kahn, et al., 2003). This may be of particular importance when viewed within the Conservation of Resources model as individuals are most likely to lose personal and condition resources if the perpetrator is someone they know. For example, if an individual is victimized by a significant other, and then leaves that person, they are potentially losing a source of support. In contrast, if the perpetrator is a stranger, less social support may be lost.

In addition, research has shown that factors such as the involvement of alcohol, or if the victimization included verbal abuse or oral sex, led to individuals being less likely to label the experience as victimization (Kahn, et al., 2003). Although the survey did not specifically address the involvement of alcohol, as the survey utilized a college population where alcohol use is extremely prevalent, this may have been a factor. In addition, only 11% of those who reported victimization reported forced penetration. The reminder of the sample reported other types of sexual victimization that as previously noted may be less likely to result in recognition and labeling of the experience as victimization. For example, if an individual was verbally coerced into a sexual experience, but physical force was not used, they may be less likely to recognize and therefore label the experience as victimization, even though it has occurred.

Therefore, a substantial amount of individuals may not have labeled their experience as a trauma, and, as a result, did not endorse this on the Posttraumatic Stress Scale (PSS-SR; Foa, Riggs, Dancu & Rothbaum, 1993). It is important to add, however, that the lack of labeling does not indicate that individuals were not distressed by the experience (Harned, 2004). Therefore, there may have been a significant number of individuals who were experiencing post-traumatic stress symptoms, however, failed to complete this section of the survey and therefore were not included in the analyses.

It should be noted that this labeling effect likely did not affect the initial assessment of sexual victimization. One significant strength of the Sexual Experience Survey (Koss & Gidycz, 1985) is that it assesses sexual experiences using behaviorally specific questions, as opposed to

general questions. For example, rather than asking if someone has been raped, the scale asks, "Have you had sexual intercourse when you didn't want to because a man threatened or used some degree of physical force to make you" (Koss et al., 1987). It has been noted that only 12% - 57% of women who endorse rape consistent behavioral definitions will also endorse that they have been raped (Harned, 2004). In order words even if someone has had an experience where they had sexual intercourse against their consent, they may not answer "yes" to the question "Have you ever been raped".

Therefore, while many individuals who experienced sexual victimization may not have completed the PSS-SR scale, they did likely endorse initial victimization on the Sexual Experiences Survey. Past research has suggested a strong link between sexual victimization and psychology (Macdonald, Danielson, Resnick, Saunders, & Kilpatrick, 2010; Nixon, Resick, & Nishith, 2004; Taft, Resick, Watkins, & Panuzio, 2009; Thompson & Kingree, 2010). In addition, research has also supported a relationship between resource loss and PTSD (Banou, et al., 2009) (Hobfoll, et al., 2003). Therefore, it is very likely that the current study would have also found a strong, positive, relationship between loss and PTSD. Based on past research, it could be expected that those with higher levels of loss would have experienced higher levels of PTSD. Based on other findings in this study regarding the importance of personal characteristic loss in predicting psychopathology following victimization, it is also likely that personal characteristic loss alone would predict PTSD.

The second set of findings examined the relationship between all three constructs of loss and alcohol use problems. As previously noted, it was hypothesized that loss would positively predict alcohol use problems. This relationship was not found to be significant. Although limited past research has found this relationship to be significant (Schumm, et al., 2004), this construct may operate uniquely in a college population. For example, this relationship was found to be significant in a population of inner-city women, who were obtaining treatment for substance use. Individuals living in an inner-city area may be more likely have fewer resources to begin with, putting them at increased vulnerability for future loss and subsequent distress (Hobfoll, 1989). In addition, the authors in the aforementioned study examined those who had experienced childhood sexual abuse, childhood physical abuse and partner abuse, and therefore likely represented a population with a significantly higher level of past victimization as compared to the current sample.

As previously alluded to, the current relationship may also operate uniquely in a college population, where alcohol use is higher than in the general population. For example, 10.5% of college females have been reported to binge drink on a "typical day of drinking" and over 20% of women met criteria for either alcohol abuse or dependence (Clements, 1999) as opposed to 1.8% of females across age groups (Hasin, Stinson, Ogburn, & Grant, 2007) . Whereas binge drinking may be seen as problematic in the general population, college students may be less likely to recognize the negative effects that their drinking is having, as the behavior is more normative in this population (Gliksman, 1988). For example, an individual who routinely misses work may note that their drinking behavior is negatively affecting their ability to perform their daily roles, however, for college students who are surrounded by peers who may routinely skip class, this relationship may not be as apparent. In addition, college students often believe that rates of use are higher among their peers than they are, which may lead to a further lack of recognition of the problematic nature of their drinking (Perkins, Meilman, Leichliter, Cashin, & Presley, 1999).

Although the relationship between total loss and alcohol use problems was not significant, a significant predictive relationship was found between prior alcohol use problems and subsequent alcohol use problems. That is, those with difficulties controlling their drinking before the trauma continued to have difficulties after the victimization. This finding has been consistent with previous literature (Hruska, Fallon, Spoonster, Sledjeski, & Delahanty, 2011; Kaysen, et al., 2006). Individuals who, prior to the trauma, routinely lost control while drinking, or who experienced alcohol related difficulties (i.e., missing class or work due to the effects of drinking), were more likely to continue having these difficulties after the trauma. As college students are prone to underestimating the negative effects of their drinking, while overestimating the negative effects of drinking on others, they may also be less likely to recognize the problems their alcohol use is causing (Lee, Geisner, Patrick, & Neighbors, 2010).

As previously mentioned, this may be due to the normative nature of binge drinking on college campuses, therefore making individuals less likely to self-identify their drinking as problematic or abnormal. Without this self-identification, even individuals experiencing alcohol related problems due to resource loss may not report them as such.

The next set of relationships examined the predictive ability of total loss on the competence variables of school performance, change in G.P.A and satisfaction with friends. It was hypothesized that all three constructs of would negatively predict each of these constructs. Both total loss and personal characteristic loss were found to negatively predict school performance and satisfaction with friends, however, no significant relationships were found related to G.P.A. While resource loss has yet to be examined with regards to these constructs, the trauma literature supports individuals experiencing difficulties in these domains following traumatic events. For example, post-traumatic stress symptoms were found to negatively influence students' abilities to complete verbal and nonverbal reasoning ability tasks, similar to those on standardized tests (Rutkowski, Vasterling, Proctor, & Anderson, 2010). In addition, trauma exposure has been found to negatively predict executive functioning, which may also contribute to greater problems with academic performance (DePrince, Weinzierl, & Combs, 2009).

Difficulties with school performance may also stem from increased levels of avoidant coping after a traumatic event. While not specifically examined in this study, the experience of traumatic events has been linked with higher levels of avoidant coping behaviors (i.e., distraction, numbing etc) (Pineles, et al., 2011; Rauch, Defever, Oetting, Graham-Bermann, & Seng, 2011). In addition, avoidant coping behaviors have been associated with lower levels of school performance (Calsbeek, Rijken, Bekkers, Van Berge Henegouwen, & Dekker, 2006; Cohen, Ben-Zur, & Rosenfeld, 2008). Therefore, this relationship may be partly due to coping behaviors; however, no conclusions can be made based on the current data.

Interestingly, "other loss" did not significantly predict school performance. Therefore, the driving force behind one's ability to function after sexual victimization may be personal characteristic resources as opposed to other types of resources. Sexual victimization may threaten some of the fundamental resources that enable and individual to succeed across various domains of functioning, including school performance. For example, personal characteristic resources (i.e., hope, self-esteem, sense of safety) may provide the basis for success, regardless of how other types resources are affected. In addition, as previously mentioned, object loss was minimal in the current sample, possibly reducing the impact of the "other loss category".

The next hypothesis predicted that loss would negatively predict satisfaction with friends. This hypothesis was supported by the data for both total loss and personal characteristic loss. Many of the resources assessed, particularly personal characteristic resources and condition resources (i.e., time with loved ones, intimacy with at least one friend, companionship) may be directly related to friendships. While these resources were not specifically part of the measure examining satisfaction with friends, if one possesses these resources, they may be more likely to report that they are happy with their friendships (i.e., stayed in touch with friends, was willing to meet new people). In addition, it has been suggested that those with lower levels of resource loss experience greater competence, which includes competencies in the social domain (Norris & Stevens, 2007; Ostrow, Paul, Dark, & Behrman, 1986). Therefore, those who experienced lower levels of resource loss are more likely to maintain their competencies and friendships, as compared to those who did not. If one noted that they experienced less resource loss (i.e., companionship), they were more likely to both maintain and feel satisfied with their current friendships.

Interestingly, "other" resource loss did not predict satisfaction with friends. Although it may seem intuitive that object loss would not have a profound effect on friendships, the reason that energy loss and condition loss had no effect is more ambiguous. For example, one may expect if an individual had a greater loss time, energy or certain relationships, they would experience less satisfaction with their friendships. Theories of social support have continuously emphasized the importance of perceived social support as compared to actual received social support (Norris & Kaniasty, 1996). Therefore, it is far more important for an individual to believe that support is available to them, than for them to actually utilize this support. In the current sample, the stigma associated with sexual victimization may have prevented individuals from seeking outside support; however, so long as they maintain the belief that their support network would be available, they may have been buffered from the negative effects of the trauma. In addition, although individuals may have reported specific losses in these domains, they may not have interpreted the situation as affecting their closest friendships, and therefore continue to rate their friendships as satisfactory.

Contrary to initial hypotheses, which suggested that loss would negatively predict a change in G.P.A., no significant relationship was found. Specifically, it was expected that total resource loss would negatively predict G.P.A. and that those with higher levels of loss would

experience declines in G.P.A. as compared to those who did not. Little research has been done using this construct in college students, however, studies of children in grade school have shown G.P.A to be a useful measure of competence (D'Imperio, Dubow, & Ippolito, 2000). There are a few possible reasons for the lack of relationship. First, a sizable number of students (19%) reported victimization during their first semester of college, therefore having only a high school G.P.A as comparison. There may have been additional students who also experienced their victimization during the first semester, but did not note that they were using their high school G.P.A. as a comparison as well. While still included in the analyses, changes in either direction may not have been a result of the victimization, but rather of the change in intensity of college classes as opposed to high school. In addition, there may have been other factors affecting G.P.A. including credits taken, difficulty of classes, classes taken within or outside the major or other extra-curricular activities that may have affected a student academically (i.e., involvement in the student groups, sports, employment etc) that may have been inconsistent across semesters. Therefore this may not be an accurate representation of the effect of victimization. Lastly, some students reported that they did not remember their exact G.P.A. and therefore were guessing. This may have also affected the accuracy of the measurement of the construct

The last hypothesis involved the predictive ability of total loss on the number of hookups post-trauma as compared to the number pre-trauma. Contrary to the initial hypothesis, which predicted that loss would predict an increase in number of sexual partners, no significant relationship was found. This lack of findings may be due to a methodological issue regarding the time since the trauma occurred. In the one study which used this method of measurement, all individuals were asked about the number of hookups during their first semester of college and their last semester of high school, given that all victimization occurred during the first semester of college (Testa, et al., 2010). In contrast, the current study asked for number of hookups prior to the trauma and following the trauma, with no specific time parameters given. Therefore, there was little control over the time during which the number of hookups was measured. A specific time frame would not have been feasible for the current study, due to the varied age of victimization in the sample, however, it is noted that this is a significant limitation of the current study.

The next set of hypotheses examined the possible moderational role of self-efficacy in each of the aforementioned relationships (e.g., total loss and total psychopathology, total loss and depression). Contrary to initial hypotheses, which predicted self-efficacy would moderate each of these relationships, no significant relationships were found. It was also hypothesized that self-efficacy would negatively predict total psychopathology, depression, anxiety, PTSD, alcohol use problems and number of sexual partners. In contrast, it was hypothesized that self-efficacy would positively predict satisfaction with friends, school performance and change in G.P.A. Self-efficacy did emerge as a significant direct predictor of depressive symptoms, satisfaction with friendships and performance in school. None of the other hypotheses, however, were supported.

Self-efficacy has repeatedly been shown to help reduce distress following a stressful life event (deRoon-Cassini, et al., 2010; Luszczynka, Benight, & Cieslak, 2009). For example, those identified as displaying distress following a traumatic event were shown to have lower levels of self-efficacy as those displaying resilience (deRoon-Cassini, et al., 2010). Self-efficacy beliefs provide individuals with the confidence that they are able to successfully negotiate the demands of the traumatic event and as a result, are more likely to engage in adaptive coping efforts (Benight & Bandura, 2004). For example, individuals with higher levels of self-efficacy were more likely to report sexual victimization than those who did not (Orchowski, et al., 2009). It should be noted that the effects of this reporting were not examined; therefore, it is unclear whether the reporting affected distress. It is clear, however, that self-efficacy beliefs encouraged individuals to take action to cope with the traumatic event, as opposed to engaging in avoidant coping behaviors.

As previously noted, it was predicted that self-efficacy would positively predict both satisfaction with friends and school performance. This prediction was supported. Self-efficacy may have been particularly helpful in predicting these constructs, as they may be more likely to be viewed as controllable stressors. Specifically, self-efficacy has been found to be particularly helpful when individuals view the stressor as controllable (e.g. grades in a class) (Frazier, et al., 2011). Some research has suggested that self-efficacy may be domain specific, and therefore the effectiveness of self-efficacy may depend on the construct examined (Hovsepian, Blais, Manseau, Otis, & Girard, 2010). Individuals may not perceive that the victimization experienced affected their ability to perform in school, and therefore may possess stronger beliefs about their

ability to cope with the traumatic event. In addition, if one feels as though they are able to cope with the traumatic event, they may be more likely to reach out to friends for support, further increasing their satisfaction with friendships.

Although self-efficacy has typically been found to be helpful following traumatic events (Mystakidou, et al., 2010), there may be specific aspects of sexual victimization that decrease feelings of self-efficacy. For example, in a study of those who had been victimized as children, it was found that sexual victimization itself impaired individual's feelings of self-efficacy related to contraceptive use (Hovsepian, et al., 2010). Although this study did not assess contraceptive use, decreased self-efficacy beliefs due to victimization may occur across constructs, also influencing an individual's ability to cope with both physical and psychological demands following the victimization. It should also be noted that for those with early victimization experiences, self-efficacy has been shown to mediate a child's ability to cope with distress (Diehl & Prout, 2002). Although not specifically examined in this study, many of the participants endorsed sexual experiences from age 14 to college. In addition, of the participants that completed the PSS-SR and trauma history scale, 42% of them endorsed a non-sexual related traumatic event in addition to the event previously noted on the Sexual Experiences Survey. These events ranged from the experience of an accident or natural disaster (36%), to a non-sexual assault (11%). Therefore, many of the individuals who completed the survey have experienced prior traumatic events, therefore impairing their self-efficacy prior to the victimization experience specifically examined in this study.

As previously noted, the hypothesis that self-efficacy would negatively predict alcohol behaviors was not supported by the data. There is some evidence suggesting that self-efficacy related to drinking behaviors may depend on the specifics of the problematic behavior. For example, it was found that self-efficacy related to drinking behaviors may be dependent on the location of drinking (i.e., home versus bar) (Bonar, et al., 2011). Specifically, self-efficacy was related to drinking behaviors at home, but not at parties or bars. As the current study did not assess the location of drinking, replication of these results was not possible. It may have been necessary to examine the location of these behaviors in order to find a relationship between self-efficacy and drinking behaviors.

Contrary to initial hypotheses, self-efficacy did not moderate the relationship between total resource loss and the various components of resilience. There is some evidence that self-efficacy moderates the relationship between a stressful event and psychological outcomes (Prati, Pietrantoni, & Cicognani, 2010), however, no findings regarding the moderational effect of self-efficacy in the relationship between loss and victimization have been found. Self-efficacy beliefs may be universally helpful for individuals, regardless of levels of resource loss. In a meta-analysis of studies examining the effects of self-efficacy, this construct was consistently found to predict positive outcomes, across types and severity of trauma (Luszczynka, et al., 2009).

Traditionally, self-efficacy has been reviewed in the context of predicting psychopathology following a traumatic event, however, much less has been done examining the role of self-efficacy in predicting positive outcomes (i.e., satisfaction with friends, school performance). There has been some evidence that positive psychological strengths (i.e., hope, self-efficacy) significantly predicted ratings of positive well-being (Khan & Husain, 2010).

In addition to examining the role of self-efficacy following a traumatic event, the current study also examined the role of social support in these relationships. Social support was found to be a significant predictor of psychopathology. Specifically, those with higher levels of social support reported lower levels of totally psychopathology, depression and anxiety. Social support has repeatedly been found to be a strong predictor of distress following a traumatic event (Kaniasty, Norris, & Murrell, 1990; Mason, et al., 2009; Murthi & Espelage, 2005).

Social support was also found to significantly predict satisfaction with friends. Therefore, those who feel as though support is available from friends, family members and a significant other, are more likely to be able to engage in satisfactory relationships with friends. In fact, a positive relationship with one's parents has been found to predict positive life satisfaction (Piko & Hamvai, 2010). In addition, individuals who had experienced a significant injury reported greater life satisfaction if they received support from their friends (Yang, Peek-Asa, Lowe, Heiden, & Foster, 2010). Believing that one has support available from those around them, may lead them to interact with those individuals in more positive ways.

In contrast to the aforementioned findings, social support did not significantly predict PTSD, alcohol problems, school performance, and change in G.P.A. or number of hookups. As previously noted, methodological limitations with the PTSD, change in G. P.A. variable and number of hookups may have prevented the emergence of significant findings, even if they were

present. However, as both school related variables were found insignificant, it may also be that social support does not play a large role in school performance following victimization. Although support has been found to positively predict school performance, findings have also indicated that this relationship may be mediated by intrinsic motivation and problem-solving style (Cassidy & Giles, 2009). In order to best predict this construct, it may be most helpful to examine these factors, which were not included in the present study.

Social support also failed to predict alcohol use problems. Other studies have also failed to find support for social support as a significant predictor of alcohol use behaviors (Webb, Robinson, & Brower, 2011). In general, social support enables an individual to limit their drinking levels or remain sober; however, this may operate differently in a college population. As previously discussed, a significant portion of college-aged students report binge drinking and this behavior is often seen as normative on college campuses. Therefore, rather than promoting positive outcomes, peer groups may actually encourage continued drinking, as it is frequently seen as a way to cope with one's problems (Patrick & Schulenberg, 2011). In addition, college students often overestimate how often their peers experience the negative effects of alcohol, therefore further normalizing the accompanying problems (Lee, et al., 2010).

Social support may operate in a similar way to self-efficacy (Benight & Bandura, 2004). Social support should not be viewed as something that just exists waiting to help a person adapt following a traumatic event. A person must seek out social relationships and engage in behaviors to maintain them. If an individual does not possess the belief that they will be successful in these relationships, they may choose to not engage in them (Benight & Bandura, 2004; Holahan & holahan, 1987). Therefore, it may be helpful to examine social support in the context of coping, as opposed to a unique construct.

Social support also failed to predict PTSD. Unfortunately, as noted earlier, this was likely due to a small sample size for this variable as research has strongly supported the negative association between social support and PTSD (Haden, et al., 2007; Mason, et al., 2009; Mouilso, Calhoun, & Gidycz, 2011; Neria, DiGrande, & Adams, 2011; Yuan, et al., 2011). In addition, although it did not meet statistical significance, the means for the role of social support were in the expected direction.

Lastly, social support failed to moderate the relationship between loss and any of the resilience variables. Research has suggested that in cases of sexual victimization, the support available to an individual may not function in the same way that it does for other types of trauma and therefore may not operate as a moderator, but only as a main effect (Bal, Crombez, Oost, & Debourdeaudhuij, 2003). For example, if the perpetrator was part of an individual's social network, support from friends may not be as responsive to the individual's needs as if it were a different type of trauma. Avoidance coping may even be encouraged if the victimization threatens the social network. It has also been suggested that only tangible support moderates the relationship between victimization and psychopathology (Glass, Perrin, Campbell, & Soeken, 2007). It should be noted, however, that this sample was an urban-based sample that may have had less overall resources than college students typically do. As a result, tangible support (i.e., material resources) may have played a larger role than with the current sample.

Social support may operate differently in instances of sexual victimization as opposed to other types of traumatic experiences. Individuals who experience interpersonal traumas, have been found to experience more distress than those who experience traumas with no specific perpetrator (Gustafsson, Nilsson, & Svedin, 2009). Those who experience sexual victimization may also be less likely to engage in the coping behavior of seeking support as it may lead to more distress if the perpetrator was someone they were familiar with (Bal, et al., 2003). In addition, individuals who experience interpersonal traumas may lose members of their support network due to the nature of the event. For example, if one is assaulted by a friend or romantic partner, they may lose that relationship as a source of support. In addition, they may also lose individuals associated with the perpetrator. For example, if the perpetrator is a friend, other individuals in the victims support network may side with the perpetrator, further diminishing the victim's support network. In addition, support networks may actually encourage avoidance coping if the act of victimization threatens to disrupt a family or friend support system (Bal, et al., 2003). Although coping behaviors were not examined in the current study, it may be helpful to determine if there is a relationship between types of support and coping behaviors in predicting resilience.

As support is often loss following a victimization experience, it may be particularly important to include support building in interventions. While this may be done by encouraging support-seeking behaviors such individual therapy, it may be particularly helpful to include it

directly in the intervention. For example, in an intervention aimed at reducing revictimization and PTSD, individuals were seen in groups of 5-12 women (Mouilso, et al., 2011). Although not a main component of the intervention, this program may have been particularly helpful as individuals were able to gain support from the others in their group. In addition, the group provided the knowledge that others had gone through similar experiences and they were able to learn coping strategies from other members.

Virginia Tech students may also face unique sources of support due to the community of both Virginia Tech and the surrounding area. Following the Virginia Tech Shootings, on April 16th, 2007, many individuals immediately sought out support from both friends and family members. News reports discussing the strength of the "Hokie nation" and Blacksburg community flooded various media outlets (Cooper, 2007). Current students repeatedly focused on the positive feel of the community and ways that they felt supported by community efforts (Jones, Donlon, Burns, Goel, & Law, in press). Based on this coverage, individuals across the world were able to see the strengths of the community at Virginia Tech and many may have felt instantly connected to the school. In addition to the media coverage, many students also used the internet as a way to gain support following the shootings (Vicary & Fraley, 2010). These behaviors included using instant messaging services to communicate with friends and family and the use of Facebook and other social sharing websites. In the wake of shooting, many Facebook groups were created honoring the victims, which attracted many individuals who were not yet part of the Virginia Tech community.

Although many of the students included in this study were still in high school during the shooting, the national media coverage of the event and the "Hokie community" may have increased feelings of support upon entering the university. Therefore, all individuals may have indirectly benefited from the overall feel of the University, which may have increased the overall perception of one's support network.

In conclusion, personal characteristic resources appear to be the strongest predictor of outcomes following sexual victimization. Although total resource loss had similar predictive abilities, once personal characteristic loss was separated from other the other types of loss, the predictive ability diminished. As previously mentioned, there may be a few main reasons for these findings. Although the acquisition and maintenance of all types of resources are important following a trauma, personal characteristic resources may play a particularly large role in

functioning due to their ability to enhance coping and protect against current and future stressors (Grandey & Cropanzano, 1999; Reyes, Elhai, & Ford, 2008). For example, if one possesses self-esteem, they may feel empowered to deal with the numerous stressors that may occur following a traumatic event. Conversely, if one loses this important resource, an individual's ability to function across domains may decrease.

Personal characteristic resources may also play a large role in interpersonal relationships, something often affected by sexual victimization (Banou, et al., 2009). In the current sample, over 75% of the victimization experiences reported were perpetrated by an acquaintance, friend or romantic partner, with 55% of the subjects reporting victimization by a romantic partner. It should be noted that individuals were allowed to endorse more than one category so they are not mutually exclusive. Women may feel isolated from their social network and experience greater personal resource loss due to these affected relationships (Schumm, et al., 2004)

Personal characteristic resources may also have played a particularly large role in predicting outcomes as they were among the most commonly noted resources lost or threatened. Specifically, personal characteristic resources loss (mean = 37.61), was the most prevalent category affected, followed closely by condition resources (mean = 33.86), energy resources (mean = 16.57) and object loss (mean = 4.56).

In the college population, where object resources tend to be fairly stable and often determined by an individual's parents or guardians, it is understandable why object resources were affected so little. It is interesting, however, that condition and energy resources did not play a larger role in predicting outcomes. It may be that individuals did not perceive that the impact of these resources was as detrimental to functioning. As most sexual victimization resource has focused on personal characteristic resources, it may also be that condition and energy resources have less of an impact after a trauma of this nature.

4.2 - Implications and Benefits of the Current Study

The current study highlighted the importance of resource loss following sexual victimization, as well as the specific components of resilience that may be affected by this loss. While other studies have examined the psychological impact of sexual victimization, this is the first study to apply a comprehensive definition of resilience to this population. The strongest finding of the current study involved the significant relationship between total resource loss and many of the components of resilience. These components included total psychopathology,

depressive symptoms, anxiety, total satisfaction with friends, and school performance. These results were particularly noteworthy as neither of the proposed moderators of social-support and self-efficacy was significant. As non-moderated relationships are often the most robust relationships, a lack of moderators of further strengthens the interpretation of this finding. It should also be noted that while there were significant main effects, the lack of moderation supports the importance of the basic loss-resilience relationship.

These findings emphasize the important role of resource loss in predicting both positive and negative aspects of post-trauma functioning. As the best outcomes occurred for those with the lowest levels of loss, the focus should be on preventing resource loss before it occurs, or attempting to replenish resources immediately following a victimization experience. As personal characteristic loss was found to be particularly important in predicting outcomes, these should be the focal point of both prevention and treatment efforts. For example, it may be helpful to focus on things such as enhancing self-esteem, broadening social networks, and increasing a sense of safety in those at-risk for victimization. By increasing these resources prior to, or immediately after, victimization, one may be able to avoid some of the negative effects of victimization. In addition, the bolstering of these resources may directly affect some of the resilience variables. For example, if one is able to build a support network effectively, they are likely to feel greater satisfaction with their friends. In another example, if an individual feels safe at home and at school, they may be better able to concentrate on schoolwork, therefore enhancing their ability to succeed academically.

Despite these findings, some proposed loss-resilience variables were not found to be significant. Specifically, the links between loss and alcohol use, change in G.P.A. and the number of post-trauma hookups were not significant. As previously discussed, there were some significant methodological issues that may have affected both the variables of change in G.P.A., and post-trauma hookups. Therefore, prior to making any conclusions regarding the relationship between loss and these variables, they should be re-examined in a future study. The lack of significance of the loss and PTSD variable, as well as the loss-alcohol problems, both pose some significant implications, however.

Despite earlier endorsement of a sexual victimization experience through the use of behavioral definitions, many individuals failed to endorse a sexual victimization experience when asked during a trauma history (no behavioral definitions were provided). This poses an

important issue regarding the recognition of the experience of victimization and the various reasons why individuals may not report that they have had these experiences. As mentioned earlier, up to 50% of women who experience rape may not label it as such, however, this does not mean that they fail to experience the negative effects typically associated with victimization (Kahn, et al., 2003). These rates of non-recognition may be even higher for less-severe instances of victimization (i.e., unwanted sexual attention, sexual coercion) (Du Mont, Miller, & Myhr, 2003). If one fails to label the experience as a trauma, they also fail to receive some of the post-trauma experiences and resources that may be helpful for recovery such as sympathy and support from others around them (Burt & Estep, 1981; Littleton, Rhatigan, & Axsom, 2007).

There are, however, many negative associations with labeling an experience as victimizing (Sable, Danis, Mauzy, & Gallagher, 2006). For example, women may experience emotions such as guilt (Nishith, Nixon, & Resick, 2005), shame (Weiss, 2010), and self-blame (Miller, Handley, Markman, & Miller, 2010). While there have been numerous efforts implemented to reduce the stigma associated with sexual assault, there are still significant barriers to reporting (Sable, et al., 2006). Individuals continue to report fears related to personal dignity (i.e., shame, guilt, blame), confidentially, not being believed, and personal safety (i.e., retaliation by the perpetrator). Therefore, in order to increase victim reporting, it may be beneficial to target these specific fears. Targeting these fears may also increase the availability of support as individuals will have access to supports available to those who have reported victimization. Unfortunately, many current risk-reduction programs that have been implemented on college campuses have been unsuccessful at reducing victimization and the associated negative outcomes(Anderson & Whiston, 2005; Breitenbecher & Scarce, 2001). These programs typically focus on education about the prevalence of victimization on college campuses and addressed various rape myths. Based on the Conservation of Resources model, it may be more helpful to implement programs aimed at bolstering resources, such as teaching safety practices, increasing self-efficacy beliefs and providing support groups for those who have experienced victimization. In addition, longer programs, which have been shown to be more beneficial, likely provide for a greater accumulation of resources through education and practice (Anderson & Whiston, 2005). For example, in a program that focused on teaching self-defense and promoting safety, rates of revictimization were reduced at follow-up (Orchowski, Gidycz, & Raffle, 2008)

It should also be noted that while some may argue that there are protective features associated with being part of a stigmatized group (Crocker & Major, 1989, 2003), these may not apply to individuals who have experienced sexual victimization. For example, in other stigmatized groups (i.e., ethnic or cultural minorities), there may be a sense of community within the group. In addition, individuals may compare themselves to other members of their disadvantaged group, as opposed to members of the majority group (Crocker & Major, 2003). Due to the stigma associated with reporting abuse, individuals may be hesitant to form these communities and support networks, however, and therefore will likely not receive these benefits.

This study further supported the importance of personal resources following a traumatic event such as sexual victimization. When resource loss was broken down into personal characteristic loss and "other loss" (i.e., object, energy and condition combined), personal characteristic continued to remain a significant predictor of many of the resilience variables, whereas other loss did not. For example, personal characteristic loss alone continued to be a significant predictor of total psychopathology, anxiety, depression, satisfaction with friends, and school performance. The category of other loss failed to predict any of these variables. Therefore, when designing interventions for this population, the focus should be on protecting and rebuilding these resources, as opposed to other types of resources. It should be noted that all resources may be helpful in recovering from a traumatic event, however, with the limited resources available for both pre- and post-trauma interventions (i.e., funding, time, etc), the best use of these efforts would be on personal characteristic resources.

The study also highlighted the importance of continuing to provide individuals with education about what qualifies as sexual victimization and the implications of labeling it as such. As previously discussed, many individuals who endorsed the behavioral definition of sexual victimization, failed to later endorse the experience of sexual assault/sexual victimization. If an individual does not identify the experience as a type of trauma, they may fail to seek support, even when they are struggling with the aftermath of the experience. As many sexual victimization education programs exist on campuses, efforts may be best used to expand the current programs, as opposed to creating competing ones. For example, the Sexual Assault and Violence Education by Students (SAVES) program at Virginia Tech routinely provides

presentations and facilitates discussions regarding sexual victimization and how to both prevent and recover from these experiences. These programs should incorporate findings related to both resource loss and the effects of labeling in these presentations.

This study also highlighted the importance of self-efficacy following sexual victimization. Self-efficacy was found to be a significant predictor of total psychopathology, depressive symptoms, school performance and satisfaction with friends. Therefore, self-efficacy is important in not only the prevention of psychopathology, but also in helping an individual succeed in other areas, such as in school or with friends.

Self-efficacy may have other important implications for recovery as well. For example, high levels of self-efficacy may increase commitment to treatment (Finlayson, Edwards, & Courtney, 2010; Rhatigan, Shorey, & Nathanson, 2011). Those higher in self-efficacy may also be more responsive to treatments (Luszczynska, Schwarzer, Lippke, & Mazurkiewicz, 2011). Therefore, in addition to lower levels of initial psychopathology, self-efficacy may also predict a greater long-term prognosis through an individual's commitment to and participation in treatment.

This investigation was particularly beneficial as it was the first examination of the effects of loss on those who had experienced sexual victimization using a comprehensive definition of resilience and post-trauma functioning. While many earlier efforts focused on mental health functioning following victimization, few studies have broadening this conceptualization to include functioning in other domains such as school/work performance or satisfaction with one's friendships. This study demonstrated the importance of examining multiple domains when making determinations about one's functioning and the necessity of taking a comprehensive viewpoint. Although no conclusive conclusions can be drawn regarding the impact of victimization on alcohol problems, G.P.A., and number of hookup, these constructs still require future examination as unforeseen methodological issues may have impacted the measurement of these constructs.

4.3 - Limitations of the Current Study

Although many significant main effects were found, the predictions regarding the moderational roles of both social support and self-efficacy were not supported. This lack of findings may be the result of several factors. Although a significant percentage of individuals who took the survey endorsed sexual victimization (21%), the overall level of victimization may

not have been as severe as recorded in other studies. For example, approximately 10% of the sample endorsed that their victimization experienced involved vaginal or anal intercourse, as opposed to other types of sexual experiences. Previous studies have consistently demonstrated that those who have the highest levels of loss and exposure also have the poorest outcomes in terms of recovery (Banou, et al., 2009; Hobfoll, et al., 2003). While most of this research has focused on mental health outcomes (i.e., depression, anxiety, PTSD), it can also be assumed that a similar relationship would exist with resilience variables such as school performance and the proposed moderators. For example, an individual who experienced severe sexual victimization, and therefore lost her sense of safety, optimism and support network, would benefit the most from an increase in other sources of support and interventions targeting her self of safety. In contrast, an individual who has not lost these resources may need less resources and support in the future (Hobfoll, 1998).

Another potential limitation of the study involves the timing of the victimization in relation to the assessment. Individuals were included in the study if their victimization occurred after beginning college; however, the exact time since victimization was variable. Although the time since the most recent instance of victimization and the time since the most severe instance of victimization were controlled for, this may not have eliminated all differences due to timing. For example, if an individual experienced multiple instances of victimization, these two time points may not have fully captured their experiences. The cutoff time point for victimization as entry to college was chosen due to the significant change in resources that occurs when one leaves home and begins school. Although the original Sexual Experiences Scale (Koss & Gidycz, 1985) asked participants about a one year time period (i.e., if victimization had occurred during the previous year), this wording would have included individuals who had transitioned from high school to college if they were currently freshman. The Conservation of Resources model posits that recovery is largely based on resource change due to the trauma; however, some individuals would have experienced significant change simply due to this transition. Therefore, the period of "since college" was chosen. Future studies may want to limit the sample to individuals who have already been in college for more than one year, while still using the original Sexual Experiences Survey, to avoid this potential confound.

Another significant limitation of the study is the lack of multiple assessments. Ideally, one would be assessed immediately before the traumatic event, immediately after the event, and 3-6 months following the event. The current study attempted to gain premorbid data by assessing an individual's history with depression, anxiety and alcohol problems, however, this report was retrospective and only included general questions about whether they had previously experienced these symptoms. Therefore, rather than assessing the specific predictive value of premorbid mental health, it was controlled for during the analyses. In addition, the current study only included one assessment; therefore causal statements cannot be made regarding the findings.

One last limitation of the study involves the lack of discussion regarding potential ethnic or cultural differences. Although ethnicity data was collected during the assessment, over 90% of the individuals endorsed "Caucasian", as their ethnic background. The lack of diversity in the sample therefore prevented any comparisons along this variable. It should be noted, however, that SES was computed. There were no significant differences in SES in the predictor or resilience outcomes, and therefore the variable was not included in the study, however. SES has been found to be a better predictor of distress in a meta-analysis of PTSD (Brewin, Andrews, & Valentine, 2000) as well as in an examination of internalizing symptoms (Galea, et al., 2007). Therefore, significant differences across cultures may not have been found.

4.4 - Future Directions

This study was one of the first examinations of resilience following sexual victimization. Although previous studies have examined the mental health outcomes that occur following resource loss, little has been done utilizing a comprehensive definition of resilience. Future research should continue to explore these constructs in order to better understand the areas of functioning that are affected by the experience of sexual victimization. In particular, future studies should explore the constructs of G.P.A., and number of hookups following victimization, in order to see if the lack of findings was due to a methodological error or whether those areas are less affected than previously thought by victimization. With this knowledge, interventions targeting the most affected areas of functioning can be developed and implemented following victimization.

Results of this study further supported the importance of resource loss following victimization. Although all resources have been deemed important, personal resources emerged as a particularly important predictor of resilience. Therefore, future research should continue to

assess the specific resources lost following victimization and implement interventions specifically aimed at reducing personal characteristic loss. For example, within the construct of personal characteristic loss there are multiple resources that may be of particular importance for predicting specific outcomes. Future research should examine these resources individually to see if findings regarding resilience are the result of specific resources or if the construct as a whole is the best predictor.

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Table 1

Demographic Variables of Sample Size (N), Age, and Race

Variable	N	% of sample
Age		
18	52	17.7
19	35	28.6
20	34	29.9
21	23	15.6
22	10	6.8
23+	1	.7
Ethnicity		
Caucasian	131	89.2
"Other"	16	10.8

Table 2

Measure Means, Standard Deviations and Internal Consistencies

Measures	**N**	**M**	**SD**	**Alpha**
Resource Loss (COR-E)	147	42.91	38.14	.975
Depression (CESD)	143	39.62	12.31	.929
Anxiety	143	20.90	7.93	.898
PTSD (PSS)	47	1.61	1.25	.912
Social Support	143	56.13	14.86	.94
Self-efficacy	143	32.53	5.18	.891
Satisfaction with friends (IFI)	143	41.05	9.07	.819
School Performance (IFI)	143	65.68	10.95	.839
Alcohol Use (AUDIT)	143	9.65	5.17	.780
Change in G.P.A.	140	2.23	1.05	n/a
Risky Sexual Behaviors	140	7.16	4.31	n/a

Table 3

Zero-Order Correlations Among Variables

Variables	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Loss	—											
2. Anxiety	.556*	__										
3. Depression	.606*	.747*	__									
4. PTSD	.193	.280*	.327	___								
5. Social Support	-.258 *	-.435*	-.466*	-.327*	__							
6. Self-efficacy	-.331*	-.271*	-.389*	.012*	.175.	__						
7. School Performance	-.374*	-.351*	-.508*	-.151	.269*	.495*	___					
8. Satisfaction with Friends	-.363*	-.508*	.747*	-.355*	.488*	.347*	.387*	___				
9. Alcohol Use	.069	.102	-.079	.063	-.084	-.169*	.331*	.014	___			
10. Risky Sexual Behaviors	.050	.025	.048	-.164	-.030	.096	.214*	.004	-.077	___		
11. Change in G.P.A.	.097	.025	.017	-.166	.025	-.001	-.116	.012	-.014	-.071	___	
12. Year in College	-.059	-.167	-.170	-.267*	-.012	.140	.097	-.146	-.118	-.014	-.076	___

*Correlation is significant at the 0.05 level

Table 4

ANOVA of group differences by SES by measure

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Total Loss	Between Groups	65603.859	48	1366.747	.911	.633
	Within Groups	142505.967	95	1500.063		
	Total	208109.826	143			
Depression	Between Groups	5308.723	48	110.598	.640	.955
	Within Groups	16240.633	94	172.773		
	Total	21549.357	142			
Anxiety	Between Groups	2709.003	48	56.438	.853	.726
	Within Groups	6221.627	94	66.188		
	Total	8930.629	142			
PTSD	Between Groups	32.875	29	1.134	.560	.935
	Within Groups	54.633	27	2.023		
	Total	87.509	56			
Social Support	Between Groups	10380.354	48	216.257	.968	.540
	Within Groups	20998.121	94	223.384		
	Total	31378.476	142			
Self-efficacy	Between Groups	1116.904	48	23.269	.811	.787
	Within Groups	2696.704	94	28.688		
	Total	3813.608	142			
Alcohol use	Between Groups	1382.323	48	28.798	1.118	.319
	Within Groups	2421.887	94	25.765		
	Total	3804.210	142			
Satisfaction with friends	Between Groups	3118.143	48	64.961	.711	.903
	Within Groups	8587.410	94	91.355		
	Total	11705.552	142			
School Performance	Between Groups	6684.674	48	139.264	1.263	.167
	Within Groups	10366.165	94	110.278		
	Total	17050.839	142			
Change in G.P.A	Between Groups	6663.395	48	138.821	.608	.970
	Within Groups	20776.427	91	228.312		
	Total	27439.822	139			
Number of Hookups	Between Groups	2654.512	48	55.302	1.121	.315
	Within Groups	4487.659	91	49.315		
	Total	7142.171	139			

Table 5

Summary of Hierarchical Regression Analyses of Self-Efficacy as a Potential Moderator of the Relationship Between Total Loss and Total Psychopathology

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F†	p†	B	P
Step 1	.202	.202	6.913	.000*		
Time since most recent event					-.170	.389
Time since most severe event					.073	.081
Relationship status					-.116	.445
Premorbid anxiety					.356	.130
Premorbid depression					.121	.000*
Premorbid alcohol					.083	.145
Step 2	.421	.219	15.515	.000*		
Time since most recent event					-.099	.233
Time since most severe event					.037	.652
Relationship status					-.121	.072
Premorbid anxiety					.200	.008*
Premorbid depression					.164	.052
Premorbid alcohol					.021	.821
Total resource loss					.493	.750
Step 3	.443	.022	14.935	.000*		
Time since most recent event					-.107	.192
Time since most severe event					.028	.730
Relationship status					-.123	.061
Premorbid anxiety					.188	.011*
Premorbid depression					.163	.020*
Premorbid alcohol					.019	.776
Total resource loss					.440	.000*
Self-efficacy					-.170	.012*
Step 4	.447	.004	13.587	.000*		
Time since most recent event					-.111	.173
Time since most severe event					.029	.716
Relationship status					-.128	.052
Premorbid anxiety					.180	.015*
Premorbid depression					.166	.017*
Premorbid alcohol					.003	.969
Total resource loss					.473	.000*
Self-efficacy					-.182	.008*
Loss X self-efficacy					.096	.116

† = values were obtained for the entire model

Table 6

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Total Loss and Total Psychopathology

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F†	P†	B	P
Step 1	.202	.202	6.913	.000*		
Time since most recent event					-.170	.081
Time since most severe event					.073	.445
Relationship status					-.116	.139
Premorbid anxiety					.356	.000*
Premorbid depression					.121	.145
Premorbid alcohol					.083	.289
Step 2	.421	.219	15.515	.000*		
Time since most recent event					-.099	.233
Time since most severe event					.037	.652
Relationship status					-.121	.072
Premorbid anxiety					.200	.008*
Premorbid depression					.164	.022*
Premorbid alcohol					.021	.750
Other resource loss					.493	.000*
Step 3	.501	.080	18.604	.000*		
Time since most recent event					-.105	.173
Time since most severe event					.041	.589
Relationship status					-.037	.569
Premorbid anxiety					.160	.022*
Premorbid depression					.146	.028*
Premorbid alcohol					.016	.801
Other resource loss					.429	.000*
Social Support					-.311	.000*
Step 4	.501	.000	116.633	.000*		
Time since most recent event					-.103	.182
Time since most severe event					.039	.610
Relationship status					-.034	.603
Premorbid anxiety					.165	.019*
Premorbid depression					.149	.025*
Premorbid alcohol					.011	.857
Total resource loss					.436	.000*
Social Support					-.327	.000*
Loss X social support					.061	.335

Table 7

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Total Loss and Total Anxiety

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F†	p†	B	P
Step 1	.245	.245	8.560	.000*		
Time since most recent event					-.206	.060
Time since most severe event					.141	.132
Relationship status					-.09	.197
Premorbid anxiety					.430	.000*
Premorbid depression					.097	.228
Premorbid alcohol					.063	.483
Step 2	.374	.129	12.945	.000*		
Time since most recent event					-.151	.081
Time since most severe event					.113	.186
Relationship status					-.102	.143
Premorbid anxiety					.308	.000*
Premorbid depression					.130	.078
Premorbid alcohol					.006	.937
Total resource loss					.382	.000*
Step 3	.378	.04	11.618	.000*		
Time since most recent event					-.155	.073
Time since most severe event					.108	.206
Relationship status					-.103	.137
Premorbid anxiety					.302	.000*
Premorbid depression					.130	.078
Premorbid alcohol					.004	.954
Total resource loss					.353	.000*
Self-efficacy					-.095	.183
Step 4	.391	.13	10.984	.000*		
Time since most recent event					-.162	.059
Time since most severe event					.110	.192
Relationship status					-.110	.111
Premorbid anxiety					.289	.000*
Premorbid depression					.135	.064
Premorbid alcohol					-.020	.775
Total resource loss					.402	.000*
Self-efficacy					-.113	.114
Loss X self-efficacy					.142	.051

† = values were obtained for the entire model

Table 8

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Total Loss and Total Anxiety

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F†	P†	B	P
Step 1	.245	.245	8.560	.000*		
Time since most recent event					-.206	.030
Time since most severe event					.141	.132
Relationship status					-.099	.197
Premorbid anxiety					.430	.000*
Premorbid depression					.097	.228
Premorbid alcohol					.053	.483
Step 2	.374	.129	12.945	.000*		
Time since most recent event					-.151	.081
Time since most severe event					.113	.186
Relationship status					-.102	.143
Premorbid anxiety					.308	.000*
Premorbid depression					.130	.078
Premorbid alcohol					.006	.937
Other resource loss					.382	.000*
Step 3	.437	.063	14.556	.000*		
Time since most recent event					-.156	.058
Time since most severe event					.117	.151
Relationship status					-.027	.691
Premorbid anxiety					.273	.000*
Premorbid depression					.115	.102
Premorbid alcohol					.000	.994
Other resource loss					.325	.000*
Social Support					-.276	.000*
Step 4	.437	.000	13.056	.000*		
Time since most recent event					-.154	.061
Time since most severe event					.114	.160
Relationship status					-.024	.729
Premorbid anxiety					.278	.000*
Premorbid depression					.118	.093
Premorbid alcohol					-.005	.946
Total resource loss					.333	.000*
Social Support					-.294	.000*
Loss X social support					.068	.312

Table 9

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Total Loss and Total Depression

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F†	p†	B	P
Step 1	.118	.118	4.127	.001*		
Time since most recent event					-.112	.273
Time since most severe event					-.002	.986
Relationship status					-.118	.154
Premorbid anxiety					.238	.008*
Premorbid depression					.127	.145
Premorbid alcohol					.100	.223
Step 2	.373	.255	12.903	.000*		
Time since most recent event					-.036	.677
Time since most severe event					.041	.630
Relationship status					-.122	.079
Premorbid anxiety					.069	.376
Premorbid depression					.173	.020*
Premorbid alcohol					.034	.629
Total resource loss					.532	.000*
Step 3	.413	.40	13.336	.000*		
Time since most recent event					-.045	.057
Time since most severe event					-.053	.521
Relationship status					-.172	.063
Premorbid anxiety					.053	.478
Premorbid depression					.172	.017*
Premorbid alcohol					.030	.654
Total resource loss					.464	.000*
Self-efficacy					-.220	.002*
Step 4	.410	-.03	11.823	.000*		
Time since most recent event					-.047	.574
Time since most severe event					-.052	.527
Relationship status					-.127	.060
Premorbid anxiety					.050	.508
Premorbid depression					.174	.016
Premorbid alcohol					.024	.729
Total resource loss					.477	.000*
Self-efficacy					-.225	.002*
Loss X self-efficacy					.038	.591

† = values were obtained for the entire model

Table 10

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Total Loss and Total Depression

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F†	P†	B	P
Step 1	.118	.118	4.127	.001*		
Time since most recent event					-.112	.273
Time since most severe event					-.002	.986
Relationship status					-.118	.154
Premorbid anxiety					.238	.008
Premorbid depression					.127	.145
Premorbid alcohol					.100	.223
Step 2	.373	.255	12.903	.000*		
Time since most recent event					-.036	.677
Time since most severe event					-.041	.630
Relationship status					-.122	.079
Premorbid anxiety					.069	.376
Premorbid depression					.173	.020*
Premorbid alcohol					.034	.629
Other resource loss					.532	.000*
Step 3	.449	.076	15.253	.000*		
Time since most recent event					-.042	.606
Time since most severe event					-.037	.643
Relationship status					-.041	.548
Premorbid anxiety					.030	.679
Premorbid depression					.156	.025*
Premorbid alcohol					.028	.667
Other resource loss					.470	.000*
Social Support					-.302	.000*
Step 4	.447	-.002	13.558	.000*		
Time since most recent event					-.040	.620
Time since most severe event					-.039	.629
Relationship status					-.038	.572
Premorbid anxiety					.033	.648
Premorbid depression					.158	.024*
Premorbid alcohol					.025	.706
Total resource loss					.475	.000*
Social Support					-.314	.000*
Loss X social support					.046	.491

Table 11

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Total Loss and Total PTSD

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F†	p†	B	P
Step 1	.034	.034	1.328	.262		
Time since most recent event					-.206	.712
Time since most severe event					.141	.295
Relationship status					-.09	.086
Premorbid anxiety					.430	.194
Premorbid depression					.097	.359
Premorbid alcohol					.063	.308
Step 2	.036	.002	1.300	.270		
Time since most recent event					.088	.558
Time since most severe event					-.161	.272
Relationship status					-.245	.080
Premorbid anxiety					.183	.295
Premorbid depression					-.127	.457
Premorbid alcohol					.102	.495
Total resource loss					.151	.296
Step 3	.062	.026	1.459	.197		
Time since most recent event					.053	.723
Time since most severe event					-.173	.232
Relationship status					-.265	.057
Premorbid anxiety					.177	.306
Premorbid depression					-.163	.338
Premorbid alcohol					.118	.426
Total resource loss					.027	.867
Self-efficacy					-.235	.134
Step 4	.043	-.019	1.282	.272		
Time since most recent event					.058	.703
Time since most severe event					-.181	.224
Relationship status					-.260	.066
Premorbid anxiety					.192	.292
Premorbid depression					-.174	.323
Premorbid alcohol					.126	.407
Total resource loss					.025	.882
Self-efficacy					-.219	.191
Loss X self-efficacy					.-.044	.771

† = values were obtained for the entire model

Table 12

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Total Loss and Total PTSD

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.034	.034	1.328	.262		
Time since most recent event					.054	.712
Time since most severe event					-.153	.295
Relationship status					-.240	.086
Premorbid anxiety					.223	.194
Premorbid depression					-.155	.359
Premorbid alcohol					.146	.308
Step 2	.036	.002	1.300	.270		
Time since most recent event					.088	.558
Time since most severe event					-.161	.272
Relationship status					-.245	.080
Premorbid anxiety					.183	.295
Premorbid depression					-.127	.457
Premorbid alcohol					.102	.485
Other resource loss					.151	.296
Step 3	.053	.017	1.392	.224		
Time since most recent event					.049	.748
Time since most severe event					-.151	.297
Relationship status					-.148	.340
Premorbid anxiety					.146	.405
Premorbid depression					-.158	.354
Premorbid alcohol					.081	.584
Other resource loss					.113	.440
Social Support					-.215	.177
Step 4	.045	-.007	1.296	.265		
Time since most recent event					.083	.559
Time since most severe event					-.165	.261
Relationship status					-.165	.294
Premorbid anxiety					.153	.386
Premorbid depression					-.190	.282
Premorbid alcohol					.090	.546
Total resource loss					.152	.327
Social Support					-.192	.238
Loss X social support					-.116	.437

Table 13

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Total Loss and Total Alcohol Problems

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.078	.078	2.964	.009*		
Time since most recent event					-.042	.688
Time since most severe event					.098	.342
Relationship status					-.182	.032*
Premorbid anxiety					-.039	.663
Premorbid depression					.020	.819
Premorbid alcohol					.302	.000*
Step 2	.077	-.001	2.677	.013*		
Time since most recent event					-.030	.777
Time since most severe event					.092	.375
Relationship status					-.183	.031*
Premorbid anxiety					-.066	.482
Premorbid depression					.028	.757
Premorbid alcohol					.291	.001*
Total resource loss					.085	.329
Step 3	.093	.015	2.802	.007*		
Time since most recent event					-.036	.727
Time since most severe event					.083	.417
Relationship status					-.185	.028*
Premorbid anxiety					-.077	.410
Premorbid depression					.027	.762
Premorbid alcohol					.289	.001*
Total resource loss					.036	.687
Self-efficacy					-.157	.070
Step 4	.087	-.005	2.490	.012*		
Time since most recent event					-.035	.739
Time since most severe event					.083	.422
Relationship status					-.184	.030*
Premorbid anxiety					-.074	.431
Premorbid depression					.026	.774
Premorbid alcohol					.295	.001*
Total resource loss					.025	.794
Self-efficacy					-.153	.080
Loss X self-efficacy					-.033	.710

† = values were obtained for the entire model

Table 14

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Total Loss and Total Alcohol Use

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.078	.078	2.964	.009		
Time since most recent event					-.042	.688
Time since most severe event					.098	.342
Relationship status					-.182	.032*
Premorbid anxiety					-.039	.663
Premorbid depression					.020	.819
Premorbid alcohol					.302	.000*
Step 2	.077	-.001	2.677	.013		
Time since most recent event					-.030	.777
Time since most severe event					.092	.375
Relationship status					-.183	.031*
Premorbid anxiety					-.066	.482
Premorbid depression					.028	.757
Premorbid alcohol					.291	.001*
Total resource loss					-.085	.329
Step 3	.071	-.006	2.329	.023*		
Time since most recent event					-.030	.776
Time since most severe event					.092	.376
Relationship status					-.179	.043*
Premorbid anxiety					-.068	.475
Premorbid depression					.027	.765
Premorbid alcohol					.291	.001*
Total resource loss					.082	.358
Social Support					-.014	.872
Step 4	.076	.005	2.270	.021*		
Time since most recent event					-.026	.803
Time since most severe event					.088	.397
Relationship status					.174	.050*
Premorbid anxiety					-.060	.529
Premorbid depression					.032	.721
Premorbid alcohol					.283	.001*
Total resource loss					.094	.292
Social Support					-.044	.635
Loss X social support					.113	.194

Table 15

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Total Loss and Total Friends

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.010	.010	1.225	.297		
Time since most recent event					.037	.734
Time since most severe event					.031	.770
Relationship status					.063	.469
Premorbid anxiety					-.157	.092
Premorbid depression					-.065	.480
Premorbid alcohol					-.027	.767
Step 2	.088	-.012	2.930	.007*		
Time since most recent event					-.007	.948
Time since most severe event					.054	.601
Relationship status					.066	.431
Premorbid anxiety					-.060	.518
Premorbid depression					-.092	.304
Premorbid alcohol					.011	.894
Total resource loss					-.305	.001*
Step 3	.146	.088	3.993	.000*		
Time since most recent event					.005	.964
Time since most severe event					.068	.494
Relationship status					.070	.390
Premorbid anxiety					-.042	.643
Premorbid depression					-.090	.295
Premorbid alcohol					.015	.851
Total resource loss					-.223	.012*
Self-efficacy					-.264	.002*
Step 4	.143	-.003	3.602	.000*		
Time since most recent event					.008	.941
Time since most severe event					.067	.502
Relationship status					.073	.372
Premorbid anxiety					-.036	.690
Premorbid depression					-.093	.283
Premorbid alcohol					-.026	.752
Total resource loss					-.246	.009*
Self-efficacy					.272	.002*
Loss X self-efficacy					-.065	.451

† = values were obtained for the entire model

Table 16

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Total Loss and Total Satisfaction with Friends

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F†	P†	B	P
Step 1	.010	.010	1.225	.297		
Time since most recent event					.037	.734
Time since most severe event					.031	.770
Relationship status					.063	.469
Premorbid anxiety					-.157	.092
Premorbid depression					-.065	.480
Premorbid alcohol					-.027	.757
Step 2	.088	-.002	2.930	.007*		
Time since most recent event					-.007	.948
Time since most severe event					.054	.601
Relationship status					.066	.431
Premorbid anxiety					-.060	.518
Premorbid depression					-.092	.304
Premorbid alcohol					.011	.894
Total resource loss					-.305	.001*
Step 3	.249	.161	6.817	.000*		
Time since most recent event					.002	.987
Time since most severe event					.048	.607
Relationship status					-.052	.508
Premorbid anxiety					-.005	.955
Premorbid depression					-.067	.407
Premorbid alcohol					.019	.802
Total resource loss					-.215	.008*
Social Support					.437	.000*
Step 4	.261	.012	6.506	.000*		
Time since most recent event					-.003	.976
Time since most severe event					.053	.567
Relationship status					-.059	.451
Premorbid anxiety					-.015	.863
Premorbid depression					-.073	.361
Premorbid alcohol					.029	.701
Total resource loss					-.230	.005*
Social Support					.472	.000*
Loss X social support					-.137	.079

Table 17

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Total Loss and Total School Performance

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.034	.034	1.811	.100		
Time since most recent event					.166	.121
Time since most severe event					-.115	.277
Relationship status					.108	.213
Premorbid anxiety					-.177	.050
Premorbid depression					.055	.546
Premorbid alcohol					-.107	.212
Step 2	.140	.106	4.250	.000*		
Time since most recent event					.116	.252
Time since most severe event					-.089	.373
Relationship status					.111	.174
Premorbid anxiety					-.066	.466
Premorbid depression					.025	.773
Premorbid alcohol					-.064	.436
Total resource loss					-.350	.000*
Step 3	.296	.156	8.371	.000*		
Time since most recent event					.134	.145
Time since most severe event					-.067	.463
Relationship status					.117	.114
Premorbid anxiety					-.037	.652
Premorbid depression					.027	.730
Premorbid alcohol					-.057	.439
Total resource loss					-.221	.006
Self-efficacy					.418	.000*
Step 4	311	.015	8.017	.000*		
Time since most recent event					.127	.163
Time since most severe event					-.064	.474
Relationship status					.110	.132
Premorbid anxiety					-.050	.539
Premorbid depression					.033	.672
Premorbid alcohol					-.082	.268
Total resource loss					-.170	.042*
Self-efficacy					.399	.000*
Loss X self-efficacy					.149	.054

† = values were obtained for the entire model

Table 18

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Total Loss and Total School Performance

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$P^{\dagger}$	B	P
Step 1	.034	.034	1.811	.101		
Time since most recent event					.166	.121
Time since most severe event					-.115	.277
Relationship status					.108	.213
Premorbid anxiety					-.177	.055
Premorbid depression					.055	.546
Premorbid alcohol					-.107	.212
Step 2	.140	.106	4.250	.000*		
Time since most recent event					.116	.252
Time since most severe event					-.089	.373
Relationship status					.111	.174
Premorbid anxiety					-.066	.466
Premorbid depression					.025	.773
Premorbid alcohol					-.064	.436
Total resource loss					-.350	.000*
Step 3	.153	.013	4.169	.000*		
Time since most recent event					.119	.237
Time since most severe event					-.091	.358
Relationship status					.070	.404
Premorbid anxiety					-.047	.604
Premorbid depression					.033	.698
Premorbid alcohol					-.061	.452
Other resource loss					-.319	.000*
Social Support					.151	.079
Step 4	.149	-.004	3.728	.000*		
Time since most recent event					.121	.232
Time since most severe event					-.093	.350
Relationship status					.073	.389
Premorbid anxiety					-.043	.633
Premorbid depression					.036	.679
Premorbid alcohol					-.065	.428
Total resource loss					-.314	.000*
Social Support					.138	.120
Loss X social support					.049	.551

Table 19

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Total Loss and Change in G.P.A.

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.000	.000	.999	.429		
Time since most recent event					.013	.907
Time since most severe event					-.066	.541
Relationship status					-.008	.928
Premorbid anxiety					-.074	.435
Premorbid depression					.214	.023
Premorbid alcohol					.062	.481
Step 2	.009	.009	1.172	.323		
Time since most recent event					.032	.771
Time since most severe event					-.076	.482
Relationship status					-.009	.915
Premorbid anxiety					-.116	.241
Premorbid depression					.226	.016
Premorbid alcohol					-.078	.375
Total resource loss					.133	.144
Step 3	.019	.010	1.339	.230		
Time since most recent event					.038	.726
Time since most severe event					-.068	.526
Relationship status					-.008	.926
Premorbid anxiety					-.105	.286
Premorbid depression					.226	.016*
Premorbid alcohol					-.078	.373
Total resource loss					.176	.063
Self-efficacy					-.139	.122
Step 4	.023	.004	1.365	.211		
Time since most recent event					.033	.762
Time since most severe event					-.066	.536
Relationship status					-.013	.878
Premorbid anxiety					-.115	.244
Premorbid depression					.230	.014
Premorbid alcohol					-.097	.275
Total resource loss					.215	.032
Self-efficacy					.125	.167
Loss X self-efficacy					.113	.219

† = values were obtained for the entire model

Table 20

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Total Loss and Total Change in G.P.A

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.000	.000	.999	.429		
Time since most recent event					.013	.907
Time since most severe event					-.066	.541
Relationship status					-.008	.928
Premorbid anxiety					-.074	.435
Premorbid depression					.214	.023*
Premorbid alcohol					-.062	.481
Step 2	.009	.009	1.172	.323		
Time since most recent event					.032	.771
Time since most severe event					-.076	.482
Relationship status					-.009	.915
Premorbid anxiety					-.116	.241
Premorbid depression					.226	.016*
Premorbid alcohol					-.078	.375
Total resource loss					.133	.144
Step 3	.001	-.008	1.018	.426		
Time since most recent event					.032	.772
Time since most severe event					-.076	.483
Relationship status					-.010	.910
Premorbid anxiety					-.115	.017*
Premorbid depression					.226	.377
Premorbid alcohol					-.078	.152
Other resource loss					.133	.563
Social Support					.003	.970
Step 4	.000	-.001	.928	.504		
Time since most recent event					.003	.762
Time since most severe event					-.077	.475
Relationship status					-.008	.931
Premorbid anxiety					-.112	.264
Premorbid depression					.228	.016*
Premorbid alcohol					-.081	.361
Total resource loss					.138	.141
Social Support					-.008	.932
Loss X social support					.045	.617

Table 21

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Total Loss and Hookups

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.002	.002	1.042	.401		
Time since most recent event					.071	.505
Time since most severe event					-.161	.134
Relationship status					-.103	.239
Premorbid anxiety					.007	.938
Premorbid depression					.047	.612
Premorbid alcohol					.085	.331
Step 2	-.005	.003	.904	.505		
Time since most recent event					.077	.081
Time since most severe event					-.163	.186
Relationship status					-.102	.143
Premorbid anxiety					-.002	.000*
Premorbid depression					.050	.078
Premorbid alcohol					.006	.937
Total resource loss					.382	.000*
Step 3	-.012	.007	.788	.614		
Time since most recent event					-.155	.073
Time since most severe event					.108	.206
Relationship status					-.103	.137
Premorbid anxiety					.302	.000*
Premorbid depression					.130	.078
Premorbid alcohol					.004	.954
Total resource loss					.353	.000*
Self-efficacy					-.095	.183
Step 4	-.010	.002	.847	.574		
Time since most recent event					-.162	.059
Time since most severe event					.110	.192
Relationship status					-.110	.111
Premorbid anxiety					.289	.000*
Premorbid depression					.135	.064
Premorbid alcohol					-.020	.775
Total resource loss					.402	.000*
Self-efficacy					-.113	.114
Loss X self-efficacy					.142	.051

† = values were obtained for the entire model

Table 22

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Total Loss and Total Change in Hookups

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.002	.002	1.042	.401		
Time since most recent event					.071	.505
Time since most severe event					-.161	.134
Relationship status					-.103	.239
Premorbid anxiety					.007	.938
Premorbid depression					.047	.612
Premorbid alcohol					.085	.331
Step 2	-.005	-.007	.904	.505		
Time since most recent event					.077	.429
Time since most severe event					-.163	.131
Relationship status					-.102	.243
Premorbid anxiety					-.002	.981
Premorbid depression					.050	.594
Premorbid alcohol					.082	.349
Total resource loss					.031	.728
Step 3	-.004	.001	.933	.492		
Time since most recent event					.080	.462
Time since most severe event					-.164	.128
Relationship status					-.127	.161
Premorbid anxiety					.010	.916
Premorbid depression					.055	.553
Premorbid alcohol					.085	.332
Other resource loss					.052	.573
Social Support					.099	.291
Step 4	.005	.009	1.078	.383		
Time since most recent event					.072	.506
Time since most severe event					-.159	.138
Relationship status					-.137	.132
Premorbid anxiety					.000	.999
Premorbid depression					.049	.600
Premorbid alcohol					.091	.300
Total resource loss					.035	.703
Social Support					.133	.168
Loss X social support					-.133	.143

† = values were obtained for the entire model

Table 23

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total Psychopathology

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.202	.202	6.913	.000*		
Time since most recent event					-.179	.081
Time since most severe event					.073	.445
Relationship status					-.116	.139
Premorbid anxiety					.356	.000*
Premorbid depression					.121	.145
Premorbid alcohol					.083	.289
Step 2	.466	.264	18.463	.000*		
Time since most recent event					-.096	.231
Time since most severe event					.025	.756
Relationship status					-.110	.087
Premorbid anxiety					.228	.001*
Premorbid depression					.133	.051
Premorbid alcohol					.041	.518
Total resource loss					.527	.000*
Step 3	.479	.013	17.119	.000*		
Time since most recent event					-.102	.195
Time since most severe event					.018	.815
Relationship status					-.113	.075
Premorbid anxiety					.216	.002*
Premorbid depression					.135	.045
Premorbid alcohol					.038	.552
Total resource loss					.480	.000*
Self-efficacy					-.056	.038*
Step 4	.478	-.001	15.270	.000*		
Time since most recent event					-.103	.192
Time since most severe event					.019	.811
Relationship status					-.112	.078
Premorbid anxiety					.216	.002*
Premorbid depression					.136	.043*
Premorbid alcohol					.029	.648
Total resource loss					.494	.000*
Self-efficacy					-.147	.029*
Loss X self-efficacy					.142	.390

† = values were obtained for the entire model

Table 24

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total Psychopathology

Variable	R^{2}†	ΔR^{2}†	F†	p†	B	P
Step 1	.202	.202	6.913	.000*		
Time since most recent event					-.170	.081
Time since most severe event					.073	.445
Relationship status					-.116	.139
Premorbid anxiety					.356	.000*
Premorbid depression					.121	.145
Premorbid alcohol					.083	.289
Step 2	.466	.264	18.463	.000*		
Time since most recent event					-.096	.230
Time since most severe event					.025	.756
Relationship status					-.110	.087
Premorbid anxiety					.228	.001*
Premorbid depression					.133	.051
Premorbid alcohol					.041	.518
Personal resource loss					.527	.000*
Step 3	.536	.070	21.225	.000*		
Time since most recent event					-.102	.172
Time since most severe event					.030	.684
Relationship status					-.033	.597
Premorbid anxiety					.188	.005*
Premorbid depression					.121	.058
Premorbid alcohol					.034	.572
Other resource loss					.463	.000*
Social Support					-.291	.000*
Step 4	.536	.000	18.828	.000*		
Time since most recent event					-.101	.177
Time since most severe event					.029	.698
Relationship status					-.031	.623
Premorbid anxiety					.191	.004*
Premorbid depression					.122	.056*
Premorbid alcohol					.031	.602
Total resource loss					.465	.000*
Social Support					-.302	.000*
Loss X social support					.039	.523

Table 25

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total Anxiety

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.245	.245	8.560	.000*		
Time since most recent event					-.206	.030*
Time since most severe event					.141	.132
Relationship status					-.099	.197
Premorbid anxiety					.430	.000*
Premorbid depression					.097	.228
Premorbid alcohol					.053	.483
Step 2	.380	.135	13.275	.000*		
Time since most recent event					-.152	.078
Time since most severe event					.106	.213
Relationship status					-.094	.174
Premorbid anxiety					.337	.000*
Premorbid depression					.106	.147
Premorbid alcohol					.023	.736
Total resource loss					.381	.000*
Step 3	.381	.001	11.785	.000*		
Time since most recent event					-.156	.071
Time since most severe event					.102	.229
Relationship status					-.096	.166
Premorbid anxiety					.330	.000*
Premorbid depression					.107	.143
Premorbid alcohol					.021	.760
Total resource loss					.355	.000*
Self-efficacy					-.079	.273
Step 4	.386	.005	10.780	.000*		
Time since most recent event					-.158	.067
Time since most severe event					.103	.224
Relationship status					-.094	.172
Premorbid anxiety					.329	.000*
Premorbid depression					.109	.134
Premorbid alcohol					.006	.930
Total resource loss					.380	.000*
Self-efficacy					-.095	.193
Loss X self-efficacy					.100	.158

† = values were obtained for the entire model

Table 26

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total Anxiety

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.245	.245	8.560	.000*		
Time since most recent event					-.206	.030*
Time since most severe event					.141	.132
Relationship status					-.099	.197
Premorbid anxiety					.430	.000*
Premorbid depression					.097	.228
Premorbid alcohol					.053	.483
Step 2	.380	.135	13.275	.000*		
Time since most recent event					-.152	.078
Time since most severe event					.106	.213
Relationship status					-.094	.174
Premorbid anxiety					.337	.000*
Premorbid depression					.106	.147
Premorbid alcohol					.023	.736
Personal resource loss					.381	.000*
Step 3	.438	.058	14.658	.000*		
Time since most recent event					-.158	.055
Time since most severe event					.111	.172
Relationship status					-.023	.738
Premorbid anxiety					.300	.000*
Premorbid depression					.095	.175
Premorbid alcohol					.016	.806
Other resource loss					.322	.000*
Social Support					-.268	.000*
Step 4	.438	.000	13.047	.000*		
Time since most recent event					-.157	.057
Time since most severe event					.109	.179
Relationship status					-.020	.770
Premorbid anxiety					.304	.000*
Premorbid depression					.096	.168
Premorbid alcohol					.013	.844
Total resource loss					.324	.000*
Social Support					-.282	.000*
Loss X social support					.050	.458

Table 27

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total Depression

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F†	P†	B	P
Step 1	.118	.118	4.127	.001*		
Time since most recent event					-.112	.273
Time since most severe event					-.002	.986
Relationship status					-.118	.154
Premorbid anxiety					.238	.008*
Premorbid depression					.127	.145
Premorbid alcohol					.100	.223
Step 2	.456	.338	17.765	.000*		
Time since most recent event					-.028	.723
Time since most severe event					-.057	.474
Relationship status					-.111	.088
Premorbid anxiety					.093	.190
Premorbid depression					.141	.041
Premorbid alcohol					.053	.410
Total resource loss					.596	.000*
Step 3	.480	.024	17.162	.000*		
Time since most recent event					-.037	.641
Time since most severe event					-.065	.404
Relationship status					-.115	.072
Premorbid anxiety					.078	.263
Premorbid depression					.143	.033*
Premorbid alcohol					.048	.444
Total resource loss					.536	.000*
Self-efficacy					-.176	.008*
Step 4	.476	-.004	15.141	.000*		
Time since most recent event					-.037	.642
Time since most severe event					.065	.406
Relationship status					-.114	.073
Premorbid anxiety					.078	.265
Premorbid depression					.144	.034*
Premorbid alcohol					.048	.7459
Total resource loss					.537	.000*
Self-efficacy					-.177	.009*
Loss X self-efficacy					.006	.925

† = values were obtained for the entire model

Table 28

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total Depression

Variable	R^2†	ΔR^2†	F†	P†	B	P
Step 1	.118	.118	4.127	.001		
Time since most recent event					-.112	.273
Time since most severe event					-.002	.986
Relationship status					-.118	.154
Premorbid anxiety					.238	.008*
Premorbid depression					.127	.145
Premorbid alcohol					.100	.223
Step 2	.456	.338	17.765	.000*		
Time since most recent event					-.028	.723
Time since most severe event					-.057	.474
Relationship status					-.111	.088
Premorbid anxiety					-.093	.190
Premorbid depression					.141	.041*
Premorbid alcohol					.053	.410
Personal resource loss					.596	.000*
Step 3	.517	.061	19.758	.000*		
Time since most recent event					-.034	.652
Time since most severe event					-.052	.489
Relationship status					-.038	.549
Premorbid anxiety					.055	.414
Premorbid depression					.129	.047*
Premorbid alcohol					.046	.450
Personal resource loss					.535	.000*
Social Support					-.274	.000*
Step 4	.514	-.003	17.464	.000*		
Time since most recent event					-.034	.658
Time since most severe event					-.053	.484
Relationship status					-.037	.565
Premorbid anxiety					.057	.400
Premorbid depression					.130	.046*
Premorbid alcohol					.045	.467
Personal resource loss					.536	.000*
Social Support					-.280	.000*
Loss X social support					.023	.709

Table 29

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total PTSD

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.034	.034	1.328	.262		
Time since most recent event					.054	.712
Time since most severe event					-.153	.295
Relationship status					-.240	.086
Premorbid anxiety					.223	.194
Premorbid depression					-.155	.359
Premorbid alcohol					.146	.308
Step 2	.036	.002	1.300	.270		
Time since most recent event					.088	.558
Time since most severe event					-.161	.272
Relationship status					-.245	.080
Premorbid anxiety					.183	.295
Premorbid depression					-.127	.457
Premorbid alcohol					.102	.495
Total resource loss					.151	.296
Step 3	.062	.026	1.459	.197		
Time since most recent event					.053	.723
Time since most severe event					-.173	.232
Relationship status					-.265	.057
Premorbid anxiety					.177	.306
Premorbid depression					-.163	.338
Premorbid alcohol					.118	.426
Total resource loss					.027	.867
Self-efficacy					-.235	.134
Step 4	.043	-.019	1.917	.272		
Time since most recent event					.058	.703
Time since most severe event					-.181	.224
Relationship status					-.260	.066
Premorbid anxiety					.192	.292
Premorbid depression					-.174	.323
Premorbid alcohol					-.126	.407
Total resource loss					.025	.882
Self-efficacy					-.219	.191
Loss X self-efficacy					-.044	.771

† = values were obtained for the entire model

Table 30

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total PTSD

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.034	.034	1.328	.262		
Time since most recent event					.054	.712
Time since most severe event					-.153	.295
Relationship status					-.240	.086
Premorbid anxiety					.223	.194
Premorbid depression					-.155	.359
Premorbid alcohol					.146	.308
Step 2	.040	.006	1.331	.256		
Time since most recent event					.077	.601
Time since most severe event					-.161	.269
Relationship status					-.239	.087
Premorbid anxiety					.200	.246
Premorbid depression					-.127	.456
Premorbid alcohol					.113	.436
Other resource loss					.156	.259
						.
Step 3	.055	.015	1.410	.217		
Time since most recent event					.041	.781
Time since most severe event					-.152	.295
Relationship status					-.145	.347
Premorbid anxiety					.159	.358
Premorbid depression					-.158	.356
Premorbid alcohol					.090	.534
Other resource loss					.117	.400
Social Support					-.212	.185
Step 4	.051	-.004	1.334	.246		
Time since most recent event					.079	.611
Time since most severe event					-.169	.251
Relationship status					-.165	.293
Premorbid anxiety					.171	.324
Premorbid depression					-.193	.274
Premorbid alcohol					.104	.479
Total resource loss					.168	.268
Social Support					-.182	.264
Loss X social support					-.134	.382

Table 31

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total Alcohol

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.078	.078	2.964	.009*		
Time since most recent event					-.042	.688
Time since most severe event					.098	.342
Relationship status					-.182	.032
Premorbid anxiety					-.039	.663
Premorbid depression					.020	.819
Premorbid alcohol					.302	.000*
Step 2	.081	.003	2.757	.010*		
Time since most recent event					-.027	.792
Time since most severe event					.089	.391
Relationship status					-.181	.032*
Premorbid anxiety					-.064	.488
Premorbid depression					.023	.799
Premorbid alcohol					.294	.001*
Total resource loss					.102	.230
Step 3	.094	.013	2.825	.006*		
Time since most recent event					-.034	.740
Time since most severe event					.082	.426
Relationship status					-.184	.028*
Premorbid anxiety					-.077	.403
Premorbid depression					.025	.779
Premorbid alcohol					.290	.001*
Total resource loss					.050	.572
Self-efficacy					-.151	.085
Step 4	.089	-.004	2.512	.011*		
Time since most recent event					-.034	.745
Time since most severe event					.082	.429
Relationship status					-.185	.029*
Premorbid anxiety					-.076	.407
Premorbid depression					.024	.786
Premorbid alcohol					.295	.001*
Total resource loss					.042	.648
Self-efficacy					-.146	.101
Loss X self-efficacy					-.034	.698

Table 32

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total Alcohol Use

Variable	R^2†	ΔR^2†	F†	p†	B	P
Step 1	.078	.078	2.964	.009*		
Time since most recent event					-.042	.121
Time since most severe event					.098	.277
Relationship status					-.182	.213
Premorbid anxiety					-.039	.055
Premorbid depression					.020	.546
Premorbid alcohol					.302	.212
Step 2	.081	.003	2.757	.010*		
Time since most recent event					-.027	.792
Time since most severe event					.089	.391
Relationship status					-.181	.032
Premorbid anxiety					-.064	.488
Premorbid depression					.023	.799
Premorbid alcohol					.294	.001
Personal resource los					.102	.230
Step 3	.081	.000	2.395	.019*		
Time since most recent event					-.028	.792
Time since most severe event					.089	.392
Relationship status					-.179	.043*
Premorbid anxiety					-.065	.486
Premorbid depression					.022	.803
Premorbid alcohol					.294	.001*
Personal resource loss					.100	.253
Social Support					-.008	.929
Step 4	.078	-.003	2.315	.019*		
Time since most recent event					-.025	.811
Time since most severe event					.085	.411
Relationship status					-.173	.050*
Premorbid anxiety					-.055	.556
Premorbid depression					.026	.767
Premorbid alcohol					.287	.001*
Personal resource loss					.105	.228
Social Support					-.037	.688
Loss X social support					.108	.210

Table 33

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total Friends

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.010	.052	1.225	.297		
Time since most recent event					.037	.734
Time since most severe event					.031	.770
Relationship status					.063	.469
Premorbid anxiety					-.157	.092
Premorbid depression					-.065	.480
Premorbid alcohol					-.027	.757
Step 2	.144	.134	4.368	.000*		
Time since most recent event					-.017	.868
Time since most severe event					.067	.504
Relationship status					.059	.469
Premorbid anxiety					-.064	.469
Premorbid depression					-.074	.389
Premorbid alcohol					.003	.969
Total resource loss					-.382	.000*
Step 3	.185	.041	4.964	.000*		
Time since most recent event					-.006	.949
Time since most severe event					.077	.429
Relationship status					.064	.422
Premorbid anxiety					-.045	.605
Premorbid depression					-.077	.357
Premorbid alcohol					.009	.905
Total resource loss					-.305	.000*
Self-efficacy					.227	.000*
Step 4	.189	.004	4.622	.000*		
Time since most recent event					-.004	.964
Time since most severe event					.076	.433
Relationship status					.062	.433
Premorbid anxiety					-.043	.616
Premorbid depression					-.079	.343
Premorbid alcohol					.025	.753
Total resource loss					-.331	.000*
Self-efficacy					.244	.004
Loss X self-efficacy					-.105	.197

† = values were obtained for the entire model

Table 34

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total Satisfaction with Friends

Variable	R^{2}†	ΔR^{2}†	F†	p†	B	P
Step 1	.010	.010	1.225	.297		
Time since most recent event					.037	.734
Time since most severe event					.031	.770
Relationship status					.063	.469
Premorbid anxiety					-.157	.092
Premorbid depression					-.065	.480
Premorbid alcohol					-.027	.757
Step 2	.144	.134	4.368	.000*		
Time since most recent event					-.017	.868
Time since most severe event					.067	.504
Relationship status					.059	.469
Premorbid anxiety					-.064	.469
Premorbid depression					-.074	.389
Premorbid alcohol					.003	.969
Personal resource loss					-.382	.000*
Step 3	.287	.143	8.033	.000*		
Time since most recent event					-.008	.929
Time since most severe event					.059	.517
Relationship status					-.051	.506
Premorbid anxiety					-.007	.931
Premorbid depression					-.056	.475
Premorbid alcohol					.014	.849
Personalresource loss					-.291	.000*
Social Support					.413	.000*
Step 4	.297	.010	7.564	.000*		
Time since most recent event					-.011	.902
Time since most severe event					.063	.484
Relationship status					-.058	.447
Premorbid anxiety					-.019	.818
Premorbid depression					-.061	.435
Premorbid alcohol					.022	.762
Total resource loss					-.297	.000*
Social Support					.448	.000*
Loss X social support					-.127	.092

Table 35

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total School Performance

Variable	R^{2}†	ΔR^{2}†	F†	p†	B	P
Step 1	.034	.034	1.811	.101		
Time since most recent event					.166	.121
Time since most severe event					-.115	.277
Relationship status					-.108	.213
Premorbid anxiety					-.177	.055
Premorbid depression					.055	.546
Premorbid alcohol					-.107	.212
Step 2	.134	.100	4.086	.000*		
Time since most recent event					.119	.240
Time since most severe event					-.084	.403
Relationship status					.104	.204
Premorbid anxiety					-.097	.280
Premorbid depression					.047	.583
Premorbid alcohol					-.081	.319
Total resource loss					-.107	.000*
Step 3	.286	.152	8.020	.000*		
Time since most recent event					.139	.133
Time since most severe event					-.065	.475
Relationship status					.133	.130
Premorbid anxiety					-.061	.454
Premorbid depression					.042	.595
Premorbid alcohol					-.070	.346
Total resource loss					-.190	.017*
Self-efficacy					.418	.000*
Step 4	.285	-.001	7.197	.000*		
Time since most recent event					.138	.137
Time since most severe event					-.065	.479
Relationship status					.114	.127
Premorbid anxiety					-.062	.447
Premorbid depression					.043	.583
Premorbid alcohol					-.080	.289
Total resource loss					-.174	.034*
Self-efficacy					.408	.000*
Loss X self-efficacy					.065	.393

† = values were obtained for the entire model

Table 36

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total School Performance

Variable	R^{2}†	ΔR^{2}†	F†	P†	B	P
Step 1	.034	.034	1.811	.101		
Time since most recent event					.166	.121
Time since most severe event					-.115	.277
Relationship status					.108	.213
Premorbid anxiety					-.177	.055
Premorbid depression					.055	.546
Premorbid alcohol					-.107	.212
Step 2	.134	.100	4.086	.000*		
Time since most recent event					.119	.240
Time since most severe event					-.084	.402
Relationship status					.104	.204
Premorbid anxiety					-.097	.280
Premorbid depression					.047	.583
Premorbid alcohol					-.081	.319
Other resource loss					-.332	.000*
Step 3	.146	.012	3.989	.000*		
Time since most recent event					.123	.225
Time since most severe event					-.087	.383
Relationship status					.065	.442
Premorbid anxiety					-.076	.394
Premorbid depression					.054	.531
Premorbid alcohol					-.077	.339
Personal resource loss					-.300	.000*
Social Support					.147	.091
Step 4	.146	.000	3.610	.000*		
Time since most recent event					.124	.220
Time since most severe event					-.089	.372
Relationship status					.069	.417
Premorbid anxiety					-.070	.436
Premorbid depression					.056	.513
Premorbid alcohol					-.082	.315
Personal resource loss					-.297	.001*
Social Support					.128	.152
Loss X social support					.067	.417

Table 37

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Change in G.P.A.

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F†	p†	B	P
Step 1	.000	.000	.999	.429		
Time since most recent event					.013	.907
Time since most severe event					-.066	.541
Relationship status					-.008	.928
Premorbid anxiety					-.074	.435
Premorbid depression					.214	.023*
Premorbid alcohol					-.062	.481
Step 2	.000	.000	.920	.493		
Time since most recent event					.021	.846
Time since most severe event					-.072	.509
Relationship status					.007	.932
Premorbid anxiety					-.088	.364
Premorbid depression					.216	.022*
Premorbid alcohol					-.067	.447
Personal resource loss					.061	.492
Step 3	.047	.047	.801	.603		
Time since most recent event					.021	.848
Time since most severe event					-.071	.512
Relationship status					-.005	.960
Premorbid anxiety					-.090	.362
Premorbid depression					.215	.023*
Premorbid alcohol					-.067	.449
Other resource loss					.059	.522
Social Support					-.010	.912
Step 4	.047	.000	.723	.687		
Time since most recent event					.022	.843
Time since most severe event					-.073	.507
Relationship status					-.003	.976
Premorbid anxiety					-.087	.382
Premorbid depression					.216	.023*
Premorbid alcohol					-.069	.438
Total resource loss					.060	.512
Social Support					-.020	.841
Loss X social support					.034	.708

Table 38

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total Hookups

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.002	.002	1.042	.401		
Time since most recent event					.071	.505
Time since most severe event					-.161	.134
Relationship status					-.103	.239
Premorbid anxiety					.007	.938
Premorbid depression					.047	.612
Premorbid alcohol					.085	.331
Step 2	-.005	-.007	.907	.613		
Time since most recent event					.067	.536
Time since most severe event					-.158	.144
Relationship status					-.103	.239
Premorbid anxiety					.015	.874
Premorbid depression					.046	.619
Premorbid alcohol					.087	.319
Total resource loss					-.033	.709
Step 3	-.012	-.005	.790	.613		
Time since most recent event					.066	.543
Time since most severe event					-.158	.145
Relationship status					-.104	.239
Premorbid anxiety					.014	.884
Premorbid depression					.046	.619
Premorbid alcohol					.087	.326
Total resource loss					-.037	.697
Self-efficacy					-.011	.905
Step 4	-.002	.010	.972	.466		
Time since most recent event					.068	.526
Time since most severe event					-.159	.140
Relationship status					-.106	.227
Premorbid anxiety					.016	.867
Premorbid depression					.043	.640
Premorbid alcohol					.107	.230
Total resource loss					-.072	.460
Self-efficacy					.011	.911
Loss X self-efficacy					-.139	.126

† = values were obtained for the entire model

Table 39

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Personal Characteristic Loss and Total Hookups

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F†	p†	B	P
Step 1	.002	.002	1.042	.401		
Time since most recent event					.078	.505
Time since most severe event					-.161	.134
Relationship status					-.103	.239
Premorbid anxiety					.007	.938
Premorbid depression					.047	.612
Premorbid alcohol					.085	.331
Step 2	.002	.000	.907	.503		
Time since most recent event					.067	.447
Time since most severe event					-.158	.140
Relationship status					-.103	.247
Premorbid anxiety					.015	.908
Premorbid depression					.046	.502
Premorbid alcohol					.087	.343
Personal resource loss					-.033	.178
Step 3	.002	.000	.894	.524		
Time since most recent event					.069	.524
Time since most severe event					-.159	.141
Relationship status					-.125	.170
Premorbid anxiety					.027	.781
Premorbid depression					.050	.592
Premorbid alcohol					.090	.306
Personal resource loss					-.014	.875
Social Support					.084	.370
Step 4	.0004	.004	1.067	.391		
Time since most recent event					.063	.559
Time since most severe event					-.155	.150
Relationship status					-.135	.138
Premorbid anxiety					.013	.893
Premorbid depression					.044	.631
Premorbid alcohol					.095	.278
Total resource loss					-.021	.815
Social Support					.122	.209
Loss X social support					-.138	.125

† = values were obtained for the entire model

Table 40

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Other Loss and Total Psychopathology

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.202	.202	6.913	.000*		
Time since most recent event					-.170	.081
Time since most severe event					.073	.445
Relationship status					-.116	.139
Premorbid anxiety					.356	.000*
Premorbid depression					.121	.145
Premorbid alcohol					.083	.289
Step 2	.198	-.004	5.934	.000*		
Time since most recent event					-.171	.080
Time since most severe event					.072	.453
Relationship status					-.115	.146
Premorbid anxiety					.364	.000*
Premorbid depression					.116	.167
Premorbid alcohol					.087	.269
Total resource loss					-.041	.594
Step 3	.280	.080	7.795	.000*		
Time since most recent event					-.170	.066
Time since most severe event					.050	.584
Relationship status					-.120	.108
Premorbid anxiety					.312	.000*
Premorbid depression					.124	.120
Premorbid alcohol					.070	.349
Total resource loss					-.029	.692
Self-efficacy					-.293	.000*
Step 4	.274	.006	15.969	.000*		
Time since most recent event					-.171	.067
Time since most severe event					.050	.584
Relationship status					-.121	.109
Premorbid anxiety					.312	.000*
Premorbid depression					.124	.121
Premorbid alcohol					-.070	.352
Total resource loss					-.029	.694
Self-efficacy					-.294	.000*
Loss X self-efficacy					.007	.928

† = values were obtained for the entire model

Table 41

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Other Loss and Total Psychopathology

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.202	.202	6.913	.000*		
Time since most recent event					-.170	.081
Time since most severe event					.073	.445
Relationship status					-.116	.139
Premorbid anxiety					.356	.000*
Premorbid depression					.121	.145
Premorbid alcohol					.083	.289
Step 2	.198	-.004	5.934	.000*		
Time since most recent event					-.171	.080
Time since most severe event					.072	.453
Relationship status					-.115	.146
Premorbid anxiety					.364	.000*
Premorbid depression					.116	.167
Premorbid alcohol					.087	.269
Other resource loss					-.041	.594
Step 3	.339	.141	9.966	.000*		
Time since most recent event					-.166	.061
Time since most severe event					.072	.412
Relationship status					-.008	.917
Premorbid anxiety					.285	.000*
Premorbid depression					.102	.182
Premorbid alcohol					.069	.337
Other resource loss					-.033	.637
Social Support					-.399	.000
Step 4	.337	-.002	8.916	.000*		
Time since most recent event					-.163	.067
Time since most severe event					.071	.419
Relationship status					-.013	.861
Premorbid anxiety					.277	.001*
Premorbid depression					.103	.177
Premorbid alcohol					.067	.346
Other resource loss					-.037	.600
Social support					-.398	.000*
Loss X social support					-.059	.404

Table 42

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Total Loss and Total Anxiety

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.245	.245	8.560	.000*		
Time since most recent event					-.206	.060
Time since most severe event					.141	.132
Relationship status					-.099	.197
Premorbid anxiety					.430	.000*
Premorbid depression					.097	.228
Premorbid alcohol					.053	.483
Step 2	.239	-.006	7.290	.000*		
Time since most recent event					-.205	.031
Time since most severe event					.142	.133
Relationship status					-.099	.197
Premorbid anxiety					.427	.000*
Premorbid depression					.099	.223
Premorbid alcohol					.052	.499
Total resource loss					.015	.839
Step 3	.273	.034	7.555	.000*		
Time since most recent event					-.205	.028
Time since most severe event					.127	.169
Relationship status					-.103	.171
Premorbid anxiety					.393	.000*
Premorbid depression					.105	.190
Premorbid alcohol					.040	.591
Total resource loss					.023	.751
Self-efficacy					-.195	.009*
Step 4	.267	-.005	6.673	.000*		
Time since most recent event					-.207	.028
Time since most severe event					.127	.169
Relationship status					-.105	.167
Premorbid anxiety					.392	.000*
Premorbid depression					.104	.193
Premorbid alcohol					.040	.595
Total resource loss					.024	.748
Self-efficacy					-.197	.009*
Loss X self-efficacy					.017	.820

† = values were obtained for the entire model

Table 43

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Other Loss and Total Anxiety

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F†	P†	B	P
Step 1	.245	.245	8.560	.000*		
Time since most recent event					-.206	.060
Time since most severe event					.141	.132
Relationship status					-.09	.197
Premorbid anxiety					.430	.000*
Premorbid depression					.097	.228
Premorbid alcohol					.063	.483
Step 2	.239	-.006	7.290	.000*		
Time since most recent event					-.205	.081
Time since most severe event					.142	.186
Relationship status					-.099	.143
Premorbid anxiety					.427	.000*
Premorbid depression					.099	.078
Premorbid alcohol					.052	.937
Other resource loss					.015	.839
						.
Step 3	.343	.004	10.125	.000*		
Time since most recent event					-.110	.241
Time since most severe event					-.005	.961
Relationship status					-.008	.923
Premorbid anxiety					.175	.036*
Premorbid depression					.102	.207
Premorbid alcohol					.091	.231
Other resource loss					-.082	.272
Social Support					-.398	.000*
Step 4	.349	.006	9.344	.000*		
Time since most recent event					-.109	.244
Time since most severe event					-.005	.960
Relationship status					-.008	.918
Premorbid anxiety					.175	.039*
Premorbid depression					.102	.208
Premorbid alcohol					.091	.233
Total resource loss					-.082	.273
Social Support					-.398	.000*
Loss X social support					-.006	.936

Table 44

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Other Loss and Total Depression

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.118	.118	4.127	.001*		
Time since most recent event					-.112	.273
Time since most severe event					-.002	.986
Relationship status					-.118	.154
Premorbid anxiety					.238	.008*
Premorbid depression					.127	.145
Premorbid alcohol					.110	.223
Step 2	.120	.002	3.720	.001*		
Time since most recent event					-.114	.263
Time since most severe event					-.004	.969
Relationship status					-.114	.167
Premorbid anxiety					.253	.005*
Premorbid depression					.116	.186
Premorbid alcohol					.109	.186
Total resource loss					-.090	.268
Step 3	.236	.126	6.416	.000*		
Time since most recent event					-.113	.233
Time since most severe event					-.030	.747
Relationship status					-.121	.117
Premorbid anxiety					.193	.023*
Premorbid depression					.125	.126
Premorbid alcohol					.089	.249
Total resource loss					-.076	.318
Self-efficacy					-.347	.000*
Step 4	.231	-.005	5.660	.000*		
Time since most recent event					-.113	.238
Time since most severe event					-.031	.747
Relationship status					-.120	.122
Premorbid anxiety					.193	.023*
Premorbid depression					.125	.127
Premorbid alcohol					.089	.250
Total resource loss					-.076	.320
Self-efficacy					-.347	.000*
Loss X self-efficacy					-.004	.958

Table 45

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Other Loss and Total PTSD

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.034	.034	1.328	.262		
Time since most recent event					.054	.712
Time since most severe event					-.153	.295
Relationship status					-.240	.086
Premorbid anxiety					.223	.194
Premorbid depression					-.155	.359
Premorbid alcohol					.146	.308
Step 2	.015	-.019	1.124	.364		
Time since most recent event					.049	.740
Time since most severe event					-.153	.299
Relationship status					-.238	.093
Premorbid anxiety					.230	.191
Premorbid depression					-.155	.363
Premorbid alcohol					.152	.301
Total resource loss					-.032	.817
Step 3	.061	.046	1.455	.199		
Time since most recent event					.046	.752
Time since most severe event					-.173	.233
Relationship status					-.265	.058
Premorbid anxiety					.182	.293
Premorbid depression					-.169	.312
Premorbid alcohol					.125	.385
Total resource loss					-.002	.988
Self-efficacy					-.248	.072
Step 4	.051	-.010	1.333	.246		
Time since most recent event					.033	.823
Time since most severe event					-.166	.256
Relationship status					-.270	.056
Premorbid anxiety					.173	.322
Premorbid depression					-.161	.339
Premorbid alcohol					.124	.392
Total resource loss					.015	.913
Self-efficacy					-.230	.102
Loss X self-efficacy					.096	.489

Table 46

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Other Loss and Total PTSD

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.034	.034	8.560	.000*		
Time since most recent event					.054	.712
Time since most severe event					-.153	.295
Relationship status					-.240	.086
Premorbid anxiety					.223	.194
Premorbid depression					-.155	.359
Premorbid alcohol					.146	.308
Step 2	.015	-.019	1.328	.262		
Time since most recent event					.049	.740
Time since most severe event					-.153	.299
Relationship status					-.238	.093
Premorbid anxiety					.230	.191
Premorbid depression					-.155	.363
Premorbid alcohol					.151	.201
Total resource loss					-.032	.817
Step 3	.042	.027	1.305	.262		
Time since most recent event					.017	.911
Time since most severe event					-.145	.320
Relationship status					-.132	.394
Premorbid anxiety					.176	.319
Premorbid depression					-.182	.283
Premorbid alcohol					.115	.431
Total resource loss					-.024	.859
Social support					-.238	.132
Step 4	.029	-.013	1.189	.324		
Time since most recent event					.036	.814
Time since most severe event					-.146	.320
Relationship status					-.152	.341
Premorbid anxiety					.178	.316
Premorbid depression					-.202	.246
Premorbid alcohol					.133	.377
Total resource loss					-.050	.729
Social support					-.242	.128
Loss X social support					-.094	.524

Table 47

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Other Loss and Total Alcohol Problems

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.078	.078	2.964	.009*		
Time since most recent event					-.042	.688
Time since most severe event					.098	.342
Relationship status					-.182	.032*
Premorbid anxiety					-.039	.663
Premorbid depression					.020	.819
Premorbid alcohol					.302	.000*
Step 2	.071	-.007	2.537	.018*		
Time since most recent event					-.042	.685
Time since most severe event					.098	.347
Relationship status					-.181	.033*
Premorbid anxiety					-.035	.705
Premorbid depression					.017	.849
Premorbid alcohol					.305	.000*
Total resource loss					-.026	.757
Step 3	.093	.022	2.786	.007*		
Time since most recent event					-.042	.684
Time since most severe event					.085	.409
Relationship status					-.185	.029*
Premorbid anxiety					-.064	.486
Premorbid depression					.022	.809
Premorbid alcohol					.295	.001*
Total resource loss					-.019	.819
Self-efficacy					-.166	.045*
Step 4	.086	-.007	2.458	.013*		
Time since most recent event					-.042	.689
Time since most severe event					.085	.411
Relationship status					-.184	.031*
Premorbid anxiety					-.063	.489
Premorbid depression					.022	.809
Premorbid alcohol					.295	.001*
Total resource loss					-.019	.819
Self-efficacy					-.166	.046*
Loss X self-efficacy					-.003	.969

Table 48

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Other Loss and Total Alcohol

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	F†	p†	B	P
Step 1	.078	.078	2.964	.009*		
Time since most recent event					-.042	.688
Time since most severe event					.098	.342
Relationship status					-.182	.032
Premorbid anxiety					-.039	.663
Premorbid depression					.020	.819
Premorbid alcohol					.302	.000*
Step 2	.071	-.007	2.537	.018*		
Time since most recent event					-.042	.685
Time since most severe event					.098	.347
Relationship status					-.181	.033
Premorbid anxiety					-.035	.705
Premorbid depression					.017	.849
Premorbid alcohol					.305	.000*
Total resource loss					-.026	.757
Step 3	.065	-.006	2.221	.030*		
Time since most recent event					-.042	.688
Time since most severe event					.098	.349
Relationship status					-.173	.051
Premorbid anxiety					-.041	.663
Premorbid depression					.016	.859
Premorbid alcohol					.202	.000*
Other resource loss					-.025	.764
Social support					-.031	.725
Step 4	.058	-.007	1.959	.049*		
Time since most recent event					-.042	.691
Time since most severe event					.097	.351
Relationship status					-.173	.052
Premorbid anxiety					-.041	.665
Premorbid depression					.016	.860
Premorbid alcohol					.303	.001*
Other resource loss					-.025	.764
Social support					-.031	.726
Loss X support					-.002	.985

Table 49

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Other Loss and Total Friend Satisfaction

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.010	.010	1.225	.297		
Time since most recent event					.037	.734
Time since most severe event					.031	.770
Relationship status					.063	.469
Premorbid anxiety					-.157	.092
Premorbid depression					-.065	.480
Premorbid alcohol					-.027	.757
Step 2	.017	.007	1.352	.231		
Time since most recent event					.040	.712
Time since most severe event					.034	.748
Relationship status					.058	.501
Premorbid anxiety					-.179	.058
Premorbid depression					-.050	.590
Premorbid alcohol					-.039	.653
Total resource loss					.123	.154
Step 3	.116	.099	3.293	.002*		
Time since most recent event					.039	.703
Time since most severe event					.059	.562
Relationship status					.065	.434
Premorbid anxiety					-.122	.176
Premorbid depression					-.059	.505
Premorbid alcohol					-.020	.806
Total resource loss					.110	.181
Self-efficacy					.322	.000*
Step 4	.116	.000	3.047	.002*		
Time since most recent event					.030	.770
Time since most severe event					.061	.548
Relationship status					.054	.512
Premorbid anxiety					-.127	.160
Premorbid depression					-.059	.500
Premorbid alcohol					-.022	.790
Total resource loss					.111	.175
Self-efficacy					.317	.000*
Loss X self-efficacy					.082	.304

Table 50

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Other Loss and Total Friends

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.010	.010	1.225	.297		
Time since most recent event					.037	.734
Time since most severe event					.031	.770
Relationship status					.063	.469
Premorbid anxiety					-.157	.092
Premorbid depression					-.065	.480
Premorbid alcohol					-.027	.757
Step 2	.017	.007	1.352	.231		
Time since most recent event					.369	.712
Time since most severe event					.322	.748
Relationship status					.058	.501
Premorbid anxiety					-.179	.058
Premorbid depression					-.050	.590
Premorbid alcohol					-.039	.653
Other resource loss					.123	.154
Step 3	.221	.204	5.972	.000*		
Time since most recent event					.034	.718
Time since most severe event					.035	.713
Relationship status					-.070	.385
Premorbid anxiety					-.085	.319
Premorbid depression					-.033	.691
Premorbid alcohol					-.017	.825
Other resource loss					.113	.140
Social Support					.479	.000*
Step 4	.217	-.004	5.313	.000*		
Time since most recent event					.032	.738
Time since most severe event					.036	.708
Relationship status					-.066	.414
Premorbid anxiety					-.079	.356
Premorbid depression					-.034	.684
Premorbid alcohol					-.016	.834
Total resource loss					.116	.133
Social Support					.478	.000
Loss X social support					.041	.589

Table 51

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Other Loss and Total School Performance

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$p^{\dagger}$	B	P
Step 1	.034	.034	1.811	.101		
Time since most recent event					.166	.121
Time since most severe event					-.115	.277
Relationship status					.108	.213
Premorbid anxiety					-.177	.055
Premorbid depression					.055	.546
Premorbid alcohol					-.107	.212
Step 2	.028	-.006	1.152	.146		
Time since most recent event					.165	.124
Time since most severe event					-.116	.274
Relationship status					.109	.207
Premorbid anxiety					-.170	.071
Premorbid depression					.050	.590
Premorbid alcohol					-.103	.234
Total resource loss					-.044	.606
Step 3	.259	.231	7.118	.000*		
Time since most recent event					.164	.081
Time since most severe event					-.079	.393
Relationship status					.118	.119
Premorbid anxiety					-.085	.304
Premorbid depression					.037	.649
Premorbid alcohol					-.075	.323
Total resource loss					-.064	.390
Self-efficacy					.483	.000*
Step 4	.306	.047	7.844	.000*		
Time since most recent event					.140	.059
Time since most severe event					-.074	.192
Relationship status					.091	.111
Premorbid anxiety					-.098	.000*
Premorbid depression					.035	.064
Premorbid alcohol					-.080	.775
Total resource loss					-.060	.000*
Self-efficacy					.468	.114
Loss X self-efficacy					.201	.051

Table 52

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Other Loss and Total School Performance

Variable	R^{2}†	ΔR^{2}†	F†	P†	B	P
Step 1	.034	.034	1.811	.101		
Time since most recent event					.166	.121
Time since most severe event					-.115	.277
Relationship status					.108	.213
Premorbid anxiety					-.177	.055
Premorbid depression					.055	.546
Premorbid alcohol					-.107	.212
Step 2	.028	-.006	1.582	.146		
Time since most recent event					.165	.124
Time since most severe event					-.116	.274
Relationship status					.109	.207
Premorbid anxiety					-.170	.071
Premorbid depression					.050	.590
Premorbid alcohol					-.103	.234
Other resource loss					-.044	.606
Step 3	.065	.037	2.213	.030*		
Time since most recent event					.163	.122
Time since most severe event					-.116	.266
Relationship status					.051	.564
Premorbid anxiety					-.127	.174
Premorbid depression					.057	.526
Premorbid alcohol					-.093	.274
Other resource loss					-.049	.563
Social Support					.218	.014*
Step 4	.089	.024	2.513	.011*		
Time since most recent event					.153	.142
Time since most severe event					-.133	.272
Relationship status					.067	.446
Premorbid anxiety					-.103	.266
Premorbid depression					.053	.549
Premorbid alcohol					-.089	.287
Total resource loss					-.037	.654
Social Support					.213	.015*
Loss X social support					.145	.055

Table 53

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Other Loss and Total Hookups

Variable	R^{2}†	ΔR^{2}†	F†	p†	B	P
Step 1	.002	.002	1.042	.401		
Time since most recent event					.071	.505
Time since most severe event					-.161	.134
Relationship status					-.103	.239
Premorbid anxiety					.007	.938
Premorbid depression					.047	.612
Premorbid alcohol					.085	.331
Step 2	.008	.006	1.161	.330		
Time since most recent event					.081	.447
Time since most severe event					-.158	.140
Relationship status					-.101	.247
Premorbid anxiety					-.011	.908
Premorbid depression					.062	.502
Premorbid alcohol					.082	.343
Total resource loss					.117	.178
Step 3	.000	-.006	1.008	.433		
Time since most recent event					.081	.448
Time since most severe event					-.158	.143
Relationship status					-.101	.250
Premorbid anxiety					-.011	.911
Premorbid depression					.062	.503
Premorbid alcohol					.082	.347
Total resource loss					.117	.179
Self-efficacy					.001	.994
Step 4	-.007	-.007	.898	.529		
Time since most recent event					.080	.458
Time since most severe event					-.157	.146
Relationship status					-.102	.244
Premorbid anxiety					-.012	.902
Premorbid depression					.062	.505
Premorbid alcohol					.083	.344
Total resource loss					.119	.175
Self-efficacy					.000	.997
Loss X self-efficacy					.024	.782

Table 54

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Other Loss and Total Hookups

Variable	$R^{2\dagger}$	$\Delta R^{2\dagger}$	$F^{\dagger}$	$P^{\dagger}$	B	P
Step 1	.078	.078	2.964	.009		
Time since most recent event					.042	.688
Time since most severe event					.098	.342
Relationship status					-.182	.032*
Premorbid anxiety					-.039	.663
Premorbid depression					.020	.819
Premorbid alcohol					.302	.000*
Step 2	.071	-.007	2.537	.018*		
Time since most recent event					-.042	.685
Time since most severe event					.098	.347
Relationship status					-.181	.033
Premorbid anxiety					-.035	.705
Premorbid depression					.017	.849
Premorbid alcohol					.305	.000*
Other resource loss					-.026	.757
Step 3	.065	-.006	2.221	.030*		
Time since most recent event					-.042	.688
Time since most severe event					.098	.349
Relationship status					-.173	.051
Premorbid anxiety					-.041	.663
Premorbid depression					.016	.859
Premorbid alcohol					.303	.000*
Other resource loss					-.025	.764
Social Support					-.031	.725
Step 4	.058	-.007	1.959	.049*		
Time since most recent event					-.042	.691
Time since most severe event					.097	.351
Relationship status					-.173	.052
Premorbid anxiety					-.041	.665
Premorbid depression					.016	.860
Premorbid alcohol					.303	.001*
Total resource loss					-.025	.764
Social Support					-.031	.726
Loss X social support					-.002	.985

Table 55

Summary of Hierarchical Regression Analyses of Self-efficacy as a Potential Moderator of the Relationship Between Other Loss and Change in G.P.A.

Variable	R^{2}†	ΔR^{2}†	F†	p†	B	P
Step 1	.000	.000	.999	.429		
Time since most recent event					.013	.907
Time since most severe event					-.066	.541
Relationship status					-.008	.928
Premorbid anxiety					-.074	.435
Premorbid depression					.214	.023
Premorbid alcohol					-.062	.481
Step 2	.009	.009	1.182	.317		
Time since most recent event					.015	.887
Time since most severe event					-.063	.557
Relationship status					-.012	.889
Premorbid anxiety					-.097	.309
Premorbid depression					.231	.014
Premorbid alcohol					-.072	.408
Total resource loss					.129	.138
Step 3	.009	.000	1.154	.332		
Time since most recent event					.015	.887
Time since most severe event					-.057	.599
Relationship status					-.011	.899
Premorbid anxiety					-.082	.398
Premorbid depression					.228	.016*
Premorbid alcohol					-.069	.432
Total resource loss					.125	.150
Self-efficacy					.084	.330
Step 4	.009	.000	1.134	.344		
Time since most recent event					.007	.952
Time since most severe event					-.054	.614
Relationship status					-.022	.806
Premorbid anxiety					-.086	.373
Premorbid depression					.227	.016*
Premorbid alcohol					-.071	.415
Total resource loss					.127	.145
Self-efficacy					-.079	.363
Loss X self-efficacy					.988	.325

Table 56

Summary of Hierarchical Regression Analyses of Social Support as a Potential Moderator of the Relationship Between Other Loss and Change in G.P.A.

Variable	R^{2}†	ΔR^{2}†	F†	P†	B	P
Step 1	.000	.000	.999	.429		
Time since most recent event					.013	.907
Time since most severe event					-.066	.541
Relationship status					-.008	.928
Premorbid anxiety					-.074	.435
Premorbid depression					.214	.023
Premorbid alcohol					-.062	.481
Step 2	.009	.009	1.182	.317		
Time since most recent event					.015	.887
Time since most severe event					-.063	.557
Relationship status					-.012	.889
Premorbid anxiety					-.097	.309
Premorbid depression					.213	.014*
Premorbid alcohol					-.072	.408
Other resource loss					.129	.138
Step 3	.002	-.007	1.039	.410		
Time since most recent event					.016	.886
Time since most severe event					-.063	.558
Relationship status					-.005	.959
Premorbid anxiety					-.103	.292
Premorbid depression					.230	.015
Premorbid alcohol					-.073	.405
Other resource loss					.129	.137
Social Support					-.028	.762
Step 4	.016	.014	1.249	.271		
Time since most recent event					.007	.946
Time since most severe event					-.061	.570
Relationship status					.008	.928
Premorbid anxiety					-.083	.394
Premorbid depression					.227	.016
Premorbid alcohol					-.070	.421
Total resource loss					.139	.110
Social Support					-.032	.721
Loss X social support					.144	.096