COLLEGE STUDENTS' EXPERIENCES OF ECONOMIC ABUSE: THE DEVELOPMENT OF THE EDUCATION SABOTAGE SCALE

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ABSTRACT

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Approximately one in three college students report experiencing physical and or sexual intimate partner violence (IPV) (Fass et al., 2008). Research has shown that economic abuse cooccurs with physical and psychological; however, little research exists on college students' experiences of economic abuse and the unique ways economic abuse can manifest in the lives of students. This study utilized a sequential exploratory mixed-methods design to (1) explore college students' experiences of economic abuse among other forms of IPV, (2) develop and pilot-test a scale of education sabotage, and (3) explore the negative impacts of economic abuse among college students. In phase one, nine advocates working on college campuses participated in interviews regarding students' experiences of economic abuse. These interviews were used to develop 12 survey items. In phase two, the 12 survey items were pilot tested with 487 students from a large Midwestern University. This study found that college students experience economic abuse, but they also experience a unique form of economic abuse referred to as education sabotage. The Education Sabotage Scale was found to be reliable and valid, and results indicated that education sabotage was positively associated with adverse outcomes. College campuses should include economic abuse and education sabotage in their mandatory dating violence trainings. College campuses should also implement policies to protect and assist students experiencing economic abuse and education sabotage, such as providing academic and financial resources to students who experience these forms of abuse.

Keywords: gender-based violence, economic abuse, education sabotage, college students

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INTRODUCTION

Too little is known about the experience of economic abuse against college students. Economic abuse is a type of intimate partner violence (IPV), defined as exerting control over a partner by limiting or preventing access to assets, resources, or future earning potential (NCADV, 2015). While there is a lack of research on economic abuse among college students, many survivors of other forms of IPV have been found to experience economic abuse. Research has also shown many women experience some form of IPV for the first time between the ages of 18 and 24 (Breiding, Chen, & Black, 2014; Outlaw, 2009; Sharp, 2008). Therefore, college-aged individuals may also experience economic abuse for the first time during their college years.

Economic abuse can impact survivors' physical health, mental health, economic selfsufficiency, and housing status (Fawole; 2008; Howard & Skipp, 2015; Sharp, 2008; Tolman & Wang, 2005). Research on the impacts of economic abuse that are unique to students is sparse, but survivors enrolled in school have dropped out or been expelled from school due to IPV (Riger, Ahrens, & Blickenstaff, 2000). Given the prevalence rates of other forms of IPV among college students and the rate of economic abuse experienced by survivors who experience other forms of IPV, further exploration is needed to understand if economic abuse is co-occurring with other forms of IPV among college students. Because education is directly linked to an individual's future earning potential, sabotaging students' educational pursuits may be a unique way partners can economically abuse students (Adams, Greeson, Kennedy, & Tolman, 2013). Therefore, research examining the unique experiences of economic abuse among college students is needed. Further examination of the impacts of economic abuse on college students must also be conducted to better understand the negative consequences experienced by student survivors of economic abuse.

The current study was a sequential exploratory mixed-methods study to (1) explore college students experiences of economic abuse among other forms of IPV, (2) develop and pilot-test a scale of education sabotage among college students that can be used on its own or in conjunction with the Scale of Economic Abuse II (Adams, Greeson, Littwin, & Javorka, 2019), and (3) explore the negative impacts of economic abuse among college students.

LITERATURE REVIEW

An intimate partner relationship is defined by the partners' emotional connectedness, regular contact, ongoing sexual behavior, identity as a couple, or familiarity with each other's lives (Breiding, Basile, Smith, Black, & Mahendra, 2015). IPV refers to physical, sexual, economic or psychological harm inflicted by a current or former intimate partner (Breiding et al., 2015). Economic abuse has been less studied as a form of IPV but has significant impacts on survivors that are still being explored.

Economic abuse by an intimate partner is defined as exerting control over a partner by limiting or preventing access to assets or resources and interfering with future earning potential (NCADV, 2015). There are a multitude of economically abusive behaviors, and according to Adams, Sullivan, Bybee, and Greeson (2008) these behaviors form two distinct components of economic abuse: economic control and economic exploitation. Economic control refers to perpetrators' restricting their partners' access to and utilization of resources, which includes employment. Economic exploitation refers to abusers capitalizing on their partners' resources for their own benefit, resulting in survivors' limited ability to maintain resources (Adams et al., 2008). Lifetime prevalence rates of economic abuse range from 2.1% to 99% (Adams et al., 2008; Outlaw, 2009). The wide range of prevalence rates may be due to the studies' samples, as studies conducted with women seeking domestic violence (DV) services reported higher prevalence rates than studies conducted with the general public. These findings indicate that participant characteristics, such as experience with other forms of abuse, can impact the prevalence rates of economic abuse reported by researchers.

While there is research available on economic abuse, little is known about college students' experiences of economic abuse. Research has suggested that some college students experience economic abuse, and these experiences consist of economic abuse tactics that target students' ability to obtain or successfully complete their educational pursuits (Riger et al., 2000; Voth Schrag, Edmond, & Nordberg, 2019; Voth Schrag & Ravi, 2020). While research on economic abuse among college students is sparse, economic abuse studies have shown consistently that economic abuse and other forms of IPV co-occur (Adams et a., 2008; Stylianou, Postmus, & McMahon, 2013). Given the co-occurrences of economic abuse with other forms of IPV, and the research that reports nearly 50% of women experience some form of IPV for the first time between the ages of 18 and 24, nearly half of college-aged individuals could also be experiencing economic abuse (Breiding et al., 2014; Outlaw, 2009; Sharp, 2008). Therefore, it is important to examine college students' experiences with economic abuse.

Economic Abuse as a Distinct Form of Abuse

Previous research has illustrated that abusers implement a wide variety of physical, sexual, psychological and economic abuse tactics to control their partners and ex-partners, and research has shown that economic abuse is correlated with and co-occurs with other forms of IPV (Adams et al., 2008; Stylianou et al., 2013). Despite these correlations and co-occurrences, research has also indicated that economic abuse is distinct from other forms of abuse. Adams (2008) found that economic abuse contributes additional and unique variance in the explanation of financial hardships even after controlling for physical and psychological abuse. Additionally, research by Stylianou and colleagues (2013) examined the fit of multiple models to determine if economic abuse was a distinct form of IPV. Their results indicated that the models that treat

economic abuse as a distinct form of abuse had the best fit, which indicates that, while economic abuse is positively correlated with other forms of IPV, it is a unique form of IPV.

Further support for economic abuse as a distinct form of IPV was discussed by Stylianou (2018b), who argued that economic abuse is distinct from physical, psychological and sexual abuse due to the "spatial component." With physical and sexual abuse, physical closeness is required for an abuser's ability to perpetrate such tactics, and psychological abuse requires communication between partners. Some economically abusive tactics, such as destroying credit or taking out loans in their partner's name, can be perpetrated without close proximity or communication. The second argument presented by Stylianou (2018b) for economic abuse being a distinct form of abuse is the goal of the abusers. As highlighted in Adams and colleagues (2008), abusers use economic abuse tactics to control and exploit their partners' ability to obtain, utilize, and establish economic resources. Stylianou (2018b) argued that, through the use of economic abuse tactics, abusers are attempting to create financial dependency rather than destroying their partners' self-esteem or support systems -- which is the goal of psychological abuse tactics. Stylianou's stance is that economic abuse is distinct from other forms of IPV because it can occur without contact or communication and prevents survivors from obtaining or maintain the resources necessary to leave their abuser. Both of these result in greater challenges in escaping abusive relationships. The evidence provided by Adams and colleagues (2008) and Stylianou and colleagues (2013), as well as the arguments made by Stylianou (2018b), support the need for researchers and practitioners to view economic abuse as distinct from psychological, physical, and sexual abuse, in order to best address the needs of survivors of IPV.

Current Research on the Forms of Economic Abuse

As previously mentioned, economically abusive behaviors can be categorized into two components: economic control and economic exploitation. Economic control focuses on tactics abusers utilize to control access and use of resources (including employment), and economic exploitation includes tactics perpetrated to exploit a partners' financial resources.

Economic control. Economic control consists of behaviors that control a partner's access to and use of resources that would allow them to maintain or achieve financial stability (Adams et al., 2008). Research studies with women seeking DV services reported approximately three in four women experience economic control, and economic control appears to be experienced more frequently than economic exploitation and employment sabotage (Davilla, Johnson, & Postmus, 2017; Postmus, Plummer, McMahon, Murshid, & Kim 2012b; Sharp, 2008; Stylianou et al., 2013).

Economically controlling tactics that have been studied in the literature include abusers: making important financial decisions without consulting their partners, preventing their partners from accessing information about household finances, preventing their partners from accessing household finances or personal income, requiring their partner to ask permission for money, and tracking the money their partner spends (Adams et al., 2008; Adams, Beeble, & Gregory, 2015; Adams et al., 2019; Branigan, 2007; Brewster, 2003; Howard & Skipp, 2015; Kutin, Russel, & Reid, 2017; Postmus et al., 2012b; Sanders, 2015; Sharp, 2008; Stylianou et al., 2013).

Multiple studies conducted with survivors of IPV from the United States, Puerto Rico, and England reported abusers make important financial decisions without their partners, with prevalence rates ranging from 68% to 83%, and 74% of survivors had partners who decided how they could spend money (Adams et al., 2008; Adams et al., 2019; Brewster, 2003; Howard &

Skipp, 2015; Postmus et al., 2012b; Sharp, 2008; Stylianou et al., 2013). Many survivors reported being prevented from accessing information about household finances (33% to 76%) (Adams et al., 2019; Howard & Skipp, 2015; Postmus et al., 2012b; Stylianou et al., 2013). These studies illustrate that abusers commonly exert power over financial information and decision-making to limit their partners' financial independence and to control their partner financially.

Other tactics abusers use include preventing their partner from freely accessing shared finances or personal income. Among women seeking DV services, 50% reported being prevented from accessing a fair share of household finances, but the prevalence rate was much lower for men and women in the general public (6%) (Howard & Skipp, 2015; Kutin et al., 2017). Women seeking DV services were also prevented from accessing their own money by their partner, with 30% having their income taken and 43% having benefits taken (Howard & Skipp, 2015). These behaviors illustrate that preventing access to resources and money is a common method used by abusers to control survivors' economic well-being.

Survivors that were granted access to money have reported their partners utilize tactics to control or monitor their spending. Many survivors (53% to 75%) reported being required to ask their partners permission for money when needing to buy something. Survivors also reported their partner demanded receipts (49% to 73%) or demanded to know how money was spent (74% to 88%) (Adams et al., 2019; Postmus et al., 2012b; Stylianou et., al, 2013). These behaviors illustrate that, even when survivors are granted access to needed resources, their partners may still engage in tactics to control the amount of access the survivors have.

Another way abusers control survivors' access to resources is by limiting their ability to earn their own money by sabotaging employment opportunities. Research has highlighted

multiple tactics used by abusers to hinder survivors from obtaining or keeping employment. Alexander (2011) conducted surveys with homeless, abused, and/or unemployed women, and reported nearly half had experienced some form of employment sabotage throughout their lives. Nearly one in five were currently experiencing it (Alexander, 2011). Other research studies have reported rates of experiencing employment sabotage among survivors as ranging from 34% to 78% (Brewster, 2003; Postmus et al., 2012b; Sharp, 2008).

One tactic utilized by abusers to prevent their partners' from working is demanding they quit their job or forbidding them from working (Brewster, 2003; Eriksson, & Ulmestig, 2017; Howard & Skipp, 2015; Moe & Bell, 2004; Power, 2006). Riger and colleagues (2000) found nearly half (46%) of the women they interviewed had been forbidden to work by their partner, and over half (52%) of the women that did work were either fired or had to quit because of their abusive partner. Reported rates of partners demanding women quit their job have ranged from 27% to 59% (Howard & Skipp, 2015; Postmus et al., 2012b; Stylianou et al., 2013).

Many abusers also engage in tactics that interfere with their partners' ability to go to work (Swanberg & Logan, 2005). For example, Riger and colleagues (2000) found participants were not able to get to work because their partner refused to give them a ride (51%), their car keys or transportation money was stolen (46%), and their car was sabotaged (29%). Other studies have found that 46% to 68% of survivors reported their partner did something to keep them from going to work (Howard & Skipp, 2015; Postmous et al., 2012b; Stylianou et al., 2013; Swanberg & Logan, 2005).

One specific way abusers keep their partner from going to work is through the use of physical force or threat of physical force to prevent women from going to work or to make them leave work (Moe & Bell, 2004; Sanders, 2015; Swanberg & Logan, 2005). The prevalence rate

for being prevented from going to work or made to leave work due to threats range from 30% to 59%, and the prevalence rates for being physically prevented from going to work range from 37% to 75% (Postmus et al., 2012b; Riger et al., 2000; Stylianou et al., 2013; Swanberg & Logan, 2005).

Abusers also employ tactics to interfere with their partners' employment while their partner is at work. Multiple studies have reported abusers harass their partners at work by showing up to work or calling (Brewster, 2003; Sanders, 2015; Sharp, 2008). Research has found that 20% of survivors reported receiving harassing phone calls at work, and 40% to 72% of survivors reported their partner harassed them by showing up at their work (Riger et al., 2000; Swanberg & Logan, 2005).

Theses economic abuse tactics target survivors' employment access to limit their opportunities to earn their own money. Abusers use a multitude of tactics to prevent their partners from having a job, keeping a job, going to work, and staying at work, but each of the tactics utilized are focused on controlling survivors' access to resources.

Overall, abusers can and do utilize multiple tactics to control their partners' access to money and needed resources. These tactics include exerting power over financial information and decision making, controlling shared and personal income, monitoring and tracking spending, and sabotaging opportunities to earn income. These tactics do target different aspects of survivors' financial situations (e.g. information, decision-making, money, employment), but the goal of each of these tactics is to exert control over survivors' economic resources, resulting in partners who are financially dependent upon their abuser.

Economic exploitation. Economic exploitation refers to abusers purposely taking advantage of their partners' resources for their own benefit (Adams et al, 2008). Approximate

four out of five women seeking DV services experienced some form of economic exploitation (Postmus et al., 2012b).

One common economic exploitation tactic utilized by abusers is building debt in their partner's name (Adams et al., 2008; Howard & Skipp, 2015; Sharp, 2008; VonDeLinde, 2002). A majority (73%) of women seeking DV services reported their partner made them take out credit, and 23% to 29% of survivors reported their partner took out loans in their name (Adams et al., 2019; Howard & Skipp, 2015). Overall, 38% to 58% of women seeking DV services reported their abuser created debt in their name (Howard & Skipp, 2015; Postmus et al., 2012b; Stylianou et al., 2013).

Abusers further exploit their partners by not paying bills. There are multiple strategies that abusers utilize to avoid paying bills, such as refusing to pay, paying bills late, and spending money meant for bills on other things (Branigan, 2007; Brewster, 2003; Eriksson, & Ulmestig, 2017; Howard & Skipp, 2015; Sanders, 2015; Sharp, 2008). Research reported 55% to 71% of survivors experienced their partners not paying bills or paying them late, and 44% had a partner put bills in their name, leaving the survivor to pay the bill (Adams et al., 2019; Howard & Skipp, 2015; Postmus et al., 2012b; Stylianou et al., 2013). Additionally, 56% to 69% of survivors reported their partner spent money needed for rent or bills on other things (Howard & Skipp, 2015; Postmus et al., 2012b; Stylianou et al., 2013). Interviews with women who experienced economic abuse highlighted that abusers spent money on gambling, drugs, and alcohol to the extent of making the survivor and their children go without necessities (Howard & Skipp, 2015). Many abusers exploit their partners financially by destroying their possessions or stealing from them (Branigan, 2007; Sanders, 2015; Sharp, 2008).

Abusers also exploit their partners through theft or destruction. Studies with survivors have reported between 24% and 29% had their property or money stolen by a partner, and between 44% and 54% of survivors have had their property destroyed or damaged by a partner (Adams et al., 2019; Brewster, 2003; Howard & Skipp, 2015). A study in Australia reported 7% of the general public, including men and women, experienced their partner damaging or stealing their property (Kutin et al., 2017). By stealing, damaging or destroying property, abusers are incurring additional expenses to survivors. This behavior exploits survivors by forcing them to either go without the stolen, damaged, or destroyed property or utilize their already limited resources to replace the property.

The research on economic abuse illustrates abusers' use of various tactics to exploit survivors' existing resources. The tactics used can include creating debt, damaging credit, using money for needed supplies on other things, stealing from survivors, and damaging survivors' property, and each of these tactics further limits the financial independence of survivors by taking advantage of the resources survivors actually do have, however limited those may be.

Impacts of Economic Abuse

Economic abuse can impact the lives of survivors in many ways. It can impact their economic self-sufficiency, mental and physical health, and housing stability (Fawole; 2008; Howard & Skipp, 2015; Sharp, 2008; Tolman & Wang, 2005).

At the individual level, economic abuse has been found to impact a survivor's mental health, physical health, financial stability, housing status, employment status, experience of other forms of abuse, and ability to leave a relationship (Adams et al., 2008; Davilla et al., 2017; Sharp, 2008). Multiple studies have found economic abuse to have a negative impact on survivors' mental health (Davilla et al., 2017; Howard & Skipp, 2015; Postmus, Huang, &

Mathisen-Stylianou, 2012a; Sharp, 2008, Stylianou, 2018a). Specifically, 77% of women who experienced economic abuse reported the abuse had an impact on their mental health; however, this prevalence rate was self-reported by a single item rather than using a scale to assess impact on mental health (Howard & Skipp, 2015). Additional research found economically abused mothers were more likely to be depressed when compared to mothers who had not experienced economic abuse; however, this was not true for Latina mothers after controlling for other forms of abuse (Davilla et al., 2017; Postmus et al., 2012a; Voth Schrag, 2015). This may be attributed to the ethnic distribution of the samples as it has been reported that Hispanic/Latina mothers were 41% less likely to have depression than White mothers (Postmus et al., 2012a). Additionally, some of studies that found economic abuse was related to depression either entered economic abuse into their model before other forms of IPV or did not control for other forms of IPV (Postmus et al., 2012a; Voth Schrag, 2015). Stylianou (2018a) reported that economic abuse was a significant predictor of depression even after controlling for psychological, physical, and sexual abuse; however, Davilla et al. (2017) did not find economic abuse to be significantly related to depression, after controlling for other forms of IPV. This suggests that economic abuse does contribute to some survivors' depression, but research is inconsistent on the extent to which economic abuse explains depression above other forms of IPV.

Women have reported physical health consequences due to economic abuse. Specifically, 14% of women reported negative physical health issues resulting from economic abuse. Women were denied enough money to buy food, medicine, vitamin supplements and sanitary products resulting in detrimental health outcomes, and other women experienced physical health problems from being denied access to transportation and heating (Branigan, 2007; Sharp, 2008). The prevalence of this impact was assessed by a single item, and no inferential analyses were

conducted (Sharp, 2008). Therefore, anecdotal evidence through interviews is the only evidence to support that economic abuse is related to negative physical health outcomes.

Economic abuse has been found to impact survivors' financial stability, and financial stability is critical to many survivors' safety, as a lack of resources has contributed to women's decision to stay in abusive relationship. (Howard & Skipp, 2015; Sanders, 2015; Sharp, 2008). Specifically, women seeking DV services reported going without necessities (73%), having utilities shut off (61%), and having trouble with their credit (81%) (Adams et al, 2008). One study reported the rates of women receiving government benefits increased from 18% before their relationship with their abuser to 84% after leaving their abuser, which suggest poverty levels are significantly exacerbated in individuals experiencing economic abuse (Sharp, 2008). Studies have illustrated experiencing economic abuse is significantly related to decreased economic self-sufficiency, and the extent of economic abuse experienced is related to increased economic hardship (Adams et al., 2008; Postmus et al., 2012b). Postmus and colleagues (2012a) reported economic control as the only economic abuse subscale significantly contributing to economic self-sufficiency. Adams and colleagues (2008) reported economic exploitation made the strongest impact on economic hardship. Because Postmus and colleagues (2012a) used dichotomized variables of economic abuse and Adams and colleagues (2008) used scale variables of economic abuse, these studies provide different information about the relationship between economic abuse and measures of financial stability. Therefore, when interpreting findings, one must consider how economic abuse was operationalized and measured.

Multiple studies have shown that economic abuse impacts a survivor's housing stability, with 80% of survivors reporting they faced challenges finding an affordable place to live (Adams et al., 2008). Women reported that, even when affordable housing is found, many may not be

able to afford deposits required by landlords or face challenges turning on utility services because abusers created utility bill debts in their name (VonDeLinde, 2002). These findings are self-reported prevalence rates and anecdotal evidence from interviews with survivors of economic abuse, which indicates the need for inferential and longitudinal analyses to further assess the relationship between economic abuse and housing instability.

Lack of employment can also result from abuse. In interviews with survivors, nearly half (41%) had been fired from a job in the past two years due to IPV (Swanberg & Logan, 2005). Another study reported 14% of survivors fear they will face difficulties re-entering the workforce which is a legitimate fear because, after leaving an abuser, survivors face challenges finding employment as a direct result of employment sabotage (Sharp, 2008; VonDeLinde, 2002). These findings are self-reported prevalence rates and anecdotal evidence from interviews. Therefore, research utilizing inferential statistics may provide greater insight into the extent of the relationship between unemployment and economic abuse.

Economic abuse has been shown to increase experiences of other forms of abuse. One study reported that the risk of experiencing physical violence was nearly five times higher for individuals experiencing economic abuse when compared to those not experiencing economic abuse, even after controlling for demographic variables and psychological abuse (Outlaw, 2009). Women have also reported being forced to have unwanted sexual intercourse to gain access to needed resources controlled by their partner. Specifically, interviews with survivors found abusers used access to money to manipulate their partner into having sexual intercourse (Sanders, 2015; Sharp, 2008).

Economic Abuse Experienced by College Students

Similar to non-students, college students likely experience a multitude of economically abusive behaviors; however, the research on economic abuse among college students is sparse. One study recently conducted with female community college students found that 44% of the students reported experiencing at least one economic abuse tactics over the past year, and the tactics with the highest prevalence rates were "made financial decisions without you," "kept financial information from you," and "demanded to know how money was spent," which are all economic control tactics (Voth Schrag & Ravi, 2020). The tactics with the lowest prevalence rates were "beat you up if you said you needed to go to work," "built up debt under your name," and "threatened to make you leave work," which were reported by less than 5% of the sample. Additionally, all items assessing interference with employment were endorsed by less than 7% of the sample, which may be due to college students being less likely to be employed. A qualitative study conducted with service providers reported that abusers' steal their partner's financial aid money and take students' money that is designated for other necessities (Voth Schrag & Edmond, 2017). This study also reported that, as with non-students, students experience their abusers destroying their personal property. For students, this included their abuser destroying school supplies, which not only has financial consequences, but can also have educational consequences for those who may not have the financial resources to replace the supplies and complete their work.

One aspect of economic abuse that is unique to students is education sabotage or school sabotage, which is defined as "coercive controlling tactics that directly affect a survivor's efforts to obtain educational credentials" (Voth Schrag et al., 2019, p. 2). Most of the research currently available on education sabotage has focused on women's ability to access an education. One

early study reported that 50% of the participants were discouraged from getting an education while nearly a quarter (24%) were not allowed to obtain an education (Shepard & Pence, 1988). Another study focused on challenges to leaving an abusive relationship reported that 23% of the women in the sample had a partner try to prevent them from accessing an education (Anderson, Gillig, Sitaker, McCloskey, Malloy, & Grigsby, 2003). Riger and colleagues (2000) reported that 31% of women were forbidden by their partner from attending school, and of those that did attend school, many missed school (53%) or dropped out (35%) because of their abuser.

Some qualitative studies have provided anecdotal information on the tactics abusers use to interfere with their partners' education pursuits. The tactics discussed in previous literature include sabotaging transportation, refusing to care for children, starting an argument before class, interfering with studying or doing homework, and making a partner feel guilty for spending too much time on school (Sanders, 2015; Voth Schrag & Edmond, 2017). One qualitative study conducted with community college students who reported experiencing IPV further explored students' experiences of education sabotage and found that abusers' lack of assistance with child care, jealousy over academic pursuits, psychological abuse before tests, accusations of cheating, and interference with the ability to study, were all common tactics abusers would use to interfere with their partners' educational pursuits (Voth Schrag et al., 2019).

Some economic abuse tactics may not be applicable to a majority of college students because of their employment status, marital status, and lack of children. The National Center for Education Statistics (2017) found only 43% of full-time undergraduate students were employed, with nearly all working only part-time. According to the Institute for Women's Policy Research, parents account for 26% community college students, 20% of private not for-profit school students and only 12% of public university students (Cruse, Holtzman, Gault, Croom, & Folk,

2019). These characteristics of college students are important because, without having a job, employment sabotage is not applicable, and without being a parent, tactics such as refusing to pay child support or assist with childcare are not applicable.

These studies demonstrate that some students are experiencing economic abuse and education sabotage at the hands of their partners, but there is still a lack of information about the extent to which students are experiencing these forms of abuse or whether they experience abuse particular to their student status. Additionally, studies examining the multiple tactics abusers use to sabotage their partners' educational pursuits have been qualitative, and an adequate scale to assess the tactics discussed in those studies has not been developed. Finally, given some demographics characteristics of college students, some aspects of economic abuse relating to employments and childcare may not be applicable. Therefore, it is not only necessary to further explore students' experiences of economic abuse, but to also develop a scale that will adequately assess students' experiences of education sabotage by an intimate partner.

Impacts of Economic Abuse Unique to College Students

Research on the impacts of economic abuse and education sabotage that are unique to students is sparse. One study reported 35% of survivors that had been enrolled in school had dropped out or been expelled from school because of the abuse they experienced (Riger et al., 2000). A study conducted with service providers working with students experiencing IPV reported that missing classes and lack of ability to focus were consequences of educational sabotage (Voth Schrag & Edmond, 2017). Another study, which interviewed female community college students who had experienced IPV, found that education sabotage impacted students' ability to concentrate in class and while doing homework (Voth Schrag et al., 2019). The students interviewed also discussed negative academic outcomes such as having to previously

drop out of school, dropping courses, and having a low grade point average as a result of their abusers' interference with their education. Each of these consequences can cause further financial strains on students because scholarships and financial aid are linked to a student's grade point average and course completion (Office of Financial Aid, 2018).

Students may also experience unique financial consequences due to economic abuse and education sabotage, due to their ease of access to large sums of student loans. The average student loan debt for students graduating from Michigan universities in 2014 was \$29,450, but dependent undergraduate students are allowed to withdraw \$31,000 in student loans. Independent undergraduates are allowed to withdraw \$57,500. Federal student loans do not require a credit check, and these loans cannot be discharged through bankruptcy unless the individual can prove undue hardship, which is extremely difficult (Office of Financial Aid, 2018; Pardo, 2009; The Institute for College Access and Success, 2015). Therefore, students can access large sums of money without having to go through the credit check process. This can result in abusers forcing their partner to take out student loans, resulting in students having increased debt that is difficult to discharge via bankruptcy.

Social Location, Economic Abuse, and Intimate Partner Violence

Research on economic abuse has provided some evidence to support the association among age, gender, sexual orientation, cohabitation status, and ethnicity with economic abuse. Very few studies have been conducted with men, but one study did report prevalence rates for men and women. This study conducted with a general public sample in Australia did not examine gender differences, but it did report that women (15.7%) have double the prevalence rates of economic abuse when compared to men (7.1%) (Kutin et al., 2017). Specific tactics examined illustrated that women had higher prevalence rates for being denied access to

household finances (Women: 9% Men: 3%), and having their property damaged, destroyed, or stolen (Women: 10% Men: 5%). Women (6%) also had higher prevalence rates for being prevented from working or studying when compared to men (2%). While studies have not conducted analyses to investigate gender differences in economic abuse, they have examined gender differences in the experience of other forms of abuse that have been reported to co-occur with economic abuse. Some studies have reported that women experience intimate abuse at the same or higher rates than men. Women were found to have higher lifetime prevalence rates of severe physical violence when compared to men, but similar rates of severe physical violence over the past 12 months (Breiding, et al., 2014). Additionally, Breiding et al. (2014) reported that men and women experienced similar lifetime prevalence rates of psychological abuse. Another study reported women experienced significantly more frequent psychological abuse, threats of physical violence, intimidation, and coercion, but there were no significant gender differences in physical abuse (Tanha, Beck, Figueredo, & Raghavan, 2010). A study examining IPV victimization among college students reported no significant gender differences in physical abuse victimization, but found female students experienced psychological abuse at a significantly higher rate than male students (Gover, Kaukinen, & Fox, 2008). Other studies have reported that males experience physical or psychological abuse at a higher rate than females (Breiding et al., 2014; Ahmadabadi, Najman, Williams, Clavarino, & d'Abbs, 2017). Specifically, males currently in a relationship reported higher rates of physical abuse, psychological abuse, and harassment when compared to females currently in a relationship (Ahmadabadi et al., 2017). Studies conducted with college students have also reported males reporting greater rates of physical and/or psychological abuse when compare to female students (Cercone, Beach, & Arias, 2005; Harned, 2001). The gender differences in reported prevalence rates for economic abuse,

and the mixed findings on gender differences for co-occurring forms of abuse, suggest there may be gender differences in the experience of economic abuse.

There has been limited research on the relationship between age and economic abuse. One study conducted with IPV survivors reported that economic abuse did not differ by age, but other studies have found significant differences (Postmus et al., 2012b). Specifically, a study conducted with women seeking DV services found that participants aged 25-34 reported experiencing economic control more than any other age group, and 18 to 24-year olds were less likely to experience economic exploitation when compared to older women (Sharp, 2008). Kutin and colleagues (2017) conducted a study with a general public sample from Australia and reported that men 40 to 49 years old reported slightly higher prevalence rates (10%) than men 18 to 29 years old (5%), 30 to 39 years old (8%), 50 to 59 years old (7%), 60 to 69 years old (6%), 70 years or older (3%). Women 40 to 49 years or older (9%), and slightly higher prevalence rates when compared to women 30 to 39 years old (18%), 50 to 59 years old (20%), and 60 to 69 years old (17%). These studies support the idea that age differences in economic abuse experiences do exist.

Current research has not investigated the relationship between socioeconomic status and economic abuse; however, the relationship between income and education, which are considered key aspects of socioeconomic status, with economic abuse have been examined. Postmus and colleagues (2012b) reported no significant difference in economic abuse experiences based on income but found differences in experiences of economic control based on educational level. Specifically, survivors with a high school diploma experienced more frequent economic control when compared to participants who did not complete high school or who had completed some

college or higher. Other studies have examined the relationship of income and education with other forms of IPV. Specifically, Wilson (2016) conducted a study with data from more than 250,000 women from 34 countries and reported that completing higher levels of education was related to a decrease in IPV experiences. Additionally, Wilson (2016) found that household wealth had a negative relationship with IPV, with greater wealth being related to decreased experiences of physical and sexual IPV. A study conducted using data from the Center for Disease Control and Prevention's Behavioral Risk Factor Surveillance System reported that differences based on income and level of education resulted in differences in lifetime prevalence rates of IPV for both men and women. Specifically, those that made over \$50,000 a year reported lower prevalence rates of lifetime IPV when compares to those who made less than \$15,000 a year (Breiding, Black, & Ryan, 2008). Additionally, those who completed college reported lower prevalence rats of IPV than those who completed only some college. This study also reported that experiences of IPV over the past 12 months differed due to income and education for women, with those making over \$50,000 a year and those who completed college reporting lower prevalence rates of IPV over the past 12 months when compared to those who made less than \$15,000 a year and those who did not complete high school.

Postmus and colleagues (2012b) reported no ethnic differences in the experience of economic abuse, and there have been no other studies that examined ethnic differences in the experiences of economic abuse. Other studies have been conducted examining ethnic difference in the experience of other forms of IPV. Multiple studies have reported that individuals who identify as ethnic minorities have a higher prevalence rates of IPV when compared to individuals who identify as White (Caetano, Field, Ramisetty-Mikler, & McGrath, 2005; Ellison, Trinitapoli, Anderson, & Johnson, 2007). However, Breiding et al. (2014) found that this was only true for

Black and multiracial women, while Asian women reported IPV at significantly lower rates than White women. For men, those who identified as Native American/Alaskan Native, Black, and multiracial had significantly higher rates of intimate partner victimization when compared to men who identified as White. When specifically examining ethnic differences in IPV experienced by college students, studies have reported that White students experienced lower levels of threats and physical violence by an intimate partner when compared to ethnic minority students, and White students were less likely to experience physical abuse by an intimate partner when compared to Black students. (Roudsari, Leahy, & Walters, 2009; White, 2017).

Studies examining economic abuse among members of the LGBTQ community do not exist, but research has shown that members of this community are vulnerable to other forms of IPV. Specifically, bisexual (57%) women reported higher lifetime prevalence rates for IPV when compared to heterosexual women (32%), and, while not statistically significant, lesbians (40%) had a higher lifetime prevalence rate of IPV than heterosexual women (Walters, Chen, J., Breiding, 2013). Among men, bisexual men (37%) reported higher lifetime prevalence rates of IPV when compared to heterosexual men (29%). Gay men reported the lowest lifetime prevalence rates (25%). Given the differences in lifetime prevalence rates of IPV, and the fact that many survivors of other forms of IPV experience economic abuse as well, there is evidence to support the inclusion of sexual orientation as a covariate in research examining economic abuse. Additionally, among college students, those who identified as sexual minorities were more likely to report experiencing physical abuse, sexual abuse, and unwanted pursuit when compared to heterosexual students (Edwards, Sylaska, Barry, Moynihan, Banyard, Cohn, ... & Ward, 2015). Given that physical abuse has been reported to co-occur with economic abuse, differences in economic abuse experiences may exist based on sexual orientation.

Differences in economic abuse based on relationship status or cohabitation status have not been previously examined, but studies have been conducted examining differences between daters and cohabiters in the experience of other forms of IPV. Some studies did not find differences in IPV victimization between those who were dating and those who were cohabiting (Frias & Angel, 2005; Wiersma, Cleveland, Herrera, and Fischer, 2010). Other studies have reported that cohabiting individuals report a greater prevalence of IPV when compared to noncohabiting couples (Arriaga, 2002; Brown & Bulanda, 2008). Specifically, Brown and Bulanda (2008) found that for both men and women cohabiting individuals reported greater levels of IPV when compared to individuals who were dating but not living together. Women who were dating but not cohabiting were 72% less likely to experience IPV, and males that were dating but not cohabiting were 60% less likely to experience IPV when compared to cohabiting males. Additionally, studies have reported that dating partners are less likely to perpetrate physical IPV when compared to cohabiting partners (Herrera, Wiersma, & Cleveland, 2008; Magdol, Moffitt, Caspi, & Silva, 1998).). Given that physical abuse has been reported to co-occur with economic abuse, differences in economic abuse experiences may exist based on cohabitation status.

Limitations of Research on Economic Abuse

One limitation of research on economic abuse is that a great deal of the research has been conducted with women seeking refuge or assistance from DV services, and very few studies have examined the prevalence of economic abuse in the general public or among men. Only one study conducted in Australia provided information on prevalence rates for men and the general public, and this study focused on one control item: "preventing access to household financial information." This lack of information on prevalence rates in the general public, and men's experience of economic abuse, creates a need for future research to examine this topic within the

United States. Furthermore, additional research is needed to understand if gender differences do exist in experiences of economic abuse. The general sample study conducted with both men and women in Australia did not conduct gender comparisons. Given that prior research has provided mixed results on gender differences in IPV experience and no study has examined gender differences in economic abuse experiences, it is important to investigate the experiences of both women and men to better understand how to support all survivors of economic abuse.

The research on economic abuse among college students is sparse. The limited research available illustrates that students' experiences of economic abuse can manifest similarly to the experiences of non-students, but their experiences can also be unique. Due to tactics used to exploit or control educational resources or interfere with students' ability to continue their education, students may experience additional economic abuse tactics targeting their educational access and academic performance. Riger and colleagues' (2000) Work/School Abuse Scale does measure some tactics perpetrators use to interfere with their partners' ability to access an education, but the measurement is not sufficient to assess the multitude of tactics that abusers perpetrate. For example, the Work/School Abuse Scale mainly focuses on tactics interfering with an individual's ability to access an education but does not assess tactics that interfere with students' academic performance. These tactics include preventing a partner from studying or completing homework, starting fights with a partner before important deadlines such as presentations or exams, and making a partner feel guilty for spending time on school. Therefore, to fully understand the way abusers can control and exploit students' assets, resources, and future earning potential, research examining students' unique experiences of economic abuse, including interference with educational access and academic performance, needs to be conducted.

Research on the impacts of economic abuse have utilized different models for assessing negative impacts of economic abuse. These differences in the models can also impact interpretation of findings. Multiple studies have examined the impact of economic abuse above and beyond other forms abuse, which provided valuable information on the unique contribution of economic abuse to mental and financial health outcomes (Adams et al., 2008; Adams et al., 2013; Adams et al., 2019; Davilla et al., 2017) and Adams et al. (2008). Postmus and colleagues (2012a) entered other forms of abuse after economic abuse, while Voth Schrag (2015) did not control for other forms of IPV. Therefore, these two studies provide information on the unique contribution on the unique contribution of economic abuse on survivors' depression. Future research should examine the impact of economic abuse in addition to other forms of IPV, as these are co-occurring in many survivors.

Current research has not examined differences in experiences of economic abuse based on sociodemographic characteristics such as gender, socioeconomic status, cohabitation status, and sexual orientation. While previous research has not explored differences in economic abuse based on gender, ethnicity, socioeconomic status, cohabitation status, or sexual orientation, prior studies have provided some evidence to support differences in psychological and physical intimate partner victimization based on these sociodemographic characteristics. Therefore, given the co-occurrence of physical and psychological abuse with economic abuse, it is important to include these sociodemographic variables as covariates in studies examining economic abuse.

Rationale for the Current Study

Economic abuse is occurring among nearly all women seeking assistance from DV services, and the experience of economic abuse has been shown to have negative effects on

women's financial, physical, and psychological health. However, current research has not examined the experience of economic abuse in the lives of college students. We know students are experiencing IPV, as research has reported approximately one in three students have experienced IPV. We also know that individuals experiencing other forms of IPV are extremely likely to experience economic abuse as well. Therefore, one objective of the current study was to examine rates of economic abuse among college students, to determine if economic abuse is cooccurring with physical and sexual forms of IPV within this population.

The second objective of the current study was to develop a scale that can be used to assess education sabotage among college students. Sabotaging an individual's educational pursuits hinders their future earning potential as education is directly linked to income and research has shown the IPV victimization is indirectly linked to income through education (Adams et al , 2013). Therefore, educational sabotage must be assessed when examining economic abuse among college students. The current measurement is not adequate in assessing education sabotage because it focuses on tactics used to prevent individuals from accessing an education and do not include items assessing tactics used to impact students' academic performance. To fully understand the ways through which abusers sabotage educational opportunities among college students, a measure assessing hindering access to education as well as sabotaging academic performance is needed.

The final objective of this study was to understand the unique impact of education sabotage on academic performance as well as negative consequences associated with economic abuse. Understanding the unique contribution of education sabotage can provide evidence to support the need to assess such tactics when examining economic abuse among students. Additionally, understanding how education sabotage uniquely contributes to negative

consequences can provide evidence supporting the notion that education sabotage is a separate and distinct form of economic abuse.
CURRENT STUDY

The current study was a sequential exploratory mixed-methods study designed to develop and test a measure of education sabotage among college students. In phase one, advocates who worked with college students experiencing IPV provided insight on unique ways economic abuse is experienced by college students. These interviews informed the creation of a scale to assess education sabotage. In phase two, the education sabotage items were pilot tested with college students from Michigan State University. The factor structure and reliability of the items were assessed, resulting in the development of a scale specific to students' experiences of education sabotage. The goal was that, when utilized in conjunction with the Scale of Economic Abuse II (Adams et. al, 2019), researchers could obtain a more in-depth understanding of students' experiences with economic abuse. The study also examined the relationships among education sabotage with related scales (economic restriction previously referred to as economic control, economic exploitation, and school interference) to assess the convergent validity of the newly created Education Sabotage measure. The relationships among education sabotage and outcome measures (depression, financial anxiety, decline in grades, average number of dropped courses per semester, grade point average, and student loan debt) were examined to assess concurrent validity of the measure. The relationships among education sabotage and outcome scales were also examined, controlling for other forms of IPV, to determine education sabotage's unique contribution to the negative impacts associated with students' experiences of abuse.

Research Questions and Hypotheses

1. Do college students experience economic exploitation and economic control at different rates than populations from previous studies (Adams et al, 2008-IPV survivors and Kutin, et al., 2017-general public samples)?

H1-1: College students will experience economic abuse at similar rates to the general public, but less often than studies conducted with only survivors of IPV.

- 2. What is the underlying structure of the education sabotage items?
- 3. Is/are the education sabotage scale/subscales valid and reliable?

Hypothesis 3-1: Education sabotage will negatively predict changes in GPA, and will positively predict average student loan debt, average number of dropped courses, depression, and financial anxiety.

4. After controlling for other forms of abuse, does education sabotage contribute unique information to explain the negative impacts associated with students' experiences of economic abuse?

Hypothesis 4-1: Education sabotage will contribute to changes in GPA, depression and anxiety above and beyond the experience of economic control and economic exploitation.

METHODS

This study was a sequential, exploratory, mixed-methods design conducted in two phases. IRB approval was received for both phases of this study. The initial phase of the project involved interviewing advocates who work with college student survivors of IPV. These interviews were used to generate items for the creation of an Education Sabotage scale, designed to assess tactics abusers use to exploit students' resources needed for their academic pursuits, control students access to resources needed for their education, and interfere with students' ability to successfully complete their education.

The second phase involved pilot testing the new measure of education sabotage. Online surveys were self-administered to students enrolled in the MSU Psychology Sona system, which is a cloud-based participant management system. The surveys consisted of items assessing the students' experiences with physical abuses, psychological abuse, economic abuse, school abuse, education sabotage, depression, financial anxiety, academic outcomes and demographic variables.

Phase 1: Creating the Education Sabotage Subscale

To understand the range of economically abusive tactics perpetrators may use against students, two initial semi-structured interviews were conducted with advocates from a public university in Michigan. The interview protocol was refined based on these initial interviews. Seven additional interviews were then conducted with advocates from diverse settings, utilizing the updated interview protocol.

Procedures. To obtain a sample for the advocate interviews, a purposive sampling technique was utilized to ensure advocates recruited for the interviews were well-informed experts on students experiencing economic abuse (Tongco, 2007). Recruitment sites were

selected to reflect diverse school types and locations. The advocates were recruited from community colleges, private universities and public universities. Advocates representing community colleges can provide a unique perspective because these campuses tend to have a higher rate of older and re-entry students when compared to four-year universities. The advocates from the public universities were recruited from schools located across the country to obtain advocates from various regions across the nation. Two universities from California were selected due to the school's large ethnic minority and first-generation college student population, which allows for perspectives of advocates that work with students from different populations and backgrounds. The schools from California differed in their size, setting, and socioeconomic background of their students, with one university being a small, rural school known for serving students from low-income families while the other is a mid-size suburban school with students' median family incomes over \$100,000.

Potential participants were identified by creating a list from Google of college campuses that have intimate partner and sexual violence advocates on campus. Information about the campus type (community college, public university, private university), campus location, advocate type (peer, professional), and amount of time advocates spent working on campus (fulltime, part-time) was documented for each school. Emails were sent to recruit potential participants (see Appendix A for the recruitment email). One week after the initial request for participation, a follow-up inquiry was sent via email. If an advocate declined to participate or did not respond to any of the email requests for participation, another advocate from the list was selected. Nine participants from across the United States agreed to participate in the study, with representatives from Hawaii, California, Colorado, Washington D.C., and Michigan.

The interviews were conducted via phone and took approximately 30 minutes to complete. For the initial two interviews, a semi-structured interview guide was developed, and included questions focused on the respondents' perceptions of economic abuse in the lives of the students they have worked with and the unique ways economic abuse can manifest in the lives of college students (Appendix B). The updated semi-structured interview protocol focused only on the unique ways economic abuse can manifest in the lives of college students, and specifically asked about tactics perpetrators use to interfere with students' ability to access an education or successfully complete their education (Appendix C). Additional probes were added throughout the interview protocols consisted of open-ended questions which allowed the participants the opportunity to provide information about their experiences working with college students experiencing economic abuse in their own words. All participants were informed that the information they provided in the interviews would be used to develop survey items for a scale assessing education sabotage.

Participants. The participants for the qualitative phase of this sequential exploratory mixed method study consisted of nine advocates who work with student survivors of IPV. The advocates were paid \$25 for their participation in the interview. All advocates were full-time professional advocates. The advocates were employed at community colleges (n=2), private universities (n = 1) and public universities (n=6).

Analysis. To analyze the interviews, a modified version of Rapid Identification of Themes from Audio Recordings (RITA) method was employed (Neal, Neal, VanDyke, & Kornbluh, 2015). The RITA method consists of six steps: 1) Specify key research/evaluation foci, 2) Identify key themes, 3) Create a coding form, 4) Test and refine codebook/coding form

based on a subset of interviews, 5) Coding, and 6) Analysis of codes. The specific research focus of the interviews was identifying economic abuse tactics that interfere with students' ability to pursue or successfully complete their education. The key themes included the nine education sabotage items that were developed from the initial two interviews and prior research. Additional themes discussed in interviews were added to the code sheet, and a probe for the theme was added to the interview protocol. This study did not use time segments for the coding form, and the coding form had check boxes for: has experienced, has not experienced, and did not mention instead of positive, negative and neutral. I tested the coding form on the initial two interviews and then made revisions to the themes. Finally, the interviews were coded using the updated coding form, and the themes were analyzed by identifying the number of respondents who discussed each theme.

The advocates discussed various tactics used by intimate partners to interfere with students' education. For this study, themes discussed by at least 33% (three of nine) of advocates were considered occurring consistently across college campuses. One theme discussed by at least 33% of respondents was excluded, as it only applied to students with children, and the advocates mentioned only a very small portion of the student population had children.

Because advocates at certain campuses may be more likely to work with specific subpopulations, such as first-generation students, the themes discussed by fewer than three advocates were examined to determine if they should be included as items in the education sabotage measure as well. None of the items endorsed by fewer than three advocates were determined to be widely enough experienced to include in the scale. Tactics that were mentioned but not included in the scale were generally tactics against particular subpopulations such as married students or students with children. These subpopulations account for only a small

portion of college students. Additionally, tactics that were not unique to college students nor targeted their education were not included in the development of scale items. Fifteen themes were discussed by fewer than three advocates, and none were determined to be appropriate for inclusion in the Education Sabotage scale. See Table 1 for the 16 tactics excluded from the scale, the number of endorsements for each tactic.

	Tactic Discussed by Advocate	Number of Endorsements	Reason for Exclusion
1.	Using children to prevent students from attending class or requiring students to take children to class.	4	Only applicable to students with children which is a small portion of college campuses' student population.
2.	Taking the student to court for child support to pay child support because the student received stipends.	1	Only applicable to students with children which is a small portion of college campuses' student population.
3.	Perpetrator withdrew financial support for education.	2	Was reported to be experienced by married students which is a small portion of campuses' student population.
4.	Student prevented from studying abroad.	1	Only applicable to students who study abroad which is a small portion of college campuses' student population.
5.	Prevented students from taking enough course to keep their financial support.	1	Was only reported to be experienced by graduate students.
6. 7	Taking the student to court for child support based on stipends received.	1	Was only reported to be experienced by graduate students.
7.	then withdraw money from the student's account or force the student to withdraw money and give it to them.	2	Not unique to college students and is not targeting their education.
8.	The perpetrator does not pay their portion of the rent/bills resulting in eviction or debt.	2	Not unique to college students and is not targeting their education.
9.	Pressuring the student to give them money under the guise of like borrowing.	2	Not unique to college students and is not targeting their education.
10.	Students were forced, coerced, pressured to borrow money from family.	2	Not unique to college students and is not targeting their education.
11.	The perpetrator requires the student to interact with them to receive money/support for children.	1	Not unique to college students and is not targeting their education.
12.	Demanding Students open a joint bank account.	1	Not unique to college students and is not targeting their education.
13.	Misusing the persons credit or running up debt in their name.	1	Not unique to college students and is not targeting their education.
14.	Limited allowance to buy necessities like food.	1	Not unique to college students and is not targeting their education.
15.	Interfering with students' employment.	2	Not unique to college students and many students' do not work.
16.	Perpetrators intercept paychecks and decide what students can and cannot use.	1	Not unique to college students and many students' do not work.

Table 1. Tactics Mentioned by Advocates but Excluded from the Education Sabotage Scale.

There were 12 tactics consistently discussed by advocates, but one was excluded from the scale because it only occurred among students with children, and statistics show very few college students, especially those at 4 year institution, are parents (Cruse et al., 2019). Table 2 lists the 11 tactics that were sent to my advisor and a subject matter expert for review. Appendix D provides summary statements from each advocate that discussed the tactics during the interview.

Tae	ctics Perpetrators Use	Number of Endorsements
1.	Preventing students from attending classes	9
2.	Talking, coercing, or pressuring students into giving them money designated for tuition or school supplies when students did not want to	9
3.	Forcing, coercing or pressuring students into taking out student loans when they did not want to	8
4.	Prevent from accessing, stealing or destroying school supplies such as computers, textbooks, or ID cards.	8
5.	Keeping students from studying or completing homework	7
6.	Starting a fight or argument before an exam.	7
7.	Making students feel guilty for spending time on school	7
8.	Demanding to know what is happening during class or study sessions (e.g., attending with students or interrogating students)	6
9.	Preventing students from attending school (e.g., forced to drop-out, drop classes, change schools, or take a break from school)	5
10.	Sabotaging students' transportation to school	5
11.	Accusing students of cheating on them with a classmate, lab partner, or study group member	3

Table 2. The Number of Endorsements Each Education Sabotage Tactic Received.

A summary of the coding sheets, the criteria for including tactics, and the list of included and excluded tactics were sent to my committee chair and an economic abuse subject matter expert for review. Based on feedback from the subject matter expert, one tactic "Using your personal information to take out student loans in your name" was added to the item list. Once consensus on which codes should be included as education sabotage items was reached, the selected codes were transformed into survey questions based on the wording of the items used in the SEA II (Adams et al, 2019). These newly developed items were sent to my committee chair and an economic abuse subject matter expert for review. Their input on the newly developed items was used to finalize the development of the education sabotage items that were pilot tested with students. The final items pilot tested with the students consisted of 12 items (Appendix E).

Phase 2: Pilot Testing the Education Sabotage Scale

Procedures. The data were collected via a self-administered online survey using Qualtrics. Students were recruited through the MSU's cloud-based research participant management software system (SONA), through which they received course credit in a Psychology class. The survey was estimated to take approximately 30 minutes to complete, and students had the option to end their participation at any time or decline to answer any question. Student who skipped entire sections were assigned partial SONA credits based on the percentage of the survey they completed. Students under the age of 18 were not allowed to participate in the SONA pool. A prescreening question was submitted to the SONA administrators to prevent individuals who have not been in an intimate relationship over the past 12 months from participating in the survey.

Participants. The participants consisted of 487 undergraduate college students from Michigan State University. Students at MSU who are enrolled in Psychology 101 are required to participate in research studies for credit. The students received .5 research participation credits for participating in the study. Students had to have been at least 18 years of age to participate, and a screening question prevented students who have not been in a relationship in the past year from taking the survey. The participants consisted of 26 African American/Black students (6 men; 19 women; 1 unknown gender), 1 female American Indian/Alaskan Native student, 50 Asian/Asian American students (15 men; 34 women; 1 non-binary individual), 21 Hispanic/Latino students (3 men; 18 women), 347 Caucasian/White students (54 men; 291 women; 2 non-binary individuals), 39 multi-ethnic students (4 men; 34 women; 2 non-binary

individual), and one woman identified race/ethnicity as other. The students ranged in age from 18 years old to 32 years old (M = 19.35, SD = 1.39), and most (57.8%) had been enrolled in college for three or fewer semesters. On average, students had dropped .61 (SD =1.32) courses and a majority (54.8%) had no student loan debt. A majority of the students' grade point averages (58%) was between 3.5 and 4.0, and very few students (10%) lived with a partner currently or in the past 12 months. A majority of the students' parents (51.1%) were contributing between 76% and 100% towards their education costs, and the students' socioeconomic status score based on their parents' employment status, jobs, education, and marital status ranged from 16 to 66 (M = 51.46, SD = 9.97). For the complete list of the participants' demographic, academic, and economic information see Tables 3, 4 and 5.

Measures. The survey included measures of demographics as well as the newly created scale and standardized instruments to test the validity of the measure. The demographic variables included gender, age, ethnicity, sexual orientation, cohabitation status, and socioeconomic status. These demographic variables were included because prior research on economic abuse and other forms of IPV suggest that these variables may be associated with varying experiences of economic abuse (Brown & Bulanda, 2008; Cercone, Beach, & Arias, 2005; Postmus et al., 2012; Roudsari, Leahy, & Walters, 2009; Sharp, 2008; Walters et al., 2013). Additionally, prior research has suggested that race/ethnicity, gender identity, sexual orientation, cohabitation status, and socioeconomic status are related with at least one of the outcome measures included in this study (Addo, Houle, & Simon, 2016; Cooter, Erdmann, Gonnella, Callahan, Hojat, & Xu, 2004; Oswalt & Lederer, 2017; Oswalt & Wyatt, 2011; Ratcliffe & McKernan, 2013). Standardized measures of economic abuse including economic control, economic exploitation, and academic

interference were included in the study to validate the newly developed scale of education

sabotage.

Table 3. Participants' Demographics.

	N	%
Gender Identity		
Female/Woman	399	82.1%
Male/Man	83	17.18%
Non-binary/third gender	4	0.8%
Transgender Identity		
Transgender	3	0.6%
Cisgender	481	99.4%
Sexual Orientation		
Heterosexual	430	88.8%
Lesbian/Gay	6	1.2%
Bisexual/Pansexual/Queer/Sexually Fluid	45	9.3%
Asexual	1	0.2%
Questioning/Unsure	2	0.4%
Race/Ethnicity		
African American/Black	26	5.4%
American Indian/Alaskan Native	1	0.2%
Asian/Asian American	50	10.3%
Hispanic/Latino	21	4.3%
Caucasian/White	347	71.6%
Other	1	0.2%
Multiracial	39	8.0%
Cohabitation Status		
Cohabiting	49	10.0%
Not Cohabiting	439	90.0%
Employment Status		
I am not employed	240	49.8%
I am employed part-time	239	49.6%
I am employed full-time	3	0.6%
	М	SD
Age	19.35	1.39

	N	%
Grade Point Average		
1.00 to 1.49	3	0.7%
1.50 to 1.99	3	0.7%
2.00 to 2.49	15	3.4%
2.50 to 2.99	44	10.0%
3.00 to 3.49	120	27.1%
3.50 to 3.99	208	47.0%
4.00	49	11.0%
Grade Change Over Past 12 months		
Declined	67	14.1%
Stayed the same	259	54.5%
Improved	149	31.4%
	M	SD
Dropped Courses	.61	1.32

Table 4. Participants' Academic Information.

Table 5. Participants' Economic Information.

	N	%
Student Loan Debt		
None	245	54.8%
\$1 to \$5,000	43	9.6%
\$5,001 to \$10,000	44	9.8%
\$10,001 to \$20,000	47	10.5%
\$20,001 to \$30,000	28	6.3%
\$30,001 to \$40,000	16	3.6%
\$40,001 to \$50,000	7	1.6%
\$50,001 to \$70,000	7	1.6%
\$70,001 to \$100,000	4	0.9%
More than \$100,000	6	1.3%
Parental Contribution to Education Costs		
0%	46	9.6%
1% to 25%	65	13.6%
26% to 50%	31	6.5%
51% to 75%	55	11.5%
76% to 100%	245	51.1%
I Don't Know	37	7.7%
	М	SD
Socioeconomic Status	51.46	9.97

Depression, financial anxiety, student loan debt, and educational outcomes (change in grades, number of dropped courses) were included in the study to validate the newly developed measure as well. Financial anxiety was included, rather than a measure of financial self-sufficiency or economic hardship, because students are often dependent upon their parents for financial support. Physical and psychological abuse measures were included in the study because they co-occur with other forms of economic abuse. Therefore physical, psychological, and other forms of economic abuse, must be controlled for to understand the unique contribution of education sabotage in explaining students' negative outcomes.

Demographic variables. The demographic variables for the study included self-reported age, race/ethnicity, gender identity, sexual orientation, cohabitation status, percentage of expenses parents contributed to their education, and number of semesters enrolled in college. Participants were asked to select all races/ethnicities that apply to them from list of provided options including the option to self-identify, and were then asked to identify a primary race/ethnicity from list of provided options including the option to self-identify. Participants were also asked to specify their sexual orientation from list of provided options including the option to self-identify. Additionally, participants were asked whether or not they identified as transgender and if they currently live/have lived with their partner in the past 12 months. Participants were asked to select from a range of options what percentage of their expenses are their parents contributing to while they are completing their education. The participants were also provided with fill in the blank boxes to provide their age in years and the number of semesters they had been enrolled in college. Socioeconomic status was determined using Hollingshead Four Factor Index of Social Status, which constructs a score based on the participants' parents' marital status, employment status, educational attainment and occupational

prestige (Hollingshead, 1975). The possible scores for Hollingshead Four Factor Index ranged from eight to 66 with higher scores indicating greater social status. Because a majority of students (62.63%) reported their parents covering over half educational costs, participants' socioeconomic status was calculated based upon their parents' status.

Academic interference. Academic interference was measured using Riger's (2000) Work/School Abuse Scale (W/SAS). The scale was comprised of two subscales, restraint tactics and interference tactics, with each subscale having six items (Appendix F). The original scale asked respondents if their partner had ever engaged in the tactics (yes/no), but for this study the rating scale and time frame were altered to ensure the scale was consistent with the rating scale and time frame of the other abuse measures utilized in this study. Therefore, for this study participants were asked to rate on a scale of 1 (never) to 5 (very often) how often their partner engaged in the 12 tactics over the past 12 months, and a mean score was created with higher scores indicating more frequent experiences of academic interference. Riger and colleagues (2000) found the scale to be reliable ($\alpha = .82$), and the restraint tactics ($\alpha = .73$) and interference tactics ($\alpha = .77$) subscales had acceptable reliability scores. For this study, the reliability of the scale was $\alpha = .93$, and both the restraint tactics ($\alpha = .87$) and interference tactics ($\alpha = .91$) subscales were reliable. The participants' scores ranged from 1.00 to 3.75 with the average score being 1.09 (SD = .33). The range of scores on the restraint subscale was 1.00 to 4.00, while the participants' scores on the interference subscale ranged from 1.00 to 3.67. The average on the restraint subscale was 1.07 (SD = .34) and the average score on the interference subscale was 1.10(SD = .36). For more information on participant scores on the W/SAS scale, subscales, and items see Table 6.

Physical intimate partner violence. Physical IPV was assessed using the Abusive Behavior Inventory (ABI) physical abuse subscale (Shepard & Campbell, 1992). The participants were asked to report how often their partner committed 10 physically abusive acts over the last year (Appendix G). The items were rated on a 5-point likert-type scale with answers ranging from 1 (never) to 5 (very often), and a mean score was created with higher scores indicating more frequent experiences of physical abuse. Previous studies have found the ABI physical abuse subscale ($\alpha = .91$) to be reliable (Stylianou et al., 2013). For this study, the reliability of the physical abuse subscale was $\alpha = .88$. The participants' scores ranged from 1.00 to 4.00 with the average score on the scale being 1.22 (*SD* = .46). For more information on participant scores on the ABI physical abuse subscale and items see Table 7.

Psychological intimate partner violence. Psychological IPV was assessed using the short version of the Psychological Maltreatment of Women Inventory (PMWI: Tolman, 1999). The PMWI short version consists of two subscales (Emotional/Verbal and Dominance/Isolation) comprised of seven items each (Appendix H). The original index asked participants to report how often their partner committed the psychologically abusive acts over the past six months, but to be consistent with the other measures of abuse, the participants were asked to report how often their partner committed the psychologically abusive acts over the past year. The items were rated on a 5-point likert-type scale with answers ranging from 1 (never) to 5 (very frequently), and a mean score was created with higher scores indicating more frequent experiences of psychological abuse. Previous studies have found the PMWI ($\alpha = .87$) to be reliable (Adams et al., 2008). For this study, the reliability of the scale was $\alpha = .94$, and both the emotional/verbal ($\alpha = .93$) and dominance/isolation ($\alpha = .88$) subscales were reliable. The participants' scores on the

	Total	Female	Male	White	Ethnic	Hetero-	Sexual Minority	Cohabitate	Non- Cababitata
	N=487	N=399	N=83	N=361	N=124	N=429	Ninority N=55	N=49	N=437
Wark/School Abuse Scole (W/SAS)	1.09	1.07	1.19	1.07	1.14	1.08	1.06	1.15	1.08
work/School Aduse Scale (w/SAS)	(0.33)	(0.25)	(0.56)	(0.26)	(0.47)	(0.33)	(0.18)	(0.49)	(0.30)
Acadomic Interforence	1.10	1.08	1.18	1.08	1.16	1.10	1.09	1.18	1.09
Acutemic Interjerence	(0.36)	(0.31)	(0.52)	(0.29)	(0.50)	(0.35)	(0.30)	(0.50)	(0.34)
Come to school to harass you	1.09	1.07	1.19	1.06	1.18	1.09	1.07	1.18	1.08
come to senoor to narass you	(0.41)	(0.36)	(0.59)	(0.34)	(0.62)	(0.44)	(0.33)	(0.70)	(0.40)
Bother your school friends or teachers	1.17	1.16	1.20	1.16	1.20	1.16	1.20	1.29	1.16
Bother your senoor menus or teachers	(0.61)	(0.62)	(0.68)	(0.56)	(0.73)	(0.59)	(0.73)	(0.84)	(0.58)
Lie to your friends/teachers about you	1.18	1.16	1.28	1.17	1.21	1.17	1.24	1.29	1.17
Lie to your menus/teachers about you	(0.61)	(0.58)	(0.74)	(0.57)	(0.69)	(0.58)	(0.77)	(0.79)	(0.58)
Physically forced you to leave school	1.06	1.04	1.14	1.04	1.10	1.06	1.02	1.08	1.06
Thysically foreced you to leave school	(0.35)	(0.29)	(0.54)	(0.28)	(0.47)	(0.35)	(0.13)	(0.40)	(0.34)
Lied about your children's health or safety to make	1.03	1.01	1.13	1.02	1.07	1.03	1.00	1.10	1.03
you leave school	(0.25)	(0.12)	(0.52)	(0.17)	(0.38)	(0.24)	(0.00)	(0.51)	(0.20)
Threatened you to make you leave school	1.07	1.05	1.14	1.04	1.13	1.07	1.04	1.12	1.06
Threatened you to make you leave school	(0.40)	(0.36)	(0.54)	(0.30)	(0.58)	(0.40)	(0.27)	(0.48)	(0.39)
Acadomic Postraint	1.07	1.05	1.19	1.06	1.12	1.07	1.03	1.12	1.07
Acutemic Kestrum	(0.34)	(0.24)	(0.61)	(0.27)	(0.47)	(0.34)	(0.13)	(0.49)	(0.32)
Substage the car so you couldn't go to school	1.06	1.04	1.16	1.05	1.09	1.06	1.04	1.10	1.06
Sabolage the car so you couldn't go to school	(0.35)	(0.27)	(0.59)	(0.28)	(0.48)	(0.35)	(0.19)	(0.51)	(0.33)
Not show up for childcare so you couldn't go to	1.05	1.02	1.21	1.03	1.10	1.05	1.00	1.10	1.05
school	(0.35)	(0.19)	(0.70)	(0.26)	(0.51)	(0.35)	(0.00)	(0.42)	(0.34)
Steal your keys or money so you couldn't go to	1.07	1.05	1.20	1.07	1.09	1.07	1.04	1.14	1.07
school	(0.40)	(0.30)	(0.69)	(0.40)	(0.41)	(0.40)	(0.27)	(0.54)	(0.38)
Patusa ta giya you a rida ta sahaal	1.12	1.11	1.17	1.11	1.14	1.12	1.11	1.12	1.12
Refuse to give you a fide to school	(0.48)	(0.47)	(0.54)	(0.49)	(0.47)	(0.48)	(0.42)	(0.44)	(0.49)
Drugically restrain you from going to school	1.05	1.03	1.16	1.04	1.09	1.05	1.00	1.14	1.04
r hysically resulant you from going to school	(0.32)	(0.24)	(0.55)	(0.28)	(0.41)	(0.32)	(0.00)	(0.58)	(0.28)
Threaten you to prevent you going to school	1.08	1.05	1.20	1.05	1.14	1.08	1.00	1.12	1.07
Incatch you to prevent you going to school	(0.43)	(0.33)	(0.75)	(0.33)	(0.62)	(0.45)	(0.00)	(0.63)	(0.41)
***This scale is measured on a 5-point likert-type scale	from 1 (ne	ever) to 5 (very ofter	ı)					

Table 6. Means and Standard Deviations Indicating the Frequency of Work/School Abuse Experienced by Students.

	Total	Female	Male	White	Ethnic Minority	Hetero- sexual	Sexual Minority	Cohabitate	Non- Cohabitate
	N=487	N=399	N=83	N=361	N=124	N=429	N=55	N=49	N=437
A busive Debewier Index (ADI) Develoal A buse	1.22	1.21	1.26	1.19	1.30	1.20	1.31	1.29	1.21
Abusive behavior fildex (Abf) Filysical Abuse	(0.46)	(0.43)	(0.60)	(0.38)	(0.64)	(0.44)	(0.53)	(0.59)	(0.44)
Ducked graphed or shound you	1.27	1.25	1.35	1.22	1.39	1.25	1.33	1.33	1.26
rushed, grabbed, or shoved you	(0.68)	(0.64)	(0.76)	(0.56)	(0.85)	(0.64)	(0.80)	(0.72)	(0.65)
Slappad hit or punched you	1.15	1.12	1.28	1.12	1.22	1.14	1.15	1.18	1.14
Stapped, Int, of punched you	(0.54)	(0.50)	(0.70)	(0.46)	(0.71)	(0.54)	(0.52)	(0.64)	(0.53)
Pressured you to have sex in a way that you didn't	1.42	1.46	1.24	1.42	1.41	1.36	1.78	1.61	1.39
like or want	(0.86)	(0.90)	(0.67)	(0.82)	(0.98)	(0.81)	(1.12)	(1.02)	(0.84)
Smontrad you	1.32	1.32	1.34	1.32	1.33	1.30	1.42	1.35	1.32
Spanked you	(0.82)	(0.83)	(0.83)	(0.81)	(0.86)	(0.81)	(0.94)	(0.93)	(0.81)
Kielzed vou	1.10	1.07	1.25	1.08	1.17	1.10	1.11	1.14	1.10
Kicked you	(0.47)	(0.41)	(0.66)	(0.40)	(0.60)	(0.45)	(0.50)	(0.54)	(0.46)
Dhysically forced you to have say	1.15	1.15	1.16	1.12	1.22	1.13	1.25	1.27	1.14
Filysically forced you to have sex	(0.54)	(.053)	(0.59)	(0.44)	(0.73)	(0.50)	(0.73)	(0.70)	(0.52)
Throw you around	1.14	1.13	1.22	1.10	1.24	1.14	1.13	1.20	1.14
Threw you around	(0.56)	(0.51)	(0.73)	(0.43)	(0.78)	(0.55)	(0.51)	(0.61)	(0.55)
Called me nemes	1.49	1.51	1.41	1.45	1.59	1.46	1.69	1.57	1.48
Caned me names.	(0.95)	(0.97)	(0.87)	(0.87)	(1.12)	(0.92)	(0.51)	(0.94)	(0.95)
Choked or strangled you	1.14	1.13	1.15	1.10	1.23	1.12	1.22	1.16	1.13
Choked of strangled you	(0.54)	(0.55)	(0.52)	(0.44)	(0.73)	(0.52)	(0.63)	(0.59)	(0.54)
Used a brife our or other weepen against you	1.03	1.02	1.10	1.02	1.06	1.03	1.00	1.12	1.02
Used a kinne, guil, of other weapon against you	(0.29)	(0.16)	(0.51)	(0.21)	(0.36)	(0.26)	(0.00)	(0.60)	(0.19)
***This scale is measured on a 5-point likert-type scale	from 1 (ne	ver) to $5(v$	ery frequ	ently)					

Table 7. Means and Standard Deviations Indicating the Frequency of Physical Abuse Experienced by Students.

PMWI ranged from 1.00 to 4.57 with the average score being 1.53 (SD = .76). The participants' scores on the dominance/isolation subscale ranged from 1.00 to 4.29, and the range of scores on the emotional/verbal subscale ranged from 1.00 to 5.00. The average on the dominance/isolation subscale was 1.39 (SD = .67), and the average score on the emotional/verbal subscale was 1.68 (SD = .93). For more information on participant scores on the PMWI scale, subscales, and items see Table 8.

Economic abuse. Economic abuse was assessed using the Scale of Economic Abuse II (SEA II) (Adams et al., 2019) (Appendix I). This scale was selected over other scales of economic abuse because it has strong reliability, and fewer tactics targeting employment which may not be applicable to a large portion of the sample. The SEA II consists of two subscales. The economic exploitation subscale includes items such as "Take out a loan or buy something on credit in your name without your permission." Economic control was assessed using the sevenitem economic restriction subscale which includes items such as "Hide money so that you could not find it." The items were rated on a 5-point likert type scale ranging from 1 (never) to 5 (very often), and a mean score was created for both subscales with higher scores indicating more frequent experiences of economic abuse. Adams and colleagues (2019) reported the SEA II to have Cronbach's alpha of .93, and the subscales (economic exploitation [α =.91] and economic restriction [$\alpha = .89$]) also had high reliability. For this study, the reliability of the scale was $\alpha =$.95, and both the subscales (economic exploitation $[\alpha = .91]$ and economic restriction $[\alpha = .93]$) were reliable. The participants' scores on the SEA II ranged from 1.00 to 4.29 with the average score being 1.09 (SD = .36). The range of scores on the restriction subscale was 1 to 4.00, and the participants' scores on the exploitation subscale ranged from 1 to 4.71. The average on the restriction subscale was 1.09 (SD = .38), and the average score on the exploitation subscale was

1.08 (SD = .37). For more information on participant scores on the SEA II scale, subscales, and items see Table 9.

Education sabotage. The Education Sabotage Scale was created as part of this study (Appendix J). Participants were asked to rate their experience over the past 12 months on a 5-point likert-type scale ranging from 1 (never) to 5 (very often). The rating scale and time frame were selected to ensure the Education Sabotage Scale created was consistent with the rating scale and time frame of the Scale of Economic Abuse II. A mean score for each of the subscales was created with higher scores indicating more frequent experiences of education sabotage. For more information on participant scores on the Education Sabotage scale, subscales, and items see Table 10.

Financial and academic related outcomes. Self-reported measures of change in grades, average number of dropped courses per semester, grade point average, and amount of student loan debt were utilized in the study as dependent variables. Change in grades was assessed using a single question asking participants over the past 12 months had their grades 1) declined, 2) stayed the same, or 3) improved. Change in grade was then coded into a binary variable 0 (declined) and 1 (did not decline). Average number of dropped courses was calculated by dividing students' self-reported number of dropped courses by their self-reported number of semesters. Grade point average was assessed using a single item with an 8-point scale ranging from (1) below 1.0 to (8) 4.0, and student loan debt was assessed using a single item with a 10-point scale ranging from (1) none to (10) more than \$100,000. The participants' average number of dropped courses per semester ranged from 0.00 to 4.00 with the sample average being .15 (*SD* =.37). For more information on participants' responses on financial and academic outcomes see Table 11 and Table 12.

	Total	Female	Male	White	Ethnic	Hetero-	Sexual	Cohabitate	Non-
					Minority	sexual	Minority		Cohabitate
	N=486	N=398	N=83	N=360	N=124	N=428	N=55	N=49	N=436
Psychological Maltreatment of Women Index	1.53	1.55	1.46	1.51	1.57	1.51	1.64	1.60	1.52
(PMWI)	(0.76)	(0.78)	(0.66)	(0.73)	(0.83)	(0.74)	(0.88)	(0.87)	(0.75)
Emotional/Verbal	1.68	1.71	1.54	1.68	1.66	1.65	1.79	1.74	1.67
	(0.93)	(0.97)	(0.74)	(0.92)	(0.97)	(0.91)	(1.09)	(1.02)	(0.93)
My partner called me names.	1.61	1.60	1.66	1.57	1.71	1.58	1.76	1.63	1.60
	(0.98)	(0.98)	(0.98)	(0.92)	(1.10)	(0.96)	(1.12)	(1.07)	(0.97)
My partner swore at me.	1.84	1.83	1.93	1.84	1.85	1.82	2.00	1.78	1.85
	(1.08)	(1.08)	(1.12)	(1.06)	(1.15)	(1.06)	(1.23)	(1.10)	(1.08)
My partner yelled and screamed at me.	1.61	1.62	1.60	1.59	1.67	1.60	1.67	1.73	1.60
	(1.01)	(1.03)	(0.94)	(0.98)	(1.05)	(0.99)	(1.11)	(1.02)	(1.01)
My partner treated me like an inferior.	1.59	1.63	1.39	1.60	1.54	1.55	1.80	1.73	1.57
	(1.05)	(1.10)	(0.75)	(1.04)	(1.07)	(1.01)	(1.25)	(1.13)	(1.04)
My partner told me my feelings were irrational or	1.72	1.79	1.43	1.74	1.67	1.71	1.78	1.90	1.71
crazy.	(1.17)	(1.20)	(0.94)	(1.13)	(1.25)	(1.14)	(1.32)	(1.39)	(1.14)
My partner blamed me for his problems.	1.63	1.68	1.43	1.66	1.54	1.60	1.75	1.69	1.62
	(1.16)	(1.22)	(0.86)	(1.18)	(1.12)	(1.13)	(1.34)	(1.25)	(1.16)
My partner tried to make me feel crazy.	1.67	1.75	1.30	1.72	1.53	1.65	1.75	1.71	1.67
	(1.21)	(1.27)	(0.73)	(1.21)	(1.18)	(1.18)	(1.34)	(1.31)	(1.20)
Dominance/Isolation	1.39	1.40	1.37	1.35	1.47	1.37	1.48	1.46	1.38
	(0.67)	(0.68)	(0.65)	(0.62)	(0.75)	(0.66)	(0.73)	(0.78)	(0.66)
My partner monitored my time and made me	1.47	1.44	1.59	1.39	1.63	1.46	1.49	1.35	1.48
account for my whereabouts.	(1.00)	(0.97)	(1.15)	(0.90)	(1.17)	(1.00)	(1.00)	(0.86)	(1.01)
My partner used our money or made important	1.13	1.12	1.18	1.12	1.14	1.12	1.09	1.29	1.11
financial decisions without talking to me about it.	(0.52)	(0.50)	(0.61)	(0.52)	(0.49)	(0.48)	(0.44)	(0.87)	(0.46)
My partner was jealous or suspicious of my	1.88	1.91	1.74	1.86	1.89	1.85	2.09	1.81	1.88
friends.	(1.18)	(1.20)	(1.08)	(1.16)	(1.23)	(1.17)	(1.31)	(1.21)	(1.18)
My partner accused me of having an affair with	1.41	1.46	1.19	1.38	1.46	1.39	1.51	1.63	1.39
another man.	(0.94)	(0.99)	(0.65)	(0.89)	(1.03)	(0.92)	(1.12)	(1.25)	(0.90)
My partner interfered in my relationships with	1.31	1.32	1.28	1.29	1.33	1.29	1.47	1.45	1.30
other family members.	(0.83)	(0.86)	(0.69)	(0.79)	(0.89)	(0.79)	(1.07)	(0.98)	(0.81)
My partner tried to keep me from doing things to	1.36	1.37	1.31	1.33	1.41	1.34	1.49	1.43	1.35
help myself.	(0.90)	(0.93)	(0.75)	(0.85)	(0.98)	(0.89)	(0.96)	(0.89)	(0.90)
My partner restricted my use of the telephone.	1.16	1.15	1.23	1.12	1.25	1.15	1.24	1.24	1.15
	(0.53)	(0.49)	(0.67)	(0.43)	(0.69)	(0.49)	(0.69)	(0.69)	(0.50)

Table 8. Means and Standard Deviations Indicating the Frequency of Psychological Abuse Experienced by Students.

***This scale is measured on a 5-point likert-type scale from 1 (never) to 5 (very frequently).

	Total	Female	Male	White	Ethnic	Hetero-	Sexual	Cohabitate	Non-
	N=486	N=398	N=83	N=360	Ninority N=124	sexual N=428	Minority N=55	N=49	N=436
Galla of Francis Alama II (CFA II)	1.09	1.07	1.17	1.07	1.14	1.08	1.08	1.18	1.08
Scale of Economic Aduse II (SEA II)	(0.36)	(0.30)	(0.58)	(0.33)	(0.46)	(0.36)	(0.22)	(0.58)	(0.33)
Faanamia Destriction	1.09	1.07	1.18	1.07	1.15	1.08	1.09	1.17	1.08
Economic Restriction	(0.38)	(0.31)	(0.58)	(0.33)	(0.48)	(0.38)	(0.18)	(0.57)	(0.35)
Keep you from having the money you needed to	1.08	1.06	1.18	1.12	1.07	1.08	1.07	1.18	1.07
buy food, clothes, or other necessities	(0.43)	(0.37)	(0.65)	(0.49)	(0.41)	(0.44)	(0.33)	(0.67)	(0.40)
Keen financial information from you	1.12	1.11	1.16	1.15	1.11	1.10	1.15	1.22	1.11
Reep manetal mormation from you	(0.50)	(0.49)	(0.58)	(0.52)	(0.50)	(0.46)	(0.60)	(0.65)	(0.48)
Decide how you could spend money rather than	1.12	1.09	1.25	1.19	1.09	1.11	1.11	1.22	1.11
letting you spend it how you saw fit	(0.53)	(0.49)	(0.68)	(0.63)	(0.49)	(0.53)	(0.46)	(0.77)	(0.50)
Make you ask him/her for money	1.09	1.08	1.17	1.13	1.08	1.08	1.15	1.12	1.09
wake you ask min/net for money	(0.49)	(0.46)	(0.62)	(0.56)	(0.46)	(0.45)	(0.68)	(0.48)	(0.49)
Hide money so that you could not find it	1.07	1.05	1.18	1.12	1.05	1.07	1.02	1.14	1.06
The money so that you could not find h	(0.45)	(0.36)	(0.74)	(0.59)	(0.38)	(0.46)	(0.14)	(0.71)	(0.41)
Demand that you give him/her receipts or change	1.05	1.02	1.16	1.11	1.02	1.05	1.00	1.12	1.04
when you spent money	(0.36)	(0.24)	(0.67)	(0.55)	(0.24)	(0.37)	(0.00)	(0.60)	(0.32)
Keen you from having a job or going to work	1.09	1.07	1.19	1.17	1.06	1.09	1.11	1.20	1.08
Reep you from having a job of going to work	(0.45)	(0.40)	(0.61)	(0.63)	(0.35)	(0.45)	(0.37)	(0.68)	(0.41)
Foonomic Exploitation	1.08	1.07	1.16	1.07	1.12	1.07	1.08	1.18	1.07
	(0.37)	(0.31)	(0.59)	(0.34)	(0.46)	(0.37)	(0.27)	(0.60)	(0.34)
Make you use your money to buy him/her things or	1.16	1.16	1.17	1.15	1.16	1.13	1.25	1.24	1.15
pay his/her bills when you didn't want to	(0.63)	(0.63)	(0.62)	(0.59)	(0.64)	(0.57)	(0.75)	(0.90)	(0.59)
Spend his/her money however he/she wanted while	1.12	1.11	1.17	1.14	1.12	1.10	1.16	1.39	1.09
your money went to pay for necessities	(0.57)	(0.53)	(0.73)	(0.57)	(0.57)	(0.52)	(0.63)	(1.05)	(0.48)
Take out a loan or buy something on credit in your	1.04	1.02	1.14	1.08	1.03	1.04	1.00	1.12	1.03
name without your permission	(0.35)	(0.24)	(0.67)	(0.46)	(0.29)	(0.36)	(0.00)	(0.60)	(0.31)
Make you take out a loan or buy something on	1.04	1.03	1.11	1.07	1.03	1.04	1.00	1.10	1.03
credit when you didn't want to	(0.33)	(0.27)	(0.49)	(0.35)	(0.32)	(0.33)	(0.00)	(0.51)	(0.30)
But hills in your name, leaving you to new them	1.06	1.04	1.13	1.08	1.05	1.05	1.07	1.12	1.05
Fut onis in your name, leaving you to pay them	(0.39)	(0.35)	(0.56)	(0.40)	(0.39)	(0.38)	(0.38)	(0.60)	(0.36)
Force or pressure you to give him/her your savings	1.06	1.04	1.16	1.09	1.05	1.05	1.04	1.16	1.05
or other assets	(0.41)	(0.30)	(0.72)	(0.52)	(0.35)	(0.41)	(0.27)	(0.72)	(0.36)
Steal your property	1.10	1.08	1.23	1.15	1.09	1.10	1.05	1.10	1.11
	(0.48)	(0.41)	(0.70)	(0.58)	(0.43)	(0.48)	(0.30)	(0.47)	(0.48)
***The scale is measured on a 5-point Likert-type frequ	iency scale	from 1(Nev	ver) to 5 (Very Ofte	en)				

Table 9. Means and Standard Deviations Indicating the Frequency of Economic Abuse Experienced by Students.

¥	Total	Female	Male	White	Ethnic Minority	Hetero- sexual	Sexual Minority	Cohabitate	Non- Cohabitate
	N=487	N=399	N=83	N=361	N=124	N=429	N=55	N=49	N=437
Education Sabotage Scale (ESS)	1.46	1.45	1.51	1.44	1.51	1.44	1.56	1.59	1.45
Education Sabotage Scare (ESS)	(0.64)	(0.63)	(0.69)	(0.60)	(0.72)	(0.63)	(0.67)	(0.84)	(0.61)
Educational Access Sabotage	1.24	1.22	1.32	1.22	1.30	1.23	1.22	1.40	1.22
Eucluionai Access Subbinge	(0.52)	(0.49)	(0.65)	(0.29)	(0.62)	(0.52)	(0.44)	(0.68)	(0.50)
Prevent you from attending classes sessions	1.38	1.36	1.45	1.36	1.42	1.36	1.51	1.69	1.34
Trevent you from atchding classes sessions	(0.79)	(0.79)	(0.79)	(0.75)	(0.90)	(0.76)	(0.96)	(1.10)	(0.74)
Prevent you from attending school (for example,									
forced, coerced, or pressured you to drop-out, drop	1.19	1.17	1.27	1.16	1.25	1.19	1.13	1.22	1.19
classes, change schools, or take a break from school)	(0.57)	(0.55)	(0.66)	(0.53)	(0.67)	(0.58)	(0.43)	(0.55)	(0.58)
Sabotage your transportation to school or classes	1 1 /	1 1 1	1.24	1 1 2	1 1 4	1 1 /	1.04	1.20	1 12
(for example, hide your keys or bus pass, break	(0.52)	(0, 40)	1.24	(0.52)	1.14	1.14	(0.27)	(0.74)	1.12
something on your bike, car or moped)	(0.32)	(0.49)	(0.04)	(0.32)	(0.55)	(0.43)	(0.27)	(0.74)	(0.49)
Educational Success Sabotage	1.60	1.59	1.62	1.57	1.64	1.57	1.76	1.70	1.58
Euucuionai Success Suboluge	(0.80)	(0.80)	(0.78)	(0.76)	(0.86)	(0.78)	(0.91)	(1.02)	(0.77)
Koon you from studying or completing homework	1.89	1.91	1.83	1.91	1.83	1.85	2.15	1.92	1.89
Reep you from studying of completing homework	(1.04)	(1.05)	(0.99)	(1.03)	(1.05)	(1.04)	(1.04)	(1.17)	(1.03)
Start an argument or fight before an exam or	1.70	1.70	1.75	1.69	1.71	1.67	1.93	1.78	1.69
important school deadline	(1.05)	(1.06)	(1.00)	(1.01)	(1.12)	(1.01)	(1.29)	(1.16)	(1.04)
Make you feel guilty for spending time on school	1.60	1.62	1.54	1.61	1.57	1.55	1.96	1.69	1.59
Make you leef guilty for spending time on school	(1.08)	(1.10)	(0.97)	(1.08)	(1.05)	(1.03)	(1.32)	(1.19)	(1.06)
Accuse you of cheating on them with a classmate,	1.43	1.41	1.52	1.39	1.51	1.43	1.40	1.61	1.41
lab partner, or study group member	(0.90)	(0.87)	(1.01)	(0.86)	(0.96)	(0.89)	(0.89)	(1.19)	(0.86)
Demand to know what is happening during class or	1 35	1 33	1.46	1 31	1 44	1 3/	1 35	1 51	1 33
study sessions (e.g., going with you or	(0.85)	(0.85)	(0.87)	(0.70)	(0.06)	(0.84)	(0.87)	(1.06)	(0.82)
interrogating you)	(0.05)	(0.05)	(0.07)	(0.75)	(0.90)	(0.04)	(0.87)	(1.00)	(0.82)
***The scale is measured on a 5-point Likert-type frequ	ency scale	e from 1 (N	ever) to 5	(Very Oft	en)				

Table 10. Means and Standard Deviations Indicating the Frequency of Education Sabotage Experienced by Students.

	Total	Female	Male	White	Ethnic Minority	Hetero- sexual	Sexual minority	Cohabitate	Non- Cohabitate
Student Loan Debt									
None	55%	53%	62%	54%	57%	55%	54%	53%	55%
\$1 to \$5,000	10%	11%	5%	10%	10%	10%	10%	7%	10%
\$5,001 to \$10,000 \$10,001	10%	11%	6%	10%	11%	10%	10%	9%	10%
to \$20,000 \$20,001	10%	11%	10%	11%	11%	11%	10%	16%	10%
to \$30,000 \$30,001	6%	6%	8%	6%	7%	7%	4%	4%	7%
to \$40,000 \$40,001	4%	4%	4%	5%	1%	4%	4%	9%	3%
to \$50,000 \$50,001	2%	1%	3%	2%	1%	2%	0%	2%	1%
to \$70,000 \$70,001	2%	2%	1%	2%	2%	1%	4%	0%	2%
to \$100,000	1%	1%	0%	1%	0%	1%	0%	0%	1%
More than \$100,000	1%	1%	1%	1%	2%	1%	2%	0%	1%
Grades	1.4.0/	150/	110/	150/	120/	150/	00/	60/	150/
Staved the	1470	1 J 70	1170	1370	1370	1 J 70	970	0 %	1370
same	55%	54%	53%	55%	54%	55%	56%	56%	54%
Improved	31%	31%	36%	31%	33%	31%	35%	38%	31%
Grade Point									
Average									
1.49 1.50 to	1%	1%	0%	<1%	2%	1%	2%	0%	1%
1.99 2.00 to	1%	1%	1%	1%	0%	1%	0%	2%	<1%
2.00 to 2.49	3%	4%	3%	2%	7%	3%	4%	6%	3%
2.99 3.00 to	10%	9%	14%	7%	18%	11%	4%	10%	10%
3.49 3.50 to	27%	26%	30%	28%	27%	27%	24%	38%	26%
3.99	47%	48%	41%	50%	38%	46%	56%	42%	48%
4.00	11%	11%	11%	12%	8%	11%	10%	2%	12%

Table 11. Percentages for Categorical Outcome Variables (Student Loans, Grades, and Grade Point Average).

Depression. Depression was measured using the Center for Epidemiological Studies -

Depression Scale (CES-D: Radloff, 1977). The CES-D Scale consists of 20 items which measure the frequency of physical, cognitive, and emotional symptoms often associated with depression (Appendix K). The participants responded to these items on a 4-point Likert-type scale with regard to their experiences over the past seven days. The items were scored to assess frequency of occurrence for the item/symptom, ranging from 1 (none of the time or rarely [less than 1 day]) to 4 (most or all of the time [5-7 days]). To be consistent with previous studies conducted on economic abuse and depression, the current study constructed a mean score from 20 items with scores ranging from 1 (none of the time or rarely [less than 1 day]) to 4 (most or all of the time [5-7 days]). Higher scores indicated greater presence of depressive symptoms. Previous studies have reported a high level of reliability for this measure with Cronbach's α = .92, and the Cronbach's α = .85, for the current study, indicated this scale is a reliable measure of depression for this sample (Davilla et al., 2017). The participants' scores ranged from 1.00 to 3.67 with the sample average for the scale being 2.19 (*SD* =.50). For more information on participant scores on the CES-D scale see Table 12.

Financial anxiety. Students' financial anxiety was measured using the eight item Financial Anxiety Scale (FAS) developed by Archuleta, Dale, and Spann (2013) (Appendix L). Financial anxiety, rather than economic self-sufficiency or financial stability, was assessed due to the dependent status of many students. This specific scale of financial anxiety was selected because it is reliable (α =.94) and was developed specifically to understand the financial anxiety of college students. Participants were asked to rate the frequency of occurrence over the past 12 months on a 5-point Likert-type scale ranging from 1 (never) to 5 (always). Mean scores were calculated for each participant to determine their financial anxiety score, with higher scores reflecting greater anxiety. The Cronbach's $\alpha = 95$ for the current study indicated the scale was a reliable measure of financial anxiety for the sample. The participants' scores ranged from 1.00 to 5.00 with the sample average for the scale being 1.79 (*SD* = .98). For more information on participant scores on the FAS see Table 12.

Table 12. Means and Standard Deviations for Scale Outcome Variables (Depression, Financial Anxiety, and Dropped Courses per Semester).

	Total	Female	Male	White	Ethnic Minority	Hetero- sexual	Sexual minority	Cohabitate	Non- Cohabitate
Depression	2.19	2.22	2.08	2.22	2.13	2.17	2.32	2.16	2.20
(CES-D)	(0.50)	(0.50)	(0.50)	(0.47)	(0.58)	(0.51)	(0.44)	(0.57)	(0.50)
Financial Anxiety (FAS)	1.79 (0.98)	1.82 (0.99)	1.67 (0.95)	1.78 (0.97)	1.81 (1.00)	1.73 (0.95)	2.00 (0.77)	2.13 (1.12)	1.75 (0.96)
Dropped	0.61	0.63	0.44	0.54	0.83	0.58	0.17	1.28	0.53
Courses	(1.31)	(1.39)	(0.88)	(1.23)	(1.53)	(1.33)	(0.41)	(2.05)	(1.19)
Dropped									
Courses	0.15	0.16	0.09	0.12	0.23	0.14	0.03	0.28	0.13
per Semester	(0.37)	(0.40)	(0.20)	(0.31)	(0.51)	(0.38)	(0.08)	(0.48)	(0.35)

***The CES-D scale is measured on a 5-point Likert-type frequency scale from 1(Less than 1 day) to 4 (5-7 days), and the FAS scale is measured on a 7-point Likert-type frequency scale from 1(Never) to 7 (Always).

Analysis

All analyses, except z-tests, were conducted using SPSS version 26, and the z-tests were conducted using an online z-test calculator located at

https://www.medcalc.org/calc/test_one_proportion.php. Z-tests were conducted to determine if college students experience economic abuse at different rates than samples from other studies. A principal axis factor analysis with a promax rotation was conducted on the eight education sabotage items to identify the underlying structure of the scale. A principal axis factor analysis was selected because the goal was to identify latent variables and the principal axis factor analysis is better suited for non-normally distributed data when compared to the maximum likelihood factor analysis. Cronbach's alpha was conducted to assess the reliability of the Education Sabotage Scale. Correlations among *educational access sabotage, educational success*

sabotage, economic restriction, economic exploitation, academic restraint and academic interference were conducted to assess convergent validity of the education sabotage measure.

Five regressions (DVs: depression, financial anxiety, decline in grades, average number of dropped courses per semester, and student loan debt) were conducted to assess the concurrent validity of the education sabotage measure. The first block of the regression models controlled for five demographic covariates (age, gender, sexual orientation, ethnicity, and cohabitation status), and the second block consisted of the education sabotage subscales (*educational access sabotage* and *educational success sabotage*). The impact of Education Sabotage on depression, financial anxiety, and average number of dropped courses per semester was assessed via hierarchical multiple regressions. Due to the distribution of participant responses, the impact of education sabotage on student loan debt was assessed as hierarchical binary logistic regression with the dependent variable being whether or not the participants had student loan debt.

Five regressions (DVs: depression, financial anxiety, decline in grades, average number of dropped courses per semester, grade point average, and student loan debt) were conducted to determine unique explained variance contributed by the education sabotage subscale. The regressions predicting depression, financial anxiety, and average number of dropped courses per semester were hierarchical multiple regressions, and the regression models predicting student loan debt and decline in grades were hierarchical binary logistic regressions. The first block of the regression models controlled for five demographic covariates (age, gender, sexual orientation, ethnicity, and cohabitation status). The second block consisted of the physical and psychological abuse variables. The third block consisted of the economic abuse variable, and the final block consisted of the education sabotage subscales. Due to issues of multicollinearity, the entire scale, rather than subscales, were used in the regression models for the PMWI and SEA II.

Due to sample size restrictions, only students who identified as men or women were included in the regression analyses. Additionally, due to small sample size for some groups, sexual orientation was collapsed into two categories (heterosexual and sexual minority), and ethnicity was collapsed into two categories (White and ethnic minority). Finally, due to missingness, socioeconomic status was not included as a covariate in the regression analyses.

Missing Data Analysis. Five participants were removed from the study because they completed less than 25% of the survey, and one participant was removed due to their responses raising concerns about validity of their answers, such as specifying their gender as "a toaster." None of the remaining 486 participants were missing information for the physical abuse, psychological abuse, educational access sabotage, educational success sabotage, economic abuse, work/school abuse, depression, and financial anxiety variables. For dropped course per semester and change in grades 4% of the participants were missing data, and for student loan debt (8%) was missing. For socioeconomic status there was 21% missing data, and therefore socioeconomic status was not included in the regression analyses as a covariate. A Little's MCAR test was conducted on the variables included in the regression models, and the test was significant indicating the data is not missing completely at random. Additionally, for dropped courses per semester, change in grades, and student loan debt, the missing not at random assumption is plausible because students with more dropped courses, declining grades, and higher student loan debt may be less likely to provide responses to these questions. Further evidence to support that declining grades and student loan debt may be missing at random is the fact that no participants skipped either question. The missingness on both of these questions resulted from participants selecting the decline to answer option. Imputing missing data is not appropriate for this, because even though some previous research has stated that multiple

imputation can produce unbiased results for missing not at random data, imputation analyses operate under the assumption that the data is at least missing at random. Therefore, for this study, a pairwise deletion method was utilized as instructed by Jakobsen, Gluud, Wetterslev, and Winkel (2017) which states that when data is not missing at random "use observed data only but discuss and report the extent of missing data and the limitations" (p. 5). The pairwise deletion did not impact the preliminary analyses, the exploratory factor analysis, or the correlations assessing validity as no more than six participants (1.23%) were deleted from the sample for these analyses. Additionally, the pairwise deletion did not reduce the sample size below what was determined necessary to perform the regression analyses based on the a-priori power analyses conducted. The highest deletion rate occurred for the regression model predicting student loan debt, with only 9.8% of the sample being removed due to missingness. T-test and chi square analyses were conducted and determined that participants removed via pairwise deletion did not differ from those included in the regression analyses on age, gender, sexual orientation, ethnicity, and cohabitation status as well as physical abuse, psychological abuse, economic abuse, and education sabotage variables.

RESULTS

This study found that 74% of the students experienced some form of IPV over the past year. In the prior 12 months, psychological abuse was experienced in some form by 71% of participants, and 65% of participants experienced some form of education sabotage. Over the past year, physical abuse was experienced in some form by 47% of participants. Only 18% of students reported experiencing any tactic from the SEA II over the past year, and 17% of students reported experiencing at least one tactics from the W/SAS over the past year.

To calculate the frequencies for the IPV measures, the items were coded "no abuse" if the respondent answered 1 (never) and "yes abuse" if the respondent answered 2, 3, 4, or 5. The results indicated that the form of IPV experienced by the most participants was psychological abuse (71%), followed by education sabotage (65%). The indicator of psychological abuse (Table 13) with the greatest prevalence rate was "my partner swore at me" (48%) and the indicator of educational sabotage (Table 14) with the greatest prevalence rate was "keep you from studying or completing homework" (52%).

The most commonly endorsed indicator of economic abuse (Table 15) reported by the greatest number of participants was "Make you use your money to buy him/her things or pay his/her bills when you didn't want to" (8%), while the indicator of physical abuse (Table 16), not including "called me names," reported by the greatest number of participants was "pressured you to have sex in a way you didn't like or want" (24%). Finally, the indicator of work/school abuse (Table 17) with the greatest prevalence rate was "lie to your friends/teachers about you" (10%).

Table 13. Percentage of Students Experiencing Psychological Abuse.

	Total	Female	Male	White	Ethnic	Hetero-	Sexual	Cohabitate	Non-
	N-486	N-300	N-83	N-360	Minority N-124	sexual N–428	Minority N-55	N-49	Cohabitate N-436
Psychological Maltreatment of Women Index	710/	((0)	720/	710/	710/	710/	750/	(00/	710/
(PMWI)	/1%	66%	/3%	/1%	/1%	/1%	/5%	69%	/1%
Emotional/Verbal	65%	65%	65%	65%	64%	64%	69%	63%	65%
My partner called me names.	36%	36%	39%	36%	38%	35%	42%	33%	36%
My partner swore at me.	48%	48%	51%	49%	46%	47%	51%	41%	49%
My partner yelled and screamed at me.	35%	35%	37%	34%	37%	35%	36%	43%	34%
My partner treated me like an inferior.	32%	33%	25%	33%	28%	30%	38%	39%	31%
My partner told me my feelings were irrational or crazy.	36%	38%	23%	39%	28%	36%	31%	33%	36%
My partner blamed me for his problems.	28%	29%	24%	29%	24%	28%	27%	29%	28%
My partner tried to make me feel crazy.	30%	32%	17%	34%	20%	30%	27%	31%	30%
Dominance/Isolation	52%	52%	52%	52%	53%	52%	55%	53%	52%
My partner monitored my time and made me account for my whereabouts.	23%	22%	27%	21%	28%	22%	25%	18%	24%
My partner used our money or made important financial decisions without talking to me about it.	7%	7%	10%	6%	9%	7%	5%	12%	7%
My partner was jealous or suspicious of my friends.	45%	46%	40%	45%	43%	44%	49%	40%	45%
My partner accused me of having an affair with another man.	20%	22%	11%	20%	20%	20%	22%	24%	20%
My partner interfered in my relationships with other family members.	16%	16%	18%	16%	16%	15%	20%	22%	15%
My partner tried to keep me from doing things to help myself.	18%	18%	18%	17%	20%	16%	27%	24%	17%
My partner restricted my use of the telephone.	11%	10%	13%	10%	14%	10%	15%	14%	11%

Table 14. Percentage of Students Experiencing Education Sabotage.

	Total	Female	Male	White	Ethnic Minority	Hetero-	Sexual Minority	Cohabitate	Non- Cababitata
	N=487	N=399	N=83	N=361	N=124	N=429	N=55	N=49	N=437
Education Sabotage Scale (ESS)	65%	66%	64%	66%	63%	64%	69%	65%	65%
Educational Access Sabotage	28%	26%	34%	27%	28%	27%	29%	41%	26%
Prevent you from attending classes sessions	24%	23%	31%	24%	24%	23%	27%	39%	22%
Prevent you from attending school (for example, forced, coerced, or pressured you to drop-out, drop classes, change schools, or take a break from school)	12%	11%	17%	11%	14%	12%	9%	16%	12%
Sabotage your transportation to school or classes (for example, hide your keys or bus pass, break something on your bike, car or moped)	8%	6%	14%	8%	7%	8%	2%	16%	7%
Educational Success Sabotage	63%	64%	62%	64%	61%	62%	69%	59%	63%
Keep you from studying or completing homework	52%	53%	52%	55%	46%	50%	65%	51%	52%
Start an argument or fight before an exam or important school deadline	39%	39%	43%	40%	36%	38%	44%	41%	39%
Make you feel guilty for spending time on school	30%	30%	31%	31%	29%	28%	45%	33%	30%
Accuse you of cheating on them with a classmate, lab partner, or study group member Demand to know what is happening during	23%	22%	25%	22%	25%	23%	22%	24%	23%
class or study sessions (e.g., going with you or interrogating you)	19%	17%	27%	17%	22%	18%	18%	24%	18%

Table 15. Percentage of Students Experiencing Economic Abuse.

	Total	Female	Male	White	Ethnic	Hetero-	Sexual	Cohabitate	Non-
	N-486	N-308	N-83	N-360	Minority N-124	sexual N=428	Minority N-55	N-40	Cohabitate
Scale of Economic Abuse II (SEA II)	18%	17%	24%	17%	21%	16%	29%	27%	17%
Economic Restriction	14%	12%	20%	12%	19%	12%	25%	22%	13%
Keep you from having the money you									
needed to buy food, clothes, or other	5%	4%	8%	3%	7%	4%	5%	8%	4%
necessities									
Keep financial information from you	7%	6%	9%	6%	9%	6%	7%	14%	6%
Decide how you could spend money rather	60/	4.0/	1.4.0/	50/	100/	60/	70/	Q 0/	60/
than letting you spend it how you saw fit	0%	4%	14%	3%	10%	0%	7 %0	0 %0	0%
Make you ask him/her for money	5%	4%	10%	4%	7%	4%	5%	8%	5%
Hide money so that you could not find it	3%	2%	7%	3%	4%	3%	2%	4%	3%
Demand that you give him/her receipts or	204	104	60/	1.04	104	204	0%	104	204
change when you spent money	270	1 70	070	1 70	470	270	070	4 70	270
Keep you from having a job or going to	6%	10%	11%	1%	0%	5%	0%	10%	5%
work	070	4 /0	11/0	470	970	570	970	1070	570
Economic Exploitation	10%	10%	13%	10%	12%	10%	15%	17%	10%
Make you use your money to buy him/her									
things or pay his/her bills when you didn't	8%	7%	10%	8%	8%	6%	15%	8%	8%
want to									
Spend his/her money however he/she									
wanted while your money went to pay for	6%	6%	6%	5%	8%	5%	9%	16%	5%
necessities									
Take out a loan or buy something on credit	2%	1%	5%	1%	1%	2%	0%	1%	2%
in your name without your permission	2 /0	1 /0	570	1 /0	470	2 /0	070	470	270
Make you take out a loan or buy something	2%	1%	5%	1%	1%	2%	0%	1%	2%
on credit when you didn't want to	270	1 /0	570	170	470	270	070	470	270
Put bills in your name, leaving you to pay	3%	2%	6%	2%	4%	2%	4%	4%	3%
them	570	270	070	270	-70	270	770	-70	570
Force or pressure you to give him/her your	2%	2%	5%	2%	4%	2%	2%	6%	2%
savings or other assets	270	270	570	270	- 70	270	270	070	270
Steal your property	6%	4%	12%	5%	8%	5%	4%	6%	6%

Table 16. Percentage of Students Experiencing Physical Abuse.

	Total	Female	Male	White	Ethnic Minority	Hetero- sexual	Sexual Minority	Cohabitate	Non- Cohabitate
	N=487	N=399	N=83	N=361	N=124	N=429	N=55	N=49	N=437
Abusive Behavior Index (ABI) Physical Abuse	47%	48%	39%	48%	42%	44%	62%	69%	46%
Pushed, grabbed, or shoved you	18%	18%	22%	16%	23%	18%	20%	22%	18%
Slapped, hit, or punched you	9%	7%	18%	8%	12%	9%	9%	10%	9%
Pressured you to have sex in a way that you didn't like or want	24%	26%	13%	26%	19%	21%	42%	33%	23%
Spanked you	17%	16%	18%	17%	16%	16%	20%	14%	17%
Kicked you	6%	4%	16%	5%	9%	6%	5%	8%	6%
Physically forced you to have sex	9%	9%	7%	9%	9%	8%	15%	16%	8%
Threw you around	8%	8%	10%	7%	11%	8%	7%	12%	8%
Called me names.	28%	29%	23%	27%	28%	27%	35%	33%	27%
Choked or strangled you	7%	7%	9%	6%	11%	6%	13%	8%	7%
Used a knife, gun, or other weapon against you	2%	1%	4%	1%	3%	1%	0%	4%	1%

Table 17. Percentage of Students Experiencing Work/School Abuse.

	Total	Female	Male	White	Ethnic	Hetero-	Sexual	Cohabitate	Non-
	Iotai	remaie	marc	vinite vinite	Minority	sexual	Minority	condonate	Cohabitate
	N=487	N=399	N=83	N=361	N=124	N=429	N=55	N=49	N=437
Work/School Abuse Scale (W/SAS)	17%	16%	22%	17%	17%	16%	16%	22%	16%
Academic Interference	14%	13%	20%	14%	14%	14%	15%	20%	14%
Come to school to harass you	5%	5%	8%	4%	9%	5%	5%	8%	5%
Bother your school friends or teachers	9%	8%	12%	9%	9%	8%	9%	12%	8%
Lie to your friends/teachers about you	10%	9%	14%	10%	10%	9%	11%	14%	9%
Physically forced you to leave school	3%	2%	7%	2%	5%	3%	2%	4%	3%
Lied about your children's health or safety to make you leave school	2%	1%	7%	1%	4%	2%	0%	4%	2%
Threatened you to make you leave school	3%	2%	7%	2%	6%	3%	2%	6%	3%
Academic Restraint	8%	8%	12%	8%	11%	8%	7%	12%	8%
Sabotage the car so you couldn't go to school	3%	3%	7%	3%	4%	3%	4%	4%	3%
Not show up for childcare so you couldn't go to school	3%	1%	10%	2%	5%	3%	0%	6%	2%
Steal your keys or money so you couldn't go to school	4%	3%	10%	3%	5%	4%	2%	8%	3%
Refuse to give you a ride to school	7%	6%	10%	6%	10%	7%	7%	8%	7%
Physically restrain you from going to school	3%	2%	8%	2%	5%	3%	0%	6%	3%
Threaten you to prevent you going to school	4%	3%	8%	3%	6%	4%	0%	4%	4%

Research Question 1: *Do college students experience economic exploitation and economic control at different rates than populations from previous studies?*

Adams and colleagues (2008) developed the Scale of Economic abuse by conducting interviews with survivors of IPV who had sought services. They reported that 99% of participants had experienced some form of economic abuse during their relationship, and Adams and colleagues (2019) developed a revised and shortened version of the Scale of Economic Abuse (Scale of Economic Abuse II). They reported 91% and 83% of the IPV survivors surveyed had experienced some form of economic restriction (control) and economic exploitation, respectively. A study examining economic abuse experienced in a general population sample reported the lifetime prevalence rates of economic abuse was 11.5% (Kutin et al., 2017). In the current study, slightly fewer than one in five students (18%) experienced some form of economic abuse over the past year. Z-tests for single proportion comparisons were conducted to determine if the proportion of the current sample experiencing economic abuse differed from the proportion of prior samples experiencing economic abuse.

As expected, a significantly smaller proportion of participants from the current sample experienced economic abuse in the current sample than did participants from samples consisting of only IPV survivors. Specifically, the analyses revealed that a smaller proportion of the current sample experienced economic abuse when compared to the sample of IPV survivors interview by Adams and Colleagues (2008), z(485) = 179.47, p < 001. The analyses also revealed that a smaller proportion of the current sample experienced economic restriction (control) z(485) = 59.32, p < 001, and economic exploitation, z(485) = 29.64, p < 001, than did IPV survivors interview by Adams and colleagues (2019).

Participants from the current study experienced economic abuse at a higher rate than participants from Kutin and colleagues' (2017) study of economic abuse in a general population sample z(485) = 4.49, p < 001. While a difference in prevalence rates existed between the current study's sample and a previous sample from the general population, this difference was driven by participants identifying as male. The analyses showed that female participants from the current study (17%) did not significantly differ on prevalence rates when compared to the female participants (16%) in Kutin and colleagues' (2017) study, z(485) = 0.79, p = 431. However, males in the current study (24%) had significantly higher prevalence rates than males in the Kutin and colleagues' (2017) study (7%) z(485) = 14.51, p < 001. These findings highlight that college students experience economic abuse at lower rates than survivors seeking assistance for IPV, and female students report similar prevalence rates to females in a general population sample.

Research Question 2: What is the underlying structure of the education sabotage items?

Twelve questions regarding education sabotage were pilot tested among the participants. Four items were removed because fewer than 5% of the students reported experiencing these tactics, and the SEA II had items assessing similar tactics. The four items removed included: 1) "Force, coerce or pressure you into taking out student loans when you did not want to" 2) "Use your personal information to take out student loans in your name" 3) "Take, coerce, or pressure you into giving them money designated for tuition or school costs when you did not want to" and 4) "Prevent access to, steal, or destroy school supplies such as computers, textbooks, art supplies, flash drives, class projects, or school IDs." The remaining eight questions were factor analyzed using principal axis factor analysis with Promax (oblique) rotation. The KMO (.861) and Bartlett's Test of Sphericity (.000) both indicated that the set of variables are adequately related for factor analysis.

The analysis yielded two factors explaining a total of 57.61% of the variance. All items in this analysis had primary factor loadings over .6, meeting the criteria discussed in Matsunaga (2010). Only one item (prevent you from attending class sessions) had a cross-loading with less than .2 difference between the primary and secondary factor loadings, but the secondary factor loading did not meet the .6 threshold. Additionally, this item was determined to be critical to the content validity of the education sabotage measure, and therefore was retained based on theoretical justification as discussed in Hair, Black, Babin, and Anderson (2010). The item was determined to best fit theoretically on factor two, which was the factor the item loaded highest on. Therefore, the item was kept in this factor. The factor loading matrix for this final solution is presented in Table 18.

	Factor L	oadings
Item	Success	Access
Prevent you from attending class sessions		.617
Prevent you from attending school (for example, forced, coerced, or pressured you to drop-out, drop classes, change schools, or take a break from school)		.867
Sabotage your transportation to school or classes (for example, hide your keys or bus pass, break something on your bike, car or moped)		.742
Keep you from studying or completing homework	.744	
Start an argument or fight before an exam or important school deadline	.740	
Make you feel guilty for spending time on school	.733	
Accuse you of cheating on them with a classmate, lab partner, or study group member	.761	
Demand to know what is happening during class or study sessions (e.g., going with you or interrogating you)	.799	

Table 18. Summary of Exploratory Factor Analysis Results for Education Sabotage Measure Using Principal Axis Factoring with a Promax Rotation. (N = 486)

Factor one was labeled educational success sabotage due to the high loadings by the

following items: keep you from studying or completing homework; start an argument before an
exam or important deadline; make you feel guilty for spending time on school; accuse you of cheating on them with a classmate, lab partner, or study group member; and demand to know what is happening during class or study sessions. This first factor explained 49.62% of the variance. The second factor derived was *educational access sabotage*. This factor was labeled as such due to the high loadings by the following items: prevent you from attending class sessions; prevent you from attending school; and sabotage your transportation to school. The additional variance explained by this factor was 8.00%.

These results mean that two patterns of response among participants have been identified: 1) experiencing partners sabotaging their ability to access an education, and 2) experiencing partners sabotaging their ability to succeed in educational pursuits.

Interrelationships among economic abuse, education sabotage and demographic variables.

Preliminary analyses were conducted to examine if differences in prevalence rates and frequency of occurrence of IPV existed based on gender, race/ethnicity, sexual orientation, and cohabitation status. Chi square analyses were conducted to examine if differences in prevalence rates existed based on demographics characteristics. Significant differences existed for gender, χ^2 (1, N = 481) = 3.87, p < .05., race/ethnicity, χ^2 (1, N = 484) = 4.25, p = .039), and sexual orientation, χ^2 (1, N = 483) = 8.04, p < .01, on the SEA II restriction subscale, with males (20%), ethnic minorities (19%), and sexual minorities (26%) being more likely to report economic restriction than their female (12%), Caucasian/White (12%), and heterosexual (12%) counterparts. Additionally, cohabiting students (41%) were more likely to experience *educational access sabotage*, χ^2 (1, N = 486) = 4.62, p < .05, when compared to students who did not cohabitate with their partner (26%).

Independent samples t-tests were conducted to examine if frequency of economic abuse and education sabotage experienced differed based on demographics characteristics. Only a significant gender difference, t(481) = -2.06, p < .05, was found for frequency of abuse on a single subscale (W/SAS academic restraint subscale). Male students (M = 1.19, SD = .61) reported experiencing academic restraint more frequently than did female students (M = 1.05, SD= .24), but the means for both groups indicate on average students from each group are not typically experiencing academic restraint.

Co-occurrence of Economic Abuse and Other Forms of Intimate Partner Violence

Stylianou and colleagues (2013) found that economic abuse co-occurs with other forms of IPV, with only 1% of participants experiencing only economic abuse. For the current study, less than 1% of the entire sample experienced economic abuse but did not experience physical or psychological abuse, which suggests economic abuse among college students co-occurs with other forms of IPV. Specifically, Chi square analyses revealed that students who experienced economic abuse are more likely to have experienced physical abuse (86%), χ^2 (1, N = 486) = 67.15, p < .001, and psychological abuse (97%), χ^2 (1, N = 486) = 32.23, p < .001, when compared to students who had not experienced economic abuse (physical abuse: 38%; psychological abuse: 66%). Additionally, only 8% of the entire sample experienced education sabotage but did not experience physical or psychological abuse, which suggests education sabotage are more likely to have experienced physical abuse, which suggests education sabotage are more likely to have experienced physical abuse (61%), χ^2 (1, N = 487) = 71.08, p < .001, and psychological abuse (86%), χ^2 (1, N = 487) = 102.20, p < .001, when compared to students who did not experience education sabotage (physical abuse: 21%;

psychological abuse: 43%). This highlights that economic abuse and education sabotage are typically co-occurring with other forms of IPV among college students.

Research Question 3: Is Education Sabotage Scale and its subscales valid and reliable?

Reliability analyses indicated that the overall reliability of the Education Sabotage Scale was $\alpha = .88$, and the education sabotage subscales have acceptable reliability, which provided further support for the two-factor solution. The *educational access sabotage* construct had a Cronbach's alpha of .76, and the *educational success sabotage* construct had a Cronbach's alpha of .87.

Correlations were conducted to determine the validity of the *educational access sabotage* and *educational success sabotage* constructs. Correlations among the two newly developed constructs and the academic restraint and academic interference subscales from Riger and colleagues' (2000) Work/School Abuse Scale (W/SAS) as well as the economic exploitation and economic restriction (economic control) subscales from Adams and colleagues' (2019) Scale of Economic Abuse II (SEA II) were conducted to examine convergent validity (Table 19). The *educational access sabotage* and *educational success sabotage* constructs were found to be significantly correlated (p < .001) with both W/SAS subscales and both SEA II subscales. The significant correlations between these newly developed constructs and previous measures of school and economic abuse provided evidence for the convergent validity for the *educational access sabotage* and *educational success sabotage* constructs.

Three hierarchical multiple regressions (DVs: depression, financial anxiety, and average number of dropped courses per semester) and two hierarchical binary logistic regressions (DVs: student loan debt and decline in grades) were conducted to determine the concurrent validity of the *educational access sabotage* and *educational success sabotage* constructs.

	Educational Success Sabotage	Economic Restriction	Economic Exploitation	Work/School Restraint	Work/School Interference
Educational Access Sabotage	.618**	.574**	.600**	$.700^{**}$.655**
Educational Success Sabotage	-	.340**	.345**	.416**	.531**
Economic Restriction	-	-	.886**	.771**	.698**
Economic Exploitation	-	-	-	.772**	.693**
Work/School Restraint	-	-	-	-	.787**

Table 19. Correlations among Education Sabotage, Economic Abuse, and Work/School Abuse Subscales to Establish Convergent Validity.

A hierarchical multiple regression was conducted to examine the relationship among demographic factors and education sabotage with depression (Table 20). The first step, which included age, gender, ethnicity, sexual orientation, and cohabitation status, was significant, F(5, 470) = 3.10, p = .009, and explained 1.8% variation participants' depression scores (Table 21). With the addition of *educational access sabotage* and *educational success sabotage*, the second step was still significant, F(7, 468) = 9.24, p < .001, and added 12.5% explained variance. In the final model, sexual orientation, gender (marginal), *educational access sabotage*, and *educational success sabotage* were significant predictors of participants' depression scores. Students identifying as a sexual minority reported greater depression than heterosexual students and men, and increased experiences of both *educational access sabotage* and *educational success sabotage* contributed to increased depression scores. Gender was marginally significant with students identifying as women having greater depression scores.

To examine the relationship among demographic factors and education sabotage with financial anxiety, a hierarchical multiple regression was conducted (Table 22). The first step including age, gender, ethnicity, sexual orientation, and cohabitation status was significant, F(5, 469) = 6.92, p < .001 (Table 23). The first step in the model explained 5.9% of the variance in

students' reported financial anxiety. The second step, which added *educational access sabotage* and *educational success sabotage*, was also significant, F(7, 467) = 9.48, p < .001, and added 7.4% explained variance. In the final model the significant predictors were age, sexual orientation, *educational success sabotage* and *educational access sabotage* with higher scores on age, *educational access sabotage*, and *educational success sabotage* being indicative of higher financial anxiety. Student identifying as sexual minorities had higher levels of financial anxiety when compared to students identifying a heterosexual.

Table 20. Correlations among Scale Regression Predictors and Depression.

	Age	Educational	Educational Success Sabotage				
		Access					
		Sabotage					
Depression	008	.302***	.339***				
Age		.074†	054				
Educational Access Sabotage			.613***				
*** indicates $p < .001$, ** indicates $p < .01$, * indicates $p < .05$, † indicates $p < .08$ (marginal significance).							

Table 21. Model Summary for Hierarchical Multiple Regression Predicting Depression to Establish Concurrent Validity. (N = 476)

Step	В	SE	β	R^2	ΔR^2
Step 1: F(5, 470) 3.10, p = .009				.018	
Gender	10	.08	06		
Age	01	.02	01		
Ethnicity	00	.07	00		
Sexual Orientation**	.31	.09	.15		
Cohabitation Status	.04	.10	.02		
Step 2: F(7, 468) 9.24, p < .001				.143	.125
Gendert	13	.07	08		
Age	00	.02	00		
Ethnicity	.01	.06	.00		
Sexual Orientation**	.26	.09	.13		
Cohabitation Status	.11	.09	.05		
Educational Access Sabotage **	.21	.07	.18		
Educational Success Sabotage ***	.18	.04	.22		
*** indicates $p < .001$, ** indicates $p < .01$, * indicates $p < .05$, † indicates $p < $	cates $p < .0$	8 (margin	al signifi	cance).	

	Age	Educational Access	Educational Success Sabotage
		Sabotage	
Financial Anxiety	.206***	.260***	.259***
Age		.075†	054
Educational Access			.613***
Sabotage			
*** indicates p < .001, **	indicates $p < .01$,	* indicates $p < .05$,	indicates p < .08 (marginal significance).

Table 22. Correlations among Scale Regression Predictors and Financial Anxiety.

Table 23. Model Summary for Hierarchical Multiple Regression Predicting Financial Anxiety to Establish Concurrent Validity. (*N* =475)

Step	В	SE	β	R^2	ΔR^2
Step 1: F(5, 469) 6.92, p < .001				.059	
Gender	15	12	06		
Age***	.14	.03	.19		
Ethnicity	03	.10	01		
Sexual Orientation**	.40	.14	.13		
Cohabitation Status	20	.15	06		
Step 2: F(7, 467) 9.48, p < .001				.133	.074
Gender	19	.11	07		
Age***	.14	.03	.20		
Ethnicity	01	.10	01		
Sexual Orientation*	.34	.14	.11		
Cohabitation Status	11	.14	03		
Educational Access Sabotage *	.26	.11	.14		
Educational Success Sabotage **	.22	.07	.17		
*** indicates $n < 0.01$ ** indicates $n < 0.1$ * indicates r	< 05 + indicates n <	08 (margi	nal signific	ance)	

*** indicates p < .001, ** indicates p < .01, * indicates p < .05, † indicates p < .08 (marginal significance).

A hierarchical multiple regression was conducted to examine the impact of education sabotage on students' average number of dropped courses per semester. Age, gender, ethnicity, sexual orientation, and cohabitation status were entered into the first step of these regressions, and the education sabotage subscales were added in the second step of the models. For the average number of dropped courses per semester (Table 24), the first step was found to be significant, F(5, 452) = 13.23, p < .001, and explained 11.8% of the variation in the average number of courses students drop per semester (Table 25). With the addition of the education sabotage subscales, the model was still significant, F(7, 450) = 10.15, p < .001, but only added .5% explained variance. In the final model, the significant predictors were age, gender, and

ethnicity. Ethnic minority and women had more dropped courses per semester when compared to White students and men. Additionally, an increase in age was associated with an increase in the average number of dropped courses per semester. The *access sabotage* subscale was a marginally significant positive predictor of dropped courses per semester (p=.061), meaning that students who experience more access sabotage may be more likely to drop courses.

Table 24. Correlations among Scale Regression Predictors and Average Number of Dropped Courses Per Semester.

	Age	Educational Access Sabotage	Educational Success Sabotage
Dropped Courses	.310***	.115**	.029
Age		.066 †	052
Educational Access Sabotage			.623***
*** indicates p < .001, **	indicates p < .01,	* indicates p < .05, †	indicates p < .08 (marginal significance).

Table 25. Model Summary for Hierarchical Multiple Regression Predicting Average Number of Dropped Courses Per Semester to Establish Concurrent Validity. (N = 458)

Step	В	SE	β	R^2	ΔR^2
Step 1: F(5, 452) 13.23, p < .001				.118	
Gender*	10	.04	10		
Age***	.09	.01	.31		
Ethnicity**	11	.04	13		
Sexual Orientation	01	.05	01		
Cohabitation Status	09	.06	07		
Step 2: F(7, 450) 10.15, p < .001				.123	.005
Gender*	11	.04	11		
Age***	.08	.01	.30		
Ethnicity**	11	.04	13		
Sexual Orientation	01	.05	01		
Cohabitation Status	08	.06	06		
Educational Access Sabotage ⁺	.08	.04	.11		
Educational Success Sabotage	08	.03	02		
*** indiantes m < 001 ** indiantes m < 01 * indiantes m <	05 + indiantas m < 0	Q (manain	al signifia	0000)	

*** indicates p < .001, ** indicates p < .01, * indicates p < .05, † indicates p < .08 (marginal significance).

To examine the relationships among demographic characteristics and education sabotage with student loan debt, a hierarchical binary logistic regression was conducted. In Step 1, with age, gender, ethnicity, sexual orientation, and cohabitation status entered into the model, the regression model was not significant, $\chi^2(5, N = 440) = 6.65$, p = .248 (Table 26). With the addition of the education sabotage subscales, the regression model was still not significant, $\chi^2(7, N = 440) = 7.79$, p = .351. In the final model, age was a significant predictor, with older students being more likely to have student loan debt.

A hierarchical binary logistic regression was conducted to examine the relationship among demographic factors and education sabotage with decline in grades. The first step included age, gender, ethnicity, sexual orientation, and cohabitation status and was not significant, $\chi^2(5, N = 465) = 6.32$, p = .276 (Table 27). The second step, which added *educational access sabotage* and *educational success sabotage* was also not significant, $\chi^2(7, N = 465) =$ 12.21, p = .094. In the final model there were no significant predictors, but *educational access sabotage* was a marginally significant negative predictor (p=.051), which suggests students who experience greater levels of access sabotage may be more likely to have declining grades.

Establish Concurrent Vallally. (11 = 440)						
Step	В	SEB	Odds	95% CI	R^2	ΔR^2
			Ratio			
Step 1: $\chi^2(5, N = 440) = 6.65, p = .248$.015	
Gender	.38	.26	1.46	0.87 - 2.45		
Age*	.16	.08	1.17	1.01 - 1.36		
Ethnicity	11	.22	0.89	0.58 - 1.38		
Sexual Orientation	.04	.32	1.04	0.56 - 1.95		
Cohabitation Status	01	.33	0.99	0.52 - 1.88		
Step 2: $\chi^2(7, N = 440) = 7.79, p = .351$.018	.003
Gender	.38	.27	1.47	0.87 - 2.47		
Age*	.17	.08	1.19	1.02 - 1.38		
Ethnicity	12	.22	0.89	0.57 - 1.38		
Sexual Orientation	.09	.33	1.10	0.58 - 2.07		
Cohabitation Status	01	.33	0.99	0.52 - 1.89		
Educational Access Sabotage	12	.24	0.89	0.55 - 1.43		
Educational Success Sabotage	.17	.16	1.18	0.86 - 1.62		
Note. The Cox and Snell pseudo-R 2 was reported	d in this ar	nalysis.				

Table 26. Model Summary for Hierarchical Binary Logistic Regression Predicting Student Loan Debt to Establish Concurrent Validity. (N = 440)

*** indicates p < .001, ** indicates p < .01, * indicates p < .05, † indicates p < .08 (marginal significance).

The findings from the reliability analyses, correlations, hierarchical multiple regressions, and hierarchical binary logistic regressions provide support for the reliability and validity of the Education Sabotage scale as well as the *educational access sabotage* and *educational success sabotage* subscales. The reliability analyses indicated that the scale and subscales had acceptable reliability based on standards discussed in Tavakol and Dennick (2011). The subscales were significantly correlated with the work/school abuse subscales as well as the economic abuse subscales which provides evidence to support the convergent validity of the measure. The results from the regressions illustrated that education sabotage had significant associations with depression and financial anxiety, as well as a marginally significant association with number of dropper courses per semester and having declining grades. These findings provided preliminary evidence of the concurrent validity of the education sabotage measure.

Step	В	SE	Odds	95% CI	R^2	ΔR^2
1			Ratio			
Step 1: $\chi^2(5, N = 465) = 6.32, p = .276$.014	
Gender	-0.49	.40	0.62	0.28 - 1.36		
Age	-0.04	.10	0.96	0.79 - 1.16		
Ethnicity	0.08	.32	1.08	0.58 - 2.02		
Sexual Orientation	-0.7	.54	0.50	0.17 - 1.45		
Cohabitation Status	0.92	.62	2.51	0.75 - 8.44		
Step 2: $\chi^2(7, N = 465) = 12.21, p = .094$.026	.012
Gender	-0.55	.41	0.58	0.26 - 1.29		
Age	-0.02	.10	0.98	0.81 - 1.19		
Ethnicity	0.09	.32	1.10	0.58 - 2.06		
Sexual Orientation	-0.71	.55	0.49	0.17 - 1.45		
Cohabitation Status	1.06	.65	2.87	0.84 - 9.77		
Educational Access Sabotage ⁺	-0.61	.31	0.55	0.30 - 1.00		
Educational Success Sabotage	0.04	.23	1.04	0.67 - 1.61		
Note. The Cox and Snell pseudo-R 2 was reported	ed in this a	nalysis.				
		~ - • •				

Table 27. Model Summary for Hierarchical Binary Logistic Regression Predicting Decline in Grades to Establish Concurrent Validity. (N = 465)

*** indicates p < .001, ** indicates p < .01, * indicates p < .05, † indicates p < .08 (marginal significance).

Research Question 4: Does education sabotage contribute additional and unique information to explain the negative impacts associated with students' experiences of economic abuse after

controlling for the other forms of abuse?

Four hierarchical multiple regressions (DVs: depression, financial anxiety, grade point

average, and average number of dropped courses per semester) and two hierarchical binary

logistic regressions (DVs: student loan debt and decline in grades) were conducted to determine the unique contribution of the *educational access sabotage* and *educational success sabotage* constructs to the explained variance in students' outcomes. Because psychological and physical abuse co-occur with economic abuse and education sabotage, it was important to determine the unique contribution of education sabotage to the explained variance in students' outcomes above and beyond these other forms of abuse. The W/SAS was not included in the model because the items assess some of the same tactics assessed by the Education Sabotage scale, which can cause severe issues of multicollinearity. Additionally, the psychological and economic abuse variables included in the regression models were the full scales because including the subscales in the model created an issue with multicollinearity.

A hierarchical multiple regression was conducted to examine the relationship among demographic factors, physical abuse, psychological abuse, economic abuse, and education sabotage with depression (Table 28). The first step, which included age, gender, ethnicity, sexual orientation, and cohabitation status, was significant, F(5, 469) = 2.77, p = .018, and explained 1.8% of the variation in participants' depression scores (Table 29). With the addition of physical and psychological abuse, the second step was still significant, F(7, 467) = 15.20, p < .001, and added 15.5% explained variance. In the third step, economic abuse was added. The model was significant, F(8, 466) = 13.41, p < .001, but the explained variance stayed the same. *Educational access sabotage* and *educational access sabotage* were added in the final step, and the model was significant, F(10, 464) = 11.45, p < .001, and the explained variance in students' reported depression increased .8%. In the final model, sexual orientation, psychological abuse, and *educational success sabotage* were significant predictors of participant's depression scores. Sexual minority students reported greater depression than their heterosexual counterparts, and

increased experiences of psychological abuse and *educational access sabotage* were associated with increased depression.

To examine the relationship among demographic factors, physical abuse, economic abuse, and education sabotage with financial anxiety, a hierarchical multiple regression was conducted (Table 30). The first step included age, gender, ethnicity, sexual orientation, and cohabitation status, and was significant, F(5, 469) = 6.92, p < .001 (Table 31). The first step in the model explained 5.9% of the variance in students' financial anxiety. The second step, which added physical and psychological abuse, was also significant, F(7, 467) = 13.26, p < .001, and added 9.4% explained variance. The third step, which added economic abuse, F(8, 466) = 11.81, p < .001, was significant, but only added .1% explained variance. The final step, which added educational access sabotage and educational success sabotage, F(10, 464) = 9.62, p < .001, was significant, but the explained variance remained the same. In the final model, age, sexual orientation, and psychological abuse (marginal; p = .062) were positively associated with financial anxiety which means increases in age and psychological abuse experienced are associated with increased financial anxiety. Additionally, sexual minority students reported more financial anxiety than heterosexual students.

	Age	Physical	Psychological	Economic	Educational	Educational
		Abuse	Abuse	Abuse	Access	Success
					Sabotage	Sabotage
Depression	008	.340***	.404***	.194***	.301***	.340***
Age		020	002	.175***	.075†	054
Physical Abuse			.746***	.648***	.559***	.591***
Psychological Abuse				.526***	.589***	.753***
Economic Abuse					.594***	.347***
Educational Access						.613***
Sabotage						
*** indicates p < .001, *	** indicate	s p < .01, * in	dicates $p < .05, \dagger in$	ndicates $p < .08$	3 (marginal signific	cance).

Table 28. Correlations among Demographics, Intimate Partner Violence and Depression.

Step	В	SE	β	R^2	ΔR^2
Step 1: F(5, 469) 2.77, p = .018			<i>I</i> =	.018	
Gender	10	.08	06		
Age	01	.02	01		
Ethnicity	00	.07	00		
Sexual Orientation**	.31	.09	.15		
Cohabitation Status	.04	.10	.02		
Step 2: F(7, 467) 15.20, p < .001				.173	.155
Gender	09	.07	05		
Age	00	.02	00		
Ethnicity	.02	.06	.01		
Sexual Orientation**	.24	.09	.12		
Cohabitation Status	.07	.09	.03		
Physical Abuse	.13	.09	.09		
Psychological Abuse***	.27	.05	.33		
Step 3: F(8, 364) 13.41, p < .001				.173	.000
Gender	08	.07	05		
Age	.00	.02	.01		
Ethnicity	.02	.06	.01		
Sexual Orientation**	.24	.09	.12		
Cohabitation Status	.06	.09	.03		
Physical Abuse	.17	.10	.12		
Psychological Abuse***	.28	.05	.33		
Economic Abuse	10	.10	06		
Step 4: F(10, 362) 11.45, p < .001				.181	.005
Gender	09	.07	06		
Age	.00	.02	.01		
Ethnicity	.02	.06	.01		
Sexual Orientation**	.25	.09	.12		
Cohabitation Status	.09	.09	.04		
Physical Abuse	.16	.10	.11		
Psychological Abuse***	.23	.07	.28		
Economic Abuse	19	.11	11		
Educational Access Sabotage *	.17	.08	.14		
Educational Success Sabotage	.01	.06	.01		
*** indicates $p < .001$, ** indicates $p < .01$, * indicates $p < .05$, †	indicates $p < .08$	8 (margir	nal signifi	cance).	

Table 29. Model Summary for Hierarchical Multiple Regression Predicting Depression to Establish Unique Explained Variance of Education Sabotage. (N = 475)

Table 30. Correlations among Demographics, Intimate Partner Violence and Financial Anxiety.

	Age	Physical	Psychological	Economic	Educational	Educational
		Abuse	Abuse	Abuse	Access	Success
					Sabotage	Sabotage
Financial Anxiety	.206***	.287***	.314***	.263***	.260***	.259***
Age		020	002	.175***	.075†	054
Physical Abuse			.746***	.648***	.559***	.591***
Psychological Abuse				.526***	.589***	.753***
Economic Abuse					.594***	.347***
Educational Access						.613***
Sabotage						
*** indicates p < .001, *	** indicates	p < .01, * in	ndicates $p < .05, †$	indicates $p < .0$	8 (marginal signific	cance).

Step	В	SE	в	R^2	ΛR^2		
Step 1: $F(5, 469) 6.92, p < .001$	2		P	.059	211		
Gender	15	.12	06				
Age***	.14	.03	.19				
Ethnicity	03	.10	01				
Sexual Orientation**	.40	.14	.13				
Cohabitation Status	20	.15	06				
Step 2: F(7, 467) 13.26, p < .001				.153	.094		
Gender	14	.11	05				
Age***	.14	.03	.20				
Ethnicity	.00	.10	.00				
Sexual Orientation*	.32	.14	.10				
Cohabitation Status	16	.14	05				
Physical Abuse ⁺	.26	.14	.12				
Psychological Abuse**	.28	.08	.21				
Step 3: F(8, 466) 11.81, p < .001				.154	.001		
Gender	15	.11	06				
Age***	.14	.03	.19				
Ethnicity	.00	.10	.00				
Sexual Orientation*	.33	.14	.10				
Cohabitation Status	15	.14	05				
Physical Abuse	.18	.16	.08				
Psychological Abuse**	.27	.08	.21				
Economic Abuse	.20	.16	.07				
Step 4: F(10, 362) 9.62, p < .001				.154	.000		
Gender	17	.11	06				
Age***	.14	.03	.19				
Ethnicity	.00	.10	.00				
Sexual Orientation*	.33	.14	.10				
Cohabitation Status	13	.14	04				
Physical Abuse	.16	.16	.07				
Psychological Abuse ⁺	.20	.10	.15				
Economic Abuse	.16	.18	.06				
Educational Access Sabotage	.09	.12	.05				
Educational Success Sabotage	.06	.10	.05				
*** indicates $p < .001$, ** indicates $p < .01$, * indicates $p < .05$, † indicates $p < .08$ (marginal significance).							

Table 31. Model Summary for Hierarchical Multiple Regression Predicting Financial Anxiety to Establish Unique Explained Variance of Education Sabotage. (N = 475)

Age, gender, ethnicity, sexual orientation, and cohabitation status were entered into the first step of the regression and was found to be significant, F(5, 451) = 13.22, p < .001, explaining 11.8% of the variation in the average number of courses students drop per semester (Table 33). With the addition of the physical and psychological abuse, in step 2, the model was still significant, F(7, 449) = 10.16, p < .001, and the explained variance increased .5%. In the third step, economic abuse was added. The model was significant, F(8, 448) = 9.18, p < .001,

and added .2% explained variance. The final model included the addition of the education sabotage subscales. The final model was found to be significant, F(10, 446) = 7.53, p < .001, but the explained variance stayed the same. In the final model, the significant predictors were age, gender, and ethnicity. Ethnic minority students, women, and older students had more dropped courses per semester when compared to White students, men, and younger students.

Table 32. Correlations among Demographics, Intimate Partner Violence and Average Number of Dropped Courses Per Semester.

	Age	Physical	Psychological	Economic	Educational	Educational	
		Abuse	Abuse	Abuse	Access	Success	
					Sabotage	Sabotage	
Dropped Courses	.310***	.039	.092*	.139**	.115**	.029	
Age		025	001	.188***	.067†	052	
Physical Abuse			.745***	.606***	.522***	.582***	
Psychological Abuse				.517***	.580***	.754***	
Economic Abuse					.537***	.329***	
Educational Access Sabotage						.623***	

*** indicates p < .001, ** indicates p < .01, * indicates p < .05, † indicates p < .08 (marginal significance).

To examine the relationship among demographic characteristics, physical abuse, economic abuse, and education sabotage with student loan debt, a hierarchical binary logistic regression was conducted. In Step 1, with age, gender, ethnicity, sexual orientation, and cohabitation status entered into the model, the regression model was not significant, $\chi^2(5, N =$ 439) = 6.69, *p* =.245 (Table 34). With the addition of the physical and psychological abuse measures, the regression model was still not significant, $\chi^2(7, N = 439) = 7.07$, *p* = .421. The third step included the addition of economic abuse, and again the model was not significant, $\chi^2(8, N = 439) = 7.14$, *p* = .522. In the final step, *educational access sabotage* and *educational success sabotage* were added to the model, and the model was significant $\chi^2(10, N = 439) = 8.14$, *p* = .615, adding .2% explained variance. In the final model, age was the only significant predictor, with an increase in age being associated with a greater likelihood of having higher student loan

debt.

Table 33. Model Summary for Hierarchical Multiple Regression Predicting Average Number of Dropped Courses Per Semester to Establish Unique Explained Variance of Education Sabotage. (N = 457)

Step	B	SE	β	R^2	ΔR^2
Step 1: F(5, 451) 13.22, p < .001				.118	
Gender*	10	.04	10		
Age***	.09	.01	.31		
Ethnicity**	11	.04	13		
Sexual Orientation	01	.05	01		
Cohabitation Status	09	.06	07		
Step 2: F(7, 449) 10.16, p < .001				.123	.005
Gender*	09	.04	09		
Age***	.09	.01	.31		
Ethnicity**	12	.04	13		
Sexual Orientation	02	.05	01		
Cohabitation Status	09	.06	07		
Physical Abuse	05	.06	06		
Psychological Abuse*	.07	.03	.13		
Step 3: F(8, 448) 9.18, p < .001				.125	.002
Gender*	10	.05	10		
Age***	.08	.01	.29		
Ethnicity**	12	.04	13		
Sexual Orientation	01	.05	01		
Cohabitation Status	09	.06	07		
Physical Abuse	09	.06	10		
Psychological Abuse [†]	.06	.03	.12		
Economic Abuse	.10	.07	.08		
Step 4: F(10, 446) 7.53, p < .001				.125	.000
Gender*	10	.05	10		
Age***	.08	.01	.29		
Ethnicity***	12	.04	13		
Sexual Orientation	01	.05	01		
Cohabitation Status	09	.06	07		
Physical Abuse	09	.06	10		
Psychological Abuse	.07	.04	.14		
Economic Abuse	.06	.07	.05		
Educational Access Sabotage	.06	.05	.08		
Educational Success Sabotage	04	.04	07		

*** indicates p < .001, ** indicates p < .01, * indicates p < .05, † indicates p < .08 (marginal significance).

Establish Unique Explained Variance of Eau Stop	cation Sabol P	age. (N = SER	=439) Odds	05% CI	D ²	1 D ²
Step	D	SED	Ratio	9570 CI	Λ	ΔK
Step 1: $y^2(5 \text{ N} = 439) = 6.69 \text{ n} = 245$			Кино		015	
Gender	39	27	1 47	0.88 - 2.47	.015	
Age*	16	.27	1.17	1.01 - 1.36		
Ethnicity	- 12	22	0.89	0.57 - 1.38		
Sexual Orientation	05	32	1.05	0.57 - 1.96		
Cohabitation Status	- 02	33	0.98	0.50 - 1.90 0.52 - 1.87		
Step 2: $\gamma^2(7, N = 439) = 7.07, p = .421$.02		0.90	0.02 1.07	.016	.001
Gender	.37	.27	1.45	0.87 - 2.45	1010	1001
Age*	.16	.08	1.17	1.01 - 1.37		
Ethnicity	12	.23	0.89	0.57 - 1.39		
Sexual Orientation	.06	.32	1.06	0.56 - 2.00		
Cohabitation Status	02	.33	0.98	0.52 - 1.87		
Physical Abuse	09	.33	0.91	0.47 - 1.76		
Psychological Abuse	.12	.20	1.12	0.76 - 1.66		
Step 3: $\gamma^2(8, N = 439) = 7.14, p = .522$	=			0170 1100	.016	.000
Gender	.38	.27	1.46	0.87 - 2.46		
Age*	.16	.08	1.17	1.00 - 1.37		
Ethnicity	12	.23	0.89	0.57 - 1.38		
Sexual Orientation	.05	.33	1.05	0.56 - 1.99		
Cohabitation Status	02	.33	0.98	0.52 - 1.87		
Physical Abuse	14	.38	0.87	0.42 - 1.83		
Psychological Abuse	.11	.20	1.12	0.75 - 1.66		
Economic Abuse	.10	.40	1.11	0.51 - 2.42		
Step 4: $\gamma^2(10, N = 439) = 8.14, p = .615$.018	.002
Gender	.40	.27	1.49	0.88 - 2.51		
Age*	.16	.08	1.18	1.01 - 1.38		
Ethnicity	12	.23	0.89	0.57 - 1.38		
Sexual Orientation	.08	.33	1.08	0.57 - 2.05		
Cohabitation Status	03	.33	0.99	0.52 - 1.88		
Physical Abuse	01	.38	0.84	0.40 - 1.78		
Psychological Abuse	-11	.25	0.99	0.61 - 1.61		
Economic Abuse	.22	.44	1.25	0.53 - 2.93		
Educational Access Sabotage	14	.28	0.87	0.50 - 1.51		
Educational Success Sabotage	.20	.21	1.23	0.82 - 1.84		
Note. The Cox and Snell pseudo-R 2 was reported in this analysis.						
*** indicates $p < .001$, ** indicates $p < .01$, * indicates $p < .05$, † indicates $p < .08$ (marginal significance).						

Table 34. Model Summary for Hierarchical Binary Logistic Regression Predicting Student Loan Debt to Establish Unique Explained Variance of Education Sabotage, (N = 439)

A hierarchical binary logistic regression was conducted to examine the relationship among demographic factors, physical abuse, economic abuse, and education sabotage with decline in grades. The first step included age, gender, ethnicity, sexual orientation, and cohabitation status, and was not significant, $\chi^2(5, N = 464) = 5.98$, p = .308 (Table 35). The second step, which added physical and psychological abuse, was significant, $\chi^2(7, N = 464) =$ 19.91, p = .006, explaining 2.9 % variance in change in grades. Economic abuse was added in the third step, and the model was significant, $\gamma^2(8, N = 464) = 22.81, p = .004$, adding .6% explained variance. The final step included the addition of the education sabotage subscales. The final model was significant $\chi^2(10, N = 464) = 31.22, p = .001$, and explained an additional 1.7% of the variation in whether or not students' grades declined. In the final model, psychological abuse, economic abuse, and educational success sabotage were found to be significant predictors of whether or not students' grades declined. Students experiencing more frequent psychological abuse were more likely to have declining grades when compared to students with less frequent experiences of psychological abuse, and students experiencing more frequent Educational success sabotage and economic abuse were less likely to have declining grades. After removing psychological abuse from the model, educational success sabotage was no longer significant, but access sabotage had a marginally significant association with change in grades, which suggests controlling for psychological abuse may account for the negative impact on change in grades associated with education sabotage. Another possible explanation is that the education sabotage subscales do not have incremental validity when psychological abuse is included in the model. This means the education sabotage subscale does not increase predictive ability of declining grades above and beyond the current measure of psychological abuse.

The findings from the hierarchical multiple regressions and hierarchical binary logistic regressions provide some evidence to support the hypothesis that education sabotage contributes to the explained variance of negative outcomes above and beyond the contribution of other forms of IPV. The results from the regressions illustrated that education sabotage has a significant negative association with depression, which highlights that experiencing educational sabotage can have an impact on some students' outcomes even after controlling for experiences of physical, psychological, and economic abuse. The significant positive association between

educational success sabotage disappears with the removal of psychological abuse from the model, and access sabotage emerges as a marginally significant negative predictor of change in grades. This suggests that controlling for psychological abuse may account for the variance in education sabotage contributing to negative changes in grades, but education sabotage can contribute to negative changes in grades after controlling for only physical and economic abuse.

Establish Unique Explained Variance of Educa Step	R R	<u>lge. (N –4</u> SFR	Odds	05% CI	P ²	AR^2
Step	D	SLD	Ratio	9570 CI	К	
Step 1: $\gamma^2(5 \text{ N} = 464) = 5.98 \text{ n} = -308$			Rano		013	
Gender	-0 47	41	0.63	0.28 - 1.38	.015	
Age	-0.05	10	0.96	0.20 - 1.15		
Ethnicity	0.06	.32	1.06	0.57 - 1.98		
Sexual Orientation	-0.68	.54	0.51	0.18 - 1.47		
Cohabitation Status	0.91	.62	2.48	0.74 - 8.34		
Step 2: $\gamma^2(7, N = 464) = 19.91, p = .006$.042	.029
Gender	-0.44	.42	0.64	0.29 - 1.45		
Age	-0.04	.09	0.96	0.80 - 1.49		
Ethnicity	0.13	.33	1.14	0.59 - 2.18		
Sexual Orientation	-0.89	.56	0.41	0.14 - 1.24		
Cohabitation Status	1.03	.63	2.81	0.81 - 9.72		
Physical Abuse	-0.26	.38	0.77	0.37 - 1.62		
Psychological Abuse*	-0.46	.23	0.63	0.40 - 0.99		
Step 3: $\chi^2(8, N = 464) = 22.81, p = .004$.048	.006
Gender	-0.37	.41	0.69	0.31 - 1.55		
Age	-0.10	.10	0.91	0.75 - 1.11		
Ethnicity	0.14	.34	1.15	0.29 - 2.21		
Sexual Orientation	-0.98	.58	0.37	0.12 - 1.17		
Cohabitation Status	1.00	.63	2.71	0.79 - 9.30		
Physical Abuse	-0.56	.43	0.57	0.25 - 1.32		
Psychological Abuse*	-0.51	.23	0.60	0.38 - 0.95		
Economic Abuse	0.81	.53	2.26	0.81 - 6.32		
Step 4: $\chi^2(10, N = 464) = 32.22, p < .001$.065	.017
Gender	-0.29	.42	0.75	0.33 - 1.69		
Age	-0.08	.11	0.92	0.75 - 1.13		
Ethnicity	0.19	.34	1.21	0.62 - 2.37		
Sexual Orientation	-0.81	.59	0.45	0.14 - 1.41		
Cohabitation Status	0.96	.63	2.60	0.75 - 9.00		
Physical Abuse	-0.71	.46	0.49	0.20 - 1.21		
Psychological Abuse**	-0.97	.32	0.38	0.20 - 0.71		
Economic Abuse*	1.32	.57	3.74	1.23 - 11.35		
Educational Access Sabotage	-0.56	.38	0.57	0.27 - 1.20		
Educational Success Sabotage**	0.88	.33	2.41	1.27 - 4.58		

Table 35. Model Summary for Hierarchical Binary Logistic Regression Predicting Decline in Grades to Establish Unique Explained Variance of Education Sabotage. (N = 464)

Note. The Cox and Snell pseudo-R 2 was reported in this analysis.

*** indicates p < .001, ** indicates p < .01, * indicates p < .05, † indicates p < .08 (marginal significance).

DISCUSSION

There is extensive research to show that many college students experience IPV, and other research has illustrated that many of those who experience physical, psychological, or sexual IPV may also be experiencing economic abuse. Only one prior study has examined college students' experiences of economic abuse. The study was conducted with a community a community college sample and did not assess education sabotage. The current study examined college students' experiences of economic abuse among students attending a four-year university and found that nearly one in five students (18%) reported experiencing some form of economic control or economic restriction over the past year. This finding partially supports the first hypothesis with the proportion of college students who experienced economically abusive tactics that are not directed at their education, being significantly lower than the proportion of IPV survivors who experienced economically abusive tactics that are not directed at their education. However, the analyses indicated that a greater proportion of college students report experiencing economically abusive tactics that are not directed at their education when compared to the general public. Further exploration into the differences between this sample of college students and the general public sample from Kutin and colleagues (2017) illustrated that the proportion of female participants experiencing economically abusive tactics that are not directed at their education did not differ between the two samples, but a significantly higher proportion of male students reported experiencing economically abusive tactics that are not directed at their education when compared to males in the general population.

There are multiple possible explanations for this finding. For example, Sinozich and Langton (2014) reported that 18 to 24-year-old male students are significantly more likely to

report sexual assault than male non-students of the same age. Brady, Nobles, and Bouffard (2017) reported that college students are more likely to experience stalking when compared to non-students, but this difference does not exist when comparing 18 to 24-year old students to non-students. Therefore, male college students may be more likely to experience economically abusive tactics that are not directed at their education when compared to non-students their age. Additionally, students' age may at least explain why male students were more likely to report experiencing economically abusive tactics that are not directed at their education than a general sample population which included older adult males. Further exploration of the difference is needed to better understand if this age difference exists, and if so, why.

The current study also examined whether demographic differences exist in prevalence rates of economic abuse. The study found that male, sexual minority, and ethnic minority students reported experiencing more economic restriction (economic control) compared to female, heterosexual, and White students, and cohabitating students were more likely to experience education access sabotage when compared to their non-cohabitating counterparts. Male students also experience more frequent academic restraint when compared to their female counterparts. These findings are consistent with previous research on other forms of IPV. While some studies have reported that women experience intimate abuse at the same or higher rates than men, other studies have reported male students experience physical and/or psychological abuse at a higher rate than female students (Cercone, Beach, & Arias, 2005; Harned, 2001). One possible explanation for the gender differences found may be self-selection into the study. The students were made aware before choosing to enroll in the study that the topic of focus was their experiences with IPV. Females, even those who have not experienced IPV, may be more likely to participate in a study on this topic as it is viewed as a gender-based issue, and more likely to

impact their lives. Males who had not experienced IPV may have been less inclined to participate in the study, as they may not have seen the topic as relating to their lives. This would explain the vast differences in the male and female sample sizes for the current study and may also explain the gender differences that were found as the prevalence rates of males would be inflated due to self-selection into the study. It is also important to note that research has reported that, while males may experience dating violence at similar or even higher rates than females, females experience more severe impacts or injuries than males (Harned, 2001; Straus, 2004).

Previous research has also suggested that individuals who identify as sexual minorities are more likely to experience multiple forms of IPV when compared to their heterosexual counterparts (Messinger, 2011; Walters, Chen, J., Breiding, 2013). Specifically, students who identify as sexual minorities are more likely to report experiencing physical abuse, sexual abuse, and unwanted pursuit when compared to heterosexual students (Edwards et al., 2015).

Studies examining ethnic differences in experience of IPV have reported that ethnic minorities have a higher prevalence rates when compared to their White counterparts (Breiding et al., 2014; Caetano et al., 2005; Ellison, et al., 2007;). Specifically, in a study conducted with college students, being a racial and ethnic minority student was significantly associated with greater levels of threats and physical abuse when compared to White students, and Black students were more likely to experience physical abuse when compared to White students. (Roudsari et al., 2009; White 2017).

In addition to understanding the prevalence of economic control and exploitation among college students from various demographic backgrounds, this study sought to understand the unique aspects of economic abuse experienced by college students. Through interviews with advocates who work on college campuses, items were developed to assess an aspect of economic

abuse unique to college students. These newly developed items assessed education sabotage which can impact students' future earning potential by interfering with or preventing access to an education. The factor analysis revealed two subscales (*educational access sabotage* and *educational success sabotage*), and the overall Education Sabotage scale as well as both subscales were found to have acceptable reliability.

It was hypothesized that correlational and regression analyses would provide support for the validity of the education sabotage subscales. Both education sabotage subscales were found to be positively correlated with the W/SAS and SEA II subscales, which provided support for the convergent validity of the subscales, and the results of the regression analyses provided support for the concurrent validity of the *educational access sabotage* and *educational success sabotage* subscales. The results of the regression analyses partially supported the hypothesis. Both subscales were significant predictors of participants' depression scores, which is consistent with prior research on the negative impacts associated with IPV, and specifically other forms of economic abuse. Prior research has shown that economic abuse is positively associated with depression (Davilla et al., 2017; Postmus et al., 2012a; Voth Schrag, 2015). Research has indicated that, even when controlling for financial hardships, experiencing economic abuse was associated with a greater likelihood of meeting the clinical cutoff for depression (Voth Schrag, 2015). Educational success sabotage and educational access sabotage were also significant predictors of financial anxiety, which is consistent with studies that reported other forms of economic abuse were associated with negative financial impacts (Adams et al, 2008; Howard & Skipp, 2015; Sanders, 2015; Sharp, 2008). Adams and colleagues (2008) specifically highlighted that economic control and economic exploitation are significant predictors of economic hardship even after controlling for demographic variables, physical abuse, and psychological abuse. The

educational access sabotage subscale was also a marginally significant predictor of students' average number of dropped courses as well declines in students' grades, which is consistent with prior research on the educational impacts of IPV. Studies have shown that experiencing IPV is associated with lower grades (Brewer, Thomas, & Higdon, 2018; Mengo, & Black, 2016). Additionally, while studies have not specifically examined the number of dropped courses, prior research has suggested IPV contributes to survivors dropping out of school completely or missing classes due to abuse (Riger et at., 2000; Voth Schrag, 2017; Voth Schrag, 2019).

It was also hypothesized that education sabotage would contribute unique additional information in explaining the negative outcomes associated with IPV after controlling for physical, psychological, and other forms of economic abuse (control and exploitation). The results indicated that the hypothesis was not supported. After controlling for psychological abuse, physical abuse, and other forms of economic abuse (control and exploitation), educational success sabotage was found to be a significant predictor of depression and decline in students' grades but contributed less than 1% unique explained variance for each outcome. Educational success sabotage did not contribute any unique variance in explaining financial anxiety, number of dropped courses, amount of student loan debt, and educational access sabotage did not provide any additional explained variance for any of the negative outcomes. These findings suggest that even though access sabotage is a statistically significant predictor of depression and grades even after controlling for other forms of abuse, it is not a practically significant predictors as these subscales add nearly no unique explained variance. This is partially consistent with research conducted on other forms od economic abuse. Specifically, Adams and colleagues (2008) reported that, even after controlling for demographics, physical abuse, and psychological abuse, economic control and exploitation were significant predictors of economic hardship;

however, Adams et al. (2008) reported that economic control provided a substantial increase in explained variance of economic problems even after controlling for physical and psychological abuse. One possible explanation for the lack of unique explained variance contributed by the education sabotage subscales is that multiple forms of IPV are co-occurring. The current study found that, of those who experienced education sabotage, 61% experienced some form of physical abuse and 86% experienced some form of psychological abuse. The co-occurrence between education sabotage and other forms of abuse, especially psychological abuse, can decrease the explained variance in negative outcomes because the experience of education sabotage has a strong positive correlation with the experiences of the other forms of IPV, specifically psychological abuse. The high rate of co-occurrence between education sabotage and other forms of unique explained variance contributed by the education sabotage and other forms of IPV, specifically psychological abuse. The high rate of co-occurrence between education sabotage and other forms of IPV as well as the lack of unique explained variance contributed by the education sabotage scales, may suggest a lack of incremental validity.

Overall, the findings did partially support the hypotheses. Nearly one in five students reported experiencing economic control or economic exploitation, which is significantly higher than prevalence rates identified with general public samples. This difference was only found for males, which may be attributed to the variation in age between the two samples or to self-selection into this study. The Education Sabotage scale and both subscales were found to be reliable, and significantly correlated with the SEA II and W/SAS subscales, which was expected since six subscales were measuring aspects or economic abuse. The results also indicated that the education sabotage subscales were significant predictors of negative outcomes associated with IPV (i.e. depression, financial anxiety, number of dropped courses, and decline in students' grades), but less than 1% unique explained variance in students' depression scores and decline in grades even when controlling for psychological, physical, and other forms of economic abuse.

Study Limitations

Findings should be considered in light of study limitations. One limitation was that the data were likely missing not at random, which prevented the use of multiple imputations. When data is missing not at random, caution must be taken generalizing the results beyond the current sample. However, it is important to note that the missing data was only an issue for the regression models. Utilizing the pairwise deletion method, no model had more than 10% of the participants excluded, and the participants excluded did not significantly differ on any of the regression model predictors. Socioeconomic status was impacted by missing data and was not included in the regression models. I believe using a fill in the blank method for collecting information about their parents' jobs contributed to the amount of missing information for socioeconomic status scores.

Another study limitation was the lack of diversity in the sample. The sample was mainly female, White, heterosexual, and non-cohabiting students 20 years old or younger, and all students attended Michigan State University, where only 21% of students qualify for Pell grants, and 10% are first-generation students (Planning & Budgets, n.d.). Attempts were made to recruit community colleges from different regions of the country to participate in the study, but I was not able to recruit any additional colleges to participate. Because of the lack of diversity in the sample, the scale could not be validated for separate groups, and comparisons made between groups were restricted to a majority group versus minority group comparisons. For example, even though missing data was an issue with socioeconomic status, the participants in the current study would did report valid information had relatively high socioeconomic scores, with half scoring above a 53 (range 8 to 66). This may mean students with fewer financial resources have either dropped out or attended a different college. Additionally, the current study had a small

ethnic minority sample, which may be why ethnic differences in negative outcomes may were not detected. Research has been inconsistent on whether or not racial and ethnic differences exist in IPV rates, but it is consistently reported that racial minorities have fewer financial resources and less wealth, which is related to college attendance and graduation (Pfeffer, & Schoeni, 2016). The lack of financial resources among ethnic minority students may impact their college attendance and continuation and can even exacerbate their experience of economic abuse resulting in increased dropout rates. The inclusion of a community college would have strengthened the study because community colleges typically have a more diverse student population such as older and returning students, students from economically diverse backgrounds, and first-generation students, and the students from a community college sample reported higher prevalence rates of economic abuse (control and exploitation) when compared to the students in the current study (Voth Schrag & Ravi, 2020).

Another limitation of this study was the data collection method, specifically the use of self-reporting, which can lead to inaccurate reporting of behaviors. However, the data was collected online instead of through in-person or phone interviews, which may reduce this bias. Research has shown that individuals may be more open to disclosing sensitive information in online surveys because the sense of privacy provided by the data collection method, and males report even greater disclosure in online surveys (Booth-Kewley, Larson, & Miyoshi, 2007; Gnambs, & Kaspar, 2015; Kays, Gathercoal, & Buhrow, 2012). The different methodology for data collection may be one contributing factor in the difference in reported economic abuse (control and exploitation) experienced by males in the current sample compared to males in an Australian sample from the general public (Kutin et al., 2017).

Finally, the current study was conducted with students currently enrolled in college. Therefore, some negative impacts that may be associated with education sabotage, such as dropping out of college, could not be examined. In addition, restricting the sample to students still enrolled in college may have resulted in the research excluding more extreme or persistent experiences of education sabotage among students that were not able to continue their education. Prior research has reported that survivors of IPV have been forced by their partner to leave school (Riger et al., 2000).

Implications

The current study found that economic abuse including economic control, economic exploitation and education sabotage are being experienced by college students. Therefore, college campuses need to address the occurrences and consequences of these understudied forms of IPV and ensure the emotional, educational, and financial safety of students. To do so, campuses should increase students' awareness and recognition of these forms of IPV, provide protection to students experiencing these forms of abuse, offer assistance with educational impacts, and develop financial resources that can support students in continuing and obtaining their educational goals.

To assist in the prevention of economic abuse including education sabotage, students should be informed on how these tactics are abusive, especially since qualitative research and the interviews conducted for this study with advocates working on college campuses provide anecdotal evidence that students do not always recognize economic abuse including education sabotage as abuse. One way to educate students is by including topics focused on economic control, economic exploitation, and education sabotage into trainings provided by colleges. College campuses are required to offer IPV prevention and awareness programs to new students

(American Council on Education, 2014). By incorporating the topics of economic abuse into training materials, campuses can increase the awareness and recognition among students, which can increase students' ability to access assistance.

Increasing students' awareness is only an initial step in addressing economic abuse including education sabotage on college campuses. Action by college campuses should be taken to ensure students have access to needed resources. For example, an academic policy that can assist survivors of educational sabotage is the Violence Against Women Reauthorization Act which provides guidelines for universities to investigate cases and discipline perpetrators of IPV. This act requires universities to outline "sanctions or protective measures" that address occurrences of IPV (American Council on Education, 2014). By ensuring economic abuse is included under IPV investigations, universities will provide students an opportunity for civil recourse on campus which can prevent ongoing victimization.

In addition to policies aimed at preventing students' continued experience of abuse, universities should implement policies aimed at assisting students experiencing negative consequences associated with educational sabotage. Campuses can create policies mandating professors to work with students experiencing abuse. These policies can include allowing students experiencing abuse to make up missed exams or assignments and drop courses after the official drop date without penalty to their Satisfactory Academic Progress standings. Campuses have these policies for students experiencing medical issues that interfere with their ability to continue their education. Therefore, these policies should be adapted to include students experiencing abuse to prevent students from failing courses, being placed on academic probation, losing financial aid, and possibly dropping out.

Campuses should also have in place resources for students who have been financially impacted by IPV, especially economic abuse such as economic control exploitation, and education sabotage, as those can increase economic hardship and financial anxiety. Some colleges already have emergency funds designated for students experiencing financial hardships. For example, the California Community College Chancellors Office has developed the Student Equity and Achievement Program (SEAP) which allows colleges to provide funding to assist eligible students with unexpected financial hardships that directly affect students' capability to continue their education (AB-943, 2019). These grants can assist with costs associated with housing, food, transportation, and textbooks. Programs such as this should be implemented nation-wide on college campuses and should be available to students experiencing economic abuse including education sabotage. By providing emergency financial assistance to students experiencing economic abuse including education sabotage, colleges will not only assist with the financial hardships students are experiencing, but they will also increases students' ability to continue with and complete their educational goals.

Future Directions in Research

Given that economic control and economic exploitation in non-help seeking populations and education sabotage have rarely been studied, there is a great need for additional research on economic abuse. It is important to note that only 18% of the students who participated in this study reported experiencing economic control or exploitation in the past year. Given the low endorsement of these items by the student participants in the current study, these forms of economic abuse may not be as pertinent of an issue for student populations; however, there is not enough evidence to make this determination. Future research should continue to examine the experiences of economic abuse in the general population and among diverse college students.

These additional studies can assist in understanding the prevalence rates of economic abuse in the United States and among college students, and additional research can provide insight into the differences in the prevalence rates between male college students and males in an Australian general population sample.

Additionally, the Education Sabotage Scale should be pilot tested with students from other college campuses, including community colleges, given that students at community colleges may have differing experiences due to greater diversity in sociodemographic characteristics. Voth Schrag and Ravi (2020) recently conducted a study on community college students experience of economic control and economic exploitation and reported greater prevalence rates than the prevalence rates of the students who participated in this, which may suggest that community college students experience the four financial related items removed from the Education Sabotage Scale at higher rates. Therefore, not only is data on education sabotage experienced by students from community colleges and diverse backgrounds needed to confirm the factor structure and reliability of the Education Sabotage Scale, it is critical that the four financial related items that were removed from the Education Sabotage Scale, are included in future-pilot tests to ensure all aspects of education sabotage are assessed across various populations.

While the results provide support for concurrent and convergent validity, the findings do not provide enough evidence to support incremental validity. To further establish the validity of the Education Sabotage Scale, additional analyses are needed. The education sabotage subscales did not increase the predictive ability above and beyond psychological, physical, and other forms of economic abuse combined which suggests the Education Sabotage Scale may lack incremental validity ; however, to determine if the education sabotage scale is a better measurement of

students' unique experience of economic abuse future studies should assess the incremental validity of the Education Sabotage Scale above and beyond the SEA II and W/SAS only. This analysis would provide further insight into the validity of the Educational Sabotage Scale, and can provided statistical evidence to support the theoretical arguments made as to why the current measures of economic abuse including school interference are insufficient to capture students' unique experiences of economic abuse.

The future studies on economic abuse including education sabotage should also examine the impact of demographic variables on negative outcomes to determine if negative impacts associated with economic abuse are more severe based on demographic characteristics, as is the reported case for women who experience other forms of IPV. As previously discussed, the sample lacked diversity, and therefore the current study was limited in examining the roles demographic characteristics may play in the impacts of economic control, economic exploitation, and education sabotage. Therefore, future studies should actively seek ethnically diverse samples when assessing education sabotage, and these studies should not be limited to current students, as it may overlook individuals who were forced to drop out of school due to their experiences being exacerbated by lack of resources. Additionally, even though socioeconomic status was not included in models for the current study due to missingness, the participants that reported valid information did have relatively high socioeconomic score. Therefore, to truly understand the impact of socioeconomic status on the negative outcomes associated with economic abuse, including education sabotage, future studies will have to seek out diverse populations, such as students at university serving low-income students or community colleges.

Finally, given the relationship between socioeconomic status and IPV, and the amount of missing data for socioeconomic status in the current study, future studies should explore better

ways to assess socioeconomic status among dependent students. One possible example when using Hollingshead's Four Factor Index, is creating a multiple-choice option for job categories rather than using a fill in the blank option. Another option would have been to use parents' education attainment as a single predictor. According to a factsheet distributed by the London School of Economics (2010), teenagers can be expected to know their parents' level of educational attainments, and education can serve as a proxy for socioeconomic status. This would have been appropriate for the current study as very few students were missing information on their parents' educational attainment.

Conclusion

While additional research is needed to better understand students' experience of economic abuse, and the prevalence as well as impact of education sabotage, this study illustrates that college students are experiencing economic abuse including education sabotage, and education sabotage is associated with negative emotional, financial, and educational outcomes. Therefore, college campuses should focus on educating students about these often overlooked forms of abuse, and campuses should implement institutional policies offering protection, educational assistance, and financial resources for students experiencing economic control, economic exploitation, and education sabotage to ensure survivors have an equitable opportunity to continue with and successfully complete their educational goals.

APPENDICES

Appendix A

Recruitment Email

Subject Line: Participants being sought for interviews on college students' experiencing economic abuse. Greetings.

My name is Tyler Virden and I am a Ph.D. student from the Ecological-Community Psychology department at Michigan State University. I am writing to invite you to participate in a telephone interview about college students' experience with economic abuse. You're eligible to be in this study because you work as an advocate on a college campus. I obtained your contact information from your program's website.

Too little is known about how economic abuse impacts college students and I would like to create a tool measuring this experience so we can improve policies and practices. Given your expertise in the area, I'd like to learn from your experiences and perceptions.

The phone interview should take 30-45 minutes and you will receive a \$20 gift card via email for participating. This is completely voluntary -- you can choose to be in the study or not. If you'd like to participate or hear more about the study, please email or contact me at virdenty@msu.edu.

Thank you very much. Tyler Virden

Appendix B

Original Interview Protocol

Thank you for agreeing to participate in this interview. I am currently enrolled in a qualitative methods course and this interview is part of a learning experience for this course. The reason I am talking to you today is because I would like to understand more about traditional college students' experiences of economic abuse by an intimate partner.

For this interview, economic abuse will be generally defined as financial exploitation or control over economic resources that reduces an individual's ability to support themselves. Additionally, for this interview when I refer to students, I mean a student that enrolled in college immediately after high school, attends full-time, and completed or plans to complete a Bachelor's program in approximately 4 to 5 years.

The interview will last approximate 45 minutes and your participation is voluntary, meaning you can stop the interview at any time and/or choose not to answer any question. With your consent, the interview will be recorded. I will be the only one with access to the recording, and the recording will be stored on a secured computer. Finally, only my professor and I will have access to the transcripts and your name/identifying information will not be present on these transcripts. Do you have any questions before we start?

I would like to start the interview by asking you about your definition of economic abuse.

1. When meeting with a student, what are you looking for to determine if economic abuse is happening?

Everyone has their own way of defining economic abuse, but throughout this interview I would like you to think of economic abuse as falling into one of two categories. Economic control which refers to behaviors that control a women's access to and use of resources such as keeping them from going to school, demanding they quit school, keeping money from them, etc. and economic exploitation which refers to behaviors that economically exploit women such as build debt in their name (credit cards, student loans, running bills up), pawn their property (including school supplies), spend their money they need for other things including school supplies, etc. (Give copy of definitions) Now that we have a shared definition of economic abuse, let's talk a bit about the experiences of economic abuse among college students you have encountered.

2. Can you give me an example of economic abuse among students you have worked with?

3. How often do you come across students that have experienced economic abuse?

4. When thinking about what college students experience, what are some aspects of economic control that are unique to college students? What are some aspects that a similar to those not in college?

5. When thinking about what college students experience, what are some aspects of economic exploitation that are unique to college students? What are some aspects that a similar to those not in college?

Thank you for sharing what you have seen with me. I know this is a very delicate topic, and I really appreciate the unique insight you have to offer. Can you tell me more about how students experience economic abuse? Specifically.....

6. How do students that are experiencing economic abuse describe what is happening to them?

Those are all of the questions I have.

Before I turn off the recorder is there anything else you think I should know about this topic?
Well, I would like to thank you for taking the time to meet with me. I know you are very busy, and I greatly appreciate your willingness to participate. You have provided me with great insights which will foster a better understanding of economic abuse among college students. If you have any questions or think of anything you would like to add please feel free to contact me at <u>virdenty@msu.edu</u> (give contact info). Thank you again for giving me your time and sharing your knowledge with me. Have a wonderful day.

Appendix C

Updated Interview Protocol

The purpose of this interview is to understand economic abuse by an intimate partner for the student populations you work with. While there is some literature available about economic abuse regarding elders and non-students, relatively little is known about what economic abuse looks like in college students' intimate relationships. By discussing this topic, you will provide me with a deeper understanding of economic abuse experienced by college students, and the information you provide will be used to develop survey items for economic abuse unique to college students.

The interview will last approximate 45 minutes and will be audio recorded for accuracy. You, my advisor, and I will be the only ones with access to the recording, and the recording will be stored as a password protected computer file. Additionally, everything discussed in this interview will remain confidential, and none of the information you provide will be directly linked to you. The interviews will not be transcribed, but instead will be coded straight from the recordings. Myself and my dissertation committee will be the only ones with access to the code sheets. Finally, you will receive compensation for your participation in the interview via a \$20 gift card that will be emailed to you. Do you have any questions before we start?

Do you voluntarily consent to participate in this study, with the understanding that you are free to end the survey at any time without penalty?

Let's start by defining economic abuse.

• Economic abuse by an intimate partner is defined as exerting control over a partner by limiting or preventing access to assets, resources, or future earning potential

Now I'd like to talk a bit about the experiences of economic abuse among college students you have encountered.

- 4. Can you give me examples of economic abuse among students you have worked with?
 - a. Examples of economic exploitation.
 - b. Examples of economic control.
 - **c.** *Examples of employment sabotage.*

Thank you for sharing what you have seen with me. I know this is a very delicate topic, and I really appreciate the unique insight you have to offer. Now I'd like to share with you some of the types of economic abuse I've heard happening against college students and I'd like to know if these have happened against students you've worked with. They may or may not have happened. To the best of your knowledge, has it happened that any college students you've worked with were:

- a) Forced to quit school or prevented from attending (enrolling in) school.
- b) Prevented from going to school.
- c) Prevented from attending school due to transportation being sabotaged.
- *d) Prevented from studying or completing homework.*
- e) Made to feel guilty for spending too much time on school.
- f) Forced or coerced to take out additional student loans.
- g) Have money tuition and school supplies taken and spent on other things.
- *h*) School supplies (e.g. computers and textbooks) are stolen or destroyed

This concludes the interview on economic abuse among college students, but before I turn off the recorder is there anything else you think I should know about this topic?

Well, I would like to thank you for taking the time to meet with me. I know you are very busy, and I greatly appreciate your willingness to participate. You have provided me with great insights which will foster a better understanding of economic abuse among college students. If you have any questions, think of anything you would like to add, or would like information about the completion of the study, please feel free to contact me at <u>virdenty@msu.edu</u>. Before, we end this conversation can you please provide me with an email address you would like me to send the gift card to. Thank you again for giving me your time and sharing your knowledge with me. Have a wonderful day.

Appendix D

Summary of Interview Responses

Table 36. Summary of Interview Responses.

	Preventing students from	
	attending school (e.g., forced	Preventing students from attending
	to drop-out, drop classes,	closses
	change schools, or take a	
	break from school)	
		Many students were prevented from
Interview	Prevented from enrolling in the	attending class on a regular basis.
1	following semester.	Perpetrators started physical fight
		resulting in injuries preventing students
		from going to class.
		Stalking on campus and all campuses
	Attention being taken away	attendance are mandatory. Perpetrator
Interview	from the perpetrator. So,	harasses students when they are trying to
2	students have had to drop-out	go to class. Abuse emotionally and
	then re-enroll then drop-out.	physically impact students which makes
		it difficult to attend classes.
	It has happened to both	Usually students are prevented from
Interview	undergraduate and graduate	attending class because of anxiety and
3	students. Also, perpetrator	not feeling safe out in public. Sometimes
	pressures students to drop	it is because of the marks left by physical
	classes.	abuse.
		Wasn't allowed to sleep which regularly
		which prevented from going to class.
		Perpetrator wouldn't allow student to go
		to classes because they insisted they
Interview		spend time together. Sometimes they
4		could go to certain classes, sometimes
		not at all, some days they were allowed.
		Scared a violent incident would occur if
		they didn't stay home like perpetrator
		wanted.
		Constant verbal or physical fighting.
. .	Due to safety concerns student	Have had incidents the night before
Interview	could not come back to campus	resulting in students missing class the
3	and dropped out.	next day. Intimate partner stalking
		results in students not feeling safe to
		attend classes.

Interview 6		Happens constantly. Using threats of suicide to prevent students from going to class. Students are not able to attend class because they are recovering from physical and psychological injuries. Intimidation, such as the abuser being in the class.
Interview 7	Perpetrator did not pay back borrowed money resulting in the student having to drop out and move home to save up money. Had students that had to change schools because of intimate partner violence.	Students have been unable to attend class because of the perpetrators' violence. Perpetrator was the student's TA (dated before he was the TA) accosted the student and harassed the students in class resulting in her not being able to attend the class any longer. Perpetrator started an argument in the classroom which forced the student to leave class.
Interview 8		Perpetrators will convince students not to go to class or make it very difficult for them to go to class. Perpetrators will do something to students, either physically or emotionally, that would make it hard for them to feel okay to go to class.
Interview 9		Perpetrators keep students up all night, so they are too tired to go to class. Start a fight so students are too stressed to go to class. Inflict physical injuries, and students are too embarrassed to go to class.
	Sabotaging students' transportation to school	Keeping students from studying or completing homework
Interview 1	Taken the shared vehicle, hide the keys, flatten tires, stealing bus passes.	
Interview 2	They have certain days they can use the car, but some days, even when it's their day, they are not allowed to use the car at all.	Perpetrator harasses students when they are trying to study. Distract and sabotage study session or while working on the assignments.
Interview 3	Cutting finances for public transportation or hiding car keys.	Demanding partner support at events that overlap with needing to study for an exam. Constantly texting to disrupt study groups.

Table 36 (cont'd)

Tahle	36	(cont'd)
Tuble	50	(cont u)

Interview 4	Perpetrator had student come visit and offered to pay for transportation but would sometimes not pay for transportation back, let the student use his vehicle or drive the student when the student had to go to class.	Partner will not allow student to study or do homework in their presence because the time should be focused on them. Become angry and take away materials needed. Continually harassing students while trying to study.
Interview 5	Perpetrator steals ID cards that allows students to take campus bus.	Students are guilted into spending time with partners resulting in incomplete homework.
Interview 6		Perpetrators' suicide threat hinders students from doing their work. Perpetrator has their partner do their work or significantly help with their work resulting in the survivor not being able to do their own work.
Interview 7		To prove to perpetrators they are not cheating, students will stay home from the library or study groups. Students are not able to focus on school around partners due to the emotional distress.
Interview 8		
Interview 9		Perpetrators keep students awake all night preventing them from studying.
	Starting a fight or argument before an exam.	Making students feel guilty for spending time on school
Interview 1	Perpetrators interfere with students' education by getting into an argument or starting a fight the night before a big exam.	Perpetrators told students to stay home with them instead of attending school which resulted in students having to pick and choose between their future and their relationship.
Interview 2	Perpetrator would start a fight before a test which prevents the student from studying.	Students are called selfish, told they are never around, told they are spending too much time with lab partner. Disapprove of class friends and trips.
Interview 3		Perpetrators for sure guilt students about spending to much time on school to manipulate them.

Table 36 (cont'd)

Interview 4	Perpetrator would start fights or altercations which prevents students from performing well on exams.	Perpetrators told students they should want to spend time with them over going to school. Perpetrators tell students if they loved them, they would stay home. Perpetrators accuse students of ignoring them because of studying/homework.
Interview 5	Have had physical fights in classrooms which deters them from taking/finishing tests.	Are told they need to spend more time with me which results in not completing homework. Non-student partners make their partners feel guilty for spending more time on school than with them.
Interview 6	Perpetrators start physical or emotional fights right when the student needs to study. These behavior peak around mid-term and finals.	Perpetrators accuse students of not having any time for them because of school. Perpetrators make students feel guilty because the student does better than the perpetrator in classes.
Interview 7	Perpetrator kept student up late which resulted in oversleeping and missing a midterm.	Perpetrators guilt students by asking if the care more about school or a class than their relationship.
Interview 8		
Interview 9	Perpetrator starts fights with students during finals week resulting in failing exams.	
	Accusing students of cheating on them with a classmate, lab partner, or study group member	Demanding to know what is happening during class or study sessions (e.g., attending with students or interrogating students)
Interview 1		Forced to keep cellphone on record during classes so the perpetrator knows what is going on.
Interview 2		Students are interrogated about their lab partner or study partner out of jealousy.
Interview 3	Accusing the partner of flirting with group members.	Perpetrators need to know who is in study groups and are uncomfortable with members of the opposite sex in the group.
Interview 4	Asked about study group members of opposite sex. Are they flirting with you, are you sleeping with them?	Perpetrators insist on going to class or study group to make sure nothing was happening.

Table 36 (cont'd)

Interview		
5		
Interview 6		Students are asked by perpetrators who they were studying with, why they were studying with them resulting in students feeling nervous about joining study groups
Interview 7	Perpetrator came to class because he didn't believe he wasn't cheating on her. Due to accusations of cheating, students stay home from the library or study groups.	Perpetrator came to class because he didn't believe the student wasn't cheating on him.
Interview 8		
Interview 9		
	Forcing, coercing or pressuring students into taking out student loans when they did not want to	Talking, coercing, or pressuring students into giving them money designated for tuition or school supplies when students did not want to
Interview 1	Perpetrator took out \$100,000 in student loans in the student's name, defaulted on the loan resulting in loss of financial aid/loan.	Abuser has control over the finances and tuition money is taken out to gamble with or purchase other things with.
Interview 2	Student who had a cellphone destroyed was told by perpetrator to take out a student loan to replace the phone, and the money was confiscated by the perpetrator anyways.	Perpetrator forced students to move in then had them take over the rent, but usually perpetrators take money needed for school for their personal spending money. Intercept loans and decide what they can and cannot use.
Interview 3	Students are forced to take out loans in their own name and aren't able to pay them.	Partner co-signs student loans then drains the funds because they have access to them.
	A dyo a ata wyo a mata a serie if	

Table 36 (cont'd)

Interview 5	Had to take out additional loans due to academic performance resulting from abuse. Fall behind in academic and have to take out extra loans to pay for an extra semester.	Take their ID card (have financial aid on them) and strip them of money.
Interview 6	Not forced by the partner, but because the abuse the students have to take additional semester resulting in additional loans.	Perpetrators asking students to loan them money that is designated for school and not paying them back.
Interview 7	Some of their students have had to take out additional loans because of abuse.	Manipulated into giving money to perpetrators that is supposed to be used on tuition or school supplies
Interview 8	Taking out additional loans is something that comes up when talking to students. Students had to get more financial aid/apply for additional loans because the perpetrator. The perpetrator was using funds for things that they shouldn't have been used for and then the student was put in a position where they had to ask for more loans.	The perpetrator was using funds for things that they shouldn't have been used for
Interview 9		Perpetrators are taking students' financial aid money. Perpetrators see large sums of money deposited at once, like financial aid, as gold mines to exploit, but this really isn't a lot of money because the students need it to last for the entire semester expenses.

Table 36 (cont'd)

	Stealing or destroying school supplies such as computers or textbooks	Using children to prevent students from attending class or requiring students to take children to class
Interview 1	Destroying projects, sabotaging computers, breaking computers, throwing away dump drives with important information. Needed textbooks being sold at a bookstore or online by perpetrators.	Students that are parents having to take their children to school because the perpetrator agreed to watch the children and pulled out at the last minute.
Interview 2		Had to stay home with kids because the perpetrator was unwilling to stay home with them.
Interview 3	Destroying computer is something that is seen quite a bit. Throwing it, cracking the screen.	
Interview 4	Students were prevented from being able to leave to buy needed school supplies.	Perpetrator would leave the house when the student had class resulting in having to find other options for childcare or take the kids to class with them. Case with multiple children had to stay home because the student felt they could not take multiple children to class.
Interview 5	Stealing ID cards that are dorm keys, hold financial aid money, allow students to access the bus, and allow students to check out library books.	
Interview 6	Laptops are broken. Had backpacks held hostage. The abusive partner had the backpack and wouldn't give it back.	Had one case where the perpetrator bailed on childcare resulting in the student missing classes. Other cases of not helping with childcare expenses resulted in students not attending classes.
Interview 7	Perpetrator threw paint on the laptop which destroyed the computer.	

Table 36 (cont'd)

	Perpetrators sometimes break a	
	computer. Whatever the thing	
	is that the students need to	
	complete their work they either	
Interview	don't have access to or it's	
8	destroyed by the perpetrator.	
	Perpetrators take the things	
	they need to complete	
	homework and not let them use	
	it when they need to.	
	Perpetrators go after textbooks	
Interview 9	or computers to try to destroy	
	those items knowing what the	
	impact is going to be.	

Appendix E

List of Items for Pilot Test

1.	Prevent you from attending class sessions
2.	Prevent you from attending school (for example, forced, coerced, or pressured
	you to drop-out, drop classes, change schools, or take a break from school)
3.	Sabotage your transportation to school or classes (for example, hide your keys
	or bus pass, break something on your bike, car or moped)
4.	Keep you from studying or completing homework
5.	Start an argument or fight before an exam or important school deadline
6.	Make you feel guilty for spending time on school
7.	Accuse you of cheating on them with a classmate, lab partner, or study group
	member
8.	Demand to know what is happening during class or study sessions (e.g., going
	with you or interrogating you)
9.	Force, coerce or pressure you into taking out student loans when you did not
	want to
10.	Use your personal information to take out student loans in your name
11.	Take, coerce, or pressure you into giving them money designated for tuition or
	school costs when you did not want to
12.	Prevent access to, steal, or destroy school supplies such as computers,
	textbooks, art supplies, flash drives, class projects, or school IDs

Appendix F

Work/School Abuse Scale

Work/School Abuse Scale (W/SAS (α = .93)
Academic Interference ($\alpha = .91$)
Come to school to harass you
Bother your school friends or teachers
Lie to your friends/teachers about you
Physically forced you to leave school
Lied about your children's health or safety to make you leave school
Threatened you to make you leave school
Academic Restraint ($\alpha = .87$)
Sabotage the car so you couldn't go to school
Not show up for child care so you couldn't go to school
Steal your keys or money so you couldn't go to school
Refuse to give you a ride to school
Physically restrain you from going to school
Threaten you to prevent you going to school

Threaten you to prevent you going to school
***This scale is measured on a 5-point likert-type scale from 1 (never) to 5 (very often)

Appendix G

Abusive Behavior Index Physical Abuse Subscale

Abusive Behavior Index Physical Abuse Subscale (ABI Physical Abuse $\alpha = .88$)		
Pushed, grabbed, or shoved you		
Slapped, hit, or punched you		
Pressured you to have sex in a way that you didn't like or want		
Spanked you		
Kicked you		
Physically forced you to have sex		
Threw you around		
Physically attacked the sexual parts of your body		
Choked or strangled you		
Used a knife, gun, or other weapon against you		

***This scale is measured on a 5-point likert-type scale from 1 (never) to 5 (very frequently)

Appendix H

Psychological Maltreatment of Women Index

Psychological Maltreatment of Women Index (PMWI α = .94)
Emotional/Verbal ($\alpha = .93$)
My partner called me names.
My partner swore at me.
My partner yelled and screamed at me.
My partner treated me like an inferior.
My partner told me my feelings were irrational or crazy.
My partner blamed me for his problems.
My partner tried to make me feel crazy.
Dominant/Isolation ($\alpha = .88$)
My partner monitored my time and made me account for my whereabouts.
My partner used our money or made important financial decisions without talking to
me about it.
My partner was jealous or suspicious of my friends.
My partner accused me of having an affair with another man.
My partner interfered in my relationships with other family members.
My partner tried to keep me from doing things to help myself.
My partner restricted my use of the telephone.
***This scale is measured on a 5-point likert-type scale from 1 (never) to 5 (very frequently).

The time frame of measurement was changed from six months to one year to be consistent with the measurement time frame of the other abuse scales in the proposed study.

Appendix I

Scale of Economic Abuse II

Scale of Economic Abuse II (SEA II $\alpha = .95$)
<i>Economic Restriction (Economic Control)</i> ($\alpha = .93$)
Keep you from having the money you needed to buy food, clothes, or other necessities
Keep financial information from you
Decide how you could spend money rather than letting you spend it how you saw fit
Make you ask him/her for money
Hide money so that you could not find it
Demand that you give him/her receipts or change when you spent money
Keep you from having a job or going to work
Economic Exploitation ($\alpha = .91$)
Make you use your money to buy him/her things or pay his/her bills when you didn't want
to
Spend his/her money however he/she wanted while your money went to pay for necessities
Take out a loan or buy something on credit in your name without your permission
Make you take out a loan or buy something on credit when you didn't want to
Put bills in your name, leaving you to pay them
Force or pressure you to give him your savings or other assets
Steal your property
***The scale is measured on a 5-point Likert-type frequency scale from 1(Never) to 5 (Very
Often)

Appendix J

Education Sabotage Scale

Education Sabotage Scale (ESS $\alpha = .88$)
Educational Access Sabotage ($\alpha = .76$)
Prevent you from attending classes sessions
Prevent you from attending school (for example, forced, coerced, or pressured you to drop-ou
break from school)
Sabotage your transportation to school or classes (for example, hide your keys or bus pass,
break something on your bike, car or moped)
Educational Success Sabotage ($\alpha = .87$)
Keep you from studying or completing homework
Start an argument or fight before an exam or important school deadline
Make you feel guilty for spending time on school
Accuse you of cheating on them with a classmate, lab partner, or study group member
Demand to know what is happening during class or study sessions (e.g., going with you or
interrogating you)

***The scale is measured on a 5-point Likert-type frequency scale from 1(Never) to 5 (Very Often)

Appendix K

Center for Epidemiological Studies-Depression Scale

Center for Epidemiological Studies-Depression Scale (CES-D α = .85)
I was bothered by things that usually don't bother me.
I did not feel like eating; my appetite was poor.
I felt that I could not shake off the blues even with help from my family or friends.
I felt I was just as good as other people.*
I had trouble keeping my mind on what I was doing.
I felt depressed.
I felt that everything I did was an effort.
I felt hopeful about the future.*
I thought my life had been a failure.
I felt fearful.
My sleep was restless.
I was happy.*
I talked less than usual.
I felt lonely.
People were unfriendly.
I enjoyed life.*
I had crying spells.
I felt sad.
I felt that people dislike me.
I could not get "going."

***The scale is measured on a 5-point Likert-type frequency scale from 1(Less than 1 day) to 4 (5-7 days).

Appendix L

Financial Anxiety Scale

Financial Anxiety Scale (FAS $\alpha = .95$)

I feel anxious about my financial situation.

I have difficulty sleeping because of my financial situation.

I have difficulty concentrating on my school/or work because of my financial situation.

I am irritable because of my financial situation.

I have difficulty controlling worrying about my financial situation.

My muscles feel tense because of worries about my financial situation.

I feel fatigued because I worry about my financial situation.

***The scale is measured on a 7-point Likert-type frequency scale from 1(Never) to 7 (Always)

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