

EXAMINING THE RELATION BETWEEN MEDIA ENGAGEMENT AND
DEVELOPMENTAL OUTCOMES IN ADOLESCENTS AND EMERGING ADULTS:
AN EXPLORATION OF ENGAGEMENT WITH AND IMPACT OF YOUNG ADULT
LITERATURE MEDIA AMONG YOUTH

by

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ABSTRACT OF THE DISSERTATION

Examining the relation between media and developmental outcomes in adolescents and emerging adults: An exploration of engagement with and impact of young adult literature media among youth

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Research has shown that media engagement among youth is linked to behavioral and attitudinal developmental processes through a process of social learning and that identification with media characters often results in increased learning from the characters, resulting in greater media-related effects (Dubow, Huesmann, & Greenwood, 2007; Kunkel et. al., 2007). Less is known about how these effects differ across media platforms, specifically when considering literature media for youth, which has been on the rise since the late 2000's. The following dissertation research examines how different types of media differentially impact youth development, and specifically explores the effects of young adult (YA) literature media on emerging adult development.

In the first study, with a sample of 200 10th grade students (44% male, 90% Nonwhite), I explore how character identification with violent media characters in movies and video games relates to different types of aggression in a sample of high schoolers, examining the relations between race/gender, identification, and aggression. In the second study, I explore how engagement and identification with two different yet

popular series, in both print and audiovisual format, relate to acceptance of dating violence and insecure attachment styles among a sample of 204 young undergraduate students (80% female; 87% Nonwhite).

The final study is a longitudinal project that examines literature media engagement specifically, and how this relates to behavioral, social, and identity formation development. Over 200 undergraduate students (78% female; 81% Nonwhite) participated in a two-wave study over the course of one semester. A newly developed survey on reading habits and preferences, as well questions related to peer and romantic relations, health-risk behavior, and identity processes was administered. The study is the first of its kind in examining how literature impacts development, specifically emerging adult development, and focuses particular attention to peer and romantic relationships, risk behaviors, and identity exploration. I find that emerging adults are prominent readers of young adult literature, and that themes and genres chosen by these readers are likely to impact developmental and behavioral outcomes. I also find that the strength of identification with media characters moderates these relationships. Implications are discussed.

PREFACE

This dissertation is original work by the author, C.M. Herrera. A version of Study 2 is currently under peer review as Herrera & Boxer. All tables and figures are the author's own work, and all data were used with permission from investigators.

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General Introduction

It can be stated that late adolescence into young adulthood is one of the most pivotal and important developmental periods of an individual's lifespan. During this time, youth begin their transition into adulthood, and the experiences they have in their late adolescent and early adult years are likely to set the stage for their future identities, relationships, and overall adult experiences (Arnett, 2001). As youth enter their late adolescent years, they are likely to separate more from their parents or guardians, and begin to look towards the social group, social environment, and themselves to answer some of the questions they begin to ponder. They start considering their options for the future past high school, for a more independent lifestyle, and they are faced with having to make numerous choices. Will they attend college? If so, what will they study? If not, what will they do? Where will they live? What kind of relationships will they have?

It is thus that during this time, youth frequently seek out information regarding a range of topics, including self-identity, social interactions, sex and sexuality, conflict resolution, and they do so via various sources. Oftentimes, youth seek this information out from peers, as they begin to separate from their immediate family or their caregivers and place more importance on the opinions and attitudes of their same-age peer group. However, research has also shown that youth frequently will seek this information out through various media sources. Many researchers have even referred to media as a sort of "super peer," which plays the unique role of providing vast amounts of information on any specific subject youth may be seeking, especially when these individuals have difficulty approaching other peers or adults about these topics (Brown, Halpern, L'Engle, 2005). At a time when youth are highly susceptible to influence from a variety of

messages, media bombard them with vast amounts of information, either information they seek out intentionally, or information to which they are inadvertently exposed. In fact, media have been shown to have a long lasting, profound effect on development (Bushman & Huesmann, 2006; Roberts, Henriksen, & Foehr, 2009).

The fact that media use is on the rise is indisputable. Additionally, adolescents and emerging adults (EA) are the most prominent users of media, compared to any other age group. A report from the Pew Research Center found that 92% of teenagers ages 13-17 go online daily, 56% of them go online several times a day, and 24% of them go online “almost constantly” (Lenhart, 2015). Furthermore, 88% of emerging adults, between the ages of 18 and 24, use some form of social media (i.e., *Twitter* and *Facebook*), and are engaged with media in general for approximately 12 hours a day (Arnett, 2014; Smith & Anderson, 2018). The rise of media usage in youth has been, in part, attributed to hand-held “smart” devices, such as “smart phones” and tablets, which make on-the-go constant connectivity possible (Roberts, Henriksen, & Foehr, 2009).

This raises the question then, of if and how media directly influence adolescent and emerging adult development. Unfortunately, current research combining theories of development with theories of media effects is limited (Roberts, Henriksen, & Foehr, 2009). However, there is a substantial body of research on media effects which focuses on adolescent populations, specifically with regards to social and behavioral problems. This research can be used as a starting point to further expand our understanding of adolescent and emerging adult development with regards to media effects and current technologies, then to underscore the importance of focusing on development through the lens of media effects theories. With the increase of media availability, the increase in

adolescent use of media, and the aspect of sensitivity which marks the very nature of the late adolescent and emerging adult developmental periods, it is evident that the impact of media at this time cannot be overlooked. Do media contribute to healthy and prosocial youth development, or do they contribute instead to pathological adaptations in youth?

Theoretical Background

According to Albert Bandura's social learning theory, youth learn through observing the behaviors of others, and develop an understanding about appropriate behavior based on a process of imitating observed modeling (Bandura & Walters, 1977). Huesmann expanded upon this social cognitive learning, or information processing, theory by incorporating the development of scripts and schemas into this framework. According to social cognitive information processing, social learning takes place because youth develop scripts and schemas based off observed behaviors and interactions with the environment, they integrate behaviors that are rewarded, and then they call upon those observed behaviors when faced with similar situations in the future (Huesmann, 1998). When calling those learned behaviors into play, youth will often interact with the environment in a way which fortifies their existing beliefs, and which will thus strengthen their cognitive scripts. For example, a teenager who believes the world to be a hostile place because of past learned experience will often behave in an aggressive manner, which will in fact draw hostility upon him from his surroundings, thus reinforcing his belief that the world is indeed a hostile place.

Cultivation Theory, a classic approach to media effects research, ties in easily with Social Cognitive Theory in that it also relies on prolonged exposure and cumulative effects. Cultivation Theory proposes that mass media tend to portray constant, yet subtle,

messages about society, that individuals consume media indiscriminately, and that over time, high exposure to these media contribute to normalization and acceptance of the messages contained within (Roberts, Henriksen, & Foehr, 2009). In other words, individuals are likely to develop scripts and schemas about the world based on the messages they receive from mass media. Therefore, although important people in a child's life such as parents, peers, siblings, and educators are important socializers, media also play a powerful role in the development and activation of these learned scripts and schemas (Bandura, 1986; Herrera, Goldstein, & Boxer, 2020). Since adolescence and early adulthood are developmental and transitional periods during which youth are developing their own unique identities, they are most vulnerable to receiving messages from outside sources, and thus are most likely to be influenced by mass media in this way.

Lastly, research also suggests that identification plays a significant role in the effects produced by mass media (Collins, 2011; Davies, Spencer, Quinn, & Gerhardstein, 2002; Huesmann, Moise-Titus, Podolsko, Eron, 2003). Specifically, identification refers to the viewer's ability to identify with the media characters. Identification is likely to occur when the viewers witness similarities between the media character and themselves, such as with regards to age, race, or gender. Stronger identification on part of the viewer often results in increased learning from the characters, thus resulting in greater media-related effects (Kunkel, Eyal, Donnerstein, Farrar, Biely, & Rideout, 2007; Martino, Collins, Kanouse, Elliot, & Berry, 2005).

Media are likely to play into the transformational periods in youth's lives, since adolescents and emerging adults are most likely to seek out answers and even a sense of

companionship from media. Additionally, because these developmental periods are so transformative, and in fact contemporary researchers have suggested that emerging adulthood is the most intensive period of identity exploration and formation, these youth are likely to be more vulnerable to picking up on the subtle messages about the world that media portray (Stoppa & Lefkowitz, 2010). Some of these messages may be related to violence and aggression, gender norms, or racial stereotypes, and thus may impact the development of youth problem behavior, relationships, and self-identity formation.

Youth Behavior Problems

Although it is not uncommon during adolescence to observe increases in impulsivity, risk taking behaviors, substance abuse, and even delinquency, persistent behavioral problems and aggression must be addressed in considering normative versus pathological youth development (Feinstein et. al., 2012; Monahan et. al., 2013; Tapert et. al., 2001). As stated, socio-cognitive theories suggest that many behavioral problems, including violent delinquency or aggression, can be a result of learned environmental factors: one such environmental factor is mass media.

There has been extensive research in the field of media violence and aggression. Results from various studies have repeatedly shown that exposure to media violence leads to both short- and long-term increased levels of aggression, particularly in males (Boxer, Huesmann, Bushman, O'Brien, & Moceri, 2008; Bushman & Anderson, 2001; Huesmann et al., 2003; Herrera, Goldstein, & Boxer, 2020; Josephson, 1987;). The connection between media violence and aggression for girls, however, has been inconclusive. Many studies focus exclusively on males, and some of the studies that focus on both males and females suggest that results are similar, whereas other studies

show much stronger effects for males (Griffiths, 1999; Huesmann, et al., 2003; Sparks, 2015, p. 98).

Often, in violent media, the characters engaging in violent acts are portrayed as heroic, attractive, and are likely to receive rewards for their violence, such as when the hero of a fantasy film defeats a villain using violent means (Sparks, 2015). Therefore, the attractiveness of the character is likely to create an idealized identification with the viewer, the rewards related to the violence are likely to reinforce violence as a way of conflict resolution, and the pervasiveness of the violence itself is likely to increase normalization of violence as a general conflict solution. Additionally, violent media are pervasive in all forms, be it television, film, print, social media, or news media, and provide a substantial overrepresentation of actual violence in the world (Bushman & Anderson, 2001). For youth who are undergoing a period of identity formation, it is likely that these combined factors will contribute to the development of aggressive traits within the emerging personality. In other words, exposure to violent media may lead to a pathological adaptation in which these youth become habituated to violence and view it as normative behavior. However, due to the inconclusive results for females thus far, it is important to continue this research into how media can impact girls.

Peer and Family Relationships

Identification with media characters may be more difficult for females overall, and not something solely related to violent media. Unfortunately, studies show that women are severely underrepresented in media: males are almost 2.6 times more often the lead character in G-rated films, and only 1 in 7 characters appearing in the best-selling console games are female (Collins, 2011). When female characters are

represented in media, they are often shown in rigid gender roles and this contributes to a negative pigeonholing of girls and women (Collins, 2011; Ward, 2016). Females in the media are repeatedly depicted as sex objects and targets of sexual violence, and their physical appearance is often highlighted and depicted as significant to overall character worthiness (Glascock, 2001; Malamuth, 1986; Stankiewicz & Rosselli, 2008; Ward, 2016). Additionally, women in media are often portrayed as homemakers, caretakers, and as holding nonprofessional roles (Collins, 2011). These constants are likely to contribute to the learned stereotypical cognitions, through both social learning models and cultivation theory processes. Furthermore, some researchers have suggested that this pigeonholing of female characters into gender-stereotyped roles is due to a lack of women behind the scenes; that is there is a greater need for female writers, producers, and creators of mass media in order to allow a broader range of healthy identification opportunities for female youth (Glascock, 2001).

Unfortunately, circumstances as they are leave little room for young girls traversing through this developmental period to find positive and healthy role models among different media platforms, and they also leave little room for youth of all genders to develop a complete understanding of healthy, egalitarian relationships. Since youth spend an average of 9 hours engaging with media, and oftentimes engaging with multiple media platforms simultaneously, thus being exposed to increased amount of media content, it is safe to say that this presents a severe complication for the development of both their identities and relationships (Rideout, 2016; Rideout, Foehr, & Roberts, 2010). Youth are likely to learn from mass media that girls and women are primarily sexual objects and that their personal value is to be measured by their physical appearance.

Self-Identity Formation

The sexualization of girls and women in the media, along with the heavy emphasis placed on physical appearance has been found to be strongly correlated with the development of eating disorders, depression, anxiety, low self-esteem, and negative feelings regarding personal sexuality in girls and young women (Stankiewicz & Rosselli, 2008; Ward, 2016). At the vital developmental period that is adolescence into emerging adulthood, when girls and young women are trying to develop their own personal identity, navigate their own sexuality, and create their own worldview, these pervasive media messages seem likely to stunt and negatively impact healthy female identity development across many different facets. In fact, studies on stereotype threat, a situational predicament in which individuals are at risk of being personally reduced to negative stereotypes, show that the simple act of showing a commercial depicting a female character in a stereotypical gender role (such as performing a cleaning task) was enough to cause young women to perform lower on academic tasks (Davies et al., 2002; Spencer, Logel, & Davies, 2016).

Of course, young women are not the only youth who are susceptible to stereotype threat. Much of the research on stereotype threat examines racial differences, and studies have found that when stereotype threat is elicited among Black and White students, Black students perform worse on a verbal test; however, when stereotype threat is eliminated, both groups perform equally well on the same test (Davies et al., 2002; Mastro, 2015). Mass media messages continuously contribute to stereotype threat among minorities.

Moreover, there is a serious problem of underrepresentation for minorities in the media. For example, Latinxs make up 2-6.5% of all television characters, despite making

up 16% of the US population (Mastro, 2015). Asian American characters are portrayed on primetime U.S. television as 1-3% of characters, despite making up 5% of the U.S. population, and Native American characters tend to be completely absent from mainstream programming (Mastro, 2015). Although the rate of representation in entertainment media of African Americans is comparable to the U.S. population rate, making up 14%-17% of the characters on television, the quality of representation is often unfavorable, and these characters are often portrayed as aggressive or uneducated. Overall, minorities are often portrayed in stereotypical fashion, such as the idea of the unintelligent yet hypersexualized *Latin Lover* (Schmader, Block, & Lickel, 2015). Additionally, although minorities are often underrepresented in entertainment media, they are overrepresented in news media, specifically with regards to African Americans. A 2005 study in Los Angeles found that although arrest records indicate that Blacks make up 21% of offenders, they are disproportionately shown in the news as offenders 37% of the time (Dixon & Maddox, 2005). Additionally, even in more recent studies in which Black individuals are more proportionately represented when compared to arrest records, minority group individuals, including Black and Latinx individuals are underrepresented as police officers or as victims of crime, whereas White individuals are overrepresented (Dixon, 2017; Herrera, Goldstein, & Boxer, 2020).

The combination of underrepresentation of minorities in entertainment media, stereotypical racial roles, and overrepresentation of Blacks as perpetrators in news media, all contribute to a possible pattern of social learning in which minorities can be viewed as less-than or less worthy. For minority youth, this presents serious problems for their individual identity development. If youth are unable to identify with positive and

culturally diverse role models through mass media, and since they spend most of their waking hours engaging with mass media, then their options are to either identify with negative media characters or to identify with characters who do not contribute to a multicultural identity formation. And because these media messages are pervasive and constant, this is likely to seep into youths' own beliefs about themselves, thus contributing to a negative self-identity or incomplete identity development.

Media Effects During Emerging Adulthood

Adolescence and emerging adulthood mark pivotal developmental and transformational periods in a person's life. Some researchers suggest that due to the changing expectations for youth in modern societies (i.e., the ability to delay marriage, childbearing, and career options), many of the developmental tasks that were previously ended in adolescence now continue into emerging adulthood, and are indeed more prominent during this age (Arnett, 2000). Furthermore, previous research has found that identity processes in youth development are likely intensified by the college experience, thus media effects during this time are also likely to be intensified as youth enter a more volatile period of their lives (Stoppa & Lefkowitz, 2010). During adolescence youth undergo a process of psychological fragmentation during which they learn to differentiate their private self from their public self, and identity formation occurs through the process of "trying on" different personalities to discover what fits best; this process can further continue into emerging adulthood (Arnett, 2000; Larson, 1995; Roberts, Henriksen, & Foehr, 2009).

The developmental period of emerging adulthood (EA) is marked by an increased exploration of possibilities, changes in individual's emotional, social, and cognitive

domains: and the interaction between the individual and their environment is the ultimate pathway for these explorations (Woods, et. al., 2017). Moreover, emerging adults engage in these pivotal developmental tasks while living in a media-saturated environment in which they often, for the first time, find themselves having complete autonomy with regards to what media they choose to engage with (Brown, 2006; Coyne, Walker, & Howard, 2013). In this sense, media can serve as a source for the identity exploration processes that are prevalent during emerging adulthood. Specifically, during this period, emerging adults are some of the highest users of media overall, with estimates reporting that 88% of emerging adults engage frequently with social media specifically, while also being engaged with some kind of media for approximately 12 hours a day (Arnett, 2014; Smith & Anderson, 2018). It is thus plausible that developmental theories and media theories can merge at this time to have an elevated impact on youth development. Not only are emerging adults among the highest users of media, but they also spend more time using media than they do engaging in any other activity (Coyne, Walker, & Howard, 2013). Research examining media use among emerging adults has found that youth utilize media to fulfill needs directly related to the developmental tasks pertinent to this stage, and also that they are influenced by media in many ways, including with regards to relationship development, self-image, and health-risk behaviors (Coyne, Walker, & Howard, 2013). Their reasons for media use vary, but often emerging adults use multimedia platforms to gratify their need for identity exploration, to fulfill peer and romantic socialization needs, to express themselves to their peers, and to find comfort or further understanding regarding their own ongoing struggles (Arnett, 2014; Coyne, Walker, & Howard, 2013).

Specifically, at a time when youth are most actively exploring their own identities, their relationships, and, additionally, often engage in increased health-risk behaviors, media use has been shown to influence both positive and negative outcomes within these developmental processes (Coyne, Walker, & Howard, 2013). For example, one study found that emerging adults who reported using a higher number of different social media platforms also reported increased symptoms of anxiety and depression, as well as increased alcohol and drug use (Vannucci, Ohannessian, & Gagnon, 2018). However, other studies have found that emerging adults who use social media websites more frequently report higher perception of social support and spend more time engaging in positive face-to-face social interactions (Jacobsen & Forste, 2011; Manago et. al., 2012). However, researchers have stressed the need for and importance of further examining media use of emerging adults through a developmental lens (Coyne, Walker, & Howard, 2013).

Once they reach emerging adulthood, youth typically begin entering increasingly intimate relationships, and they also engage in high rates of health-risk behavior, including illegal drug use and unprotected sexual intercourse (Nelson & Barry, 2005). College itself is a prime space for the self-exploration that marks EA development, as undergraduate students begin to experience a newfound sense of freedom. Most incoming college students will have recently turned 18 (legal adult status), or will turn 18 during their first year at college, and for many this is also the first time they might be living on their own, outside of a more restrictive family home. Due to this convergence of factors, contemporary researchers have suggested that emerging adulthood is the most intensive period of identity exploration and formation (Stoppa & Lefkowitz, 2010). Contemporary

theorists suggest that the experiences youth have in their late teens and early twenties, during emerging adulthood, are integrated into individuals' identities even more so than experiences had in younger years or older stages (Tanner & Arnett, 2016). Therefore, as adolescents develop into emerging adults, move out of their homes, experience a newfound sense of freedom which often allows them to further explore their self-identity, engage in increased health-risk behavior, and enter increasingly intimate romantic relationships, all while living in a media-saturated environment free of parental constraints, understanding the effects of media and the messages contained therein during this period is crucial.

Literature Media

As previously stated, media use is on the rise, and this has been partially attributed to hand-held "smart" devices, such as "smart phones" and tablets (Roberts, Henriksen, & Foehr, 2009). Of course, tablets allow for both engagement with traditional media such as movies or video games, but they also introduce increased access to non-traditional media, specifically literature media, in the form of e-books. Additionally, a previous survey conducted with emerging adults found that 70% of them "really enjoy" recreational reading, compared to the 52% who report they "really enjoy" watching television (Arnett, 2014). With regards to literature media specifically, the last several years have seen a drastic increase in books geared towards high school and college students (Peterson, 2018). These books, often referred to as young adult (YA) books, are typically aimed at youth ages 12-18, but marketing estimates indicate that nearly 70% of all YA books are purchased by individuals over the age of 18 (Peterson, 2018). Because these books deal with a variety of topics that are the cornerstones of late adolescence and

emerging adulthood, such as identity struggles, relationship development, conflict resolution, substance use, and overcoming trauma (Arnett, 2000; Strickland, 2015; Wood, 2018), individuals at this developmental stage are likely to relate to the stories in YA books.

According to estimates by the Nielsen BookScan, YA book sales jumped almost 150% between 2006 and 2012 (Thomas, 2012). Moreover, the number of titles published in 2012 more than doubled compared to those published in 2002 (Peterson, 2018). The numbers kept rising after that, with children and YA book sales increasing by 12.6% from 2014 to 2015 (Gilmore, 2015). It is therefore evident that we are at a time of drastic increases in YA book sales and number of YA books published.

Given the fact that these new literature media are encompassing such universal themes as identity formation, relationship development, and problem behavior or conflict resolution, it is fascinating to consider the interesting spaces that this might be filling in the social development processes of emerging adults who are engaged with YA literature. Additionally, research suggests that identification plays a significant role in the effects produced by mass media and that stronger identification results in increased social learning from media characters, thus resulting in greater media effects (Eron & Huesmann, 1986; Huesmann, Moise-Titus, Podolski, & Eron, 2003; Kunkel, Farrar, Eyal, Biely, Donnerstein, & Rideout, 2007). Considering this from the YA literature perspective, it is likely that individuals who are more highly engaged in YA literature are more likely to be influenced by these books. Surprisingly, however, there is a paucity of studies examining the impact of YA literature on development. Past research in media psychology informs us that relations exist between media exposure and social and

behavioral problems. However, current research combining theories of development with theories of media effects is also limited. In this dissertation, I combined theories of youth development with theories of media effects. I discussed current findings in three research studies which examined the relation between youth socialization processes and engagement with different types of media, including literature media.

STUDY 1: GENDER AND RACIAL DIFFERENCES IN IDENTIFICATION WITH VIOLENT MEDIA CHARACTERS AND RELATED OUTCOMES

The first study in this dissertation looked at a sample of high school students to explore how identification with violent media characters in movies and video games related to different types of aggression. We looked at a general measure of aggression as well as three separate distinct aggression outcomes and examined whether the interaction of race or gender moderated the associations of character identification with aggression outcomes. This study set the stage for the subsequent dissertation project by providing a glimpse into the role of how violent media character identification might affect behavioral outcomes of aggression.

Introduction

Reed Larson suggests that during adolescence youth undergo a process of psychological fragmentation (Larson, 1995). During this time, they learn to differentiate their private self from their public self, and identity formation occurs through the process of “trying on” different personalities to discover what fits best (Roberts, Henriksen, & Foehr, 2009). Media play into this because youth are likely to seek out answers from media and are more vulnerable to picking up on subtle messages about the world that media portray. Some of these messages may be related to violence and aggression, gender norms, or racial stereotypes, and thus may impact the development of youth problem behavior and self-identity formation.

In fact, a large literature now documents the critical role of mass media in the socialization of adolescent outcomes, for better or for worse (Dubow, Huesmann, & Greenwood, 2007). Research on violent media in particular has convincingly shown that exposure to violence in both active (e.g., video games) and passive (e.g., film) media

programming increases the likelihood of aggressive behavior (Boxer, Huesmann et al., 2009; Polman et al., 2008). Furthermore, studies in this field have found that identification with the characters portrayed in various media amplifies the role of media-related outcomes (Collins, 2011; Davies et al., 2002; Huesmann et al., 2003; Huesmann & Eron, 1986). Specifically, identification refers to the viewer's ability to relate to or with the media characters and is likely to occur when the viewers witness similarities between the media character and themselves, such as with regards to age, race, or gender. Stronger identification on part of the viewer often results in increased learning from the characters, thus resulting in greater media related effects (Kunkel, Eyal, Donnerstein, Farrar, Biely, & Rideout, 2007; Martino, Collins, Kanouse, Elliot, & Berry, 2005).

Youth Behavior Problems

Although it is not uncommon during adolescence to observe increases in impulsivity, risk taking behaviors, and even delinquency, persistent behavioral problems and aggression must be addressed in considering normative versus pathological adolescent development (Feinstein et. al., 2012; Monahan et. al., 2013; Tapert et. al., 2001). Social processing cognitive theories such as Social Learning Theory and Social Cognitive Information Processing suggest that many behavioral problems, especially violent delinquency or aggression, can be a result of learned environmental factors (Bandura, 1986; Huesmann, 1998). Furthermore, these state that "...once a child begins to perceive the world as hostile, to acquire scripts and schemas emphasizing aggression, and to believe that aggression is acceptable, the child enters a vicious cycle that will be difficult to stop" (Huesmann, 1998). In other words, once a child has understood the world to be a hostile and aggressive place, the child is likely to behave in a similar hostile

or aggressive manner. His or her aggressive behavior is likely to elicit more aggression from the world around him or her, which will in turn provoke an additional aggressive response from the child. One possible environmental factor that may contribute to the perception of the world as a hostile environment is mass media.

There has been extensive research in the field of media violence and aggression. Often, in violent media, the characters engaging in violent acts are portrayed as heroic, attractive, and are likely to receive rewards for their violence, such as when the hero of a fantasy film defeats a villain using violent means (Sparks, 2015). Therefore, the attractiveness of the character is likely to create an idealized identification with the viewer, the rewards related to the violence are likely to reinforce violence as a way of conflict resolution, and the pervasiveness of the violence itself is likely to increase normalization of violence as a general conflict solution. Additionally, violent media is pervasive in all forms, be it television, film, print, social media, or news media, and provides a substantial overrepresentation of actual violence in the world (Bushman & Anderson, 2001). For adolescents who are undergoing a period of identity formation, it is likely that these combined factors will contribute to the development of aggressive traits within the emerging personality. In other words, exposure to violent media may lead to a pathological adaptation in which these youth become habituated to violence and view it as normative behavior.

Results from various studies have repeatedly shown that exposure to media violence leads to both short- and long-term increased levels of aggression, particularly in males (Boxer, Huesmann, Bushman, O'Brien, & Mocerri, 2008; Bushman & Anderson, 2001; Huesmann et al., 2003; Josephson, 1987). The connection between media violence

and aggression for girls, however, has been less conclusive. Many studies focus exclusively on males, and some of the studies that focus on both males and females suggest that results are similar, whereas other studies show much stronger effects for males (Griffiths, 1999; Huesmann, et al., 2003; Sparks, 2015, p. 98). A possible reason for the inconclusive gender-related results may be that past studies have not consistently used measures of indirect aggression in their explorations of violent media and aggression. Since girls are much more likely to engage in indirect, or relational, than in direct aggression, effects might be more substantial if measures of indirect aggression are consistently used (Bjorkqvist, Lagerspetz, & Kaukiainen, 1992; Crick & Grotpeter, 1995; Huesmann et al., 2003). Another possibility is perhaps attributable to perpetrators of violence in media. Many forms of entertainment media portray aggressors as males, and news media often also provide descriptions of violent acts as being perpetrated by males. It is possible that adolescent females are less likely to identify with these male aggressors, since identification occurs more easily when viewers can find similarities between themselves and the character, and therefore the effects of violent media on females is less prominent.

In this study we examine the role of race and gender in terms of how character identification processes might affect relations between violent media and behavioral outcomes. For example, are boys more likely than girls to behave aggressively as the result of violent media exposure if they identify with violent characters? Does an adolescent's ethnicity/race influence their identification with violent media characters, thus impacting media-related aggressive behavior? These questions are particularly

relevant at present given increasing emphasis in the entertainment media on broadening the diversity of characters on-screen.

In this study we examined these questions using self-report surveys on aggressive behaviors and identification with violent video game and film characters. Because identification with media characters has been shown to amplify the role of media-related outcomes, we first hypothesized that youth who more strongly identified with violent media characters would be more likely to exhibit increased aggression across distinct types of aggression. Second, because main characters in video games and American movies are typically White/ European-American males (Mastro, 2015), we also hypothesized that White/ European-American male youth would be more likely to identify with media characters in the video games and movies presented, and thus gender and race would moderate the associations of character identification with aggression outcomes.

Methods

We explored these questions with data from a sample of 200 10th grade students (44% male; 10% White, 21% Black/African-American, 23% Hispanic/Latino/a, 26% Asian, 19% Mixed/Other; mean age 15.4) enrolled in the public school district of a medium-sized ethnically/racially diverse northeastern city. Specifically, we examined if the likelihood of identification with characters in violent video games and movies varied based on subjects' race or gender, whether identification was correlated with aggressive behaviors, and whether gender or race moderated the relation between identification and aggression. Youth answered questions about the extent to which they identified with

featured characters in selected video games and movies (how much they felt they were “like” the characters), and various distinct forms of aggressive behavior.

Participants

Participants involved in the initial wave of the Exposure to Violence and Subsequent Weapons Use: Mediating and Moderating Processes Project were 200 youth (44% male; 90% Nonwhite; mean age 15.4). The project used a multi method approach and multiple sources of information. Youth were sampled in 10th grade.

Measures

Character Identification. Identification with media characters was assessed via youth report. Youth answered questions regarding the extent to which they identified with characters portrayed in violent video games (*Mortal Kombat*, *Grand Theft Auto*) they had played and violent movies (*American Sniper*, *The Fast and the Furious*) they had watched. We used a modified version of the scales developed by Huesmann and Eron (1986) and asked respondents to answer questions related to identification with characters, on a Likert-type scale (e.g., “How much do you wish you were like or think you really are like the main characters of *Mortal Kombat*?”). Questions relating to character identification in the survey had acceptable internal reliability ($\alpha = .70$).

Physical Aggression. Measurements of physical aggression were assessed via youth report. These items related specifically to physical aggression of any kind, including reactive aggression. Youth answered questions about their own aggressive traits on the Buss-Perry (Buss & Perry, 1992) scale (e.g., “Once in a while I can’t control my urge to strike another person” ; “If somebody hits me, I hit back.”), which had high internal reliability ($\alpha = .78$).

Mild Aggression. Measurements of mild aggression were assessed through youth self-report, and youth answered questions regarding physical and verbal aggression (Huesmann et. al., 2002). These items related to non-physical aggression, often verbal or relational aggression. Youth answered how many times in the past year they had engaged in mild aggressive behaviors (e.g., “I have said mean things to other people”; “I have done things to purposely bother other people”). This measurement also demonstrated high internal reliability ($a = .79$).

Severe Aggression. Measurements of severe aggression were also via youth reports. These items related to extreme physical aggression, such as choking someone or using a weapon. Youth answered how many times in the past year they had engaged in severe physically aggressive behaviors (e.g., “How often have you punched or beaten someone”; “How often have you actually cut another person with a knife”; (Huesmann et. al., 1984), and these measures showed good internal reliability ($a = .70$).

Romantic-Partner Aggression. Aggression within romantic partnerships was assessed through youth self-report. Youth who reported having had a romantic partner in the past 12 months answered questions about how many times in the past year they had engaged in aggressive behaviors against their partners (e.g., “How many times in the last 12 months have you threatened to throw something at your romantic partner?”; Straus et. al., 1996). These measures showed high internal reliability ($a = .83$).

Procedures

A total of 200 10th grade students enrolled in the public-school district of a medium-sized ethnically/racially diverse northeastern city were sampled for this study. Youth were first given parental consent forms to take home to their guardians, in addition

to youth assent forms. Youth who assented and provided guardian consent were then surveyed at their schools. Youth surveys were administered during school hours, and these were completed via electronic tablet. All youth who participated in the study were given a nominal financial compensation for their time, as were their parents and teachers.

Plan of Analysis

Through a series of linear regression analyses, we examined whether students who more strongly identified with violent media characters were also more likely to exhibit violent or aggressive behaviors themselves. Separate ordinary least squares (OLS) regression models were estimated to predict the influence of character identification on physical aggression, mild aggression, severe aggression, and romantic partner aggression. We further examined whether gender and/or racial/ethnic background played a moderating role in these effects.

Results

We first examined the overall scores for character identification and aggression variables within our sample. The means, standard deviations, and ranges for the character identification and aggression scores are all presented in Table 1.1. Although the distinct aggression constructs were all positively correlated, the inter-item correlation was low ($\alpha=.41$), indicating that these were each measuring unique aspects of aggression. We then explored bivariate correlations by gender. These results are included in Table 1.2, with males below and females above the diagonal. No significant bivariate correlations were found between race and other outcome variables, so these were further explored in the following analyses.

In the first OLS regression model [$F(4,182) = 3.59, p = .01, R^2 = .07$], increased identification with media characters ($\beta = .24, SE = .07, p = .00$) significantly predicted increased physical aggression. The second model [$F(4,182) = 2.58, p = .07, R^2 = .04$] did not show any statistically significant relationships between character identification, gender, or race and mild aggression. The third regression model [$F(4,182) = 2.58, p = .28, R^2 = .03$] indicated that race ($\beta = -.25, SE = .12, p = .04$) significantly predicted severe aggression, in that White participants were less likely to report severe aggression. Lastly, the fourth regression [$F(4,70) = 4.81, p = .00, R^2 = .22$] indicated that identification with media characters ($\beta = 1.7, SE = .64, p = .01$) and gender ($\beta = -3.8, SE = 1.1, p = .00$) both significantly predicted romantic partner aggression: character identification predicted increased romantic partner aggression whereas male gender predicted decreased romantic partner aggression. These results are all presented in Table 1.3.

We then included male gender as an interaction and ran the original regressions once more. Following this, we included White/ European-American race/ ethnicity as an interaction and ran the original regression models. For romantic partner aggression, it was found that gender interacted significantly with media character identification ($\beta = -1.06, SE = .38, p = .00$), in that for female participants, higher character identification scores predicted increased romantic partner aggression. This is shown in Figure 1.1.

Discussion

This study examined the role of race and gender in terms of how character identification processes might affect relations between violent media and behavioral outcomes. Specifically, we explored whether increased character identification with violent media characters was related to increased outcomes of physical aggression, mild

aggression, severe aggression, or romantic partner aggression. We then explored whether race and gender moderated these effects. The results of our study indicate that identification with media characters can be a significant predictor for certain types of aggression, and we found statistically significant evidence of gender acting as a moderator for romantic partner aggression in this study. This study partially confirmed our first and second hypotheses.

We first hypothesized that youth who more strongly identified with media characters in violent movies (*American Sniper* and *The Fast and the Furious*) and violent video games (*Mortal Kombat*, *Grand Theft Auto*, *Call of Duty*) would be more likely to exhibit increased aggressive behaviors across different types of aggression. We specifically examined four categories of aggression: physical aggression, mild aggression, severe aggression, and romantic partner aggression. Romantic partner aggression was only examined among youth who reported being in a romantic relationship. We found that increased identification with characters in these violent media significantly predicted increased aggressive behaviors in two of the four categories. Strong identification with media characters significantly predicted increases in physical aggression and in romantic partner aggression. For both mild aggression and severe aggression, we did not find that identification with media characters was a statistically significant predictor. Previous studies have found strong links between exposure to media violence and increased physical aggression, and the current study is in line with previous research in that regard.

Additionally, media identification significantly predicted romantic partner aggression, and this speaks to the possible interpretation of romantic relationships in

media. It is possible that through a process of social learning, youth are acquiring information about acceptable relationship behaviors from the violent media to which they are exposed, and with which they strongly identify. For the other types of aggression, it may be that mild or severe aggression are more strongly linked to additional factors not included in this study and therefore we did not find character identification to significantly predict either of these in the present study.

We also found that although males reported stronger identification with media characters overall, when we examined the role of race and gender as moderating the associations of character identification with aggression outcomes, we found that gender moderated the association between character identification and romantic partner aggression only. Specifically, in females, greater identification with violent media characters was linked to more engagement in romantic partner aggression, but this did not hold true for males who more strongly identified with media characters. These results partially supported our hypothesis that gender would moderate the associations between character identification and aggressive outcomes, but we expected to see stronger effects for males than females. Because violent media characters are more likely to be male, and identification with media characters is more likely to occur when viewers witness similarities between the character and themselves, it is possible that the moderating associations of character identification with aggression outcomes are stronger for female youth who strongly identify with the characters regardless of gender, since there might be something unique about these females that allows for the stronger identification with characters who are dissimilar to them. Another possibility is that these females might be identifying with characteristics other than gender, and these characteristics thus hold

more weight for these youth in terms of their ability to identify with these characters. Lastly, female youth might be more in tune to the relationship aspects of these violent media and therefore, when they strongly identify with violent media characters, regardless of the character's gender, aggressive outcomes might be more present within romantic relationships as opposed to other interpersonal or social relationships.

Conclusions

This study showed significant findings that allow us to better understand the role that media character identification plays in outcomes of youth problem behavior, specifically aggression. We found that even when asking about a few specific video games and movies, increased identification with media characters significantly predicted increased physical aggression. We also found that increased media character identification significantly predicted romantic partner aggression, and that female gender acted as a meaningful amplifier for romantic partner aggression. Although these results were consistent with previous research showing that identification can play an important role in media socialization, the study also had several limitations which can be improved upon in future research.

First, the dataset for this study was cross-sectional, and therefore only looked at one particular point in time. Although we used retrospective questions in the surveys and asked youth to think about their behaviors over the past year, longitudinal data would be more practical when considering the effects of media character identification on outcomes of different types of aggression. Further, examining whether preferred media, and thus character identification, changed over time would be relevant to examining how this could impact aggression over the same period of time.

A second limitation was that when asking youth about their identification with media characters, they were not asked which specific characters they were identifying with. Therefore, although most U.S. media portray White males as the main characters, it is possible that the youth in our study were identifying strongly with secondary characters; with characters who were non-male or non-White, especially considering the high diversity of our sample. Asking youth to indicate which character they most identified with would allow us to more accurately examine the question of whether or not race and gender influence identification with violent media characters and whether this moderates associations with aggressive outcomes. This information would allow us to match race and gender of the characters to the participants thus examining more thoroughly if indeed youth are more likely to identify with violent media characters who are similar to them in these regards, or if there are other aspects of the characters that are more salient in terms of possible identification.

We also asked about very specific and traditional violent media: video games and films in which there is a lot of physical violence. Future research should incorporate questions about media that are less focused on physical aggression, or that include more prominent relational aggression among the media characters, to better examine whether relational aggression in media can influence relational aggression among youth. Additionally, although we included measures of mild and severe aggression, it would be helpful to include measures that examine relational aggression, to better understand how identification with violent media characters might predict relational aggression.

Despite these limitations, our study yielded interesting and important findings for future research and intervention practices. According to the most recent Common Sense

Media findings, adolescents ages 13 to 18 spend an average of nine hours per day engaging with media (Rideout, 2016), and therefore understanding the effects of media on adolescent development is vital to researchers, practitioners, and educators. The results of this study support previous findings indicating that identification with violent media characters predicts problem behavior, specifically physical aggression and romantic partner aggression, in youth. Considering how much time youth spend engaging with media on a daily basis, understanding the effects of these media is vital in developing appropriate education and treatment approaches to working with youth.

Additionally, the results of this study indicate that gender acts as an amplifier for romantic partner aggression, specifically for female youth. Does this mean that female youth are more sensitive to media socialization with regards to romantic relationships? Are female youth more attuned to romantic relationships, and thus more likely to learn about relationships from media than male youth? Future research should further explore the relation between media character identification and romantic partner aggression, and the role of gender in this relation. Furthermore, prior research exploring best treatment approaches for youth problem behavior have indicated that gender-differentiated treatment is recommended in order to maximize positive outcomes (Herrera & Boxer, 2019), and this study further strengthens the rationale for gender-sensitive and gender-informed interventions.

It is essential for future research to continue to examine how media, and specifically how identification with media characters, can impact adolescent development. Particularly, it is important to further examine how media messages related to violence and aggression, gender norms, or racial stereotypes, can impact the

development of youth problem behavior. This is especially important considering how much time youth spend interacting with media on a daily basis. Further understanding of how youth relate to and identify with media characters and media messages are indicated in order to develop the most appropriate and effective treatment practices for adolescent populations.

STUDY 2: TWILIGHT VERSUS THE HUNGER GAMES: RELATIONSHIP MODELING THROUGH POPULAR MEDIA IN A GROUP OF EMERGING ADULTS

The first project in this dissertation allowed us to examine the relation between character identification and behavioral processes by looking at traditional movie and video game media. In this second study, we bridge the gap between traditional and non-traditional media by examining engagement with two popular series that are available in both traditional (movie) and non-traditional (literature) format. In this study we explore the relation between media preferences, including multi-media engagement, acceptance towards dating violence, and attachment styles in a group of undergraduate emerging adults.

Introduction

Emerging adulthood, the developmental period from the late teens to the mid-20s, is a major transitional period marked in part by changes in personal and romantic relationships (Arnett, 2000; Arnett, 2007; Wood et. al., 2018). During this time, research finds that emerging adults interact with media in ways that enable them to construct and express their identities and their relationship styles (Arnett, 2014). A wide breadth of research indicates that media have a long lasting, profound effect on development (Bushman & Huesmann, 2006; Roberts, Henriksen, & Foehr, 2009). Taking into account contemporary theories on social development as well as media effects, it is clear that emerging adults learn from their environments, model behavior they are exposed to in the form of future scripts and schemas, and can even come to accept and normalize what they are exposed to in the media (Bandura & Walters, 1977; Huesmann, 1998; Roberts, Henriksen, & Foehr, 2009). Previous research has unequivocally shown that media

engagement among youth is linked to behavioral and attitudinal developmental processes through a process of social learning (Dubow, Huesmann, & Greenwood, 2007; Herrera, Goldstein, & Boxer, 2020). Furthermore, studies have also indicated that identification with media characters often results in increased learning from the characters, thus resulting in greater media related effects (Kunkel, Eyal, Donnerstein, Farrar, Biely, & Rideout, 2007).

However, prior studies have also demonstrated that most female characters in media are depicted within stereotypical gender roles. Women are often portrayed as caretakers, nurturers, holding less financially stable or professional kinds of employment, and as sexualized objects for the male viewer (Collins, 2011; Glascock, 2001; Staniewicz & Rosselli, 2008). Research has found that gender stereotypical content is associated with decreased self-esteem and self-worth among women, and even avoidance of leadership roles in future endeavors among women (Collins, 2011; Staniewicz & Rosselli, 2008; Ward, 2016). Research has also found that increased exposure to sexual media, whether explicitly sexual or not, can contribute to increased sexual victimization in adolescents and emerging adults, and that violent sexual media can contribute to increased acceptance of rape myths and acceptance of interpersonal violence towards women among men (Malamuth & Check, 1981; Ybarra, Strasburger, Mitchell, 2014).

We know that media contribute to identity development and that identification with media characters can amplify effects produced by media (Cohen, 2001). What is less clear is whether stereotypical gender representations in the media can affect relationship attitudes among young men and women. Specifically, whether emerging adults incorporate media portrayals into their own relationship and attitude development. In this

study, we explored the relation between media preferences, acceptance towards dating violence, and attachment styles in a group of undergraduate emerging adults. We explored whether increased engagement with media portraying stereotypical and/or gendered relationship messages and roles was associated with increased acceptance of male dating violence within relationships, or whether increased engagement with media that broke away from stereotypical gender roles would be associated with decreased acceptance of male dating violence. We also explored how engagement with these media was associated with anxious and avoidant attachment scores. We examined two popular series aimed at youth, which are available as both film media and literature media.

The current study

We focused on two specific and well-known series in popular media, both of which were originally best-selling book series, and which then became popular movies among adolescents and emerging adults. The first is the *Twilight* series by author Stephanie Meyer (2005), and the second is *The Hunger Games* series by author Suzanne Collins (2008). We chose these series based on their broad appeal to similarly aged audiences, while also portraying distinctly different relationships in each of the series. In *Twilight* the main female character is portrayed in a rigid gender-stereotypical manner and is often motivated by a romantic love interest who exhibits dangerous and violent behaviors, (Collins & Carmody, 2011; Hayes-Smith, 2011). On the other hand, in *The Hunger Games*, the main female character breaks with traditional female stereotypes and is most often motivated by a desire to protect her family, her community, and herself, all while receiving the support of a non-stereotypical male love interest (Kirby, 2015; Taber, Woloshyn, & Lane, 2013). Despite minor differences between the print and film versions

of each of these series, careful study of each series shows that the relationship dynamics within the books and within the movies are presented in the same manner across media types (Collins, 2008; Meyer, 2005).

We wanted to determine first whether individuals are prone to choosing one specific novel/movie over another. Then, we examined whether individuals' relationship attitudes, including attitudes towards male relationship violence, were correlated with the messages in their preferred series, and also whether individuals who are more or less accepting of male relationship violence are more or less secure in their own relationship. In this study we asked whether attitudes towards dating violence differed based on engagement with *Twilight* vs. *The Hunger Games* media. We hypothesized that students would in fact display attitudes towards dating violence that differed based on their preferred media.

Therefore, we hypothesized that students who reported increased exposure to *Twilight*, meaning they had watched the movie and/or read the book a greater number of times, would be more accepting of dating violence compared to students who reported increased exposure to *The Hunger Games*. Because reading a book can oftentimes be a more active experience in which the reader can imagine themselves in the position of the main characters, as compared to watching a movie which can be a more passive experience, our hypothesis also included that reading the books in addition to watching the movies would strengthen the present media effects.

Next, we hypothesized that students who more strongly identified with the main characters from the *Twilight* series would be more accepting of dating violence attitudes compared to students who more strongly identified with the main characters from *The*

Hunger Games series. Lastly, we hypothesized that students who were more engaged with the *Twilight* series, who had both seen these movies and read these books, and who more strongly identified with the main characters in this series, would also exhibit less secure attachment styles compared to other students. We expected that students who were less accepting of male relationship violence, and thus showed healthier attitudes towards relationships in general, would also display healthier and more secure attachment styles in their own relationships.

Methods

Participants

A total of 222 undergraduate students enrolled in Psychology courses at a public university in a northeastern city completed the surveys for this study. This study was approved and overseen by the University Institutional Review Board. As part of a prescreening process, all students reported having either seen the movie or read the books for either the *Twilight* series or *The Hunger Games* series. We excluded 18 students from the analyses because they were above the required age limit for participating in this study or they did not report their age. The analysis sample therefore included 204 undergraduate students between the ages of 18 and 25 (mean age= 20; 80% female; 13% White or European American, 12% Black or African American, 31% Latinx, 12% Middle Eastern or North African, 21% Asian or Asian American, 10% multiracial, and 1% other) were included as participants in this study.

Measures

Measures included questions about students' engagement with media, students' acceptance of dating violence attitudes and behaviors, and questions regarding

attachment style. The entire survey was completed online and took students under thirty minutes to complete. Students electronically gave consent to participate in the study.

Consent statement and survey are included as Appendix A and Appendix B.

Media Engagement. To determine student engagement with the two different series, participants were asked 14 items related to media preference and identification with media characters. Students were first asked descriptive questions, specifically to determine if they had read and/or watched either *The Hunger Games* or *Twilight* series, how old they were when they did so, and how many times they read or watched these media. Students were then asked who their favored character is, who they felt they are most like, and who they would most want to be like. These questions related to identification and perceived similarity and were adapted from Cohen's work on defining and measuring identification with media characters (Cohen, 2001). Identification questions related to both *Twilight* ($a = .75$) and *The Hunger Games* ($a = .75$) had good internal reliability. Three additional questions on media preferences were included as masking questions in the survey. These questions asked how often they watched television with a significant other, what their favorite shows were, and what their favorite genres were.

Attitudes Toward Dating Violence. Students were asked 39 questions related to male dating violence on a Likert-type scale. These questions are all taken from the Price, Byers, & the Dating Violence Research Team survey on The Attitudes Toward Dating Violence Scales, specifically the Attitudes toward Male Dating Violence (AMDV; Price et. al., 1999), which has been used in previous studies and found to have internal consistency, validity and reliability. The three distinct AMDV scales used in this study

were all found to have high internal reliability: AMDV- psychological violence ($a = .79$); AMDV-physical violence ($a = .79$); AMDV- sexual violence ($a = .79$). Previous studies have found similar reliability coefficients, ranging from $a = .70$ to $a = .87$ (Exner-Cortens, Gill, & Eckenrode, 2016; Price et. al., 1999).

Attachment. Lastly, students completed the ECR-RS (Brennan, Clark, & Shaver, 1998), a 9-item self-report measurement of attachment, which has been used in numerous studies of attachment found to have internal consistency, validity and reliability. Internal reliability was tested separately for avoidance and anxiety attachment styles. High reliability scores were found for both avoidance ($a = .87$) and anxiety ($a = .91$), similar to scores found in previous studies (Donbaek & Elklit, 2014).

Procedures

Students filled out online surveys in order to obtain credit or extra credit for an undergraduate psychology course; 18 students were excluded from the analyses because they were above the required age limit for participating in this study, or they did not report their age. Students were able to log onto the university system which allowed them to sign up for studies that would provide required credit for their undergraduate psychology courses. Students were first asked to complete a prescreening, and those who responded that they had either read or watched *The Hunger Games* series or *The Twilight* series were invited to participate in the study. All students completed an online consent form and were then directed to the online survey. The survey consisted of a total of 65 questions and took less than 30 minutes to complete. All students who participated in the study received class credit.

Plan of Analysis

This study consisted of a cross-sectional study design in which individuals were surveyed once. Undergraduate students completed prescreening questions and survey questions in order to obtain school credit. Through the use of linear regression analyses, we examined whether students who were more engaged with and who identified more with characters from a story depicting gender stereotypical relationship patterns (*Twilight*) were more likely to exhibit increased acceptance towards male relationship violence and less secure attachment styles, as opposed to students who were more engaged with and who identified more with characters from a story depicting gender non-stereotypical relationship patterns (*The Hunger Games*).

Results

We first examined how many students reported having either read or watched either series. We found that a total of 192 of the sample of 204 students (94%) reported having seen or read *Twilight* at least once, 162 (79%) of these students having read or watched the series more than once, and 12 (6%) students reported having only ever seen/read *Twilight* but not *The Hunger Games*. Additionally, 192 (94%) students reported having seen or read *The Hunger Games* at least once, and 178 (87%) students reported having read or watched the series more than once, and a total of 12 (6%) students reported having only ever seen/read *The Hunger Games*, but not *Twilight*. We also found that 113 (55%) students reported having both read and watched the *Twilight* series, and 136 (67%) students reported having both read and watched *The Hunger Games*. We include the means, standard deviations, and ranges for all dating violence and attachment variables in Table 2.1.

We then examined correlations between engagement with either *Twilight* or *The Hunger Games*, acceptance of dating violence, and attachment styles. We did not find any correlations between engagement with either series, and measures of dating violence acceptance or attachment. We further assessed correlations between identification with media characters in the two distinct series, acceptance of dating violence, and attachment styles. Upon initial examination, we found significant positive correlations between identification with the main characters in *Twilight* and acceptance of overall male dating violence, psychological dating violence, physical dating violence, and sexual dating violence. We also found significant negative correlations between identification with the main characters in *The Hunger Games* and acceptance of overall male dating violence, psychological dating violence, physical dating violence, and sexual dating violence, as well as anxious attachment scores.

We also found significant positive correlations between the acceptance of the different types of male dating violence, as well as between acceptance of different types of male dating violence, and both anxious and avoidant attachment scores. We did not find a correlation between acceptance of psychological male dating violence and anxious attachment. Table 2.2 shows bivariate correlations for media character identification, all study variables included in Table 2.1, and demographic characteristics.

In our first set of regression models, we examined whether greater media exposure to either the *Twilight* series or *The Hunger Games* series significantly predicted acceptance of dating violence, including overall dating violence as well as dating violence specific to psychological, physical, or sexual violence. We also examined if this was more prevalent for participants who had both read the book and watched the movie,

as opposed to only watching the movie. We did not find exposure to either series to predict acceptance of overall dating violence, psychological dating violence, sexual dating violence, or physical dating violence, regardless of format. These results are indicated in Table 2.3.

For our second hypothesis we conducted a series of linear regressions to examine whether identification with the primary characters *Twilight* predicted increased acceptance of male dating violence, including overall dating violence and psychological, physical, and sexual dating violence. We found that identification with the main characters from the *Twilight* series predicted greater acceptance of overall dating violence ($\beta = .16$, SE= 2.2, $p = .02$), physical dating violence ($\beta = .16$, SE= .77, $p = .02$), and sexual dating violence ($\beta = .14$, SE= .69, $p = .04$). Furthermore, we also found that identification with the primary characters in *The Hunger Games* series predicted less acceptance of overall male dating violence ($\beta = -.22$, SE= 2.6, $p = .001$), psychological male dating violence ($\beta = -.18$, SE= 1.3, $p = .007$), physical male dating violence ($\beta = -.19$, SE= .92, $p = .006$), and sexual male dating violence ($\beta = -.22$, SE= .83, $p = .001$). These results are presented in Table 2.4. We then included different media consumption modes (i.e., print only, movie only, both) as moderators in these regressions to examine possible interactions effects. No significant effects were found.

Finally, we examined whether increased exposure to either series, increased multi-media exposure, or character identification with the primary characters from either of these series increased anxious and avoidant attachment scores. For this set of regression models, we found that identification with the primary characters from *The Hunger Games* series significantly predicted lower anxious attachment scores ($\beta = -.22$,

SE= .38, $p = .007$). We also found that having both watched the movie and read the book predicted a greater anxious attachment ($\beta = .20$, SE= .39, $p = .05$). We did not find that exposure to either series or identification with characters from either series to predict changes in the scores of avoidant attachment. These results are presented in Table 2.5. Lastly, we once again included different media consumption modes as moderators in these regressions. When examining avoidant attachment scores, we found that having both read and watched *The Hunger Games* interacted significantly with gender, suggesting that female students who had engaged with via multimedia platforms with this series had an increased likelihood of having lower avoidant attachment scores ($\beta = -.52$, SE= .44, $p = .01$), as indicated in Figure 2.1.

Discussion

Prior research in the fields of developmental and media psychology have informed us that youth learn from their media environments. Cultivation Theory posits that prolonged exposure to media's constant, albeit subtle, messages about society can lead to the normalization and acceptance of these messages (Roberts et. al., 2009), and thus through a process of social learning, youth pick up on the messages they are exposed to and engaged with in the media, incorporating these into their own developmental processes (Bandura & Walters, 1977). It has also been demonstrated that identification with media characters can lead to overall increased media effects (Cohen, 2001). In this study we explored whether stereotypical gender representations in the media affected relationship attitudes among young men and women and whether emerging adults incorporated media relationship portrayals into the development of their own relationship attitudes and attachment styles.

We examined these questions through the use of two popular but different media series. The first series, *Twilight*, depicts a story of a young woman (Bella) who falls in love with a male vampire (Edward) and in order to be with him she abandons her previous life, friends, and family (Meyer, 2005). Throughout the series, Edward engages in extreme behaviors such as either stalking the main female character or abandoning her without warning. A secondary male character (Jacob) also attempts to gain the attention of Bella. However, throughout the series Jacob engages in physically aggressive and threatening behaviors towards Bella and other characters. The main female character in this series is portrayed in a rigid stereotypical gender role, and her primary motivation throughout the series is related to the main love interest, Edward. Furthermore, her relationships to both her primary and secondary love interests are steeped in unhealthy and violent behavioral patterns.

The second series, *The Hunger Games*, portrays a very different group of characters. The main female character (Katniss) is motivated by a desire to protect her family and her community (Collins, 2008). Throughout this series Katniss strives to keep her loved ones out of danger and to change the unjust laws/ practices of the world she lives in, and is portrayed as a strong fighter and leader, roles that break with traditional female gender stereotypes. Although there are also two male love interests in this series, the primary male character (Peeta) is supportive and engages in non-stereotypical male activities such as baking. The secondary male character (Gale) is presented in a more stereotypical manner and presents with jealous and aggressive tendencies towards the end of the series. Ultimately Katniss chooses Peeta over Gale, demonstrating a preference for the non-stereotypical and more supportive male partner.

Although on the surface these series might appear similar in that they both are marketed towards similar age groups and both portray one primary female character and two male love interests, the messages provided in these series about relationships are very different from each other (Collins, 2008; Meyer, 2005). Additionally, both these series started off as widely popular book series that began the interest in and increased publication of young adult (YA) novels. These series then were turned into movies which were very successful box office hits (Thomas, 2012). Due to the popularity of these movies, the cross-over between adolescent and emerging adult viewership, and the fact that they were presented in both traditional (movie) and non-traditional (book) media format, we focused on these two popular series in the present study. We examined whether increased engagement with either of these series and/or identification with the different media characters predicted increased acceptance of dating violence attitudes or insecure attachment styles.

We first hypothesized that students who reported higher exposure, including multi-media exposure, to *Twilight* would be more accepting of dating violence compared to students who reported higher exposure to *The Hunger Games*. However, our data did not support this hypothesis. Based on the findings for our second hypothesis, this suggests that strong identification with media characters is vital to media effect changes, and media effects are not solely based on exposure.

For our second hypothesis, we examined identification with the primary media characters portrayed in the two different series. As stated, there is one main female character and two male characters in each of the series, and we explored increased identification with these main characters for our third hypothesis. In the *Twilight* series,

we found that identification with the main characters predicted an increase in acceptance of overall male dating violence, physical male dating violence, and sexual male dating violence. What was also notable was that identification with the main characters in *The Hunger Games* predicted a decreased acceptance of overall male dating violence, psychological male dating violence, physical male dating violence, and sexual male dating violence. Based on these results, it seems plausible that not only is identification with characters engaging in problematic or unhealthy behaviors related to unhealthy attachment attitudes, but also that identification with characters engaging in healthy relationships, or who are non-gender-stereotypical can actually serve as a protective factor in the development of relationship attitudes for emerging adults. Media programming that emphasizes prosocial behaviors can contribute toward decreasing negative behavior in youth and promoting prosocial behavior (Gentile, et. al., 2009). It is thus possible that media which overall serve to emphasize non-stereotypical characters and more healthy or positive relationships can also promote healthier relationship attitude development in youth and emerging adults.

Finally, our third hypothesis was partially supported. We proposed that students who were more exposed to the *Twilight* series and who identified more strongly with the main characters from this series would show increased measures of anxious and avoidant attachment whereas those who were more exposed to *The Hunger Games* series and who identified more strongly with the characters from this series would show decreased measures of anxious and avoidant attachment. Although we did not find evidence that engagement with *Twilight* or identification with the main characters predicted attachment style scores, we did find that increased identification with the main characters from *The*

Hunger Games were correlated with decreased anxious attachment scores. Additionally, we found that media consumption mode had a moderating effect on avoidant attachment scores. Specifically, female students who had both read the novel and watched the film *The Hunger Games*, were more likely to have decreased avoidant attachment scores. Once again, results suggest that identification with non-stereotypical characters who choose to engage in healthy and egalitarian relationships, or identification with characters who are present in media with underlying themes of healthy relationship building, can serve as a protective factor for youth. Identifying with these characters can serve as a protective factor for emerging adults who are likely exploring and entering new romantic relationships of their own. These results also suggest that there are likely to be gender differences regarding what media messages youth are picking up on and internalizing, and understanding these differences is critical to developing the best education and treatment interventions for youth.

In these analyses, we also found that having both read and watched *The Hunger Games* series predicted increased measures of anxious attachment as a main effect, whereas overall increased exposure to this series did not. This was an unexpected finding, and upon reflection we believe there might be some underlying factor driving this change. Perhaps youth who are choosing to engage with a particular media in various different formats are doing so for reasons different than youth who engage with only one type of media. Or it could be that youth who choose to both read a book and watch a film, as opposed to simply watching a film, are picking up on different messages. Additionally, maybe youth who choose to read their preferred media are incorporating these differently into their own identity exploration. Based on these unanswered questions, it remains clear

that further understanding regarding the impact of literature media on young adults is necessary.

Conclusions

The findings of this study provide important and significant information that allow us to better understand youth and emerging adult development in order to further our research and develop improved education, prevention, and treatment approaches for youth. However, there are some limitations to this study as well as a clear need for additional research.

The first limitation of this study is that it was a cross-sectional study. Students were surveyed at a single point in time, and therefore it was not possible to draw conclusions about whether media engagement specifically led to changes in relationship attitudes and attachment styles, or whether youth who already held certain attitudes or attachment styles were more inclined to choose certain media. Future research should examine these questions in a longitudinal manner in order to determine whether media engagement serves to change relationship attitudes and behaviors over time. A second limitation was that participants were only asked about these two specific series. There are many media that are marketed specifically towards adolescent and emerging adult audiences, and it would be interesting to further explore some of the messages provided in these other media, and to examine how these messages impact youth relationship attitudes and attachment styles. Future studies should incorporate a broader range of media and allow participants to further state their preferred series.

Future studies should also examine how literature media play a role in youth development. This study suggested that multi-media engagement, that is engagement

with both the movies and the books, provided different results than singular media engagement for one of the series, regarding attachment scores. For all students, having both read and watched *The Hunger Games* was associated with decreased anxious attachment scores, and for female participants specifically, having both read and watched *The Hunger Games* was associated with decreased avoidant attachment scores. As stated, reading a story may provide a different engagement process than watching a movie. It is therefore important to further examine whether literature media should be included in conversations regarding media effects, and whether, in fact, literature media may have stronger or even uniquely different effects on youth socialization and developmental processes than other types of audio-visual media such as movie watching or video game playing. It is also important to examine these effects from a gender schema perspective. Gender schema theory suggests that individuals categorize, based on gender, which cultural messages to assimilate into their own self-concept (Bem, 1981). Understanding the different messages that male, female, and nonbinary youth are not only receiving but also internalizing can help determine best treatment approaches. The importance of developing gender-sensitive and gender-informed interventions to maximize positive outcomes in youth has been indicated in prior research (Herrera & Boxer, 2019).

A future study should consider exploring these questions in a longitudinal manner, in order to further investigate how media preferences can change or affect developmental changes over time. Additionally, it is important to examine whether literature media preferences and identification with additional media characters impact relationship attitude development or attachment styles among emerging adults. Future studies should further explore these questions by asking about a variety of preferred

literary genres, especially considering that the majority of young adult (YA) books are read by youth over the age of 18, and often deal specifically with the transformative issues found in emerging adulthood, such as identity transformation and relationship development (Johnson, 2015; Peterson, 2018; Strickland, 2015).

We found that identification with characters in media that provided healthy relationship modeling was related to decreased acceptance of dating violence and decreased measures of anxious attachment scores. It is important to further explore whether identification with characters in positive media aimed at youth, or identifying with positive characters overall, can have a protective influence in adolescent and emerging adult development. Prior studies suggest that prosocial media can in fact have a beneficial impact on youth and therefore additional studies that serve to examine the impact of prosocial media, specifically related to positive young adult character representation, are indicated to explore how this can be successfully incorporated into preventative and/or intervention applications for youth (Herrera, Goldstein, & Boxer, 2020). Currently, in the YA book publishing spheres, publishers and readers alike have called for an increase in more diverse representation in novels (“We Need Diverse Books”, 2017). Considering the results of this study, further exploration into the effects of literature media on adolescent and emerging adult development, as well as the possible protective factors of including more diverse and quality representation in these books, is crucial in order to develop the best media for youth.

Adolescents, as they develop into emerging adults, they move out of their homes, and enter a new and more independent environment in their college years, are likely to learn about their new surroundings and to develop new attitudes and beliefs through the

characters and messages they are exposed to and engaged with in their preferred media. This is especially pertinent considering that youth spend a majority of their day engaged with different types of media (Rideout, 2016). It is therefore critical to further understand how media, and how different types of media, including non-traditional, can impact development, be it in negative or positive ways. Future research should continue to explore how media messages impact interpersonal relationship attitudes as well as social-cognitive and behavioral changes in development. Additionally, as we continue to see a rise in the publication of books geared towards older adolescents and emerging adults (Roxburgh, 2015), research into the potential effects of literature media are necessary in order to develop the best and most appropriate educational, preventative, and treatment approaches to be used by parents, educators, clinicians, and researchers alike who are invested in the wellbeing of adolescents and new adults.

STUDY 3: ENAGEMENT AND IDENTIFICATION WITH YOUNG ADULT LITERATURE MEDIA AND DEVELOPMENTAL OUTCOMES IN EMERGING ADULTS

The first study in this dissertation project examined how media character identification processes might affect relations between violent media and behavioral outcomes in a group of high schoolers. We then explored in the second study the relation between media preferences, acceptance towards dating violence, and attachment styles in a group of undergraduate emerging adults, focusing on both traditional media and literature media. These studies offered a glimpse into the possible impact of different types of media on subsequent social, cognitive, and behavioral patterns of development. Thus, we now move on to examine the role of non-traditional media, specifically literature media, in the development of social, cognitive, and behavioral patterns in emerging adulthood, with specific attention on relationships, health-risk behavior, and identity-processes, while also examining the moderating role of character identification.

Introduction

We are currently in what some have called the “golden age of young adult literature” (Roxburgh, 2015), a time during which books aimed at youth address a variety of relevant topics including transformations, identity struggles, and overcoming trauma (Strickland, 2015). However, despite the misconception that YA books are geared primarily towards adolescents, some marketing estimates indicate that 70% to 80% of YA readers are over the age of 18 (Johnson, 2015; Peterson, 2018), and that book conventions which focus on YA literature are predominantly attended by individuals fitting the emerging adulthood developmental span (Kirch, 2019). In fact, even teenage readers, the age group to whom these books are supposedly marketed, have stated that

YA books are more relevant to emerging adults than to adolescents (VickyWhoReads, 2018). Furthermore, the publishing world seems to disagree quite often on what categorizes a book as YA, with some publishers stating that YA is specifically written and published for teenagers, and others acknowledging that YA is often written and published for adults (Whitman, 2018). In fact, at times the only consensus as to what determines whether a book be categorized as YA or not seems to be that the protagonists are typically in their mid to late teenage years, and often in their late teens and even early twenties (Peterson, 2018). Because YA books deal with a variety of topics that are the cornerstones of emerging adulthood, such as identity struggles, relationship development, substance use, and conflict resolution (Arnett, 2000; Strickland, 2015; Wood, 2017), individuals at this developmental stage are most likely to relate to the stories in YA books.

Emerging Adulthood

The developmental period of emerging adulthood, the ages between 18 and 25, is marked not only by a continued period of brain development, but also by an increased exploration of possibilities, changes in individual's emotional, social, and cognitive domains (Spear, 2000). The interaction between the individual and their environment is the ultimate pathway for these explorations (Wood, et. al., 2018). It was previously believed that youth transitioned from adolescence directly to young adulthood, but the concept of adolescence itself came into existence as society changed and the culture shifted from group-living to partnership-living (Bogin, 2013). Adulthood then was considered the period when youth left their homes, entered these partnerships (i.e., were married), and began to work and/or have children. However, in current society we once

again see a change in expectations for youth; an emphasis on individualization which allows them to delay marriage and instead pursue other paths (Wood et. al., 2018). Emerging adulthood, therefore, is a culturally constructed developmental stage, prominent in modern civilization and critical to examine as it is during this time that youth find their place within society (Wood, et. al., 2018).

Today, more than ever, the transition from childhood into adulthood is longer, more complicated, and increasingly marked by introspection and self-expression (Wood et. al., 2018). These years offer the greatest opportunity, compared to any other developmental stage, for self-exploration as well as exploration into the areas of relationship development, social attitudes, employment goals, and general worldviews (Arnett, 2000). It is during the time that youth typically move from being dependent on their caregivers, living at home and financially reliant on their family in the early stages of emerging adulthood, to becoming independent members of society, usually living on their own and often engaged in long-term relationships at the end of this developmental stage (Wood et. al., 2018). Emerging adulthood is considered a period marked by identity exploration, instability, self-focus, and possibilities (Arnett, 2005). The choices youth make and paths that they traverse during emerging adulthood can determine the outcomes of their adult life, including the likelihood of obtaining a stable career and healthy relationships. Understanding emerging adulthood as a specific stage in development has proven to be beneficial in further understanding the processes that occur during these years (Wood et. al., 2018).

Furthermore, college itself is a prime space for the self-exploration that marks emerging adult development, as undergraduate students begin to experience a newfound

sense of freedom. Most will have recently turned 18 (legal adult status), and for many this is also the first time they might be living on their own, outside of a more restrictive family home. During this time, youth typically begin entering increasingly intimate relationships, and they also engage in high rates of health-risk behavior, including illegal drug use and unprotected sexual intercourse (Nelson & Barry, 2005). Due to this convergence of factors, contemporary researchers have suggested that emerging adulthood is the most intensive period of identity exploration and formation (Stoppa & Lefkowitz, 2010). In fact, it has been stated that the only stage in life which compares to emerging adulthood in terms of complex social, emotional, neuroanatomical, and other developmental changes is infancy (Wood et. al., 2018).

Media consumption during emerging adulthood

Emerging adults engage in pivotal developmental tasks while living in a media-saturated environment in which they often, for the first time, find themselves having complete autonomy with regards to what media they choose to engage with (Brown, 2006; Coyne, Walker, & Howard, 2013). In this sense, media can serve as a source for the exploration processes that are prevalent during emerging adulthood. Specifically, during this period, emerging adults are some of the highest users of media overall, with estimates reporting that 88% of emerging adults engage frequently with social media specifically, and are engaged with some kind of media for approximately 12 hours a day (Arnett, 2014; Smith & Anderson, 2018). It is thus plausible that developmental theories and media theories can merge at this time to have an elevated impact on development. Not only are emerging adults among the highest users of media, but they also spend more time using media than they do engaging in any other activity (Coyne et. al., 2013).

Research examining media use among emerging adults has found that youth utilize media to fulfill needs directly related to the developmental tasks pertinent to this stage, and also that they are influenced by media in many ways, including with regards to relationship development, self-image, and health-risk behaviors (Coyne et. al., 2013). Their reasons for media use vary, but often emerging adults use multimedia platforms to gratify their need for identity exploration, to fulfill peer and romantic socialization needs, to express themselves to their peers, and to find comfort or further understanding regarding their own ongoing struggles (Arnett, 2014; Coyne et. al., 2013).

Specifically, at a time when youth are most actively exploring their own identities and relationships, media use has been shown to influence both positive and negative outcomes within these developmental processes (Coyne et. al., 2013). For example, one study found that emerging adults who reported using a higher number of different social media platforms also reported increased symptoms of anxiety and depression, as well as increased alcohol and drug use (Vannucci, Ohannessian, & Gagnon, 2018). However, other studies have found that emerging adults who use social media websites more frequently report higher perception of social support and spend more time engaging in positive face-to-face social interactions (Jacobsen & Forste, 2011; Manago et. al., 2012). Furthermore, it has also been suggested that identifying with favorite media characters may in fact provide an opportunity for anxiously attached youth to experience more secure attachment patterns (Greenwood, 2008). However, researchers have stressed the need for and importance of further examining media use of emerging adults through a developmental lens (Coyne et. al., 2013).

Character identification and identity

Information processing theory informs us that youth develop scripts and schemas based off observed behaviors and interactions with the environment, integrating behaviors that are rewarded, and calling upon them when faced with similar situations in the future (Huesmann, 1998). Cultivation theory posits that mass media tend to portray constant, yet subtle, messages about society, individuals consume media indiscriminately, and over time, high exposure to these media contribute to normalization and acceptance of the messages contained within (Roberts et. al., 2009). In other words, individuals are likely to develop scripts and schemas about the world based on the messages they receive from mass media, which play a powerful role in the development and activation of these (Bandura, 1986; Herrera et. al., 2020). Identification also plays a significant role in the effects produced by mass media (Collins, 2011; Huesmann et. al., 2003). Identification is likely to occur when the viewers witness similarities between the media character and themselves, such as with regards to age, race, or gender, and stronger identification on part of the viewer often results in increased learning from the characters, thus resulting in greater media-related effects (Kunkel et. al., 2007).

Media are likely to play into the transformational periods in the lives of emerging adults, since these youth are most likely to seek out answers and even a sense of companionship from media. Additionally, because this developmental period is so transformative, youth are likely to be more vulnerable to picking up on the subtle messages about the world that media portray (Stoppa & Lefkowitz, 2010). Some of these messages may be related to relationship development and behaviors within peer or romantic relationships, and thus may impact the development of youth social relationships.

Literature Media

As we consider the likelihood of media effects taking place in emerging adulthood, combined with the concept of the “golden age of young adult literature” (Roxburgh, 2015), it is important to also keep in mind that previous studies have found that emerging adults enjoy reading. In fact, 70% of them “really enjoy” recreational reading, compared to the 52% who report they “really enjoy” watching television (Arnett, 2014). Because YA books deal with a variety of topics that are the cornerstones of emerging adulthood, such as identity struggles, relationship development, conflict resolution, substance use, and overcoming trauma (Arnett, 2000; Strickland, 2015; Wood, 2018), individuals at this developmental stage are those most likely to relate to the stories in YA books.

Given what we know about emerging adulthood and about the rise in publication of YA literature, it is interesting to consider how youth who are engaged with this literature might be incorporating these messages into their developmental processes. Research suggests increased identification with media characters results in increased social learning from media characters, thus resulting in greater media effects (Eron & Huesmann, 1986; Kunkel et. al., 2007). Considering this from the YA literature perspective, it is likely that individuals who are more highly engaged with YA literature are more likely to be influenced by these books. Surprisingly, however, there is a paucity of studies examining the impact of YA literature on development.

The Current Study

With the increase of books geared towards individuals who have recently entered this developmental stage and given the themes depicted in these books, the impact of

these media in emerging adulthood cannot be overlooked. And yet, despite the vast popularity of young adult books, we know almost nothing about how engaging with literature impacts development. The following work examines how literature impacts emerging adult development, with specific attention to peer relationships, problem behaviors, and identity development. This study was developed as a longitudinal study in order to determine if media engagement served to change relationship attitudes and behaviors, problem behaviors, and identity development over time. Importantly, longitudinal data allows for temporal precedence, allowing us to begin the process of establishing causality (Davis-Kean & Jager, 2012). Thus, the objectives of this longitudinal project were:

Objective 1: To evaluate how much literature emerging adults read, what types of literature they read, and how they obtain access to it.

Despite data on book sales provided by the publishing industry, there is a scarcity of scientific information regarding emerging adult reading. I surveyed a sample of undergraduate students over the course of three months. At 2 distinct waves, all students completed self-report surveys regarding reading habits, preferences, and access to literature. I hypothesized that two groups would emerge: a group who did not actively engage in reading aside from school-related assignments, and a second group who read a significantly greater amount of unrequired material, called “avid readers.” I further hypothesized that outcomes relating to cognitive or behavioral processes would be greater for students who fell into the “avid reader” group.

Objective 2: To investigate how literature content impacts the development of peer and/or romantic relationships.

Research from social learning and attachment theories underscores the importance of social aspects of relationships, but we have minimal information on how literature contributes to these. At each wave students responded to questions regarding peer and romantic relationships and attitudes. I hypothesized that students would develop relationships and attitudes resembling those portrayed in their favored literature, and that this would be more pronounced for students who were considered “avid readers” as per the reading habits survey.

Objective 3: To examine how literature content impacts development of health-risk behavior.

Considerable research in social cognition and theories of problem behavior highlights the importance of media effects in health risk behavior, but past studies do not explore the role of literature. At each wave students responded to questions regarding health risk behaviors and outcomes. I hypothesized that students would develop or demonstrate behaviors resembling those rewarded in their favored literature. I further hypothesized that “avid reader” students would more strongly exhibit behaviors resembling those rewarded in their favored literature.

Objective 4: To determine how identification with literary characters moderates the relation between literature content and behavioral outcomes or identity processes.

Media psychology research has shown that identification with characters in movies and television serves as a moderator which influences behavioral outcomes and identity seeking processes. Still, we know almost nothing about how literature plays a role. At each wave students responded to survey items regarding identity processing, and identification with characters and character traits. I hypothesized that students with

greater character identification would be most influenced by literature and better able to engage in identity exploration, a tenet of EA. Furthermore, I hypothesized that “avid reader” students would be more likely to identify with literature media characters overall, and that this would increase their ability to engage in identity exploration as compared to students who were not “avid readers.”

Methods

Participants

I recruited emerging adults, ages 18 to 25, from an undergraduate population of students at a public university in a northeastern city. A total of 271 undergraduate students enrolled in Psychology courses completed the survey for Wave 1 of this study. Of those students, 10 participants were removed from the study because they fell outside of the age requirements for the study. A total of 238 participants also completed Wave 2 of this study. Each Wave was completed at the beginning and the end of one academic semester, with an average of 64 days between each survey. In each Wave, participants were required to pass attention checks while completing the survey: three items were included in which participants were asked to select a specific answer (A, B, or C). After removing participants who did not pass attention checks, participants included in the final analyses for this study were 255 undergraduate students between the ages of 18 and 25 (mean age= 19; 78% female; 20% Asian or Asian American, 17% Black or African American, 30% Latinx or Hispanic, 11% Middle Eastern or North African, 11% White or European American, 10% Multiracial, and 1% other). This study was approved and overseen by the University Institutional Review Board, and all students who completed the survey were granted partial credit for a single Wave or full credit for completing both

Waves of the study. Two raffle winners also were chosen at random to receive a pair of wireless *Beats* headphones as incentive to complete both Waves of the study. The retention rate between Wave 1 and Wave 2 was 91%. No differences were found between the students who completed Wave 1 and the 9% of the sample that did not participate in the second Wave. Within each Wave, the probability of missing data on the outcomes or predictors was not dependent on the values of the predictors, suggesting that data were missing completely at random (MCAR), thus allowing for complete case analysis (Allison, 2001).

Measures

Self-report assessments were used to determine students' reading habits, relationship attitudes and behaviors, problem behaviors, identity exploration processes, and identification with literary characters.

Demographics. Participants completed questionnaires regarding basic demographic information. These items included race, gender, age, sexuality, household composition, and family social and financial status. Participants were a diverse sample of emerging adults with a mean age of 19, 89% Nonwhite, 78% female, 19% non-heterosexual. Half the participants reported they were financially comfortable or well off, 37% reported they were "just getting by," and 13% reported they were struggling or enduring hardship.

Personality. Students were asked to complete the Ten Item Personality Inventory (TIPI; Gosling, Rentfrow & Swann Jr., 2003), which has been used in previous studies in which short measures of personality are required to support the primary topics of interest in the study. This scale is based on the Big-Five dimensions of personality and has adequate levels of validity and reliability (John & Srivastava; Gosling et al., 2003).

Participants were asked to rate how much they agreed with statements related to Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experiences, on a scale of 1-7. Each dimension consisted of two items, one of which was reversed coded (i.e., *Agreeableness* = “I see myself as extraverted, enthusiastic” and “I see myself as reserved, quiet” (reverse-coded)). The test-retest correlations were substantial for each of the personality categories (as listed: $r=.80$; $r=.60$; $r=.60$; $r=.70$; $r=.66$). Coefficient alphas for these dimensions ranged from .08 to .65 across both waves. However, as per Gosling et al. (2003), the TIPI was created as a short instrument to optimize validity and not with the goal of high alphas, thus the authors suggest that a more appropriate index to determine instrument reliability is test-retest reliability, which is included above (Gosling et al., 2003).

Reading and Media Use. Students were then asked 57 questions regarding their media use and reading habits. They were asked 8 questions regarding general media use (i.e., “How many hours a day do you spend listening to music?”), and 39 questions regarding reading preferences, including questions about their favorite books and genres (i.e., “Romance,” “Contemporary,” “Science Fiction”), topics or themes most prevalent in their preferred literature (i.e. “violence,” “drinking or drug use,” “health or physical wellness”), and representation in their preferred literature. Additionally, students were asked whether or not they read young adult (YA) literature, how many books they read per month, and which ones were their favorites. Participants were also asked 10 questions related to engagement with books and book-related activities (i.e., “How often do you read for fun?”; “Have you ever created ‘fan art’ or written ‘fan fiction; in any form?’”). Many of these questions were adapted from McKenna’s Reading Attitudes Survey

(McKenna, Conradi, Lawrence, Jang, & Meyer, 2012), a self-report reading survey developed by Ivey and Broaddus (Ivey & Broaddus, 2001), and the NAEP Reading Student Questionnaire (U.S. Department of Education, 2017).

Identification with Characters. Participants were also asked questions regarding their feelings of identification with favored literary characters. These measures of identification with characters were used to determine students' strength of engagement with media and preferred literature. Based on Cohen's work on defining and measuring identification with media characters, subjects completed a 10-item survey which was developed to address identification with a self-selected media character (Cohen, 2001) regarding their feeling of identification with their preferred literary characters. For self-selected media characters students also completed the background similarity subscale of the Perceived Homophily Measure, a 4-question subscale addressing the extent to which the participant believes the chosen character to be socially, culturally, and financially similar to them (McCroskey, Richmond, & Daly, 1975). Additionally, students completed the attitude similarity subscale of the Perceived Homophily Measure, a 4-question subscale addressing the extent to which the subject believes the chosen character to behave, think, and be similar/dissimilar to them (McCroskey, Richmond, & Daly, 1975). Students completed this survey for their preferred literary characters as well as for general popular media characters. For all self-selected characters, participants wrote in their favored character from a book they had read in the last 3 months, therefore these responses changed from Wave 1 to Wave 2. For general popular media characters, students were provided with a list of well-known characters that are considered to be

either heroes or villains (e.g., Harry Potter and Voldemort); this list remained the same in each Wave.

Increased scores on overall identification indicated an increased likelihood of feeling immersed in the literature and understanding the chosen character's feelings or motivations. Increased scores on background homophily indicated the participant's belief that the chosen character was similar to them with regards to status, whereas increased attitude homophily indicated the participant's belief that the chosen character thought and behaved like them. Increased identification with heroes or with villains indicated that the student believed themselves to be, or wished to be, similar to those characters. For the overall identification and homophily measures, students were asked to answer these questions while thinking of their favorite character. For identification with heroes or villains, students were given a list of popular characters.

Popular characters were divided into two categories: heroes and villains. Graduate and undergraduate lab members were asked to classify each character as hero or villain, or to indicate if they were unfamiliar with the character. Categories were determined based on lab member agreement at 80% or above. Lab members, who were of similar age to the participants in the study, were asked to respond whether each popular character was considered a hero, a villain, or if they were unfamiliar with the specified character. The characters that were considered heroes included: Captain Marvel (Marvel Comics), Iron Man (Marvel Comics), Thor (Marvel Comics), Katniss Everdeen (The Hunger Games), Harry Potter (Harry Potter), Ron Weasley (Harry Potter), and Hermione Granger (Harry Potter). The characters that were considered villains were: Thanos (Marvel Comics), Loki (Marvel Comics), Voldemort (Harry Potter), Draco Malfoy (Harry Potter).

Two characters were omitted from these categories due to disagreement and/or because the characters were found to be less known by the lab members. These characters were: Black Widow (Marvel Comics), Bella Swan (Twilight), Edward Cullen (Twilight), Peeta Mellark (Twilight). Items included in the *Hero* and *Villain* scales showed strong internal reliability (*Hero* alpha= .81 in Wave 1, = .87 in Wave 2; *Villain* alpha= .80 in Wave 1, = .84 in Wave 2), and were significantly correlated between waves (*Hero* $r = .40, p < .00$; *Villain* $r = .42, p < .00$).

Peer/Romantic Relationships. Survey items from different questionnaires were used to assess students' relationship attitudes and experiences. The Self-Report Measure of Aggression and Victimization (SRASBM; Morales & Crick, 1998) was used to measure peer-directed and romantic relational aggression. This survey is composed of 56 self-report questions which address relational aggression, physical aggression, relational victimization, physical victimization, exclusivity, and prosocial behavior (Morales & Crick, 1998). Each of these scales can additionally be broken down into the following subscales: Reactive, Proactive, and Cross-Gender or Romantic Aggression. Students answered questions on a 7-point Likert scale (1= Not at all True to 7= Very True). The scales that were used for this study were the Relational Aggression Scale (16 items), Physical Aggression Scale (6 items), and Prosocial Behavior Scale (11 items). Cronbach's alpha coefficient for the Relational Aggression scale, consisting of Proactive, Reactive, and Romantic Aggression subscales, was .90 for Wave 1 and .92 for Wave 2 in this study, and the correlation between Waves was significant ($r = .51, p < .00$). The Physical Aggression Scale, consisting of the Proactive and Reactive subscales, had a Cronbach's alpha coefficient of .87 for Wave 1 and .90 for Wave 2, as well as a

significant correlation between Waves ($r = .49, p < .00$). For the Prosocial Behavior Scale, Cronbach's alpha was .82 for Wave 1 and .90 for Wave 2, and this scale also had a significant correlation between Wave 1 and Wave 2 ($r = .72, p < .00$).

The Relationship Structures Questionnaire (ECR-RS), which was developed as a self-report measure of attachment (Feddern Donbaek & Elklit, 2014), was also used in this study. Participants were asked to respond to 9 questions related to relationships in general, and were asked these questions again regarding their relationships with their primary guardian, best friend, and most recent significant other. The questions were answered on a 7-point Likert scale (1= Strongly disagree to 7= Strongly agree). These measures have been shown to have internal consistency, as well as validity and reliability, and have been used in previous developmental studies. For each set of questions, internal reliability was tested separately for avoidance and anxiety attachment traits. High reliability scores were found for both avoidance and anxiety in each set of questions. General relationship avoidance Cronbach's alpha was .80 in Wave 1 and .81 in Wave 2; general relationship anxiety was .91 in Waves 1 and 2. Cronbach's alpha for primary guardian relationship avoidance was .89 in Wave 1 and .91 in Wave 2; primary guardian relationship anxiety was .89 in Wave 1 and .94 in Wave 2. Regarding peer, or best friend, relationships, Cronbach's alpha for avoidance was .89 for both Waves; Cronbach's alpha for anxiety was .92 for Wave 1 and .94 for Wave 2. For significant other avoidance, Cronbach's alpha was .90 for Wave 1 and .91 for Wave 2; anxiety was .92 for Wave 1 and .93 for Wave 2. These high reliability scores were similar to scores found in previous studies (Donbaek & Elklit, 2014). Additionally, because the subscales across relationships demonstrated good internal reliability, a mean score was created for

each avoidance and anxious scale at each Wave. Cronbach's alpha for each of these new subscales were as follows: avoidance, Wave 1 $a = .69$, Wave 2 $a = .67$; anxious, Wave 1 $a = .74$, Wave 2 $a = .77$. Correlations Waves for each of these scores was significant (avoidance $r = .43$, $p < 0.00$; anxious $r = .58$, $p < 0.00$).

Identity Exploration. Students completed the Revised Multigroup Ethnic Identity Measure (MEIM), a 12-item self-report measure developed to examine how ethnicity and race are related to identity exploration (Phinney, 1989). Scale items showed high internal reliability in both Wave 1 and Wave 2 (respectively, $a = .93$ and $a = .94$) and correlation between Waves was significant ($r = .65$, $p < 0.00$). Students also completed 6 survey questions related to future aspirations (Boxer, Goldstein, DeLorenzo, Savoy, & Mercado, 2011). Participants were asked 4 questions regarding their beliefs about their future (i.e., "How sure are you that you will have a happy life") and were asked to answer these on a Likert-type scale ranging from 1 (Not at all sure) to 4 (A lot sure), and were asked 2 questions regarding their aspirations for and beliefs about their education ("What is the highest level of education you would like to achieve," "What is the highest level of education that you think you will achieve"), and were asked to answer these on a Likert-type scale ranging from 1 (Some college) to 3 (Graduate or professional degree). Higher scores on this scale indicated increased positive outlook regarding future aspirations.

Problem/ Health Risk Behavior. Self-reports were used to assess individuals' problem and health risk behaviors. Seventy-six questions from the National College Health Risk Behavior Survey (NCHRBS) for college-aged youth were used to assess problem behavior in the sample. These questions were related to health, violence, suicidality, substance use, sexual behaviors, and trauma history. Specifically, the NCHRBS has 6

categories, as follows: Category 1, behaviors that result in unintentional and intentional injuries; Category 2, tobacco use; Category 3, alcohol and other drug use; Category 4, sexual behaviors that contribute to unintended pregnancy and STDs, including HIV infection; Category 5, dietary behaviors; and Category 6, physical activity. This measure has been developed by the Center for Disease Control and Prevention in collaboration with college and university representatives, national organizations, and federal agencies for research specifically on undergraduate populations (Center for Disease Control and Prevention, 1997).

Procedures

Undergraduate students filled out online surveys in order to obtain credit or extra credit for a psychology course. This survey was conducted twice over the course of one semester. Students were able to log onto the university system which allowed them to sign up for studies that would provide required credit for their undergraduate psychology courses. Upon providing e-consent for this study, students were automatically taken to the online survey. Students who completed the initial survey were asked to complete the survey again at the end of the semester. Students who completed one survey received partial credit, students who completed both surveys received full credit and were entered into a raffle to win a set of wireless headphones. Consent statement and survey are included as Appendix C and Appendix D.

All surveys were administered via an online link using Qualtrics Survey Software. This software allowed students to begin the survey at any time from their own electronic devices and did not require that students complete the survey in any specific amount of time, nor that they complete the survey in a single sitting. Therefore, some students were

recorded as taking multiple days to complete the survey. Setting aside time lengths spanning more than a single day, on average, students completed the survey in 63 minutes. This is after removing the average time of students who completed the survey over the course of multiple days but including students who may have completed the survey at different time points throughout the same day. Within a single day period, the minimum duration time for the survey was 11 minutes, and the maximum duration time was 143 minutes. The longest duration time overall was 9415 minutes, or 6.5 days. Therefore, because students could begin the survey in the morning, then return to it later in the evening, the measure of 63 minutes is likely inflated. During survey preparation, this survey was administered to lab members and took, on average, 41 minutes to complete.

Plan of Analysis

This study consisted of a longitudinal study design in which individuals were surveyed twice, once at the beginning and once at the end of the semester. Undergraduate students completed survey questions in order to obtain school credit. Through the use of descriptive analyses, I first assessed participants' reading habits to examine how much emerging adults read, what types of literature they read, how they obtain this literature, and their engagement in other book or literature-related activities. I then conducted a series of linear regression analyses, to examine the relations between reading practices and relationship development, specifically focusing on anxious and avoidant attachment measures as well as relational aggression behaviors and attitudes within a variety of relationship types (family, peer, romantic), and how these related to a preference for certain genres, namely Romance and Contemporary. Next, I used a series of regression

analyses to examine the relation between literature and development of health or health risk behavior. I examined how overarching themes present in favored literature related to both safety-seeking and health-risk behavioral outcomes. Finally, I included different identification measures as interaction terms in the regressions that pertained to relationship development as well as to health risk behavior, to examining the moderating effect of strength of engagement with media to these outcome variables. Furthermore, I also examined the moderating effect of these measures on identity formation and future aspiration outcomes.

Results

Objective 1: To evaluate how much literature emerging adults read, what types of literature they read, and how they obtain access to it.

Reading Preferences

Regarding total media use in Wave 1, 4% of students reported engaging in any type of media use for less than 1 hour daily, 25% reported engaging with media for 1-3 hours daily, 40% reported 3.5-6 media use hours daily, 21% reported 6.5-9 hours daily, 7% reported 9.5-12 hours daily, and 4% reported more than 12 hours each day. In Wave 2, 2% of students stated they engaged with any type of media for less than 1 hour per day, 20% reported 1-3 hours of daily engagement, 44% reported 3.5-6 hours of daily media use, 21% reported 6.5-9 hours daily, 8% reported 9.5-12 hours, and 4% reported more than 12 hours a day of media use.

I then examined reading-specific measures to address Objective 1 of this dissertation. That is, I examined reading preferences among emerging adults in the total sample of 255 participants across both Waves. Regarding reading preferences for

literature category, in Wave 1 161 students (64%) reported their preferred category was Young Adult (YA), 90 (36%) reported they preferred Adult books, and no students reported a preference for Middle Grades (MG) books. In Wave 2, 136 (60%) reported a preference for YA, 88 (39%) reported a preference for Adult, and 2 (>1%) reported a preference for MG. Furthermore, when asked how often they read Young Adult literature, in Wave 1, 15 students (6%) said they always read YA, 69 students (27%) reported they read YA “most of the time,” 56 (21%) reported they read YA “about half the time,” 87 (34%) reported they read YA sometimes, and 30 students (12%) reported they “never” read YA. In Wave 2, 19 (18%) of students reported the “always” read YA, 54 (23%) reported they read YA “most of the time,” 60 (26%) reported they read YA “about half the time,” 72 reported they read YA “sometimes,” and 25 (11%) reported they “never” read YA.

I also examined how participants obtained access to books and found that in Wave 1, 209 (82%) of students reported reading physical books they owned, 120 (47%) reported borrowing physical books from the library, 121 (47%) reported reading purchased electronic books, 34 (13%) reported reading e-books borrowed from the library, and 64 (25%) reported the use of audiobooks. In Wave 2, 186 students (73%) reported reading owned physical books, 100 (39%) reported borrowing physical books from the library, 109 (43%) reported reading purchased electronic books, 32 (13%) reported reading e-books borrowed from the library, and 61 (24%) reported the use of audiobooks. Notably, most participants (191; 75% in Wave 1; 158; 69% in Wave 2) reported using more than one method of reading (i.e., both physical books and e-books). These data are presented in Figure 3.1.

Avid Readers

I then examined participants' reports regarding reading enjoyment in each Wave, in order to determine avid readership status among participants. I specifically used variables that measure how much participants enjoyed reading and how often they read to determine the "avid reader" variable. Participants who indicated that they enjoyed reading "a lot" or "a great deal" or who reported reading for fun "almost every day" or "once or twice a week" were considered to have avid reader status.

When asked how much they enjoyed reading in Wave 1, 28 students (11%) said they enjoyed reading "a great deal," 38 students (15%) said they enjoyed reading "a lot," 106 students (42%) said they enjoyed reading "a moderate amount," 62 students (24%) said they enjoyed reading "a little," and 20 students (8%) responded "not at all." In Wave 2, 22 students (10%) said they enjoyed reading "a great deal," 33 students (14%) said they enjoyed reading "a lot," 82 students (46%) said they enjoyed reading "a moderate amount," 74 students (32%) said they enjoyed reading "a little," and 19 students (8%) responded "not at all." I then examined participants' responses regarding how often they read for fun. In Wave 1, 16 students (6%) said "almost every day," 22 students (9%) reported "once or twice a week," 34 students (13%) answered "once or twice a month," 110 students (43%) said a few times a year, and 72 students (28%) responded "never or hardly ever." In Wave 2, 10 students (4%) said "almost every day," 14 students (6%) reported "once or twice a week," 28 students (12%) answered "once or twice a month," 91 students (40%) said a few times a year, and 87 students (38%) responded "never or hardly ever."

In the first Wave, 82 students (32%) were considered avid readers, and in the second Wave 60 students (24%) were considered avid readers. Of the 82 avid reader students at Wave 1, 49 (60%) were also avid readers at Wave 2. I conducted a multivariate analysis of variance (MANOVA) to examine the four distinct personality items (from TIPI) as independent variables and avid reader status as the dependent variable. There were no statistically significant associations between the scores for personality items and avid reader status at Wave 1 or at Wave 2. All analyses from this point forward used avid reader status at Wave 1 to examine relations between Wave 1 predictors and Wave 2 outcomes.

Objective 2: To investigate how literature content impacts the development of peer and/or romantic relationships.

Next, I examined the relations between preferred literature and social relationships. Specifically, I examined whether the kind of literature read (i.e., genre preference) influenced attachment scores or relationship attitudes through a series of regression models. I examined how literature genre preference in Wave 1 influenced scores on the ECR for general attachment, attachment towards primary guardian or parent, attachment towards peer or best friend, and attachment towards significant other in Wave 2. For each of these analyses, I controlled for Wave 1 attachment scores. I primarily focused on genres of Contemporary and Romance, since these genres predominantly deal with relationships. Romance novels focus on romantic relationships, whereas Contemporary novels focus on relationships of all sorts, including romantic

relationships as well as peer relationships and family relationships (Literary Terms, 2015).

With the focus on Romance and Contemporary, no significant findings were present for the general attachment measure. For attachment towards a primary guardian or parent, I found that a preference for Contemporary in Wave 1 predicted lower anxious attachment scores ($\beta = -.35$, $SE = .08$, $p = .000$) in Wave 2, and a preference for Romance in Wave 1 also predicted lower anxious attachment scores ($\beta = -.25$, $SE = .06$, $p = .003$) in Wave 2. For attachment towards peer or best friend, I found that a preference for Romance in Wave 1 predicted lower anxious attachment scores ($\beta = -.18$, $SE = .07$, $p = .03$) in Wave 2. For attachment towards significant other, I found no relation between genre preference and attachment scores. Lastly, I examined the relation between the mean attachment score and genre preference. I found that a preference for Romance in Wave 1 predicted lower anxious attachment scores in Wave 2 ($\beta = -.17$, $SE = .05$, $p = .03$). All results are presented in Table 3.3.

I then included avid readership status in Wave 1 as an interaction term in the initial analyses, to determine if this moderated the relation between genre preference at Wave 1 and attachment scores at Wave 2. No significant interactions were found.

I also examined whether the preferred literature genre choice influenced relationship attitudes as measured by the SRASBM. I did not find any significant interactions between genre preference at Wave 1 and subsequent scores on the SRASBM at Wave 2.

I examined additional genres on an exploratory basis, as there can often be overlap or crossover between genres. The additional genres examined were Fantasy,

Science Fiction, Mystery, and Horror. For the general attachment measure, I found that a preference for Mystery in Wave 1 significantly predicted higher anxious attachment scores ($\beta = .15$, $SE = .08$, $p = .04$) in Wave 2. For attachment towards a primary guardian or parent, I found that a preference for Science Fiction in Wave 1 predicted lower anxious attachment scores ($\beta = -.16$, $SE = .07$, $p = .04$) in Wave 2; and a preference for Horror in Wave 1 predicted lower anxious attachment scores ($\beta = -.24$, $SE = .07$, $p = .008$) in Wave 2. For attachment towards peer or best friend, I found that a preference for Fantasy in Wave 1 predicted lower avoidance attachment scores ($\beta = -.18$, $SE = .04$, $p = .03$) in Wave 2. As with the previous genres, there were no significant findings between these genre preferences at Wave 1 and scores on the SRASBM at Wave 2. These results are also included in Table 3.3.

Objective 3: To examine how literature content impacts development of health-risk behavior.

Next, I examined how specific themes in preferred books influenced participants' scores of problem or health risk behaviors, as measured by the NCHRBS. Descriptive results of the NCHRBS self-reports can be found in Appendix E. I examined whether themes or topics present in preferred books at Wave 1 influenced health risk behaviors at Wave 2, as well as whether avid readership status influenced these scores. The literature topics examined were those relating to health/physical wellness, appearance or "looks," substance use, self-injury or suicidality, emotional disturbance, and violence. Through a series of regression models, I examined how the importance placed on literature topics in Wave 1 influenced participants' overall safety behaviors, unhealthy weight loss behaviors, substance use (specifically tobacco use and total substance use, which

included alcohol and illegal drug use), suicidality, and aggressive behaviors in Wave 2. For all analyses, I controlled for Wave 1 baseline levels of health risk behaviors. When examining the likelihood of engaging in increased safety behaviors (i.e., wearing a seatbelt while in a car, or a helmet while on a bicycle), I found that a preference for reading books with themes of violence in Wave 1 predicted decreased safety behaviors in Wave 2 ($\beta = .14$, $SE = .5$, $p = .05$). When examining the likelihood of substance use, I found that an increased preference for reading books with themes of substance use in Wave 1 predicted increased cigarette use specifically in Wave 2 ($\beta = .16$, $SE = .09$, $p = .001$), as well as increased overall substance use in Wave 2 ($\beta = .15$, $SE = .37$, $p = .012$), and that a preference for reading books with themes of suicidality predicted decreased cigarette use in Wave 2 ($\beta = -.15$, $SE = .12$, $p = .005$).

Although analyses did not reach conventional statistical significance, it is also important to mention here that when examining suicidality and violent behaviors, there were two noteworthy findings. I found that a preference for reading books with themes of violence in Wave 1 predicted increased aggressive behaviors in Wave 2 ($\beta = .13$, $SE = .08$, $p = .06$) and that avid readership status in Wave 1 predicted decreased suicidality in Wave 2 ($\beta = -.1$, $SE = .08$, $p = .06$). All results are presented in Table 3.4.

Lastly, I included avid readership at Wave 1 as an interaction term in these analyses, to examine if avid readership moderated the relation between themes in preferred books at Wave 1 and health risk behavior at Wave 2. No significant interactions were found in these analyses.

Objective 4: To determine how identification with literary characters moderates the relation between literature content and behavioral outcomes or identity processes.

Lastly, I examined whether increased character identification moderated the relation between literature content and health risk behavior or identity exploration. The content measures were those examined in Objective 2, and the behavioral measures examined were those from Objective 3. To examine character identification, I used Cohen's 10-item measure (Cohen, 2001), as well as the Perceived Homophily Scale (McCroskey et. al., 1975) for both self-selected favorite characters and for general popular media characters. Identity exploration was measured using the MEIM scale (Phinney, 1989) as well as the future aspirations survey (Boxer et. al., 2011).

Overall Identification and Behavioral Outcomes, Self-Selected Characters

I first included character identification as an interaction with the predictors from Objective 2 (genre preferences) to examine the outcome measures from Objective 3 (safety and health risk behaviors), thus examining how identification with literary characters moderated the relation between literature content and behavioral outcomes. I found that when examining suicidal behaviors in Wave 2, character identification in Wave 1 interacted significantly with White/ European-American race/ethnicity ($\beta = -.51$, $SE = .25$, $p = .05$), in that White students with higher identification scores at Wave 1 had decreased probability of suicidality at Wave 2. This is shown in Figure 3.2. When examining unhealthy weight loss behavior in Wave 2, character identification interacted significantly with Fantasy genre preference in Wave 1 ($\beta = -.53$, $SE = .12$, $p = .04$) and Mystery genre preference in Wave 1 ($\beta = -.57$, $SE = .12$, $p = .03$), suggesting that students with higher identification scores at Wave 1 who preferred Fantasy or Mystery genres were less likely to report engaging in unhealthy weight loss behavior at Wave 2. These interactions are shown in Figures 3.3 and 3.4. When examining tobacco use in Wave 2, I

found that character identification in Wave 1 interacted significantly with gender ($\beta = .40$, $SE = .32$, $p = .04$), indicating that female students with high character identification scores at Wave 1 had an increased probability of tobacco use at Wave 2. This is shown in Figure 3.5.

Homophily Identification and Behavioral Outcomes, Self-Selected Characters

No significant interactions were found between attitude homophily scores and preferred literary genre on any of the behavioral outcomes. I did find that background homophily in Wave 1 interacted significantly with gender ($\beta = .74$, $SE = .27$, $p = .01$) when examining safety behaviors, suggesting that female students with higher scores of background homophily at Wave 1 had increased probability of engaging in safety behaviors at Wave 2. I also found a significant interaction with a preference for Science Fiction ($\beta = -.67$, $SE = .24$, $p = .03$) when examining Safety Behaviors in Wave 2, suggesting that higher scores on background homophily for students who reported a preference for Science Fiction at Wave 1 were associated with a decreased likelihood of reporting engagement in safety behaviors at Wave 2. These interactions are shown in Figures 3.6 and 3.7.

In examining suicidality in Wave 2, I found that background homophily in Wave 1 interacted significantly with White/ European-American race/ethnicity ($\beta = .64$, $SE = .04$, $p = .02$), and a preference for Mystery in Wave 1 ($\beta = .64$, $SE = .02$, $p = .03$), indicating that both White students and students with a preference for Mystery with higher scores of background homophily at Wave 1 had an increased likelihood of reporting suicidality at Wave 2. These interactions are shown in Figures 3.8 and 3.9. When examining unhealthy weight loss behavior in Wave 2, I found that background

homophily in Wave 1 interacted significantly with gender ($\beta = -.74$, $SE = .02$, $p = .02$), suggesting that female students with high background homophily scores at Wave 1 were less likely to report engaging in unhealthy weight loss behavior at Wave 2, as shown in figure 3.10. Background homophily in Wave 1 also interacted significantly with gender ($\beta = -1.3$, $SE = .04$, $p = .00$) and a preference for Horror ($\beta = .68$, $SE = .04$, $p = .02$) when examining aggressive behavior in Wave 2, suggesting that higher background homophily scores at Wave 1 indicated increased likelihood of aggression at Wave 2 for male students and for students who reported a preference for Horror at Wave 1. These interactions are shown in figures 3.11 and 3.12. In examining tobacco use in Wave 2, I also found that background homophily in Wave 1 interacted significantly with White/European-American race/ethnicity ($\beta = .47$, $SE = .07$, $p = .04$), a preference for Mystery ($\beta = .51$, $SE = .05$, $p = .03$), and a preference for Horror ($\beta = -.45$, $SE = .05$, $p = .03$) in Wave 1. Specifically, increased background homophily scores at Wave 1 for White students and for students who reported a preference for Mystery at Wave 1 were associated with an increased likelihood of reporting tobacco use at Wave 2, whereas increased background homophily scores among students who reported a preference for Horror at Wave 1 were associated with a decrease in tobacco use at Wave 2. These interactions are shown in Figures 3.13, 3.14, and 3.15.

Heroic or Villainous Identification and Behavioral Outcomes, Character List

I then examined how identification with heroes or villains moderated the relation between literature content and behavioral outcomes. I found when examining Safety Behaviors in Wave 2, identification with heroes at Wave 1 significantly interacted with a preference for Fantasy ($\beta = .30$, $SE = 1.7$, $p = .02$), suggesting that students with increased

identification with heroes who reported a preference for Fantasy at Wave 1, were more likely to engage in safety behaviors at Wave 2, as is shown in Figure 3.16. Additionally, identification with heroes at Wave 1 significantly interacted with a preference for Contemporary genre when examining tobacco use at Wave 2 ($\beta = -.19$, $SE = .35$, $p = .01$), indicating that students with increased hero identification scores and a preference for Contemporary at Wave 1 were less likely to report tobacco use at Wave 2. This is shown in Figure 3.17.

I also found that identification with villains in Wave 1 interacted significantly with gender ($\beta = -.40$, $SE = .22$, $p = .01$) and a preference for Mystery ($\beta = .22$, $SE = .19$, $p = .05$) when examining unhealthy weight loss behavior at Wave 2, suggesting that higher villain identification scores for male students and students with a preference for Mystery in Wave 1 had an increased probability of engaging in unhealthy weight loss behaviors at Wave 2. This is shown in Figures 3.18 and 3.19. Identification with villains in Wave 1 also interacted significantly with gender ($\beta = -.34$, $SE = .45$, $p = .03$) when examining aggressive behavior in Wave 2, suggesting that male students with higher villain identification scores at Wave 1 were more likely to report engaging in aggressive behavior at Wave 2, as shown in Figure 3.20.

When examining overall substance use in Wave 2, I found that identification with villains in Wave 1 interacted significantly with avid reader status ($\beta = .15$, $SE = 1.0$, $p = .01$), preference for Fantasy ($\beta = .19$, $SE = 1.2$, $p = .03$), a preference for Science Fiction ($\beta = -.13$, $SE = 1.0$, $p = .05$), a preference for Contemporary ($\beta = -.17$, $SE = 1.3$, $p = .00$), and a preference for Romance ($\beta = -.16$, $SE = 1.1$, $p = .02$) in Wave 1. Specifically, higher villain identification scores at Wave 1 were associated with increased overall

substance use at Wave 2 for students who were avid readers and decreased overall substance use for students who reported no preference for Fantasy, or who reported a preference for Science Fiction, Contemporary, or Romance genres at Wave 1. These interactions are shown in Figures 3.21 through 3.25.

Identification and Identity-Related Outcomes

Next, I examined the interaction of character identification with content predictors on identity exploration, first looking at the MEIM scale and then at the future aspirations survey. When examining scores in multigroup ethnic identity at Wave 2, I found that character identification interacted significantly with Fantasy genre preference ($\beta = .51$, $SE = .12$, $p = .04$) and Horror genre preference ($\beta = .53$, $SE = .14$, $p = .04$) at Wave 1, suggesting that students with higher scores of character identification who reported a preference for Fantasy or Horror at Wave 1, were more likely to have higher scores on the MEIM scale at Wave 2. These interactions are shown in Figures 3.26 and 3.27. No significant interactions were found between attitude or background homophily scores and predictor variables on MEIM scores. When examining identification with heroic or villainous characters, I found that identification with heroes interacted significantly with a preference for Science Fiction genre in Wave 1 ($\beta = -.26$, $SE = .15$, $p = .03$), and that identification with villains in Wave 1 interacted significantly with White/ European-American race/ethnicity ($\beta = .14$, $SE = .28$, $p = .05$), when examining multigroup ethnic identity in Wave 2. Specifically, higher hero identification scores at Wave 1 for students who reported a preference for Science Fiction at Wave 1 were associated with lower MEIM scores at Wave 2. Additionally, higher villain identification scores at Wave 1

were associated with decreased MEIM scores at Wave 2 for Nonwhite students. These interactions are shown in Figures 3.28 and 3.29.

When examining the future aspirations scores at Wave 2, I found that character identification at Wave 1 interacted significantly with gender ($\beta = -.69$, $SE = .68$, $p = .00$), indicating that male students with increased identification scores at Wave 1 had higher future aspiration scores at Wave 2, as is shown in Figure 3.30. I also found that attitude homophily interacted significantly with both a preference for Fantasy ($\beta = -.55$, $SE = .12$, $p = .05$) and a preference for Horror ($\beta = -.72$, $SE = .14$, $p = .02$) at Wave 1 when examining Future Aspirations in Wave 2. Students with higher attitude homophily scores who reported a preference for Fantasy or for Horror at Wave 1 were more likely to have decreased future aspiration scores at Wave 2, as is shown in Figures 3.31 and 3.32. I also found that background homophily interacted significantly with a preference for romance in Wave 1 ($\beta = -.51$, $SE = .09$, $p = .03$) when examining Future Aspirations in Wave 2. Students with higher background homophily scores who did not report a preference for Romance at Wave 1 were more likely to have increased future aspiration scores at Wave 2, as is shown in Figure 3.33. Lastly, I found that identification with heroes in Wave 1 interacted significantly with White/ European-American race/ethnicity ($\beta = -.18$, $SE = .96$, $p = .03$) when examining Future Aspirations in Wave 2. White students with increased hero identification scores at Wave 1 were likely to have lower future aspiration scores at Wave 2, whereas Nonwhite students with increased hero identification scores at Wave 1 were likely to have higher future aspiration scores at Wave 2. These results are shown in graph 3.34. No significant interactions were found between identification with villains and predictor variables on Future Aspiration outcome scores.

Discussion

Although there is a large amount of research on the relation between visual media (i.e., video games, television, movies) and youth development, little is known about the influence of literature geared towards youth on this population's developmental processes. As books geared towards adolescents and emerging adults grow in popularity, understanding the influence these might have on developing youth is crucial. In this study I explored whether this subset of books, known as Young Adult (YA) literature, was popular among undergraduate emerging adults, and whether themes in these books influenced different aspects of social relationships, health risk, and identity exploration development over the period of one college semester. I examined these questions through the use of a two-wave longitudinal study, presented to college students at the beginning and at the end of the semester. The study was completed entirely online and consisted of a survey including questions related to overall media use habits, specific reading habits, relationship attitudes, health risk behaviors, and identity exploration.

Reading Preferences

First, I hypothesized that within my sample there would be a group of students, reflective of the overall emerging adult population, that would actively engage in reading aside from school-related assignments, and that for these avid readers, the outcomes relating to cognitive or behavioral processes would be greater. I also tested whether emerging adults were likely to be reading YA literature, despite the ongoing disagreement in publishing regarding the target audience for these books (Whitman, 2018). I found that in both Wave 1 and Wave 2, emerging adults in this study were most likely to be reading YA literature, more so than any other age-category of books.

Therefore, although some critics have argued that YA literature is written and published exclusively for teenagers, these data lend support to the notion that YA literature are most relevant to emerging adults. YA literature deals with a variety of topics that are central to the developmental processes found in emerging adulthood, including identity struggles, substance use, sexual exploration, and conflict resolution, among others, therefore it is no surprise that the majority of students who participated in this study reported a preference for YA literature.

With regards to students who actively engage in reading aside from school-related assignments, previous studies with emerging adults have found that 70% of them “really enjoy” reading (Arnett, 2014). Similarly, when examining whether or not students enjoyed reading, we found that 68% of students in Wave 1 and 70% of students in Wave 2 reported at least a moderate or greater enjoyment for reading. However, this study used a more rigorous determinant to classify students as avid readers or non-avid readers, specifically focusing only on students who indicated they enjoyed reading a lot and/or on a regular basis. In Wave 1, 32% of students were considered avid readers, and 24% were considered avid readers in Wave2. A possible reason for this decline from Wave 1 to Wave 2 is due to time constraints at the beginning versus at the end of a semester. In each survey, students were asked to think back on the last 3 months to answer questions about how often they read for fun. It is logical that students would have had more time during the break between semesters, or between high school and college, to partake in more leisure activities, as opposed to during the 3 months prior to the second survey, during which they were attending university classes.

Relationship Development

In addition to asking students about their overall reading habits and preferences, I also examined how these reading preferences influenced peer relations, health risk behavior, and identity development over time. I hypothesized that students would develop attitudes and behaviors resembling those portrayed in their favored literature. It was outside the scope of this study to do a content analyses of each student's favorite books, however, students were asked about their favorite literary genres and about their favorite or most common themes and topics in the books they read.

Specifically, I hypothesized that students would develop relationship behaviors and attitudes that were in line with the types of books they preferred to read. To explore this hypothesis, I first examined whether preferred literary genre in the first Wave of the study influenced attachment scores in Wave 2. The genres that were chosen for to test this hypothesis were Romance and Contemporary. These two genres were chosen specifically because Contemporary and Romance books, especially in YA literature, expectedly, deal with topics of forming and traversing different types of social relationships. Romance books are focused primarily on romantic relationships, while Contemporary books tend to deal with different current themes, including different sorts of relationships such as peer and family relationships. As expected, I found differences in attachment scores related to genre preference, which supported my hypothesis. Specifically, I found that students who preferred to read books categorized as Romance or Contemporary at Wave 1 showed significantly lower scores in parental and peer-related anxious attachment. This also held true when examining a mean score of anxious attachment across the different relationship types.

It is likely that youth who are spending more time reading these genres are seeing more varied representations of relationships, as well as more varied forms of conflict resolution, thus allowing them a wider array and understanding of what relationships can look like. In turn, this is likely providing an opportunity for youth to identify and experience more secure attachment patterns through a process of media socialization, as has been posited in previous media studies (Greenwood, 2008).

I then examined additional genres on an exploratory basis. I explored some of the genres that are most popular among readers, especially within YA literature: Fantasy, Science Fiction, Mystery, and Horror (Johnson, 2020). I found that preferences for Science Fiction or Horror genres predicted lower parental anxious attachment scores, and that a preference for Fantasy predicted lower peer-related avoidant attachment scores. The only genre preference that resulted in an increased negative attachment score, was a preference for Mystery which resulted in higher scores on the general anxious attachment measure. This suggests that increased engagement with Mystery, or books and other media which are specifically geared towards creating confusion in the consumer, is likely to result in increased anxiety in other aspects of emerging adults' development, specifically with regards to attachment patterns.

That no significant relations were found between literature genres and attachment towards a significant other is mostly likely due to the fact that the majority of the sample (70%) reported currently being single and unattached. Furthermore, no significant relations were found between genre preference and scores on the SRASBM. It is unlikely that this is due to an absence of a relation between peer-directed or romantic relational aggression and literature media, but more likely is a reflection of the need for a content

analyses of participants' chosen and preferred literature in future studies. Deeper exploration into the impact of literature media on emerging adult dating relationships is warranted.

Health Risk Behavior

Next, I hypothesized that students would develop or demonstrate health-related behaviors resembling those rewarded in their favored literature. To explore this hypothesis, I examined whether students' favored literary themes or topics in Wave 1 influenced behavioral outcomes from the NCHRBS in Wave 2. My hypothesis was partially supported as I was able to observe differences in behavioral outcomes in the second Wave directly related to literary themes favored in the first Wave. I found that students who reported they preferred books with themes of violence in Wave 1 also reported decreased safety behaviors as well as increased aggressive behaviors in Wave 2. The links between violent media and development of aggression in youth are indisputable, and these results lend support to the previous research in this area. Furthermore, it is likely that youth who engage in violent behaviors would be the same youth who are engaging in less safety-seeking behaviors. That is, aggressive youth are likely to be more volatile and/or impulsive. Therefore, that there is a link between violent literature media themes and both later increased aggression as well as decreased safety behaviors, makes sense from a developmental viewpoint. However, these results warrant further investigation, and future studies should explore the impact of violent literature media content on the development of aggressive behavior and on health-risk behaviors in emerging adults.

I also found that students who reported a preference for books featuring substance use in Wave 1 also reported increased cigarette smoking and overall substance use in Wave 2, suggesting that these readers are, in fact, portraying behaviors similar to those seen in the books they choose to engage with. Surprisingly, I also found that students who reported reading books with themes of suicidality in Wave 1 reported decreased cigarette use in Wave 2. It may be that students who smoke cigarettes are doing so as a stress-coping mechanism or to combat emotional disturbances. Thus, through the process of reading books that have themes are related to emotional disturbances, these students may have found a different coping mechanism which allowed them to put aside smoking. However, additional exploration into this would present a clearer picture of this process.

Importantly, I also found that avid readership status in Wave 1 predicted decreased suicidality in Wave 2. As has been previously stated, many of the books that emerging adults are reading are books that deal with subjects that are pivotal to their own development. It may be that avid readers are reading more varied books and are engaging with different sorts of themes through this practice. Many YA novels address mental health concerns, and specifically deal with issues relating to self-injurious behaviors and suicidality. It may be that these youth are utilizing literature, and specifically YA literature, as a sort of “super peer” (Brown et. al., 2005) towards whom they can turn to overcome emotional disturbances. Additionally, it may be that through the process of reading stories in which characters which whom they can relate to overcome their own obstacles, these students are experiencing less loneliness and less internalized stigma regarding their own mental health concerns, which can in turn lead them to seek out the proper care. Oral and written narratives, or stories, are already used effectively in clinical

practice with at-risk youth. Specifically, trauma-focused cognitive behavior therapy (TF-CBT) is an evidence-based intervention in which, through writing a narrative of the trauma, youth can receive therapeutic support to process their experience and obtain relief from post-traumatic symptoms (Cohen, 2012). If avid readership can serve as a protective factor against suicidality, it is crucial to further research this relation in an effort to determine how fiction reading, or even writing, can also be used as an intervention in working with at-risk youth.

Moderation Effects

Lastly, I hypothesized that character identification would moderate the relation between literature content and behavioral outcomes or identity processes. Again, this hypothesis was partially supported in the study. I examined overall character identification, background and attitude homophily, and identification with heroes and/or villains as interaction terms with the outcome variables. These identification measures referred to the strength of engagement with characters in media. In examining the effect of identification on literature and behavioral outcomes or identity exploration, I found significant interactions related to race, gender, and genre preference.

Moderation Effects by Race

Regarding race, I found overall identification with self-selected characters interacted significantly with suicidality. White students who more strongly identified with a favorite character during Wave 1 were less likely to report suicidal thoughts or behaviors in Wave 2. However, when I examined background homophily, i.e., how similar the student felt they were with regards to status to their chosen character, higher scores on this were associated with an increase in suicidality at Wave 2 as well as an increase in tobacco use

at Wave 2 for White students, but no increased in suicidality for Nonwhite students and a decrease in tobacco use for Nonwhite students. On the one hand, some White students may, in fact, be turning to literature media as a “super peer,” and finding solace and comfort in identifying with their preferred characters. As has been previously discussed, White characters are more often portrayed as main characters in media. Despite YA literature’s efforts to increase diverse representation in books geared towards youth, it is likely that media overall are still catching up with this idea, and thus we currently only see this protective effect for White youth who experience overall identification with a favored character, as they are more likely to be able to find main characters with which to identify in general, across media types. With regards for why we do not see this effect for White students who scored higher on background homophily, it may be that feeling a sense of status similarity is less important for White students, but that for Nonwhite students who are able to see themselves more clearly represented in their preferred literature, these protective factors are present. However, additional exploration and content analyses to determine who students are identifying with, and what take-home messages these students are receiving from their preferred literature is indicated to better understand these findings.

Additionally, I found that for Nonwhite students, higher villain scores at Wave 1 were associated with decreased multiethnic identity exploration at Wave 2. Ethnic identity refers to the quality of an individual’s affiliation with their ethnic group and has been found to relate positively to measures of overall well-being, including psychological well-being, coping ability, and self-esteem, and the MEIM scale specifically is a measure of subjective sense of membership within an ethnic group (Brown et. al., 2013; Roberts

et. al., 1999). Traditionally in popular media, minorities have been underrepresented in heroic roles, but overrepresented as villains; they have also been overrepresented as perpetrators of crime in news media. Although YA literature media have attempted to address this problematic issue and include more diverse representation through campaigns such as “We Need Diverse Books,” it is likely that the culmination of different media messages contribute to patterns of social learning in minority youth. Thus, minority youth who are overidentifying with villains, possibly because these are the characters that look or sound like them in their preferred media, are also likely to struggle with developing a robust and positive multicultural sense of self.

On the other hand, I found that Nonwhite students with increased hero identification scores at Wave 1 were likely to have increased future aspiration scores at Wave 2. This suggests that when minority youth are able to see themselves as heroic or leading characters in their preferred media and are able to more fully relate to these positive characters, they are also able to imagine increased opportunities for their own futures. They no longer feel pigeonholed and this likely contributes to a more expansive and positive outlook on their own future. In other words, these findings suggest that identifying with positive characters can have a protective influence on emerging adult development.

Moderation Effects by Gender

When examining gender differences, several interaction effects were also present. I found that increased overall identification with a self-selected character at Wave 1 was associated with increased Wave 2 probability of tobacco use for female students. Although this might suggest that increased identification with literature characters could

be a risk factor for female youth, the much more likely possibility is that there is an additional variable at play. It might be that these female students are those who experience increased anxiousness in general, and specifically increased social anxiety. Thus, these students may be seeking different ways to cope with this anxiety, including possible overidentification with media characters as well as tobacco use. The fact that several studies have found a strong correlation between tobacco use and anxiety in adolescents and emerging adults lends support to this theory (Johnson et. al., 2000; Morissette et. al., 2007). Furthermore, female students with higher background homophily scores, those who felt they were similar in status to their preferred literature characters, were also more likely to engage in safety behaviors in Wave 2. Thus, it is likely that tobacco use is indeed a coping mechanism for highly anxious female students, who aside from this are likely to follow safety rules such as wearing a seatbelt in a car, or not getting in a car driven by someone who is intoxicated.

I also found that for male students, increased background homophily scores or increased villain identification scores at Wave 1 were associated with increased likelihood of engaging in unhealthy weight loss behavior at Wave 2. Surprisingly, these results also suggested that for female students with increased background homophily or increased villain identification scores, there was a decreased likelihood of engaging in unhealthy weight loss behaviors at Wave 2. This effect is surprising when we consider that in traditional visual media, such as movies or magazine covers, there is a tendency to place heavy emphasis on female physical appearance, and prior studies have found a direct correlation between female youth engagement with these media and the development of eating disorders or eating disorder symptoms, such as unhealthy weight

loss behaviors (Stankiewicz & Rosselli, 2008; Ward, 2016). However, in literature media there is less likely to be as much emphasis on physical appearance, and oftentimes the reader is able to imagine for themselves the character's physical appearance.

Furthermore, in its effort to be more inclusive, YA literature media specifically tend to include characters of various different body shapes. Therefore, it is likely that for female students who are strongly identifying with characters in this new way, who are reading books that may be more accepting of different body types for females, or books that may put less emphasis on an "ideal female body," this serves as a protective factor against other media types that place such heavy emphasis on female physical appearance. It may also be that male and female students are reading vastly different types of books.

Specifically, YA literature is often promoted towards and subsequently purchased and read by young women (Dahl, 2014). Therefore, a lot of the effort in YA to include increased diversity and increased representation may not be as prevalent for young men, if they are less likely to be reading these books.

I also found that male students with increased background homophily scores as well as male students with increased villain identification scores at Wave 1 were more likely to report increased aggression at Wave 2. Extensive research in the field of media psychology has repeatedly shown that exposure to violent media leads to both short and long-term aggression in males. Increased identification with violent media characters, such as villains, are thus likely to strengthen these relations, as seen in these results.

However, I also found that increased overall identification with characters at Wave 1 was associated with high future aspiration scores for males at Wave 2. This suggests that despite what male students are reading, or how often they read, a stronger sense of

identification with self-selected characters likely contributes to a more positive outlook on their own future. This may be partly due to the fact that in most media, outside of literature media and outside specifically of YA literature media, the majority of main characters who are portrayed as heroic and successful, are male. It is likely that cumulative effects of increased identification with characters across different media who have more opportunities for success available to them results in increased positivity and confidence in one's own opportunities for success among emerging adult male readers.

Of course, it is important to further examine what books young men are reading and what books young women are reading in order to better understand how character identification moderates gender differences in these outcomes. It is also important to examine the inclusion of characters who fall outside the gender binary and whether and how identification with these characters might moderate outcomes in nonbinary or transgender youth. Further exploration into what books male, female, nonbinary, and transgender emerging adults are reading, content analyses of these, and exploration of the overlap and differences between the messages provided in books more often geared towards one group over another is indicated.

Moderation Effects by Genre Preference

Fantasy

I found several significant effects relating to health risk behaviors when examining the interaction of character identification and genre preference among the sample of emerging adults. Specifically, I found that increased identification scores for students who reported a preference for Fantasy in Wave 1 were associated with increased engagement with safety behaviors at Wave 2. These students were also less likely to

engage in unhealthy weight loss behaviors at Wave 2. In other words, students with a preference for Fantasy who strongly identified with their preferred characters were more likely to engage in responsible health behaviors such as wearing a seatbelt in a car or wearing a helmet when riding a bicycle and were also less likely to engage in harmful eating and dieting habits, such as skipping meals or purging.

Fantasy novels typically include moral language, whether explicitly or implicitly, and the main characters in these books often exhibit a strong sense of morality, which plays an important role in helping them achieve their goal or quest (Cunningham, 2010). Additionally, because the focus is often on the characters' morality, less emphasis is placed on their physical appearance. Students who identify strongly with these main characters are likely to take on similar behaviors and to adopt similar patterns of thought. That is, these students are likely to be more focused on their own sense of morality and less focused on attaining an "ideal" body as presented by other media. In the real world, this can resemble engaging in safer behaviors such as wearing a seatbelt or helmet while simultaneously not engaging in unhealthy behaviors, such as driving while under the influence of alcohol or drugs, or not engaging in physically harmful behaviors such as intentionally skipping meals or purging.

Additionally, students who higher scores on overall identification with preferred characters who stated a preference for Fantasy in Wave 1, also were more likely to have high scores on the MEIM scale at Wave 2. As previously stated, publishers of YA literature media have made a conscious effort to include diverse representation in their authors and in their books. Strongly identifying with likely positive and moral characters

of diverse backgrounds provides a platform for emerging adults to explore their own cultural identities through their engagement with literature media.

On the other hand, students who more strongly identified with villains and preferred Fantasy genre at Wave 1, had increased substance use at Wave 2. This suggests that who a reader identifies with within a specific genre might influence what behaviors and attitudes you are likely to take on. If the hero in a fantasy novel exhibits a strong sense of morality, does the villain exhibit a decreased sense of morality? The likely answer is yes, and thus students who strongly identify with villains might take on some of these attributes instead of the main character's attributes. In the real world, one might argue that increased substance use could be related to a decreased sense of morality. Another plausible explanation is that identifying with a villain within your preferred genre may bring up feelings of anxiety or hinder feelings of self-worth, in which case the reader might turn to substance use as a coping mechanism.

Students with higher attitude homophily scores who reported a preference for Fantasy at Wave 1 also showed decreased future aspiration scores at Wave 2. This warrants further investigation; however, it is possible that students who feel they share similar attitudes and thoughts with main characters in Fantasy books are unsure of what their future holds. Fantasy books often end once the quest is fulfilled, but what happens next? Emerging adults who are beginning to think about life after college, who might be uncertain of their own futures, and who overidentify with the thinking patterns of Fantasy characters, may struggle to imagine what happens after their own quest is fulfilled, or what happens after college is done.

Science Fiction

Students with increased scores of background homophily who reported a preference for Science Fiction in Wave 1, however, were less likely to report engaging in safety behaviors at Wave 2. Science Fiction is different from Fantasy in that scientific facts and theories play a role in the stories constructed in this genre, making this a more realistic or plausible genre despite the often imaginative and far-fetched stories (Literary Terms, 2015). These books also tend to be fast-paced and exciting, which can often translate to high-stakes or high-risk actions on behalf of the main characters. Therefore, students who feel increased background similarity between themselves and these characters, may engage in real life similar high-risk behaviors. In an emerging adult population, this can look like increased impulsivity, or the disbelief of one's own mortality, both which are common in this age group, and can translate into behaviors such as foregoing a helmet or driving under the influence (Feinstein et. al., 2012).

On the other hand, higher villain identification scores for students who reported a preference for Science Fiction at Wave 1 were associated with decreased substance use at Wave 2. As mentioned previously, Fantasy readers with higher villain identification scores had an increased probability of substance use, so here there is an opposite effect. Is this related to the difference between Fantasy and Science Fiction? As mentioned above, the Science Fiction genre is more plausible than Fantasy, since it is based scientific fact (Literary Terms, 2015). Some have argued that Science Fiction can even be used as a guide, a way to imagine the future and develop new technologies (Johnson, 2011). Furthermore, in Science Fiction villains are often portrayed as morally ambiguous characters, often with a need for power that overrides anything else, but who sometimes end up aligning with the heroic characters as well (Porter, 2014). Are Science Fiction

readers who strongly identify with villains identifying with this need for power, and this desire to achieve certain goals for the future? If this is the case, these readers might simply engage in much different behaviors than do Fantasy readers, meaning there may be intrinsic differences between these readers. Where Fantasy readers who identify with villains feel a sense of anxiety from not identifying with the hero in these books, Science Fiction readers might feel a sense of motivation and hope for the future when they align with the villain. A sense that despite not being a morally perfect character, they have a greater goal and might eventually align with the “right” side anyway (Porter, 2014).

Lastly, higher hero identification scores for students who reported a preference for Science Fiction at Wave 1 were associated with lower MEIM scores at Wave 2.

Something to consider is that within YA literature specifically, Science Fiction often gets folded into the Fantasy category, but outside of YA Science Fiction is more likely to have more distinct boundaries. In fact, in this study, despite an overall preference for YA literature, Fantasy readers specifically were twice as likely to report they read YA than were Science Fiction Readers. Therefore, it might be that Science Fiction readers are not benefiting from the diverse representation that is a staple of YA books, and instead are engaging with the more traditional concept of the White male hero. Traditional Science Fiction, including non-YA literature, tends to operate within the framework of normative Whiteness, in which the White male hero is considered the norm, and other characters are expected to assimilate to this norm (Kawn, 2007). The severely limited representation of genuinely diverse characters in traditional Science Fiction may inhibit Science Fiction readers from fully exploring their own multicultural identity.

Mystery

When examining the interactions of character identification with the Mystery genre, I found that higher overall identification scores for students who preferred Mystery were associated with lower probability of engaging in unhealthy weight loss behavior, but higher villain identification scores for these students were associated with an increased probability of engaging in unhealthy weight loss behaviors at Wave 2. Importantly, Mystery novels focus on puzzling situations that need to be solved, the most typical being a “whodunit” crime novel in which a criminal is eventually brought to justice (Literary Terms, 2015). Readers who identify with the main characters in these books might see themselves as problem solvers, and thus might place more importance on their ability to think or do well in school than on their physical appearance and adhering to an ideal body type. However, readers who prefer mystery but are more likely to strongly identify with villains might struggle with their self-confidence in their thinking and/or problem-solving skills and might instead turn to placing emphasis on the ideal body type, as most media messaging suggest, which can lead them to engaging in unhealthy weight loss behaviors.

Additionally, increased background homophily scores among students who preferred Mystery at Wave 1 were also associated with increased probability of tobacco use and increased probably of reporting suicidality at Wave 2. Background homophily refers to an increased belief that the chosen character is similar to the respondent with regards to status. Because the Mystery genre focuses so much on the need to solve a puzzle, and the main character is often saddled with the pressure of finding the right answers, often at the risk of loss of status, loss of a loved one, or even loss of life, students with increased scores on this measure who also demonstrated a strong preference for Mystery might be

feeling like they are also under severe pressure. These students might be struggling with finding healthy ways to cope with this pressure, or this need to “solve a puzzle” in their own lives. Additional insight into underlying stress and/or mental health disorders or symptoms would help to further shed light on this interaction.

Romance and Contemporary

Students with increased villain identification scores who reported a preference for Romance or Contemporary genres at Wave 1 had a decreased probability of reporting substance use at Wave 2. Additionally, increased hero identification scores at Wave 1 were associated with a decreased probability of tobacco use at Wave 2 among Contemporary genre readers. Romance and Contemporary literature have many overlaps, specifically in that both genres focus primarily on relationships, although these relationships differ between genres. Romance novels focus specifically on romantic relationships, whereas modern Contemporary novels focus on a range of relationships which may include romantic ones, but often also include relationships between friends, siblings, or family members (Literary Terms, 2015). Additionally, Contemporary novels in YA focus on real life problems youth might be experiencing, such as family separation, school anxiety, or moving away from home. In these books, it might be difficult to ascertain a villain versus a hero, as all characters tend to be realistic portrayals of individuals. It is likely, therefore, that readers who tend to strongly identify with characters in general, be they heroes or villains, and who have a preference for novels that portray realistic, and oftentimes flawed, characters, are able to use this literature engagement in a healthy way, and as a protective factor against engaging in certain unhealthy behaviors that are common among emerging adults, such as substance use.

Furthermore, students with higher background homophily scores who reported a preference for Romance books at Wave 1 were more likely to have increased future aspirations scores at Wave 2. An important fact to keep in mind here is that, by definition, Romance novels have a happy ending (Literary Terms, 2015). Thus, students who are more likely to see themselves in novels, to identify with the background and status of their preferred characters, and who are also more likely to read books with happy endings, are likely to also have a more positive outlook towards their own futures.

Horror

Students with increased background homophily scores who reported a preference for Horror at Wave 1 were also more likely to report lower tobacco use but increased aggression at Wave 2. Additionally, higher attitude homophily scores among Horror readers were associated with a decrease in future aspiration scores at Wave 2. Horror literature, both in YA and across other categories, is intended to evoke feelings of fear, dread, repulsion, and/or terror, and often focuses on themes or elements relating to death, evil, or the grotesque (Literary Terms, 2015). It is likely that readers who were more strongly identifying with the characters in these novels are subconsciously picking up on some of these terror inducing elements, which then translate into increased aggression and dread for their own future.

However, higher overall identification scores at Wave 1 for these readers was associated with higher scores on the MEIM scale at Wave 2. Traditional horror is often lacking in character diversity, and when characters of different cultures or racial/ethnic backgrounds are included, they are poorly represented. For example, in horror media Black characters are often cast as magical characters perpetrating a racist stereotype, or

they are otherwise the first character in a horror film to die (Aultman et. al., 2020). However, more recent horror media have disrupted these stereotypical tropes and are using this genre as a platform through which to bring awareness to racial politics (Pinedo, 2020). Furthermore, recent popular horror media tend to include more diverse character representations that reject the traditional narrative (MacDaniel, 2019). Stronger identification with characters among readers who prefer these more diverse and representative kinds of horror novels is likely to result in increased ability to explore one's own cultural identity. Further examination into modern horror, as well as the type of horror that emerging adults are reading, is indicated to clearly understand these results.

Avid Readers

Lastly, I found that higher villain identification scores at Wave 1 were associated with increased overall substance use at Wave 2 for students who were avid readers. Although I have written about less common situations in which identification with villains might serve as a protective factor, it is important to note that media consumers more often will want to identify with the hero. Heroes are described as brave and courageous, and are often the main characters of media, be it television, film, or literature (Literary Devices, 2013). Despite the specific genre, heroes are, in fact, often idealized versions of ourselves, characters high in morality, despite at times being flawed, who typically save the day, live happily ever after, or at the very least overcome personal struggles (Cunningham, 2010; Literary Devices, 2013). Villains, however, represent the opposite. Villains cause harm, whether intentionally or unintentionally, and they are the "bad guy" (Literary Terms, 2015). Avid readers who tend to strongly engage and identify with villainous characters in literature or any of their additional chosen media are likely

to struggle with the anxiety this evokes in them, and thus may turn to substance use in an attempt to cope with this anxiety.

Conclusion

Despite the growing number of published books geared toward adolescents and college-aged students (Peterson, 2018), this study is the first of its kind in examining how literature impacts development, specifically EA development, with particular attention to peer and romantic relationships, risk behaviors, and identity exploration. The findings of this study serve to amplify our current understanding of media effects, provide information on literature media effects, and provide new insight into how literature media impact development.

In this study I hypothesized that emerging adults would be primarily reading YA literature; that literature content would impact the development of social relationship attitudes and behaviors; that literature content would impact the development of health risk behaviors; and that increased identification with characters in media would moderate the relation between literature content and behavioral outcomes or identity processes. Although these hypotheses were partially supported, there are several limitations to this study which must be considered.

The first, and most severe limitation is the absence of a content analyses of participants' favored books, and/or character analyses of their self-selected favored characters from literature. Because this study was the first to provide a reading preferences survey of this kind, examining what genres and themes emerging adults prefer, what their reading habits are, and exploring the relation between reading preferences and attitudes, behaviors, and identity development over a period of time,

complete content analysis was beyond the scope of this study. Instead, I focused on general themes present in favored literature, as well as preferred genres and general themes and focus for which these genres are known. This provided insight into some patterns regarding literature preference, common themes, and behavioral and identity outcomes. However, focusing on themes and/or genres leaves many questions unanswered. For example, certain genres have overlap with others. Fantasy books or Science Fiction books may also include elements from Contemporary or Romance fiction. Likewise, Mystery books may refer to Mystery Fiction or True Crime novels. In situations such as these, where genres have overlap, content analyses of preferred books would lead to more meaningful interpretations of data. Thus, future studies should aim to do comprehensive content analyses to better determine how specific content contributes to emerging adult development, specifically with regards to relationship attitudes and relationship violence, as well as health risk behaviors. Additionally, exploration into the racial and ethnic breakdown of the main characters included in students' favored books, and these characters' roles in the books, would provide further insight into the interactions between identification with characters and identity exploration.

A second limitation comes up when examining the Heroes and Villains measures. All Heroes included in this scale were White media characters. Although some of them might not have been written this way in the original books or comics, in their most well-known format (recent movies), all actors in these roles were White. Additionally, all Villains included in the scale were male. Although these characters encompassed some of the most well-known characters in popular media, and that is why they were chosen, the lack of diversity in these scales could easily have affected students' ability to identify

with the chosen characters. Future studies looking to further explore the role of identification with heroic or villainous characters should include characters for both categories that are diverse in both race and gender, in order to allow for increased identification across students.

Third, for this study avid readership status was determined based on stated enjoyment of reading and reading (for fun) on a regular basis. However, there is no commonly accepted definition for the term avid reader, and therefore further exploration into this measure is warranted. If youth are spending less time per week reading, but are engaging more often in attending book events for their favorite books, creating costumes to dress like their favored characters, or otherwise engaging in reading-adjacent activities, should these behaviors and activities be included when defining avid readership? Additionally, if students are spending less time reading due to an increase in other obligations (such as starting university classes), but they are spending time thinking about their favorite books or characters, maybe even asking themselves how their favored characters would react to situations and themselves behaving similarly, might these students not also be considered avid readers? Perhaps simply asking students if they consider themselves to be avid readers would be a more reliable measure.

Despite these limitations, however, this study provides insight into many important aspects of emerging adulthood and the intersection of development and media. First, it was determined that emerging adults primarily read YA literature, despite this being a category that is sometimes considered to be for younger teenagers. Likely, this is due to the themes often found in YA, themes which are also the cornerstones of emerging adulthood: identity struggles, relationship development, conflict resolution, substance

use, and overcoming trauma (Arnett, 2000; Strickland, 2015; Wood, 2018). Furthermore, most emerging adults actively enjoy reading, 92% of the sample in each Wave reported at least some degree of reading for fun.

I also found that themes and genres chosen by students impact developmental and behavioral outcomes, and that the strength of identification with media characters moderates these relationships. As previously mentioned, further content analyses of preferred literature will provide more insight into the findings of this study. However, as we continue to see an increase in media use by emerging adults, and specifically an increase in the number of published books geared towards this age group (Roxburgh, 2015), research into the effects of literature media is necessary. A clearer understanding of these effects, of possible risk of literature themes, as well as possible protective factors of content and/or identification are necessary in order to develop best preventative, educational, and intervention approaches for youth.

General Discussion

Across every culture, and as far back as humanity goes, stories have played a significant role in society and in development, serving not only to entertain, but to pass on information and knowledge, and to share values and traditions (National Geographic Society, 2020). Over the years, storytelling has evolved from a strictly oral tradition to encompass various platforms, including literature. And although there is no argument that literacy is important, and that increased reading in youth has a positive impact on cognitive, motivational, and educational factors (Ivey & Broaddus, 2011; McKenna et al., 2012), oftentimes statements regarding the developmental impact of reading are made about reading in general, with little attention paid to the content of books with which youth are choosing to engage. In other words, reading and literacy are often viewed from an educational perspective as a skillset, but the impact of literature media content on youth development are left out of the conversation.

Other types of media have been thoroughly researched to determine how these might impact child, adolescent, and youth behavioral and attitudinal outcomes. Violent video games, violent movies, violent television programming have all been examined and found to increase aggression in youth, especially male youth (Boxer, Huesmann, Bushman, O'Brien, & Moceri, 2008; Bushman & Anderson, 2001; Huesmann et al., 2003; Herrera, Goldstein, & Boxer, 2020; Josephson, 1987). Films of violent-sexual nature have been found to increase acceptance of rape myths among emerging adult males (Malamuth & Check, 1981; Malamuth & Briere, 1986). Magazine covers and magazine content related to dieting have been found to increase body image concerns, and to decrease confidence and self-worth in young women, as has television programming with stereotypical or unrealistic representations of women (Collins, 2011;

Ward, 2016). However, we have yet to see research that similarly attempts to address the scope and depth of the relation between literature content and developmental outcomes or processes. With the increasing push towards promoting reading in youth, as well as the increase in publication of books aimed towards youth, why is it we do not know about the impact of literature content on youth, the way we know about the impact of television and video games on youth? We must consider, based on what we know about other forms of media, that encouraging youth to read should be a matter of quality in addition to quantity. And yet, what do we know about the quality of books when a teenager, or an emerging adult, picks up a novel from their local bookstore? What do we know about content? There are no label warnings, no ratings, no guidelines beyond an oftentimes arbitrary designation of age category, regarding what quality of content an individual might find in a book they pick up at a bookstore.

A simple image search online for “reading” or “reader” brings up dozens of images of individuals laying out in the sun or curled up in an armchair with a cup of tea and a dog-eared book, evoking a sense of contentment, of feeling cozy and safe. However, these types of assumptions are considerably broad and potentially dangerous without knowing what kinds of books are being read. Additionally, we must consider whether engagement with literature differs from engagement with other media. There is a specific quality to losing yourself in a book that is not necessarily found in watching television or playing video games. Reading allows, and in fact encourages, a much more active engagement. While it is possible to “zone out” during a film or even while playing a video game, the act of reading is in itself an active pastime.

In this dissertation I set out to examine the relations between media and youth development. Specifically, I wanted to explore how engagement with media and how identification with media characters might influence behavioral and developmental processes. Because the majority of media research has been conducted on violent media and the impact of such on children and adolescents, in the first study I began with a look into the relations between violent media and child aggression, but I focused specifically on how identification with media characters from these media related to different types of aggression within a sample of middle schoolers. I found, in this study, that even when asking youth about a few specific video games and movies, increased identification with media characters significantly predicted increased physical and romantic partner aggression, and specifically that female gender acted as a meaningful amplifier for the latter. These results were consistent with previous research on violent media and aggression, and further supported the theory that character identification increased media-related effects.

To further examine the relation between character identification and media effects, I then proceeded to examine character identification with characters from two different series that were popular among emerging adults. Although a significant amount of media effects research has been conducted with children and adolescents, as previously stated, it is important to note that the primary consumers of media are emerging adults. Emerging adults (i.e., youth between the ages of 18 and 24) are engaged with media for approximately 12 hours a day, which constitutes most of their waking hours (Smith & Anderson, 2018). Contemporary theorists have argued that many developmental tasks that were once believed to be concluded during adolescence are now

more prominently experienced during emerging adulthood, and that emerging adulthood is in fact the most intensive period of identity exploration and formation (Stoppa & Lefkowitz, 2010).

This is likely due to changing expectations for youth in modern societies.

Whereas in past years the ages of 16 to 18 often meant marriage, employment, and career for most individuals, modern societal norms allow youth to delay these rites of passage (Arnett, 2000). Instead of marrying, finding a job, starting a family, and suddenly being faced with adult responsibilities at the end of their adolescent years, youth enter a period of increased exploration, a period of exploration which is often intensified by the college experience (Stoppa & Lefkowitz, 2010), and which is unlike any other developmental period before or after in their lifespan. Youth typically begin entering increasingly intimate relationships, and they also engage in high rates of health-risk behavior, including illegal drug use and unprotected sexual intercourse (Nelson & Barry, 2005). Often because it is during this time that youth are, for the first time, experiencing a sense of freedom, a sense of truly being able to separate from their families and guardians in a way they were unable to during their former adolescence, and are able to explore their own identity and truly question their role in the society, without the expectations and demands that future adulthood will bring.

And now, more than ever, youth are coming into these formative developmental years in an increasingly media-saturated world. Thus, considering once again that emerging adults are the most prominent users of media (Arnett, 2014; Smith & Anderson, 2018), media can serve as a source for the identity exploration processes that are prevalent during this time. It is crucial to explore and clearly understand how, exactly,

media might impact social development in emerging adults, and how these youth might be using media to fulfill needs directly related to the developmental tasks that are pertinent to this stage- tasks related to relationship development, self-identity, and health risk behaviors (Coyne, Walker, & Howard, 2013).

Therefore, in the second study of this dissertation I turned my focus to emerging adult development. Because social relationships are a tenet of the emerging adult developmental stage, I explored the relation between media preferences and acceptance towards dating violence, and between media preferences and attachment styles in a group of undergraduate emerging adults. Furthermore, because there is a scarcity of research on the impact of print media in youth, and especially in emerging adulthood, I focused on both film and print media, including multi-media engagement. Primarily, I explored how character identification with two very different relationship portrayals within popular media related to emerging adult attitudes and beliefs regarding interpersonal and romantic relationships. In this study I found several significant relations of import.

First, I found that identification with media characters could serve as either a risk factor or a protective factor. Specifically, students who strongly identified with characters that were presented in media with unhealthy relationship portrayals were more likely to be accepting of dating violence, whereas students who strongly identified with characters presented in media with healthy relationship messaging were more likely to have decreased acceptance of dating violence and decreased measures of anxious attachment scores. Perhaps more importantly, I also found that multi-media engagement provided different results than single-media engagement. That is, media effects differed among students who only watched a film series as opposed to students who both watched a film

series and read the book series, leading me to conclude that additional exploration into the impact of literature media was indicated.

This brings me to the final study in the dissertation, a longitudinal project which was the first study to fully explore how literature content impacts emerging adult development with regards to relationship attitudes, risk behaviors, and identity exploration. I hypothesized that emerging adults would primarily read YA literature, that they would develop behaviors and attitudes that were in line with their favored literature, and identification with their favored media characters would moderate these relationships. In this study I not only confirmed that emerging adults are active readers of YA literature, but also that literature content, and increased engagement or identification with content and characters, impacts developmental outcomes such as relationship attitudes, risk behaviors, and identity exploration. I did not find avid readership status to significantly interact with predictor variables, but this is most likely related to the lack of consensus regarding what constitutes an avid reader, and additional exploration into this concept is indicated. Furthermore, detailed content analyses and character analyses of preferred media is indicated in order to more clearly understand the relation between literature media engagement and developmental outcomes. What is clear, however, is that there is a relation between emerging adult engagement with literature media and developmental outcomes. These relations are consistent with previous media effects research, and additional exploration will uncover if literature media are unique in their impact on developmental processes (i.e., does active engagement with literature media result in stronger media effects than passive engagement with film) or whether they are similar to traditionally researched media.

Either way, this research makes it clear that literature media need to be included in the conversation about media effects and youth development. Deeper understanding into how literature media engagement, including possible risk and/or protective factors of content quality, is necessary in order to develop best preventative, educational, and intervention approaches for youth. In education, it is not enough to simply encourage youth to read, to prioritize quantity above all else. Rather, we must be diligent in prioritizing quality. Quality of literature, quality of how themes and subjects are handled within literature aimed at youth, and quality of representation of minority and diverse characters in these media. Furthermore, we must consider media messaging from a gender schema perspective, and explore the different messages that male, female, and nonbinary youth are receiving and internalizing during these pivotal developmental stages.

In intervention procedures, oral and written narrative therapies, such as TF-CBT, have already been proven effective in work with at-risk youth (Cohen, 2012). Findings from this study suggest that engagement with literature media can also serve as a protective factor against certain clinical concerns, specifically that avid readership, as defined in this study, might serve as a protective factor against suicidality. Further understanding this relation is critical and can potentially lead to the development of additional and innovative evidence-based interventions for working with at-risk youth. Incorporating, as well, a clearer understanding of media's nuanced gender messaging and how youth are assimilating these into their own self-concepts and developmental processes can help to develop gender-sensitive and gender-informed interventions, which have been shown to maximize positive outcomes in youth (Herrera & Boxer, 2019).

This dissertation project represents a new exploration into understanding the relation between media engagement, specifically character identification, and developmental outcomes in youth, especially emerging adults. I examine traditionally researched media, such as film and video games, and then turn my attention to literature media, which have not previously been included in research aimed at understanding the relation between media content and developmental outcomes. This work is important not only in furthering our understanding of how media impact development, but also in providing a clear platform from which to further understand how adolescents and emerging adults are engaging with and incorporating literature media, which is aimed specifically at this age group, into their developmental processes. Now that relations between literature media and emerging adult developmental processes have been shown, future work should include content analysis to better understand these relations. Additionally, these relations should also be explored at different developmental stages, including early and middle adolescence. Further understanding of these relations, further refinement of concepts such as avid readership, and further exploration into media characters represented in YA literature will help inform this area of research, thus improving guidelines for education and prevention, as well as providing information needed to develop the best intervention approaches for youth.

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TABLES

Table 1.1: Descriptive Data for Study Variables

Variable	Overall				Female				Male			
	M	SD	Range	N	M	SD	Range	N	M	SD	Range	N
1. Character Identification	1.70	.88	0-3	188	1.55	.90	0-3	107	1.89	.81	0-3	81
2. Physical Aggression	2.41	.85	1-5	188	2.36	.91	1-5	107	2.47	.78	1-4.5	81
3. Mild Aggression	7.80	6.35	0-27	188	7.45	6.06	0-27	107	8.26	6.72	0-26	81
4. Severe Aggression	.46	.50	0-1	188	.46	.50	0-1	107	.46	.50	0-1	81
5. Romantic Aggression	2.5	4.90	0-22	76	3.91	5.96	0-22	44	.56	1.50	0-8	32

Table 1: Descriptive statistics for character identification and aggression variables

Table 1.2: Correlations by Gender

	1	2	3	4	5
1. Character Identification	1	.40***	.23*	.10	.46**
2. Physical Aggression	.23*	1	.58***	.56***	.72***
3. Mild Aggression	.17	.64***	1	.55***	.42**
4. Severe Aggression	-.02	.57***	.59***	1	.20
5. Romantic Aggression	.13	.35*	.36*	.27	1

Table 2: Correlations by Gender

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

Table 1.3: Predictors of Aggression

	<i>Physical Aggression</i>	<i>Mild Aggression</i>	<i>Severe Aggression</i>	<i>Romantic Partner Aggression</i>
<i>Predictors</i>	<i>b (SE)</i>	<i>b (SE)</i>	<i>b (SE)</i>	<i>b (SE)</i>
1. Character Identification	.24 (.07)***	.95 (.54)	.00 (.04)	1.7 (.64)**
2. Age	-.05 (.11)	-.65 (.83)	-.05 (.07)	-1.4 (.91)
3. Male	.04 (.13)	.58 (.95)	.01 (.07)	-3.8 (1.1)***
4. White	-.24 (.21)	-2.8 (1.6)	-.25 (.12)*	-1.4 (3.2)

Table 1.3: Regression results of identification, gender, and race predicting aggression

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

Table 2.1: Descriptive statistics for dating violence and attachment variables

<i>Variable</i>	Overall				Female				Male			
	M	SD	Range	N	M	SD	Range	N	M	SD	Range	N
Dating Violence Attitudes												
1. Total Score	58.6	15.6	39-125	203	56.5	15.5	39-125	162	67.4	17.3	40-115	40
2. Psychological	27.3	7.7	15-52	204	26.4	7.3	15-51	163	30.9	8.1	15-52	40
3. Physical	16.0	5.5	12-38	203	15.4	5.1	12-38	162	18.6	6.6	12-38	40
4. Sexual	15.4	4.9	12-44	203	14.8	4.5	12-44	162	17.8	6.1	12-36	40
Attachment												
5. Anxious	2.9	1.83	1-7	204	2.8	1.8	1-7	163	3.2	1.9	1-67	40
6. Avoidant	2.2	1.1	1-5.7	204	2.1	1.0	1-4.7	163	2.6	1.3	1-5.7	40

Table 2.2: Bivariate Correlations

	1	2	3	4	5	6	7	8	9	10	11
Demographics											
1. Age	--										
2. Gender	-.09	--									
3. White	-.08	.08	--								
Character Identification											
4. Twilight Main Characters	-.08	.13	.01	--							
5. Hunger Games Main Characters	-.08	-.08	.08	-.03	--						
Dating Violence Attitudes											
6. Total Score	-.03	.28***	.00	.19**	-.23***	--					
7. Psychological	-.01	.23***	.01	.15*	-.20**	.89***	--				
8. Physical	-.09	.23***	-.04	.19**	-.20**	.87***	.64***	---			
9. Sexual	.02	.25***	.03	.17*	-.24***	.82***	.57***	.65***	--		
Attachment											
10. Anxious	-.12	.07	-.01	.09	-.15*	.14*	.11	.15*	.14*	--	
11. Avoidant	-.04	.16*	-.14*	.07	-.12	.25***	.21**	.21**	.23***	.45***	--

Table 2.2: Correlations for demographics, identification, and outcome variables.

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

Table 2.3: Linear regression of media engagement predicting acceptance of male dating violence

<i>Predictors</i>	<i>Overall Dating Violence</i> β (SE)	<i>Psychological Dating Violence</i> β (SE)	<i>Physical Dating Violence</i> β (SE)	<i>Sexual Dating Violence</i> β (SE)
1. Age	.03 (.67)	.04 (.34)	-.06 (.24)	.09 (.21)
2. Gender (F)	-.30 (2.8)***	-.23 (1.5)**	-.23 (1.0)**	-.32 (.88)***
3. White	-.03 (3.3)	-.03 (1.7)	-.07 (1.2)	.02 (.10)
4. Twilight Total Exposure	.03 (1.5)	-.03 (.75)	-.07 (.53)	.04 (.45)
5. Twilight Movie Only	.21 (4.6)	.16 (2.4)	.17 (1.7)	.21 (1.4)
6. Twilight Movie and Book	.23 (4.9)	.23 (2.4)	.18 (1.7)	.16 (1.4)
7. Hunger Games Total Exposure	.03 (1.2)	.08 (.80)	-.04 (.56)	-.07 (.48)
8. Hunger Games Movie Only	-.13 (5.16)	-.22 (2.6)	-.05 (1.9)	-.11 (1.6)
9. Hunger Games Movie and Book	.02 (5.3)	-.16 (2.7)	.15 (1.9)	.01 (1.6)
a. F Value	(9,177) = 2.45	(9,178) = 1.57	(9,177) = 2.34	(9,177) = 2.67
b. P Value	.01	.13	.02	.01
c. R ²	.11	.07	.11	.12

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

Table 2.4: Linear regression of character identification predicting acceptance of male dating violence

	<i>Overall Dating Violence</i>	<i>Psychological Dating Violence</i>	<i>Physical Dating Violence</i>	<i>Sexual Dating Violence</i>
Predictors	β (SE)	β (SE)	β (SE)	β (SE)
1. Age	-.01 (.59)	.02 (.29)	-.09 (.21)	.04 (.19)
2. Gender (F)	-.23 (2.6)***	-.19 (1.3)**	-.18 (.94)**	-.20 (.84)**
3. White	-.00 (3.2)	.01 (1.6)	-.05 (1.1)	.04 (1.0)
4. Identification with Twilight Main Characters	.16 (2.2)*	.13 (1.1)	.16 (.77)*	.14 (.69)*
5. Identification with Hunger Games Main Characters	-.22 (2.6)***	-.18 (1.3)**	-.19 (.92)**	-.22 (.83)***
a. F Value	(5,197) = 6.48	(5,198) = 4.43	(5,197) = 5.20	(5,197) = 5.60
b. P Value	.00	.00	.00	.00
c. R ²	.14	.10	.12	.12

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

Table 2.5: Linear regression of character identification predicting attachment style

	<i>Anxious Attachment</i>	<i>Avoidant Attachment</i>
Predictors	β (SE)	β (SE)
1. Age	-.12 (.08)	-.07 (.05)
2. Gender (F)	-.02 (.36)	-.14 (.21)
3. White	-.02 (.40)	-.15 (.24)*
4. Twilight Total Exposure	-.01 (.17)	-.08 (.10)
5. Twilight Book + Movie	-.04 (.35)	.12 (.20)
6. Identification with Twilight Characters	.03 (.29)	-.03 (.17)
7. Hunger Games Total Exposure	-.04 (.18)	.01 (.11)
8. Hunger Games Book + Movie	.20 (.39)*	.00 (.23)
9. Identification with Hunger Games Characters	-.22 (.38) **	-.08 (.23)
a. F Value	(9,178) = 1.73	(9,178) = 1.58
b. P Value	.08	.18
c. R ²	.08	.07

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

Table 3.1: Linear regressions of literature content and relationship development, Anxious Attachment Scores

	<i>General Attachment</i>	<i>Parent Attachment</i>	<i>Peer Attachment</i>	<i>S.O. Attachment</i>	<i>Mean Attachment</i>
<i>Predictors</i>	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)
1. Attachment Wave 1	.58 (.05)***	.35 (.06)***	.50 (.06)***	.64 (.06)***	.60 (.05)***
2. Gender (F)	.08 (.26)	-.14 (.26)*	-.12 (.29)	-.07 (.36)	-.08 (.20)
3. White	.03 (.28)	-.08 (.29)	.01 (.32)	-.05 (.35)	-.03 (.22)
4. Avid Reader	.08 (.19)	-.03 (.20)	-.07 (.22)	.05 (.26)	-.02 (.15)
5. Fantasy	.01 (.07)	-.14 (.07)	-.08 (.08)	.01 (.10)	-.06 (.06)
6. SciFi	-.11 (.07)	-.16 (.07)*	-.06 (.08)	-.03 (.10)	-.09 (.05)
7. Contemporary	-.00 (.08)	-.35 (.08)***	-.15 (.09)	.03 (.11)	-.13 (.06)
8. Romance	-.07 (.06)	-.25 (.06)**	-.18 (.07)*	-.02 (.08)	-.17 (.05)*
9. Mystery	.15 (.08)*	-.10 (.08)	.04 (.09)	.01 (.10)	.05 (.06)
10. Horror	-.04 (.07)	-.24 (.07)**	-.08 (.08)	.08 (.09)	-.05 (.06)

Note: p<.05*, p<.01**, p<.001***, p=.06^

Table 3.2: Linear regressions of literature content and relationship development, Avoidant Attachment Scores

	<i>General Attachment</i>	<i>Parent Attachment</i>	<i>Peer Attachment</i>	<i>S.O. Attachment</i>	<i>Mean Attachment</i>
<i>Predictors</i>	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)
1. Attachment Wave 1	.38 (.05)***	.59 (.05)***	.40 (.06)***	.33 (.07)***	.49 (.05)***
2. Gender (F)	-.13 (.13)	-.08 (.13)	-.10 (.13)	-.02 (.18)	-.14 (.09)*
3. White	.03 (.14)	.04 (.14)	-.09 (.14)	-.08 (.17)	-.02 (.09)
4. Avid Reader	.06 (.09)	-.11 (.09)^	-.09 (.09)	.01 (.13)	-.06 (.07)
5. Fantasy	.03 (.04)	-.02 (.04)	-.18 (.04)*	-.05 (.05)	-.09 (.03)
6. SciFi	.08 (.04)	.04 (.04)	-.11 (.03)	-.07 (.05)	-.02 (.02)
7. Contemporary	-.01 (.04)	-.06 (.04)	-.15 (.04)	-.04 (.05)	-.09 (.03)
8. Romance	.01 (.03)	.05 (.03)	-.12 (.03)	-.03 (.04)	-.05 (.02)
9. Mystery	.02 (.04)	.06 (.04)	-.15 (.04)	-.09 (.05)	-.02 (.03)
10. Horror	.15 (.04)	.10 (.04)	-.05 (.03)	.02 (.05)	.08 (.03)

Note: p<.05*, p<.01**, p<.001***, p=.06^

Table 3.3: Linear regressions of literature content and relationship development,

SRASBM

	<i>Relational Aggression</i>	<i>Proactive Aggression</i>	<i>Prosocial Behavior</i>
Predictors	β (SE)	β (SE)	β (SE)
1. Aggression Wave 1	.54 (.08)***	.52 (.05)***	.69 (.07)***
2. Gender (F)	-.04 (1.1)	-.11 (.36)	.05 (.15)
3. White	-.06 (1.0)	.00 (.37)	.15 (.17)**
4. Avid Reader	-.14 (.81)	-.05 (.26)	.04 (.12)
5. Contemporary	-.08 (.33)	-.13 (.10)	.08 (.04)
6. Romance	-.14 (.25)	-.16 (.08)	.09 (.03)
7. Fantasy	-.01 (.32)	-.06 (.09)	.12 (.04)
8. SciFi	-.01 (.28)	.01 (.09)	.10 (.04)
9. Mystery	.03 (.31)	.09 (.10)	.00 (.04)
10. Horror	-.08 (.30)	-.09 (.09)	.00 (.04)

Note: p<.05*, p<.01**, p<.001***, p=.06^

Table 3.4: Linear regressions of literature content and health risk behavior

	<i>Safety Behaviors</i>	<i>Weight Loss</i>	<i>Substance (Tobacco)</i>	<i>Substance (Overall)</i>	<i>Self-Injury/ Suicidality</i>	<i>Aggression</i>
Predictors	β (SE)	β (SE)				
1. Behavior, Wave 1	.43 (.09)***	.53 (.06)***	.77 (.04)***	.69 (.04)***	.70 (.04)***	.43 (.07)***
2. Gender (F)	.02 (1.0)	-.01 (.09)	-.02 (.18)	-.03 (.67)	-.05 (.09)	-.10 (.16)
3. White	.08 (1.3)	-.04 (.10)	-.03 (.22)	.03 (.83)	.01 (.12)	-.03 (.20)
4. Avid Reader	-.05 (.86)	-.05 (.07)	-.01 (.15)	.03 (.57)	-.10 (.07)^	-.08 (.14)
5. Health	-.02 (.43)	.01 (.04)	.01 (.08)	.03 (.29)	-.04 (.04)	-.04 (.07)
6. Appearance	-.03 (.44)	.05 (.04)	-.05 (.08)	-.06 (.30)	.01 (.04)	-.01 (.07)
7. Substances	.01 (.54)	.04 (.05)	.16 (.09)***	.15 (.37)**	.07 (.05)	.02 (.09)
8. Suicidality	.09 (.69)	-.03 (.06)	-.16 (.12)**	-.12 (.46)^	.06 (.06)	.04 (.11)
9. Mental Health	.06 (.52)	.12 (.04)	.09 (.09)	.04 (.35)	-.03 (.05)	-.04 (.08)
10. Violence	-.14 (.50)*	-.00 (.09)	.04 (.09)	.02 (.34)	.03 (.05)	.14 (.08)^

Note: p<.05*, p<.01**, p<.001***, p=.06^

FIGURES

Figure 1.1: Gender Interaction

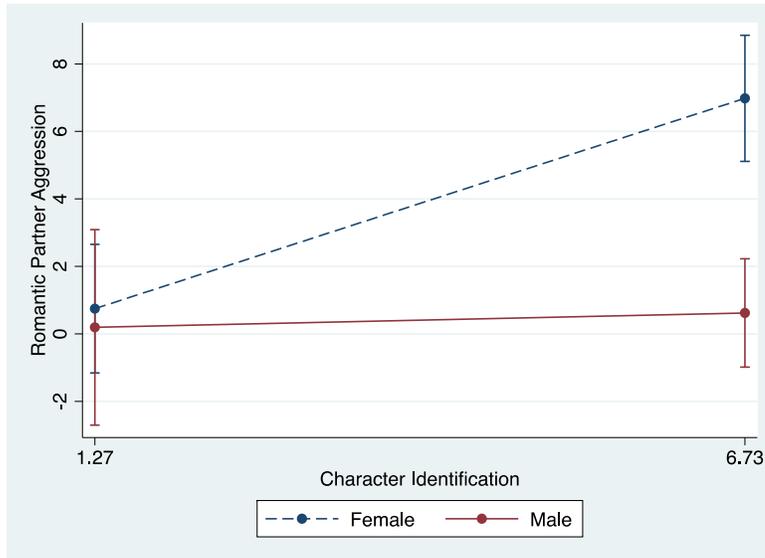


Figure 1.1: Predictors of romantic aggression by character identification

Figure 2.1: Media Mode Interaction

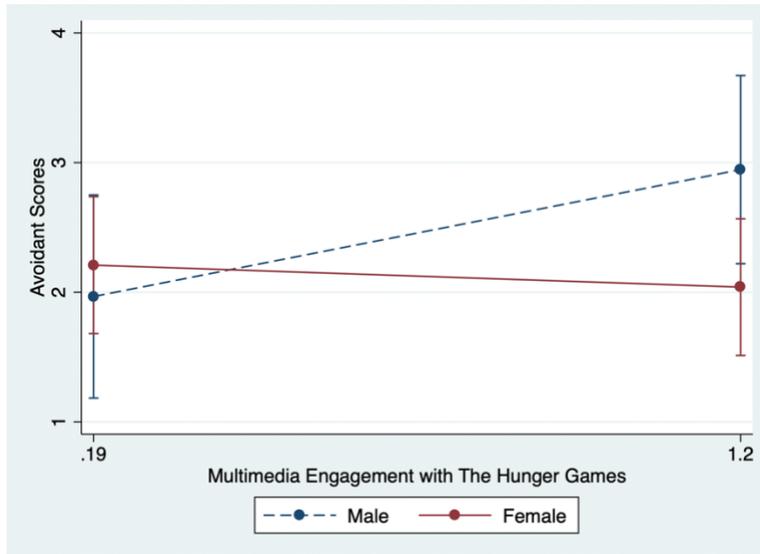


Figure 2.1: Predictors of avoidant attachment scores by mode of media consumption

Figure 3.1 Reading Preferences

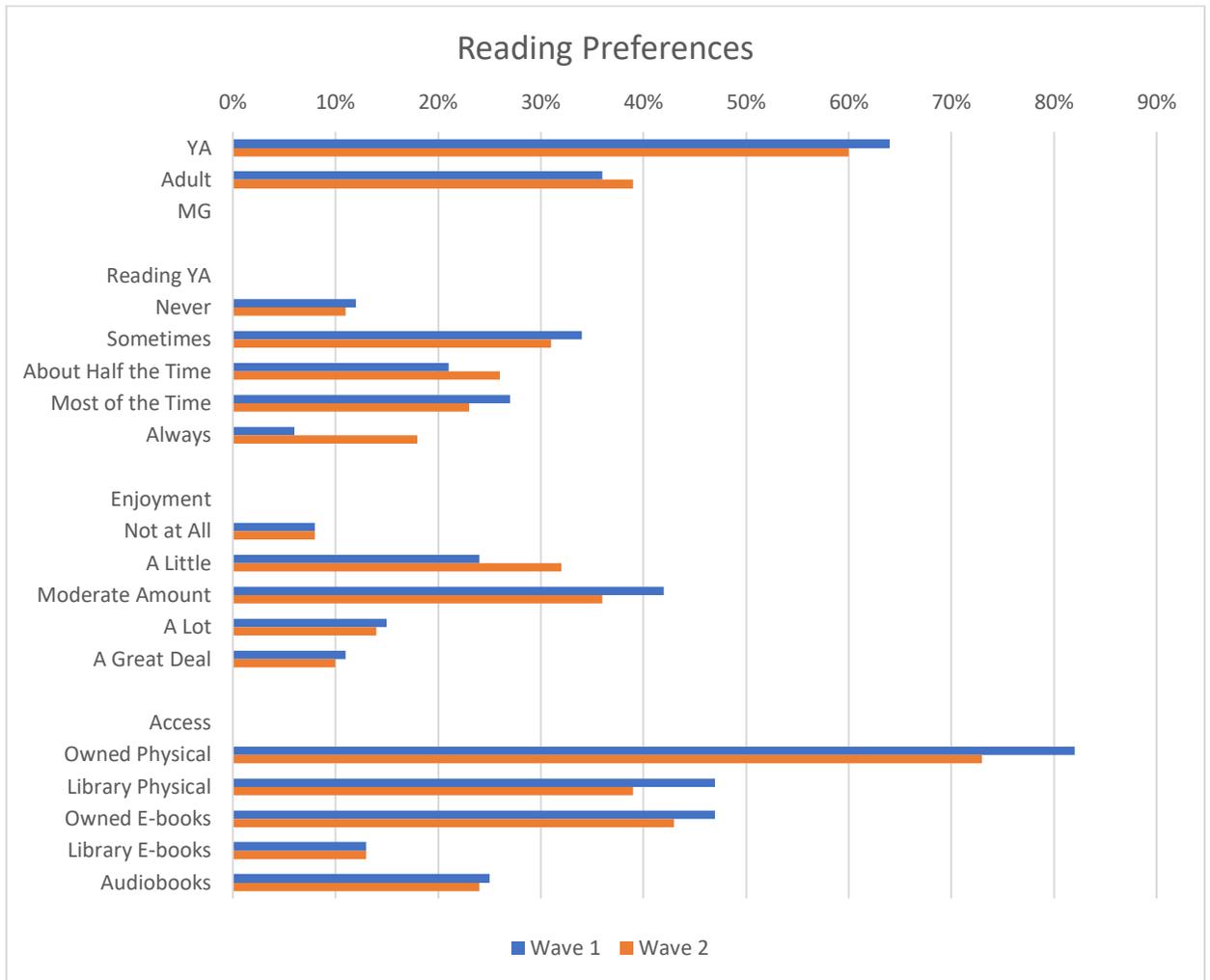


Figure 3.2: Race/Ethnicity Interaction

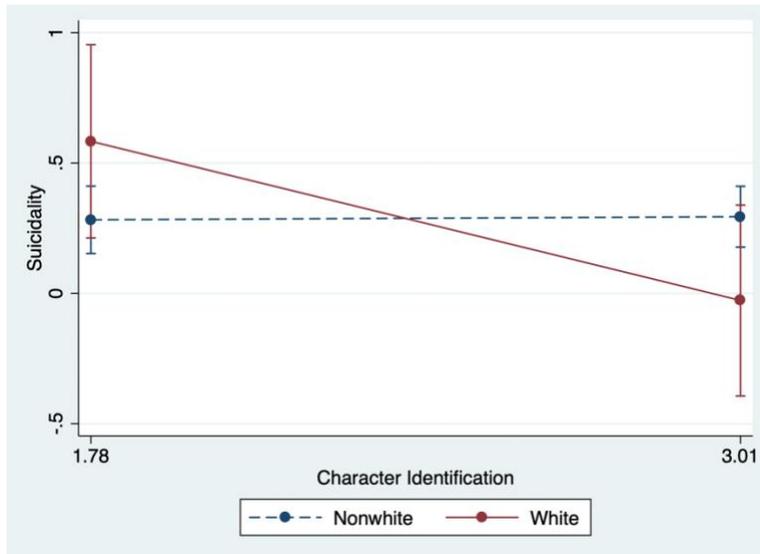


Figure 3.2: Predictors of suicidality by character identification

Figure 3.3: Fantasy Genre Interaction

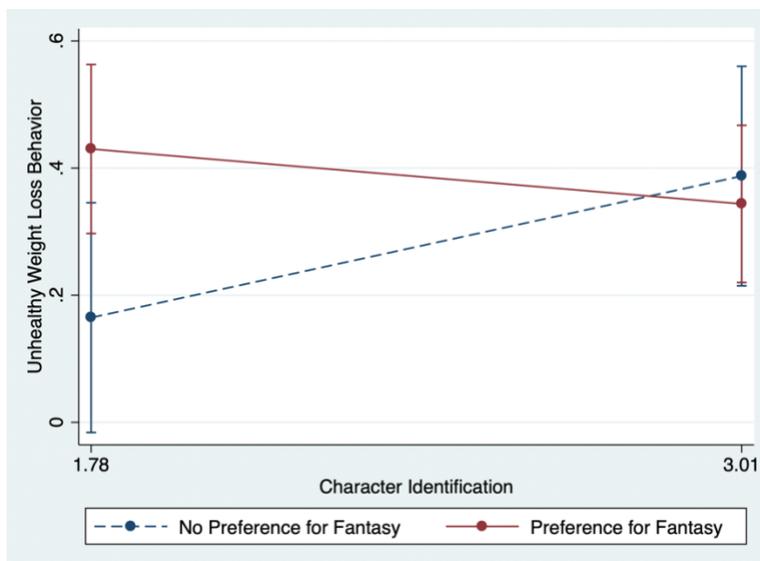


Figure 3.3: Predictors of unhealthy weight loss behavior by character identification

Figure 3.4: Mystery Genre Interaction

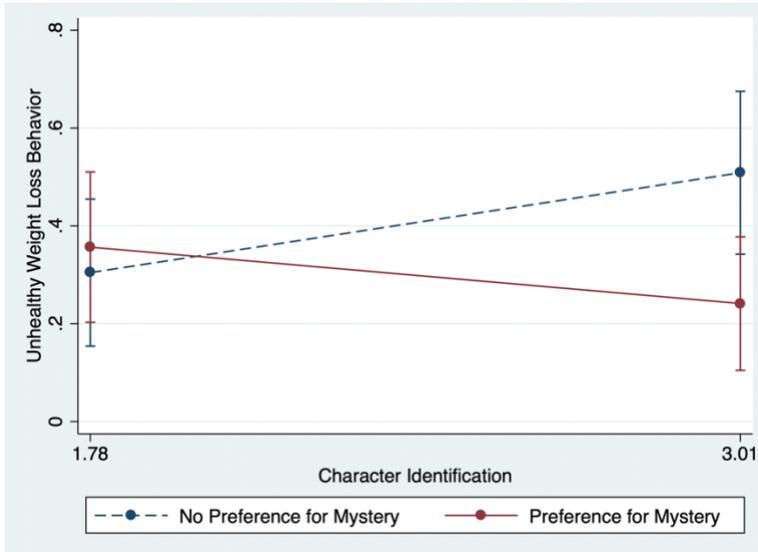


Figure 3.4: Predictors of unhealthy weight loss behavior by character identification

Figure 3.5: Gender Interaction

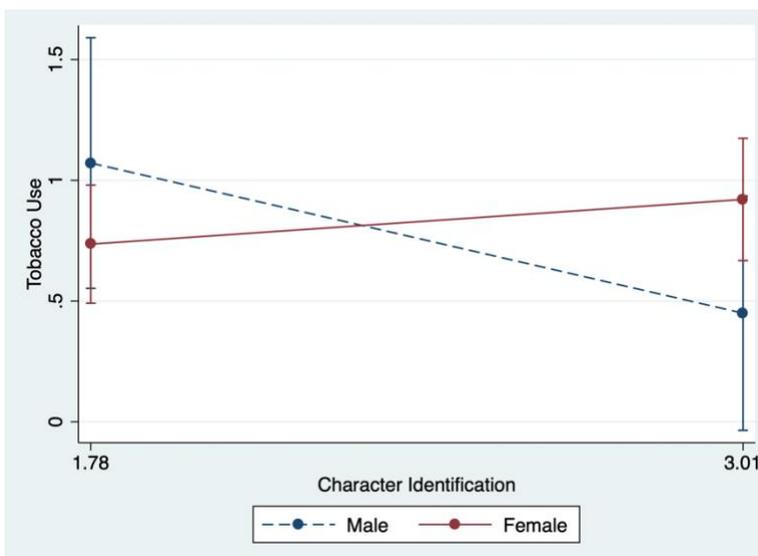


Figure 3.5: Predictors of tobacco use by character identification

Figure 3.6: Gender Interaction 2

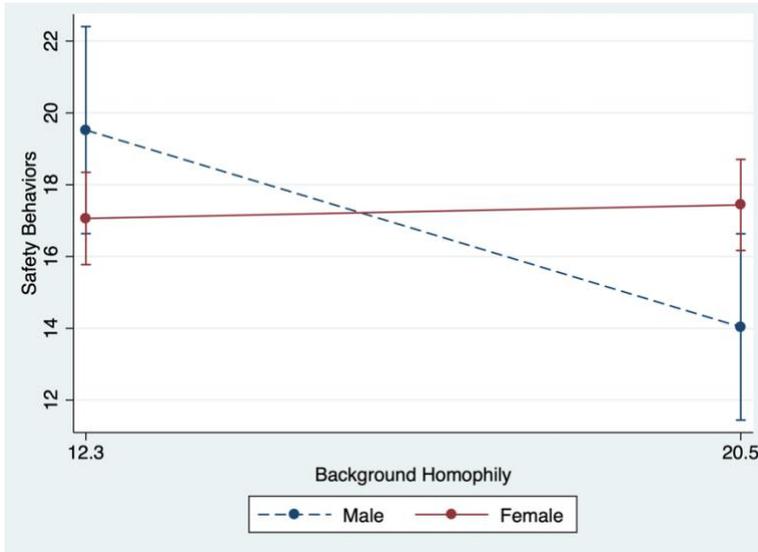


Figure 3.6: Predictors of safety behaviors by background homophily

Figure 3.7: Science Fiction Interaction

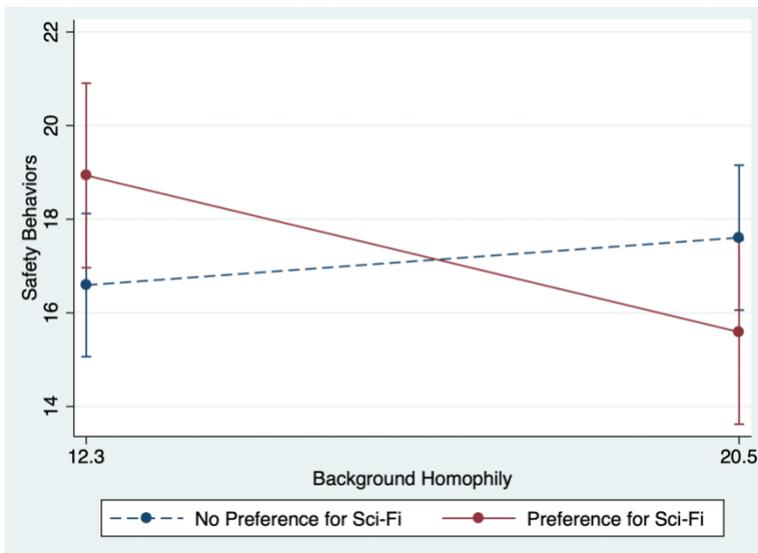


Figure 3.7: Predictors of safety behaviors by background homophily

Figure 3.8: Race/Ethnicity Interaction 2

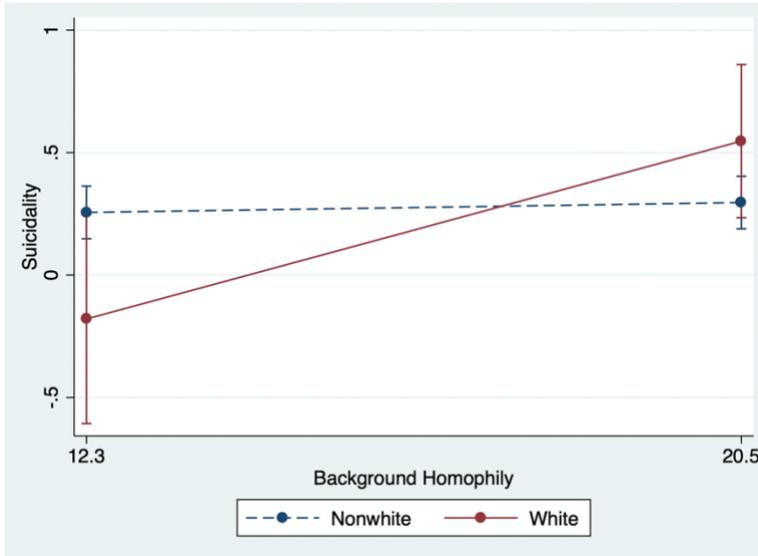


Figure 3.8: Predictors of suicidal behaviors by background homophily

Figure 3.9: Mystery Genre Interaction 2

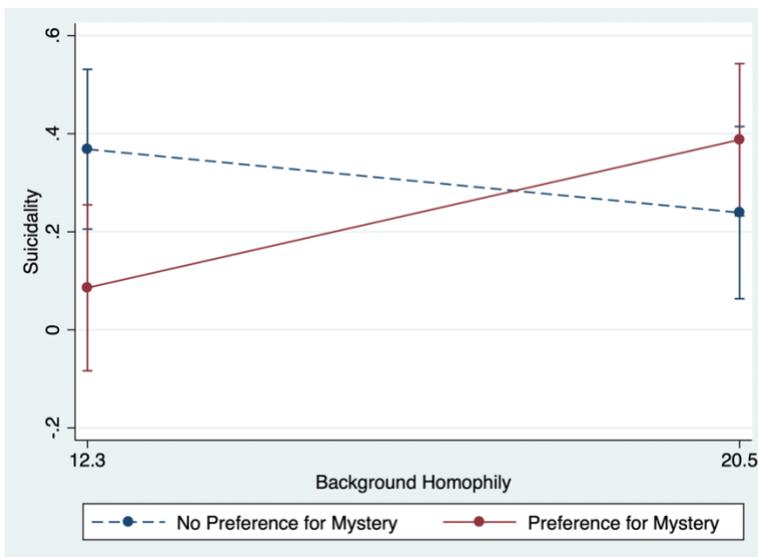


Figure 3.9: Predictors of suicidal behaviors by background homophily

Figure 3.10: Gender Interaction 3

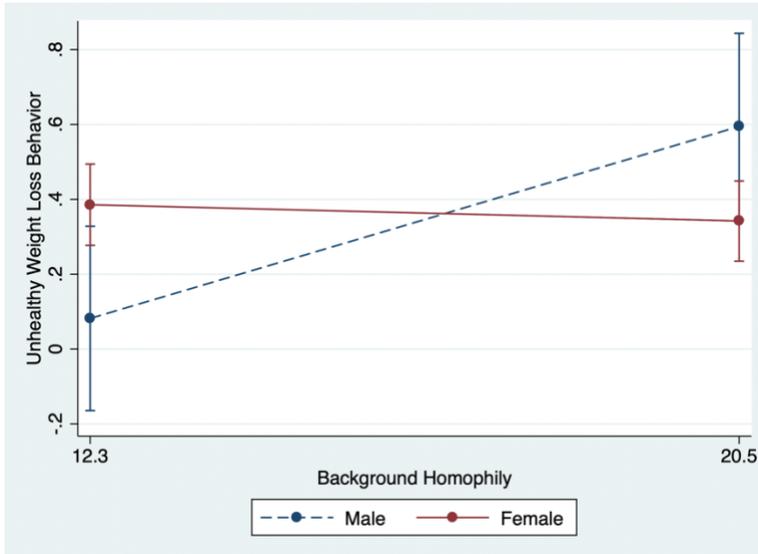


Figure 3.10: Predictors of unhealthy weight loss by background homophily

Figure 3.11: Gender Interaction 4

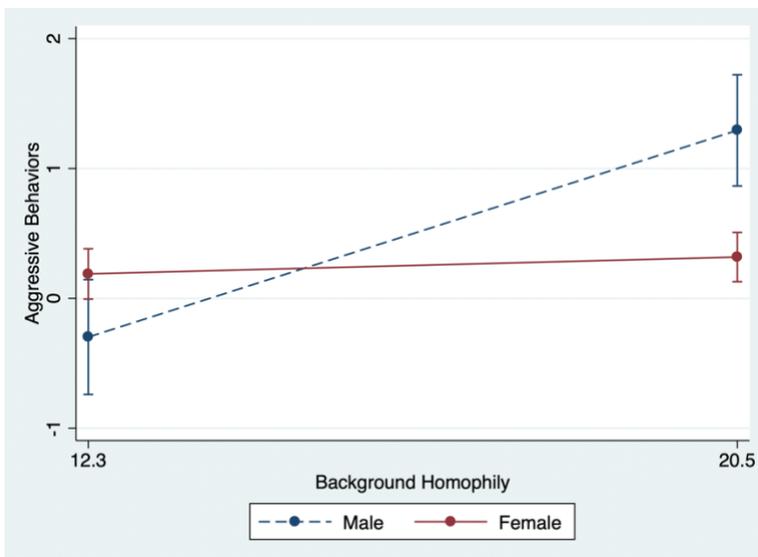


Figure 3.11: Predictors of aggressive behavior by background homophily

Figure 3.12: Horror Genre Interaction



Figure 3.12: Predictors of aggressive behavior by background homophily

Figure 3.13: Race/Ethnicity Interaction 3

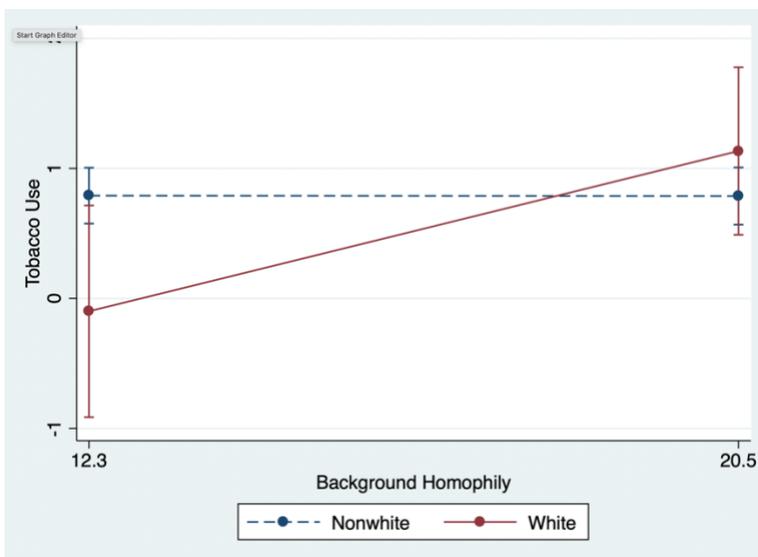


Figure 3.13: Predictors of tobacco use by background homophily

Figure 3.14: Mystery Genre Interaction 3

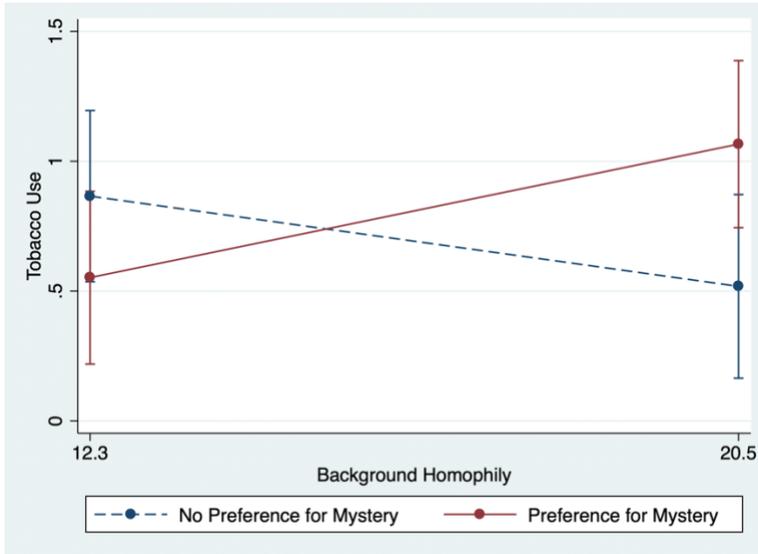


Figure 3.14: Predictors of tobacco use by background homophily

Figure 3.15: Horror Genre Interaction 2

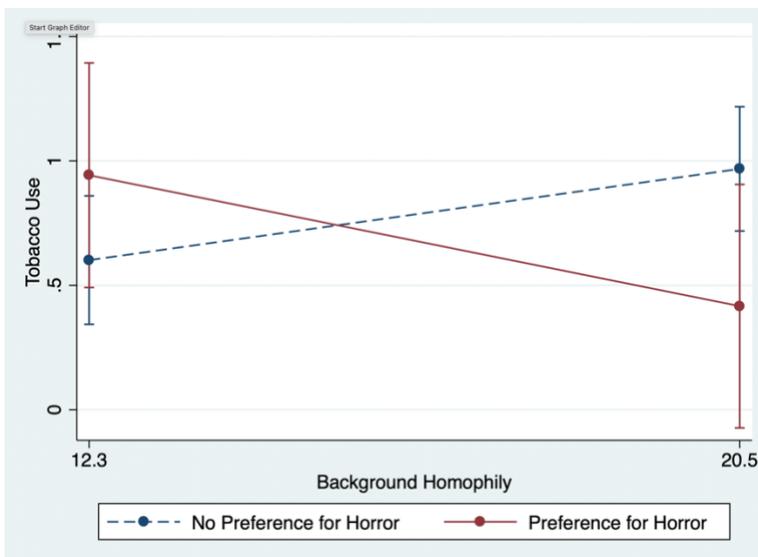


Figure 3.15: Predictors of tobacco use by background homophily

Figure 3.16: Fantasy Genre Interaction 2

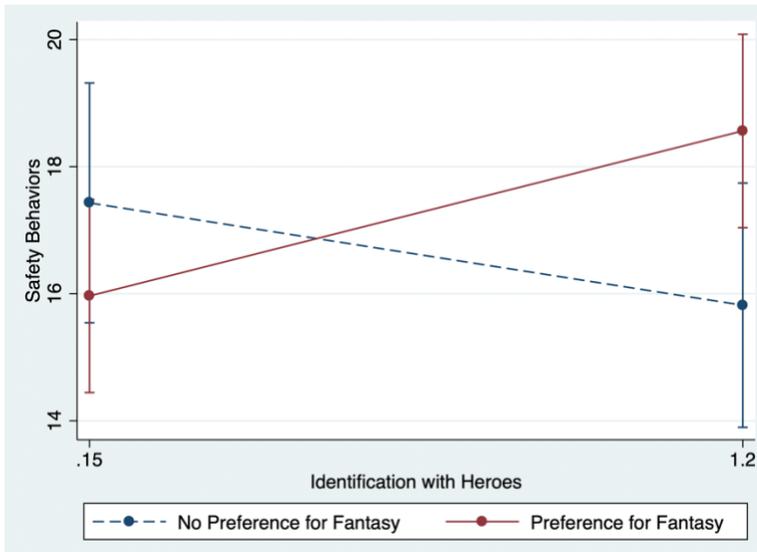


Figure 3.16: Predictors of safety behaviors by identification with heroes

Figure 3.17: Contemporary Genre Interaction

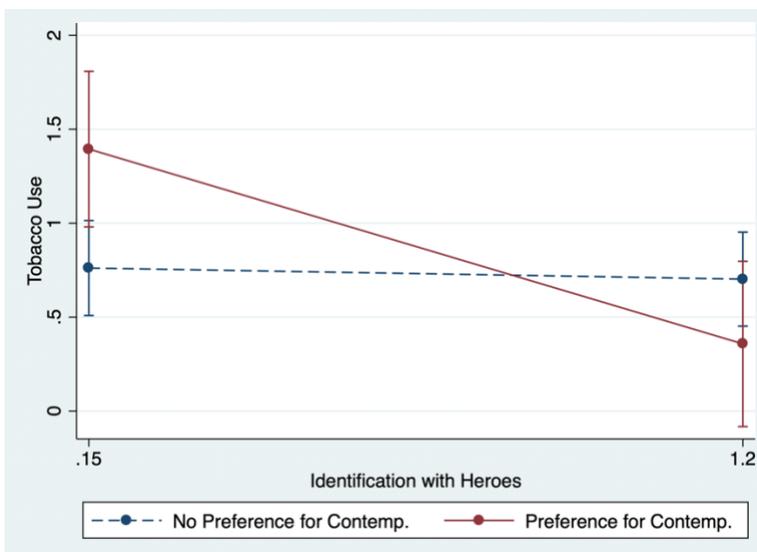


Figure 3.17: Predictors of tobacco use by identification with heroes

Figure 3.18: Gender Interaction 5

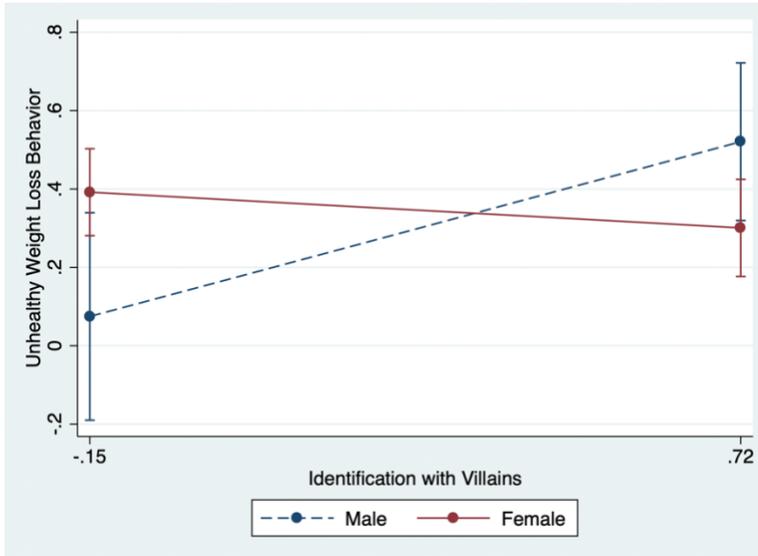


Figure 3.18: Predictors of unhealthy weight loss behaviors by identification with villains

Figure 3.19: Mystery Genre Interaction 4

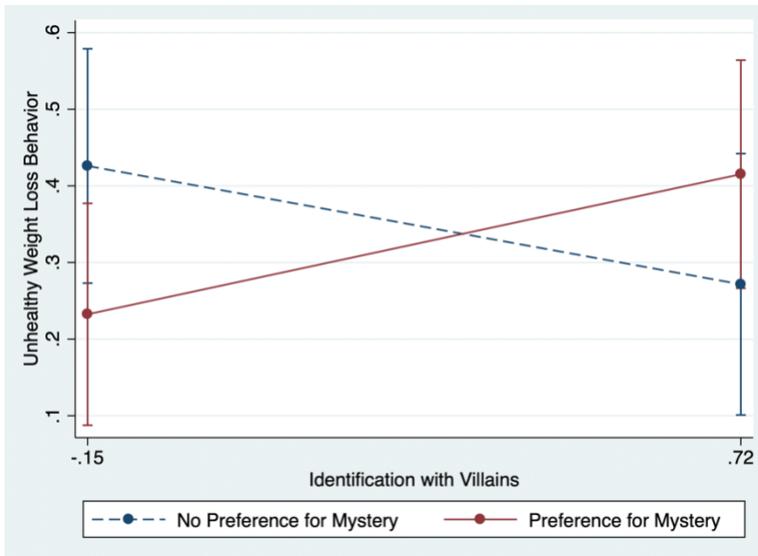


Figure 3.19: Predictors of unhealthy weight loss behaviors by identification with villains

Figure 3.20: Gender Interaction 6

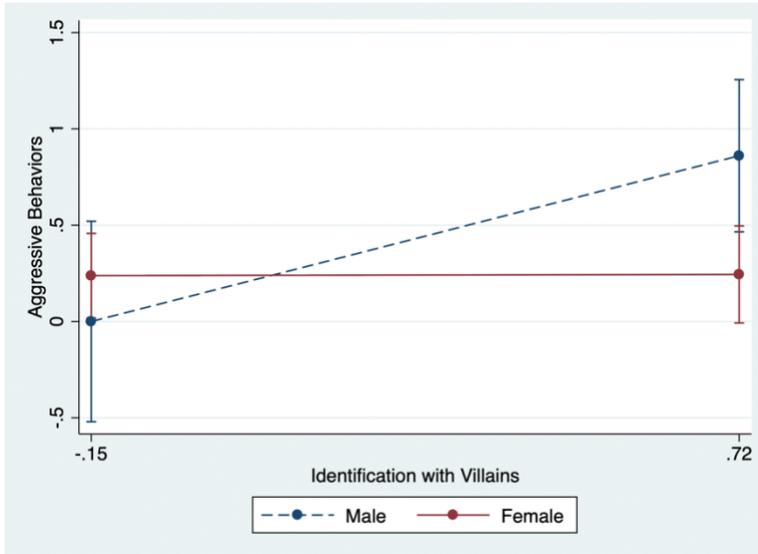


Figure 3.20: Predictors of aggressive behaviors by identification with villains

Figure 3.21: Avid Reader Interaction

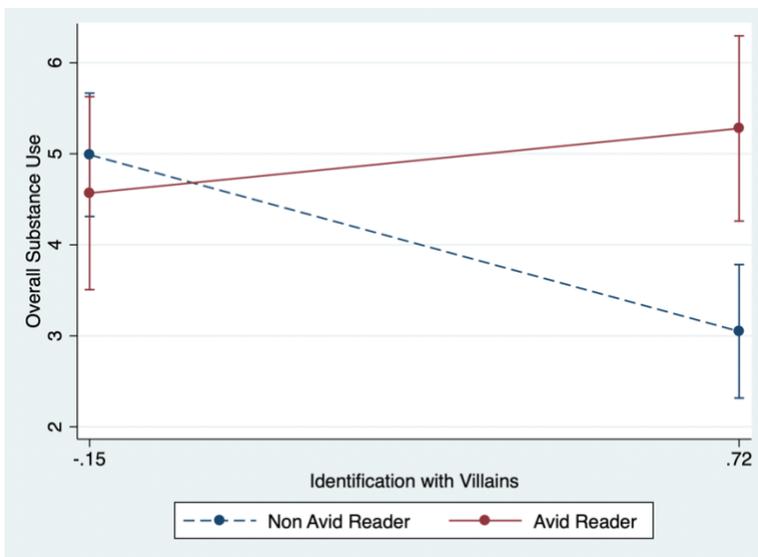


Figure 3.21: Predictors of overall substance use by identification with villains

Figure 3.22: Fantasy Genre Interaction 3

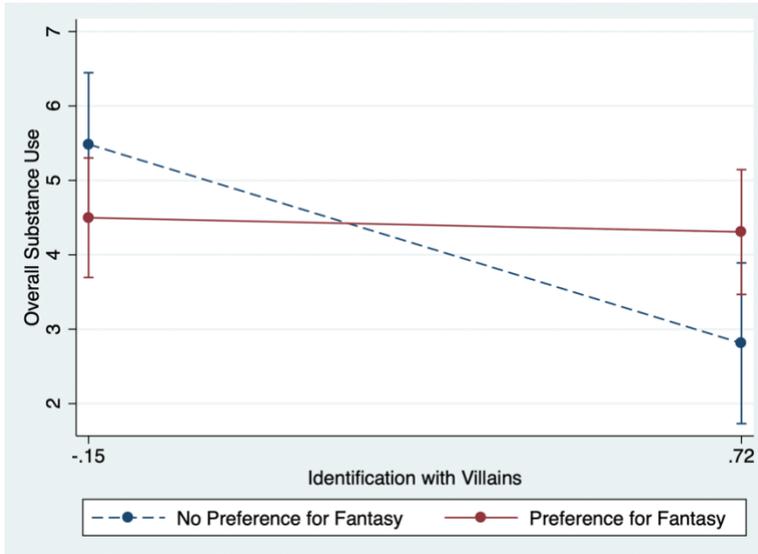


Figure 3.22: Predictors of overall substance use by identification with villains

Figure 3.23: Science Fiction Interaction 2

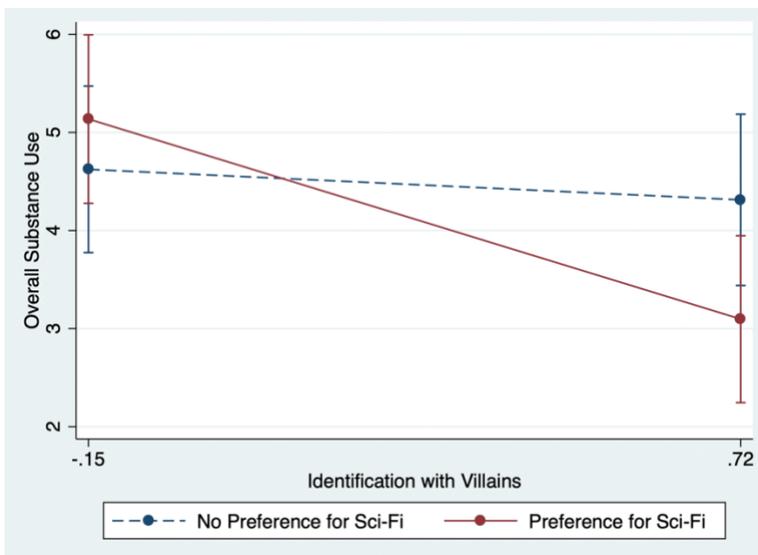


Figure 3.23: Predictors of overall substance use by identification with villains

Figure 3.24: Contemporary Genre Interaction 2

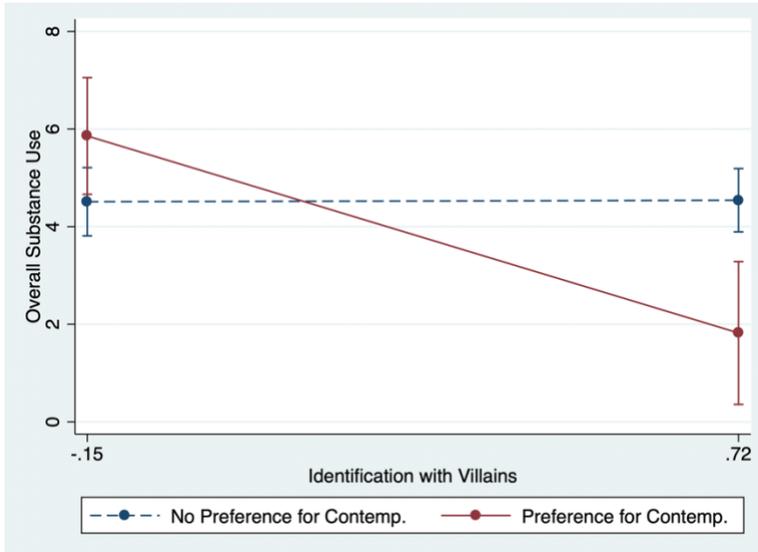


Figure 3.24: Predictors of overall substance use by identification with villains

Figure 3.25: Romance Genre Interaction

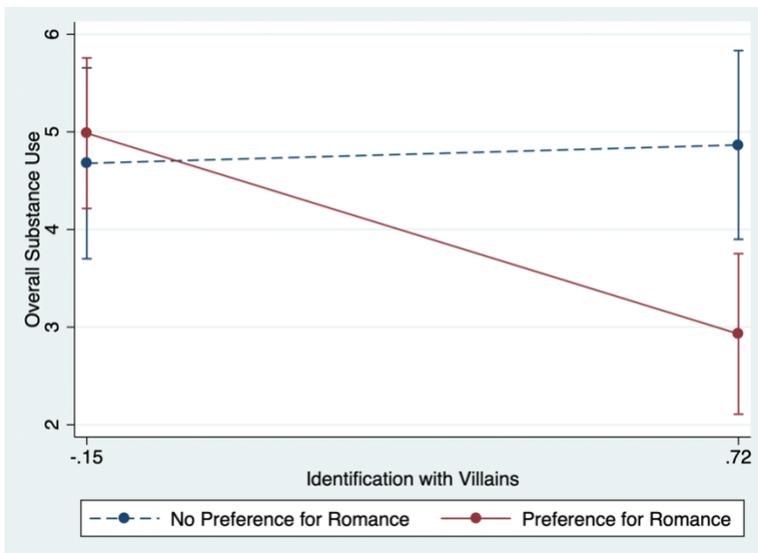


Figure 3.25: Predictors of overall substance use by identification with villains

Figure 3.26: Fantasy Genre Interaction 4

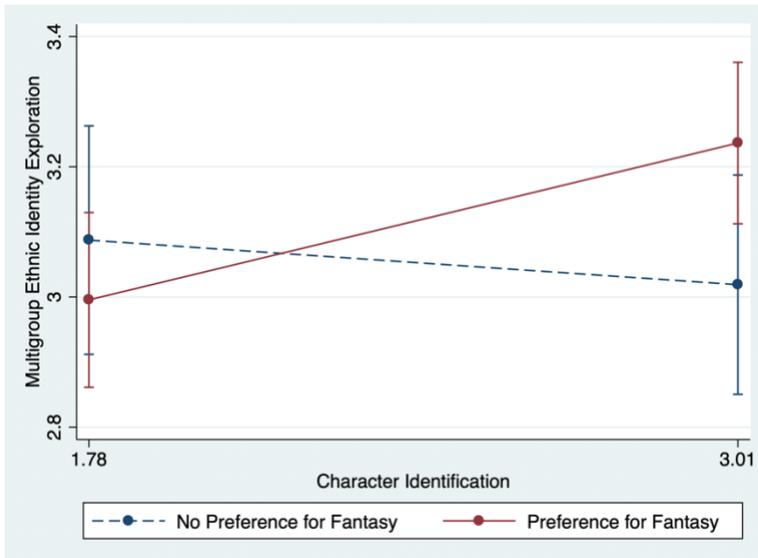


Figure 3.26: Predictors of multigroup ethnic identity exploration by character identification

Figure 3.27: Fantasy Genre Interaction 4

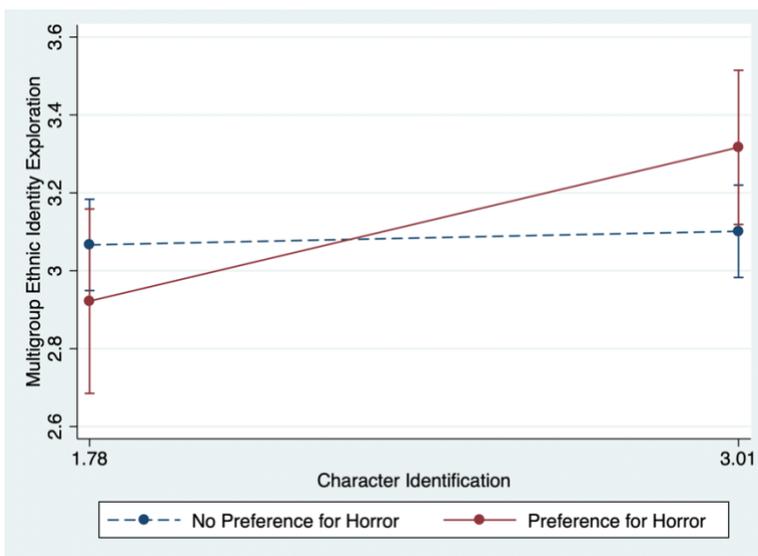


Figure 3.27: Predictors of multigroup ethnic identity exploration by character identification

Figure 3.28: Science Fiction Interaction 3

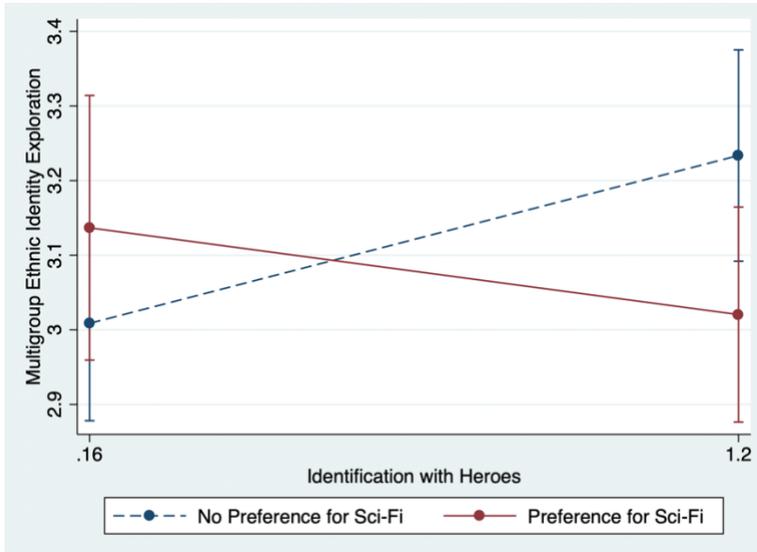


Figure 3.28: Predictors of multigroup ethnic identity exploration by identification with heroes

Figure 3.29: Race/Ethnicity Interaction 4

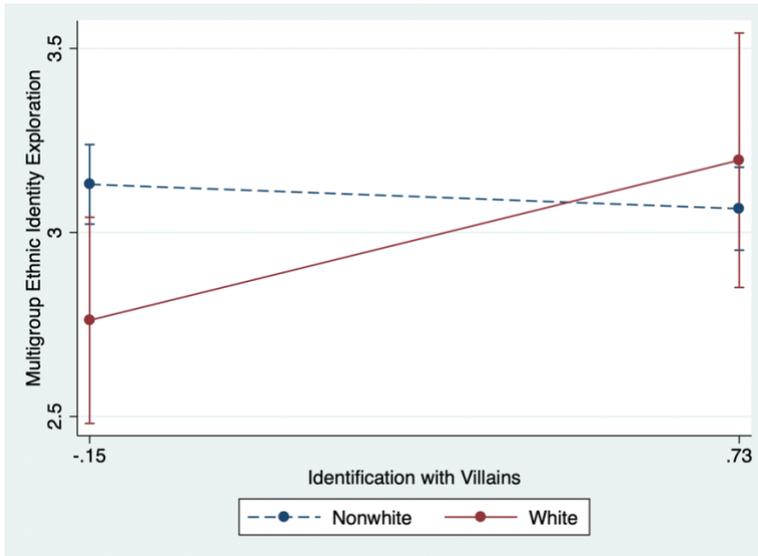


Figure 3.29: Predictors of multigroup ethnic identity exploration by identification with villains

Figure 3.30: Gender Interaction 7

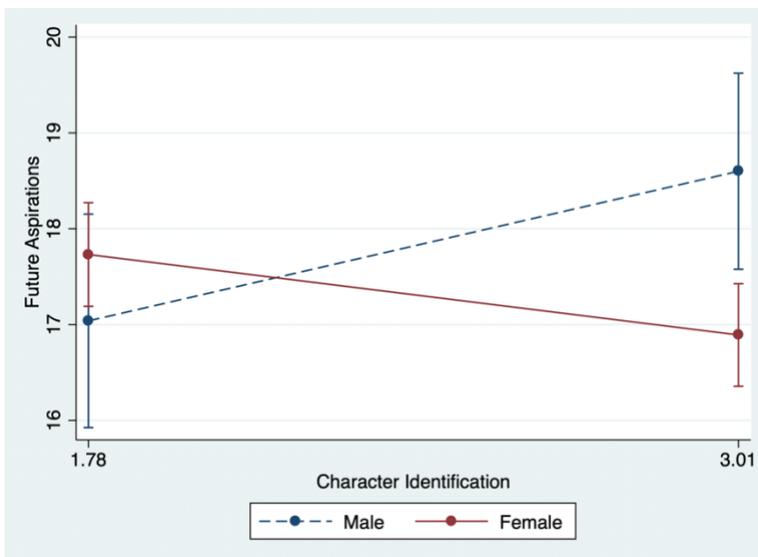


Figure 3.30: Predictors of future aspirations by character identification

Figure 3.31: Fantasy Genre Interaction 5

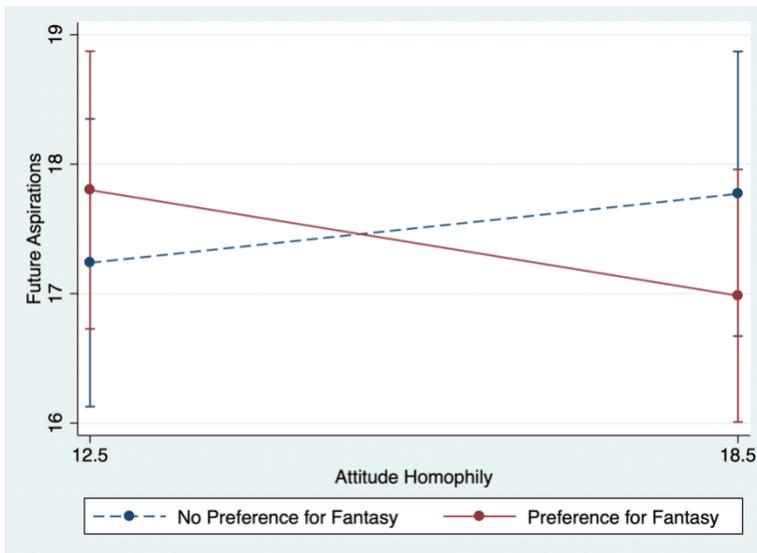


Figure 3.31: Predictors of future aspirations by attitude homophily

Figure 3.32: Horror Genre Interaction 3

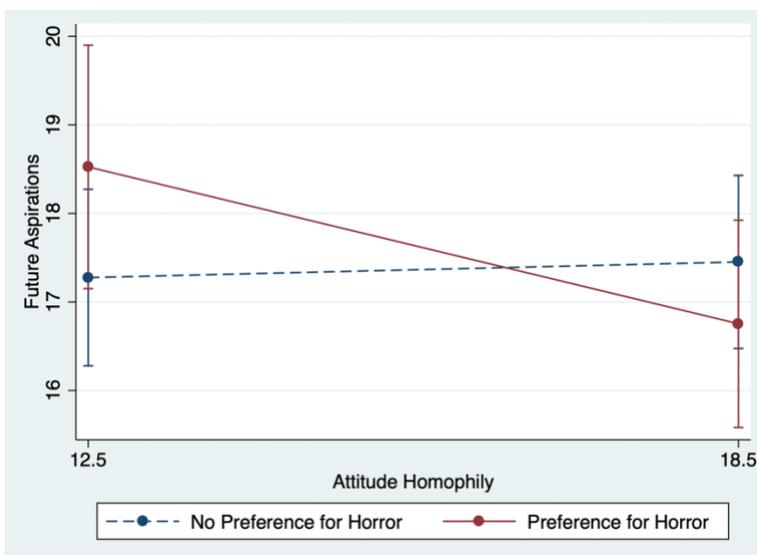


Figure 3.32: Predictors of future aspirations by attitude homophily

Figure 3.33: Romance Genre Interaction 2

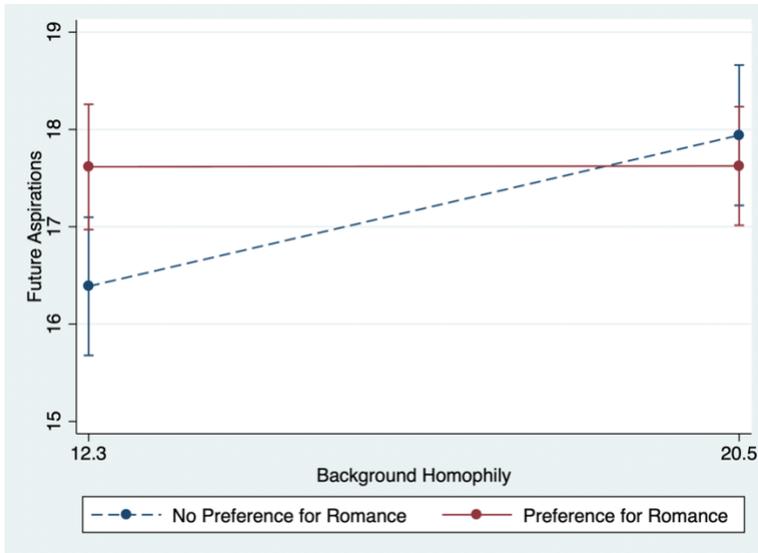


Figure 3.33: Predictors of future aspirations by background homophily

Figure 3.34: Race/Ethnicity Interaction 5

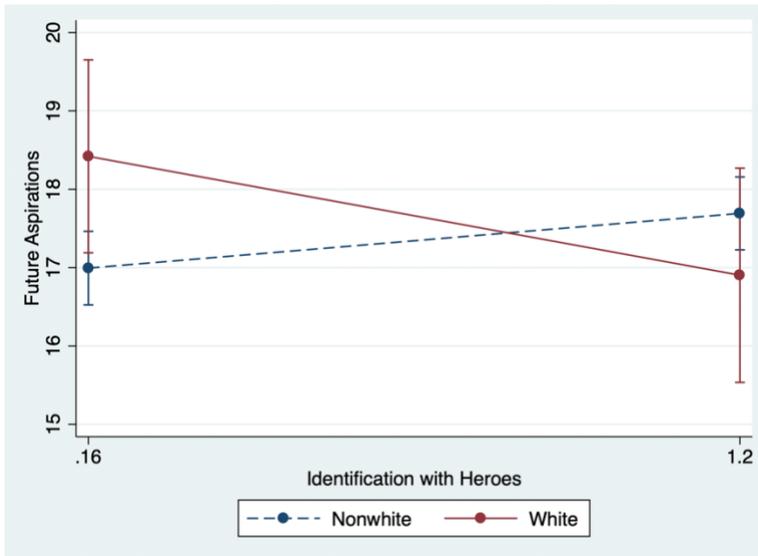


Figure 3.34: Predictors of future aspirations by identification with heroes

Appendix A

CONSENT TO TAKE PART IN A RESEARCH STUDY

TITLE OF STUDY: Media Preferences

Principal Investigator: Carolina M. Herrera, LMSW, PhD Candidate

This consent form is part of an informed consent process for a research study and it will provide information that will help you decide whether you want to take part in this study. It is your choice to take part or not. After all of your questions have been answered and you wish to take part in the research study, you will be asked to sign this consent form. You will be given a copy of the signed form to keep. Your alternative to taking part in the research is not to take part in it.

Who is conducting this research study and what is it about?

You are being asked to take part in research conducted by Carolina M. Herrera who is doctoral candidate in the Dept. of Psychology. The purpose of this study is two-fold. First, we would like to gain a better understanding as to what kinds of media college aged students are enjoying, based on both older and newer media options. Second, we would like to gain a better understanding about relationship attitudes and behaviors amongst college-aged students.

What will I be asked to do if I take part?

The *Media Preferences Survey* will take about 30 minutes to complete. We anticipate 130 subjects will take part in the study.

What are the risks and/or discomforts I might experience if I take part in the study?

Breach of confidentiality is a risk of harm but a data security plan is in place to minimize such a risk. Once all data has been collected, any links to information that could identify you will be broken. Also, some questions may make you feel uncomfortable. If that happens, you can skip those questions or withdraw from the study altogether. If you decide to quit at any time before you have finished the *Media Preferences Survey* your answers will NOT be recorded.

Are there any benefits to me if I choose to take part in this study?

There no direct benefits to you for taking part in this research. You will be contributing to knowledge about media preferences amongst college students as well as contributing to knowledge about relationship patterns amongst college students.

Will I be paid to take part in this study?

You will not be paid to take part in this study. You will receive 1 RU point for completion of the survey. After you have completed the survey, the PI will enter the Sona system and mark your participation in the study, at which time your account will automatically be credited with 1 RU point.

How will information about me be kept private or confidential?

All efforts will be made to keep your responses confidential, but total confidentiality cannot be guaranteed.

- We will use Qualtrics to collect and forward your responses to us. We will not know your IP address when you respond to the online research. We will ask you to include your name and RUID when you *complete the survey*. Your identifiable information will not be stored with your responses. Instead, your responses will be assigned a subject # which will be stored separately from your responses so others will not know which responses are yours. Once data collection is complete, your identifiable information will be destroyed so no link will exist between your identity and your responses.

No information that can identify you will appear in any professional presentation or publication.

What will happen to information I provide in the research after the study is over?

- The information collected about you for this research will not be used by or distributed to investigators for other research.

What will happen if I do not want to take part or decide later not to stay in the study?

Your participation is voluntary. If you choose to take part now, you may change your mind and withdraw later. If you do not click on the 'submit' button after completing the form, your responses will not be recorded. You may also choose to skip any questions that you do not wish to answer. You may also withdraw your consent for use of data you submit, but you must do this in writing to the PI Carolina M. Herrera.

Who can I call if I have questions?

If you have questions about taking part in this study, you can contact the Principal Investigator: Carolina M. Herrera, Psychology Department, at cherrera@psychology.rutgers.edu. You can also contact my faculty advisor Dr. Paul Boxer at pboxer@psychology.rutgers.edu.

If you have questions about your rights as a research subject, you can call the IRB Director at: *New Brunswick/Piscataway ArtSci IRB (732)235-2866* or the Rutgers Human Subjects Protection Program at (973) 972-1149 in Newark.

Please print out this consent form if you would like a copy of it for your files.

If you do not wish to take part in the research, close this website address. If you wish take part in the research, follow the directions below:

I acknowledge that I am between the ages of 18 and 25 and have read and understand the information. I agree to take part in the research, with the knowledge that I am free to withdraw my participation without penalty.

Click on the "I Agree" button to confirm your agreement to take part in the research.

I Agree

I Do Not Agree

Appendix B

Media Preferences

Below are some questions about specific books and movies. Please write your answer in the spaces provided.

1. How many times have you read the book “Twilight” or any of its sequels?

2. How old were you the first time you read Twilight? _____
3. How many times have you watched the movie “Twilight” or any of its sequels?

4. How old were you the first time you watched the Twilight movie? _____
5. Who is your favorite character in Twilight? _____
6. Which character is most like you in Twilight? _____
7. Which character would you most like to be like in Twilight? _____
8. How many times have you read the book “Hunger Games” or any of its sequels?

9. How old were you the first time you read Hunger Games? _____
10. How many times have you watched the movie “Hunger Games” or any of its sequels? ____
11. How old were you the first time you watched the Hunger Games movie? _____
12. Who is your favorite character in Hunger Games? _____
13. Which character is most like you in Hunger Games? _____
14. Which character would you most like to be like in Hunger Games? _____

15. How often do you watch movies together with a friend or romantic partner? ____

16. What is your favorite media genre? _____

17. What are your three favorite television (or streaming) shows? _____, _____,

Dating Attitudes

The following questions describe attitudes toward a variety of behaviors in dating relationships which different people have. There are no right or wrong answers, only opinions. Therefore, it is very important that you answer each question honestly.

Please express your feelings about each statement by indicating whether you:

- (1) Strongly Disagree
- (2) Mildly Disagree
- (3) Neither Disagree nor Agree
- (4) Mildly Agree
- (5) Strongly Agree.

1. A guy should not insult his girlfriend.
2. A guy should not tell his girlfriend what to do.
3. A girl should ask her boyfriend first before going out with her friends.
4. Relationships always work best when girls please their boyfriends.
5. There is never a reason for a guy to threaten his girlfriend.
6. Sometimes guys just can't help but swear at their girlfriends.

7. A girl should always change her ways to please her boyfriend.
8. A girl should always do what her boyfriend tells her to do.
9. A guy does not need to know his girlfriend's every move.
10. There is never a good enough reason for a guy to swear at his girlfriend.
11. It is understandable when a guy gets so angry that he yells at his girlfriend.
12. It is o.k. for a guy to bad mouth his girlfriend.
13. There is never a reason for a guy to yell and scream at his girlfriend.
14. A girl should not see her friends if it bothers her boyfriend.
15. It is important for a girl to always dress the way her boyfriend wants.
16. A girl should break-up with a guy when he hits her.
17. Some girls deserve to be slapped by their boyfriends.
18. It is never O.K. for a guy to hit his girlfriend.
19. Sometimes guys just cannot stop themselves from punching girlfriends.
20. There is no good reason for a guy to push his girlfriend.
21. Sometimes a guy cannot help hitting his girlfriend when she makes him angry.
22. There is no good reason for a guy to slap his girlfriend.
23. Sometimes jealousy makes a guy so crazy that he must slap his girlfriend.
24. Girls who cheat on their boyfriends should be slapped.
25. Sometimes love makes a guy so crazy that he hits his girlfriend.

26. A guy usually does not slap his girlfriend unless she deserves it.
27. It is O.K. for a guy to slap his girlfriend if she deserves it.
28. When a guy pays on a date, it is O.K. for him to pressure his girlfriend for sex.
29. Guys do not own their girlfriends' bodies.
30. When guys get really sexually excited, they cannot stop themselves from having sex.
31. Guys should never get their girlfriends drunk to get them to have sex.
32. A guy should not touch his girlfriend unless she wants to be touched.
33. It is alright for a guy to force his girlfriend to kiss him.
34. Often guys have to be rough with their girlfriends to turn them on.
35. To prove her love, it is important for a girl to have sex with her boyfriend.
36. A girl who goes into a guy's bedroom is agreeing to sex.
37. It is no big deal to pressure a girl into having sex.
38. It is alright to pressure a girl to have sex if she has had sex in the past.
39. After a couple is going steady, the guy should not force his girlfriend to have sex.

Important People

We usually have at least one important person in our lives to whom we feel very close.
Please answer the following questions while thinking about that person in your life.

Please answer the following questions about the most important person/ people in your life.

1. It helps to turn to this person in times of need. strongly disagree 1 2 3 4 5 6 7 strongly agree

2. I usually discuss my problems and concerns with this person. strongly disagree 1 2 3 4 5 6 7 strongly agree

3. I talk things over with this person. strongly disagree 1 2 3 4 5 6 7 strongly agree

4. I find it easy to depend on this person. strongly disagree 1 2 3 4 5 6 7 strongly agree

5. I don't feel comfortable opening up to this person. strongly disagree 1 2 3 4 5 6 7 strongly agree

6. I prefer not to show this person how I feel deep down. strongly disagree 1 2 3 4 5 6 7 strongly agree

7. I often worry that this person doesn't really care for me. strongly disagree 1 2 3 4 5 6 7 strongly agree

8. I'm afraid that this person may abandon me. strongly disagree 1 2 3 4 5 6 7 strongly agree

9. I worry that this person won't care about me as much as I care about him or her. strongly disagree 1 2 3 4 5 6 7 strongly agree

Appendix C

CONSENT TO TAKE PART IN A RESEARCH STUDY

TITLE OF STUDY: Books and Media

Principal Investigator: Carolina M. Herrera, LMSW, PhD Candidate

This consent form is part of an informed consent process for a research study and it will provide information that will help you decide whether you want to take part in this study. It is your choice to take part or not. After all of your questions have been answered and you wish to take part in the research study, you will be asked to sign this consent form. You will be given a copy of the signed form to keep. Your alternative to taking part in the research is not to take part in it.

Who is conducting this research study and what is it about?

You are being asked to take part in research conducted by Carolina M. Herrera who is doctoral candidate in the Dept. of Psychology. The purpose of this study is two-fold. First, we would like to gain a better understanding as to what kinds of books college-aged students are enjoying. Second, we would like to gain a better understanding about general attitudes and behaviors amongst college-aged students.

What will I be asked to do if I take part?

The Books and Media Survey will take about 45 minutes to complete. This survey will be provided to you twice over the course of the semester. We anticipate 400 subjects will take part in the study.

What are the risks and/or discomforts I might experience if I take part in the study?

Breach of confidentiality is a risk of harm but a data security plan is in place to minimize such a risk. Once all data has been collected, any links to information that could identify you will be broken. Also, some questions may make you feel uncomfortable. If that happens, you can skip those questions or withdraw from the study altogether. If you decide to quit at any time before you have finished the *Books and Media Survey*, your answers will NOT be recorded.

Are there any benefits to me if I choose to take part in this study?

There are no direct benefits to you for taking part in this research. You will be contributing to knowledge about media preferences amongst college students as well as contributing to knowledge about attitudes and behaviors amongst college students.

Will I be paid to take part in this study?

You will not be paid to take part in this study. You will receive 3 RU points for completion of the study. After you have completed both surveys, the PI will enter the Sona system and mark your participation in the study, at which time your account will automatically be credited with 3 RU points. Additionally, after completing the second survey, you will be entered into a raffle to win a pair of wireless "Beats" headphones.

How will information about me be kept private or confidential?

All efforts will be made to keep your responses confidential, but total confidentiality cannot be guaranteed.

· We will use Qualtrics to collect and forward your responses to us. We will not know your IP address when you respond to the online research. We will ask you to include your name and RUID when you complete the survey. Your identifiable information will not be stored with your responses. Instead, your responses will be assigned a subject # which will be stored separately from your responses so others will not know which responses are yours. Once data collection is complete, your identifiable information will be destroyed so no link will exist between your identity and your responses.

No information that can identify you will appear in any professional presentation or publication.

What will happen to information I provide in the research after the study is over?

- The information collected about you for this research will not be used by or distributed to investigators for other research.

What will happen if I do not want to take part or decide later not to stay in the study?

Your participation is voluntary. If you choose to take part now, you may change your mind and withdraw later. If you do not click on the 'submit' button after completing the form, your responses will not be recorded. You may also choose to skip any questions that you do not wish to answer. You may also withdraw your consent for use of data you submit, but you must do this in writing to the PI Carolina M. Herrera.

Who can I call if I have questions?

If you have questions about taking part in this study, you can contact the Principal Investigator: Carolina M. Herrera, Psychology Department, at cherrera@psychology.rutgers.edu. You can also contact my faculty advisor Dr. Paul Boxer at pboxer@psychology.rutgers.edu.

If you have questions about your rights as a research subject, you can call the IRB Director at: *New Brunswick/Piscataway ArtSci IRB (732)235-2866* or the Rutgers Human Subjects Protection Program at (973) 972-1149 in Newark.

Please print out this consent form if you would like a copy of it for your files.

If you do not wish to take part in the research, close this website address. If you wish take part in the research, follow the directions below:

I acknowledge that I am between the ages of 18 and 25 and have read and understand the information. I agree to take part in the research, with the knowledge that I am free to withdraw my participation without penalty.

Click on the "I Agree" button to confirm your agreement to take part in the research.

I Agree

I Do Not Agree

Appendix D

Books and Media Survey

Background The first few questions ask about some background information.

1. Please write in the Subject Number that was e-mailed to you.

2. Please write in the last 4 digits of your RUID.

3. How old are you?

4. What is your gender identity?

- Male (1)
- Female (2)
- Other (3)

Do you identify as someone who is transgender?

- Yes (1)
- No (2)

What is your college status?

- Freshman (1)
- Sophomore (2)
- Junior (3)
- Senior (4)
- Other (5)

What classes are you enrolled in this semester that are requirements for your Major?

What classes are you enrolled in this semester that are NOT requirements for your Major?

What is your race? (Select one or more responses.)

- American Indian or Alaska Native (1)
- Asian or Asian American (2)
- Black or African American (3)
- Latinx or Hispanic (9)
- Middle Eastern or North African (10)
- Native Hawaiian or Other Pacific Islander (4)

- White or European American (5)
- Multiracial (11)
- Other (6)

Are you Hispanic or Latinx?

- Yes (1)
- No (2)

Which do you consider yourself to be?

- Heterosexual or Straight (1)
- Gay or Lesbian (2)
- Bisexual or Pansexual (3)
- Asexual (4)
- Other (5)

Which of the following best describes your marital status?

- Single and unattached (1)
- I have a significant other (2)
- Married (3)
- Divorced (4)
- Widowed (5)

Where do you live?

- On campus housing (1)
- Off-campus housing (2)
- At home, with family (3)
- Private residence but not family home (5)

With whom do you currently live?

- Alone (1)
- With friends/ roommates (2)
- With parents/ guardians (3)
- With spouse/ domestic partner (4)
- Other (5)

How would you describe your family's social and financial status?

- Hardship (1)
- Struggling (2)
- Just getting by (3)
- Comfortable (4)
- Well-off (5)
- Wealthy (6)

Media Use

We would like to know about your general media habits.

How many hours a day do you spend with any kind of media (social media, television, streaming, music, etc.)?

- Less than 1 (1)
- 1-3 (2)
- 3.5-6 (3)
- 6.5-9 (4)
- 9.5-12 (5)
- More than 12 (6)

How many hours a day do you spend on any kind of social media (twitter, snapchat, facebook, etc.)?

- Less than 1 (1)
- 1-3 (2)
- 3.5-6 (3)
- 6.5-9 (4)
- 9.5-12 (5)
- More than 12 (6)

How many hours a day do you spend listening to music?

- Less than 1 (1)
- 1-3 (2)
- 3.5-6 (3)
- 6.5-9 (4)
- 9.5-12 (5)
- More than 12 (6)

What kind of music do you enjoy? Please check all that apply.

- Alternative (1)
- Pop (2)
- Classic Rock (3)
- Punk Rock (10)
- Hip Hop (4)
- Rap (5)
- Jazz (6)
- Electronic (9)
- Country (7)
- Gospel (11)
- Other (8)

How many hours a day do you spend watching television or streaming shows/movies?

- Less than 1 (1)
- 1-3 (2)
- 3.5-6 (3)
- 6.5-9 (4)
- 9.5-12 (5)
- More than 12 (6)

What kind of shows/movies do you enjoy? Please check all that apply.

- Comedies (1)
- Horror or Thriller (2)
- Mystery (10)

- Romantic or RomCom (3)
- Action or Adventure (4)
- Drama (5)
- Sci-Fi or Fantasy (6)
- Animation or Cartoons (7)
- Crime or True Crime (9)
- Political or News Coverage (11)
- Satire (12)
- Other (8)

How many hours a day do you spend reading for pleasure?

- Less than 1 (1)
- 1-3 (2)
- 3.5-6 (3)
- 6.5-9 (4)
- 9.5-12 (5)
- More than 12 (6)

How many hours a day do you spend reading for school or work?

- Less than 1 (1)
- 1-3 (2)
- 3.5-6 (3)
- 6.5-9 (4)
- 9.5-12 (5)
- More than 12 (6)

Book Preferences

We would like to know about your reading preferences and habits. More specifically, we would like to know which books you have read recently, and also which books have been your favorite.

Please check off which of the following books you have read in the past 3 months, and indicate which ones were for school and which ones were for fun:

	Choose One:		
	Read for school (1)	Read for fun (2)	Did not read (3)
Children of Virtue and Vengeance (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
One of Us is Lying (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Children of Blood and Bone (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Five Feet Apart (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Hate U Give (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Fountains of Silence (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dear Evan Hansen: The Novel (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Loki: Where Mischief Lies (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Secret Commonwealth (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wayward Son (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please list 3 books you have read in the past 3 months as part of required school reading. If you have not read any books as part of required school reading, please leave blank.

- Book 1 (1) _____
- Book 2 (2) _____
- Book 3 (3) _____

Please list your 3 favorite books that you have read in the last 3 months. If you have not read any books in the past 3 months, please leave this question blank.

- Book 1 Favorite (1) _____
- Book 2 Favorite (2) _____
- Book 3 Favorite (3) _____

For this question please simply select Answer B.

- Answer A (1)
- Answer B (2)
- Answer C (3)

Which do you prefer to read?

- Middle Grade (MG) Books (1)
- Young Adult (YA) Books (2)
- Adult Books (3)

Topics

Books often focus on different subjects, or topics. The following questions ask you to think about the different topics that are present in the books you like to read.

Thinking of these 3 books, please rearrange the following topics in order of what the most important topics were in the book you wrote as Book 1 Favorite:

- _____ Family (1)
- _____ School (2)
- _____ Friends (3)
- _____ Dating relationship (4)
- _____ Health or physical wellness (5)
- _____ Appearance or looks (6)
- _____ Drinking or drug use (7)
- _____ Self-injury or other self-harm (8)
- _____ Depression, anxiety, or other emotional disturbance (9)
- _____ Violence (10)
- _____ Heroism (11)
- _____ Other (12)

Thinking of these 3 books, please rearrange the following topics in order of what the most important topics were in the book you wrote as Book 2 Favorite:

- _____ Family (1)
- _____ School (2)
- _____ Friends (3)
- _____ Dating relationship (4)
- _____ Health or physical wellness (5)
- _____ Appearance or looks (6)
- _____ Drinking or drug use (7)
- _____ Self-injury or other self-harm (8)
- _____ Depression, anxiety, or other emotional disturbance (9)
- _____ Violence (10)
- _____ Heroism (11)
- _____ Other (12)

Thinking of these 3 books, please rearrange the following topics in order of what the most important topics were in the book you wrote as Book 3 Favorite:

- _____ Family (1)
- _____ School (2)
- _____ Friends (3)
- _____ Dating relationship (4)
- _____ Health or physical wellness (5)
- _____ Appearance or looks (6)
- _____ Drinking or drug use (7)
- _____ Self-injury or other self-harm (8)
- _____ Depression, anxiety, or other emotional disturbance (9)
- _____ Violence (10)
- _____ Heroism (11)
- _____ Other (12)

Was there at least one romantic relationship in these books?

	Yes (1)	No (2)
Book 1 (1)	<input type="radio"/>	<input type="radio"/>
Book 2 (2)	<input type="radio"/>	<input type="radio"/>
Book 3 (3)	<input type="radio"/>	<input type="radio"/>

For Book 1, please describe what the main romantic relationship was like, if there was one. Check all that apply.

- Girl-Boy romance (1)
- Girl-Girl romance (2)
- Boy-Boy romance (3)
- Slow, friends to dating romance (4)
- Fast, "insta-love" romance (5)
- Hate-to-love romance (6)
- Other (7)
- None (11)

For Book 2, please describe what the main romantic relationship was like, if there was one. Check all that apply.

- Girl-Boy romance (1)
- Girl-Girl romance (2)
- Boy-Boy romance (3)
- Slow, friends to dating romance (4)
- Fast, "insta-love" romance (5)
- Hate-to-love romance (6)
- Other (7)
- None (11)

For Book 3, please describe what the main romantic relationship was like, if there was one. Check all that apply.

- Girl-Boy romance (1)
- Girl-Girl romance (2)
- Boy-Boy romance (3)
- Slow, friends to dating romance (4)

- Fast, "insta-love" romance (5)
- Hate-to-love romance (6)
- Other (7)
- None (11)

How often do you read books that have topics of family?

- Never (1)
- Sometimes (2)
- About half the time (3)
- Most of the time (4)
- Always (5)

How often do you read books that have topics of friends?

- Never (1)
- Sometimes (2)
- About half the time (3)
- Most of the time (4)
- Always (5)

How often do you read books that have topics of dating/romantic relationships?

- Never (1)
- Sometimes (2)
- About half the time (3)
- Most of the time (4)
- Always (5)

How often do you read books that have topics of health/physical wellness?

- Never (1)
- Sometimes (2)
- About half the time (3)
- Most of the time (4)
- Always (5)

How often do you read books that have topics of appearance/looks?

- Never (1)
- Sometimes (2)
- About half the time (3)
- Most of the time (4)
- Always (5)

How often do you read books that have topics of drinking, smoking, or drug use?

- Never (1)
- Sometimes (2)
- About half the time (3)
- Most of the time (4)
- Always (5)

How often do you read books that have topics of self-injury or self-harm?

- Never (1)
- Sometimes (2)
- About half the time (3)
- Most of the time (4)
- Always (5)

How often do you read books that have topics of depression, anxiety, or other emotional disturbance?

- Never (1)
- Sometimes (2)
- About half the time (3)
- Most of the time (4)
- Always (5)

How often do you read books that have topics of violence?

- Never (1)
- Sometimes (2)
- About half the time (3)
- Most of the time (4)
- Always (5)

How often do you read books that have topics of heroism?

- Never (1)
- Sometimes (2)
- About half the time (3)
- Most of the time (4)
- Always (5)

How often do you read books with main characters who are:

	Never (1)	Sometimes (2)	About half the time (3)	Most of the time (4)	Always (5)
Female (cis) (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Male (cis) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nonbinary/Other (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transgender (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often do you read books with secondary characters who are:

	Never (1)	Sometimes (2)	About half the time (3)	Most of the time (4)	Always (5)
Female (cis) (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Male (cis) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nonbinary/Other (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transgender (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How important is it to you to read books with characters who are:

	Not Important (1)	A Little Important (2)	Neutral (3)	Important (4)	Very Important (5)
Female (cis) (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Male (cis) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nonbinary/Other (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transgender (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often do you read books with main characters who are:

	Never (1)	Sometimes (2)	About half the time (3)	Most of the time (4)	Always (5)
Heterosexual (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gay or Lesbian (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bisexual or Pansexual (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asexual (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often do you read books with secondary characters who are:

	Never (1)	Sometimes (2)	About half the time (3)	Most of the time (4)	Always (5)
Heterosexual (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gay or Lesbian (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bisexual or Pansexual (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asexual (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How important is it for you to read books with characters who are:

	Not Important (1)	A Little Important (2)	Neutral (3)	Important (4)	Very Important (5)
Heterosexual (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gay or Lesbian (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bisexual or Pansexual (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asexual (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often do you read books with main characters who are:

	Never (1)	Sometimes (2)	About half the time (3)	Most of the time (4)	Always (5)
American Indian or Alaska Native (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asian or Asian American (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Black or African American (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Latinx or Hispanic (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Middle Eastern or North African (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Native Hawaiian or Other Pacific Islander (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
White or European American (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multiracial (21)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (22)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often do you read books with secondary characters who are:

	Never (1)	Sometimes (2)	About half the time (3)	Most of the time (4)	Always (5)
American Indian or Alaska Native (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asian or Asian American (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Black or African American (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Latinx or Hispanic (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Middle Eastern or North African (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Native Hawaiian or Other Pacific Islander (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
White or European American (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multiracial (21)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (22)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



How important is it for you to read books with characters who are:

	Not Important (1)	A Little Important (2)	Neutral (3)	Important (4)	Very Important (5)
American Indian or Alaska Native (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asian or Asian American (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Black or African American (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Latinx or Hispanic (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Middle Eastern or North African (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Native Hawaiian or Other Pacific Islander (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
White or European American (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multiracial (21)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (22)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What type of books do you like to read? Please arrange these genres in order of preference.

- _____ Fantasy (1)
- _____ Science Fiction (2)
- _____ Contemporary (3)
- _____ Romance (4)
- _____ Mystery (5)
- _____ Horror (6)
- _____ Other (7)

How often do you read books that are considered young adult or YA?

- Never (1)
- Sometimes (2)
- About half the time (3)
- Most of the time (4)
- Always (5)

Book-Related Activities

The following questions ask about how much you enjoy reading, what other book-related activities you might enjoy, and how much time you spend involved in these activities.

How often do you read for fun?

- Never or hardly ever (1)
- A few times a year (2)
- Once or twice a month (3)
- Once or twice a week (4)
- Almost every day (5)

Which of the following book-themed social media you participate in? Choose all that apply:

- Bookstagram (book-related Instagram) (1)
- Book Twitter (2)
- Book or author-related Facebook group (3)
- Goodreads (4)
- Book Blog (5)
- Other (6)
- None (7)

Have you ever created “fan art” or written “fan fiction” in any form?

- No (1)
- Yes (2)

Which type of event have you attended, or would you like to attend? Check all that apply.

- Author signing (1)
- Author talk or meet-up (2)
- Book launch or book release party (3)
- Book convention (such as Book Expo, Book Con, or Teen Book Festival) (4)
- Book blogger event (5)
- Other (6)
- None of these (7)

About how many books do you read each year?

- 0 (1)
- 1-10 (2)
- 11-20 (3)
- 21-30 (4)
- 31-40 (5)
- 41-50 (6)
- More than 50 (7)

About how many complete books have you read in your lifetime?

- 0-10 (1)
- 11-25 (2)
- 26-50 (3)
- 51-75 (4)
- 76-100 (5)
- More than 100 (6)

Do you enjoy reading books?

- Not at all (1)
- A little (2)
- A moderate amount (3)
- A lot (4)
- A great deal (5)

Which of the following do you read? Please check all that apply.

- Purchased physical books. (1)
- Library physical books. (2)
- Purchased e-books. (3)
- Library e-books. (4)
- Audiobooks. (5)

Have you ever read a book more than once?

- No (1)
- Yes (2)

Have you ever watched a movie that was based on a book?

- Yes, and I always or almost always read the book first. (1)
- Yes, and I watch the movie to decide if I want to read the book. (2)
- Yes, because that way I don't have to read the book. (3)
- Sometimes, but it doesn't matter to me if it was based on a book. (4)
- I don't know, I don't pay attention to that. (5)

Connection Sometimes when we read a book, we feel very connected to the story and the characters we read about. The following questions ask about how connected you feel to your favorite book and your favorite character.

Please write the title of your favorite book.

Please write the name of your favorite character from that book.

Keeping in mind the book and character ("character X") you listed in the previous two questions, please indicate how often you felt the following statements occurred while reading this book:

	Never (1)	Hardly Ever (2)	Sometimes (3)	A Lot (4)
I felt as if I was part of the action. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I forgot myself and was fully absorbed. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was able to understand the events in this book in a manner similar to that in which my favorite character X understood them. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think I have a good understanding of character X. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tend to understand the reasons why character X does what he or she does. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
While reading the book I could feel the emotions character X portrayed. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During reading, I felt I could really get inside character X's head. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At key moments in the book, I felt I knew exactly what character X was going through. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
While reading the book, I wanted character X to succeed in achieving their goals. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When character X succeeded I felt joy, but when they failed, I was sad. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Similarities Sometimes the characters we read about are very similar to us, but sometimes they are very different than us. The following questions ask how different or similar your favorite character is when compared to you.

Please respond to the following scales while thinking about character X.

	1	2	3	4	5	6	7	
	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Is like me.	<input type="radio"/>	Is unlike me.						
Is different from me.	<input type="radio"/>	Is similar to me.						
Thinks like me.	<input type="radio"/>	Does not think like me.						
Doesn't behave like me.	<input type="radio"/>	Behaves like me.						

Please respond to the following scales while thinking about character X.

	1	2	3	4	5	6	7	
	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Has status like mine.	<input type="radio"/>	Has status different from mine.						
Is from a different social class.	<input type="radio"/>	Is from the same social class.						
Is culturally different.	<input type="radio"/>	Is culturally similar.						
Has an economic situation like mine.	<input type="radio"/>	Does not have an economic situation like mine.						

How much do you consider yourself to be like, or would want to be like, the following characters?

	Not at all like me (1)	A little like me (2)	Very much like me (3)	I don't know this character (4)
Captain Marvel (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Iron Man (21)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thor (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Black Widow (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thanos (24)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Loki (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Katniss Everdeen (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bella Swan (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Edward Cullen (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Peeta Mellark (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Harry Potter (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ron Weasley (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hermione Granger (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Draco Malfoy (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Voldemort (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Relationships

The following questions ask about your experiences with peers and dating partners. Questions marked with an asterisk (*) ask about your experiences in a romantic relationship. If you are not currently in a romantic relationship, please think back to your last romantic relationship when answering these questions. If you have never been in a romantic relationship, please choose the NA option for these questions only.

*When my romantic partner is mad at me, they won't invite me to do things with our friends. (8)

My friends know that I will think less of them if they do not do what I want them to do. (9)

I get jealous if one of my friends spends time with their other friends even when I am busy. (10)

Please choose the best option that reflects your feelings, thoughts, or behaviors for the following statements.

A friend of mine has gone "behind my back" and shared private information about me with other people. (7)

*My romantic partner has pushed or shoved me in order to get me to do what they want. (8)

I try to make sure that other people get invited to participate in group activities. (9)

*I try to make my romantic partner jealous when I am mad at them. (10)

Please choose the best option that reflects your feelings, thoughts, or behaviors for the following statements.

*My romantic partner has threatened to physically harm me in order to control me. (6)

When I have been mad at a friend, I have flirted with their romantic partner. (7)

When I am mad at a person, I try to make sure they are excluded from group activities (going to the movies or to a bar, etc). (8)

I have a friend who tries to get their own way with me through physical intimidation. (9)

*I get jealous if my romantic partners spends time with their other friends, instead of just being alone with me. (10)

Please choose the best option that reflects your feelings, thoughts, or behaviors for the following statements.

I have threatened to share private information about my friends with other people in order to get them to comply with my wishes. (6)

I make other people feel welcome. (7)

*When my romantic partner wants something, they will ignore me until I give in. (8)

When someone has angered or provoked me in some way, I have reacted by hitting that person. (9)

I have cheated on my romantic partner because I was angry at them. (10)

Please choose the best option that reflects your feelings, thoughts, or behaviors for the following statements.

Background/ Ethnicity In this country, people come from many different countries and cultures and there are many different words to describe the different backgrounds or ethnic groups that people come from. Some examples of these are Hispanic or Latinx, Black or African American, Native America, Asian American, Chinese, Filipino, American Indian, Mexican America, Caucasian or White, Italian American, and many others. The following questions are about your background, or ethnicity, and how you feel about it.

In terms of my ethnic group, I consider myself to be:

Please use the following numbers to indicate how much you agree or disagree with each statement.

	Strongly disagree (1)	Disagree (2)	Agree (3)	Strongly agree (4)
I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am active in organizations or social groups that include mostly members of my own ethnic group. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a clear sense of my ethnic background and what it means for me. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think a lot about how my life will be affected by my ethnic group membership. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am happy that I am a member of the group I belong to. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a strong sense of belonging to my own ethnic group. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I understand pretty well what my ethnic group membership means to me. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In order to learn more about my ethnic background, I have often talked to other people about my ethnic group. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a lot of pride in my ethnic group. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I participate in cultural practices of my own group, such as special food, music, or customs. (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I feel a strong sense of attachment towards my own ethnic group. (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel good about my cultural or ethnic background. (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

My ethnicity is:

- Asian or Asian American, including Chinese, Japanese, and others (1)
- Black or African American (2)
- Hispanic or Latinx, including Mexican American, Central American, and others (3)
- White, Caucasian, Anglo, European American; not Hispanic (4)
- American Indian/Native American (5)
- Mixed; Parents are from two different groups (6)
- Other (7) _____

My father's ethnicity is:

- Asian or Asian American, including Chinese, Japanese, and others (1)
- Black or African American (2)
- Hispanic or Latino, including Mexican American, Central American, and others (3)
- White, Caucasian, Anglo, European American; not Hispanic (4)
- American Indian/Native American (5)
- Mixed; Parents are from two different groups (6)
- Other (7) _____

My mother's ethnicity is:

- Asian or Asian American, including Chinese, Japanese, and others (1)
- Black or African American (2)
- Hispanic or Latino, including Mexican American, Central American, and others (3)
- White, Caucasian, Anglo, European American; not Hispanic (4)
- American Indian/Native American (5)
- Mixed; Parents are from two different groups (6)
- Other (7) _____

Important People We usually have at least one important person in our lives to whom we feel very close. The following questions ask about these close relationships.

Please read each of the following statements and rate the extent to which you believe each statement best describes your feelings about close relationships in general.

Please read each of the following statements and rate the extent to which you believe each statement best describes your feelings about your **significant other**. If you do not currently have a significant other, please answer these

Health Behavior The following questions are all about health behavior. We would like to know about different things that may affect your health. Please remember that all the answers you give us will be kept private and no one will know what you write. Please answer all questions as honestly as you can.

Safety First, we will ask questions about safety.

How often do you wear a seat belt when riding in the car with someone else?

- Never (1)
- Rarely (2)
- Sometimes (3)
- Most of the time (4)
- Always (5)

How often do you wear a seat belt when driving a car?

- I do not drive a car. (1)
- Never wear a seat belt. (2)
- Rarely wear a seat belt. (3)
- Sometimes wear a seat belt. (4)
- Most of the time wear a seat belt. (5)
- Always wear a seat belt. (6)

During the past 12 months, how many times did you ride a motorcycle?

- 0 times (1)
- 1-10 times (2)
- 11-20 times (3)
- 21-39 times (4)
- 40 or more times (5)

When you rode a motorcycle during the past 12 months, how often did you wear a helmet?

- I did not ride a motorcycle during the past 12 months (1)
- Never wore a helmet (2)
- Rarely wore a helmet (3)
- Sometimes wore a helmet (4)
- Most of the time wore a helmet (5)
- Always wore a helmet (6)

During the past 12 months, how many times did you ride a bicycle?

- 0 times (1)
- 1-10 times (2)
- 11-20 times (3)
- 21-39 times (4)
- 40 or more times (5)

When you rode a bicycle during the past 12 months, how often did you wear a helmet?

- I did not ride a bicycle during the past 12 months. (1)

- Never wore a helmet (2)
- Rarely wore a helmet (3)
- Sometimes wore a helmet (4)
- Most of the time wore a helmet (5)
- Always wore a helmet (6)

During the past 12 months, how many times did you go boating or swimming?

- 0 times (1)
- 1-10 times (2)
- 11-20 times (3)
- 21-39 times (4)
- 40 or more times (5)

When you went boating or swimming during the past 12 months, how often did you drink alcohol?

- I did not go boating or swimming during the past 12 months (1)
- Never drank alcohol (2)
- Rarely drank alcohol (3)
- Sometimes drank alcohol (4)
- Most of the time drank alcohol (5)
- Always drank alcohol (6)

For this question please simply select Answer C.

- Answer A (1)
- Answer B (2)
- Answer C (3)

During the past 30 days, how many times did you ride in a car or other vehicle driven by someone who had been drinking alcohol?

- 0 times (1)
- 1 time (2)
- 2 or 3 times (3)
- 4 or 5 times (4)
- 6 or more times (5)

During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol?

- 0 times (1)
- 1 time (2)
- 2 or 3 times (3)
- 4 or 5 times (4)
- 6 or more times (5)

Violence The following questions ask about violence-related behaviors.

During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club? Do not count carrying a weapon as part of your job.

- 0 days (1)
- 1 day (2)

- 2 or 3 days (3)
- 4 or 5 days (4)
- 6 or more days (5)

During the past 30 days, on how many days did you carry a gun? Do not count carrying a gun as part of your job.

- 0 days (1)
- 1 day (2)
- 2 or 3 days (3)
- 4 or 5 days (4)
- 6 or more days (5)

During the past 12 months, how many times were you in a physical fight?

- 0 times (1)
- 1 time (2)
- 2 or 3 times (3)
- 4 or 5 times (4)
- 6 or 7 times (5)
- 8 or 9 times (6)
- 10 or 11 times (7)
- 12 or more times (8)

During the past 12 months, with whom did you fight?

- I did not fight (1)
- A total stranger (2)
- A friend or someone I know (3)
- A boyfriend, girlfriend, or date (4)
- My spouse or domestic partner (5)
- A parent, brother, sister, or other family member (6)
- Other (7)

During the past 12 months, how many times were you in a physical fight in which you were injured and had to be treated by a doctor or nurse?

- 0 times (1)
- 1 time (2)
- 2 or 3 times (3)
- 4 or 5 times (4)
- 6 or more times (5)

Suicidality Sometimes people feel so depressed and hopeless about the future that they may consider attempting suicide, that is, taking some action to end their own life. The next few questions ask about suicide.

During the past 12 months, did you ever seriously consider attempting suicide?

- Yes (1)
- No (2)

During the past 12 months, did you make a plan about how you would attempt suicide?

- Yes (1)
- No (2)

During the past 12 months, how many times did you actually attempt suicide?

- 0 times (1)
- 1 time (2)
- 2 or 3 times (3)
- 4 or 5 times (4)
- 6 or more times (5)

If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?

- Yes (1)
- No (2)

Tobacco The following questions ask about tobacco use.

Have you ever tried cigarette smoking, even one or two puffs?

- Yes (1)
- No (2)

How old were you when you smoked a whole cigarette for the first time?

- I have never tried smoking (1)
- I have never smoked a whole cigarette (2)
- 12 years old or younger (3)
- 13 or 14 years old (4)
- 15 or 16 years old (5)
- 17 or 18 years old (6)
- 19 or 20 years old (7)
- 21 to 23 years old (8)
- 24 years old or older (9)

During the past 30 days, on how many days did you smoke cigarettes?

- I have never smoked (1)
- 0 days (2)
- 1 or 2 days (3)
- 3 to 5 days (4)
- 6 to 9 days (5)
- 10 to 19 days (6)
- 20 to 29 days (7)
- All 30 days (8)

During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?

- I have never smoked (1)

- I did not smoke cigarettes during the past 30 days (2)
- Less than 1 cigarette per day (3)
- 1 cigarette per day (4)
- 2 to 5 cigarettes per day (5)
- 6 to 10 cigarettes per day (6)
- 11 to 20 cigarettes per day (7)
- More than 20 cigarettes per day (8)

Have you ever smoked cigarettes regularly, that is, at least one cigarette every day for 30 days?

- I have never smoked (1)
- Yes (2)
- No (3)

How old were you when you first started smoking cigarettes regularly (at least one cigarette every day for 30 days)?

- I have never smoked (1)
- I have never smoked cigarettes regularly (2)
- 12 years old or younger (3)
- 13 or 14 years old (4)
- 15 or 16 years old (5)
- 17 or 18 years old (6)
- 19 or 20 years old (7)
- 21 to 23 years old (8)
- 24 years old or older (9)

Have you ever tried to quit smoking cigarettes?

- I have never smoked (1)
- Yes (2)
- No (3)

During the past 30 days, on how many days did you use chewing tobacco or snuff, such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen?

- 0 days (1)
- 1 or 2 days (2)
- 3 or 5 days (3)
- 6 to 9 days (4)
- 10 to 19 days (5)
- 20 to 29 days (6)
- All 30 days (7)

Alcohol Use The following questions ask about drinking alcohol. This includes drinking beer, wine, wine coolers, and liquor such as rum, gin, vodka, or whiskey. For these questions, drinking alcohol does not include drinking a few sips of wine for religious purposes.

How old were you when you had your first drink of alcohol other than a few sips?

- I have never had a drink of alcohol other than a few sips (1)
- 12 years old or younger (2)
- 13 or 14 years old (3)
- 15 or 16 years old (4)

- 17 or 18 years old (5)
- 19 or 20 years old (6)
- 21 or 23 years old (7)
- 24 years old or older (8)

During the past 30 days, on how many days did you have at least one drink of alcohol?

- I have never had a drink of alcohol other than a few sips. (1)
- 0 days (2)
- 1 or 2 days (3)
- 3 to 5 days (4)
- 6 to 9 days (5)
- 10 to 19 days (6)
- 20 to 29 days (7)
- All 30 days (8)

During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?

- I have never had a drink of alcohol other than a few sips. (1)
- 0 days (2)
- 1 or 2 days (3)
- 3 to 5 days (4)
- 6 to 9 days (5)
- 10 to 19 days (6)
- 20 to 29 days (7)
- All 30 days (8)

Marijuana Use The following questions ask about marijuana use. Marijuana can also be called by other names, such as grass, pot, or weed.

During your life, how many times have you used marijuana?

- 0 times (1)
- 1 or 2 times (2)
- 3 to 9 times (3)
- 10 to 19 times (4)
- 20 to 39 times (5)
- 40 to 99 times (6)
- 100 or more times (7)

How old were you when you tried marijuana for the first time?

- I have never tried marijuana. (1)
- 12 years old or younger (2)
- 13 or 14 years old (3)
- 15 or 16 years old (4)
- 17 or 18 years old (5)
- 19 or 20 years old (6)
- 21 to 23 years old (7)
- 24 years old or older (8)

During the past 30 days, how many times did you use marijuana?

- I have never tried marijuana (1)
- 0 times (2)
- 1 or 2 times (3)
- 3 to 9 times (4)
- 10 to 19 times (5)
- 20 to 39 times (6)
- 40 or more times (7)

Other Drug Use The following questions ask about other drugs.

During your life, how many times have you used any form of cocaine including powder, crack, or freebase?

- 0 times (1)
- 1 or 2 times (2)
- 3 to 9 times (3)
- 10 to 19 times (4)
- 20 to 39 times (5)
- 40 to 99 times (6)
- 100 or more times (7)

How old were you when you tried any form of cocaine, including powder, crack, or freebase, for the first time?

- I have never tried any form of cocaine. (1)
- 12 years old or younger (2)
- 13 or 14 years old (3)
- 15 or 16 years old (4)
- 17 or 18 years old (5)
- 19 or 20 years old (6)
- 21 to 23 years old (7)
- 24 years old or older (8)

During the past 30 days, how many times did you use any form of cocaine, including powder, crack, or freebase?

- I have never tried any form of cocaine (1)
- 0 times (2)
- 1 or 2 times (3)
- 3 to 9 times (4)
- 10 to 19 times (5)
- 20 to 39 times (6)
- 40 or more times (7)

During your life, how many times have you used the crack or freebase forms of cocaine?

- I have never tried any form of cocaine (1)
- 0 times (2)
- 1 or 2 times (3)
- 3 to 9 times (4)
- 10 to 19 times (5)
- 20 to 39 times (6)
- 40 to 99 times (7)
- 100 or more times (8)

During your life, how many times have you sniffed glue, or breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?

- 0 times (1)
- 1 to 2 times (2)
- 3 to 9 times (3)
- 10 to 19 times (4)
- 20 to 39 times (5)
- 40 to 99 times (6)
- 100 or more times (7)

During your life, how many times have you taken steroid pills or shots without a doctor's prescription?

- 0 times (1)
- 1 to 2 times (2)
- 3 to 9 times (3)
- 10 to 19 times (4)
- 20 to 39 times (5)
- 40 to 99 times (6)
- 100 or more times (7)

During your life, how many times have you used any other type of illegal drug, such as LSD, PCP, ecstasy, mushrooms, speed, ice, or heroin?

- 0 times (1)
- 1 to 2 times (2)
- 3 to 9 times (3)
- 10 to 19 times (4)
- 20 to 39 times (5)
- 40 to 99 times (6)
- 100 or more times (7)

During the past 30 days, how many times have you used any other type of illegal drug, such as LSD, PCP, ecstasy, mushrooms, speed, ice, or heroin?

- 0 times (1)
- 1 or 2 times (2)
- 3 to 9 times (3)
- 10 to 19 times (4)
- 20 to 39 times (5)
- 40 or more times (6)

During the past 30 days, how many times have you used any illegal drug in combination with alcohol?

- 0 times (1)
- 1 or 2 times (2)
- 3 to 9 times (3)
- 10 to 19 times (4)
- 20 to 39 times (5)
- 40 or more times (6)

During your life, how many times have you used a needle to inject any illegal drug into your body?

- 0 times (1)
- 1 time (2)
- 2 or more times (3)

Sex The following questions ask about sexual behavior. For the purpose of this survey, sexual intercourse is defined as vaginal intercourse, anal intercourse, or oral/genital sex.

How old were you when you had sexual intercourse for the first time?

- I have never had sexual intercourse. (1)
- 12 years old or younger (2)
- 13 or 14 years old (3)
- 15 or 16 years old (4)
- 17 or 18 years old (5)
- 19 or 20 years old (6)
- 21 to 23 years old (7)
- 24 years or older (8)

During your life, with how many females have you had sexual intercourse?

- I have never had sexual intercourse (1)
- I have never had sexual intercourse with a female (2)
- 1 female (3)
- 2 females (4)
- 3 females (5)
- 4 females (6)
- 5 females (7)
- 6 or more females (8)

During the past 3 months, with how many females have you had sexual intercourse?

- I have never had sexual intercourse (1)
- I have never had sexual intercourse with a female (2)
- I have had sexual intercourse with a female, but not during the past 3 months. (3)
- 1 female (4)
- 2 females (5)
- 3 females (6)
- 4 females (7)
- 5 females (8)
- 6 or more females (9)

During your life, with how many males have you had sexual intercourse?

- I have never had sexual intercourse (1)
- I have never had sexual intercourse with a male (2)
- 1 male (3)
- 2 males (4)
- 3 males (5)
- 4 males (6)
- 5 males (7)
- 6 or more males (8)

During the past 3 months, with how many males have you had sexual intercourse?

- I have never had sexual intercourse (1)
- I have never had sexual intercourse with a male (2)
- I have had sexual intercourse with a male, but not during the past 3 months (3)
- 1 male (4)
- 2 males (5)

- 3 males (6)
- 4 males (7)
- 5 males (8)
- 6 or more males (9)

During the past 30 days, how many times did you have sexual intercourse?

- I have never had sexual intercourse (1)
- 0 times (2)
- 1 time (3)
- 2 or 3 times (4)
- 4 to 9 times (5)
- 10 to 19 times (6)
- 20 or more times (7)

During the past 30 days, how often did you or your partner use a condom?

- I have never had sexual intercourse (1)
- I have not had sexual intercourse during the past 30 days (2)
- Never used a condom (3)
- Rarely used a condom (4)
- Sometimes used a condom (5)
- Most of the time used a condom (6)
- Always used a condom (7)

The last time you had sexual intercourse, did you or your partner use a condom?

- I have never had sexual intercourse (1)
- Yes (2)
- No (3)

Did you drink alcohol or use drugs before you had sexual intercourse the last time?

- I have never had sexual intercourse (1)
- Yes (2)
- No (3)

The last time you had sexual intercourse, what method did you or your partner use to prevent pregnancy? Check all that apply.

- I have never had sexual intercourse (1)
- No method was used to prevent pregnancy (2)
- Birth control pills (3)
- Condoms (4)
- Withdrawal (5)
- Some other method (6)
- Not sure (7)

How many times have you been pregnant or gotten someone pregnant?

- I have never had sexual intercourse (1)
- 0 times (2)
- 1 time (3)
- 2 or more times (4)

- Not sure (5)

During your life, have you ever been forced to have sexual intercourse against your will?

- Yes (1)
- No (2)

How old were you the first time you were forced to have sexual intercourse against your will?

- I have never been forced to have sexual intercourse against my will (1)
- 4 years old or younger (2)
- 5 to 12 years old (3)
- 13 or 14 years old (4)
- 15 or 16 years old (5)
- 17 or 18 years old (6)
- 19 or 20 years old (7)
- 21 to 23 years old (8)
- 24 years old or older (9)

How old were you the last time you were forced to have sexual intercourse against your will?

- I have never been forced to have sexual intercourse against my will (1)
- 4 years old or younger (2)
- 5 to 12 years old (3)
- 13 or 14 years old (4)
- 15 or 16 years old (5)
- 17 or 18 years old (6)
- 19 or 20 years old (7)
- 21 to 23 years old (8)
- 24 years old or older (9)

Have you ever had your blood tested for the AIDS virus/HIV infection?

- Yes (1)
- No (2)
- Not Sure (3)

Body Weight The following questions ask about body weight.

How do you describe your weight?

- Very underweight (1)
- Slightly underweight (2)
- About the right weight (3)
- Slightly overweight (4)
- Very overweight (5)

Which of the following are you trying to do about your weight?

- Lose weight (1)
- Gain weight (2)
- Stay the same weight (3)
- I am not trying to do anything about my weight (4)

During the past 30 days, did you diet to lose weight or keep from gaining weight?

- Yes (1)
- No (2)

During the past 30 days, did you exercise to lose weight or to keep from gaining weight?

- Yes (1)
- No (2)

During the past 30 days, did you intentionally skip meals to lose weight or keep from gaining weight?

- Yes (5)
- No (6)

During the past 30 days, did you vomit or take laxatives to lose weight or to keep from gaining weight?

- Yes (1)
- No (2)

During the past 30 days, did you take diet pills to lose weight or to keep from gaining weight?

- Yes (1)
- No (2)

For this question please simply select Answer A.

- Answer A (1)
- Answer B (2)
- Answer C (3)

What is your height range?

- 5 feet or under (1)
- 5 feet, 1 inch to 5 feet, 2 inches (2)
- 5 feet, 3 inches to 5 feet, 4 inches (3)
- 5 feet, 5 inches to 5 feet, 6 inches (4)
- 5 feet, 7 inches to 5 feet, 8 inches (5)
- 5 feet, 9 inches to 5 feet, 10 inches (6)
- 5 feet, 11 inches to 6 feet (7)
- 6 feet, 1 inch to 6 feet, 2 inches (8)
- 6 feet, 3 inches to 6 feet, 4 inches (9)
- 6 feet, 5 inches and above (10)

What is your weight range?

- 90 pounds or under (1)
- 91 to 110 pounds (2)
- 111 to 130 pounds (3)
- 131 to 150 pounds (4)
- 151 to 170 pounds (5)
- 171 to 190 pounds (6)
- 191 to 210 pounds (7)
- 211 to 230 pounds (8)
- 231 to 250 pounds (9)

- 251 pounds or more (10)

Physical Activity The following questions ask about physical activity.

On how many of the past 7 days did you exercise or participate in sports activities for at least 20 minutes that made you sweat or breathe hard, such as basketball, jogging, swimming laps, tennis, fast bicycling, or similar aerobic activities?

- 0 days (1)
- 1 day (2)
- 2 days (3)
- 3 days (4)
- 4 days (5)
- 5 days (6)
- 6 days (7)
- 7 days (8)

On how many of the past 7 days did you do exercises to strengthen or tone your muscles, such as push-ups, sit-ups, or weight lifting?

- 0 days (1)
- 1 day (2)
- 2 days (3)
- 3 days (4)
- 4 days (5)
- 5 days (6)
- 6 days (7)
- 7 days (8)

On how many of the past 7 days did you walk or bicycle for at least 30 minutes at a time? (Include walking or bicycling to or from class or work.)

- 0 days (1)
- 1 day (2)
- 2 days (3)
- 3 days (4)
- 4 days (5)
- 5 days (6)
- 6 days (7)
- 7 days (8)

Your Thoughts About the Future For the following questions, think about how you see the future. What are the chances that these things will happen? For each one, rate HOW SURE you are that it will happen.

How sure are you that you will stay out of trouble?

- A lot sure (1)

- Very much sure (2)
- A little sure (3)
- Not at all sure (4)

How sure are you that you will have a happy life?

- A lot sure (1)
- Very much sure (2)
- A little sure (3)
- Not at all sure (4)

How sure are you that you can handle the problems that might come up in your life?

- A lot sure (1)
- Very much sure (2)
- A little sure (3)
- Not at all sure (4)

How sure are you that you will always have friends and people that care about you?

- A lot sure (1)
- Very much sure (2)
- A little sure (3)
- Not at all sure (4)

Career For the next questions, think about what type of job or education you think you will have in the future.

What is the highest level of education that you would like to achieve?

- Some college (1)
- College graduate (2)
- Graduate or professional degree (3)

What is the highest level of education that you think you will achieve?

- Some college (1)
- College graduate (2)
- Graduate or professional degree (3)

What is your academic major?

- Undeclared/Undecided (1)
- Accounting/ Management (2)
- Administration of Justice (3)
- American Studies/Anthropology/ History/ Political Science/ Pre Law (4)
- Mathematics (5)
- Biological Science/ Environmental Science/ Natural Sciences/ Health Careers (6)
- Communications/ English Writing/Literature/ Humanities (7)
- Psychology / Social Science (8)
- Management Information Systems (9)

- o Interdisciplinary Arts (10)
- o Other (11) _____

What kind of job do you think you will have in the future? Check all that apply.

- Accountant (1)
- Actor/ Actress (2)
- Advertising (3)
- Air Force (4)
- Airline Pilot (5)
- Airport Security (6)
- Architect (7)
- Army (8)
- Artist (9)
- Astronaut (10)
- Auto Mechanic (11)
- Bank Teller (12)
- Bartender (13)
- Biomedical Engineer (14)
- Cashier (15)
- Chef (16)
- Chemist (17)
- Claims Adjuster (18)
- Computer Programmer (19)
- Construction (20)
- Corrections Officer/ Parole Officer (21)
- Customer Service Representative (22)
- Dancer (23)
- Dentist (24)
- Dental Hygienist (25)
- Diagnostic Medical Sonographer (26)
- Dietician/ Nutritionist (27)
- Doctor (28)
- Editor (29)
- Electrician (30)
- EMT/ Paramedic (31)
- Engineer (32)
- Fashion Designer (33)
- Financial Advisor (34)
- Fitness Trainer (35)
- Flight Attendant (36)
- Judge (37)
- Graphic Designer (38)
- Governor (39)
- Guidance Counselor (40)
- Hairdresser/ Hairstylist/ Cosmetologist/ Manicurist (41)
- Home Health Aide (42)
- Janitor (43)
- Lawyer (44)
- Librarian (45)
- Market Research Analyst (46)

- Marine (47)
- Medical Assistant (48)
- Musician (49)
- Navy (50)
- Nursing Assistant (51)
- Nurse (52)
- Paralegal (53)
- Pharmacist (54)
- Photographer (55)
- Physical therapist (56)
- Politician (57)
- Plumber (58)
- Police Officer (59)
- President (60)
- Professional Athlete (61)
- Receptionist/ Secretary (62)
- Retail Salesperson (63)
- Scientist (64)
- Security Guard (65)
- Social Worker (66)
- Teacher (67)
- Teacher Assistant (68)
- Veterinarian (69)
- Water/ Waitress (70)
- Writer (71)
- Other (72) _____

Thank you for participating.

Please be sure to hit the arrow button to finalize your survey and record your answers. If you are currently struggling with any mental health, substance use, or relationship violence issues, or if you would like to speak to someone for support, here are a list of resources and counseling services available on campus: Rutgers Newark Counseling Center: (973) 353-5805 Office for Violence Prevention and Victim Assistance: (973) 353-1918 RUPD Newark: (973) 353-5111 NJ Hopeline: 855-NJHOPELINES Substance Abuse and Mental Health Services Helpline: 1-800-662-HELP

End of Block: Default Question Block

Appendix E

Table C.1
Category 1, Seatbelt and Helmet Use: Wave 1, Wave 2

	Rarely or Never	Sometimes	Most of the Time	Always
Safety belt when riding in a car	5%, 4%	7%, 9%	25%, 22%	63%, 65%
Safety belt when driving a car*	2%, 3%	3%, 2%	5%, 3%	91%, 93%
Motorcycle helmet^	45%, 35%	10%, 15%	0%, 5%	45%, 45%
Bicycle helmet+	84%, 84%	6%, 3%	5%, 7%	6%, 6%
Boating or swimming while drinking~	90%, 86%	9%, 12%	2%, 1%	0%, 0%

*Among the 85% of students who drove in Wave 1, and the 86% who drove in Wave 2

^Among the 8% of students who had ridden a motorcycle in Wave 1, and 9% in Wave 2 within the past 12 months

+Among the 35% of students who had ridden a bicycle in Wave 1 and Wave 2 within the past 12 months

~ Among the 64% of students who went boating or swimming in Wave 1, 60% in Wave 2 within the past 12 months

Table C.2
Category 1, Drinking while Driving*: Wave 1, Wave 2

	0 times	1 time	2 or 3 times	4 or 5 times	6 or more
Riding with a driver who had been drinking	81%, 85%	7%, 10%	7%, 3%	2%, <1% %	3%, 1%
Driving a vehicle while drinking	93%, 96%	3%, 2%	3%, 2%	1%, <1%	0%, 0%

* Within the past 30 days

Table C.3
Category 2, Carried a Weapon or Gun*: Wave 1, Wave 2

	0 days	1 day	2 or 3 days	4 or 5 days	6 or more
Carried a weapon	97%, 96%	0%, 2%	2%, 1%	0%, 1%	2%, <1%

Carried a gun	99%, 97%	0%, 2%	0%, 1%	<1%, 1%	0%, 1%
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* Within the past 30 days, except for job-related reasons

Table C.4
Category 1, Physical Fighting*: Wave 1, Wave 2

	0 times	1 time	2-3 times	4-5 times	6 or more
Participated in a physical fight	91%, 92%	4%, 3%	3%, 3%	2%, 2%	<1%, 0%
Injured in a physical fight	100%, 99%	<1%, 1%	0%, 0%	0%, 0%	0%, 0%

* Within the past 12 months

Table C.5
Category 1, Suicidality*: Wave 1, Wave 2

	Yes	No
Seriously considered attempting suicide	16%, 12%	84%, 88%
Made a suicide plan	9%, 8%	91%, 92%
Suicide attempt requiring medical attention	3%, 2%	97%, 98%

* Within the past 12 months

Table C.6
Category 1, Suicide Attempts*: Wave 1, Wave 2

	0 times	1 time	2-3 times	4-5times	6 or more
Attempted suicide	96%, 97%	3%, 3%	1%, 0%	0%, 0%	<1%, 0%

* Within the past 12 months

Table C.7
Category 2, Tobacco Use Age in Years: Wave 1, Wave 2

	Never	12 or younger	13-14	15-16	17-18	19-20	21 or older
First cigarette	86%, 85%	2%, 2%	2%, 3%	4%, 4%	2%, 4%	3%, 2%	<1%, 1%

Started smoking regularly	98%, 97%	<1%, 0%	0%, <1%	1%, 0%	1%, 1%	0%, 1%	0%, 0%
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Table C.8
Category 2, Tobacco Use*: Wave 1, Wave 2

	Yes	No
Smoked	18%, 21%	82%, 79%
Smoked regularly	2%, 2%	98%, 98%
Tried to quit smoking*	7%, 5%	93%, 95%

* Lifetime

Table C.9
Category 2, Current Tobacco Use*: Wave 1, Wave 2

	0 days	1-2 days	3-5 days	6-9 days	10-19 days	20-29 days	All 30 days
Smoked cigarettes	98%, 97%	1%, <1%	1%, 1%	0%, <1%	0%, <1%	<1%, <1%	<1%, <1%
Chewing tobacco	100%, 100%	0%, 0%	0%, 0%	<1%, 0%	0%, 0%	0%, 0%	0%, 0%

* Within the past 30 days

Table C.10
Category 2, Amount Cigarettes per Day*: Wave 1, Wave 2

	0	<1	1	2-5
Cigarettes per day	98%, 97%	<1%, 1%	<1%, 0%	2%, 2%

* Within the past 30 days

Table C.11
Category 3, First Time Using Alcohol and Other Drugs: Wave 1, Wave 2

	Never	12 or younger	13-14	15-16	17-18	19-20	21 or older
Alcoholic drink	43%, 44%	5%, 7%	6%, 9%	20%, 13%	18%, 19%	7%, 6%	1%, 2%
Marijuana	60%, 63%	<1%, 0%	4%, 4%	12%, 13%	18%, 15%	4%, 4%	1%, <1%

Cocaine, any form	99%, 99%	0%, 0%	1%, 0%	0%, 0%	1%, 1%	0%, 0%	0%, 0%
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Table C.12

Category 3, Current Alcohol Use*: Wave 1, Wave 2

	0 days	1-2 days	3-5 days	6-9 days	10-19 days	20-29 days	All 30
Alcohol^	61%, 67%	19%, 19%	13%, 10%	5%, 3%	1%, <1%	0%, <1%	1%, 0%
Binge drinking+	77%, 88%	19%, 10%	3%, 2%	1%, <1%	<1%, 0%	0%, 0%	<1%, 0%

* Within the past 30 days

^ At least 1 drink

+5 drinks or more of alcohol within a couple of hours

Table C.13

Category 3, Drug Use: Wave 1, Wave 2

	0 times	1-2 times	3-9 times	10-19 times	20-39 times	40 or more
Marijuana*	61%, 64%	8%, 6%	11%, 9%	7%, 6%	5%, 2%	10%, 13%
Marijuana^	79%, 82%	9%, 8%	6%, 5%	3%, 2%	2%, 2%	2%, 2%
Cocaine*	99%, 99%	1%, 1%	0%, 0%	0%, 0%	0%, 0%	<1%, 0%
Cocaine^	99%, 100%	0%, 0%	<1%, 0%	<1%, 0%	0%, 0%	0%, 0%
Crack/Freebase*	100%, 100%	<1%, 0%	0%, 0%	0%, 0%	0%, 0%	<1%, 0%
Glue*+	98%, 99%	1%, 1%	<1%, 0%	0%, 0%	0%, 0%	0%, 0%
Steroids*~	99%, 99%	<1%, <1%	<1%	<1%	0%, 0%	0%, 0%
Any other illegal drug*	97%, 97%	2%, 2%	1%, 1%	<1%, 0%	0%, 0%	<1%, 0%

Any other illegal drug [^]	99%, 100%	0%, <1%	<1%, 0%	0%, 0%	0%, 0%	<1%, 0%
Illegal drug and alcohol [^]	96%, 100%	2%, <1%	1%, 0%	0%, 0%	0%, 0%	0%, 0%
Intravenous drug use* [#]	99%, 100%	1%, 0%	NA	NA	NA	NA

* Lifetime Use

[^] Within the past 30 days

+ Sniffing glue, breathing or inhaling aerosol or other sprays to get high

~ Without a medical prescription

[#] Response options were: 0 times, 1 time, 2 or more times. 1% in Wave 1 responded 1 time, no responses for 2 or more times.

Table C.14

Category 4, Current Sexual Activity*: Wave 1, Wave 2

	0 times	1 time	2-3 times	4-9 times	10-19 times	20 or more times
Intercourse	62%, 67%	7%, 7%	9%, 10%	12%, 8%	8%, 6%	1%, 1%

* Within the past 30 days

Table C.15

Category 4, Safe Sex: Wave 1, Wave 2

	Yes	No
Condom use* [^]	50%, 44%	50%, 56%
Birth control pill*	17%, 15%	83%, 85%
Alcohol or drugs involved* [^]	18%, 16%	82%, 84%
6 or more sexual partners+ [^]	19%, 81%	15%, 85%

* Most recent time having intercourse

+ Lifetime

[^] Among the 52% of students who reported sexual intercourse in Wave 1, 49% in Wave 2

Table C.16

Category 4, Sexual Abuse: Wave 1, Wave

	Yes	No
Forced to have sexual intercourse*	12%, 9%	88%, 91%

* Lifetime

Table C.17

Category 5, Behaviors to Lose Weight*: Wave 1, Wave 2

	Yes	No

Dieting	43%, 33%	57%, 67%
Exercise	55%, 41%	45%, 59%
Skip meals	33%, 29%	59%, 67%
Laxatives or purging	4%, 3%	96%, 97%
Diet pills	3%, 3%	97%, 97%

* Within the past 30 days

Table C.18
Category 6, Physical Activity*: Wave 1, Wave 2

	0 days	1 day	2 days	3 days	4 days	5 days	6 days	7 days
Cardio+	39%, 51%	15%, 14%	14%, 10%	13%, 12%	11%, 4%	5%, 5%	2%, <1%	2%, 3%
Strength exercises	48%, 55%	15%, 11%	12%, 15%	7%, 7%	10%, 3%	6%, 5%	1%, 1%	2%, 3%
Walking/ Cycling^	36%, 58%	7%, 11%	8%, 8%	9%, 8%	11%, 5%	3%, 4%	3%, 1%	17%, 3%

* Within the past 7 days

+ At least 20 minutes of intense physical activity

^ At least 30 minutes at a time