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# The Impact Of Traumatic Experiences On Women's Mental Health: The Moderating Effect Of Violent Media Consumption

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# THE IMPACT OF TRAUMATIC EXPERIENCES ON WOMEN'S MENTAL HEALTH: THE MODERATING EFFECT OF VIOLENT MEDIA CONSUMPTION

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Erika Meierding
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Abstract

**Introduction:** Prior research informs us that negative mental health outcomes are associated with childhood trauma (Chapman et al., 2004; Widom, 1999) and with exposure to violence in the media (Hopwood & Schutte, 2017). Given the prevalence of violence against women (VAW) both in the media and in society in general, it is important to understand how VAW in the media may uniquely impact the mental health of women who have previous experiences of childhood trauma. **Objective:** Drawing from cultivation theory and the diathesis stress model of mental health, this study examined the moderating role of exposure to VAW in the media, on the relationship between traumatic experiences and mental health outcomes (anxiety, depression, PTSD, and life satisfaction) among women. It was hypothesized that exposure to VAW in the media would amplify the relationship between women's traumatic experiences in childhood and negative mental health outcomes. **Method:** 208 young women (ages 18-25), recruited through social media groups, listservs, and snowball sampling, were included in this study. Participants completed questionnaires measuring experiences of trauma, exposure to VAW in the media, and mental health outcomes (anxiety, depression, PTSD, and life satisfaction). Hypotheses were tested using path analysis. **Results:** The findings demonstrated that exposure to VAW in the media has a significant negative moderation effect on the relationship between childhood trauma and PTSD symptoms, as well as on the relationship between childhood trauma and depression symptoms. No moderation effect was found for the outcome variables of anxiety symptoms and life satisfaction. **Conclusion:** Implications for future research and practice are discussed.

*Keywords: Trauma, Media, Violence, Women, PTSD, Depression, Anxiety, Life Satisfaction*

# The Impact of Traumatic Experiences on Women's Mental Health: The Moderating Effect of Violent Media Consumption

Violence against women (VAW) is a prevalent social issue around the world (Davidson & Gervais, 2015). Women and girls experience violence in many different contexts, including child abuse (CA), teen dating violence (TDV), intimate partner violence (IPV), and sexual violence (SV) (Bureau of Justice Statistics 2020; Decker et al., 2014; Fry et al., 2018; Lambert et al., 2012; Maas et al., 2010). A significant proportion of women and girls in the United States will be directly impacted by violence in their lifetimes, with steep consequences for their mental health and well-being (Bureau of Justice Statistics, 2020; Davidson & Gervais, 2015; Fisher et al. 2000; Women in America: Crime and Violence, retrieved 2020).

Exposure to violence profoundly impacts mental and physical health across the lifespan (Coker et al., 2002; Decker et al., 2014; Eaton et al. 2007; Fry et al., 2012; Hedtke et al., 2008; Zona & Milan, 2011). Around the world, gender-based violence (GBV) is correlated with a variety of poor outcomes, including substance abuse, sexual and reproductive health problems, poor self-rated health, and mental health concerns (Decker et al., 2014). In particular, victims of violence are at increased risk of developing posttraumatic stress disorder (PTSD), anxiety disorders, and depression (Hedtke et al., 2008; Javdani et al. 2014; Mohammad et al., 2015). The likelihood of developing negative mental health outcomes increases incrementally with the number of types of violence experienced (e.g., sexual assault only, physical assault only, or sexual and physical assault; Hedtke et al., 2008). Women are more likely than men to develop PTSD or another mental health disorder following a traumatic event (American Psychiatric Association, 2013). Women also tend to experience more severe and longer lasting mental and

physical health consequences following a trauma in comparison to men (American Psychiatric Association, 2013; Coker et al., 2002; Decker et al., 2014; Hedtke et al., 2008).

Due to the high prevalence of violence in society and the resulting mental health consequences, it is important to understand the factors that impact the relationship between trauma and negative mental health outcomes for women (Donnelly & Holzer, 2018; Mohammad et al., 2015). So far, there is evidence that emotionally regulated coping moderates the relationship between exposure to family violence and internalizing, externalizing, and PTSD symptoms, with emotionally regulated coping being a protective factor against negative mental health consequences (Mohammad et al., 2015). Additionally, among youth who have been exposed to violence in their communities, parental support is found to be a protective factor against the development of internalizing symptoms (Donnelly & Holzer, 2018).

The prevalence of women and girls who experience violence every year and the steep resulting mental health consequences, makes it necessary to better understand the variables that moderate the relationship between exposure to violence and negative mental health outcomes among women (Bureau of Justice Statistics 2020; Decker et al., 2014). Understanding the factors that contribute to the development of mental and physical health problems following exposure to violence, may encourage the development of more effective interventions to help alleviate the negative consequences of VAW on mental and physical health. One factor which may impact the relationship between experiences of violence and mental health outcomes for women is exposure to VAW in the media.

Currently, research demonstrates that exposure to violence in the media can lead to negative mental health outcomes (Busso et al., 2014; Fallahi & Lesik, 2009; Hopwood & Schutte, 2017). However, there is a lack of research on the potential moderating impact of

exposure to VAW in the media on the mental health of women who have experienced violence in childhood. This study aims to address this gap by evaluating the ways in which exposure to VAW in the media impacts the relationship between childhood trauma and mental health outcomes (e.g., PTSD, depression, anxiety, and life satisfaction) among women.

**Trauma and Mental Health Outcomes**

The prevalence of violent crimes in society has severe consequences both at an individual and societal level. Individuals who experience violence are at risk of developing trauma related mental health disorders, including posttraumatic stress disorder (PTSD; American Psychiatric Association, 2013). By definition, individuals who experience PTSD have "been exposed to actual or threatened death, serious injury, or sexual violence" (American Psychiatric Association, 2013). Common symptoms of PTSD include intrusive symptoms where the individual re-experiences the emotions they felt when the trauma occurred, persistent avoidance of stimuli related to the traumatic event, and marked alterations in arousal and reactivity (American Psychiatric Association, 2013).

PTSD symptoms may cause significant impairment in functioning (American Psychiatric Association, 2013). These symptoms may interfere with relational, occupational, and physical performance (American Psychiatric Association, 2013). Those diagnosed with PTSD also experience economic consequences such as high medical utilization and lower income (American Psychiatric Association, 2013). PTSD is associated with increased risk of suicide (American Psychiatric Association, 2013). Survivors of sexual violence have a higher risk of developing PTSD in comparison to those who have experienced other types of traumas (American Psychiatric Association, 2013). Risk factors for developing PTSD following a trauma

include being female, young, unemployed, not married, and having lower income and education level (Koenen et al., 2017).

Furthermore, in comparison to the general population, those who suffer from PTSD are 80% more likely to have one or more other mental disorders, such as depression, bipolar, anxiety, or substance use disorders (American Psychiatric Association, 2013). These disorders can also cause significant impairment in relational, occupational, and physical functioning (American Psychiatric Association, 2013).

Regardless of trauma experience, women are significantly more likely to be diagnosed with an anxiety or mood disorder in comparison to men (Kessler, 2003; Kessler et al., 2012; McLean & Anderson, 2009). This may be due to a number of factors, including environmental influences such as the increased likelihood of experiencing particular types of trauma (e.g., sexual abuse and IPV; McLean & Anderson, 2009). Women are also traditionally given fewer opportunities than men to exert control over their environment, which may contribute to the development of anxiety disorders (McLean & Anderson, 2009).

**Childhood Trauma and Mental Health Outcomes**

Experiencing violence in childhood can have devastating lifelong consequences (Boyden et al., 2018). Within the past few decades, researchers have given increased attention to researching the prevalence and the results of experiencing violence in childhood (Fry et al., 2018). There are a number of meta-analyses examining the prevalence and impact of violence on children (e.g., Barth et al., 2013; Hillis et al., 2016; Pereda et al., 2009; Stoltenborgh et al., 2011; Fry et al., 2012; Ji et al., 2013). Every year, more than one billion children experience violence (Boyden et al., 2018). The experience of violence in childhood leads to negative health, education, developmental, and mental health consequences across the lifespan (Boyden et al.,

2018; Mohammad et al., 2015). In terms of educational impact, children who have experienced violence in childhood have a 13% likelihood of not graduating from high school (Fry et al., 2018).

Additionally, all forms of violence in childhood, including physical violence, neglect, community violence, significantly impact standardized test scores for both girls and boys (Fry et al., 2018). However, sexual violence carries the most negative consequences for children in terms of their standardized test scores (Fry et al., 2018). Those who have experienced sexual violence in childhood score 25 percentile points lower than those who have not experienced sexual violence (Fry et al., 2018). Because girls are more likely to experience sexual violence than boys, abuse in childhood may have a particularly devastating impact on academic achievement in girls (Barth et al., 2013; Fry et al., 2018). Furthermore, girls who have experienced sexual violence are three times more likely to be absent from school, in comparison to their peers who have not experienced sexual violence (Fry et al., 2018). Altogether, experiencing violence in childhood negatively impacts girls' health and academic success (Fry et al., 2018).

**Teen Dating Violence (TDV) and Mental Health Outcomes**

Girls are also significantly more likely to be victims of teen dating violence in comparison to boys (Maas et al., 2010). According to national studies, rates of TDV victimization for girls are approximately 20% (Stover et al., 2018; Eaton et al., 2007; Vagi et al., 2015). The experience of family violence, (both domestic violence between parents or being the victim of maltreatment themselves) among girls is predictive of subsequent TDV victimization (Maas et al., 2010). TDV victimization is in and of itself a source of trauma, and girls who experience violence in childhood, and go on to experience TDV are likely to experience more

negative outcomes than those who have experienced only child abuse or only TDV (Hedtke et al., 2008).

**Sexual Violence and Mental Health Outcomes**

Another form of violence which differentially impacts women and girls is sexual violence (Bureau of Justice Statistics, 2020; Fisher et al., 2000; Women in America: Crime and Violence, retrieved 2020). Sexual violence can overlap with other forms of violence because it can occur in different contexts throughout the lifespan, from childhood sexual abuse to teen dating violence, to intimate partner violence (Barth et al., 2013; Fisher et al., 2000; Decker et al., 2014; Pereda et al., 2009). Sexual violence against young women is prevalent, with approximately 20-25% of college-aged women in the United States experience an attempted or competed rape during their college career (Fisher et al., 2000). Experiencing sexual violence is associated with a range of negative outcomes including increased risk of substance use, sexual and reproductive health problems, mental health issues, and poor self-rated health (Decker et al., 2014).

**Intimate Partner Violence and Mental Health Outcomes**

In general, women are much more likely than men to be victims of IPV (Women in America: Crime and Violence, retrieved 2020). In 2007, 70% of victims killed in intimate partner violence were female (Women in America: Crime and Violence, retrieved 2020). Women are also more likely than men to be victims of crimes of stalking, which is associated with IPV (Krongard & Tsay-Vogel, 2020). Women who have been exposed to IPV are at increased risk of experiencing negative mental health outcomes (Beydoun et al., 2012; McLaughlin et al., 2012). In particular, women exposed to IPV are three times more likely to develop Major Depressive Disorder, and 1.5-2 times more likely to experience elevated depressive symptoms and postpartum depression, compared to women who have not experienced

IPV (Beydoun et al., 2012). A systematic review of relevant literature also found a strong, consistent association between IPV and suicidality (McLaughlin et al., 2012).

**Violence Against Women in the Media**

Despite the devastating impact of violence, the public appears to be captivated by media discussions and portrayals of violence (Krongard & Tsay-Vogel, 2020). Due to the ability of violent crime to capture the public's attention, it is perhaps not surprising that violence in general appears frequently in the media (Krongard & Tsay-Vogel, 2020). For example, one study found that a commonly binge-watched online original TV program contained 5.9 violent instances per hour (Krongard & Tsay-Vogel, 2020). Violence in the media, like in real life, is influenced both by gender and race of both the victim and the perpetrator (Krongard & Tsay-Vogel, 2020). In one commonly watched online TV program, Non-White females were the most frequent targets of sexual violence, whereas White males were most likely to be perpetrators of sexual violence (Krongard & Tsay-Vogel, 2020).

The media also frequently reports on crimes of IPV in the news (Pepin, 2016). Newspaper reporting of IPV tends to blame victims and sexualize the violence perpetrated against them (Lloyd & Ramon, 2017). Newspaper reports also have a tendency to portray victims of IPV as either "deserving" or "undeserving" of their fate, wherein young, female, White, middle class, and attractive women being deemed more undeserving than those who do not have these traits (Lloyd & Ramon, 2017). These factors can impact public perception of both victims and perpetrators of VAW, as well as the perceived acceptability of VAW.

**Psychological Impact of Violence in the Media**

Vicarious exposure to violent events has been found to be harmful in some cases (e.g., Busso et al., 2014; Fallahi & Lesik, 2009; Hopwood & Schutte, 2017; Madan et al., 2014). For

example, media exposure interacted with sympathetic reactivity to predict symptoms of PTSD among adolescents in the Boston area, following the Boston marathon bombings of 2013 (Busso et al., 2014). Another study found that university students who spent more time consuming news coverage of the Virginia Tech school shooting endorsed higher rates of acute stress symptoms (e.g., intrusive thoughts, sleep disturbances, nightmares; Fallahi & Lesik, 2009). Female students in the study also endorsed significantly more symptoms of acute stress in reaction to media coverage of the Virginia Tech school shooting in comparison to males (Fallahi & Lesik, 2009). Relatedly, exposure to violent media induces physiological changes (Madan et al., 2014). It appears that the type of media does not matter (i.e., true crime vs. fictional depictions of violence), but rather violent media content in general is found to induce physiological reactions, such as increased blood pressure and reduced heart rate (Madan et al., 2014).

More broadly, a meta-analysis of 18 experimental studies demonstrated that media exposure to large-scale violence predicts negative psychological outcomes (Hopwood & Schutte, 2017). Negative outcomes included state anxiety, anger, and perceived threat (Hopwood & Schutte, 2017). It was found that community sensitization moderated the relationship between media exposure and negative psychological outcome, meaning communities which had been previously exposed to a similar disaster showed increased negative psychological outcomes (Hopwood & Schutte, 2017). In relation to the current study, this may suggest that women who have experienced traumas similar to the ones depicted in the media may have increased risk of negative psychological outcomes from exposure to VAW in the media. Ultimately, due to the evidence that exposure to violence is related to negative psychological outcomes, it seems likely that among women, exposure to media discussions and portrayals of VAW may have negative psychological outcomes which have not yet been explored.

**Women's Exposure to VAW in the Media**

Interestingly, women are more likely to be drawn to stories of sexual violence and murder in comparison to men, despite the fact that they report being more fearful of being victims of violent crime than men (Vicary & Fraley, 2010). More specifically, when given the choice, 77% of women selected a story depicting violent crime against women and only 23% chose a story containing other violent content related to war (Vicary & Fraley, 2010). Men in comparison were more evenly split, with 51% choosing true crime story, and 49% choosing the war story (Vicary & Fraley, 2010). Additionally, women are found to prefer stories about VAW which contain information related to the perpetrator's motives and included potential escape tactics for victims (Vicary & Fraley, 2010). Researchers hypothesize that women may be particularly drawn to stories of crimes against women due to the evolutionary benefit of learning strategies for survival in the face of potential threat (Vicary & Fraley, 2010).

Since women experience higher rates of PTSD, anxiety, and depression, it may seem paradoxical that women are more interested in the true crime genre than men (Vicary & Fraley, 2010). One might expect that those who are predisposed to mental health concerns related to trauma, anxiety, and low mood, would want to avoid media which is designed to induce these states. However, as mentioned previously, the opposite is found to be true (Vicary & Fraley, 2010). Although women's interest in stories about violence against women may have evolved from an evolutionarily driven desire to gain information on survival, the mental health consequences of women's exposure to this type of media is not fully known (Vicary & Fraley, 2010).

Ultimately, women's exposure to VAW in the media may have negative mental health consequences which have not yet been explored. Prior research has shown that violence in the

media may have negative psychological consequences for the general population (Hopwood & Schutte, 2017). This, coupled with women's higher risk of developing trauma related disorders in comparison to men, suggests that the impact of exposure to VAW in the media on women's mental health is an important area for exploration (American Psychiatric Association, 2013; Busso et al., 2014; Fallahi & Lesik, 2009; Hopwood & Schutte, 2017; Koenen et al., 2017; Madan et al., 2014). To the author's knowledge, the impact of exposure to VAW in the media on the relationship between women's personal experiences of violence and psychological outcomes has not yet been explored in the literature.

## Theoretical Support

### Cultivation Theory

Cultivation Theory posits that the frequency of media exposure increases susceptibility to media messages and increases the likelihood of believing that media messages are valid (Gerbner & Gross, 1976). Proponents of Cultivation Theory assert that individuals who consume higher rates of violent media messages experience "Mean World Syndrome," or the belief that the world is a dangerous place and that others cannot be trusted (Gerbner & Gross, 1976; Shanahan et al., 1999). There is evidence that the amount of television viewing influences estimates of the prevalence of violence in society (Nabi & Sullivan, 2001). Television viewing has also been found to be predictive of intentions to take protective measures against crime (Nabi & Sullivan, 2001). The belief that the world is a dangerous place and that others cannot be trusted may be correlated with negative mental health outcomes.

In terms of Cultivation Theory, women who are exposed to more media (which tends to portray more frequent instances of victimization of women in comparison to men) are likely to experience increased fear related to crime victimization (Custers et al., 2017). In fact, there is

evidence that crime drama viewing is associated with perceived risk of crime victimization among women but not men (Custers et al., 2017). Additionally, women with higher rates of exposure to violence in the media experience more worry about crime and engage in more avoidance behaviors in comparison to men (Custers et al., 2017). However, what is not yet understood is whether exposure to VAW in the media impacts the development of mental health symptoms in women.

**Diathesis Stress Theory**

The Diathesis Stress Theory suggests that the development of symptoms of mental illness is the result of a combination of genetic predisposition (diathesis) and environmental stressors (Bebbington, 1987). This theory helps to explain why monozygotic twins can experience different mental health symptoms despite having the same genetic makeup. There is evidence of interaction effects between genetic factors and environmental factors in the development of depression (Colodro-Conde et al., 2018). In terms of the present study, when women, who are genetically predisposed to develop mental health disorders experience environmental stressors, (e.g., personal experiences of violence and exposure to VAW in the media), they are hypothesized to be more likely to develop mental health disorders in comparison to those who do not experience violence as an environmental stressor.

**Trauma and the Covid-19 Pandemic**

The impact of the Covid-19 virus on the mental health of the public cannot be overestimated (Ahorsu et al., 2020). The Covid-19 pandemic has resulted in mass trauma, and it has received extensive media coverage (Ahorsu et al., 2020). Therefore, Covid-19 related fear could be a confounding variable, which could skew the results of the present study. As a result

of this, “fear of Covid-19” will be measured in this study in an effort to examine the impact of Covid-19 stress on the mental health of participants (Ahorsu et al., 2020).

**The Current Study**

The purpose of the current study was to examine the association between young women’s exposure to VAW in the media and symptoms of PTSD, anxiety, depression, and life satisfaction. To examine this, a cross sectional study was conducted among a sample of female-identifying individuals in the emerging adulthood age range (18-25 years old). The participants completed a self-report measure about their exposure to traumatic experiences, their exposure to media portrayals of VAW, and their mental health outcomes, including PTSD symptoms, anxiety symptoms, and depression symptoms, as well as life satisfaction. Path analysis was used to determine the extent to which exposure to VAW in the media impacts the relationship between women’s personal experiences with trauma and mental health outcomes.

The results of the study will help to inform researchers and mental health practitioners regarding how exposure to VAW in the media may influence symptoms of common psychological concerns that women suffer from including PTSD, anxiety, and depressive disorders (Kessler, 2003; Kessler et al., 2012; McLean & Anderson, 2009; Koenen et al., 2017; Tolin & Foa, 2008). If the results of the study demonstrate that exposure to VAW in the media moderates the relationship between childhood trauma and negative psychological outcomes for women, this information will be useful to both researchers and mental health practitioners in terms of studying, preventing, and treating mental health disorders related to trauma, among young women.

On the basis of Cultivation Theory, Diathesis Stress Theory, and previous research, the following are hypothesized:

1. Childhood trauma will be significantly and positively associated with negative mental health outcomes among women, including symptoms of PTSD, depression, and anxiety.
2. Childhood trauma will be significantly and negatively associated with life satisfaction.
3. Exposure to VAW in the media will be significantly and positively associated with negative mental health outcomes, including symptoms of PTSD, depression, and anxiety, and it will be significantly and negatively associated with life satisfaction among women.
4. The association between childhood trauma and negative mental health outcomes among women will be significantly moderated by exposure to VAW in the media, with exposure to VAW in the media increasing the strength of the association between childhood trauma and negative mental health outcomes.

# Method

## Participants

Participants in this study included 208 female-identified individuals in the emerging adulthood age range, meaning participants ranged in age from 18 to 25 years ($M$ = 22.74 years, $SD$ = 1.80 years). The sample was predominantly White ($n$ = 151, 72.6%) and heterosexual ($n$ = 138, 66.3%). Most participants reported being in a relationship ($n$ = 162, 77.9%) and reported having no children ($n$ = 187, 89.9%). In terms of religious affiliation, the most common religious identities were Christian ($n$ = 87, 41.8%) and Atheist ($n$ = 59, 28.4%). The sample was also highly educated, with most participants reporting they had either completed an undergraduate degree ($n$ = 77, 37.0%) or had completed some University or College ($n$ = 54, 26.0%).

In terms geographical location, most participants reported living in either a town (between 10,000 and 49,000 people; $n$ = 80, 38.5%) or a city (more than 200,000 people; $n$ = 57, 27.4%). Most participants reported living in either Midwestern ($n$ = 78, 37.5%) or Western ($n$ = 53, 25.5%) areas of the United States. See Table 1 for more information regarding participant demographics.

***Table 1. Descriptive Statistics for Sample Demographics***

| **Individual Level Variables** | ***N*** | ***Percent*** | ***M*** | ***SD*** |
|---|---|---|---|---|
| **Age (in years)** | | | 22.74 | 1.80 |
| **Gender** | | | | |
| Female | 208 | 100 | | |
| **Race/Ethnicity** | | | | |
| European-American, Caucasian, or White | 151 | 72.6 | | |
| American Indian, Indigenous, or Native American | 14 | 6.7 | | |
| African American or Black | 13 | 6.3 | | |
| Hispanic or Latina/o American | 11 | 5.3 | | |
| Arab American, Middle Eastern, or North African | 7 | 3.4 | | |
| Asian American | 7 | 3.4 | | |
| Multiracial | 5 | 2.4 | | |
| **Sexual Orientation** | | | | |
| Heterosexual | 138 | 66.3 | | |
| Bisexual | 42 | 20.2 | | |
| Gay | 13 | 6.3 | | |
| Queer | 6 | 2.9 | | |
| Asexual | 6 | 2.9 | | |
| Other | 2 | 1.0 | | |
| Pansexual | 1 | .5 | | |
| **Highest Degree Obtained** | | | | |
| Undergraduate Degree *(B.A., B.S.)* | 77 | 37.0 | | |
| Some University or College | 54 | 26.0 | | |
| Trade/Vocational School | 24 | 11.5 | | |
| Master's Degree | 22 | 10.6 | | |
| Some High School | 15 | 7.2 | | |
| High School Graduate or Equivalent *(GED)* | 13 | 6.3 | | |
| Professional/Doctorate Degree *(M.B.A., Ph.D., M.D.)* | 2 | 1.0 | | |
| 8$^{th}$ Grade or Less | 1 | .5 | | |
| **Religious Affiliation** | | | | |
| Christian/Catholic/Protestant | 87 | 41.8 | | |
| Atheist | 59 | 28.4 | | |
| Agnostic | 27 | 13.0 | | |
| Spiritual | 13 | 6.3 | | |
| Buddhist | 7 | 3.4 | | |
| Jewish | 5 | 2.4 | | |
| Other | 5 | 2.4 | | |
| Hindu | 3 | 1.4 | | |
| Muslim | 2 | 1.0 | | |

***Table 1 (Continued). Descriptive Statistics for Sample Demographics***

| **Individual Level Variables** | ***N*** | ***Percent*** |
|---|---|---|
| **Relationship Status** | | |
| In a Relationship | 162 | 77.9 |
| Not in a Relationship | 46 | 22.1 |
| **Children** | | |
| No Children | 187 | 89.9 |
| Have Children | 21 | 10.1 |
| **Community** | | |
| Live in a Town *(Population 10,000-49,000)* | 80 | 38.5 |
| Live in a City *(Population More Than 200,000)* | 57 | 27.4 |
| Live in a Large Town *(Population 50,000-200,000)* | 45 | 21.6 |
| Live in a Small Town *(Population Less than 10,000)* | 26 | 12.5 |
| **Geographic Location** | | |
| Midwest | 78 | 37.5 |
| West | 53 | 25.5 |
| South | 48 | 23.1 |
| Northeast | 27 | 13.0 |
| Puerto Rico or Other U.S. Territories | 2 | 1.0 |

In terms of sociodemographic variables, participants were diverse. For occupational status, most participants reported working either full time ($n$ = 93, 44.7%) or part time ($n$ = 57, 27.4%). Most participants characterized their social class growing up as either middle class ($n$ = 59, 28.4%), working class ($n$ = 45, 21.6%), or lower-middle class ($n$ = 40, 19.2%). The most common annual income reported by participants was between $50,000 and $74,999 ($n$ = 34, 16.3%). See Table 2 for more sociodemographic information.

***Table 2. Descriptive Statistics for Sociodemographic Information***

| **Individual Level Variables** | ***N*** | ***Percent*** |
|---|---|---|
| **Occupational Status** | | |
| Working Full Time | 93 | 44.7 |
| Working Part Time | 57 | 27.4 |
| Full-Time Student | 27 | 13.0 |
| Unemployed/Laid Off | 18 | 8.7 |
| Keeping House/Raising Children Full Time | 6 | 2.9 |
| Currently Looking for Work | 5 | 2.4 |
| Declined to Answer | 2 | 1.0 |
| **Social Class Growing Up** | | |
| Middle Class | 59 | 28.4 |
| Working Class | 45 | 21.6 |
| Lower-Middle Class | 40 | 19.2 |
| Lower-Class | 25 | 12.0 |
| Upper-Middle Class | 20 | 9.6 |
| At or Below the Poverty Line | 12 | 5.8 |
| Upper-Class | 6 | 2.9 |
| Declined to Answer | 1 | .5 |
| **Current Annual Income Bracket** | | |
| $50,000-$74,999 | 34 | 16.3 |
| $35,000-$49,999 | 27 | 13.0 |
| $12,000-$15,999 | 25 | 12.0 |
| $5,000-$11,999 | 23 | 11.1 |
| $100,000 or More | 22 | 10.6 |
| $25,000-$34,999 | 21 | 10.1 |
| $16,000-$24,999 | 18 | 8.7 |
| $75,000 and $99,999 | 17 | 8.2 |
| Less Than $5,000 | 12 | 5.8 |
| Declined to Respond | 9 | 4.3 |

## Measures

**Demographic Information.** Participants were prompted to answer a series of questions pertaining to demographic factors including their age, biological sex, gender, sexual orientation, and race/ethnicity. Participants were also asked to provide information on their educational status, religious affiliation, their relationship status, and whether they have children. Finally, participants were asked to categorize the size of their community and select the general region of the United States in which they live. See Appendix A for these demographic items.

**Sociodemographic Information** was measured using three questions from Adler et al. (2000) study on social status. The questions were designed to measure both objective information about participants' social class and participants' subjective perception of her social class. The questions asked participants to describe their main daily activities and/or responsibilities, to describe their social class growing up, and to select the category which most accurately reflected their total combined family income for the past 12 months. See Appendix B for full scale.

**Childhood Experiences of Trauma** was measured using the Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998). The CTQ is a 28-item retrospective measure of childhood abuse experiences designed to be administered to adolescents and adults. The CTQ asks participants to rate the truthfulness of each statement on a 5-point scale (1 = *Never true*, 5 = *Very often true*; Bernstein & Fink, 1998). The CTQ includes five subscales including Physical Neglect (e.g., "I didn't have enough to eat"), Physical Abuse (e.g., "I was punished with a belt, a board, a cord, or some other hard object"), Emotional Abuse (e.g., "People in my family said hurtful or insulting things to me"), Emotional Neglect (e.g., "I felt loved"), and Sexual Abuse (e.g., "Someone tried to make me do sexual things or watch sexual things"; Bernstein & Fink, 1998).

The CTQ has excellent internal consistency for the entire measure ($\alpha$ = .91; Scher et al., 2001). The subscales of the CTQ also demonstrate acceptable internal consistency reliability across a variety of samples, with reliability coefficients ranging from a median of .66 (physical neglect subscale) to a median of .92 (sexual abuse subscale; Bernstein & Fink, 1998). The CTQ also has good test-retest reliability (ranging from .79 to .86 over four months; Scher et al., 2001).

For this study, the CTQ had excellent internal consistency ($\alpha$ = .96). See Appendix C for full scale.

**Fear of Covid-19** was measured using the Fear of Covid-19 Scale (FCV-19S; Ahorsu et al., 2020). The scale is a single factor measure of fear related to the Covid-19 pandemic (Ahorsu et al., 2020). It includes 7 items and uses a five-point Likert type scale (*1 = Strongly disagree, 5 = Strongly Agree*; Ahorsu et al., 2020). An example item on the FCV-19S is, "I cannot sleep because I'm worrying about getting coronavirus-19." The FCV-19S has good internal consistency ($\alpha$ = .82) and acceptable test-retest reliability (ICC = .72; Ahorsu et al., 2020). For this study, the FCV-19S had good internal consistency ($\alpha$ = .87). See Appendix D for full scale.

**Exposure to VAW in the Media.** To measure exposure to VAW in the media, we followed methods used in previous research on media violence (Coyne et al., 2016; Anderson et al., 2007; Gentile et al., 2004). Participants were first asked to select the type of media they consumed most frequently within the past month. Participants were provided with a list of options including "books," "podcasts," "social media," "streaming videos and TV," "video games," and "other." Display logic was then used to determine which question the participant would see next given their selection.

For example, participants who selected "books" as their top source of media were asked to list the title of the book they had consumed most frequently within the past month. Those who selected "podcasts" were asked to list the title of the podcast they had consumed most within the past month. Participants who selected "social media" were asked to list the social media platform they spent the most time on within the past month. Those who selected "streaming videos and TV" were asked to specify the name of the TV show, video, movie, or YouTube channel they spent the most time watching within the past month. Participants who selected

"video games" were asked to specify the name of the video game they spent the most time playing within the past month. Finally, those who selected "other" as their top source of media were asked to specify the name of the type of media they consumed most within the past month.

Next, participants were asked to estimate how frequently they had consumed the specific type of media they listed, using a 7-point scale (*1 = Less Than Once a Month to 7 = 6 or More Times Per Week*; Coyne et al., 2016). Participants were then provided with a definition of violence ("Violence involves physical force intended to hurt another person who does not wish to be harmed. Examples include shooting, stabbing, punching, kicking, etc."). Participants were asked to rate the media source they had chosen for how much violence against women it depicts (*1 = None to 7 = Very High Amount*; Coyne et al., 2016). Participants were then asked to repeat this process for their second and third most frequently consumed media sources from the past month.

Participants' rating for how frequently they consumed their top media source was multiplied by their violence rating for that media source. This gave each participant a violence exposure score for their top source of media (Coyne et al., 2016). The same process was repeated for participants' second and third most consumed media sources. These three scores were added together to create a total score for exposure to VAW for each participant. This method is frequently used in media violence studies (Coyne et al., 2016; Anderson et al., 2007; Gentile et al., 2004). It has been found to correlate highly with expert ratings of media violence (Gentile et al., 2009). See Appendix E for full scale.

**PTSD Symptoms** were measured using the Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5; Blevins et al., 2015). The PCL-5 is a 20-item scale, which measures the extent to which an individual has experienced symptoms of PTSD within the past month (Blevins et al.,

2015). The scale uses a five-point Likert type scale to measure the degree to which PTSD symptoms bother an individual (*0 = Not at all, 4 = Extremely*; Blevins et al., 2015). An example item from the PCL-5 includes, "In the past month, how much were you bothered by repeated, disturbing, and unwanted memories of the stressful experience?" The measure demonstrates high internal consistency ($\alpha$ = .94 to .95; Blevins et al., 2015). The PCL-5 also has high test-retest reliability ($r$ = .82), as well as strong convergent ($r$ = .74 to .85) and discriminant ($r$ = .31 to .60) validity (Blevins et al., 2015). For this study, the PCL-5 had excellent internal consistency ($\alpha$ = .95). See Appendix F for full scale.

**Anxiety Symptoms** were measured using the General Anxiety Disorder 7-Item Scale (GAD-7; Spitzer et al., 2006). The GAD-7 scale contains seven items designed to measure the extent to which an individual has been bothered by symptoms of anxiety within the past two weeks (Spitzer et al., 2006). Participants rate the frequency with which they have been bothered by anxiety symptoms within the past two weeks using a 4-point Likert-type scale (*0 = Not at All, 3 = Nearly Every Day;* Spitzer et al., 2006). An example item from the GAD-7 includes, "Over the last two weeks, how often have you been bothered by feeling nervous, anxious, or on edge?" The GAD-7 demonstrates excellent internal consistency ($\alpha$ = .92) and good test-retest reliability ($r$ = .83; Spitzer et al., 2006). For this study, the GAD-7 had good internal consistency ($\alpha$ = .86). Refer to Appendix G for full scale.

**Depression Symptoms** were measured using the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). The scale measures depressive symptomatology in the general population (Radloff, 1977). The scale includes 20 items and asks respondents to rate how much they have experienced various depression symptoms over the past week. The CES-D uses a four-point Likert type scale (*1 = Rarely or None of the Time, 4 = Most or All of the Time*;

Radloff, 1977). An example item from the CES-D is, "I felt depressed." The CES-D scale has high internal consistency ($\alpha$ = .85 in a community sample; Radloff, 1977). The test-retest reliability of the CES-D demonstrates moderate correlations when controlling for negative life events ($r$ = .54; Radloff, 1977). For this study, the CES-D had excellent internal consistency ($\alpha$ = .91). See Appendix H for full scale.

**Life Satisfaction** was measured using the Satisfaction with Life Scale (SWLS; Diener et al., 1985). The scale measures the degree to which an individual is satisfied with the quality of their life. The SWLS includes five items and uses a 7-point Likert-type scale (*1 = Strongly Disagree, 7 = Strongly Agree*; Diener et al., 1985). An example question from the SWLS is, "In most ways my life is close to my ideal" (Diener et al., 1985). The SWLS has good internal consistency ($\alpha$ = .87; Diener et al., 1985). Test-retest reliability is also good for this scale ($r$ = .82; Diener et al., 1985). For this study, the SWLS had good internal consistency ($\alpha$ = .84). See Appendix I for full scale.

**Procedure**

All procedures in this study were in accordance with the ethical standards of the Institutional Review Board at the University of North Dakota. Informed consent was obtained from all participants in this study. Participants were recruited through listservs and social media platforms including Facebook groups, Reddit threads, and Instagram posts. The survey link was posted to a variety of different social groups and threads in an effort to recruit participants with different media interests (e.g., fan pages for podcasts, video games, TV shows, books). Snowball sampling was used, meaning individuals were encouraged to share the survey with others they knew who were eligible to participate in the study.

In the recruitment statement, which was posted to the various listservs and groups, participants were informed that eligibility requirements involved being between the ages of 18 and 25, identifying as female, and living in the United States. The recruitment statement also informed participants that the survey was anonymous and that it would include questions related to traumatic experiences, media exposure, and mental health outcomes. Participants were informed that upon completion of the survey they would have the opportunity to click on a separate link to enter a raffle to have the chance to win one of ten $10 Amazon gift cards. See Appendix K for Recruitment Poster.

Once participants accessed the survey, they read the informed consent statement, which informed them of the purpose of the study. Participants were informed that they were free to discontinue the study at any point. They were also provided with a list of resources they could access if they found completing the survey to be psychologically distressing. Once they had read and agreed to the informed consent document, participants were asked to complete a variety of demographic questions pertaining to their age, race, educational background, and socioeconomic status. Then participants were asked to complete measures pertaining to experiences of trauma in childhood, their level of anxiety related to Covid-19, and their level of exposure to VAW in the media. Finally, participants completed measures designed to assess their PTSD symptoms, anxiety symptoms, depression symptoms, and their overall level of satisfaction with their lives.

**Plan for Statistical Analysis**

We first conducted preliminary analyses including data screening, imputing missing data, examining data distributions, reliability analyses, and bivariate correlations among key variables**.** Next, we conducted our primary analyses using path analytical procedures. Specifically, to determine if exposure to VAW in the media moderates the relationship between childhood

trauma and mental health outcomes (PTSD, depression, anxiety, and life satisfaction) we tested our data against hypothesized models. The full model with the predictor variable, moderator variable, interaction variable, and the three related negative outcome variables (depression, PTSD, anxiety) was tested first. This model was then trimmed based on regression pathway loadings. Additionally, for any significant interaction with an outcome variable detected, that interaction was plotted to determine the direction and impact of the significant interaction. Finally, these same processes were completed with the unrelated (life satisfaction) outcome variable as well.

**Figure 1. Hypothesized Direct Paths Model**

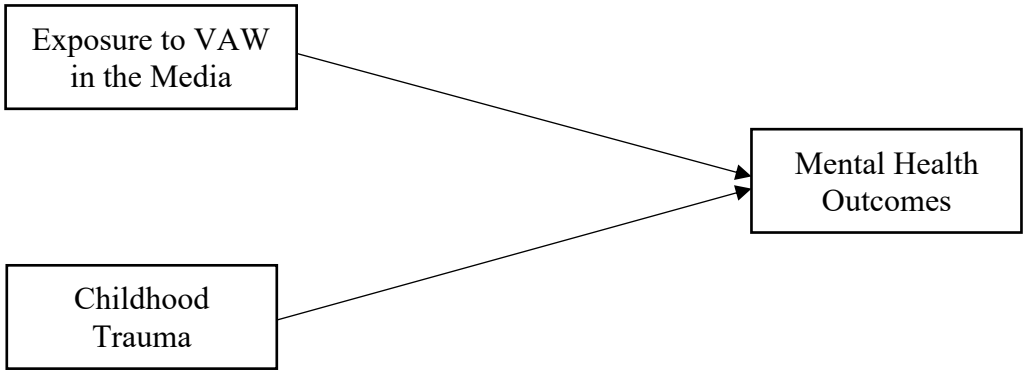



**Figure 2. Hypothesized Moderated Paths Model (PTSD, Depression, and Anxiety)**

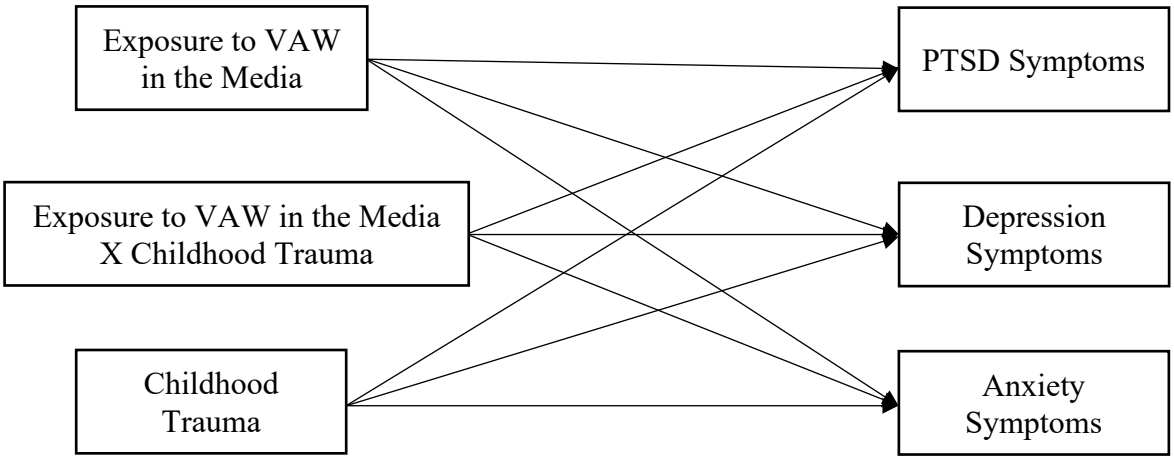
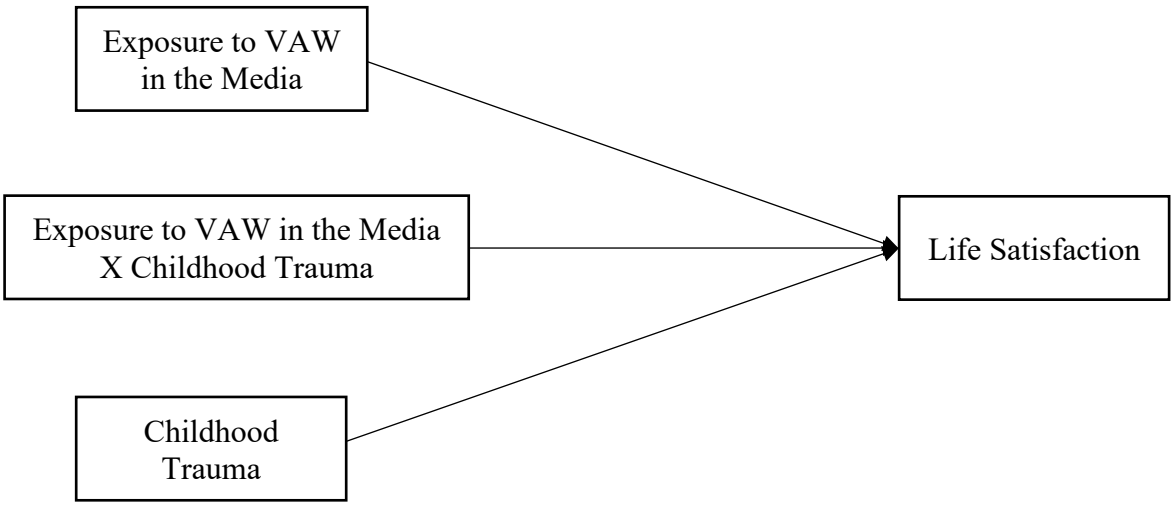


**Figure 3. Hypothesized Moderated Paths Model (Life Satisfaction)**




## Results

### Preliminary Analyses

**Data Screening.** During a quality check of the data, 5 cases were deleted due to a pattern of responding that suggested one individual had taken the survey multiple times. We then screened the data according to inclusion criteria. Cases not meeting inclusion criteria were eliminated from the analyses. Specifically, participant responses were excluded if the participant's stated age was outside the required age range for this study, which was 18-25 years old ($n$ = 48). Participants were also excluded from analysis if their stated location was outside of the United States ($n$ = 5). Furthermore, if participants identified their gender as being something other than female (inclusive of trans-female gender identities) the case was excluded ($n$ = 4). A total of 57 cases were screened out for not meeting inclusion criteria, in addition to the 5 cases screened out for suspect pattern of responding.

Next, we checked for missing data using SPSS 27. Of the remaining 269 cases, 66 had some data missing. Of those 66 cases with missing data, 61 of these cases were deleted due to the participant missing a significant proportion of items on a given scale (over 10% of items). The remaining 5 cases with missing data were determined to be randomly distributed (Little's MCAR test was not significant), and therefore we used Expectation Maximization (EM) to impute the missing values (Enders, 2010). EM was used to impute two missing items for the PCL-5 scale, two missing items on the GAD-7 scale, and one missing item on the CES-D scale.

Altogether, out of a total of 331 survey responses, 123 responses were excluded from the analyses due to missing data, not meeting inclusion criteria, or suspect pattern of responding (see Table 3 for more information). A total of 208 participants were retained in the final sample.

***Table 3. Data Screening Information***

| **Total** | ***N*** |
|---|---|
| **Responses Received** | 331 |
| **Responses Excluded Due to** | |
| Incomplete Response (over 10% of items) | 61 |
| Age Being Outside Specified Age Range (18-25) | 48 |
| Location Being Outside of the United States | 5 |
| Gender Identity Being Something Other Than Female | 4 |
| Suspect Pattern of Responding | 5 |
| **Responses Excluded from Analyses** | 123 |
| **Responses Included in Analyses** | 208 |

Next, variables were examined for normality. Results demonstrated no statistically significant skewness or kurtosis within the dataset based on Lei and Lomax (2005) standards for skewness and Byrne (2010) standards for kurtosis. All scale items were in normal to moderately nonnormal range according to Lei and Lomax (2005) standards. We then ran reliability analyses for each scale. All scales demonstrated good validity, with Cronbach's alpha at .84 or above for all scales.

**Bivariate Correlations.** Next, we conducted bivariate correlations in SPSS 27, to assess the direction, strength, and significance of associations between the variables. When running the correlations, we noticed that the total score for exposure to media violence (FXV Total) correlated with most of our variables, but the correlations were not as strong as we had expected (see Table 4). However, we noticed that a subcomponent of the FXV scale, which was participants' subjective rating of how much violence was depicted in their top consumed media (Violence 1), did correlate more strongly with the other variables in our model. Additionally, Violence 3, which was participants' subjective rating of how much violence was depicted in their third most consumed media source, was also more significantly correlated with our other variables than the total scale FXV.

Interestingly, Violence 2, which was participants' subjective rating of how much violence was depicted in their second most consumed media source, did not correlate as strongly with trauma or mental health outcomes as did participant ratings of violence in their top consumed and third most consumed media source (Violence 1 and Violence 3). Given Violence 1 was more strongly correlated with our other measures than FXV Total, and because it made theoretical sense (participants' subjective ratings of violence in their top consumed program should correlate with trauma exposure and with mental health outcomes), we decided to use the Violence 1 variable to represent media exposure to VAW in our analyses moving forward.

***Table 4. Bivariate Correlations Between Variables & All Items for Exposure to VAW in the Media***

| Variable | Freq1 | V1 | FXV1 | Freq2 | V2 | FXV2 | Freq3 | V3 | FXV3 | FXV Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. CTQ | -.29*** | .32*** | .17* | -.10 | .06 | .01 | -.01 | .22** | .18** | .17* |
| 2. FCV-19S | -.20** | .16* | .07 | -27*** | .19** | .05 | -.04 | .28*** | .23*** | .16* |
| 3. PCL-5 | -.11 | .21** | .14* | -.06 | .12 | .08 | -.03 | .19** | .15* | .17* |
| 4. GAD-7 | .01 | .09 | .09 | -.01 | -.05 | -.07 | -.13 | .07 | .02 | .02 |
| 5. CES-D | -.20** | .26*** | .16* | -.10 | .08 | .03 | -.12 | .21** | .13 | .15* |
| 6. SWLS | .26*** | -.12 | .02 | .06 | -.09 | -.07 | .03 | -.07 | -.04 | -.04 |

Note: *CTQ* = Childhood Trauma. *FCV-19S* = Fear of Covid-19. *PCL-5* = PTSD Symptoms. *GAD-7* = Anxiety Symptoms. *CES-D* = Depression Symptoms. *SWLS* = Life Satisfaction. *Freq1* = Participant Rating of the Frequency with Which They Consume Their Most Frequently Consumed Media Source. *V1* = Participant Rating of Amount of Violence in Their Most Frequently Consumed Media Source. *Freq2* = Participant Rating of the Frequency with Which They Consume Their Second Most Frequently Consumed Media Source. *V2* = Participant Rating of Amount of Violence in Second Most Frequently Consumed Media Source. *Freq3* = Participant Rating of the Frequency with Which They Consume Their Third Most Frequently Consumed Media Source. *V3* = Participant Rating of Amount of Violence in Their Third Most Frequently Consumed Media Source.

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

***Table 5. Bivariate Correlations Among Variables. Violence 1(Exposure to VAW in the Media)***

| Variable | 1. | 2. | 3. | 4. | 5. | 6. | 7. |
|---|---|---|---|---|---|---|---|
| 1. CTQ | -- | | | | | | |
| 2. V1 | .32*** | -- | | | | | |
| 3. FCV-19S | .17* | .16* | -- | | | | |
| 4. PCL-5 | .67*** | .21** | .29*** | -- | | | |
| 5. GAD-7 | .35*** | .09 | .18** | .67*** | -- | | |
| 6. CES-D | .66*** | .26*** | .27*** | .82*** | .67*** | -- | |
| 7. SWLS | -.42*** | -.12 | -.04 | -.42*** | -.34*** | -.55*** | -- |
| Mean | 52.5 | 3.08 | 19.08 | 29.06 | 8.36 | 22.88 | 21.47 |
| Standard Deviation | 20.79 | 1.69 | 6.16 | 16.75 | 4.91 | 11.42 | 6.05 |
| α | .96 | -- | .87 | .95 | .86 | .91 | .84 |

Note: *CTQ* = Childhood Trauma. *V1* = Participant Rating of Amount of Violence in Their Most Frequently Consumed Media Source. *FCV-19S* = Fear of Covid-19. *PCL-5* = PTSD Symptoms. *GAD-7* = Anxiety Symptoms. *CES-D* = Depression Symptoms. *SWLS* = Life Satisfaction.

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

**Path Analysis Correlations.** The next step in the analysis was adding the variables into AMOS to analyze the paths and correlations among the variables. All variables were significantly correlated with each other in the expected directions, except the Fear of Covid-19 Scale, which did not significantly correlate with anxiety symptoms or life satisfaction. (See Table 6).

***Table 6. Correlations Among Key Variables***

| Variable | 1. | 2. | 3. | 4. | 5. | 6. |
|---|---|---|---|---|---|---|
| 1. CTQ | -- | | | | | |
| 2. FCV-19S | .29*** | -- | | | | |
| 3. PCL-5 | .69*** | .31*** | -- | | | |
| 4. GAD-7 | .28*** | .15 | .69*** | -- | | |
| 5. CES-D | .68*** | .32*** | .89*** | .70*** | -- | |
| 6. SWLS | -.46*** | -.10 | -.46*** | -.37*** | -.57*** | -- |

Note: *CTQ* = Childhood Trauma. *FCV-19S* = Fear of Covid-19. *PCL-5* = PTSD Symptoms. *GAD-7* = Anxiety Symptoms. *CES-D* = Depression Symptoms. *SWLS* = Life Satisfaction.

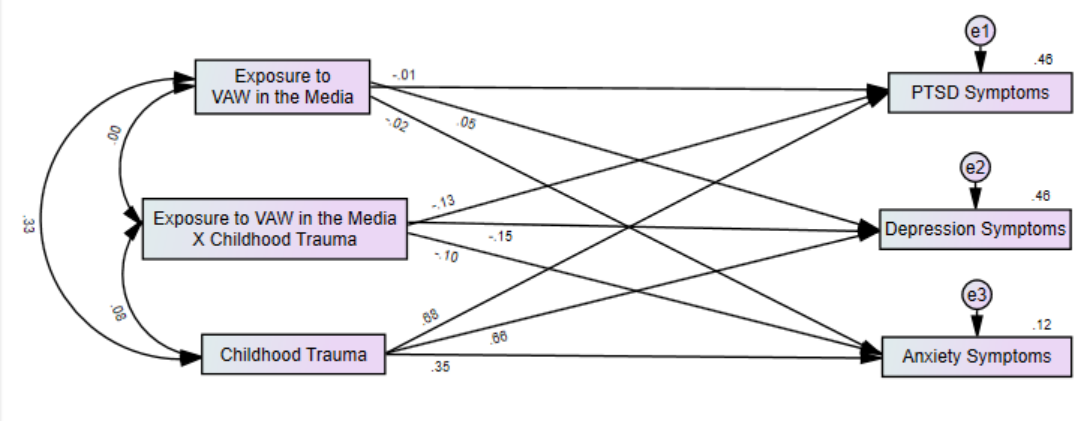
*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

## Primary Analyses.

### Path Analysis for Negative Outcome Variables.

We conducted a path analysis using AMOS 26 to evaluate the hypothesized model predicting significant, positive relationships between experiences of trauma, exposure to VAW in the media, and negative mental health outcomes among our sample of young women. Prior to testing our models, we centered our data, to prevent multicollinearity (Aiken et al., 1991).

***Figure 4. Model 0***




**Model 0.** Once the data were centered, we, tested Model 0 (See Figure 4), which included the predictor variables of childhood trauma, exposure to VAW in the media, and an interaction variable (childhood trauma multiplied by exposure to VAW in the media). Model 0 also included outcome variables of PTSD symptoms, depression symptoms, and anxiety symptoms. We tested life satisfaction separately, due to the inverse relationship between negative mental health outcomes and life satisfaction (see Figure 25). Initial results for Model 0 demonstrated poor data to model fit [$\chi^2(3) = 255.06$; CFI = .54; RMSEA = .64; SRMR = .15).

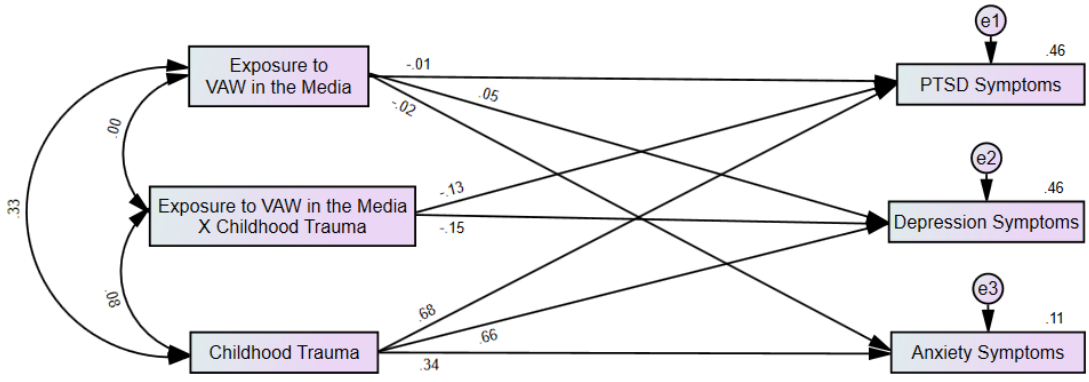
The association between exposure to VAW in the media and PTSD symptoms was not significant in Model 0 ($\beta = -.01$, $p = .83$), nor was the association between exposure to VAW in

the media and depression symptoms ($\beta = .05$, $p = .40$). The association between exposure to VAW in the media and anxiety symptoms was also not significant ($\beta = -.02$, $p = .74$).

In contrast, the association between childhood trauma and PTSD symptoms was significant in Model 0 ($\beta = .68$, $p < .0001$), as was the association between childhood trauma and depression symptoms ($\beta = .66$, $p < .0001$). The association between childhood trauma and anxiety symptoms was also significant ($\beta = .35$, $p < .0001$).

Finally, the association between the interaction variable and PTSD symptoms was significant in Model 0 ($\beta = -.13$, $p = .01$), as was the association between the interaction variable and depression symptoms ($\beta = -.15$, $p < .01$). The association between the interaction variable and anxiety symptoms was not significant ($\beta = -.10$, $p = .12$).

***Figure 5. Model 1. Trimmed Regression Line from Interaction Variable to Anxiety Symptoms***

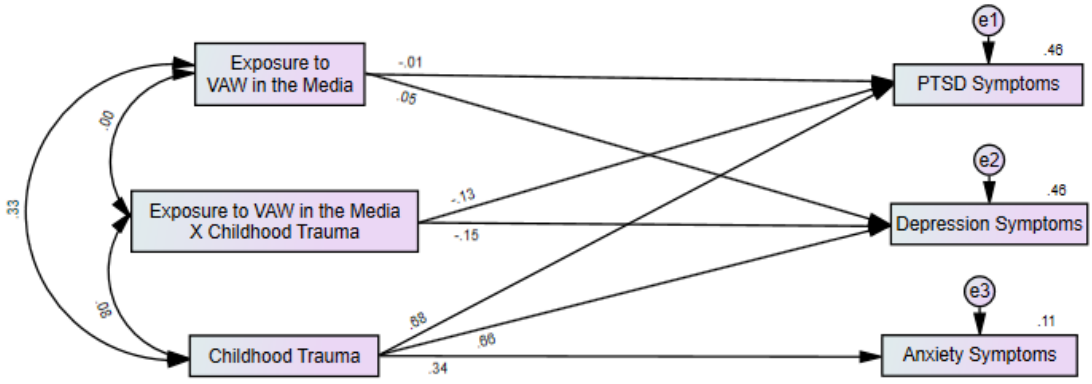



**Model 1.** Next, we followed standard procedure for trimming the model outlined by Gaskin (2011). To create Model 1, we removed the regression line from the interaction variable to anxiety symptoms (See Figure 5.). Results demonstrated poor data to model fit [$\chi^2(4) =$

257.41; CFI = .54; SRMR = .16; RMSEA = .55; AIC = 291.06; CAIC = 369.14]. There was no significant change in $\chi^2$ or CFI between Model 0 and Model 1 [$\Delta\chi^2(1) = 2.35$; $\Delta$CFI = .00]

In Model 1, the association between exposure to VAW in the media and PTSD symptoms was not significant ($\beta$ = -.01, $p$ = .83), nor was the association between exposure to VAW in the media and depression symptoms ($\beta$ = .05, $p$ = .40). The association between exposure to VAW in the media and anxiety symptoms was also not significant ($\beta$ = -.02, $p$ = .77). However, the association between childhood trauma and PTSD symptoms was significant and positive ($\beta$ = .68, $p$ < .001), as was the association between childhood trauma and depression symptoms ($\beta$ =.66, $p$ < .001), and the association between childhood trauma and anxiety symptoms ($\beta$ = .35, $p$ < .001). The association between the interaction variable and PTSD symptoms was also significant and negative ($\beta$ = -.13, $p$ = .01) as was the association between the interaction variable and depression symptoms ($\beta$ = -.15, $p$ = .004)

***Figure 6. Model 2. Trimmed Regression Line from exposure to VAW in the Media to Anxiety Symptoms***

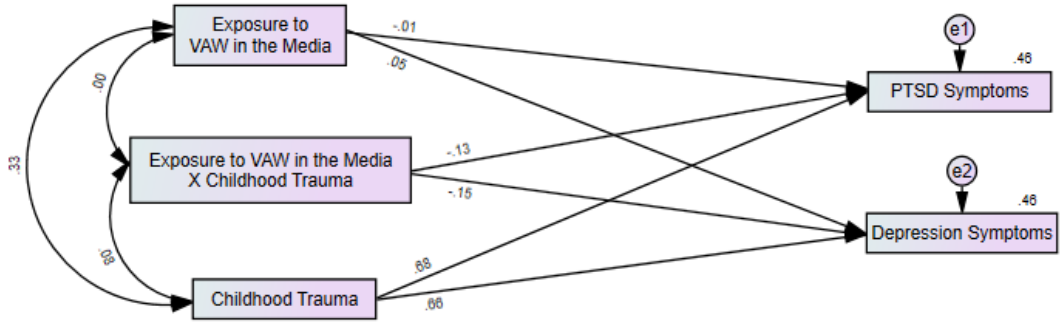



**Model 2.** Next, we trimmed the regression line from exposure to VAW in the media to anxiety to create Model 2 (See Figure 6). Results demonstrated poor data to model fit [$\chi^2(5)$ =

257.50; CFI = .54; SRMR = .16; RMSEA = .50; AIC = 289.50; CAIC = 358.90]. There was no significant change in $\chi^2$ or CFI between Model 1 and Model 2 [$\Delta\chi^2(1) = .09$; $\Delta$CFI = .00]

In Model 2, the association between exposure to VAW in the media and PTSD symptoms was not significant ($\beta = -.01$, $p = .83$), nor was the association between exposure to VAW in the media and depression symptoms ($\beta = .05$, $p = .40$). Conversely, the association between childhood trauma and PTSD symptoms was positive and significant ($\beta = .68$, $p = < .001$), as was the association between childhood trauma and depression symptoms ($\beta = .66$, $p < .001$), as was the association between childhood trauma and anxiety symptoms ($\beta = .34$, $p < .001$). The association between the interaction variable and PTSD symptoms was negative and significant ($\beta = -.13$, $p = .01$), as was the association between the interaction variable and depression symptoms ($\beta = -.15$, $p = .004$).

***Figure 7. Model 3. Trimmed Anxiety Symptoms Variable***

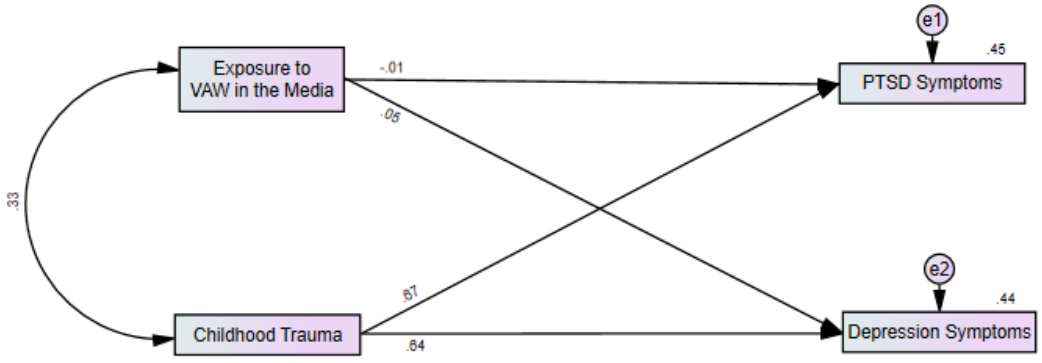



**Model 3.** Next, we removed anxiety as a variable from the path analysis to create Model 3 (See Figure 7). Results demonstrated improved data to model fit [$\chi^2(1) = 122.93$; CFI = .69; SRMR = .09; RMSEA = .77; AIC = 150.93; CAIC = 211.65]. There was highly significant

change in $\chi^2$ and CFI between Model 2 and Model 3 [$\Delta\chi^2(4) = -134.57$, $p < .001$; $\Delta CFI = .15$*]. There was also notable improvement in AIC and CAIC between Model 2 and Model 3 [$\Delta AIC = -138.57$, $\Delta CAIC = -147.25$]. Altogether, it looks as though removing the anxiety variable greatly improved our data to model fit.

In Model 3, the association between exposure to VAW in the media and PTSD symptoms was not significant ($\beta = -.01$, $p = .83$), nor was the association between exposure to VAW in the media and depression symptoms ($\beta = .05$, $p = .40$). On the other hand, the association between childhood trauma and PTSD symptoms was significant and positive ($\beta = .68$, $p < .001$), as was the association between childhood trauma and depression symptoms ($\beta = .66$, $p < .001$). Finally, the association between the interaction variable and PTSD symptoms was significant and negative ($\beta = -.13$, $p = .01$), as was the association between the interaction variable and depression symptoms ($\beta = -.15$, $p = .004$).

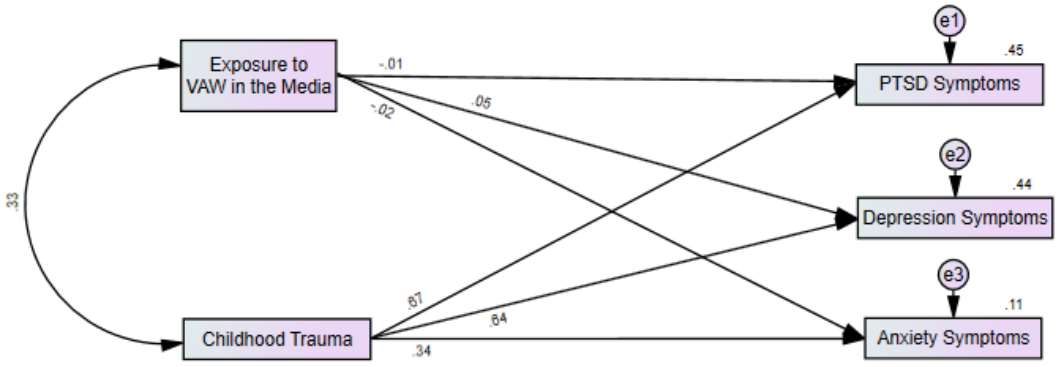
***Figure 8. Model 4. Trimmed Interaction Variable***



**Model 4.** Next, we removed the interaction term to create Model 4 (See Figure 8). Results demonstrated little change in data to model fit [$\chi^2(1) = 128.50$; CFI = .67; SRMR = .12; RMSEA = .79; AIC = 146.50; CAIC = 185.54]. There was significant change in CFI between Model 3 and Model 4, indicating poorer fit [ΔCFI = -.02*]. There was some improvement in AIC and CAIC between Model 3 and Model 4 [ΔAIC = -4.43, ΔCAIC = -26.65]. Ultimately, it appears that removing the interaction variable did not greatly improve the model fit.

In Model 4, the association between exposure to VAW in the media and PTSD symptoms was not significant ($\beta = -.01$, $p = .88$), nor was the association between exposure to VAW in the media and depression symptoms ($\beta = .05$, $p = .36$). However, the association between childhood trauma and PTSD symptoms was significant and positive ($\beta = .67$, $p < .001$), as was the association between childhood trauma and depression symptoms ($\beta = .64$, $p < .001$).

***Figure 9. Model 5. Re-added Anxiety Symptoms Variable***

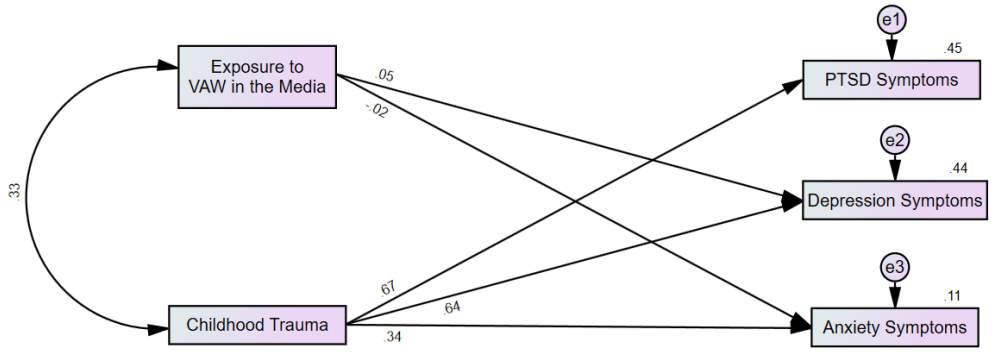



**Model 5.** Next, we added the anxiety variable back in, to create Model 5 (See Figure 9). Results demonstrated significant worsening in data to model fit [$\chi^2(3) = 262.56$; CFI = .52; SRMR = .19; RMSEA = .65; AIC = 286.56; CAIC = 338.61]. There was highly significant

change in $\chi^2$ and CFI between Model 4 and Model 5, indicating poorer fit [$\Delta\chi^2$ (2) = 134.06, $p$ < .001; ΔCFI = -.15*]. There was also notable change in AIC and CAIC between Model 4 and Model 5 indicating decreased fit [ΔAIC = 140.06, ΔCAIC = 153.07]. Ultimately, it appears that adding the anxiety variable back into the model significantly worsened data to model fit.

The association between exposure to VAW in the media and PTSD symptoms in Model 5 was not significant ($\beta$ = -.01, $p$ = .88), nor was the association between exposure to VAW in the media and depression symptoms ($\beta$ = .05, $p$ = .36). The association between exposure to VAW in the media and anxiety symptoms was also not significant ($\beta$ = -.02, $p$ = .77). However, the association between childhood trauma and PTSD symptoms was significant and positive ($\beta$ =.67, $p$ < .001), as was the association between childhood trauma and depression symptoms ($\beta$ =.64, $p$ < .001). Finally, the association between childhood trauma and anxiety symptoms was also significant and positive ($\beta$ =.35, $p$ < .001).

***Figure 10. Model 6. Trimmed Regression Line from Exposure to VAW in the Media to PTSD Symptoms***

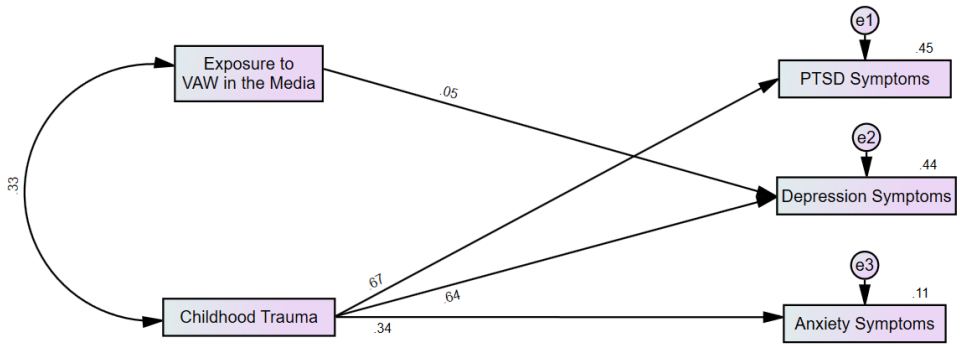



**Model 6.** Next, we trimmed the regression line from exposure to VAW in the media to PTSD symptoms to create Model 6 (See Figure 10). Results demonstrated little change in data

to model fit [$\chi^2(4) = 262.58$; CFI = .52; SRMR = .19; RMSEA = .56; AIC = 284.58; CAIC =332.30]. There was no significant change in $\chi^2$ and CFI between Model 5 and Model 6 [$\Delta\chi^2(2) = .02$; $\Delta$CFI = .00]. It seems that removing the regression line from exposure to VAW in the media to PTSD symptoms had little effect on the data to model fit.

In Model 6, the association between exposure to VAW in the media and depression symptoms was not significant ($\beta = .05$, $p = .36$), nor was the association between exposure to VAW in the media and anxiety symptoms ($\beta = -.02$, $p = .77$). Conversely, the association between childhood trauma and PTSD symptoms was significant and positive ($\beta = .67$, $p < .001$), as was the association between childhood trauma and depression symptoms ($\beta = .64$, $p < .001$). The association between childhood trauma and anxiety symptoms was also significant and positive ($\beta = .35$, $p < .001$).

***Figure 11. Model 7. Trimmed Regression Line from Exposure to VAW in the Media to Anxiety Symptoms***

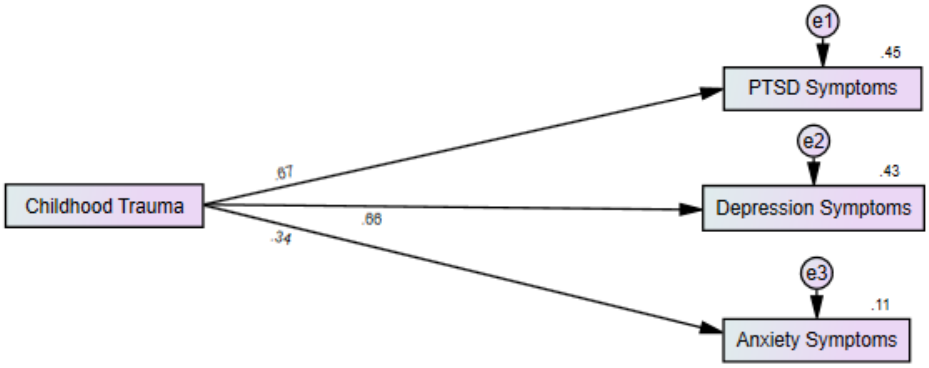



**Model 7.** Next, we trimmed the regression line from exposure to VAW in the media to anxiety symptoms to create Model 7 (See Figure 11). Results demonstrated little change in data to model fit [$\chi^2(5) = 262.67$; CFI = .52; SRMR = .19; RMSEA = .50; AIC = 282.67; CAIC

=326.05]. There was no significant change in $\chi^2$ and CFI between Model 6 and Model 7 [$\Delta\chi^2$ (1) = .09; ΔCFI = .00]. It appears that removing the regression line from exposure to VAW in the media to anxiety symptoms had little effect on the data to model fit.

In Model 7, the association between exposure to VAW in the media and depression symptoms was not significant ($\beta$ = .05, $p$ = .36). However, the association between childhood trauma and PTSD symptoms was significant and positive ($\beta$ = .67, $p$ < .001), as was the association between childhood trauma and depression symptoms ($\beta$ = .64, $p$ < .001). Finally, the association between childhood trauma and anxiety symptoms was significant and positive ($\beta$ = .34, $p$ < .001).

***Figure 12. Model 8. Removed Exposure to VAW in the Media Variable***

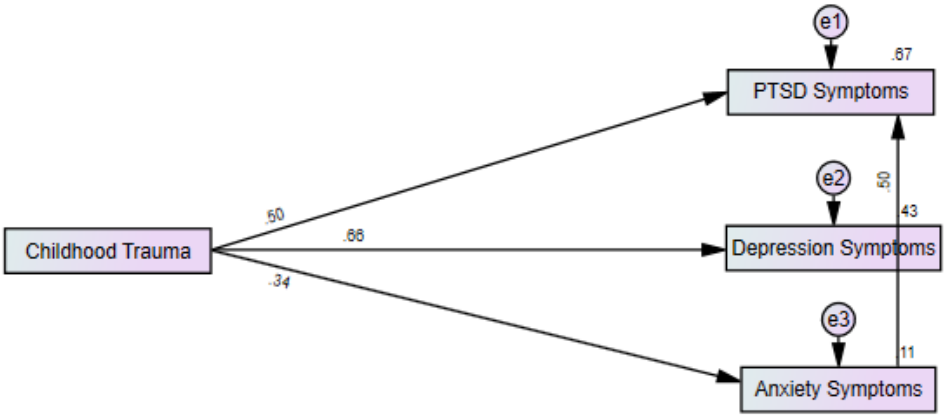



**Model 8.** Next, we removed the exposure to VAW in the media variable to create Model 8 (See Figure 12). Results were mixed in terms of change in data to model fit [$\chi^2$ (3) = 260.94; CFI = .50; SRMR = .23; RMSEA = .64; AIC = 274.94; CAIC =305.31]. There was no significant change in $\chi^2$ between Model 7 and Model 8 [$\Delta\chi^2$ (2) = -1.73]. However, there was

significant change in CFI between Model 7 and Model 8 demonstrating reduced data to model fit [ΔCFI = -.02*]. On the other hand, there were changes in AIC and CAIC between Model 7 and Model 8 indicating increased fit [ΔAIC = -7.73, ΔCAIC = 20.74].

In Model 8, the association between childhood trauma and PTSD symptoms remained significant and positive ($\beta = .67$, $p < .001$), as did the association between childhood trauma and depression symptoms ($\beta = .66$, $p < .001$). The association between childhood trauma and anxiety symptoms also remained significant and positive ($\beta = .34$, $p < .001$).

***Figure 13. Model 9. Added Regression Line from Anxiety Symptoms to PTSD Symptoms***

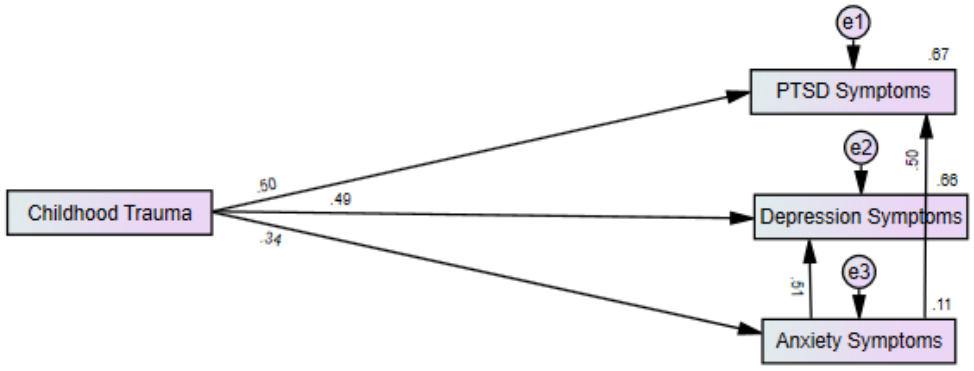



**Model 9.** Next, we drew a regression line from anxiety symptoms to PTSD symptoms to create Model 9 (See Figure 13). Results demonstrated improved data to model fit [$\chi^2(2) = 155.46$; CFI = .71; SRMR = .19; RMSEA = .61; AIC = 171.46; CAIC = 206.16]. There was a highly significant change in $\chi^2$ between Model 8 and Model 9 indicating improved data to model fit [$\Delta\chi^2(1) = -105.48$, $p < .001$]. There was also significant change in CFI between Model 8 and Model 9 demonstrating improved fit [ΔCFI = .21*]. Changes in AIC and CAIC between Model 8 and Model 9 also indicated improved fit [ΔAIC = -103.48, ΔCAIC = -99.15]. It seems that

adding a regression line from anxiety symptoms to PTSD symptoms had a significant and positive impact upon model to data fit.

In Model 9, the association between childhood trauma and PTSD symptoms continued to be significant and positive ($\beta = .50$, $p < .001$), as did the association between childhood trauma and depression symptoms ($\beta = .66$, $p < .001$). The association between childhood trauma and anxiety symptoms also remained significant and positive ($\beta = .34$, $p < .001$). Finally, the relationship between anxiety symptoms and PTSD symptoms was also found to be significant and positive ($\beta = .50$, $p < .001$).

***Figure 14. Model 10. Added Regression Line from Anxiety Symptoms to Depression Symptoms***

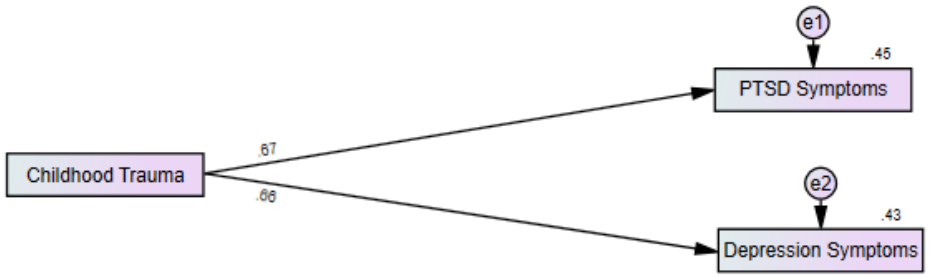



**Model 10.** Next, we drew a regression line from anxiety symptoms to depression symptoms to create Model 10 (See Figure 14). Results demonstrated improved data to model fit [$\chi^2(1) = 50.30$; CFI = .91; SRMR = .05; RMSEA = .49; AIC = 68.30; CAIC = 107.33]. There was a highly significant change in $\chi^2$ between Model 9 and Model 10 indicating improved data to model fit [$\Delta\chi^2(1) = -105.16$, $p < .001$]. There was also significant change in CFI between Model 9 and Model 10 demonstrating improved fit [ΔCFI = .20*]. Changes in AIC and CAIC between Model 9 and Model 10 also demonstrated significant improvement in fit [ΔAIC = -103.16,

ΔCAIC = -98.83]. Ultimately, it appears that adding a regression line from anxiety symptoms to depression symptoms had a significant and positive impact upon model to data fit.

In Model 10, the association between childhood trauma and PTSD symptoms was again positive and significant ($\beta = .50$, $p < .001$), as was the association between childhood trauma and depression symptoms ($\beta = .49$, $p < .001$). Additionally, the association between childhood trauma and anxiety symptoms was positive and significant ($\beta = .34$, $p < .001$), as was the correlation between the anxiety symptoms and PTSD symptoms ($\beta = .50$, $p < .001$). Finally, the correlation between the anxiety symptoms and depression symptoms was positive and significant ($\beta = .51$, $p < .001$).

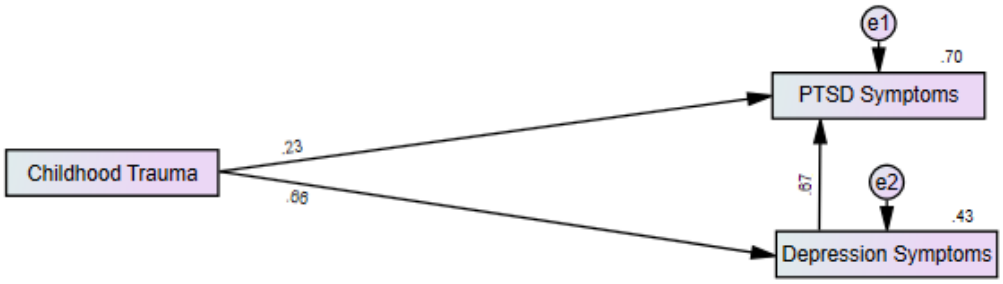
***Figure 15. Model 11. Removed Anxiety Symptom Variable***




**Model 11.** Next, we removed anxiety symptoms from the model to create Model 11 (See Figure 15). Results demonstrated worsened data to model fit [$\chi^2(1) = 127.44$; CFI = .65; SRMR = .16; RMSEA = .78; AIC = 137.44; CAIC = 159.13]. There was significant change in CFI, demonstrating decreased fit from Model 10 to Model 11 [ΔCFI = -.26*]. Changes in AIC and CAIC also demonstrated decreased fit [ΔAIC = 69.14, ΔCAIC = 51.8]. It appears that removing the anxiety symptoms variable from the model significantly decreased data to model fit.

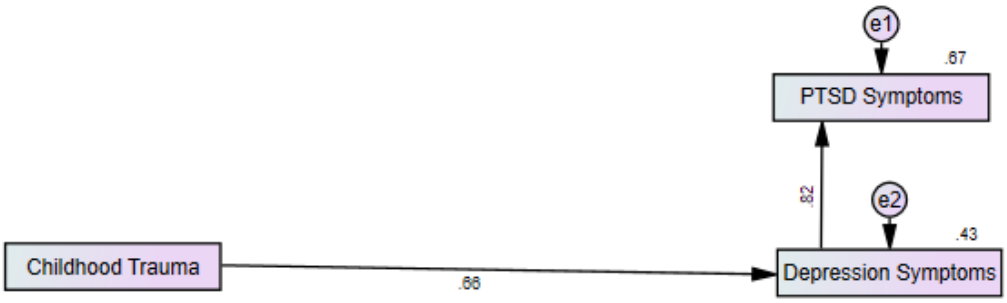
In terms of relationships between variables in Model 11, there was a significant positive association between childhood trauma and PTSD symptoms ($\beta = .67$, $p < .001$), and between childhood trauma and depression symptoms ($\beta = .66$, $p < .001$).

***Figure 16. Model 12. Added Regression Line from Depression Symptoms to PTSD Symptoms***




**Model 12.** Next, we added a regression line from depression symptoms to PTSD symptoms to create Model 12 (See Figure 16). Results did not provide fit indices, due to degrees of freedom being equal to the parameters. In Model 12, the association between childhood trauma and PTSD symptoms was once again positive and significant ($\beta = .23$, $p < .001$), as was the association between childhood trauma and depression symptoms ($\beta = .66$, $p < .001$). Finally, the association between depression symptoms and PTSD symptoms was also positive and significant ($\beta = .67$, $p < .001$).

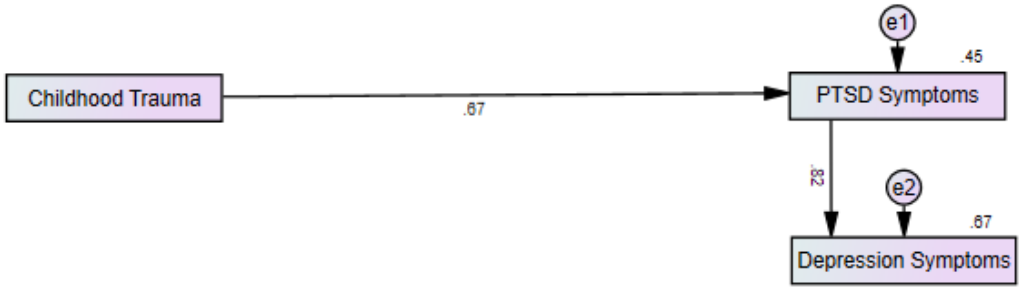
***Figure 17. Model 13. Trimmed Regression Line from Childhood Trauma to PTSD Symptoms***




**Model 13.** Next, we trimmed the line from childhood trauma to PTSD symptoms to create Model 13 (See Figure 17). Results demonstrated significantly improved data to model fit compared to Model 11 [$\chi^2(1) = 19.46$; CFI = .95; SRMR = .05; RMSEA = .30; AIC = 29.46; CAIC = 51.15]. There was significant change in CFI, demonstrating increased fit from Model 11 to Model 13 [ΔCFI = .30*]. Changes in AIC and CAIC also demonstrated increased fit [ΔAIC = 107.98, ΔCAIC = 107.98]. It appears that trimming the regression line from childhood trauma to PTSD symptoms had a positive effect on data to model fit.

In terms of relationships between variables, in Model 13, the association between childhood trauma and depression symptoms was positive and significant ($\beta$ =.66, $p < .001$), as was the association between depression symptoms and PTSD symptoms ($\beta$ = .82, $p < .001$).

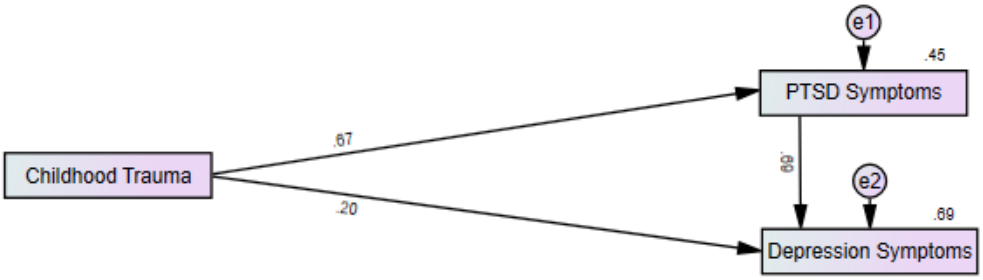
***Figure 18. Model 14. Reversed Direction of Previous Model***




**Model 14.** Next, to create Model 14, we trimmed the line from childhood trauma to depression symptoms and drew a new regression line from childhood trauma to PTSD symptoms (See Figure 18). We also reversed the direction of the regression line from PTSD symptoms to depression symptoms. Results demonstrated the best data to model fit yet [$\chi^2(1) = 14.29$; CFI = .96; SRMR = .04; RMSEA = .25; AIC = 24.29; CAIC = 45.98]. There was significant change in CFI, demonstrating increased fit from Model 13 to Model 14 [ΔCFI = .01*]. Changes in AIC and CAIC also demonstrated increased fit [ΔAIC = -5.17, ΔCAIC = -5.17]. Ultimately, it appears that trimming the regression line from childhood trauma to PTSD symptoms and drawing a new regression line from childhood trauma to PTSD symptoms created our best model fit to the data.

In terms of relationships between the variables in Model 14, the association between childhood trauma and PTSD symptoms was significant and positive ($\beta = .67$, $p < .001$), as was the association between PTSD symptoms and depression symptoms ($\beta = .82$, $p < .001$).

***Figure 19. Model 15. Added Regression Line from Childhood Trauma to Depression Symptoms***



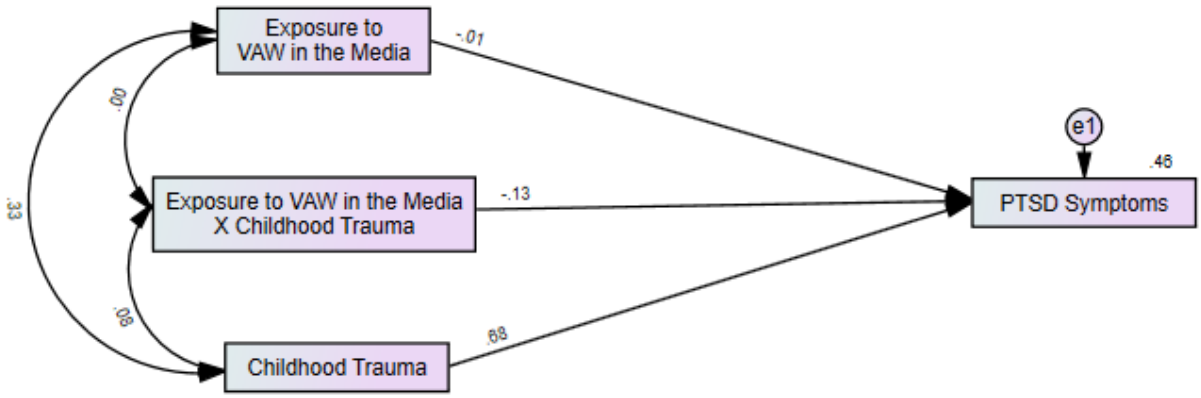

**Model 15.** Next, we added back in the regression line from childhood trauma to depression symptoms to create Model 15 (See Figure 19). Results did not provide fit indices, due to degrees of freedom being equal to the parameters. In Model 15, the association between childhood trauma and PTSD symptoms was significant and positive ($\beta = .67$, $p < .001$), as was the association between childhood trauma and depression symptoms ($\beta = .20$, $p < .001$). Finally, the association between PTSD symptoms and depression symptoms was also positive and significant ($\beta = .69$, $p < .001$).

***Table 7. Summary of Fit Indices for Models with Negative Mental Health Outcomes***

| Model | $\chi^2$ | $\Delta\chi^2$ | Df | CFI | ΔCFI | SRMR | RMSEA | 90% CI | AIC | CAIC |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 255.06 | -- | 3 | .54 | -- | .15 | .64 | .57-.70 | 291.06 | 369.14 |
| 1 | 257.41 | 2.35 | 4 | .54 | .00 | .16 | .55 | .50-.61 | 291.41 | 365.15 |
| 2 | 257.50 | .09 | 5 | .54 | .00 | .16 | .50 | .44-.55 | 289.50 | 358.90 |
| 3 | 122.93 | -134.57*** | 1 | .69 | .15* | .09 | .77 | .66-.89 | 150.93 | 211.65 |
| 4 | 128.50 | 5.57 | 1 | .67 | -.02* | .12 | .79 | .67-.90 | 146.50 | 185.54 |
| 5 | 262.56 | 134.06*** | 3 | .52 | -.15* | .19 | .65 | .58-.71 | 286.56 | 338.61 |
| 6 | 262.58 | .02 | 4 | .52 | .00 | .19 | .56 | .50-.62 | 284.58 | 332.30 |
| 7 | 262.67 | .09 | 5 | .52 | .00 | .19 | .50 | .45-.55 | 282.67 | 326.05 |
| 8 | 260.94 | -1.73 | 3 | .50 | -.02* | .23 | .64 | .58-.71 | 274.94 | 305.31 |
| 9 | 155.46 | -105.48*** | 2 | .71 | .21* | .19 | .61 | .53-.69 | 171.46 | 206.16 |
| 10 | 50.30 | -105.16*** | 1 | .91 | .20* | .05 | .49 | .38-.61 | 68.30 | 107.33 |
| 11 | 127.44 | 77.14 | 1 | .65 | -.26* | .16 | .78 | .67-.90 | 137.44 | 159.13 |
| 12 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 13 | 19.46 | -107.98 | 1 | .95 | .30* | .05 | .30 | .19-.42 | 29.46 | 51.15 |
| 14 | 14.29 | 5.17 | 1 | .96 | .01* | .04 | .25 | .15-.38 | 24.29 | 45.98 |
| 15 | -- | -- | -- | -- | | -- | -- | -- | -- | -- |

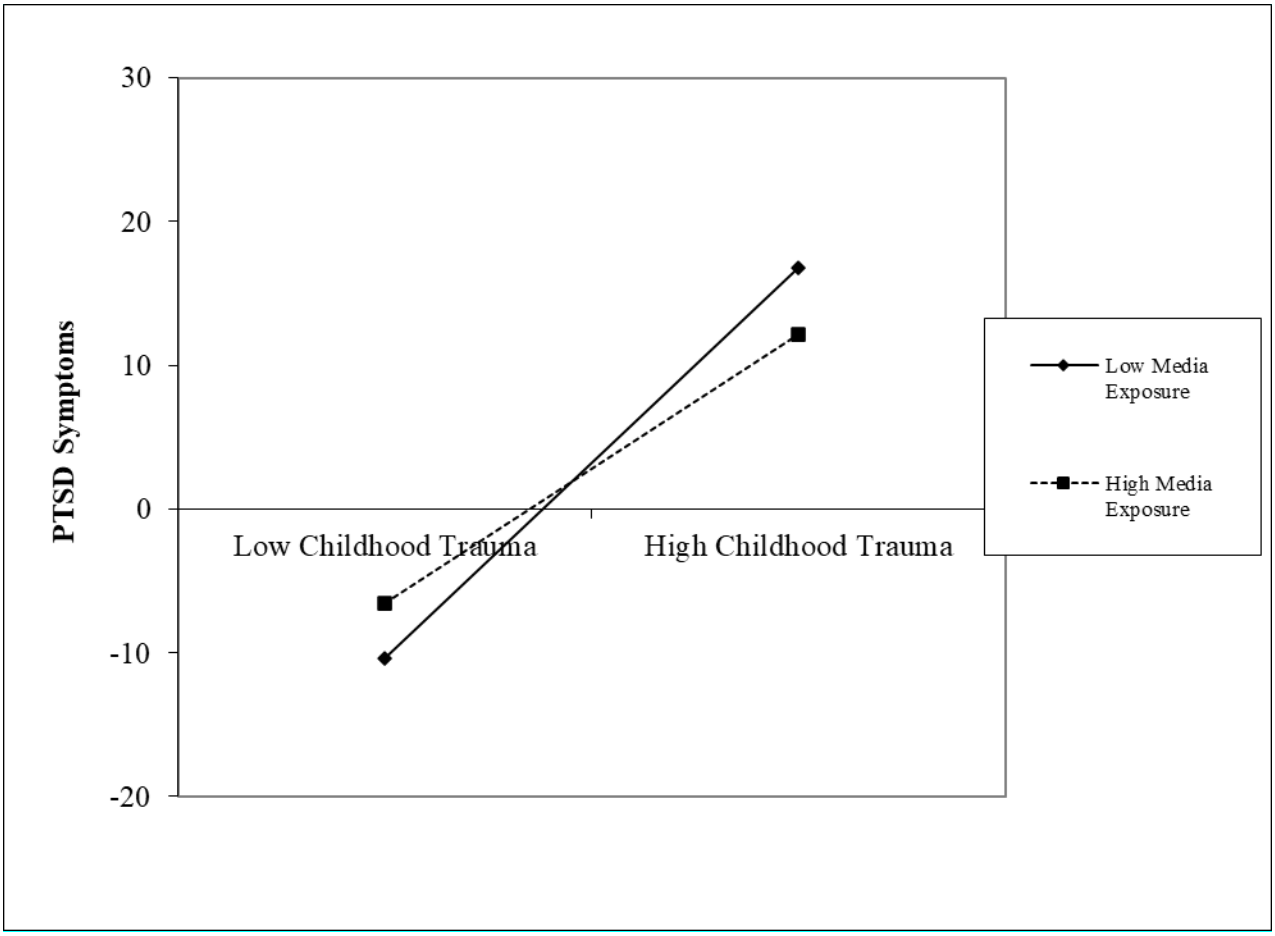
**Path Analysis for Individual Outcome Variables.** The next step in our analysis was to isolate each outcome variable and test our model. We used path analysis to examine how exposure to VAW in the media moderates the relationship between childhood trauma and mental health outcomes for each individual outcome variable (PTSD, depression, anxiety, and life satisfaction).

***Figure 20. Exposure to VAW in the Media Moderating the Relationship Between Childhood Trauma and PTSD Symptoms***




First, we ran the model examining the moderating effect of exposure to VAW in the media on the relationship between childhood trauma and PTSD symptoms (see Figure 20). As expected, the association between experiences of childhood trauma and PTSD symptoms was significant and positive ($\beta = .68$, $p < .001$). Unexpectedly, exposure to VAW in the media was not significantly related to PTSD symptoms ($\beta = -.01$, $p > .05$). However, the interaction effect between childhood trauma and exposure to VAW in the media was significantly and negatively associated with PTSD symptoms ($\beta = -.13$, $p < .05$).

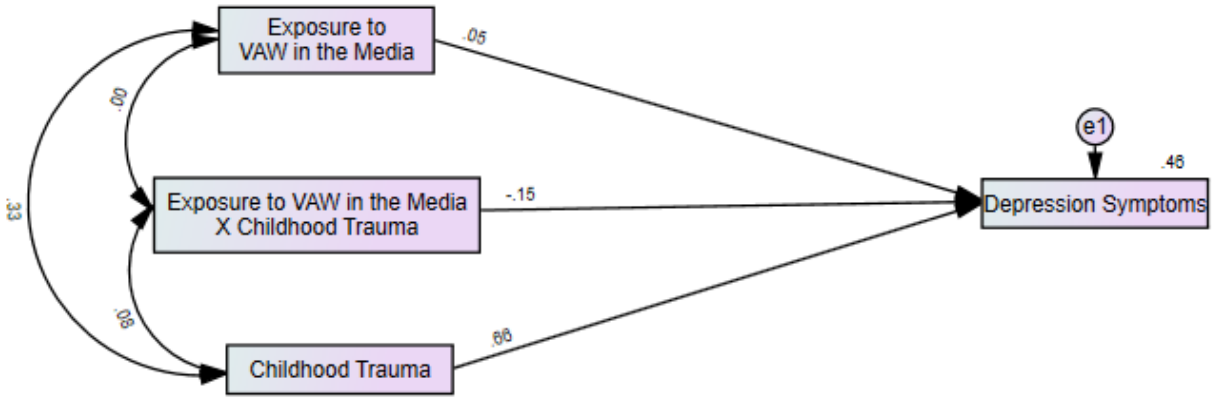
***Figure 21. Plot of Interaction Between Childhood Trauma, Media Violence, and PTSD Symptoms***




A graphical plot of the interaction between childhood trauma and exposure to VAW in the media in predicting PTSD symptoms. Variables are centered.

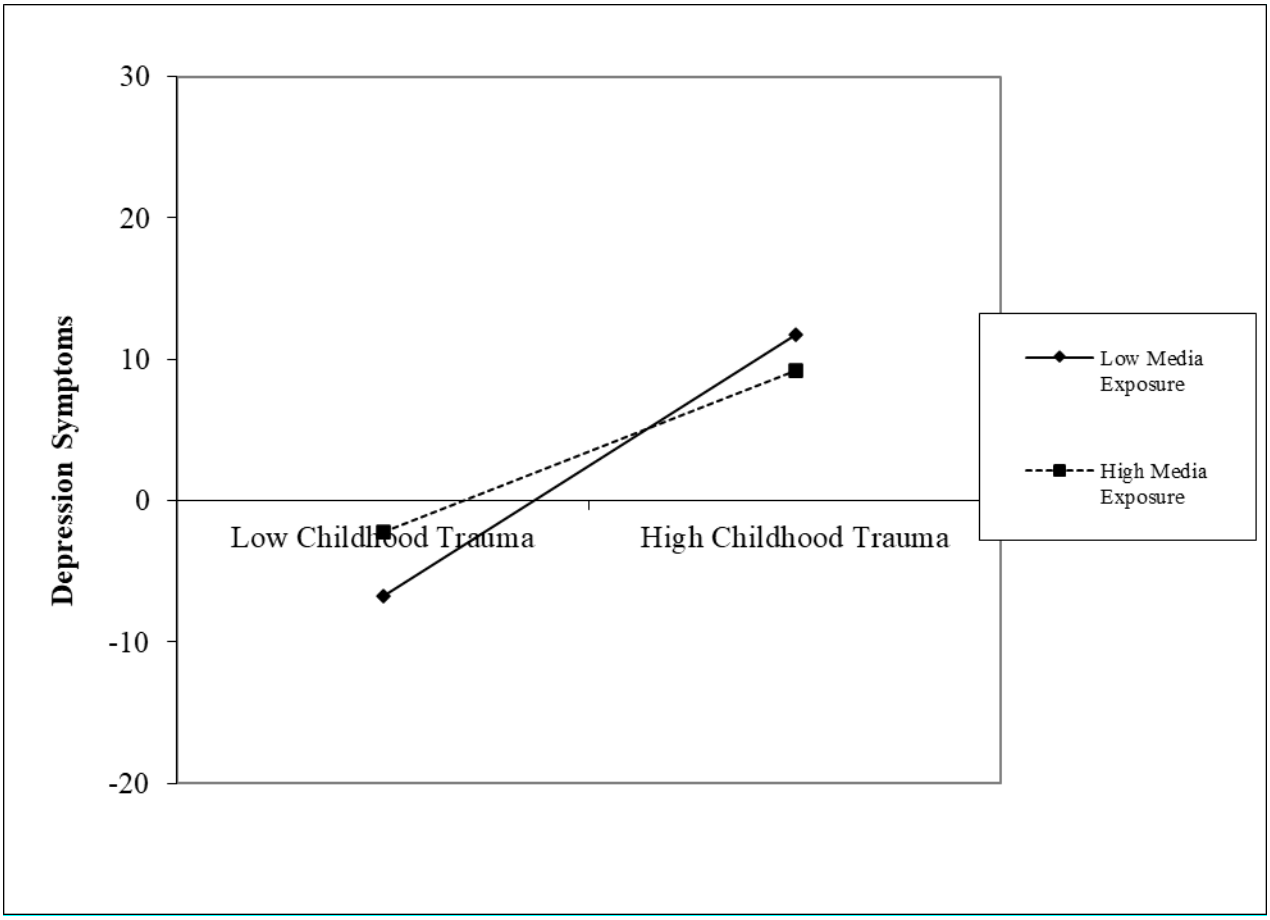
The next step in the analysis was to plot the interaction effect found in Model 16, using centered variables, to better visualize the interaction (Popan, 2018). As depicted in Figure 21, simple slopes demonstrated that childhood trauma had a lower, though still statistically significant, positive association with PTSD symptoms when participants' first choice in media consumption was high (one standard deviation above the mean) in self-rated violence against women ($b = .46$, $SE = .081$, $p < .001$), as compared to when it was low (one standard deviation below the mean) ($b = .91$, $SE = .088$ , $p < .001$).

***Figure 22. Exposure to VAW in the Media Moderating the Relationship Between Childhood Trauma and Depression Symptoms***




Next, we ran the model examining the moderating effect of exposure to VAW in the media on the relationship between childhood trauma and depression symptoms (see Figure 22). As expected, the association between experiences of childhood trauma and depression symptoms was significant and positive ($\beta = .66$, $p < .001$). Exposure to VAW in the media was not significantly associated with depression symptoms ($\beta = -.05$, $p > .05$). The interaction effect between childhood trauma and exposure to VAW in the media was significantly and negatively associated with depression symptoms ($\beta = -.15$, $p < .01$).

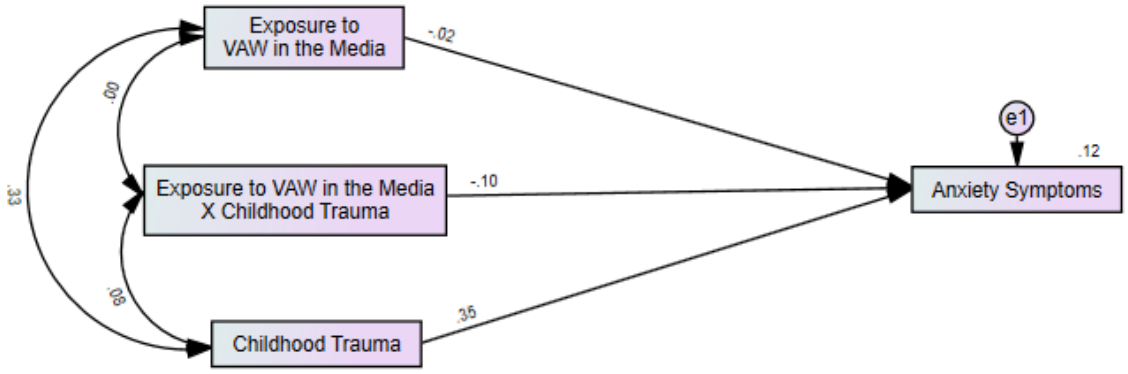
***Figure 23. Plot of Interaction Between Childhood Trauma, Exposure to VAW in the Media, and Depression Symptoms***




A graphical plot of the interaction between childhood trauma and exposure to VAW in the media in predicting depression symptoms. Variables are centered.

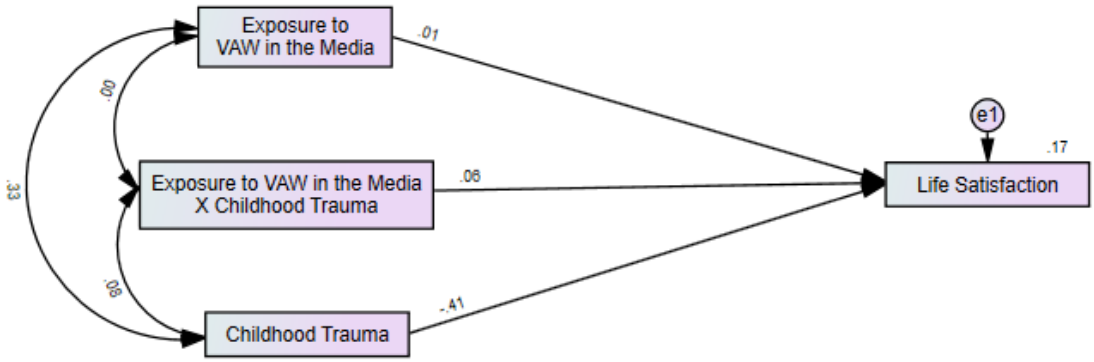
As depicted in Figure 23, simple slopes demonstrated that childhood trauma had a lower, though still statistically significant, positive association with depression symptoms when participants' first choice in media consumption was high (one standard deviation above the mean) in self-rated violence against women ($b$ = .40, $SE$ = .056, $p$ < .001), as compared to when it was low (one standard deviation below the mean) in self-rated violence against women ($b$ = .91, $SE$ = .060, $p$ < .001; Popan, 2018).

***Figure 24. Exposure to VAW in the Media Moderating the Relationship Between Childhood Trauma and Anxiety Symptoms***




Next, we ran the model examining the moderating effect of exposure to VAW in the media on the relationship between childhood trauma and anxiety symptoms (see Figure 24). As expected, the association between experiences of childhood trauma and anxiety symptoms was significant and positive ($\beta = .35$, $p < .001$). Exposure to VAW in the media was not significantly associated with anxiety symptoms ($\beta = -.02$, $p > .05$). The interaction effect between childhood trauma and exposure to VAW in the media was also not significantly associated with anxiety symptoms ($\beta = -.10$, $p > .05$). Because the interaction effect was not significantly related to the outcome variable, we did not plot this interaction.

***Figure 25. Exposure to VAW in the Media Moderating the Relationship Between Childhood Trauma and Life Satisfaction***




Next, we ran the model examining the moderating effect of exposure to VAW in the media on the relationship between childhood trauma and life satisfaction (see Figure 25). As expected, the association between experiences of childhood trauma and anxiety symptoms was significant and negative ($\beta = -.41$, $p < .001$). Exposure to VAW in the media was not significantly associated with life satisfaction ($\beta = .01$, $p > .05$). The interaction effect between childhood trauma and exposure to VAW in the media was also not significantly associated with life satisfaction ($\beta = .06$, $p > .05$). Because the interaction effect was not significantly related to the outcome variable, we did not plot this interaction.

## Discussion

This study examined the moderating impact of the amount of violence against women (VAW) in women's primary media preference, on the relationship between childhood trauma and mental health outcomes (PTSD, depression, anxiety, and life satisfaction). Our findings demonstrated that higher levels of VAW in women's primary media preference does impact the relationship between experiences of trauma and mental health outcomes (especially symptoms of depression and PTSD) but some of our findings were unexpected. We discuss each finding, by hypothesis, below.

**H1: Childhood trauma will be significantly and positively associated with negative mental health outcomes among women, including symptoms of PTSD, depression, and anxiety.** This hypothesis was strongly supported in all the models we tested, with retrospective childhood trauma having a strong predictive relationship to PTSD and depression and a moderate predictive relationship to anxiety. Our results are consistent with previous research connecting childhood trauma with PTSD symptoms (Widom, 1999), depression symptoms (Chapman et al., 2004; Remigo-Baker et al., 2014), and anxiety symptoms in adulthood (Van Assche et al., 2020).

The results of the current study closely align with prior research on Adverse Childhood Events (ACEs), which found experiences of childhood trauma to be highly associated with the probability of developing depression in one's lifetime (Chapman et al., 2004). In a retrospective study of 9460 adults, participants who reported more experiences of childhood trauma, or ACEs, had an increased likelihood of developing depression, in comparison to adults who reported fewer instances of childhood trauma (Chapman et al., 2004). Therefore, our finding that childhood trauma is significantly and positively associated with PTSD symptoms was expected, given previous research.

Our findings also echo past research demonstrating the association between childhood trauma and the development of PTSD (Widom, 1999). In a study of survivors of substantiated child abuse and neglect, compared with a control group of individuals who had not experienced child abuse or neglect, childhood victimization was found to be associated with increased risk for the development of PTSD (Widom, 1999). It was found that 37.5% of survivors of childhood sexual abuse, 32.7% of survivors of childhood physical abuse, and 30.6% of survivors of childhood neglect met criteria for a diagnosis of PTSD (Widom,1999). Participants who had experienced childhood abuse were substantially more likely to be diagnosed with PTSD compared with participants in the control group, who had not experienced childhood abuse. Therefore, our finding that experiences of childhood trauma are significantly and positively associated with PTSD symptoms is unsurprising, given past research.

In addition, our finding that childhood trauma is significantly associated with anxiety symptoms was expected given prior research (Van Assche et al., 2020). In a study of older adults, it was found that those who had experienced more, and different types, of childhood trauma experienced higher levels of current anxiety compared with those with lower exposure to childhood trauma (Van Assche et al., 2020). It was also found that childhood emotional neglect was predictive of current attachment anxiety (Van Assche et al., 2020). Therefore, our results showing that childhood trauma is significantly associated with anxiety symptoms, aligns with past research on the impact of childhood trauma on adulthood anxiety symptoms.

**H2: Childhood trauma will be significantly and negatively associated with life satisfaction.** This hypothesis was also supported in our study, with retrospective childhood trauma having a moderate and negative predictive relationship to life satisfaction. This is consistent with prior research findings that experiences of childhood trauma have significant,

negative impact on life satisfaction (Ozturk & Mohler, 2021). In a longitudinal study of young adults, childhood physical abuse and neglect had a negative, direct effect on life satisfaction (Ozturk & Mohler, 2021). Therefore, our results, demonstrating a significant, negative relationship between childhood trauma and life satisfaction is consistent with the existing literature on this topic.

**H3: Exposure to VAW in the media (measured by amount of VAW in primary media preference) will be significantly and positively associated with negative mental health outcomes, including symptoms of PTSD, depression, and anxiety, and it will be significantly and negatively associated with life satisfaction among women.** This hypothesis was partially supported when running bivariate correlations, but only for PTSD and depression. The finding that exposure to VAW in the media is significantly correlated with symptoms of PTSD and depression makes sense in terms of prior research findings that exposure to violent media is associated with PTSD symptoms, stress response, and negative mental health outcomes generally (Busso et al., 2014; Fallahi & Lesik, 2009).

However, our results provided no evidence to support the second half of this hypothesis, that exposure to VAW in the media would be significantly and positively correlated with anxiety, nor was there evidence of a significant, negative correlation between exposure to VAW in the media and life satisfaction. The finding that exposure to VAW in the media is not significantly correlated with anxiety was particularly surprising, given that prior research found connections between exposure to violent media and sympathetic nervous system reactivity (Busso et al., 2014). One potential explanation for this discrepancy is that our study measured exposure to violence in the media by using participants' assessment of the amount of violence in their top media preference. This contrasts with other studies measuring the impact of exposure

to violent media on anxiety, where researchers asked participants to watch violent media that had been selected by researchers, not by the participant (Busso et al., 2014). Therefore, in our study, participants are likely to have less anxiety associated with exposure to violent media since it is within their control and aligns with their preferences for media consumption.

Additionally, when we examined this hypothesis using path analysis, including the interaction term (See Figures 16, 18, 20, and 21), exposure to VAW in the media was not significantly associated with any of our outcome variables (PTSD, depression, anxiety, life satisfaction). This was a surprising finding.

**H4 The association between childhood trauma and negative mental health outcomes among women will be significantly moderated by exposure to VAW in the media (measured by amount of VAW in primary media preference) with exposure to VAW in the media increasing the strength of the association between childhood trauma and negative mental health outcomes.** This hypothesis was partially supported, in that exposure to VAW in the media was found to have a small, but significant moderating effect on the relationship between experiences of trauma and mental health outcomes. However, the direction of the moderating effect was an unexpected finding. We had expected to find that exposure to VAW in the media would amplify the negative impact of experiences of trauma on negative mental health outcomes. This hypothesis was based on cultivation theory, which suggests that those who consume higher rates of violent media messages experience "Mean World Syndrome," or the belief that the world is a dangerous place and that others cannot be trusted (Gerbner & Gross, 1976; Shanahan et al., 1999).

We also based our hypothesis on the diathesis-stress model, which asserts that the development of symptoms of mental illness is the result of a combination of genetic

predisposition (diathesis) and environmental stressors (Bebbington, 1987). Furthermore, we based this hypothesis on research demonstrating that exposure to violence in the media can have detrimental mental health impacts (Busso et al., 2014; Fallahi & Lesik, 2009; Hopwood & Schutte, 2017; Madan et al., 2014).

Surprisingly, our results showed that higher levels of VAW in women's primary media preference slightly (though significantly) decreased the strength of the relationship between childhood trauma and negative mental health outcomes. In other words, among those who reported higher rates of childhood trauma, higher exposure to VAW in the media was associated with fewer PTSD symptoms and fewer depression symptoms in comparison to those with lower exposure to VAW in the media. However, there was no significant interaction effect found for exposure to VAW in media on anxiety symptoms or life satisfaction.

There are a few potential explanations for our findings. There is very little research examining the impact of violent media consumption on mental health outcomes, particularly among women, so we interpret our results with caution. We outline two potential explanations below, including a trauma desensitization explanation, and a self-protective explanation.

***Trauma Desensitization Explanation.*** One possible explanation that seems very speculative is that exposure to VAW in the media buffers the relationship between childhood trauma and PTSD/depression symptoms in individuals with high childhood trauma, perhaps because it enables individuals to witness traumatic events in a controlled setting. This line of supposition may also suggest that survivors of trauma could even experience an increased sense of power from consuming VAW in the media, in a controlled environment, where they have the agency to change the channel if they choose.

Gaining control of a traumatic memory is one goal of treatment for PTSD (Foa et al., 2019). For example, one highly effective evidence-based treatment for PTSD is Prolonged Exposure therapy, in which an individual repeats the story of a traumatic event until the event becomes integrated into their autobiographical memory and their PTSD symptoms naturally reduce (Foa et al., 2019). The act of witnessing violence and trauma in the media, in a controlled environment where an individual is safe, could potentially have some therapeutic benefit for those who have experienced trauma, if it helps de-sensitize them to the impact of the traumatic memory.

However, this is just one potential explanation for our findings, and nothing in our data provides a rationale for the interaction that we found. Although it is clear that the model is stronger with the interaction term (Model 3) then without it (Model 4), it is especially important to note that we cannot claim that exposure to VAW in the media *causes* a reduction in PTSD and depression symptoms among those with childhood trauma, since our study was cross-sectional and not longitudinal. More research is needed to explore these relationships.

***Self-Protection Explanation.*** An alternative explanation for our results is that women who have experienced high levels of childhood trauma and have high levels of PTSD and depression may view less VAW in the media. In contrast, women who have experienced high levels of childhood trauma, but have lower symptoms of PTSD and depression, may view more media portraying or describing VAW. Therefore, a woman's ability to tolerate portrayals of VAW in the media may be reflective of having exposure to violence while simultaneously having lower PTSD or depression symptoms. This explanation would align with one of the hallmark symptoms of PTSD, which is avoidance. Those who have PTSD often avoid people, places, and situations which remind them of the traumatic event they have experienced

(American Psychiatric Association, 2013). Therefore, it would follow that those who have experienced high childhood trauma and have higher PTSD symptoms would avoid media portrayals of VAW, whereas those with lower PTSD symptoms would be less avoidant of violent media. Though we did not test these models directly, the cross-sectional design of our methodology necessitates that we consider the possible directionality of the model. Additionally, of the two main explanations (the possible desensitizing effect of violent media versus the self-protective behaviors of those with high PTSD symptoms), the latter seems more plausible, but more research is needed to evaluate the merit of these explanations.

An interesting secondary finding of the current study is that, among women who have lower rates of childhood trauma, higher levels of VAW in their primary media preference is associated with more PTSD and depression symptoms. This contrasts with experiences of women with higher rates of childhood trauma, where preference for watching VAW in the media is associated with lower PTSD and depression symptoms. It is possible that for women who have not experienced trauma themselves, exposure to VAW in the media may be a source of trauma for them. This explanation would line up with prior research findings that exposure to violent media is associated with negative mental health outcomes (Hopwood & Schutte, 2017).

Finally, it was unexpected that exposure to VAW in the media did not moderate the relationship between childhood trauma and anxiety, or life satisfaction. It is not clear why this might be. There was a significant positive association between childhood trauma and anxiety, and there was a significant negative association between childhood trauma and life satisfaction. This aligns with prior research (Van Assche et al., 2020; Ozturk & Mohler, 2021). However, exposure to VAW in the media was not significantly associated with anxiety. This contradicts

prior research finding a significant association between violent media exposure and anxiety symptoms (Fallahi & Lesik, 2009).

Exposure to VAW in the media was also not significantly and negatively correlated with life satisfaction as was expected. To this author's knowledge, there is no research examining the association between exposure to VAW in the media and life satisfaction. However, given that life satisfaction has been found to be negatively associated with depression and other mental health disorders, it was expected that exposure to VAW in the media would increase the strength of the negative association between childhood trauma and life satisfaction (Rissanen et al., 2013). However, this was not found to be the case in this study.

## Limitations and Future Directions

This study contains multiple limitations which should be addressed in future research. One primary limitation involves a lack of diversity among participants. Efforts were made to recruit a diverse sample, by posting the survey to Reddit threads and Facebook groups representing diverse interests. However, the final sample was predominantly White and heterosexual. Additionally, most participants reported being in a relationship and have no children. The sample was also highly educated, with most participants reporting they had either completed an undergraduate degree or had completed some University or College.

Therefore, the results of this study may not be generalizable to individuals who have not pursued post-secondary education, are not in a relationship, and do not have children. The results may also not be easily generalizable to those who do not identify as heterosexual and White. Women and girls of color, particularly Native American/Indigenous women and girls, experience higher rates of violence compared to White women and girls (Oetzel & Duran, 2004),

and there is evidence that they are more frequently portrayed as victims of violence in the media compared with white women (Krongard & Tsay-Vogel, 2020). Our sample was predominantly White, and therefore our results may reflect a degree of White privilege. Otherwise stated, White women may recognize that they are less likely to be victims of crimes compared to Black and Brown women, and therefore White women may experience less distress when consuming media violence in comparison to Black and Brown women. The degree to which White women feel they are protected from crime due to their race is a relevant consideration for future studies related to the impact of media violence on women's mental health.

Furthermore, future studies of media violence should put additional focus on recruiting women of color to better understand the unique ways exposure to VAW in the media may impact their mental health. Ultimately, research on the topic of exposure to VAW in the media should focus on recruiting participants of diverse races and ethnicities, diverse sexual orientations, single participants, participants who have children, and participants who did not pursue post-secondary education.

Additionally, future research should examine how exposure to violence against women in the media impacts women of different age groups, and how it affects men and gender non-conforming individual's mental health. This study specifically focused on young women's exposure to VAW in the media but understanding how VAW in the media affects the mental health of diverse genders and age ranges would be valuable for increased understanding of this topic.

An additional limitation of this study involves the challenge of measuring exposure to VAW in the media. We based our measurement of exposure to VAW in the media on previous research on media violence (Coyne et al., 2016). This method is useful in terms of identifying

the extent to which an individual estimates they have been exposed to violent media content. However, this method relies on retroactive self-reports, which may be inaccurate. Retroactive self-reporting requires a participant to accurately recall and report the amount of time they spent consuming a given type of media. Participants may inaccurately recall how much time they spent consuming a given source of media, or they may underreport or overreport due to social desirability factors.

Furthermore, in our study, we asked participants to rate their top three sources of media for how violent they perceive each source to be, as well as estimating how frequently they consumed each of their top three sources of media in the past month. This method is consistent with previous research on media violence (Coyne et al., 2016). However, this method did not work well in the current study since we noticed the final score (Frequency x Violence) was only weakly correlated with our outcome measures (See Table 4). We noticed that one component of the scale (participant violence rating for their top choice of media) was much more strongly correlated with our outcome variables compared to the full scale. We chose to use the item from the full scale which was most strongly correlated with our outcome measures, which introduced another limitation in our study. Classical testing theory encourages the use of measures containing more than one item. Therefore, our use of a one-item measure to assess exposure to VAW in the media represents another limitation in our study.

Relatedly, another limitation is that our scale for measuring exposure to VAW in the media included subjective ratings, relying on each participants' interpretation of how violent a given media source is. Therefore, this may raise concerns about standardization. For example, two individuals may consume the same media program and give it vastly different ratings of how

much violence it contained. Due to this, it would be beneficial for future research to include multiple methods of measuring exposure to media violence.

More specifically, future research could reduce the potential confound of having participants retroactively report their media consumption by having them record their media consumption for a week or a month, as well as on-going measures of mental health and wellbeing. Additionally, creating a standardized system for measuring how much violence is depicted or described in each media program, would be beneficial for future research related to exposure to media violence. Another way of navigating the potential confound of retroactive self-reporting and subjective ratings of violence, would be to administer a questionnaire (measuring mental health symptoms and trauma exposure) before and after having a participant consume a specific media program depicting VAW, and comparing these changes to a control or comparison group.

Additionally, our method of measuring exposure to VAW in the media assumes that participants control their media exposure, and that their level of media exposure is reflected by their frequency of consuming their top choices of media. In actuality, participants are likely exposed to media content that is not their choice on a frequent basis. For example, radio or television broadcasting in a public place would represent vicarious media exposure, or exposure to media that was not intentionally selected by the individual. We did not account for vicarious media exposure in our study, due to the complex nature of quantifying this. However, it is an important limitation to note. It is unknown how much impact vicarious media exposure may have on participants' mental health outcomes.

Lastly, this data was collected cross-sectionally, which makes it impossible to assess the direction in which variables impact each other over time. Longitudinal studies or mixed-method

studies would provide further clarification regarding how childhood trauma, exposure to VAW in the media, and mental health outcomes interact across the lifespan. Additionally, qualitative methods would provide a richer understanding of the ways in which exposure to VAW in the media impacts women and how women view their own consumption of VAW media.

Despite these limitations, this study helps to fill a gap in the literature, by providing preliminary evidence that exposure to VAW in the media moderates the relationship between experiences of trauma and mental health outcomes among young women. We encourage future researchers on this topic to examine the moderating impact of exposure to VAW in the media among different populations. In addition, we encourage future researchers to test different methods of assessing exposure to media violence, and to conduct longitudinal studies to track changes over time and assess directionality of the associations.

## Implications for Practice

To this researcher's knowledge, this study was the first to examine the impact of women's consumption of media portrayals of violence against women, on the relationship between experiences of childhood trauma and mental health outcomes among young women. Although more research is needed to better understand exactly how exposure to VAW in the media impacts individuals who have experienced trauma, this study does suggest that an interaction between violent media consumption and childhood trauma exists and may be worth attending to in clinical interventions. More specifically, it may be beneficial for mental health professionals to ask clients experiencing PTSD and/or depression about their exposure to media violence and provide space for a discussion about how media violence may be affecting their mental health symptoms. Given that prior research has demonstrated associations between

media violence and negative mental health outcomes, this may be a useful avenue of discussion in clinical interventions. However, it is important for clinicians to keep in mind that the impact of media violence on mental health symptoms may be dependent upon the individual's life experiences.

## Conclusion

In conclusion, this study examined the moderating effect of exposure to VAW in the media, on the relationship between childhood trauma and mental health outcomes among women in the emerging adulthood age range (18-25). We found that exposure to VAW in the media had a small, but significant, negative moderating impact on the relationship between childhood trauma and PTSD and depression. Exposure to VAW in the media did not moderate the relationship between childhood trauma and anxiety, nor did it moderate the relationship between childhood trauma and life satisfaction. This study provides initial evidence that the media women consume is differentially associated with mental health outcomes, depending on past experiences of childhood trauma. Further research is needed to better understand the mechanisms by which exposure to VAW in the media impacts women's mental health and well-being.

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## Appendix A
## Demographic Questions

What is your age (in years)? Please type your answer below.

_____

How would you identify your biological sex?
Note: Biological sex refers to the physical differences between people who are male, female, or intersex. A person typically has their sex assigned at birth based on physiological characteristics, including their genitalia and chromosome composition.
__ Female
__Male
__Intersex
__Not Listed, please specify: _____

How would you identify your gender?
Note: Gender involves how a person identifies. Gender is a broad spectrum. People may identify with a gender that is different from their biological sex. These identities may include transgender, nonbinary, etc.
__Female
__Male
__Transgender (male to female)
__Transgender (female to male)
__Nonbinary/fluid/gender queer
__Not listed, please specify: _____

What is your sexual orientation?
__Asexual
__Bisexual
__Gay
__Heterosexual
__Queer
__Pansexual
__Not listed, please specify: _____

How would you identify your race/ethnicity?
__African; African American; Black
__American Indian; Indigenous; Native American
__Arab; Arab American; Middle Eastern; North African
__Asian; Asian American
__European-American; Caucasian; White
__Hispanic; Latina/o American
__Pacific Islander
__Multiracial (please specify if you choose): _____
__Not listed (please specify if you choose): _____

What is your highest degree obtained?
__8th Grade or Less
__Some High School
__High School Graduate/GED
__Trade/Vocational School
__Some University or College
__Undergraduate Degree (e.g., B.A., B.S.)
__Master's Degree
__Professional Degree or Doctorate Degree (e.g., M.B.A., Ph.D., M.D., etc.)

What is your religious affiliation?
__Agnostic
__Atheist
__Buddhist
__Christian/Catholic/Protestant
__Hindu
__Muslim
__Sikh
__Spiritual
__Not listed, please specify: _____

Are you in a relationship?
__Yes
__No

Do you have any children?
__Yes
__No

In which type of community do you live?
__A small town—less than 10,000 people
__A town—between 10,000 and 49,000 people
__A large town—between 50,000 and 200,000 people
__A city—more than 200,000 people

In which region of the United States do you live?
__Midwest
__Northeast
__South
__West
__Puerto Rico or other U.S. territories
__I do not live in the United States

**Appendix B**
**Sociodemographic Questions**
**(Adler et al., 2000)**

Which of the following best describes your current main daily activities and/or responsibilities?
__Working full time
__Working part-time
__Unemployed or laid off
__Looking for work
__Keeping house or raising children full-time
__Only studying

How would you characterize your social class growing up?
__At or below the poverty line
__Lower class
__Working class
__Lower-middle class
__Middle class
__Upper-middle class
__Upper class

Which of these categories best describes your total combined family income for the past 12 months? This should include income (before taxes) from all sources, wages, rent from properties, social security, disability and/or veteran's benefits, unemployment benefits, workman's compensation, help from relatives (including child payments and alimony), and so on.
__Less than $5,000
__$5,000 through $11,999
__$12,000 through $15,999
__$16,000 through $24,999
__$25,000 through $34,999
__$35,000 through $49,999
__$50,000 through $74,999
__$75,000 through $99,999
__$100,000 and greater
__Don’t know
__No response

## Appendix C
## Childhood Trauma Questionnaire-Short Form (CTQ-SF)
## (Bernstein & Fink, 1998)

Directions: These questions ask about some of your experiences growing up as a child and a teenager. For each question, select the number that best describes how you feel. Although some of these questions are of a personal nature, please try to answer as honestly as you can. Your answers will be kept confidential.

When I was growing up . . .

1. I didn't have enough to eat.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

2. I knew that there was someone to take care of me and protect me.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

3. People in my family called me things like "stupid," "lazy," or "ugly."
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

4. My parents were too drunk or high to take care of the family.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

5. There was someone in my family who helped me feel important or special.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

When I was growing up . . .

6. I had to wear dirty clothes.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

7. I felt loved.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

8. I thought that my parents wished I had never been born.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

9. I got hit so hard by someone in my family that I had to see a doctor or go to the hospital.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

10. There was nothing I wanted to change about my family
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

When I was growing up . . .

11. People in my family hit me so hard that it left me with bruises or marks.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

12. I was punished with a belt, a board, a cord (or some other hard object).
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

13. People in my family looked out for each other.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

14. People in my family said hurtful or insulting things to me.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

15. I believe that I was physically abused.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

When I was growing up . . .

16. I had the perfect childhood.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

17. I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor, or doctor.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

18. Someone in my family hated me.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

19. People in my family felt close to each other.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

20. Someone tried to touch me in a sexual way or tried to make me touch them.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

When I was growing up . . .

21. Someone threatened to hurt me or tell lies about me unless I did something sexual with them.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

22. I had the best family in the world.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

23. Someone tried to make me do sexual things or watch sexual things.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

24. Someone molested me (took advantage of me sexually).
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

24. I believe that I was emotionally abused.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

When I was growing up . . .

25. There was someone to take me to the doctor if I needed it.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

26. I believe that I was sexually abused.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

27. My family was a source of strength and support.
__Never True
__Rarely True
__Sometimes True
__Often True
__Very Often True

**Appendix D**
**Fear of COVID-19 Scale (FCV-19S)**
**(Ahorsu et al., 2020).**

Please indicate how much you agree with each of the statements below.

1. I am most afraid of coronavirus-19.
__Strongly Disagree
__Disagree
__Neither Agree nor Disagree
__Agree
__Strongly Agree

2. It makes me uncomfortable to think about coronavirus-19.
__Strongly Disagree
__Disagree
__Neither Agree nor Disagree
__Agree
__Strongly Agree

3. My hands become clammy when I think about coronavirus-19.
__Strongly Disagree
__Disagree
__Neither Agree nor Disagree
__Agree
__Strongly Agree

4. I am afraid of losing my life because of coronavirus-19.
__Strongly Disagree
__Disagree
__Neither Agree nor Disagree
__Agree
__Strongly Agree

5. When watching news and stories about coronavirus-19 on social media, I become nervous or anxious.
__Strongly Disagree
__Disagree
__Neither Agree nor Disagree
__Agree
__Strongly Agree

6. I cannot sleep because I'm worrying about getting coronavirus-19.
__Strongly Disagree
__Disagree
__Neither Agree nor Disagree
__Agree
__Strongly Agree

7. My heart races or palpitates when I think about getting coronavirus-19.
__Strongly Disagree
__Disagree
__Neither Agree nor Disagree
__Agree
__Strongly Agree

**Appendix E**
**Violent Media Exposure**
**(Coyne et al., 2016)**

Please select the type of media you consumed **the most often** within the past month.
__Streaming videos and TV (TV shows, videos, movies, YouTube, and other streaming services)
__Social Media (e.g., Tiktok, Instagram, Facebook, etc.)
__Video Games
__Podcasts (including true crime and news podcasts)
__Books (both audio and paperback)
__Not listed, please specify: _____

*(Question displayed if participant selected Streaming Videos and TV)*
Please specify the name of the TV show, video, movie, or YouTube channel you spent the most time watching within the past month. Please write the specific name of the show, movie, or YouTube channel. For example: "Criminal Minds" or "Jenna Marbles."

_____

*(Question displayed if participant selected Social Media)*
Please specify the name of the social media platform. For example: "Tiktok," "Instagram," or "Facebook."

_____

*(Question displayed if participant selected Video Games)*
Please specify the name of the video game you spent the most time playing within the past month. For example: "Minecraft"

_____

*(Question displayed if participant selected Podcasts)*
Please specify the name of the podcast you spent the most time listening to within the past month. Please write the specific name of the show. For example: "NPR's Up First" or "My Favorite Murder"

_____

*(Question displayed if participant selected Books)*
Please indicate the name of the book or audiobook you spent the most time reading within the past month. Please write the specific name of the book. For example: "A Tale of Two Cities"

_____

How frequently did you consume this within the past month?
__Less Than Once Per Month
__Once or Twice Per Month
__Three Times Per Month
__Once Per Week
__Two to Three Times Per Week

__Four to Five Times Per Week
__Six or More Times Per Week

Please rate the program you listed for the amount of violence against women it shows or describes on average. Use a scale of 1-7 (1=None to 7=Very High Amount).

Note: Violence involves physical force intended to hurt another person who does not wish to be harmed. Examples include shooting, stabbing, punching, kicking, etc.

| None | | | | | | Very High Amount |
|---|---|---|---|---|---|---|
| 1 __ | 2__ | 3__ | 4__ | 5__ | 6__ | 7__ |

Please select the type of media you consumed **second most often** within the past month.
__Streaming videos and TV (TV shows, videos, movies, YouTube, and other streaming services)
__Social Media (e.g., Tiktok, Instagram, Facebook, etc.)
__Video Games
__Podcasts (including true crime and news podcasts)
__Books (both audio and paperback)
__Not listed, please specify: _____

*(Question displayed if participant selected Streaming Videos and TV)*
Please specify the name of the TV show, video, movie, or YouTube channel. For example: "Criminal Minds" or "Jenna Marbles."

_____

*(Question displayed if participant selected Social Media)*
Please specify the name of the social media platform. For example: "Tiktok," "Instagram," or "Facebook."

_____

*(Question displayed if participant selected Video Games)*
Please specify the name of the video game. For example: "Minecraft"

_____

*(Question displayed if participant selected Podcasts)*
Please specify the name of the podcast. For example: "NPR's Up First" or "My Favorite Murder"

_____

*(Question displayed if participant selected Books)*
Please specify the name of the book or audiobook. For example: "A Tale of Two Cities"

_____

How frequently did you consume this within the past month?
__Less Than Once Per Month
__Once or Twice Per Month
__Three Times Per Month
__Once Per Week
__Two to Three Times Per Week
__Four to Five Times Per Week
__Six or More Times Per Week

Please rate the program you listed for the amount of violence against women it shows or describes on average. Use a scale of 1-7 (1=None to 7=Very High Amount).

Note: Violence involves physical force intended to hurt another person who does not wish to be harmed. Examples include shooting, stabbing, punching, kicking, etc.

| None | | | | | | Very High Amount |
|---|---|---|---|---|---|---|
| 1 __ | 2__ | 3__ | 4__ | 5__ | 6__ | 7__ |

Please select the type of media you consumed **third most often** within the past month.
__Streaming videos and TV (TV shows, videos, movies, YouTube, and other streaming services)
__Social Media (e.g., Tiktok, Instagram, Facebook, etc.)
__Video Games
__Podcasts (including true crime and news podcasts)
__Books (both audio and paperback)
__Not listed, please specify: _____

*(Question displayed if participant selected Streaming Videos and TV)*
Please specify the name of the TV show, video, movie, or YouTube channel. For example: "Criminal Minds" or "Jenna Marbles."

_____

*(Question displayed if participant selected Social Media)*
Please specify the name of the social media platform. For example: "Tiktok," "Instagram," or "Facebook."

_____

*(Question displayed if participant selected Video Games)*
Please specify the name of the video game. For example: "Minecraft"

_____

*(Question displayed if participant selected Podcasts)*
Please specify the name of the podcast. For example: "NPR's Up First" or "My Favorite Murder"

_____

*(Question displayed if participant selected Books)*
Please specify the name of the book or audiobook. For example: "A Tale of Two Cities"

_____

How frequently did you consume this within the past month?
__Less Than Once Per Month
__Once or Twice Per Month
__Three Times Per Month
__Once Per Week
__Two to Three Times Per Week
__Four to Five Times Per Week
__Six or More Times Per Week

Please rate the program you listed for the amount of violence against women it shows or describes on average. Use a scale of 1-7 (1=None to 7=Very High Amount).

Note: Violence involves physical force intended to hurt another person who does not wish to be harmed. Examples include shooting, stabbing, punching, kicking, etc.

| None | | | | | | Very High Amount |
|---|---|---|---|---|---|---|
| 1 __ | 2__ | 3__ | 4__ | 5__ | 6__ | 7__ |

**Appendix F**
**Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5)**
**(Blevins et al., 2015)**

Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

In the past month, how much were you bothered by:

1. Repeated, disturbing, and unwanted memories of a stressful experience?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

2. Repeated, disturbing dreams of a stressful experience?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

3. Suddenly feeling or acting as if a stressful experience were actually happening again (as if you were actually back there reliving it)?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

4. Feeling very upset when something reminded you of a stressful experience?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

5. Having strong physical reactions when something reminded you of a stressful experience (for example, heart pounding, trouble breathing, sweating)?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

6. Avoiding memories, thoughts, or feelings related to a stressful experience?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

7. Avoiding external reminders of a stressful experience (for example, people, places, conversations, activities, objects, or situations)?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

8. Trouble remembering important parts of a stressful experience?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

10. Blaming yourself or someone else for a stressful experience or what happened after it?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

12. Loss of interest in activities that you used to enjoy?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

13. Feeling distant or cut off from other people?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

15. Irritable behavior, angry outbursts, or acting aggressively?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

16. Taking too many risks or doing things that could cause you harm?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

17. Being "superalert" or watchful or on guard?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

18. Feeling jumpy or easily startled?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

19. Having difficulty concentrating?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

20. Trouble falling or staying asleep?
__Not at All
__A Little Bit
__Moderately
__Quite a Bit
__Extremely

**Appendix G**
**Generalized Anxiety Disorder 7-Item Scale (GAD-7)**
**(Spitzer et al., 2006)**

Over the last two weeks, how often have you been bothered by the following problems?

1. Feeling nervous, anxious, or on edge
__Not at all
__Several days
__More than half the days
__Nearly every day

2. Not being able to stop or control worrying
__Not at all
__Several days
__More than half the days
__Nearly every day

3. Worrying too much about different things
__Not at all
__Several days
__More than half the days
__Nearly every day

4. Trouble relaxing
__Not at all
__Several days
__More than half the days
__Nearly every day

5. Being so restless that it is hard to sit still
__Not at all
__Several days
__More than half the days
__Nearly every day

6. Becoming easily annoyed or irritable
__Not at all
__Several days
__More than half the days
__Nearly every day

7. Feeling afraid, as if something awful might happen.
__Not at all
__Several days
__More than half the days
__Nearly every day

If you checked any problems, how difficult have they made it for you to do your work, take care of things at home, or get along with other people?
__Not difficult at all
__Somewhat difficult
__Very difficult
__Extremely difficult

**Appendix H**
**Center for Epidemiological Studies Depression Scale (CES-D)**
**(Radloff, 1977)**

Below is a list of the ways you might have felt or behaved. Please tell us how often you have felt this way during the past week.

<u>During the past week:</u>

1. I was bothered by things that usually don't bother me.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

2. I did not feel like eating; my appetite was poor.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

3. I felt that I could not shake off the blues even with help from my family or friends.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

4. I felt that I was just as good as other people.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

5. I had trouble keeping my mind on what I was doing.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

6. I felt depressed.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

7. I felt that everything I did was an effort.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

8. I felt hopeful about the future.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

9. I thought my life had been a failure.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

10. I felt fearful.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

11. My sleep was restless.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

12. I was happy.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

13. I talked less than usual.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

14. I felt lonely.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

15. People were unfriendly.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

16. I enjoyed life.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

17. I had crying spells.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

18. I felt sad.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

19. I felt that people dislike me.
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

20. I could not get “going.”
__Rarely or None of the Time (Less than 1 Day)
__Some or a Little of the Time (1-2 Days)
__Occasionally or a Moderate Amount of Time (3-4 Days)
__Most or All of the Time (5-7 Days)

**Appendix I**
**Satisfaction with Life Scale (SWLS)**
**(Diener et al., 1985)**

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by selecting the appropriate number. Please be open and honest in your responding.

1. In most ways my life is close to my ideal.
__Strongly Disagree
__Disagree
__Slightly Disagree
__Neither Agree nor Disagree
__Slightly Agree
__Agree
__Strongly Agree

2. The conditions of my life are excellent.
__Strongly Disagree
__Disagree
__Slightly Disagree
__Neither Agree nor Disagree
__Slightly Agree
__Agree
__Strongly Agree

3. I am satisfied with my life.
__Strongly Disagree
__Disagree
__Slightly Disagree
__Neither Agree nor Disagree
__Slightly Agree
__Agree
__Strongly Agree

4. So far I have gotten the important things I want in life.
__Strongly Disagree
__Disagree
__Slightly Disagree
__Neither Agree nor Disagree
__Slightly Agree
__Agree
__Strongly Agree

5. If I could live my life over, I would change almost nothing.
__Strongly Disagree
__Disagree
__Slightly Disagree
__Neither Agree nor Disagree
__Slightly Agree
__Agree
__Strongly Agree

**Appendix J**
**Recruitment Poster**

# Participants Needed!

**For an Anonymous Survey on:**

**The Impact of Traumatic Experiences and Media Exposure on Young Women's Mental Health**

Hello! My name is Erika Meierding, and I am a student in the Counseling Psychology PhD program at the University of North Dakota. I am recruiting participants for my dissertation. The results of this study will help psychologists to better understand the role that **traumatic experiences** and **media exposure** plays in young women's **mental health** outcomes.

You may be eligible to participate in this study if you:

- Are between the ages of 18 and 25
- Identify as a woman
- Live in the United States.

If you choose to participate, you will be asked to fill out an anonymous survey which will take approximately 15-20 minutes. The survey will ask questions about previous traumatic experiences, your level of exposure to violent media content, and your current mental health wellbeing.

All information that you provide will be confidential and you will not be asked to provide your name at any point throughout the survey. You will have the option to discontinue the survey at any time.

If you complete the survey, you will be given the opportunity to enter a drawing. Ten participants will be randomly selected to win one of ten $10 Amazon gift cards. Thank you for your time and consideration!

**If you are interested in participating, please click on the following link:**

**https://und.qualtrics.com/jfe/form/SV_ewIla3CiSTff6YJ**

**Appendix K**
**Informed Consent Document**

Project Title: Mental Health Impacts of Trauma and the Media

Principal Investigators: Erika Meierding, M.A. (erika.meierding@und.edu) in collaboration with and under the advisement of Kara Wettersten Ph.D. (kara.wettersten@und.edu).

Purpose of the Study: The purpose of this anonymous research study is to learn more about how traumatic experiences and media exposure impact mental health. Through this anonymous study, we aim to help mental health professionals better understand about how trauma and media exposure uniquely impact women's mental health. You are eligible to participate if you are 18-25 years of age, identify as a woman, and live in the United States.

Procedures to be followed (What you'll do if you participate): This study involves answering anonymous survey questions regarding your experiences with traumatic events, media exposure, and mental health. Once the survey has been completed, you will receive information for how to enter the drawing to win one of ten $10 Amazon gift cards. We will not ask for your name or other personally identifying information. Information from the survey will be stored in a password protected and secure location. The data will be securely stored indefinitely.

Risks: There are no risks in participating in this research beyond those experienced in everyday life. Some questions are personal and ask about trauma experiences. If you experience discomfort as a result of these questions, you can seek help from such places as 7cups.com (online support) or the National Crisis Line at (800) 273-8255. You can also text the National Crisis Textline by texting "home" to 741741. We also suggest speaking with a trusted individual such as a partner, friend, or family member.

Benefits: Not everyone who is in this study will benefit. A benefit means that something good happens to you. We do not know if you will personally benefit. When we are done with the study, we will write a report about what we found out. This report may help other people someday and may help researchers and mental health professionals better understand the impacts of trauma and the media on women's mental health.

Duration: The survey takes between 15 to 20 minutes on average.

Statement of Confidentiality: This anonymous survey may ask questions that involve personal experiences. However, we will exclude names or other identifying factors to ensure confidentiality. Only myself (Erika Meierding), Dr. Wettersten, my research team, and IRB auditors (those who monitor the ethical treatment of research participants) will have access to this data. If this research is published, no information that would identify you will be included. The online survey can be completed from any computer (e.g., personal, work, school), therefore, we are unable to guarantee the security of the computer on which you choose to enter your responses. As a participant in our study, we want you to be aware that certain "key logging"

software programs exist that can be used to track or capture data that you enter and/or websites that you visit.

Right to Ask Questions: The researchers conducting this study are Erika Meierding M.A. and Kara Wettersten Ph.D. You may ask them any questions that you have. If you have questions, concerns, or complaints about the research please contact Erika Meierding at erika.meierding@und.edu or Kara Wettersten at kara.wettersten@und.edu. You can also call Dr. Wettersten (701)777-3743. If you have questions regarding your rights as a research participant, you may contact The University of North Dakota Institutional Review Board at (701)777-4279 or UND.irb@UND.edu. This board is UND's research ethics board, and it ensures participants are treated properly and ethically. You may contact the UND IRB with problems, complaints, or concerns about the research. Please contact the UND IRB if you cannot reach research staff, or you wish to talk with someone who is an informed individual who is independent of the research team. General information about being a research subject can be found on the Institutional Review Board website "Information for Research Participants" http://und.edu/research/resources/human-subjects/research- participants.html

Compensation: Upon completion of this survey, you will have the option to click on a link which will take you to a separate survey where you can enter a drawing to be randomly selected to win one of ten $10 Amazon gift cards as compensation for your participation in the study. There will be no way to link your email address with your survey responses.

Voluntary Participation: You do not have to participate in this research. You can stop your participation at any time. You may refuse to participate or choose to discontinue participation at any time without losing any benefits to which you are otherwise entitled. You do not have to answer any questions you do not want to answer.

You must be between the ages of 18 and 25 to participate in this research study. You must also identify as a woman and reside in the United States of America.

By clicking yes below you are consenting to participation and confirming that you fit the criteria for the study and understand what this study is for.