

**Cross-Sectional Mediation Model and the effects of Social Media Use and Depression  
mediated by body and behavior shame with child sexual assault as a moderator and**

**TOSCA Shame as a covariate**

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### **Abstract**

This cross-sectional mediation model observed any associations between the effects of social media use and depression, mediated by bodily and behavior shame with child sexual assault as a moderator and shame proneness as a covariate, for consideration. In this cross-sectional study of 1,254 women between the ages of 25-50, it shows that there is a significant association on how social media plays a part in how women respond based on childhood sexual abuse, body and behavioral shame, along with shame proneness. The following subscale tests the Depression Anxiety Stress Scale (DASS-21): Depression subscale, the Test of Self-Conscious Affect-3 (TOSCA-3): Shame subscale, the Experience of Shame Scale (ESS) Bodily and Behavioral Shame subscales concerning depression and shame were pulled from the data sets. The Hayes method was installed and run in SPSS 4.2. There was also an association between the increase in positive significant effects on women aged 25-50 as they reacted to prolonged usage of social media such as Facebook, Instagram, and Reddit do show an association with depression was enhanced. We believe our findings will allow a better understanding of the factors involved in seeing how identifiable reactions are associated with increased social media use. The research showed there is a gap in literature that evaluates not only specific gender but also young adults to older part of middle age. It is recommended for future researchers, counselors, or counselor educators to continue forward, those who are dedicated to supporting and expediting the need for further research.

*Keywords:* Social media, depression, childhood sexual abuse, body shame, women

The study suggests that there was an association observed as the data showed significant effects from increased social media hours, along with being a survivor of childhood sexual abuse, bodily and behavioral shame followed by shame proneness on depression. Some of the effects were more significant than others, and it was found that there was a higher effect on non-survivors of childhood sexual abuse and its association to depression.

## **Literature Review**

### ***Social Media/Depression***

Facebook was designed to allow people to connect with one another, but both negative and positive associations with a person's physical and mental well-being were reported (Hanna et al., 2017). It was estimated that in March 2020 there were over 2.6 billion users on Facebook and Instagram recently exceeded 1 billion users (Cunningham et al., 2021). Facebook would become a significant influence in socialization as it became an essential or meaningful part of someone's daily life (Mango et al., 2015; Bettmann et al., 2021), research suggested that social media led to depression but was also linked to other social media platforms as well. There is a growing body of research concerning prolonged social media use and its effects on symptoms of depression and anxiety levels in young adults, (Bettmann, et al., 2021; Cunningham et al., 2021; Khalaf et al., 2023) the more time college students spent on social media, specifically Facetime, the worse they felt. The American Academy of Pediatrics defined Facebook depression as a type of depression that is associated with time spent on social media (Bettmann, et al., 2021).

There is an association between the use of social networking sites in adolescents and young adults and the way it was used mattered, increasing depression in these age groups (Cunninhmam et al., 2021; Lamp et al., 2019). The more time a person spent on Facebook, the more social comparisons one would make, giving a deceptive presentation producing higher levels of depression associated with impression management (Lamp et al., 2019; Hanna et al., 2017).

### ***Social Media/CSA/Depression***

Social media can be seen as both good and bad in how rapidly it has taken hold of the

American population and the ease of interaction with others, both here in the United States and abroad. Electronic communication via social media has affected the way depression, behavioral, and bodily shame are on the rise (Andrews et al., 2002), even along with those dealing with CSA in women between the ages of 25-50. Females who experienced CSA were significantly at risk of moderate internet use, along with a high risk to psychosocial risks (Noll et al., 2022). Bringing about more depression in these age groups.

### ***Body Shame & Behavioral Shame/Depression***

Using a cross-sectional mediation, this research group selected the Cronbach alpha to look at the constructs (McNeish, 2018) to measure social media hours used that correlated to body and behavioral shame, to depression, and how trait shame led to depression. Mango et al (2015), observed that women had a higher rate of sexual shame from Facebook use than men. Self-objectification can be related to how women react to mainstream social media post and reactions may also influence bodily and behavioral shame, appearance anxiety, and depression along with hours spent on social media outlets (Cohen et al., 2019; Lamp et al., 2019). Quality of life for women who spent hours online can also have a psychological effect on self-awareness and self-satisfaction (Asthana, 2021). Choukas-Bradley et al (2020) constructed the appearance-related social media consciousness (ASMC) scale and completed a recent study on U.S. young women identifying the extent which their individual thoughts and behaviors would reflect their awareness of whether they would look attractive to their social media audiences.

This scale was designed to identify the effects of photo-based social media site use, such as Instagram and how it can influence the way these young women look at themselves, leading to depression (Choukas et al., 2020), the results of higher body dissatisfaction and depressive symptoms with participants frequently experiencing AMSC. During an analysis of several

Facebook pages, over 40% of the content featured were half or full body shots, showing self-objectification producing negative outcomes such as depression (Hanna et al., 2017; Wang et al., 2020). Those who manipulated photos posted on Instagram and Facebook, felt deceptive along with the addition of bodily shame, and in turn increased depressive symptoms already present (Lamp et al., 2019; Hanna et al., 2017). The greater the dissatisfaction of a person's body, the higher the risk of depression due to low self-esteem (Rounsefell et al., 2020).

Social media campaigns from companies can add to the increase of dissatisfied body image on young adults surfing social media platforms, the increased use of platforms allowed for greater embarrassment effecting symptoms of depression (Rounsefell et al., 2020; Primack et al., 2017). Body shame and effective body consciousness were found in adolescents and young women increasing higher levels of body shame (Mango et al., 2015; Lamp et al., 2019; Wang et al., 2020), it was seen that depression is related to body dissatisfaction and negative feelings abouts one's body leading to more posting of self-photos on social media and higher rates of depression.

### **Overview of the Present Study**

Research has identified a correlation between social media use and depression. (Baker et al, 2016 & Rogers, 1998). This has also been explored for adolescents, resulting in a correlation between the use of social media and depression contributing to the American Academy of Pediatrics (AAP) (2011) warning of the risk of social isolation which may contribute to depression (AAP, 2001, Baker et al., 2016 & Jalenchick et al, 2013). This study hopes to develop further into the correlating factors of social media use and depression, specifically considering the experience of shame, and child sexual assault. In this study, social media use is defined as the process of engaging in connection within a virtual network of people within an online network

(Baker et al., 2016). The following models were developed based on the two (2) sets of hypotheses, Model 4 and Model 8.

In model 4 the time spent interacting with social media use is the independent variable-Y. Depression is the dependent variable-X, with behavioral shame and bodily shame as mediators-M1, M2, with the addition of a covariate shame proneness added in after M1, M2.

#### **Model 4**

Hypothesis 1a: Increased social media use is associated with increased depression.

Hypothesis 1b: Increased social media use and the experience of body and behavioral shame have an association with increased depression.

Hypothesis 1c: Increased social media use and the experience of body and behavioral shame utilizing a covariate of shame proneness has an association with increased depression.

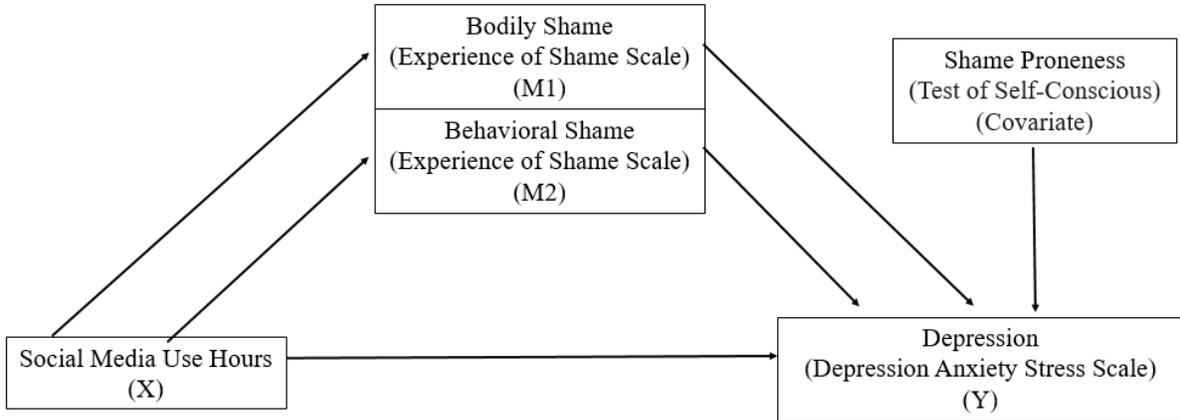
Model 8 is built off model 4, using the time spent interacting with social media use is the independent variable-Y, depression is the dependent variable-X, with behavioral and bodily shame as mediators-M1, M2, the covariate shame proneness added in after M1, M2, and the addition of a categorical moderator, childhood sexual abuse-W.

#### **Model 8**

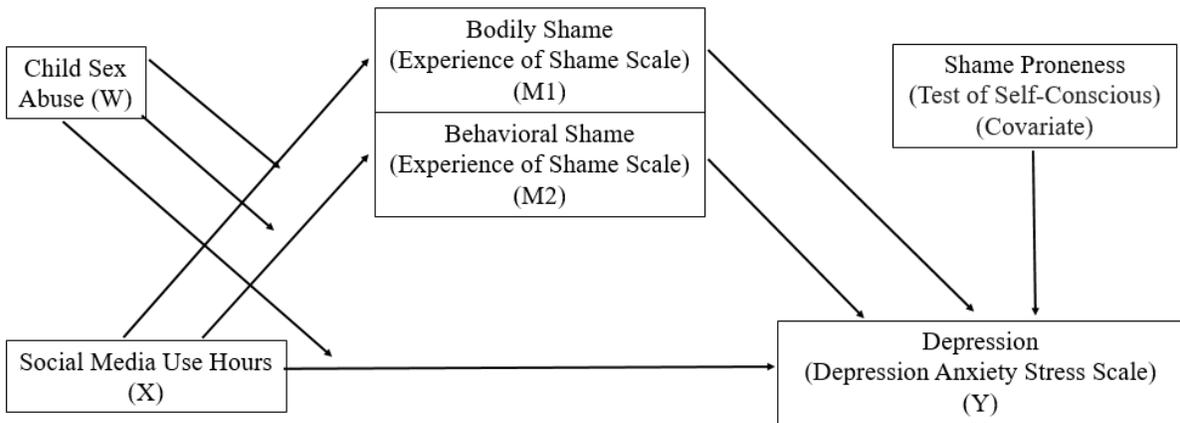
Hypothesis 2a: Increased social media use by women who experienced childhood sexual abuse is associated with increased depression.

Hypothesis 2b: Increased social media use by women who experienced childhood sexual assault, bodily, and behavioral shame is associated with increased depression.

Hypothesis 2c: Increased social media use by women who experienced childhood sexual abuse, bodily and behavioral shame, and shame proneness is associated with increased depression.



**Model 4**  
**Social Media Use and Depression, Dual Mediators Bodily and Behavioral Shame with Covariate Shame Proneness**



**Model 8**  
**Social Media Use and Depression Dual Mediators Bodily and Behavioral Shame, Moderated Child Sex Abuse with Covariate Shame Proneness**

## Method

### Participants, Demographics, and Procedure

The data for this research was derived from a larger study that was conducted in three waves. After processing the data sets and narrowing down the variables in question, three datasets, two from 2019, and one from 2020, were used, resulting in a total of n=1278 participants. The participants were sorted by gender and age, and all participants who were outside of the age range of 25-50 or identified as male were removed from the original datasets. Nineteen (19) participant univariates were evaluated and retained; no participants were unnecessarily removed. During the data scrubbing, a total of twenty-four (24) participants were removed, twenty-two (22) for improbable answers on social media use hours reported and two (2) were outliers found from running a bivariate data screen. The final number of participants was N=1254. Of the N=1254 females used for this study, N=304 (24.3%) identified as childhood sexual abuse (CSA) survivors, N=950 (75.7%) identified as non-victims (**Table 1**).

**Table 1**

*Demographic Description of Study Participants (N=1254)*

	Total		CSA Survivor		Non-Victim	
	N	%	N	%	N	%
Gender						
Female	1254	100.0	304	24.3	950	75.7
Race/Ethnicity						
Caucasian	929	74.1	208	68.4	721	75.9
African American	161	12.8	53	17.4	108	11.4
Alaskan Native/Native American	13	1.0	6	2.0	7	0.7
Asian	67	5.3	12	3.9	55	5.8
Native Hawaiian/other Pacific Islander	5	0.4	2	0.7	3	0.3
Hispanic or Latino	59	4.7	18	5.9	41	4.3
Other	18	1.4	4	1.3	14	1.5
Relationship Status						
Single	202	16.1	44	14.5	158	16.6
Non-Committed Dating	32	2.6	8	8.6	24	2.5
Committed Dating	162	12.9	29	9.5	133	14.0

Married	796	63.5	200	65.8	596	62.7
Married/Separated	20	1.6	5	1.6	15	1.6
Divorced	29	2.3	14	4.6	15	1.6
Widowed	11	0.9	4	1.3	7	0.7

## Measures

### *Depression Anxiety Stress Scale (DASS-21): Depression Subscale (DASSDEP)*

The Depression Anxiety Stress Scale (DASS-21): Depression Subscale (DASSDEP) Depression Anxiety Stress Scales (DASS) (Lovibond and Lovibond 1995). The DASS is a self-report questionnaire, specifically developed to cover the full range of core symptoms of depression, anxiety, and stress. The original version consisted of 42 items, measured on a 4-point Likert scale, ranging from 0 (“did not apply to me at all”) to 3 (“applied to me very much, or most of the time”). Several psychometric studies supported a three-factor solution in the general and clinical population (Brown et al. 1997; Lovibond and Lovibond 1995) More recently, a short version of the DASS was developed (Henry and Crawford 2005). The DASS-21 consists of 21 items and has rapidly become the preferred version of this instrument, considering that it has solid psychometric properties, and is more time-efficient, as compared with the 42-item version (Norton 2007). DASSDEP subscale which consisted of only 7 items, one sample item from the subscale used was “I felt that I had nothing to look forward to.”

### *Experience of Shame Scale (ESS)*

The experience of Shame Scale (ESS) based on the subscale of behavioral shame by Andrews et al. (2002) using interview research questions on mental illness could be duplicated by using the same survey. The ESS- assessed fixed shame scale (TOSCA) was compared regarding depression, body, and behavioral shame (Andrews et al., 2002). ESS was used to anticipate bodily shame (Andrews et al., 2002). One example of an item used for subscale bodily

shame is “Everybody at times can feel embarrassed, self-conscious or ashamed. These questions are about such feelings if they have occurred at any time in the past year. There are no ‘right’ or ‘wrong’ answers. Please indicate the response which applies to you with a tick. - Have you avoided looking at yourself in the mirror?” One example of an item used for behavioral shame is “Everybody at times can feel embarrassed, self-conscious or ashamed. These questions are about such feelings if they have occurred at any time in the past year. There are no ‘right’ or ‘wrong’ answers. Please indicate the response which applies to you with a tick. - Have you worried about what other people think of you when you do something wrong?” Andrews et al. (2002) shared that the factors used were bodily and behavioral shame along with unequivocal averages across subscales with a 4-point Likert scale, (1) not at all, (2) a little, (3) moderately, and (4) very much. The higher the score indicated a higher level of shame experienced.

### ***Test of Self-Conscious Affect-3 (TOSCA-3)***

The Test of Self-Conscious Affect-3 (TOSCA-3) was designed to measure cognitive and behavioral aspects associated with shame proneness, guilt-proneness, and externalization through a 16-scenario subscale for each of the three aspects, where 11 scenarios are negative and 5 scenarios are positive, through the use of a 5 measure Likert scale (Tangney, et al, 2000). For the TOSCA-3, the subscales are comprised of everyday situations, an example of a line item for this subscale is “At work, you wait until the last minute to plan a project, and it turns out badly. - You would think: "There are never enough hours in the day”.” The participants are asked to use a Likert scale from 1(not likely) to 5 (very likely) for this scenario to be true, the good thing about this scale, according to Rüsç, Corrigan, Bohus, Jacob, Brueck, & Lieb (2007), shame and guilt are never mentioned allowing the participant to speak more freely. Tangney, Dearing, Wagner, and Gramzow (2000), shared that for the TOSCA-3 shame, and guilt scales the

correlation was .94 and .93, while Cronbach's alpha for the scale was .76 and .66 respectively. For this study only the TOSCA-3 shame, and the 11 negative subscales will be used.

### **Data Analysis**

To test the hypotheses, cross-sectional mediation was selected as the Cronbach alpha because of the reliability in analyzing and evaluating mediation (McNeish, 2018) by using the variables from two-point patterns. SPSS was used and the Hayes model was chosen to identify any effects each variable had upon each other. The research group found subsequent ascending themes: social media hours, CSA, shame, and depression. The outcomes were put into 4 categories.

## **Results**

### ***Descriptive Statistics***

Conditional Process Analysis Results Summarizing multiple models are represented in (Table 2). The Hayes matrix procedure used in SPSS 4.2 produced the following results. Model 4 was run without CSA being introduced as a moderator. The mediation model predicted behavioral shame was 33.0% of the variance in behavioral shame, bodily shame was 24.5% in the variance in bodily shame, and depression was 27.5% in the variance in depression in Model 4. As the effects of social media unit increases 1-unit, behavioral shame increases by .035-units, and as shame proneness increases 1-unit behavioral shame increases .053-units. As the effects of social media unit increases 1-unit, bodily shame increases by .025-units, and as shame proneness increases 1-unit bodily shame increases .054-units. As the effects of a social media unit increases 1-unit, depression increases by 1.078-units, as behavioral shame increases 1-unit, depression increases by 4.540-units, as bodily shame increases 1-unit, depression increases by 2.048-units, and as shame proneness increases 1-unit, bodily depression increases by .159-units.

Behavioral shame as a mediator, had a positive effect as shown in the lower-level confidence interval and the upper-level confidence interval as it was related to x-social media use and covariate-shame proneness. Bodily shame as a mediator had a positive effect as shown in the lower-level confidence interval and the upper-level confidence interval as it was related to x-social media use and covariate-shame proneness. There was a positive effect between y-depression, x-social media use. Behavioral and bodily shame and shame proneness.

The mediation model predicted behavioral shame was 33.5% of the variance in behavioral shame, bodily shame was 24.7% in the variance in bodily shame, and depression was 28.5% in the variance in depression in Model 8. As the effects of social media unit increases 1-unit, behavioral shame increases by .040-units, as CSA increases 1-unit behavioral shame increases .108-units, as social media x CSA increases 1-unit behavioral shame decreases -.023-units, and as shame proneness increases 1-unit, behavioral shame increases .023. As the effects of social media unit increase 1-unit, bodily shame increases by .032-units, as CSA increases 1-unit bodily shame increases .069-units, as social media x CSA increases 1-unit bodily shame decreases -.031-units, and as shame proneness increases 1-unit, bodily shame increases .054. As the effects of a social media unit increases 1-unit, depression increases by 1.288-units, as behavioral shame increases 1-unit, depression increases by 4.416-units, as bodily shame increases 1-unit, depression increases by 2.025-units, as CSA increases 1-unit depression increases 1.704-units, as social media x CSA increases 1-unit depression decreases -.833-units, and as shame proneness increases 1-unit, bodily depression increases by .158-units.

When CSA was introduced as a moderating variable, behavioral shame as mediator, it had a positive effect as shown in the lower-level confidence interval and the upper-level confidence interval as it was related to x-social media, CSA, and the covariate-shame proneness.

Social media x CSA had a negative effect on behavioral shame in the lower-level confidence interval. When CSA was introduced as a moderating variable, bodily shame as a mediator, had a positive effect as shown in the lower-level confidence interval and the upper-level confidence interval as it was related to x-social media and the covariate-shame proneness. CSA and Social media x CSA had a negative effect on bodily shame in the lower-level confidence interval. When CSA was introduced as a moderating variable, depression-x had a positive effect as shown in the lower-level confidence interval and the upper-level confidence interval as it was related to x-social media, bodily shame -M1, behavior shame M2, CSA -W, social media x CSA, and the covariate-shame proneness.

**Table 2**

*Conditional Process Analysis Results Summarizing multiple models*

Source	Model 4			Model 8		
	<i>b</i>	LLCI	ULCI	<i>b</i>	LLCI	ULCI
Behavioral Shame $R=.574, R^2=.330, F(2,1251)=307.817, p<.001$ Model 4 $R=.579, R^2=.335, F(4,1249)=157.042, p<.001$ Model 8						
Social Media Hours	<b>.035</b>	.021	.049	<b>.040</b>	.023	.057
CSA				<b>.108</b>	.032	.184
Social Media x CSA				-.023	-.055	.008
Shame Proneness	<b>.053</b>	.049	.057	<b>.053</b>	.048	.057
Bodily Shame $R=.495, R^2=.245, F(2,1251)=202.598, p<.001$ Model 4 $R=.497, R^2=.247, F(4,1249)=102.453, p<.001$ Model 8						
Social Media Hours	<b>.025</b>	.007	.042	<b>.032</b>	.011	.053
CSA				<b>.069</b>	-.026	.163
Social Media x CSA				-.031	-.070	.009
Shame Proneness	<b>.054</b>	.049	.060	<b>.054</b>	.049	.059
Depression $R=.526, R^2=.276, F(4,1249)=119.460, p<.001$ Model 4 $R=.534, R^2=.285, F(6,1247)=82.747, p<.001$ Model 8						
Social Media Hours	<b>1.078</b>	.831	1.324	<b>1.288</b>	.999	1.577
Behavioral Shame	<b>4.540</b>	3.350	5.730	<b>4.416</b>	3.229	5.603
Bodily Shame	<b>2.048</b>	1.089	3.007	<b>2.025</b>	1.070	2.280
CSA				<b>1.704</b>	.386	3.021
Social Media x CSA				<b>-.833</b>	-1.378	-.288
Shame Proneness	<b>.159</b>	.067	.250	<b>.158</b>	.067	.250

Indirect Effects are represented in (**Table 3**). There was an indirect effect on depression when behavioral shame was added to social media hour use. There was also an indirect effect on depression when body shame was added to social media hour use. The significant indirect effects on the variables show that behavioral shame and bodily shame are significantly mediating the relationship between social media use hours and depression.

**Table 3**

*Indirect Effects*

	<i>effect</i>	<i>Se</i>	<i>LLCI</i>	<i>ULCI</i>
Total Effect	.210	.054	.109	.321
Social Media Hours → Behavioral Shame → Depression	.159	.042	.086	.250
Social media → Bodily Shame → Depression	.051	.024	.011	.106

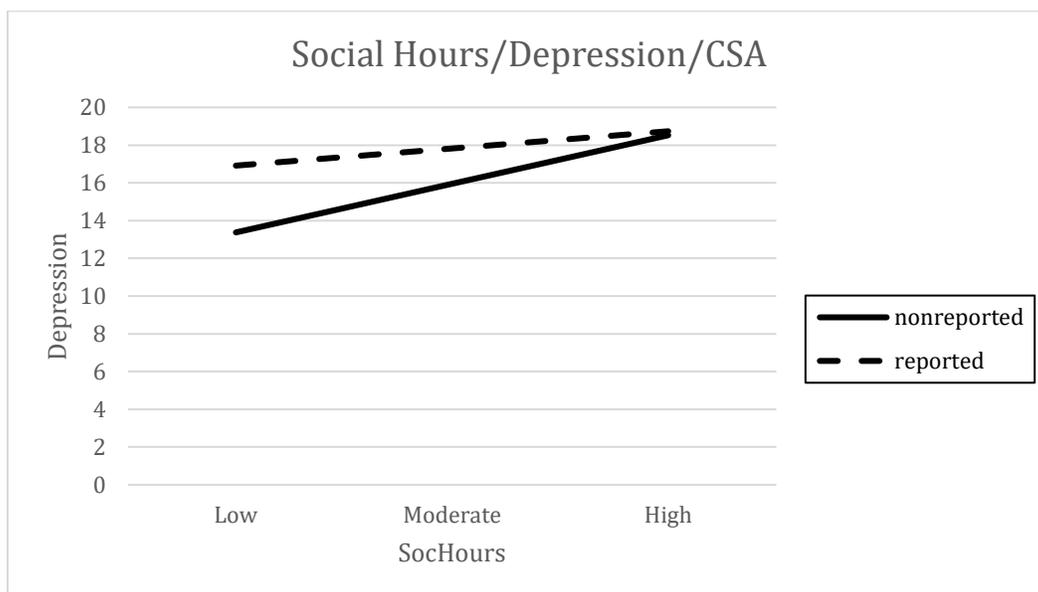
A split correlation between study variables of non-survivors of CSA and survivors of CSA are represented in (**Table 4**). The lower half of Table 4 represents correlations between study variables of non-survivors of CSA N=950 (75.7%) participants and the upper half represents the correlation between study variables of survivors of CSA N=304 (24.3%). Age showed the least amount of correlation between the other variables with low Pearson r values for both non-survivors and survivors of CSA. The correlations between shame proneness, behavioral shame, bodily shame and depression are all high showing strong correlations for both non-survivors of CSA and survivors of CSA. When looking at Facebook, Instagram, and Reddit showed low correlations and are not as significant. Social Media hours have low correlations with most of the variables but is most significant with depression in the non-survivors of CSA and is lower for survivors of CSA and depression.

**Table 4**  
*Correlations Between Study Variables of Non-Survivors of CSA and Survivors of CSA*

	1	2	3	4	5	6	7	8	9
1. Age	1	.002	.025	.043	-.071	.039	-.047	-.030	-.031
2. Shame	-.023	1	.599	.529	.487	.142	.011	-.109	.061
3. Behavioral Shame	-.095	.550	1	.761	.539	.114	.001	.025	.093
4. Bodily Shame	-.063	.474	.686	1	.453	.097	-.028	.004	.035
5. Depression	-.141	.287	.433	.390	1	.124	-.078	-.088	.133
6. Facebook	-.007	.027	.064	.008	.140	1	.273	-.002	.145
7. Instagram	-.114	.049	.037	.015	.137	.297	1	.174	.144
8. Reddit	.019	.043	-.012	.064	-.126	.048	.123	1	.189
9. Social Media Use	-.137	.098	.178	.134	.319	.101	.079	-.096	1

*Note.* The Pearson r values for Non-Survivors of CSA are provided in the lower diagonal while the Pearsons r values for Survivors of CSA are provided in the upper diagonal.

**Figure 1. Probing Moderation**



In **Figure 1**. Shows Probing Moderation between social media hours, depression and childhood sexual abuse. As expected from the data related to the relationship with social media hours use, CSA and depression, the graph represents this relationship accordingly.

### **Discussion**

Social media plays an increasing role in the lives of women, as new platforms continue to be introduced into culture an understanding of the impact is essential. As women turn to social media more and more to find information, engagement and recreation, attention should be paid to the impact of this use. Social media can be accessed from everywhere and anytime, increasing the likelihood of increased use. Mood can shape an individual's experience as they use social media, its impact on women who experience depression is valuable in understanding the future development of guidelines for social media use hours (Greenwood, 2010).

This cross-sectional study aims to identify if the increased use of social media can be associated with an increase in depression. It further aims to seek an association between the experience of bodily shame, and behavioral shame for increased depression. And finally, the study explores if social media use by women who experience child sexual abuse is associated with the increase of depression. The study utilized a co-variate of shame proneness to help explore the experienced shame, whether bodily, and behavioral, is associated with an increase in depression.

Three (3) specific social media sites were identified for the use of this study, Facebook, Instagram, and Reddit. These were selected due to the likelihood that women between the ages of 25-50 were most likely to spend their time on these specific social media sites. No determinations were made as to the perceived content of social media, this study considered the number of time/hours spent on social media, without the specific breakdown between these three social media sites. Participants identified the number of hours spent on social media and selected

which platforms they used.

Although intended for seemingly positive reasons, the use of social media is associated with increased depression (Rogers, 1998). When looking at hypothesis 1a: Increased social media use is associated with increased depression. The association with increased social media hours used the data showed a significant positive effect on depression. When looking at hypothesis 1b: Increased social media use and the experience of body and behavioral shame have an association with increased depression. The experience of shame is associated with an increase in depression, and this study aligned with that research, as there was an association found between those who experienced shame, increased social media and increased depression. The data showed a significant effect on depression. With hypothesis 1c: Increased social media use and the experience of body and behavioral shame utilizing a covariate of shame proneness has an association with increased depression. The association between the variables also had a significant positive effect on depression

When looking at the data related to hypothesis 2a: Increased social media use by women who experienced childhood sexual abuse is associated with increased depression. We sought to explore the relevance of childhood sexual assault experiences affecting the relationship between increased social media hours and depression. Knowing that Childhood sexual assault has been found to be associated with increased depression, as well as the experience of shame being associated with an increase in depression, and the experience of shame showing an association with increased depression. What came as a slight surprise was the association with the rate at which depression increased, as the use of social media increased. Both non-survivors of CSA and survivors of CSA had an association with the increase in depression, however, non-survivors were associated with higher depression rates than survivors. We thought we would see the CSA

survivors reporting higher association rates of depression, as social media hours increase, but that was not the case. With hypothesis 2b: Increased social media use by women who experienced childhood sexual assault, bodily, and behavioral shame is associated with increased depression. When bodily and behavioral shame were added to social media hours and CSA, survivors and non-survivors, the association with depression had some effect. With hypothesis 2c: Increased social media use by women who experienced childhood sexual abuse, bodily and behavioral shame, and shame proneness is associated with increased depression. The data resulted in a positively significant effect on the associations between all variables and depression.

The research and clinical implications of this study include a need for continued research, and the development of tools for clinical assessment, conceptualization and interventions for clients experiencing depression, body shame and behavioral shame. Practitioners can consider the time/ hours a client uses social media as an aspect for considering protective and/or risk factor for increased depression. Case conceptualizations can increase in robust assessment, hypothesis, treatment planning and intervention/modality selection. In addition, the development of specific intervention models/protocols can support a client whose social media use puts them at risk of increased depression. The importance of considering a client's experience with shame is also essential to understanding and treating depression.

Limitations of this study include the use of cross-sectional design of the study which did not allow us to investigate changes over time in social media use and its impact on depression. This study did not address the impact of social media hours for men, or women under the age of 25 or over the age of 50, nor did this study evaluate the vast Arway of social media platforms. Additionally, it was not considered how the participants perceived the content of the social

media identified as positive/negative. The temporal precedence limitation, like other cross-sectional studies, creates some limitation, in there being some knowledge about what comes first, shame, depression or increased social media hours.

#### *Future research*

As social media has now become an integral part of society so has the change in women's perception of self because of CSA, depression, body and behavioral shame, based on social media hours. With a general correlation between teen social media use and depression, not all outcomes were consistent, such as their time spent on social media and depression, the data is often poor, (Khalaf et al., 2023; Asthana, 2021), social media use based on the dependent variables that were measured in this study continue to show a negative effect on women ages 25-50, even now in the year 2025. Limitations concerning research on women who have a positive body image through social media that provides social capital and social support and dependent on how many hours of social media usage (Cohen et al., 2019; Primack et al., 2017) effects the outcome and if it is also dependent on the social media platform or the hours of use. Future research due to the minimal findings of research on social media, CSA, depression, relationship future research is needed in this area.

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Matthew E. Lemberger-Truelove, JCD Editor,  
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April 24, 2025

Dear Mr. Lemberger-Truelove,

We would like to submit our original research article entitled, Cross-Sectional Mediation Model and the association of the effects of Social Media Use and Depression mediated by bodily and behavior shame with child sexual assault as a moderator and TOSCA Shame as a covariate, for consideration. We are confirming that this is an original work that has not been published elsewhere, nor is it under consideration for publication anywhere else.

In this cross-sectional study of 1,254 women between the ages of 25-50, it shows that there is an association that had a significant influence on how social media played a part in how women respond based on childhood sexual abuse, bodily and behavioral shame, along with Shame proneness.

The increase in effects on how women aged 25-50 reacted to prolonged usage of social media such as Facebook, Instagram, and Reddit do show an association on how depression was enhanced. We believe our findings will allow your readers to have a better understanding of the factors involved in seeing how identifiable reactions are based on social media.

We do not have any conflicts of interest to disclose.

Any correspondence concerning this manuscript can be addressed to us at: [mscoville@liberty.edu](mailto:mscoville@liberty.edu), [jmsilva1@liberty.edu](mailto:jmsilva1@liberty.edu), or [bvancook@liberty.edu](mailto:bvancook@liberty.edu).

Sincerely,  
Michael Scoville,  
Jacqueline M. Silva  
Bridget D. Van Cook