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# Cyberbullying Victimization and Corresponding Distress in Women of Color

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*Georgia State University*

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## ACCEPTANCE

This dissertation, EXAMINING EXPERIENCES OF CYBERBULLYING VICTIMIZATION AND CORRESPONDING DISTRESS IN WOMEN OF COLOR, by JOANNA MENENDEZ, was prepared under the direction of the candidates Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of requirements for the degree, Doctor of Philosophy, in the College of Education & Human Development, Georgia State University.

The Dissertation Advisory Committee and the student's Department Chairperson, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty.

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Joanna Menendez

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**Menendez, J.** (2013, January). *Barriers that Hispanic/Latinos face in the mental health field*. Presented in the 2013 National Multicultural Conference Summit, Houston, TX

# EXAMINING EXPERIENCES OF CYBERBULLYING VICTIMIZATION AND CORRESPONDING DISTRESS IN WOMEN OF COLOR

by

JOANNA MENENDEZ

Under the Direction of Don E. Davis, Ph.D.

## ABSTRACT

Online discrimination towards women and people of color has reached epidemic levels (Fox, Cruz, & Young Lee, 2015). Any woman or person of color who uses the internet runs the risk of attracting online users who would engage them in demeaning ways. As such, it is important that researchers are able to assess and understand these experiences and the possible effects on their well-being. In Chapter 1, I conducted a systematic review of cyberbullying measures. Although studies have documented the link between cyberbullying experiences and stress (i.e., psychological distress or perceived stress), there is a need to explore factors, such as intersectional identities, that may amplify this relationship. Using minority stress theory and intersectionality theory as a guiding framework, in Chapter 2, I examined three moderators of the relationship between cybervictimization experiences and stress—namely, attributing offenses to one's race, gender, or both (i.e., being a woman of color). Data were collected from a sample of 275 adult women of color recruited from a large urban university in the southeast and through electronic listservs and social media platforms. Results from the study revealed that cybervictimization experiences were significant and positively related to both measures of stress. My primary hypotheses were partially supported. Attributions of cybervictimization to gender or race were associated with both psychological distress and perceived stress. These results held even after controlling for neuroticism. I did not, however, find that the interaction of race and

gender attributions amplified the relationship. I discuss implications for future research and practical implications for practitioners.

INDEX WORDS: cybervictimization, women of color, online victimization, cyberbullying, stress, racism, sexism, social media, online harassment



EXAMINING EXPERIENCES OF CYBERBULLYING VICTIMIZATION AND  
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by

JOANNA MENENDEZ, M.S.

A Dissertation

Presented in Partial Fulfillment of Requirements for the

Degree of

Doctor of Philosophy

in

Counseling Psychology

in

Department of Counseling and Psychological Services

in

The College of Education and Human Development

Georgia State University

Atlanta, GA  
2020

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## **DEDICATION**

I dedicate this to mis padres. Mom and Dad, thank you for giving me the support to follow my dream. You encouraged me to continue even when it felt impossible. Thank you for staying up and checking in on me during those long nights, reminding me anything is possible with faith, and for making me endless cups of hot tea.

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*“ La educacion no es una obligacion sino un pasaporte para tu futuro ”*

*-Ana Menendez*

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## 1. ASSESSING CYBERBULLYING: A CRITICAL REVIEW OF CYBERBULLYING MEASURES

*“People don’t realize how badly verbal harassment and cyber bullying affects you. I wish they had hit me in the face and gotten it over with, because what they said to me, sticks to me to this day. It affected me into the person I am today.”*

*~Demi Lovato, 2012*

The words of Demi Lovato (2012) portray how profoundly cyberbullying can cause psychological harm. In the matter of a few years, technology went from occupying a limited portion of people’s social lives (e.g., desktop computers) to providing constant exposure to a growing online social world (e.g., smartphones; Betts & Spenser, 2017). These technological changes provide new ways to maintain relationships across the globe. At the same time, these changes also amplified the potential for displays of power and domination through cyberbullying. Cyberbullying often builds on prejudice and amplifies dehumanization, as the psychological distance allows perpetrators to aggress with anonymity and with minimal feedback on how their dehumanizing behavior harms others (Penny, 2014).

There is an impressive body of literature that focuses on youth’s experiences with cyberbullying, both as perpetrators and victims (see Kowalski et al., 2014; Tokunaga, 2010 for critical reviews and meta-analyses). Progress has been made in understanding the prevalence rates and contributing factors for the likelihood and consequences of involvement in cyberbullying (Espinoza & Wright, 2018). These studies have also led to development of several instruments to assess cyberbullying since 2004 (Tokunaga, 2010). These studies, however, have produced ambiguous results, for example, with regard to prevalence rates (Berne et al., 2013). Currently, it is unclear whether divergent findings may reflect actual variability across



populations (e.g., age, race, or gender) or whether differences may simply reflect measurement limitations. Limitations may include (a) lack of agreement as to the exact concept being researched, (b) a focus on measuring victimization over perpetration, (c) difficulty classifying participants as victims or perpetrators; and (d) limited evidence of reliability and validity for many measures in circulation (Berne et al., 2013). Similar measurement problems, which received substantial focus in the study of traditional bullying (Espelage & Swearer, 2003; Furlong et al., 2010), have recently drawn increased focus in the study of cyberbullying (Berne et al., 2013; Kowalski et al., 2014).

Berne and colleagues (2013) recently completed a systematic review of 44 instruments published prior to October 2010. The authors collected information on how each instrument measured cyberbullying victimization or perpetration (e.g., scales and subscales; device or media assessed) and the presence of psychometric properties. There were several key findings from their review. First, the field had diverging definitions of cyberbullying or cybervictimization (i.e., both concepts were available in around half of the measures) which shows the variation of the constructs used in the measures. Second, all measures used self-reports. Third, only around a quarter of studies reported exploratory or confirmatory factor analyses results, and only around half of the measures reported evidence of construct validity. Fourth, around half of the studies included devices such as mobile phone.

Although this review identified some progress in the measurement of cyberbullying, it also had several key limitations. First, the review included a multitude of concepts such as cyberbullying, cybervictimization, cyber harassment, or cyberaggression, without clearly defining the primary construct of interest. The lack of a strong definition of cyberbullying resulted in the aforementioned review lacking clarity as to what various research teams actually

assessed in their study. For example, a variety of online offenses might occur, but cyberbullying refers to offenses characterized by an imbalance of power in the relationship and the repetitive nature of offenses within the relationship with the offender (e.g., group aspect and potential for others cyberbullying a complete stranger; Smith, 2011; Wolak et al., 2007). This led to conceptual breadth and precluded a detailed and critical analysis of which measures appear to be most accurately capturing the specific construct of cyberbullying.

Thus, there is still a need to consolidate definitions in order to establish a standard for evaluating construct validity. This foundational step will allow for meaningful comparisons between measures, can suggest which measures have stronger or weaker evidence for reliability and validity, and encourage more consistent use of a narrower set of measures within the cyberbullying literature. This will be useful for addressing the ambiguous results among previous studies which have made it difficult to compare the prevalence among different geographic areas, time points, genders, races, and other demographic variables. Accordingly, the purpose of this chapter is to provide a more precise and critical review of cyberbullying measures using a standard set of construct validity criteria.

### **Traditional Bullying and Cyberbullying**

Although cyberbullying has been defined variously, a meta-analysis of cyberbullying studies (Kowalski et al., 2014) was published in one of psychology's premier journals, *Psychological Bulletin*. They advanced an operational definition that I will use to determine criteria for inclusion and evaluation of measures of cyberbullying. Kowalski and colleagues (2014) defined cyberbullying as containing four components: "(a) intentional aggressive behavior (b) is carried out repeatedly, (c) occurs between a perpetrator and victim who are unequal in power and (d) occurs through electronic technologies" (p. 1109). Thus, cyberbullying

is a willful behavior which repeatedly inflicts harm through electronic devices such as computers, tablets or cell phones, with the purpose of harming the individual's well-being (Kowalski et al., 2014).

Their review also acknowledged some areas where the field is still working to reach consensus. For example, how is cyberbullying distinct from bullying that occurs in person? How does the online environment change the role of power (Menesini et al., 2011)? Relatedly, what are the primary factors that influence power, such as an offender's ability to take advantage of the scalability of online social exclusion (Nocentini et al., 2010)? Also, how does the online environment affect the repeated nature of bullying offenses (e.g., Tokuna, 2010)? Thus, the key problem is that the new social environments have raised a variety of questions about the essential and constitutive elements of bullying as opposed to other types of offenses.

Cyberbullying not only differs from face-to-face bullying, but also shares considerable overlap in several ways. First, the nature of intentionality is shared by both cyberbullying and face-to-face bullying. Intentionality involves (a) a desire to cause harm, (b) the belief that the behavior will cause harm, and (c) the belief that the target would be motivated to avoid experiencing the harm (Anderson & Bushman, 2002; Bushman & Huesmann, 2010; Gibb & Devereux, 2016). Unlike face-to-face bullying, cyberbullying intentionality could also be subconscious as people comment on or forward a post to others that may cause harm. Intentionality has also shown to be relevant to the cyberbullying definition across cultures (Gibb & Devereux, 2014; 2016).

Second, face-to-face bullying victims are repeatedly hurt by their bullies, usually at school. On the other hand, repetition has been widely used in cyberbullying definitions as a single incident that could be viewed and spread worldwide within seconds and without the

continuous contribution by the perpetrator. This allows the duration of the incident to be much longer as the content continues to exist online and be available for repeated exposure (Keum & Miller, 2017). Although the cyberbullying perpetrator does not continually attack the cyberbullying victim, the cyberbullying action is repeated through the exposure to others. For example, a cyberbullying perpetrator may post a hateful comment, which is seen, commented on, and forwarded by many others within seconds. The difference in how repetition presents itself in face-to-face bullying and cyberbullying sheds some light on the difference between the two concepts.

Third, the online location also puts pressure on aspects of the cyberbullying definition. For example, if someone perpetrates anonymously, then typical factors that determine power are reduced. In person, a physically stronger individual may wield more power; however, power online may occur when a person possesses greater skill at online aggression tactics, has a greater social network, or understands how to take advantage of the scalability of online communication. Cyberbullying perpetrators may follow the same pattern of face-to-face bullying by targeting victims who are perceived as less powerful than themselves in the physical world (e.g., individual social identities such as race, gender, or sexual identities; Williams & Guerra, 2007). The power imbalance in cyberbullying can also take several forms: social, psychological, or relational (Dooley et al., 2009; Pyzalski, 2011). Nonetheless, one source of power that seems central to the toxicity of cyberbullying (Aalsma & Brown, 2008) is the potential for anonymity (Mark & Ratliffe, 2011). Also, cyberbullying has a strong potential to amplify shame and humiliation, because some offenders can produce a large audience within a short period of time (Pelfrey & Weber, 2013; Slonje et al., 2013).

Taken together, examining imbalance of power empirically in cyberbullying would provide an important contribution to the cyberbullying literature, specifically related to social identities and stress. The relationship that exists between marginalized groups, mental health concerns, and face-to-face bullying has been fairly well-established (Peskin et al., 2006; Romero et al., 2013; Waasdorp & Bradshaw, 2011). However, few studies have documented the cyberbullying experiences of marginalized groups (Stoll & Block, 2015; Tynes et al., 2010) even though marginalized groups disproportionately experience online abuse relative to majority groups (Duggan, 2014; Lenhart et al., 2016).

For example, women tend to experience a wider variety of online abuse and are affected by more serious violations, such as being stalked, sexually harassed, or physically threatened (Duggan, 2014; Lenhart et al., 2017). Furthermore, people of color are more susceptible to online abuse, such as online harassment due to their race, compared to white people (Duggan, 2017). Finally, individuals in the LGBT community tend to experience more partner digital abuse (Lenhart et al., 2016). The online environment can be particularly devastating for marginalized groups since it limits their ability to participate equitably and safely in the cyberworld (Blackwell et al., 2017).

This online environment has created a new arena for marginalized groups to encounter online abuse by offenders who can operate anonymously and attract a wide audience within seconds by using hateful, stereotypical language, compared to face-to-face bullying. Cyberbullying experiences often include identity related prejudice such as hateful stereotypes regarding race, gender, sex, or sexual orientation (Tynes et al., 2010), which could be perceived as a power differential in the relationship of the perpetrator and victim. Future research on cyberbullying should attempt to include identity variables within the measures.

## **Purpose of the Present Review**

As stated previously, the diverse array of measures and definitions that are currently used to assess cyberbullying make it difficult to compare results across studies or to feel confident that the measures are honing in on the specific construct of cyberbullying. This can lead to a fragmented body of literature that may not be able to offer clear, accurate, and consistent conclusions. Given the proliferation of measures of cyberbullying and the conceptual range of these measures, some coherence is needed for the field to advance with a similar purpose as face-to-face bullying. Therefore, the field may benefit from more consistent use of a smaller number of psychometrically strong measures.

Although Berne and colleagues (2013) systematic review of cyberbullying measures provided an overview of the current instruments designed to assess cyberbullying, they did not evaluate them against a consistent set of criteria for construct validity. Thus, an important gap remains in identifying the strongest measures currently available for cyberbullying. In my review, I refined Berne and colleagues (2013) systematic review by using a pre-specified approach. I focused on measures that (a) cover the construct of cyberbullying (b) are multi-items; and (c) provided information regarding psychometric properties. The advantage of this strategy is that it narrows the number of measures to review and hones in on measures that have some degree of psychometric properties to evaluate. I will evaluate each measure based on the following: (a) development of items and evidence of factor structure; (b) evidence of reliability; and (c) evidence of construct validity. Finally, I end my description of each measure with (d) a summary of key themes and practical suggestions for researchers.

Worthington and Whittaker (2006) outlined best practices for establishing evidence for the factor structure of scale, construct validity, and reliability. However, given the lack of

consensus regarding the definition of cyberbullying, I want to clarify my strategy for evaluating construct validity. First, I adopted Kowalski and colleagues (2014) operational definition that cyberbullying involves “(a) intentional aggressive behavior that (b) is carried out repeatedly, (c) occurs between a perpetrator and victim who are unequal in power, and (d) occurs through electronic technologies” (p.1109). For each published measure of cyberbullying, I rated items based on Kowalski and colleagues (2014) four components of cyberbullying to examine whether the measures have evidence for assessing the core aspect of the operational definition of cyberbullying. Next, I identified constructs that should be theoretically related to each aspect of the cyberbullying definition and examined whether studies have found such relationships in support of construct validity. These criteria are summarized in Table 1.1

Table 1.1

*Criteria for Assessing Construct Validity*

<b>Components</b>	<b>Description</b>	<b>Convergent Validity</b>
<b>Intentional Aggressive Behavior</b>	Act of aggression such as being ignored, disrespected, etc. Provoking others to engage in a similar encounter. Desire to cause harm; belief that the behavior will cause harm; belief that the target would be motivated to avoid experiencing the harm.	<p>Cyberbullying: High anger, narcissism, aggression, anti-social behaviors, moral disengagement, impulsivity; Low affective empathy, emotional intelligence</p> <p>Cybervictimization: high depression, loneliness, anxiety; low self-esteem</p>
<b>Repetition</b>	Frequency of cyberbullying is asked. The behavior is repeated through the exposure to others. Comments are posted by the perpetrator, commented on, and forwarded by others.	Operationalized in self-report questionnaires (e.g., participants are asked to indicate the frequency of their occurrences); multi-item measures

<b>Imbalance of Power</b>	Anonymous. Can take many forms: social, relational, or psychological. One person can be more technological savvy. Perpetrator perceives themselves in higher rank position in the bully community. Target victims who are perceived as less powerful than themselves in the physical world (e.g., race, gender, disability, sexuality identity).	Cyberbullying: privileged identities; technological prowess; higher/lower self-esteem  Cybervictimization: marginalized identities; lack of technological skills; lower self-esteem
<b>Occurs through Electronic Technologies</b>	Behaviors can occur 24 hours a day, 7 days a week. They occur through websites, social media sites, apps, message boards, text messages, or emails.	High use of online devices/media

### Method

I conducted a literature search, current as of October 20, 2017. First, I consulted existing reviews of cyberbullying (e.g., Berne et al., 2013; Kowalski et al., 2014) to identify measures of cyberbullying. Next, I searched PsychINFO and Google Scholar using the terms [*cybervictimization*], [*online discrimination*], [*online victimization*], [*online sexual harassment*], [*cyberbullying*], AND [*online sexism*] and identified all empirical studies. These queries yielded 1554 abstracts. If abstracts indicated a quantitative study of cyberbullying, then I retrieved the article and examined the method and results for inclusion criteria. I included measures from peer-reviewed articles; which included multiple items, provided information regarding psychometric properties such as factor analysis, internal consistency, and construct validity; and had at least one subscale focused on either cyberbullying or cybervictimization. Of the 48 full text articles examined, I found 20 measures of cyberbullying and cybervictimization that met inclusion criteria and spanning the years 2010-2018 (see Table 1.2 for a summary of psychometric data).



To compare content between measures and assess content validity, I coded each item from each measures based on content domain. I read all items from the cyberbullying and cybervictimization measures and each item was then independently assigned to a content category from Table 1.1 (e.g., if a measure included all 4 components of the proposed definition they received four stars). Table 1.3 outlines the criteria for making recommendations and includes ratings for each measure on definition, reliability, validity, and ease of administration.

Table 1.2 Cyberbullying Measures: Summary Data

Measure	Definition	Reliability			Validity	
		Internal Consistency	Temporal Stability	Interrater Reliability	Convergent ( $r > .30$ )	External
Online Victimization Scale (Tynes et al., 2010; 21 items)	Adapted a definition from Hinduja & Patchin's (2009) definition and added components of race, sexual, and vicarious experiences Items included: E, I, R, IP	Subscale $\alpha$ s = .71 to .88 (2 samples)	None reported	None Reported	Positively correlated with depression, anxiety, perceived stress; decreased self-esteem and satisfaction with life; ethnic identity is negatively associated with online racial discrimination for girls	Adolescents; Undergraduate Students; Black; White
Cyberbullying Questionnaire (Calvete et al., 2010; 25 items)	Did not generate a new definition but used Smith's (2006) definition. Items included: E, I, R	Total score $\alpha = .96$ , Subscale $\alpha$ s = .79 to .96 (1 sample)	None reported	Not available	Positively correlated with proactive aggressiveness, problematic internet use	Adolescents from Spain and Mexico
E-Victimisation Scale and E-	Did not generate a	Subscale $\alpha$ s = .92 to .95 (2 samples)	$r = .89$ to .92 (Gencgog	Not available	Positively correlated with depression,	Adolescents & Undergraduate students from

Bullying Scale (Lam & Li, 2013; 11 items)	new definition. Items included: E, I, R		an & Cikrikci, 2015)		anxiety, moral disengagement, and cyberbullying	China, Turkey, and Kuwait
Cybervictimization Questionnaire (Alvarez-Garcia et al., 2017); 19 items)	Did not generate a new definition but used Nocentini et al. (2010) cyberbullying components. Items included: E, I, R	Subscale $\alpha$ s = .74 to .81 (1 sample)	None reported	Not available	Positively correlated with antisocial behaviors, antisocial friendship, impulsivity, internet risk behaviors, offline school victimization; Negatively correlated with self-esteem	Adolescents from Spain
Cyber Victim and Bullying Scale (Cetin et al., 2011; 22 items)	Did not generate a new definition. Items included: E, I, R, IP	Total score $\alpha$ s = .89; Subscale $\alpha$ s = .68 to .86 (1 sample)	Total rs = .85 to .90; subscales rs = >.69 to .86 (30 days)	None reported	Positively correlated with aggression	Adolescents and Undergraduate students from Turkey
Perceived Online Racism Scale (Keum & Miller, 2017; 30 items)	Did not generate a new definition but used the theory of online racism. Items included: E, I, R, IP	Total score $\alpha$ = .92; Subscale $\alpha$ s = .90 to .95 (2 samples)	Rs = .72 to .85 (4 - weeks)	Not available	Positively correlated with racism related stress	Community participants (ages 18 to 67); Black; Asian; Latinx; Multiracial
Cyberaggression and Cybervictimization (Shapka & Maghsoudi, 2017; 24 items)	Did not generate a new definition. Items included: E, I, R, IP	Total score $\alpha$ = .90; Subscale $\alpha$ s = .84 to .90 (2 samples)	None reported	None reported	Positively correlated overt aggression, relational aggression, depression, anxiety, and rumination	Adolescents from Canada; East Asian; South Asian; White

Cyberbullying Test (Garaigordobil, 2017; 45 items)	Did not generate a new definition. Items included: E, I, R, IP	Subscale $\alpha$ s = .82 to .91 (2 samples)	rs - .63 to .80 (3 months)	Not available	Positively correlated with conflict resolution strategies, neuroticism, antisocial behavior, aggressiveness. Negatively correlated with agreeableness, responsibility, self-esteem, social adjustment	Adolescents from Spain
Cyberbullying and Online Aggression Survey Instrument (Hinduja & Patchin, 2007, 2009, 2016; 49 items)	Generated their own definition. Items included: E, I, R	Subscale $\alpha$ s = .79 to .97 (1 sample)	None reported	Not available	Positively correlated with offline problem behaviors, narcissism vulnerability, narcissism grandiosity,	Children and Adolescents from USA, India, Slovakia; Adults from Israel
Florence CyberBullying-CyberVictimization Scales (Palladino et al., 2015; 18 items)	Generated their own definition. Items included: E, I, R	Subscale $\alpha$ s = .63 to .78 (2 samples)	rs = .16 to .47 (3 months)	Not available	Positively correlated with internalizing and externalizing symptoms, cybervictimization global key questions	Adolescents from Italy
European Cyberbullying Intervention Project Questionnaire (Brighi et al., 2012; 22 items)	Did not generate a new definition. Items included: E, I, R, IP	Subscale score $\alpha$ s = .93 to .97 (2 samples)	None reported	Not available	Positively correlated with victimization, co-involvement "bully-victim," traditional bullying	Children & Adolescents; Poland; Spain; Italy; UK; Germany; Greece; Colombia; Midwestern Suburban City
Cyberbullying Scale (Stewart et al., 2014; 16 items)	Did not generate a new definition.	Total score $\alpha$ = .94 (2 samples)	None reported	Not available	Positively correlated with anxiety,	Adolescents; Black; White; Multiethnic

	Items included: E, I, R				depression, and loneliness	
Multidimensional Offline and Online Peer Victimization Scale (Sumter et al., 2015; 20 items)	Did not generate a new definition. Items included: E, I, R	Subscale $\alpha$ s = .82 to .90 (2 samples)	None reported	Not available	Positively correlated with loneliness; Negatively correlated with life satisfaction and self-esteem	Children and Adolescents from the Netherlands;
Cyberbullying Scale (Menesini et al., 2011; 10 items)	Did not generate a new definition. Items included: E, I, R	Subscale $\alpha$ s = .72 to .87 (2 samples)	None reported	Not available	Positively correlated with immoral behaviors, disengaged behaviors, traditional bullying, traditional victimization	Adolescents from Italy
Cyberbullying Perpetration and Cyberbullying Victimization (Lee et al., 2017; 47 items)	Generated their own definition. Items included: E, I, R	Total score $\alpha$ s = .93 to .95; Subscale $\alpha$ s = .73 to .92 (1 sample)	None reported	Not available	Positively correlated with aggression, peer victimization	Undergraduate students
Cyber Victimization Survey (Brown et al., 2014; 15 items)	Did not generate a new definition. Items included: E, I, R	Total score $\alpha$ = .92 (1 sample)	None reported	Not available	Positively correlated to cyberbullying	Adolescents & Undergraduate students; White; Latinx; Asian; Black
Revised Cyber Bullying Inventory-II (Topcu & Erdur-Baker, 2018; 10 items)	Did not generate a new definition but used Smith's (2006) definition. Items included: E, I, R	Total score $\alpha$ s = .79 to .80 (1 samples)	None reported	Not available	Positively correlated with internet use, traditional bullying, traditional victimization	Adolescents from Turkey

Personal Experience Checklist (Hunt et al., 2012; 32 items)	Did not generate a new definition. Items included: E, I, R	Subscale $\alpha$ s = .78 to .91 (2 samples)	Total rs = .79; subscales rs = .61 to .86 (2-weeks)	None reported	Positively correlated with physical threat, social threat, and hostility	Children & Adolescents from Australia
Cyber Victimization Experiences & Cyberbullying Behavior Scales (Betts & Spencer, 2017; 27 items)	Did not generate a new definition. Items included: E, I, R	Subscale score $\alpha$ s = .79 to .91 (2 samples)	None reported	Not available	Positively correlated with victimization and bullying	Adolescents; White; Egyptian
No Name Scale (Akbulut et al., 2010; 28 items)	Did not generate a new definition. Items included: E, I, R	Total score $\alpha$ = .96 (2 samples)	None reported	Not available	Not significantly correlated with relevant constructs	Adolescents from Turkey

Note: The following letters represent components in the definition of cyberbullying included in the items: Electronic device/media = E; Intentional Aggressive Behavior = I; Carried out Repeatedly = R; Imbalance of Power = IP

Table 1.3 Cyberbullying Measures: Ratings

Measure	Operational Definition	Reliability	Validity	Ease of Administration
Online Victimization Scale (OVS; Tynes et al., 2010)	Definition: ★ ★ ★ Components: ★ ★ ★ ★	Internal: ★ ★ ★ ★ Temporal: ★ Interrater: ★	Factor structure: ★ ★ ★ Convergent: ★ ★ ★ ★ Criterion: ★ ★ ★ ★ External: ★ ★ ★	★ ★ ★

Cyberbullying Questionnaire (CBQ; Calvete et al., 2010)	Definition: ★ ★ Components: ★ ★ ★	Internal: ★ ★ ★ ★ Temporal: ★ Interrater: ★	Factor structure: ★ ★ ★ Convergent: ★ ★ ★ Criterion: ★ ★ ★ ★ External: ★ ★	★ ★ ★
E-Victimisation Scale and E-Bullying Scale (EVS/EBS; Lam & Li, 2013)	Definition: ★ Components: ★ ★ ★	Internal: ★ ★ ★ ★ Temporal: ★ ★ ★ ★ Interrater: ★	Factor structure: ★ ★ ★ ★ Convergent: ★ ★ ★ Criterion: ★ ★ ★ ★ External: ★ ★ ★	★ ★ ★
Cybervictimization Questionnaire for Adolescents (CYVIC; Alvarez-Garcia et al., 2017)	Definition: ★ Components: ★ ★ ★ ★	Internal: ★ ★ ★ Temporal: ★ Interrater: ★	Factor structure: ★ ★ ★ Convergent: ★ ★ ★ Criterion: ★ ★ ★ ★ External: ★ ★	★ ★ ★
Cyber Victim & Bullying Scale (CVBS; Cetin et al., 2011)	Definition: ★ Components: ★ ★ ★ ★	Internal: ★ ★ ★	Factor structure: ★ ★ ★ ★ Convergent: ★ ★ ★	★ ★ ★

		Temporal: ★ ★ ★ ★	Criterion: ★ ★ ★	
		Interrater: ★	External: ★ ★ ★	
Perceived Online Racism Scale (PORS; Keum & Miller, 2017)	Definition: ★ Components: ★ ★ ★ ★	Internal: ★ ★ ★ ★ Temporal: ★ ★ ★ ★ ★ Interrater: ★	Factor structure: ★ ★ ★ ★ Convergent: ★ ★ ★ ★ Criterion: ★ ★ ★ ★ External: ★ ★ ★ ★	★ ★ ★
Cyberaggression and Cybervictimization (CAV; Shapka & Maghsoudi, 2017)	Definition: ★ Components: ★ ★ ★ ★	Internal: ★ ★ ★ ★ Temporal: ★ Interrater: ★	Factor structure: ★ ★ ★ Convergent: ★ ★ ★ ★ Criterion: ★ ★ ★ ★ External: ★ ★	★ ★ ★
Cyberbullying Test (CBT; Garaigordobil, 2017)	Definition: ★ Components: ★ ★ ★ ★	Internal: ★ ★ ★ ★ Temporal: ★ ★ ★ ★ Interrater: ★	Factor structure: ★ ★ ★ ★ Convergent: ★ ★ ★ Criterion: ★ ★ External: ★ ★	★ ★ ★

Cyberbullying and Online Aggression Survey instrument (CB&OAS; Hinduja & Patchin, 2007; 2009; 2016)	Definition: ★ ★ ★ Components: ★ ★ ★ ★ ★	Internal: ★ ★ ★ ★ ★ Temporal: ★ ★ ★ ★ ★ Interrater: ★ ★ ★ ★ ★	Factor structure: ★ ★ ★ ★ ★ Convergent: ★ ★ ★ ★ ★ Criterion: ★ ★ ★ ★ ★ External: ★ ★ ★ ★ ★	★ ★ ★ ★ ★
Florence Cyberbullying-Cybervictimization Scales (FCBVS; Palladino et al., 2015)	Definition: ★ ★ ★ Components: ★ ★ ★ ★ ★	Internal: ★ ★ ★ ★ ★ Temporal: ★ ★ ★ ★ ★ Interrater: ★ ★ ★ ★ ★	Factor structure: ★ ★ ★ ★ ★ Convergent: ★ ★ ★ ★ ★ Criterion: ★ ★ ★ ★ ★ External: ★ ★ ★ ★ ★	★ ★ ★ ★ ★
European Cyberbullying Intervention Project Questionnaire (ECIPQ; Brighi et al., 2012)	Definition: ★ ★ ★ Components: ★ ★ ★ ★ ★	Internal: ★ ★ ★ ★ ★ Temporal: ★ ★ ★ ★ ★ Interrater: ★ ★ ★ ★ ★	Factor structure: ★ ★ ★ ★ ★ Convergent: ★ ★ ★ ★ ★ Criterion: ★ ★ ★ ★ ★ External: ★ ★ ★ ★ ★	★ ★ ★ ★ ★
Cyberbullying Scale (CBS; Stewart et al., 2014)	Definition: ★ ★ ★ Components: ★ ★ ★ ★ ★	Internal: ★ ★ ★ ★ ★ Temporal: ★ ★ ★ ★ ★ Interrater: ★ ★ ★ ★ ★	Factor structure: ★ ★ ★ ★ ★ Convergent: ★ ★ ★ ★ ★ Criterion: ★ ★ ★ ★ ★ External: ★ ★ ★ ★ ★	★ ★ ★ ★ ★



Multidimensional Offline and Online Peer Victimization Scale (MOOPV; Sumter et al., 2015)	Definition: ★ Components: ★ ★	Internal: ★ ★ ★ Temporal: ★ Interrater: ★	Factor structure: ★ ★ ★ Convergent: ★ ★ ★ Criterion: ★ ★ ★ External: ★ ★	★ ★ ★
Cyberbullying Scale (CS; Menesini et al., 2011)	Definition: ★ Components: ★ ★	Internal: ★ ★ ★ Temporal: ★ Interrater: ★	Factor structure: ★ ★ ★ Convergent: ★ ★ ★ Criterion: ★ ★ ★ External: ★ ★	★ ★ ★
Cyberbullying Perpetration and Cyberbullying Victimization (CBP/CBV; Lee et al., 2017)	Definition: ★ ★ ★ Components: ★ ★ ★	Internal: ★ ★ ★ Temporal: ★ Interrater: ★	Factor structure: ★ ★ ★ Convergent: ★ ★ ★ Criterion: ★ ★ ★ External: ★ ★	★ ★ ★
Cyber Victimization Survey (CVS; Brown et al., 2014)	Definition: ★ Components: ★ ★	Internal: ★ ★ ★ Temporal: ★ Interrater: ★	Factor structure: ★ ★ ★ Convergent: ★ ★ ★ Criterion: ★ ★ ★ External: ★ ★	★ ★ ★

Revised Cyber Bullying Inventory -II (RCBI-II; Topcu & Erdur-Baker, 2018)	Definition: ★ ★ Components: ★ ★ ★	Internal: ★ ★ ★ ★ Temporal: ★ Interrater: ★	Factor structure: ★ ★ ★ Convergent: ★ ★ Criterion: ★ External: ★	★ ★ ★
Personal Experiences Checklist (PECK; Hunt et al., 2012)	Definition: ★ Components: ★ ★ ★	Internal: ★ ★ ★ ★ Temporal: ★ ★ ★ Interrater: ★	Factor structure: ★ ★ ★ Convergent: ★ ★ Criterion: ★ External: ★ ★	★ ★ ★
Cyber Victimization Experiences & Cyberbullying Behavior Scales (CVE & CBS; Betts & Spencer, 2017)	Definition: ★ Components: ★ ★ ★	Internal: ★ ★ ★ ★ Temporal: ★ Interrater: ★	Factor structure: ★ ★ ★ Convergent: ★ ★ Criterion: ★ ★ External: ★	★ ★ ★
No Name (Akbulut et al., 2010)	Definition: ★ ★ Components: ★ ★ ★	Internal: ★ ★ ★ ★ Temporal: ★ Interrater: ★	Factor structure: ★ ★ ★ Convergent: ★ Criterion: ★	★ ★ ★

External: ★  
★

★★★★ Good: Met all 4 components of proposed definition;  $\alpha$  and temporal stability  $> .80$ ; interrater reliability  $= > .60$ ; factor structure = replicated in independent samples; convergent and criterion validity = moderate to strong relationships with many relevant constructs; external validity = investigated in relevant community populations; bias = other-report, implicit approach, or weak to no correlation with social-desirability; ease of administration = self-report/administered,  $< 10$  items

★★★ Adequate: Met all 3 components of proposed definition;  $\alpha$  and temporal stability  $= .70 - .79$ ; interrater reliability  $= .40 - .59$ ; factor structure = EFA or CFA only; convergent and criterion validity = moderate to strong relationships with some relevant constructs; external validity = investigated in online community (i.e., MTurk) samples; bias = self-report with inconsistent correlations with social desirability; ease of administration = self-report/administered,  $> 10$  items

★★ Marginal/Poor: Met  $< 2$  components of proposed definition;  $\alpha$  and temporal stability  $< .70$ ; interrater reliability  $< .40$ ; factor structure = explored in independent samples but not replicated; convergent and criterion validity = inconsistent or weak relationships with relevant constructs; external validity = investigated in undergraduate students only; bias = self-report with moderate, strong, or unknown correlations with social desirability; ease of administration = other-report or special software required for administration

★ Unavailable

## Results

In the following summaries, I focused primarily on content and convergent validity for each cyberbullying measure. Based on the validity criteria I outlined in Table 1.1, the most pragmatic way of assessing validity for the “repetition” and “electronic medium” definitional components of cyberbullying is through content validity of items included in the measures. In order to streamline the measurement summaries, I note here that all 20 measures demonstrated content validity for these two components by explicitly referring to electronic media and asking about frequency of cyberbullying experiences. In the following summaries, I discussed evidence for factor structure, reliability, and validity. This information is also summarized in Table 1.2.

### Online Victimization Scale

The Online Victimization Scale (OVS; Tynes et al., 2010) is a measure with 21 items across four subscales: General Online Victimization (e.g. “people have posted mean or rude things about me on the internet”), Sexual Online Victimization (e.g., “people have asked me to ‘cyber’ online”), Individual Online Racial Discrimination (e.g., “people have shown me a racist

image online”), and Vicarious Online Racial Discrimination (e.g., “people have cracked jokes about people of my race or ethnic group online;” Tynes et al., 2010). The scale was developed with two samples of adolescents in the Midwest. The authors did not report exploratory factor analysis (EFA), but results from a confirmatory factor analysis (CFA) suggested a four-factor structure (Tynes et al., 2010).

Convergent validity for the aggression component of cyberbullying was supported by moderate to strong relationships with self-esteem, depression, and anxiety (Tynes et al., 2010). A few items assess sexual victimization (e.g., “I have received unwanted sexual SPAM, e-mails, or messages.”) and racial discrimination experiences (e.g., “People have shown me a racist image online.”), demonstrating content validity for the power imbalance component of cyberbullying. Furthermore, there was strong evidence of convergent validity with identity related variables, such as the subscale Individual Online Racial Discrimination was positively associated with low ethnic identity and anxiety (Tynes et al., 2012). In summary, I conclude that this measure currently has good evidence for construct validity. Furthermore, I conclude that this measure’s strength lies with having adequate evidence for convergent validity for aggression and power imbalance.

### **Cyberbullying Questionnaire**

The Cyberbullying Questionnaire (CBQ; Calvete et al., 2010) is a measure with 25 items across two scales: Cyberbullying Perpetration scale (e.g., “sending threatening or insulting messages by e-mail”) and the Cyberbullying Victimization scale (e.g., “receive threatening or insulting messages;” Calvete et al., 2010). The scale was developed with one sample of adolescents from Spain. The authors did not report an EFA, but results of a CFA suggested a

two-factor structure for the scale (Calvete et al., 2010). Additionally, measurement invariance was reported for gender.

Convergent validity for the aggression component of cyberbullying was supported through a strong relationship with aggressiveness and a moderate relationship with impulsivity (Calvete et al., 2010). However, this measure currently lacks evidence for both content and convergent validity for the imbalance of power component of cyberbullying. Finally, this measure was related to problematic internet use, supporting the online environment component of cyberbullying (Calvete et al., 2010). In summary, the measure's relationships with relevant constructs (i.e., aggressiveness, impulsivity) were in the expected direction and of sufficient strength to support most of the components of cyberbullying I identified. The main concern with this measure was the deficit in evidence, for both content and convergent validity, for the imbalance of power observed in cyberbullying.

### **The E-Victimisation Scale and the E-Bullying Scale**

The E-Victimisation Scale and the E-Bullying Scale (E-VS & E-BS; Lam & Li, 2013) is a measure with 11 items across two scales: E-Victimisation Scale (e.g., “how many times did someone tease you using emails, texting, short messages, on a website such as Renren, etc.”) and E-Bullying Scale (e.g., “how many times did you say you are going to hit/hurt someone using emails, texting, short messages, on a website such as Renren, etc.,” Lam & Li, 2013). The scale was developed with two samples of adolescents from China. EFAs were conducted separately for the EVS and EBS items, and results suggested a one-factor structure for EVS and two-factor structure for EBS (Lam & Li, 2013). This factor structure was replicated in an independent sample using CFA.

Convergent validity for the aggression component of cyberbullying was supported through a moderate relationship with moral disengagement (Yang et al., 2018) and depressive and anxiety symptoms (Lam & Li, 2013). However, this measure currently lacks evidence for both content and convergent validity for the power imbalance component of cyberbullying. Additionally, the EBS subscale was related to the frequency of social media use, supporting the online environment component of cyberbullying. In summary, I conclude that this measure currently has adequate evidence for content validity and evidence for convergent validity for aggression; however, it has a deficit in evidence for the power imbalance component of cyberbullying.

### **Cybervictimization Questionnaire for Adolescents**

The Cybervictimization Questionnaire (CYVIC; Alvarez-Garcia et al., 2017) is comprised of 19 items across four subscales: Impersonation (e.g., “someone has impersonated me on the Internet, posting comments under my name, as if they were me”), Visual-Sexual Cybervictimization (e.g., “someone has disseminated, without my permission, via mobile phone or internet, compromising images or video of me of a sexual ... nature”); Written-Verbal Cybervictimization (e.g., “I have received calls insulting me or making fun of me”), and Online Exclusion (e.g., “they agree to ignore me on the social networks”; Alvarez-Garcia et al., 2017). The scale was developed with one sample of adolescents from Spain. The authors did not report an EFA, but results of a CFA suggested a four-factor structure (Alvarez-Garcia et al., 2017).

Convergent validity for the aggression component of cyberbullying was supported through moderate to strong relationships with anti-social behaviors and impulsivity (Alvarez-Garcia et al., 2017). Regarding the imbalance of power component, a couple of items marginally assess someone’s technological skill in taking advantage of the anonymous nature of online

interactions (e.g., “I have received anonymous phone calls, to threaten me or intimidate me”). Finally, this measure was related to measures of internet risk behaviors, supporting the online context component of cyberbullying. In sum, this measure has reasonable evidence of construct validity for most components of cyberbullying except for imbalance of power, and the measure provided no evidence of assessing identity-related variables. Therefore, I conclude that this scale has adequate evidence for content and convergent validity.

### **The Cyber Victim and Bullying Scale**

The Cyber Victim and Bullying Scale (CVBS; Cetin et al., 2011) is a measure with two scales: Scale of the Cyber Victim (SCV) and Scale of Cyber Bullying (SCB). The SCV and SCB scales are comprised of 22 items across three subscales: Cyber Forgery (e.g., “sharing videos without permission on the Internet”), Cyber Verbal Bullying (e.g., “rumoring on the Internet”), and Hiding Identity (e.g., “hiding identity on the internet”). The scale was developed with one sample of adolescents from Turkey. Results of an EFA suggested a three-factor structure for the SCV and SCB scales (Cetin et al., 2011), which was replicated with the same sample using CFA. Additionally, measurement invariance was supported for gender.

Convergent validity for the aggression component of cyberbullying was supported through a strong relationship between the SCB and Aggression Questionnaire (AS; Buss & Perry, 1992) and moderate relationship between SCV and AS (Cetin et al., 2011). Regarding the imbalance of power component, a few of the items marginally assess someone’s technological skill in taking advantage of the anonymous nature of online interactions (e.g., “hiding identity in the Internet;” “hacking someone’s private webpage without permission”). The measure’s relationships with aggressiveness, repetition, anonymity, and use of electronic devices were in the expected direction and of sufficient strength to provide evidence of construct validity for the

components of cyberbullying I identified. However, the measure currently has no evidence regarding its association with identity-related experiences for the power imbalance component. Therefore, I conclude that this scale has adequate evidence for content validity, but lacks strong evidence of convergent validity for the cyberbullying definition.

### **Perceived Online Racism Scale**

The Perceived Online Racism Scale (PORS; Keum & Miller, 2017) is a measure with 30 items across three subscales: Personal Experience of Racial Cyber-Aggression (PERCA; e.g., “received posts with racist comments”), Online Mediated Exposure to Racist Reality (OMERR; e.g., “seen online news articles that describe my racial/ethnic group negatively”), and Vicarious Exposure to Racial Cyber-Aggression (VERCA; e.g., “seen other racial/minority users receive racist comments;” Keum & Miller, 2017). The scale was developed with one sample of a community-based adults from the USA. Results of an EFA suggested a three-factor structure (Keum & Miller, 2017), and this was replicated in an independent sample using CFA. Measurement invariance was reported for gender and race.

This scale appears to have good content validity for assessing the aggressive behavior component of cyberbullying. Regarding the imbalance of power component of cyberbullying, a majority of the items assess identity-related experiences (e.g., “received posts with racist comments”) and has demonstrated convergent validity with the General Ethnic Discrimination scale. In summary, this measure has good evidence for content validity. Furthermore, this measure has good evidence of convergent validity for repetition and power imbalance; however, the measure lacks evidence of convergent validity for the intentional aggression component, which is one of the main components in the cyberbullying definition. As a result, more



psychometric evidence is needed before recommending this as a strong measure of cyberbullying.

### **Cyberaggression and Cybervictimization**

The Cyberaggression and Cybervictimization Scale (CAV; Shapka & Maghsoudi, 2017) is a measure with 24 items across two scales: Cyber-Aggression Perpetration (e.g., “used email or text messaging to spread rumors or gossip about someone”) and Cyber-Victimization (e.g., “been purposely excluded online;” Shapka & Maghsoudi, 2017). The scale was developed with two samples of adolescents from Canada. The authors did not report an EFA, but results from a CFA suggested a two-factor structure for the scale. Measurement invariance was supported for gender and race.

Convergent validity for the aggression component of cyberbullying was supported through a moderate relationship with overt aggression and a strong relationship with relational aggression and depression (Shapka & Maghsoudi, 2017). Regarding the imbalance of power component, a couple of items marginally assess identity-related experiences (e.g., “texted or made hurtful comments about somebody’s race or ethnicity”). This measure has good evidence for content validity but lacks strong evidence of convergent validity for power imbalance, specifically with identity-related variables. Overall, I conclude that more psychometric evidence is needed prior to recommending this measure as a strong measure for cyberbullying.

### **Cyberbullying Test**

The Cyberbullying Test (CBT; Garaigordobil, 2017) is a measure with 15-items in three potential roles: Cybervictim (e.g., “Have you ever received offensive and insulting calls on your cellphone or by Internet?”), Perpetuator of Cyberaggression (e.g., “Have you ever blackmailed or threatened others with calls or messages?”), and being an Observer of Cyberaggression (e.g.,

“Have you ever received anonymous calls to scare or frighten you?”). The scale was developed with two samples of adolescents from Spain. Results of an EFA suggested a three-factor structure (Garaigordobil, 2017) which was replicated in an independent sample using CFA.

Convergent validity for the aggression component of cyberbullying was marginally supported through weak relationships with aggression, and antisocial behaviors (Garaigordobil, 2017). Regarding the imbalance of power definitional component, a couple of items marginally assess someone’s technological skill in taking advantage of the anonymous nature of online interactions (e.g., “Have you ever received anonymous calls to scare or frighten you?”). In summary, the CBT has good evidence for content validity; however, I caution against its use until more psychometric support accumulates due to the lack of strong evidence of convergent validity for each component of the cyberbullying definition and its weak relationship with the aggression component of cyberbullying.

### **Cyberbullying and Online Aggression Survey Instrument**

The Cyberbullying and Online Aggression Survey Instrument (CB&OAS; Hinduja & Patchin, 2007, 2009, 2015) is a measure with 21 items across two scales: Cyberbullying Offending Scale (e.g., “I cyberbullied others”) and the Cyberbullying Victimization Scale (e.g., “someone posted mean or hurtful comments about me online”). The scale was developed with one sample of children and adolescents from the USA. An EFA was not reported, but results of a CFA indicated all items loaded onto two factors.

Convergent validity for the aggression component of cyberbullying was supported through a moderate relationship with narcissism (Zerach, 2016). Regarding the imbalance of power component, a couple of items marginally assess someone’s technological skill in taking advantage of the anonymous nature of online interactions (e.g., “Have you received an email

from someone you didn't know that made you really mad?"). Given its wide use, it is also surprising that I did not locate more support for construct validity, but most of these studies were not focused on all the components of cyberbullying. The scale's relationship with narcissism was in the expected direction; however, there was a deficit in evidence of convergent validity for the other components of cyberbullying. Therefore, I conclude that this scale has initial evidence of construct validity, but warrants additional investigation.

### **Florence CyberBullying-CyberVictimization Scales**

The Florence Cyberbullying-CyberVictimization Scales (FCBVS; Palladino et al., 2015) is a measure with two scales: Perpetration and Victimization. The measure is comprised of 18 items across four subscales: Written-Verbal (e.g., "threatening and insulting text message"), Visual (e.g., "violent videos/photos/pictures shared on the Internet"), Impersonation (e.g., "manipulating private personal data in order to reuse them"), and Exclusion (e.g., "ignoring on purpose in an online group;" Palladino et al., 2015). The scale was developed with two samples of adolescents from Italy. Results of an EFA suggested a four-factor structure for each scale (Palladino et al., 2015), which replicated in an independent sample using CFA. Measurement invariance was reported for gender.

Convergent validity for the aggression component of cyberbullying was supported through a moderate relationship with aggression and depression (Palladino et al., 2015). Regarding the imbalance of power definitional component, a couple of items marginally assess someone's technological skills (e.g., "manipulation private personal data in order to reuse them"). In summary, this measure currently has adequate evidence for content validity. However, it lacks strong evidence for convergent validity for intentional aggression and power imbalance. Therefore, it warrants more psychometric investigations.

## **European Cyberbullying Intervention Project Questionnaire**

The European Cyberbullying Intervention Project Questionnaire (ECIPQ; Del Rey et al., 2015) is a measure with 22 items across two scales: Cyber-Victimization (e.g., “someone hacked into my account and pretended to be me”) and Cyber Aggression (e.g., “I posted personal information about someone online”). The scale was developed with two samples of children and adolescents from Poland, Spain, Italy, United Kingdom, Germany, and Greece. Results of an EFA suggested a two-factor structure (Del Rey et al., 2015), which replicated in an independent sample using CFA.

This scale appears to have good content validity for assessing intentional aggressive behavior as both a perpetrator (cyberbully) and recipient (cybervictim). Regarding the imbalance of power definitional component, a couple of items marginally assess someone’s technological skill in taking advantage of the anonymous nature of online interactions (e.g., “someone created a fake account, pretending to be me”). Therefore, we conclude that this measure currently has good evidence for content validity, but I caution against its use until more psychometric support accumulates due to its limited evidence of convergent validity.

## **The Cyberbullying Scale**

The Cyberbullying Scale (CBS; Stewart et al., 2014) is a unidimensional measure comprised of 16 items (e.g., “How often do other kids leave you out of online groups on purpose?”). The scale was developed with two samples of adolescents from the USA. Results of an EFA suggested a single-factor structure (Stewart et al., 2014), which replicated in an independent sample using CFA.

Convergent validity for the aggression component of cyberbullying was supported through strong relationships with anxiety, loneliness, and depression (Stewart et al., 2014).

Regarding the imbalance of power definitional component, a couple of items marginally assess someone's technological skill in taking advantage of the anonymous nature of online interactions (e.g., "How often does another kid pretend to be you and send or post something that damages your reputation or friendships?"). In summary, this measure has adequate content validity, but its weaknesses lie in strong evidence of convergent validity. Therefore, I caution its use until more psychometric support accumulates, specifically, in the power imbalance component related to identity variables.

### **Multidimensional Offline and Online Peer Victimization Scale**

The Multidimensional Offline and Online Peer Victimization Scale (MOOPV; Sumter et al., 2015) is a measure with two scales: Offline Peer Victimization and Online Peer Victimization. The Online Peer Victimization scale is comprised of 10 items across two factors: Direct Online Peer Victimization (e.g., "another child send me aggressive messages") and Indirect Online Peer Victimization (e.g., "another child/young person exclude me"). The scale was developed with two samples of children and adolescents from the Netherlands. Results of an EFA suggested a four-factor structure (Sumter et al., 2015) which replicated in an independent sample using CFA.

Convergent validity for the aggression component of cyberbullying was supported through a moderate relationship between Online Peer Victimization and loneliness and Online Peer Victimization and low self-esteem (Sumter et al., 2015). I did not find support for content or convergent validity for the imbalance of power component of cyberbullying. In summary, the MOOPV has limited evidence for convergent validity. While the MOOPV had adequate evidence for content validity, I caution against its use until more psychometric support accumulates, specifically in the area of power imbalance.

## **Cyberbullying Scale**

The Cyberbullying Scale (CS; Menesini et al., 2011) is a measure with two scales: Perpetration and Victimization. Participants are asked to respond to the 10- items as the perpetrator and victim (e.g., “Insults on blogs”; Menesini et al., 2011). The scale was developed with two samples of adolescents from Italy. The authors did not report an EFA; however, the factor structure was supported using CFA (Menesini et al., 2011).

Convergent validity for the aggression component of cyberbullying was supported through strong relationships with immoral and disengaged behavior (Menesini et al., 2011). Regarding the imbalance of power definitional component, only one item marginally assessed someone’s technological skill in taking advantage of the anonymous nature of online interactions (e.g., “silent/prank phone call”). In summary, the measure has limited evidence of construct validity, and so I caution against its use until more psychometric support accumulates.

## **Cyberbullying Perpetration and Cyberbullying Victimization**

The Cyberbullying Perpetration and the Cyberbullying Victimization (CBP/CBV; Lee et al., 2017) is a measure with two scales: Cyberbullying Perpetration and Cyberbullying Victimization scales. The measure is comprised of 47 items across three factors: Verbal/Written (e.g., “I have sent someone e-mails with intent to harm the person;” “I have received insulting online messages from someone repeatedly”), Visual/Sexual (e.g., “I have teased someone about his/her appearance online to emotionally harm the person;” “People have spread sexual rumors about me online to damage my reputation”); and Social Exclusion ( e.g., “I have blocked someone on an instant messenger to upset that person;” “Someone has blocked me on an instant messenger to upset me”). The scale was developed with one sample of undergraduate students

from the USA. The authors did not report an EFA, but results of a CFA suggested a three-factor structure (Lee et al., 2017).

Convergent validity for the aggression component of cyberbullying was supported through a strong relationship with aggression (Lee et al., 2017). Regarding the imbalance of power definitional component, we did not find support for either content or convergent validity. In summary, the CBP/CBV has very limited evidence of construct validity. Although the CBP/CBV attempted to address certain components in the reported criteria, it is too limited in evidence of validity for me to recommend.

### **Cyber Victimization Survey**

The Cyber Victimization Survey (CVS; Brown et al., 2014) is a unidimensional measure comprised of 15 items (e.g., “Have you been called names?”). The scale was developed with one sample of adolescents from the USA. EFA was conducted and suggested a four-factor solution; however, a four-factor solution did not make theoretical sense. Thus, a second EFA was conducted forcing a single factor (Brown et al., 2014). No CFA was conducted.

This scale appears to have good content validity for assessing intentional aggressive behavior for the recipient (cybervictim). Regarding the imbalance of power component, a couple of items marginally assess someone’s technological skills in taking advantage of the anonymous nature of online interactions (e.g., “someone pretended to be you online in order to tease or hurt you”). Finally, I located evidence of convergent validity with measures of frequency of social media use. I currently caution against the use of this measure due to problems establishing a theoretically sound factor structure. Furthermore, there is weak evidence supporting construct validity and more psychometric evidence is needed to recommend this as a strong measure of cyberbullying.

## **Revised Cyberbullying Inventory-II**

The Revised Cyber Bullying Inventory-II (RCBI-II; Topcu & Erdu-Baker, 2018) is a unidimensional measure. The RCBI-II is comprised of 10-items (e.g., spreading rumors”) in which the participants marked all the items twice: once for “I did this” and one for “this happened to me” (Topcu & Erdu-Baker, 2018). The scale was developed with one sample of adolescents from Turkey. Although the authors did not report an EFA, results of a CFA suggested a single-factor structure.

This scale appears to have good content validity for assessing intentional aggressive behavior as both a perpetrator (cyberbully) and recipient (cybervictim). Regarding the imbalance of power definitional component, a couple of items marginally assess someone’s technological skills (e.g., “using someone’s account without his/her permission and publishing humiliating posts”). Finally, this measure has been associated with frequency of social media use as higher frequency indicated the likelihood to be victims of cyberbullying (Uludasdemir & Kucuk, 2019). Due to the limited evidence of construct validity, I caution against its use until more psychometric support accumulates for the intentional aggression and power imbalance components of cyberbullying.

## **Personal Experience Checklist**

The Personal Experience Checklist (PECK; Hunt et al., 2012) is a measure with four subscales: Relational-Verbal Bullying (RVB), Cyber Bullying (CB), Physical Bulling (PB), and Bullying based on Culture (BC). The RVB scale is comprised of 11-items (e.g., “other kids tell people to make fun of me”), the CB scale includes 8-items (e.g., “other kids send me nasty e-mails”), the PB scale is comprised of 9-items (e.g., “Other kids wreck my things”), and the BC includes 4-items (e.g., “other kids tease me about my voice; Hunt et al., 2012). The scale was



developed with two samples of children and adolescents from Australia. Results of an EFA suggested a four-factor structure (Hunt et al., 2012), which replicated in an independent sample using CFA.

Convergent validity for the aggression component of cyberbullying was supported through a strong relationship with aggressive behavior (Hunt et al., 2012). Regarding the imbalance of power definitional component, I did not identify support for content or convergent validity. Finally, only one subscale of this measure contextualizes questions to an online environment. In summary, the CB subscale of the PECK hones in on the components of intentional aggressive behavior and behavior enacted through online media. However, the measure has limited evidence of construct validity, and so I caution against its use.

### **The Cyber Victimization Experiences and Cyberbullying Behavior Scales**

The Cyber Victimization Experiences and Cyberbullying Behaviors (CV and CB; Betts & Spenser, 2017) is a measure with two scales: Cyber Victimization Experiences and Cyber Bullying Behaviors scales. The CV scale is comprised of 15 items across three factors: Threats (e.g., “Sent me a threatening comment anonymously”), Sharing Images (e.g., “Take an photograph of me doing something humiliating and shared it without permission”), and Personal Attacks (e.g., “Called me an offensive nickname”). The Cyber Bullying Behaviors scale is comprised of 12 items across three factors: Sharing Images (e.g., “Made a video of someone doing something humiliating and shared it without permission”), Gossip (e.g., “Forwarded a post with a rumor about someone”), and Personal Attacks (e.g., “Made fun of someone because of their appearances;” Betts & Spenser, 2017). The scale was developed with two samples of adolescents. EFAs were conducted separately for the CV items and CB items, suggesting a three-

factor structure for each scale (Betts & Spenser, 2017). This factor structure was replicated in an independent sample using CFA.

This scale appears to have good content validity for assessing intentional aggressive behavior as both a perpetrator (cyberbully) and recipient (cybervictim). Regarding the imbalance of power definitional component, a couple of items marginally assess someone's technological skill in taking advantage of the anonymous nature of online interactions (e.g., "threatening comment while pretending to be someone"). In summary, the CV and CB has very limited evidence of construct validity. While the CV and CB attempted to address concerns about social desirability, it is too limited in evidence of validity for me to recommend.

#### **Akbulut et al. Scale**

The measure developed by Akbulut, Sahin, and Eristi (2010) is a unidimensional measure with 28 items (e.g., "receiving insulting e-mails or instant messaging"). The scale was developed with two samples of adolescents from Turkey. Results of an EFA suggested a single-factor structure (Akbulut et al., 2010), which replicated in an independent sample using CFA. Measurement invariance for gender was reported (Akbulut et al., 2010).

This scale appears to have good content validity for assessing intentional aggressive behavior for a recipient (cybervictim). Regarding the imbalance of power definitional component, a couple of items marginally assess someone's technological skill in taking advantage of the anonymous nature of online interactions (e.g., "deception by people who are pretending to be someone else"). However, the measure currently has weak evidence of construct validity and work is needed to situate the measure among related constructs.

## **Discussion**

In order for researchers to study cyberbullying, they need a sound definition along with an aligned measure (Tokunaga, 2010). Although prior reviews exist, they did not evaluate the construct validity of measures against a definition of cyberbullying (i.e., Berne et al., 2013; Vivolo-Kantor, 2014). In order to address this gap, I systematically evaluated evidence of reliability, content and construct validity of existing measures of cyberbullying based on the Kowalski et al. (2014) definition.

As a broad overview of the field, I found that nine measures in some way covered all four components of the cyberbullying definition (i.e., intentional aggressive behavior, power imbalance, repetition, occurs through electronic technologies; Kowalski et al., 2014), and the remaining measures covered at least three components. Although this is heartening, I also found that only seven of the studies provided an explicit and well-developed definition of cyberbullying from which to develop their items. Of these, only one of the definitions included all four components of the operational definition that was used in this review. This highlights the ongoing lack of conceptual clarity and agreement among scholars regarding the construct and measurement of cyberbullying.

Nevertheless, I also concluded that I would recommend five measures of cyberbullying for more regular use within the literature due to having relatively stronger evidence of construct validity. These include: The Online Victimization Scale (Tynes et al., 2010), E-Victimisation Scale and E-Bullying Scale (Lam & Li, 2013), Cyberbullying Questionnaire (Calvete et al., 2010), the Cybervictimization Questionnaire (Alvarez-Garcia et al., 2017), and the Cyber Victim and Bullying Scale (Cetin et al., 2011). Each of these measures has already been widely used in studies on cyberbullying (for both perpetrators and recipients) and with additional use will aid in

clarifying differences in cyberbullying frequencies and outcomes across time, cohorts, and other group and identity-related variables.

Perhaps the strongest measure was the Online Victimization Scale (OVS; Tynes et al., 2010), which has gained popularity within studies of online racial discrimination. It was also one of the two measures I identified that provided evidence of convergent validity with an identity variable (e.g. lower ethnic identity) and was also positively associated with online racial discrimination and anxiety (Tynes et al., 2012). Furthermore, the OVS has demonstrated measurement invariance across race and gender, which further strengthens this measure's psychometric properties and makes it one of the strongest measures of cyberbullying (recipient) in this review.

I also recommended the use of eleven measures with caution, but these measures have strong potential. The Cyberbullying and Online Aggression Survey Instrument (CB&OAS; Hinduja & Patchin, 2007; 2009; 2016), for example, has been the most widely used measure of cyberbullying across an array of populations. Although it has good initial evidence of validity, additional validation efforts are needed. Specifically, the scope of the CB&OAS is limited as it only focuses on the prevalence and general frequency of cyberbullying (recipient and perpetrator) and not assessing all four components of the cyberbullying definition, which is typical for the other cyberbullying measures, as well. While this measure does address a key component of cyberbullying (i.e., intentional aggressive behavior), it lacks evidence for construct validity with regards to an imbalance of power. For other measures I recommended more cautiously, they need further investigation as they have limited evidence of convergent validity for the definitional components of cyberbullying.

Overall, most of the measures in this review lacked evidence of convergent validity in at least two components of cyberbullying (e.g., imbalance of power, online enactment of aggressive behaviors) based on the pre-specified criteria I identified for construct validity. For example, previous studies assessed the imbalance of power component by creating items that asked about anonymity (Mark & Ratliffe, 2011). However, imbalance of power can take several forms: social identities, psychological, social, et cetera (Dooley, Pyzalski, & Cross, 2009; Williams & Guerra, 2007) which have not been regularly assessed in cyberbullying measures. For example, individuals who identified with multiple identities (e.g., sexual orientation, race, sex, disabilities, etc.) may be at a higher risk of being victimized online as privilege identities may view them as less powerful. Assessing this component more comprehensively seems key because a few cross-cultural studies have found that power imbalance is the most relevant component for the definition of cyberbullying (Kowalski et al., 2014). Therefore, providing evidence of convergent validity for imbalance of power would provide an important contribution to the cyberbullying literature, specifically with social identities.

Furthermore, six measures have not demonstrated evidence of convergent validity for intentional aggressive behavior, which is another main component to cyberbullying. Together, this raises some foundational questions about these measures. In order to ensure validity of measures, results, and conclusions drawn from studies, it is key that measures capture the full conceptual domain of a construct (Murphy & Davidshofer, 2005).

### **Limitations**

The current review has several important limitations. First, the search explored only publications after 2010; however, cyberbullying has been noted to occur since the advent of social media, meaning potentially over a decade of cyberbullying to be amiss. Second, the

existing measures of cyberbullying had very limited samples (i.e., mostly school aged children and adolescents), so evidence of external validity in interpreting the scores was restricted. Third, most studies used correlational, cross-sectional designs, so I found limited evidence regarding the temporal stability of measures. Lastly, only eight measures assessed the relationship between face-to-face bullying and cyberbullying, even though the two forms often co-occur (see Olweus, 2012). There is a possibility that the cyberworld is another avenue for continuing the bullying behavior and victim experiences, but just looking at one type of bullying or victimization does not capture the entire story of this phenomenon which is important to include in the repetition criterion.

### **Suggestions for Future Research**

Less than half of the measures in the review mentioned a definition in their measure. Future researchers should focus using a definition that incorporates all four components of cyberbullying in their measure so that cyberbullying can be more accurately and precisely assessed. I propose using Kowalski and colleagues (2014) operational definition of cyberbullying as the coding of items of the 20 measures support this operational definition. Second, the next wave of cyberbullying research may involve assessing cyberbullying experiences in younger children and adults, more specifically emerging adults. As the age gap for accessing technology decreases and millennials enter the workplace, it would be important to determine whether these behaviors are experienced prior to middle school and continue into the workplace. Third, future measures should focus on both cybervictimization and cyberbullying since Sourander et al. (2010) found that individuals who identify as both recipient and perpetrator appear to experience more psychological and psychosomatic problems than individuals who identify as recipient or perpetrator.

Finally, as previously discussed, imbalance of power has been assessed via anonymity; however, social identities are attacked via the cyberworld as well. Several researchers have examined the effects of gender on cyberbullying with contradicting results (Kowalski et al., 2014) and little research has examined the relationship between race and cyberbullying. It would be valuable to have measures of race, sexuality, or other identity-related variables to address a new avenue of imbalance of power, especially in the current political climate. More importantly, it would be constructive to create a cyberbullying measure with an intersectional approach as it would be designed to assess the cyberbullying experiences of multiple marginalized groups, which is an evident gap in the cyberbullying literature.

## **Conclusion**

In conclusion, cyberbullying research continues to be relatively new but has made great strides over the past years. A number of measures have been developed to assess cyberbullying in various populations since Berne and colleagues' (2013) review. Researchers are beginning to notice the importance of having an agreement about which definition to use and investigating the psychometric properties of existing measures. In my review, The Online Victimization Scale (Tynes et al., 2010) is the only measure which addresses all four component and has strong evidence of construct validity. This measure has many strengths, specifically in the areas of intentional aggressive behaviors and imbalance of power. Nonetheless, other measures are needed in order to further advance the cyberbullying field specifically given the gaps in work on marginalized groups and cyberbullying experiences.

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## 2 EXAMINING EXPERIENCES OF CYBERBULLYING VICTIMIZATION AND CORRESPONDING DISTRESS IN WOMEN OF COLOR

Cyberbullying is a widespread phenomenon affecting people of all ages. The prevalence of cyberbullying has doubled (Hinduja & Patchin, 2015) as a result of increased use of technology (Cassidy et al., 2013). Cyberbullying has been linked with lower psychological well-being (Bauman et al., 2013; Jackson & Cohen, 2012; Juvonen & Gross, 2008), which has led to an increase in international awareness of this pervasive societal problem (Barlett, 2015; Garaigordobil, 2011; Kowalski & Limber, 2007; Tokunaga, 2010).

Despite rapid proliferation of research on cyberbullying, limited work has focused on the particular vulnerabilities of marginalized groups in the realm of cyberbullying, including intersections of those identities such as women of color (Black, Latinx, Asian, or self-classified as non-White). This topic is also timely, given a resurgence of activism surrounding the “Me too” movement and public outcry regarding hostile attitudes and behaviors towards women expressed by the current United States President, Donald Trump. For example, after the 2016 presidential election, 5 million people nationwide came together to rally at the Women’s March (The *March*, n.d.) in the United States. The women and their allies involved in this march faced hostile online reactions, including comments such as “Will the women’s protest be over in time for them to cook dinner?” or “I suggest you stop your bitching/protesting during this time. Because you also have a right to be slapped!” (Terkel, 2017). There are also examples targeting women of color, such as Roseanne Barr’s comment about Valerie Jarrett: “Muslim brotherhood & planet of the apes had a baby=vj” (Higgins & Breuninger, 2018) on Twitter. There is a need for research examining how experiences of cyberbullying affect women of color because internet usage is high among people of color (Smith et al., 2011; Social Media Fact Sheet, 2017).



In order to inform intervention strategies and theoretical development, empirical studies are needed to clarify how cyberbullying specifically affects the well-being of women of color, who represent a vulnerable and neglected population within cyberbullying research. Especially, since there is a lack of research that examines the effects of cyberbullying experiences on women and people of color. Furthermore, most of cyberbullying (perpetration and recipient) research has been done with middle and high school students. Emerging research has examined cyberbullying among college students, young adults, or adults (Boulton et al., 2012; Kokkinos et al., 2014; Selkie et al., 2015). Additionally, college students are the most frequent users of technology (Smith et al., 2011). More importantly, researchers have proposed that cyberbullying behavior (perpetration and recipient) is a continuation of behaviors from adolescence (Cowie et al., 2013). Therefore, the purpose of the present study is to address this gap and the need to gain a better understanding of the psychological impact that cyberbullying has on women of color. Specifically, I will explore potential moderators (e.g., attributions of cyberbullying experiences to being a woman of color) which may strengthen the relationship between experiences of cyberbullying and psychological outcomes.

### **Defining Cyberbullying**

Given the relatively new emergence of cyberbullying as a term in the literature on bullying, as well as rapidly changing online environments, researchers are still working towards consensus on how to define cyberbullying (for a review, see Kolwaski et al., 2014; Olweus, 2013). For the purpose of this dissertation, Kowalski and colleagues (2014) definition of cyberbullying will be used. They defined cyberbullying as containing four components: “(a) intentional aggressive behavior (b) is carried out repeatedly, (c) occurs between a perpetrator and

victim who are unequal in power and (d) occurs through electronic technologies” (Kowalski et al., 2014; p. 1109).

While cyberbullying shares some commonalities with face-to-face bullying, Cyberbullying represents a unique form of bullying and victimization. The use of technology distinguishes cyberbullying in at least four ways from face-to-face bullying/victimization. First, cyberbullying is dynamic: the nature and source of digital environments can change rapidly. In some cases, many perpetrators can join forces to victimize one person or group of people. There is also a capacious digital landscape with a multitude of ways to create and share content across online platforms using material as diverse as photos, text, videos, or memes (i.e., those featuring an image with a text caption overlaid on the image; Drakett et al., 2018; Tynes et al., 2010) in which individuals are victimized.

Second, offenders can often operate anonymously (Parris et al., 2012). These conditions allow perpetrators of cyberbullying to operate with little threat or sense of accountability. Furthermore, cybervictims are hindered from taking countermeasures to alleviate their situation (David-Ferdon & Feldman Hertz, 2007).

Third, cyberbullying is more pervasive than face-to-face bullying/victimization such that content can be easily and perhaps inadvertently encountered by other users. For example, messages, photos, and videos are constantly being produced and shared by users and therefore readily available for cybervictims to encounter. This is similar to the way in which the 24-hour online news cycle changes the way in which the general public consumes and understands local, national, and international news (Lin & Atkins, 2014). Thus, people are now exposed to a constant barrage of a continually growing array of harmful content from across the globe on the screen(s) of their electronic device(s).

Fourth, cyberbullying is often permanent. The content can remain available for others to view in perpetuity. Many spaces do not monitor or moderate offensive content (Bickhart & Schindler, 2001). For example, an individual is able to remove and throw away a piece of paper with demeaning commentary from a peer. However, removing videos or comments posted on the Internet is far more difficult because, even after deletion, some people may have retained content on their personal devices or cloud-based storage for reposting. Furthermore, to the degree that the content remains online, it remains available for victims and other bystanders to continue to re-experience the trauma of the offensive act.

Finally, imbalance of power operates differently in online spaces. For example, in face-to-face bullying, a physically stronger individual may yield more power; however, imbalance of power in the online world may occur when a person possesses greater skill at online aggressive tactics. Furthermore, cyberbullying perpetrators may target victims who are perceived as less powerful than themselves in the offline world (e.g., social identities; Williams & Guerra, 2007). Cyberbullying perpetrators may engage in identity related prejudice such as hateful stereotypes regarding gender, race, sexual orientation, or sex (Tynes et al., 2010) which could be perceived as an imbalance of power in the relationship between perpetrators and victims.

Taken together, these features have a profound impact on victims. Existing research has indicated that cyberbullying may indeed contribute to mental health concerns, such as depression and suicidality, independent from face-to-face bullying (Bonanno, & Hymel, 2013; van Geel, Vedder, & Tanilon, 2014). Next, the existing literature on the links between cyberbullying and distress and how attributions about the cyberbullying (perpetration or recipient) experience to one's gender and racial identity may play role in this relationship are outlined.

## **Cyberbullying and Perceived Stress**

One documented consequence of cyberbullying is perceived stress. Stress is considered to be a normal response to a threatening situation. Acute stress helps people react adaptively to threats, but when people experience prolonged or extreme stress, it damages their physical, emotional, and psychological well-being (Anderson, 1998; Baum & Polsusny, 1999; Lifeline, 2014). Sprigg and colleagues (2012) found that employees from the United Kingdom who had experienced cyberbullying at least once a week reported a great mental strain and lower job satisfaction. Experiences of cyberbullying can also have negative physical effects such as weight loss or gain, headaches, abdominal pain, and sleep difficulties (Gamez-Guadix et al., 2013; Jang et al., 2014) which was found in Korean and Spanish adolescents. Sourander and colleagues (2010) surveyed American adolescents and found that those who were both perpetrators and victims of cyberbullying were more likely to experience problems with sleeping, headaches, poor appetite, and skin problems. Furthermore, cybervictims are more likely to show symptoms of decreased self-esteem and increased stress into their adult years, thus leaving a lasting impression (Veenstra et al., 2005). Despite what we know about the relationship between cyberbullying and perceived stress in the general population, there is no study so far specifically examining the relationship between cyberbullying and perceived stress in women of color.

## **Cyberbullying and Psychological Distress**

Beyond perceived stress, broader studies on adolescents and young adults can inform our predictions about how cyberbullying experiences can have even more severe consequences, such as impacting the mental health in women of color. For example, a meta-analysis conducted by Kowalski and colleagues (2014) synthesized 131 studies on risk and protective factors and outcomes of cyberbullying. Results indicated a strong association of cyberbullying (recipient)

with stress ( $r = .34$ ) and with suicidal ideation ( $r = .27$ ; Kowalski et al., 2014). Cyberbullying has also been linked to negative consequences such as substance use, emotional distress, depression, anxiety, post-traumatic stress disorder, somatic symptoms, delinquent behavior, and low self-esteem (Feinstein et al., 2014; Hemphill et al., 2012; Na et al., 2015; Schenk & Fremouw, 2012; Sourander et al., 2010). More specifically, one study found that 3% of Australian youths aged 10-25 years were endorsing suicidal thoughts after a cyberbullying experience and 2% engaged in non-suicidal self-injurious behaviors (Price & Dalgleish, 2010), which is consistent with another study indicating that “cyberbullying was more strongly related to suicidal ideation than traditional bullying” (van Geel et al., 2014, p. 438). Despite what we know about the relationship between cyberbullying and psychological distress in the general population, there is no study so far specifically examining the relationship between cyberbullying and psychological distress in women of color.

### **Cyberbullying and Social Identities**

Research examining the relationship between race and cyberbullying is scarce (Stoll & Block, 2015); however, some quantitative studies found that online racism was linked to poorer mental health outcomes among Latino adolescents (Tynes et al., 2008; Umaña-Taylor et al., 2015). Currently, gender differences in cyberbullying are not consistent. Nonetheless, some studies on cyberbullying have found that adolescent girls are more likely to be victimized and more likely to report incidents (Ang & Gho, 2010; Erdur-Baker, 2010; Kowalski & Limber, 2007; Li, 2006). Additionally, a few studies have suggested that girls and women may be more susceptible to the negative effects of cybervictimization (see Bossier et al., 2012; Kowalski & Limber, 2007; Kowalski et al., 2014). Cyberfeminist theory mentions that women are more likely to experience cyberbullying experiences due to their disadvantaged position in the cyberworld and

in society (Navarro & Jasinski, 2013). However, as far as we are aware, no studies have examined the way in which beliefs, gender roles, or identities are risks or protective factors against cyberbullying.

There are even fewer studies that examined the intersectionality of social identities, such as race and gender, and cyberbullying (Hinduja & Patchin, 2008; Kwan & Skoric, 2013). Finally, we did not locate any studies that examined cyberbullying experiences in women of color specifically. Accordingly, we draw on minority stress theory and intersectionality theory to make hypotheses about how women of color may experience cyberbullying and what the potential consequences may be. These theories will be described later on.

### **Theoretical Frameworks and Women of Color**

Researchers have noticed that the mental health of women of color may reflect the interactions among their multiple identities and experiences of oppression related to gender, race/ethnicity, and other socio-cultural identities (APA 2007; Bowleg 2008; Landrine et al., 1995; Warner, 2008). Historically, researchers have studied the experiences of oppression via various approaches including additive (e.g., measuring racism and sexism separately and then both variables together; Sexism + Racism); interactional/multiplicative (e.g., measuring sexism and racism separately and then creating an interaction term; Sexism X Racism) and intersectional (e.g., simultaneously measuring the unique interactions of the experiences of sexism and racism; Cole, 2009; Lewis & Grzanka, 2016; Lewis, Williams, Pepper, & Gadson, 2017; Shields, 2008; Thomas, Witherspoon, & Speight, 2008). Some scholars have argued that intersectionality theory more accurately captures the experiences of individuals holding multiple marginalized identities than additive or multiplicative models (Bowleg & Bauer, 2016; Crenshaw, 1989; Lewis et al., 2017).

Intersectionality theory (Crenshaw, 1989) offers a framework for specifically understanding the unique experiences of adult women of color. Women of color may experience gender discrimination, racial discrimination, as well as unique forms of oppression that are larger than the sum of the parts. The concept of intersectionality interrogates the meaning and consequences of simultaneous memberships in various social classes, as well as investigates how power and inequality construct, reproduce, and sustain those categories (Cole, 2009; Else-Quest & Hyde, 2016). Although intersectionality is rooted in Black women's experiences, it is important to examine how experiences of marginalization based on multiple identities may intersect in other groups to determine well-being outcomes (Else-Quest & Hyde, 2016).

Minority stress theory offers a framework for understanding how holding multiple marginalized identities may impact the mental health and well-being of women of color. Meyer's (1995) minority stress theory stems from several social and psychological theories, stress literature, and research on the health of the LGB population. Minority stress arises from "the juxtaposition of minority and dominant values and the resultant conflict with the social environment experienced by minority group members" (Meyer, 1995, p. 39). Although minority stress theory was initially developed with a focus on the sexual minority population, the theory also acknowledges that other social statuses that are oppressed (race, gender, social class) also contribute to the unique minority stress processes (Meyer, 2003).

For example, women of color are exposed to various forms of sexism and racism that come from a plethora of sources, including but not limited to the media, interpersonal relationships, workplace, digital media, and legal systems (American Psychological Association, 2007), which tend to be more covert forms of racism and sexism (Benokraitis, 1997; Dovidio & Gaertner, 1998; Swann et al., 1999; Swim et al., 1995). Rejection, discrimination, and violence

are the most explicit sources of minority stress that a marginalized person may experience with resulting negative impacts to their mental health (Garnets et al., 1990; Meyer, 1995; Meyer, 2003).

Meyer (1995) further delineated experiences as either distal or proximal stressors. Distal stressors include life events, chronic strains, microaggressions, and everyday discriminations while proximal stressors include internalized social attitudes, expectations of rejections because you are a woman of color, discrimination, and felt stigma (Meyer et al., 2011). For young women of color who are members of a socially stigmatized group, the environment, support, and events (e.g., cybervictimization) to which they are exposed may have a significant impact towards their self-esteem, mental and physical well-being, and adjustment. Taken together, both minority stress theory and intersectionality theory provide a lens that captures both the pernicious nature of minority stressors, as well as the complexity of holding multiple minority identities.

Several studies have examined the impact of holding multiple marginalized identities on mental health and well-being. Szymanski and Meyer (2008) found that minority stress was positively related to greater psychological distress through lower self-esteem and less social support with a sample of sexual minority women. Additionally, Calabrese and colleagues (2014) tested the minority stress hypothesis that the triple status of Black sexual minority women is associated with greater stress and poor mental health. Their results were consistent with the basic premises of minority stress theory in which Black sexual minority women experienced poor mental health, social stress, and greater discrimination compared to groups who did not share their social identities- race, gender, and sexual orientation (Calabrese et al., 2014).



Although gender and racial discriminatory experiences are also common online (Eckert, 2018), minority stress theory and intersectionality theory have not been examined within the context of cybervictimization for women of color. This notion is important considering the growing prevalence of online hostility towards marginalized groups since the election of former President Barack Obama and President Trump in the U.S. (Bock et al., 2017; Chen, 2009). Therefore, more attention should be paid to this domain of cyberbullying.

### **The Present Study**

Although there has been an increase in quantitative research on cyberbullying, very few studies have examined the intersectionality and the additive framework of adult women of color within cyberbullying experiences. Thus, the purpose of the present study is to examine three hypothesized moderators on the relationships between perceived cybervictimization and psychological distress and perceived stress. First, I hypothesized that perceived cybervictimization will be positively related to psychological distress and perceived stress (H1a). Prior research provides evidence that cybervictimization experiences are related to both negative mental health outcomes (e.g., depression) and stress (Kowalski et al., 2014; Sourander et al., 2010). I also hypothesized that attributions to being a woman of color will strengthen the relationship between perceived cybervictimization (H1b) and psychological distress (intersectionality theory; H1c). I expect this to occur based on previous findings that examined the relationship between oppression based on both race and gender and psychological distress among African-American women, and findings on experiences with online victimization (Szymanski & Stewart, 2010; Tynes et al., 2012).

I also examined if race and gender would amplify the relationship between cybervictimization, perceived stress, and psychological distress. Specifically, I hypothesized that

attributions of cyberbullying experiences to gender and racial identity would amplify the relationship between perceived cybervictimization and psychological distress and perceived stress (i.e., additive theory; H2).

One critique of work on the link between discrimination and stress is that measures of discrimination may conflate perceived discrimination with neuroticism. This is because the widely used retrospective methods may lead to recall biases, which may be influenced by neuroticism and the associated negative emotions and rumination tendencies. Schultz and colleagues (2006) discuss that individuals high in neurotic behaviors position themselves into life situations that trigger negative effects, and hence experience more negative effects in life. Lilienfeld (2017) also discusses that the microaggression literature has placed insufficient emphasis on the discriminant validity of perceived microaggressions from neuroticism. He further mentioned that it is premature to advance strong casual assertions between microaggressions and mental health outcomes due to the neglect of personality traits in microaggression research (Lilienfeld, 2017). In order to address this concern, and to create a more rigorous test of my primary hypothesis, I will conduct a parallel set of analyses in which I control for neuroticism. If the findings hold up, despite controlling for this variable, then it ought to give greater confidence in the findings of my study. Thus, I hypothesize that the results of the study will hold, even after accounting for neuroticism (H3).

## **Method**

### **Participants**

The study was comprised of 275 adult women of color recruited through an online survey. Participants ranged in age from 18 to 68 years ( $M = 24.58$ ,  $SD = 7.01$ ). Of the participants, 54.5% identified as African American/Black ( $n = 150$ ), 18.5% were Asian/Asian

American/Pacific Islander ( $n=51$ ), 13.8% were Latinx ( $n=38$ ), 11.3% were Biracial ( $n=31$ ), 1.5% identified as another identity ( $n=4$ ; Middle Eastern), and .4% were American Indian ( $n=1$ ). Most of the participants self-identified as heterosexual ( $n=237$ , 86.2%), 8.4% as bisexual ( $n=23$ ), 3.3% as lesbian/gay ( $n=9$ ), and 1.1% as another sexual orientation ( $n=3$ ; e.g., pansexual); 1.1% ( $n=3$ ) did not wish to share their sexual orientation. The majority of participants (39.3%;  $n=108$ ) reported their current relationship status as single, while 24.0% reported to be in a committed relationship ( $n=66$ ), 18.2% were dating ( $n=50$ ), 12.7% were married ( $n=35$ ), 4.7% were engaged ( $n=13$ ), 2 participants (0.7%) were divorced, and 1 participant (0.4%) reported to be widowed. Many of the participants reported completing some college (59.6%,  $n=164$ ); 15.6% ( $n=43$ ) had a high school degree; and 13.5% ( $n=37$ ) had a bachelor's degree, or graduate work (8.0%,  $n=22$ ).

## **Procedure**

The Institutional Review Board at Georgia State University approved methods for the current study. The number of participants is based on simulation studies indicating adequate sample sizes for the detection of moderating effect with bivariate normal predictor and moderator variables (Shieh, 2009). According to Shieh (2009), a minimum of 226 participants was needed for the study to detect a small moderation effect.

Participants were recruited in two ways: (a) from a large urban university in the southeast United States and (b) through electronic listservs and social media platforms (e.g., Facebook, Craigslist, Division 44, etc.) Participants who were enrolled in counseling and psychological services classes from a large urban university in the southeast United States were awarded one research credit for participating in the study. A community sample was recruited via e-mails to various professional mailing lists and posting on various social media platforms; these

participants were entered into a random drawing of a \$25 Amazon gift card for participating in the study. Research on web-based data collection has informed researchers that they are able to assess diverse samples, and that results do not vary much from other sampling procedures (Gosling, Vazire, Srivastava, & Reedy, 2004). Furthermore, young adults are more likely to be involved with technology tools (e.g., smartphones, social media) and may have a higher distress related to cybervictimization.

Once an individual agreed to participate in the study, the participant was directed to a link embedded in the description of the study to Qualtrics. Thereafter, participants were asked to indicate consent and answer two inclusionary questions to ensure they met the study's participant eligibility criteria. The questions asked, "How do you identify your gender?" and presented participants with the following choices: (a) Male, (b) Female, (c) Transgender Male, (d) Transgender Female, (e) Other; and "How do you self-identify?" and presented participants with the following choices: (a) African American/Black, (b) European American/White, (c) Latinx, (d) Asian/American/Pacific Islander, (e) American Indian, (f) Multiracial, (g) Middle Eastern/North African. If participants selected "Female," "Transgender Female," or any race except "European American/White" they were sent to the survey which included demographic questions and several questionnaires related to psychological distress, perceived stress, neuroticism, social desirability, and an adapted measure of cyberbullying. All other responses directed the participants to the disqualification page, which thanked them for their interest and explained that they had been disqualified. The current study was interested in the perceptions of women of color; therefore, participants who did not identify as women of color were excluded.

## Measures

**Demographic information.** Participants completed a demographic form asking them to identify their age, gender, race, ethnicity, sexual orientation, religious affiliation, highest educational level completed, and household income.

**Psychological distress.** Psychological distress was assessed using the Hopkins Symptom Checklist-21 (HSCL-21; Green, Walkey, McCormick, & Taylor, 1988). The 21-item self-report measure assesses psychological distress along three dimensions: general feelings of distress, somatic distress, and performance difficulty. Participants indicated how often they have felt each symptom during the past several days using a 4-point Likert type scale, ranging from 1 (*not at all*) to 4 (*extremely*). Samples items include “Your mind going blank” and “Feeling blue.” Mean scale scores were calculated with higher scores indicating greater levels of psychological distress. Internal consistency reliability for scores on the HSCL-21 was high for samples of undergraduates (Cronbach’s  $\alpha = .90$ ; Green et al., 1988) and adult therapy patients (Cronbach’s  $\alpha = .89$ ; Deane, Leathem, & Spicer, 1992). Regarding the validity of the HSCL, the original HSCL has shown validity in regard to its clinical sensitivity and construct validity (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974). The HSCL has been previously utilized in research of women’s experiences of sexism (Corning, 2002; Klonoff, Landrine, & Campbell, 2000; Szymanski, 2005). Additionally, the HSCL-21 has also yielded equivalent factor structure across diverse racial groups (e.g., African American, Latinx; Cepeda-Benito & Gleaves, 2000; Szymanski & Stewart, 2010). For the current study, the HSCL-21 produced a Cronbach’s  $\alpha$  coefficient of .93; subscale alphas ranged from .82 to .88.

**Perceived stress.** The 10-item Perceived Stress Scale (PSS-10) was used to assess the extent to which situations in life are perceived as stressful (Cohen et al., 1983). The PSS-10 was

designed to assess how unpredictable, uncontrollable, and overloading the life situations are for the participants over the last month. Participants rated their exposure to the stressful situations on a 5-point scale, ranging from 0 (*never*) to 4 (*very often*). A sample item reads, “How often have you been angered because of things that were outside of your control?” The responses are summed (ranging from 0 to 40), with higher total scores indicating greater perceived stress. The measure has demonstrated evidence of reliability, with Cronbach’s alpha coefficients of .78 to .91 in a racially/ethnically diverse nationally representative sample (Cohen & Janicki-Deverts, 2012). Regarding construct validity, the measure has correlated positively with negative affect (e.g., anxiety), depression, and coping behaviors (Cohen & Janicki-Deverts, 2012). For the current study, the PSS produced a Cronbach’s alpha coefficient of .88.

**Perceived cybervictimization.** Hinduja and Patchin’s (2007; 2015) Cyberbullying and Online Aggression Survey items for assessing cyberbullying were adapted for use in the present study. The original survey is comprised of 49 questions divided between two categories: Cyberbullying Victimization and Cyberbully Offending. For this study, only the Cyberbullying Victimization (in the past 30 days) scale was used. Participants completed the original version of this scale, as well as adapted versions. The adaptations make explicit that the items should be answered in relation to attributing the cybervictimization experiences to one’s race, gender, or to being a woman of color.

After completing the original version of the scale, participants were subsequently asked if they believe these behaviors occurred due to “being a woman of color,” “gender,” or “race.” Items on the survey are answered on a 5-point Likert scale ranging from 0 (*never*) to 4 (*many times*). Samples items read “In the last 30 days, I have been cyberbullied” and “In the last 30 days, I have been cyberbullied in these ways...someone posted a mean or hurtful picture online

of me.” The responses are summed (ranging from 0 to 36), with higher scores representing more involvement in cyberbullying (Hinduja & Patchin, 2015). Scores obtained on the original survey demonstrated good reliability with Cronbach’s alpha and for victimization ranging from .87 to .94 (Hinduja & Patchin, 2007; 2015). Since 2007, the original instrument has been used in eight different studies comprised of over 21,000 students’ ages 11 to 18, attending over 90 different schools (Cyberbullying Research Center, 2016). For the current study, the Cyberbullying Victimization produced a Cronbach’s alpha coefficient of .86; attributions alphas ranged from .88 to .90.

**Neuroticism.** Participants completed the 20-item Mini-IPIP Scale (Donnellan, Oswald, Baird, & Lucas, 2006) which includes four items for each of the five personality subscales: neuroticism (our primary measure of interest), extraversion, agreeableness, intellect/imagination, and conscientiousness. Participants rated personality descriptors (e.g., “I get upset easily,” “I am the life of the party,” or “Sympathize with others’ feelings”) on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Items were reverse coded as necessary, and an average response was calculated separately for each of the five personality factors. In a series of studies, Donnellan et al. (2006) found that Mini-IPIP scores were adequately reliable and possessed good convergent, discriminant, concurrent, and predictive validity. The alphas were all above .60 across all five domains. Additionally, Baldasaro and colleagues (2013) found similar results with sex and ethnicity. For the current study, Neuroticism produced a Cronbach’s alpha of .53.

## Results

### Preliminary Analysis

The Statistical Package of Social Sciences (SPSS) 25 was used to generate an electronic data set and conduct all analyses. This study employed a quantitative cross-sectional research design where perceptions of cyberbullying victimization served as the independent variable or predictor variable, psychological distress and perceived stress served as the dependent or outcome variable, and attributions to one's race, gender, or being a woman of color served as moderating variables. In follow up analyses, neuroticism served as a control variable.

The original sample consisted of 374 participants. To handle invalid protocols, I examined responses to demographic items, patterns of missing data, and responses to validity questions (e.g., "please select 'quite a bit' for this item"). There were 50 participants who did not meet inclusion criteria. Data from participants that did not meet inclusion criteria of identifying as a female, trans female, or a person of color were excluded from the analyses. Twenty-one participants were found to have only completed the demographic questionnaires but no survey items and thus excluded from the study. Of the remaining 303 cases, 28 were removed due to the participants not correctly responding to at least three out of the four validity items in the survey.

Of the 275 participants remaining in the data, missing value analysis was conducted. There was less than 1% of data missing per items for participants. Little's Missing Completely at Random (MCAR) test was conducted to examine the pattern of missing data in order to determine if the missing data could be imputed for the remaining participants. Little's MCAR test was not significant ( $X^2 [6084] = 6235.387, p = .086$ ), indicating that the data were missing completely at random. Based on the recommendation provided by Schlomer and colleagues (2010), and the small amount of missing data from this sample, the decision was made to utilize



expectation maximization to impute values for missing data. Although multiple imputation has been recommended over expectation maximization, the PROCESS macro used to conduct moderation analyses (i.e., the primary analyses of interest for this study) cannot handle data imputed using multiple imputation. Schlomer and colleagues (2010) also note that expectation maximization is superior to deletion and mean substitution for handling missing data.

**Assumption testing.** There are several assumptions one should check prior to conducting regression analyses (e.g., no outliers, homoscedasticity, normality; Tabachnick & Fidell, 2001). In the present study, outliers (2% or less per variable) were adjusted to three standard deviations from the mean as discussed by Van Selst and Jolicoer (1994). To test homoscedasticity, a residual scatterplot for each predictor variable was created to verify if the data points were approximately equal in width at all values of the dependent variable (Tabachnick & Fidell, 2001). The assumption of homoscedasticity was met. In addition, all variables met assumptions of normality (skewness index  $< 3$ , kurtosis index  $< 10$ ; Weston & Gore, 2006).

### **Evaluation of Primary Hypotheses**

I hypothesized that perceived cybervictimization experiences would be positively correlated to measures of stress (i.e., psychological distress and perceived stress; H1a). To test this hypothesis, Pearson's product-moment correlation was run to assess the relationship between cybervictimization experiences and psychological distress. Means, standard deviations, bivariate correlations, and Cronbach's alpha values for variables in the current study are presented in Table 2.1. As predicted, there was a moderate, positive correlation between cybervictimization experiences and psychological distress ( $r = .33, p < .001$ ). Additionally, there was a small, positive correlation between cybervictimization experiences and perceived stress ( $r = .20, p < .001$ ).

Table 2.1

*Means, standard deviations, and intercorrelations of variables*

Variable	Mean	SD	1	2	3	4	5	6	7
1.HSCL-21	38.9	11.24	--						
2.PSS	18.9	7.05	.64**	--					
3.Neuroticism	11.3	3.05	.40**	.49**	--				
4.Cyberbullying Victimization Experiences	3.86	4.63	.33**	.20**	.16**	--			
5.Attribution to Gender	1.13	2.60	.27**	.16**	.12*	.81**	--		
6.Attribution to Race	.95	2.27	.30**	.23**	.19**	.73**	.82**	--	
7.Attribution to Women of Color	.95	2.30	.29**	.22**	.16**	.77**	.86**	.93**	--

\*. Correlation is significant at the 0.05 level

\*\*. Correlation is significant at the 0.01 level

Note. HSCL-21 = Hopkins Symptom Checklist-21 with subscales; PSS = Perceived Stress Scale; Neuroticism= subscale of the Mini-IPIP Scale; Cyberbullying Victimization Experiences= Cyberbullying Victimization Scale; Attribution to Gender= Adapted Scale of the Cyberbullying Victimization Scale; Attribution to Race = Adapted Scale of the Cyberbullying Victimization Scale; Attribution to Women of Color= Adapted Scale of the Cyberbullying Victimization Scale

Second, I utilized Model 1 of the Process macro for SPSS (Hayes, 2013), which tests for a single moderator ( $W$  [women of color]) of the relationship between a single antecedent variable ( $X$  [cybervictimization experiences]), and a single outcome variable ( $Y_1$  [psychological distress] or  $Y_2$  [perceived stress]). I ran two separate moderations analyses to test the moderation effect ( $W$  [women of color]) for each of the outcome variables. Results are reported in Table 2.2. In the model with psychological distress as the dependent variable, cybervictimization experiences were associated with psychological distress ( $b = .62$   $p = .004$ ), but attributing cyberbullying to one's identity as a woman of color ( $p = .613$ ), as well as the interaction term ( $p = .848$ ) was not significant. In the regression with perceived stress as the dependent variable, cybervictimization experiences ( $p = .402$ ) and the interaction term ( $p = .195$ ) were not associated with perceived

stress. However, attributions to one's identity as a woman of color ( $p = .036$ ) was associated with perceived stress. Therefore, Hypothesis 1b and 1c were not supported.

Table 2.2  
*Results of Moderation Analyses*

Psychological Distress on cybervictimization experiences and women of color

Variables	Coefficient	SE	<i>t</i>	<i>p</i>	CI
Constant	38.29	.81	47.21	.000	36.69 to 39.88
Cybervictimization Experiences ( <i>X</i> )	.62	.21	2.86	.004	.19 to 1.06
Attribution to Women of Color ( <i>M</i> )	.35	.69	.50	.613	-1.02 to 1.72
Interaction between attribution to women of color and cybervictimization ( <i>XM</i> )	.01	.06	.19	.848	-.10 to .12
$R^2 = .1136$ , MSE = 113.40 $F(3, 271) = 11.58$ , $p < .001$					
Perceived Stress on cybervictimization experiences and women of color					
Constant	19.10	.52	36.48	.000	18.07 to 20.13
Cybervictimization Experiences ( <i>X</i> )	.11	.14	.83	.402	-.16 to .39
Attribution to Women of Color ( <i>M</i> )	.94	.45	2.10	.036*	.05 to 1.83
Interaction between attribution to women of color and cybervictimization ( <i>XM</i> )	-.05	.03	-1.29	.195	-.12 to .02
$R^2 = .0576$ , MSE = 47.41 $F(3, 271) = 5.51$ , $p < .001$					

*Note.* Cyberbullying Victimization Experiences = Cyberbullying Victimization Scale; Attribution to Women of Color = Adapted Cyberbullying Victimization Scale; Psychological Distress = Hopkins Symptoms Checklist-21; Perceived Stress = Perceived Stress Scale

Next, I also hypothesized that attribution to gender and race will amplify the relationship between perceived cybervictimization and psychological distress and perceived stress, such that higher levels of attributions to gender and race would strengthen this relationship. To test this hypothesis, I utilized Model 2 of the Process macro for SPSS (Hayes, 2013), which tests for a three -way interactions ( $W$  [gender];  $Z$  [race]) of the relationship between a single antecedent

variable ( $X$  [cybervictimization experiences]), a single outcome variable ( $Y_1$  [psychological distress] and  $Y_2$  [perceived stress]). I ran two separate moderation analyses to test the moderation effect ( $W$  [gender];  $Z$  [race]) for each of the outcome variables. Results of the first regression indicated that cybervictimization experiences ( $b = .70, p = .004$ ) was associated with psychological distress, but not to attributions of gender ( $p = .456$ ) or race ( $p = .227$ ), nor any of the interaction terms ( $p = .765$  [gender];  $p = .691$  [race]) for the relationship between cybervictimization experiences and psychological distress. Results of the second regression indicated that none of the primary variables were related to perceived stress. Therefore, Hypothesis 2 was not supported (See Table 2.3)

Table 2.3 *Results of Moderation Analyses*

Psychological Distress on cybervictimization experiences, gender, and race

Variables	Coefficient	SE	<i>t</i>	<i>p</i>	CI
Constant	38.42	.83	46.07	.000	36.78 to 40.06
Cybervictimization Experiences ( $X$ )	.70	.24	2.87	.004	.22 to 1.18
Attribution to Gender ( $W$ )	-.80	1.08	-.74	.456	-2.93 to 1.32
Interaction of gender and Cybervictimization ( $XW$ )	.03	.10	.29	.765	-.17 to .23
Attribution to race ( $Z$ )	1.32	1.09	1.20	.227	-.83 to 3.48
Interaction between attribution to race and cybervictimization ( $XZ$ )	-.04	.11	-.39	.691	-.26 to .17
$R^2 = .1220$ , $MSE = 113.17$ $F(5, 269) = 7.47$ $p < .00$					
Perceived Stress on cybervictimization experiences, gender, and race					
Constant	19.12	.53	35.51	.000	18.06 to 20.18
Cybervictimization Experiences ( $X$ )	.23	.15	1.45	.146	-.08 to .54
Attribution to Gender ( $W$ )	.01	.69	.02	.977	-1.35 to 1.39
Interaction of gender and cybervictimization ( $XW$ )	-.04	.06	-.74	.456	-.17 to .08

Attribution to Race (Z)	.71	.70	1.01	.311	-.67 to 2.11
Interaction between attribution to race and cybervictimization (XZ)	.00	.07	.08	.931	-.13 to .14

$$R^2 = .0689, \text{MSE} = 47.18$$

$$F(5, 269) = 3.98 \, p < .00$$

*Note.* Cyberbullying Victimization Experiences = Cyberbullying Victimization Scale; Attribution to Gender = Adapted Cyberbullying Victimization Scale; Attribution to Race = Adapted Cyberbullying Victimization Scale; Psychological Distress = Hopkins Symptoms Checklist-21; Perceived Stress = Perceived Stress Scale

Finally, for Hypothesis 3, I examined whether results would hold after controlling for the influence of neuroticism. Accordingly, I conducted a series of hierarchical regression analyses in which neuroticism was entered in Step 1, and then cybervictimization and attribution to identity was entered in Step 2. Results are reported in Tables 2.4 to 2.6. As predicted, all results held even after controlling for neuroticism. Thus, Hypothesis 3 was supported.

Table 2.4

Summary of Hierarchical Multiple Regression Analyses: Gender

Variable	$\beta$	$t$	$R$	$R^2$	$\Delta R^2$
Step 1			.402	.162	.162
Neuroticism	.40	7.25**			
Step 2			.461	.212	.050
Neuroticism	.37	6.91**			
Attribution to Gender	.22	4.17**			

\* $p < .05$  \*\* $p < .001$

*Note.* Dependent Variable: Psychological Distress

Attribution to Gender = Adapted Cyberbullying Victimization Scale; Neuroticism = Mini-IPIP

Variable	$\beta$	$t$	$R$	$R^2$	$\Delta R^2$
Step 1			.496	.246	.246
Neuroticism	.49	9.43**			
Step 2			.507	.257	.012
Neuroticism	.48	9.16**			
Attribution to Gender	.10	2.05*			

\* $p < .05$  \*\* $p < .001$

*Note.* Dependent Variable: Perceived Stress

Attribution to Gender = Adapted Cyberbullying Victimization Scale; Neuroticism = Mini-IPIP

Table 2.5  
Summary of Hierarchical Multiple Regression Analyses: Race

Variable	$\beta$	$t$	$R$	$R^2$	$\Delta R^2$
Step 1			.402	.162	.162
Neuroticism	.40	7.25**			
Step 2			.463	.214	.053
Neuroticism	.35	6.49**			
Attribution to Race	.23	4.26**			

\* $p < .05$  \*\* $p < .001$

Note. Dependent Variable: Psychological Distress

Attribution to Race = Adapted Cyberbullying Victimization Scale; Neuroticism = Mini-IPIP

Variable	$\beta$	$t$	$R$	$R^2$	$\Delta R^2$
Step 1			.496	.246	.246
Neuroticism	.49	9.43**			
Step 2			.514	.265	.019
Neuroticism	.46	8.82**			
Attribution to Race	.14	2.64*			

\* $p < .05$  \*\* $p < .001$

Note. Dependent Variable: Perceived Stress

Attribution to Race = Adapted Cyberbullying Victimization Scale; Neuroticism = Mini-IPIP

Table 2.6  
Summary of Hierarchical Multiple Regression Analyses: Women of Color

Variable	$\beta$	$t$	$R$	$R^2$	$\Delta R^2$
Step 1			.402	.162	.162
Neuroticism	.40	7.25**			
Step 2			.464	.215	.053
Neuroticism	.36	6.66**			
Attribution to Women of Color	.23	4.29**			

\* $p < .05$  \*\* $p < .001$

Note. Dependent Variable: Psychological Distress

Attribution to Women of Color = Adapted Cyberbullying Victimization Scale; Neuroticism = Mini-IPIP

Variable	$\beta$	$t$	$R$	$R^2$	$\Delta R^2$
Step 1			.496	.246	.246
Neuroticism	.49	9.43**			
Step 2			.516	.266	.020
Neuroticism	.47	8.95**			
Attribution to Women of Color	.14	2.72*			

\* $p < .05$  \*\* $p < .001$

Note. Dependent Variable: Perceived Distress

Attribution to Women of Color = Adapted Cyberbullying Victimization Scale; Neuroticism = Mini-IPIP

## Discussion

As cybervictimization experiences become more prevalent among adults, it is important to understand the negative impacts and to intervene appropriately. The purpose of the present study was to examine several potential moderators in the relationship between cybervictimization experiences, psychological distress, and perceived stress in women of color. Researchers have started to explore the impact of cybervictimization experiences on adults (Schenk & Fremouw, 2011; Staude-Muller et al., 2012), but little work has explored factors that can intensify the relationship between experiences of cybervictimization and the well-being of the cybervictim, specifically in women of color. I hypothesized that cybervictimization experiences would be related to psychological distress and perceived stress, and that this relationship would be strengthened by making attributions about those experiences to being a woman of color. I tested two competing theories: the additive theory and the intersectionality theory.

Correlational analyses revealed that cybervictimization experiences were significantly related to psychological distress and perceived stress in a unique sample of women of color. These findings are consistent with previous research in other demographic groups, which suggest cyber victims' well-being is negatively impacted (Hinduja & Patchin, 2010; Wang et al., 2011). The link between perceived cybervictimization experiences and psychological distress and perceived stress in this sample of women of color adds to the overall literature that demonstrates the impact of cybervictimization on mental health outcomes (Eckert, 2018) specifically in women (Staude-Muller, Hansen, & Voss, 2012).

Not only did I strategically recruit a unique and understudied sample, but I also examined ways women of color may attribute cybervictimization experiences to aspects of their identity,

and in doing so tested two competing models (i.e., additive model and intersectionality model). I evaluated three new factors hypothesized to intensify the relationship between cybervictimization experiences and psychological distress or perceived stress, such that attributions to being a woman, attributions to being a person of color, and attribution to being a woman of color strengthened these relationships. I did not find evidence that attributions to being a woman of color or one's gender and race amplified the relationship between cybervictimization experiences and stress (i.e., psychological distress or perceived stress).

However, there are several potential reasons why the moderating variables (e.g., attributions to identity) were not significant in the current study. First, it is possible that the sample size of the current study was too small and that the study was underpowered for this analysis; however, Shieh (2009) discussed that to detect a small moderation effect, you need a sample size of about 226 participants. The current study had a sample size of 275 participants which indicated that the study was likely adequately powered.

Second, it is possible that there were not enough participants who experienced cybervictimization for the current analysis. It is still unclear as to what the prevalence rates are for cybervictimization due to different definitions, cut-off criteria, and operationalizations (Staude-Muller et al., 2012). The prevalence rate for cybervictimization experiences in this sample was 57.5% of the 275 participants; 16.4% attributed their experiences to being women of color; 17.5% attributed their experiences to their gender, and 15.6% to their race. These prevalence rates are comparable to the 10% overall prevalence rate found in the Kraft and Wang (2010) study of cyberbullying experiences among college students, which most closely matches the sample used in this study. Due to more than 10% of the participants endorsing cybervictimization experiences, I felt it would be best to explore if the attributions would predict



a significant amount of variance in the participants' well-being (e.g., psychological distress; perceived stress) after accounting for neuroticism.

Third, it is possible that the measurement strategy used did not adequately capture the unique forms of cybervictimization women of color may experience, or adequately distinguish between cybervictimization in general and cybervictimization due to being a woman of color. I adapted an existing measure which was validated on samples of adolescents, and focused on overall experiences of cybervictimization. For example, participants were asked to respond to the general/unadapted items on a scale of 0 (never) to 4 (many times), and were then asked to respond to the same items, on the same rating scale but due to being a woman of color, or gender or race. It is possible that participants included their experiences of being a woman of color in their initial response to the items, such that parsing those out in subsequent responses did not explain additional variance in our models. Relatedly, because this was a retrospective study, it is possible that participants were not able to accurately recall and compare the number of times they have been cyberbullied in general versus cyberbullied due to aspects of their identity.

Finally, to address recent critiques of the microaggression literature (e.g., Lilienfeld, 2017), I conducted a series of hierarchical linear regressions to determine if attributing cybervictimization experiences to aspects of one's identity predicted psychological distress and perceived distress above and beyond the personality disposition of being neurotic. This study's multiple regression analyses yielded three findings. First, attributions of cyberbullying to being a woman of color was a significant predictor of psychological distress and perceived stress above and beyond neuroticism, lending support to the intersectionality model of minority stress theory. These findings are consistent with previous research, which suggests that the intersection of racism and sexism are related to greater psychological distress (Cole, 2009; King, 2003; Lewis &

Neville, 2015; Thomas et al., 2008). However, the majority of these previous studies focused on African American women's experiences (Klonoff & Landrine, 1995; Thomas et al., 2008), which may not capture the unique intersectional experiences of all women of color.

Second and thirdly, attributions of cyberbullying to race and gender, separately, also predicted distress and stress above and beyond neuroticism, which is consistent with previous research that suggested that individuals who perceive racial microaggressions in their lives are likely to exhibit negative mental health symptoms (Nadal et al., 2012). The amount of unique variance explained by attributions to identity above and beyond neuroticism was similar in each of the models, so it is not clear which model (i.e., intersectionality or additive) is more robust. However, the additive model had issues with multicollinearity, making it difficult to run a strong test of this theory and lending support to the idea that women of color may struggle with parsing out which microaggressions are due to race and which and due to gender (Moradi & Subich, 2003; Szymanski & Stewart, 2010).

In general, these findings appear to contradict Lilienfeld's (2017) critique that individuals with high levels of negative emotionality are more prone to interpret ambiguous experiences (e.g., microaggressions, etc.) in a negative light. Furthermore, Lilienfeld (2017) mentions that these individuals are more likely to experience poor mental health due to their negative emotionality rather than their experiences. The results of the current study indicated that neurotic disposition explained some of the effects; however, attributions to being a woman of color, race, and/or gender uniquely explained the increase of variation in psychological distress and perceived stress above and beyond a neurotic disposition. Our findings are consistent with other studies that found a link between intersectionality experiences and poor well-being (Cole, 2009; Ong et al., 2013; Szymanski & Stewart, 2010). Although these findings add to the understanding

of additive and interactive effects of women of color, gender, or race experiences, this approach still measured the experiences of racism and sexism separately. That said, research is needed to further explore the impact of intersectionality experiences in cybervictimization experiences among adults.

### **Clinical Implications**

The present study has important clinical implications for counseling psychologists and mental health professionals. First, results from this study suggest that cybervictimization experiences are not only endorsed during childhood and adolescence but continue into adulthood. These results support the idea that in-person victimization is changing with technological advancements, not only in elementary, middle, or high school, but also in higher education and possibly in the workplace. Furthermore, one's cybervictimization experiences also lead to an increased likelihood of developing psychological distress and perceived stress. These findings highlight the importance of future research on the nature and treatment of mental health in adults who have cybervictimization experiences.

Second, being aware that there is a link between cybervictimization experiences and mental health can be helpful in assisting clients to identify how their attributions of being a woman of color may impact their well-being and to cope with such experiences accordingly. For example, psychoeducational techniques can be used so that clients are knowledgeable about the concepts of cybervictimizations experiences and the impact on their mental health. Furthermore, an important goal of a clinician is to validate the experiences of clients who self-identify as women of color and to help them cope with their experiences. Group-level interventions, such as social support groups and consciousness-raising groups could be helpful to women of color by providing opportunities to receive validation and support related to their cybervictimization

experiences. It is also important for the creation of programs to prevent cybervictimization experiences for adults such as zero-tolerance policies in higher education or work settings.

Finally, it is important to be aware of the code of conduct for social media platforms (e.g., Facebook, Twitter, etc.) to help clients maneuver the cyberworld. Social media companies, for the past three years, have made an effort to remove racist and xenophobic content from their platforms (Schulze, 2019). In 2018, for example, *Twitter*, *Facebook*, and *Google* removed 72 percent of illegal hate speech on their platforms (Schulze, 2019). Furthermore, *Facebook* has introduced a *Bullying Prevention Hub* on its Help Center page (Facebook, 2017) which provides tips and guidelines in reporting cyberbullying experiences. By having the ability to report their cybervictimization experiences, the client is able to gain empowerment and validation of their cybervictimization experiences from a majority group.

### **Limitations and Future Research**

The current study has several limitations. First, participants in this study all self-identified as women of color. Nonetheless, it is important to note that race and ethnicity are complex, socially constructed concepts and there is much within group heterogeneity that exists that should be further explored. The ways in which psychological distress and perceived stress is experienced could potentially vary by race, gender, sexual orientation, and other intersecting identities. Future research should examine these factors.

Second, the sample may not be generalized to the general population. The mean age of the participants was 24 years, most were undergraduate college students, and most reported living in the Southeast. Thus, our samples may not be representative of the experiences of all women of color but may represent the unique experiences of women of color in the southeastern United States. Future studies need to aim to collect more diverse samples in terms of age and

geographic location and examine influences of age and education on experiences with cybervictimization and mental health in women of color.

Third, the study relied exclusively on self-report measures that require participants to have access to a computer and the internet. There are limitations with regards to those who self-select to participate with online research and how one identifies their race, ethnicity, and gender. In addition, participants who volunteer to take part of a longer survey may have been motivated and even secure about their identity. It should be noted that participants had low levels of endorsement on items that included the word “cyberbullied.” Some studies have shown that young adults may not identify with the word “bully” and perceive the term as “outdated” (Crosslin & Golman, 2014). As a result, participants may have underreported cybervictimization experiences (Crosslin & Golman, 2014) in this study. Similarly, some adults may have identified cybervictimization as a phenomenon that occurs during childhood/adolescences and not identify experiences during adulthood.

This study also utilized a cross-sectional design and correlational designs which limits the assumptions that can be made about causation and the direction of influences of each of our variables. The current study used self-report methods which can lead to well-established problems associated with response bias (Dorn et al., 2014). It would be helpful to conduct future research that examines proximal reactions to cybervictimization within the lab and while being monitored by physiological measures (e.g., heart-rate variability, etc.). In order to more confidently make such assumptions, the use of quasi-experimental designs or longitudinal studies should be employed. Experimental or longitudinal designs would provide stronger tests of the directions of the relationship between cybervictimization experiences, mental health, and intersectionality of their identities.

Additionally, this study used retrospective surveys which may not accurately reflect the extent and nature of experiences women of color may have with cybervictimization experiences. These forms of surveys tend to often neglect everyday types of experiences, may provide an incomplete picture of their daily experiences, and create distortions (Reis & Wheeler, 1991). It would be helpful to conduct future research by utilizing daily diaries as it may provide a more accurate report of experiences without distortions that may result in errors (Crosby et al., 1986; Swim et al., 2001).

Fifth, my study employed quantitative methods. However, it is important to note that all women of color do not share the same lived experiences. Qualitative research might be helpful in exploring ways in which adult women of color experience cybervictimization, psychological distress, and perceived stress.

Finally, it is important to consider that in this study neuroticism produced a Cronbach's alpha of .53 which indicates a poor alpha level; however, this alpha level is consistent with prior studies of the Mini-IPIP ( $\alpha = .62$ ; Baldasaro et al., 2013). These results suggest that part of the reason the alpha may be lower for neuroticism could be related to the difficulty of trying to measure broad content with only four items.

### **Conclusion**

Cybervictimization experiences continue to be a phenomenon as evidenced by the mental health impact on individuals across the lifespan. The findings of this study have provided us with new information about the correlates and predictors of psychological distress and perceived stress. This study also contributes to the body of literature that has illustrated psychological distress and perceived stress can result from cybervictimization experiences in adult women of color. Although this information provides some value, it is important for cybervictimization

researchers to continue to explore correlates and predictors of mental health, as well as the ways in which these variables interact with one another. Doing so helps us to understand what contributes to the pervasiveness of cybervictimization among women of color. This understanding may ultimately lead to the development of intersectional measures in the area of cybervictimization and awareness programs, which may eventually assist cybervictimization experiences. Furthermore, the rapid advancement and increased accessibility to social media platforms has shaped the ways in which people experience cybervictimization and perceive their experiences. Therefore, it is with hope that this understanding calls for more research, responsible norms, and policies related to cybervictimization for women of color.

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## APPENDICES

### Appendix A Demographic Survey

1. What is your gender
  1. Male
  2. Trans Male
  3. Female
  4. Trans Female
  5. Gender not listed \_\_\_\_\_
2. What is your race do you identify with?
  1. African American/Black
  2. European American/White
  3. Latinx
  4. Asian/Asian American/Pacific Islander
  5. American Indian
  6. Biracial/Multiracial
  7. Another Identity \_\_\_\_\_
3. What is your ethnicity? (e.g., American, Japanese)
4. What is your nationality/country of origin?
5. If born outside of the United States, how many years have you lived here?
6. What is your age?
7. What is your sexual orientation?
  1. Gay
  2. Heterosexual
  3. Lesbian
  4. Bi-Sexual
  5. Asexual
  6. Another Sexual Orientation \_\_\_\_\_
  7. I do not wish to share
8. What is your current relationship status?
  1. Single
  2. Dating
  3. Committed Relationship
  4. Engaged
  5. Married
  6. Divorced
  7. Widowed

9. Which statement describes you best?
1. I consider myself spiritual and religious
  2. I consider myself religious but not spiritual
  3. I consider myself spiritual but not religious
  4. I consider myself neither
10. What is your religious/spiritual affiliation?
1. Christian
  2. Jewish
  3. Muslim
  4. Buddhist
  5. Hindu
  6. Atheist
  7. Agnostic
  8. Pagan
  9. Another Affiliation \_\_\_\_\_
11. What is your estimate yearly income?
1. \$0-9,999
  2. \$10,000-19,999
  3. \$20,000-29,999
  4. \$30,000-39,999
  5. \$40,000-49,999
  6. \$50,000-59,999
  7. \$60,000-69,999
  8. \$70,000-79,999
  9. \$80,000-89,999
  10. \$90,000-99,999
  11. Over \$100,000
12. Highest Grade/Level of Education Completed?
1. Did Not Complete High School
  2. High School/GED
  3. Some College
  4. Bachelor's Degree
  5. Master's Degree
  6. Advanced Graduate Work



## Appendix B

### Psychological Distress Scale:

#### Hopkins Symptom Checklist-21

How have you felt during the past seven days including today? Use the following scale to describe how distressing you have found these things over this time.

	Not At all (1)	A little (2)	Quite a bit (3)	Extremely (4)
1. Difficulty in speaking when you are excited	1	2	3	4
2. Trouble remembering things	1	2	3	4
3. Worried about sloppiness or carelessness	1	2	3	4
4. Blaming yourself for things	1	2	3	4
5. Pains in the lower part of your back	1	2	3	4
6. Feeling lonely	1	2	3	4
7. Feeling Blue	1	2	3	4
8. Your feelings being easily hurt	1	2	3	4
9. Feeling others do not understand you or are unsympathetic	1	2	3	4
10. Feelings that people are unfriendly or dislike you	1	2	3	4
11. Having to do things very slowly in order to be sure you are doing them right	1	2	3	4
12. Feelings inferior to others	1	2	3	4
13. Soreness of your muscles	1	2	3	4
14. Having to check and double-check what you do	1	2	3	4
15. Hot or cold spells	1	2	3	4
16. Your mind going blank	1	2	3	4
17. Numbness or tingling in part of your body	1	2	3	4
18. A lump in your throat	1	2	3	4
19. Trouble concentrating	1	2	3	4
20. Weakness in parts of your body	1	2	3	4
21. Heavy feelings in your arms or leg	1	2	3	4

## Appendix C

### Perceived Stress

#### Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate by circling how often you felt or thought a certain way.

	Never (0)	Almost Never (1)	Sometimes (2)	Fairly Often (3)	Very Often (4)
1. In the last month, how often have you been upset because of something that happened unexpectedly	0	1	2	3	4
2. In the last month, how often have you felt that you were unable to control the important things in your life	0	1	2	3	4
3. In the last month, how often have you felt nervous and “stressed”?	0	1	2	3	4
4. In the last month, how often have you felt confident about your ability to handle your personal problems	0	1	2	3	4
5. In the last month, how often have you felt that things were going your way	0	1	2	3	4
6. In the last month, how often have you found that you could not cope with all the things that you had to do	0	1	2	3	4
7. In the last month, how often have you been able to control irritations in your life?	0	1	2	3	4
8. In the last month, how often have you felt that you were on top of things	0	1	2	3	4
9. In the last month, how often have you been angered because of things that were outside of your control	0	1	2	3	4
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them	0	1	2	3	4

## Appendix D

### Perceived Cybervictimization

Adapted version of Cyberbullying and Online Aggression Survey

**Cyberbullying is when someone repeatedly harasses, mistreats, or makes fun of another person (on purpose to hurt them) online or while using cell phones or other electronic devices.**

Circle your answer for each question.

Circle 0 = If this has NEVER happened to you

Circle 1 = If the has happened ONCE

Circle 2 = If this has happened A FEW TIMES

Circle 3 = If this has happened SEVERAL TIMES

Circle 4 = If this has happened MANY TIMES

### Cyberbullying Victimization Questions

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1. I have seen other people being cyberbullied:   | 0 | 1 | 2 | 3 | 4 |
| 2. In my lifetime, I have been cyberbullied:      | 0 | 1 | 2 | 3 | 4 |
| 3. In the last 30 days, I have been cyberbullied: | 0 | 1 | 2 | 3 | 4 |

### In the last 30 days, I have been cyberbullied in these ways...

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 4. Someone posted mean or hurtful comments about me online: | 0 | 1 | 2 | 3 | 4 |
| <i>This happened because of my gender?</i>                  |   |   |   |   |   |
|   | 0 | 1 | 2 | 3 | 4 |
| <i>This happened because of my race?</i>                    |   |   |   |   |   |
|   | 0 | 1 | 2 | 3 | 4 |
| <i>This happened because I am a woman of color?</i>         |   |   |   |   |   |
|   | 0 | 1 | 2 | 3 | 4 |
| 5. Someone posted a mean or hurtful picture online of me:   | 0 | 1 | 2 | 3 | 4 |
| <i>This happened because of my gender?</i>                  |   |   |   |   |   |
|   | 0 | 1 | 2 | 3 | 4 |
| <i>This happened because of my race?</i>                    |   |   |   |   |   |
|   | 0 | 1 | 2 | 3 | 4 |
| <i>This happened because I am a woman of color?</i>         |   |   |   |   |   |
|   | 0 | 1 | 2 | 3 | 4 |
| 6. Someone posted a mean or hurtful video online of me:     | 0 | 1 | 2 | 3 | 4 |

*This happened because of my gender?*            0      1      2      3      4

*This happened because of my race?*            0      1      2      3      4

*This happened because I am a woman of color?* 0      1      2      3      4

7. Someone created a mean or hurtful web page about me: 0   1   2   3   4

*This happened because of my gender?*            0      1      2      3      4

*This happened because of my race?*            0      1      2      3      4

*This happened because I am a woman of color?* 0      1      2      3      4

8. Someone spread rumors about me online: 0   1   2   3   4

*This happened because of my gender?*            0      1      2      3      4

*This happened because of my race?*            0      1      2      3      4

*This happened because I am a woman of color?* 0      1      2      3      4

9. Someone threatened to hurt me through a cell phone text message: 0   1   2   3   4

*This happened because of my gender?*            0      1      2      3      4

*This happened because of my race?*            0      1      2      3      4

*This happened because I am a woman of color?* 0      1      2      3      4

10. Someone threatened to hurt me online: 0   1   2   3   4

*This happened because of my gender?*            0      1      2      3      4

*This happened because of my race?*            0      1      2      3      4

*This happened because I am a woman of color?* 0      1      2      3      4

11. Someone pretended to be me online and acted in a way that was mean or hurtful to me:  
0   1   2   3   4

*This happened because of my gender?*            0      1      2      3      4

*This happened because of my race?*            0      1      2      3      4

*This happened because I am a woman of color?* 0      1      2      3      4

## Neuroticism

## Mini-IPIP

How much do you agree with each statement about you as you generally are now, not as you wish to be in the future?

	Strongly Agree (1)	Somewhat Disagree (2)	Neither Agree nor Disagree (3)	Somewhat Agree (4)	Strongly Agree (5)
1. Am the life of party	1	2	3	4	5
2. A Sympathize with others' feelings.	1	2	3	4	5
3. Get chores done right away.	1	2	3	4	5
4. Have frequent mood swings.	1	2	3	4	5
5. Have a vivid imagination.	1	2	3	4	5
6. Don't talk a lot.	1	2	3	4	5
7. Am not interested in other people's problems.	1	2	3	4	5
8. Often forget to put things back in their proper place.	1	2	3	4	5
9. Am relaxed most of the time.	1	2	3	4	5
10. I Am not interested in abstract ideas.	1	2	3	4	5
11. Talk to a lot of different people at parties	1	2	3	4	5
12. Feel others' emotions	1	2	3	4	5
13. Like order.	1	2	3	4	5
14. Get upset easily	1	2	3	4	5
15. I Have difficulty understanding abstract ideas.	1	2	3	4	5
16. Keep in the background.	1	2	3	4	5
17. Am not really interested in others.	1	2	3	4	5
18. Make a mess of things.	1	2	3	4	5
19. Seldom feel blue.	1	2	3	4	5
20. Do not have a good imagination	1	2	3	4	5

## Appendix F

## IRB Approval

## INSTITUTIONAL REVIEW BOARD



Mail: P.O. Box 3999                      In Person: 58 Edgewood 3rd Floor  
       Atlanta, Georgia 30302-3999  
 Phone: 404/413-3500  
 FWA:                00000129

February 21, 2019

Principal Investigator: Don Davis  
 Key Personnel: Davis, Don; Dew, Brian; Menendez, Joanna  
 Study Department: College of Education and Human Development  
 Study Title: Examining Experiences of Cyberbullying and Corresponding Psychological Distress  
 in Women of Color  
 Review Type: Exempt Amendment  
 IRB Number: H19178  
 Reference Number: 353406

Approval Date: 10/04/2018  
 Status Check Due By: 10/03/2021  
 Amendment Effective Date: 02/12/2019

The Georgia State University Institutional Review Board reviewed and **approved** the amendment to your above referenced Study.

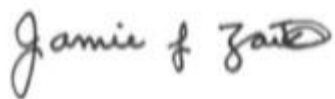
This amendment is approved for the following modifications:

- ☐ Currently, the study is recruiting participants via SONA. We would also like to recruit participants at least 18 years old or older on social media. Additionally, the questionnaire was briefly altered for participants who will be recruited via social media platforms. One additional question was added at the end of the questionnaire: "Please enter an email address if you would like to participate in the random raffle of a \$25 Amazon gift card. "

The amendment does not alter the approval period which is listed above and a status update must be submitted at least 30 days before the due date if research is to continue beyond that time frame. Any unanticipated problems resulting from participation in this study must be reported to the IRB through the Unanticipated Problem form.

For more information, visit our website at [www.gsu.edu/irb](http://www.gsu.edu/irb).

Sincerely,

A handwritten signature in cursive script that reads "Jamie f Zaikov". The signature is written in dark ink on a white background.

Jamie Zaikov, IRB Member  
Appendix G

## **Appendix G**

### *Appendix G.1* Informed Consent



Georgia State University  
Department of Counseling and Psychological Services  
Informed Consent

Title: Examining Experiences of Cyberbullying and Corresponding Psychological Distress in Women of Color

Principal Investigator: Don E. Davis, PhD

Student Principal Investigator: Joanna Menendez, M.S.

I. Purpose:

You are invited to participate in a research study. The purpose of this study is to examine the psychological consequences of cyberbullying on women of color. A total of 500 participants will be recruited for this study. Participation will require 30 to 40 minutes of your time.

II. Procedures:

To participate in this study, you must be at least 18 years old, live in the United States, and identify as a woman of color. If you decide to participate, you will complete an online survey. Participants will be gathered through the Georgia State University, Department of Counseling and Psychological Services SONA subject pool. You will complete several measures regarding your demographic questions, cyberbullying experiences, and distress. Your participation in this study will take approximately 30 to 40 minutes of your time. You will receive one SONA research credit through the College of Education, Department of Counseling Psychology and Psychological Services SONA system.

III. Risks:

The only potential risk in taking part in this study is some mild discomfort from answering questions about your cyberbullying experiences and other symptoms. The risks of this discomfort should be very small. If answering any questions in the survey cause you distress, please contact the Georgia State University Counseling and Testing Center, 75 Piedmont Ave, N.E., Suite 200A, telephone (404) 413-1640. Other than that noted above, you should not suffer any physical, psychological, social, legal, or economic risks from taking part in this study.

IV. Benefits:

Participation in this study may or may not benefit you personally. Participants may benefit from contributing to the counseling literature surrounding the topic of cyberbullying, which will be a societal benefit as well, or there may not be any benefit to the participants at all.

V. Voluntary Participation and Withdrawal:

Participation in research is voluntary. You do not have to be in this study. If you decide to be in the study and change your mind, you have the right to drop out at any time. If you do not want to answer a question, skip it. If you complete the survey, even if you skip some questions, you will be granted 1 research credit through the College of Education, Department of Counseling Psychology and Psychological Services SONA system.

VI. Confidentiality:

We will keep your records private to the extent allowed by law. Dr. Davis and an approved research team will have access to the information you provide. Furthermore, while the research team has made plans to maintain confidentiality, you should know that the research takes place online, and therefore information may not be secure. We will grant you one SONA research credit through the College of Education, Department of Counseling Psychology and Psychological Services SONA system. Information may also be shared with those who make sure the study is done correctly, such as the GSU Institutional Review Board and the Office for Human Research Protection (OHRP). The information you provide will be stored on firewall-protected computers. Any facts that might point to you will not appear when we present this study or publish its results. The findings will be summarized and reported in group form. You will not be identified personally.

VII. Contact Persons:

Contact Don Davis at ddavis88@gsu.edu or 804-335-5173 if you have questions about this study. You can also call if think you have been harmed by the study. Call Susan Vogtner in the Georgia State University Office of Research Integrity at 404-413-3513 or [svogtner1@gsu.edu](mailto:svogtner1@gsu.edu) if you want to talk to someone who is not part of the study team. You can talk about questions, concerns, or suggestions about the study. You can also call Susan Vogtner if you have questions or concerns about your rights in this study.

VIII. Copy of Consent Form to Subject:

Please print a copy of this consent form to keep.

If you are willing to volunteer for this research, please click “I agree” below. (You must indicate consent in order to go on to the next page.)

I agree to participate in this study.

Georgia State University  
Department of Counseling and Psychological Services  
Informed Consent

Title: Examining Experiences of Cyberbullying and Corresponding Psychological Distress in Women of Color

Principal Investigator: Don E. Davis, PhD

Student Principal Investigator: Joanna Menendez, M.S.

Introduction and Key Information:

You are invited to take part in a research study. It is up to you to decide if you would like to take part in the study. The purpose of this study is to investigate the potential psychological consequences of cyberbullying in women of color. Your role in the study will last about 30 to 40 minutes of your time. You will be asked to complete an online survey. You will be asked questions about your cyberbullying experiences. You will be asked questions about your distress. Participating in this study will not expose you to any more risks than you would experience in a typical day. The study may or may not be designed to benefit you. Overall, we hope to gain information about cyberbullying in adult women, which will be a societal benefit or there may not be any benefit to the participants at all.

Purpose:

The purpose of this study is to investigate the psychological consequences of cyberbullying in women of color. You are invited to participate because you are at least 18 years old, self-identify as a woman of color (e.g., a woman who is not White, such as Black/African American, Asian American, Latinx/Hispanic, Middle Eastern) and live in the United States. A total of 1000 participants will be asked to participate in this study. Participation will require about 30-40 minutes of your time.

Procedures:

If you decide to participate, you will be asked to complete a survey that will take approximately 30 to 40 minutes to complete. The survey will be completed with an online Qualtrics-created survey. You will be asked questions about your cyberbullying experiences. You may also be asked questions about your distress. You will **not** be required to provide your name for this study. You will be eligible to participate in a raffle for a \$25 Amazon gift card at the end of the study. Additionally, all the information you provide will be kept confidential.

Future Research:

Researchers will remove information that may identify you and may use your data for future research. If we do this, we will not ask for any additional consent for you.

Risks:

In this study, we do not anticipate that you will have any more risks than you would in a normal day of life. However, some participants may experience some discomfort when answering questions about their cyberbullying experiences and other symptoms. If this occurs you have the

options to discontinue your participation in this study at any time. Georgia State University and the research team have not set aside funds to compensate for any injury. If you experience any major emotional discomfort, you may contact the following numbers in order to receive services. The phone numbers are listed below:

National Alliance on Mental Illness  
Phone: 1800-950-6264

Crisis Text Line  
Text **NAMI** to 741-741

National Suicide Prevention  
Phone: 1800-273-8255

Mental Health America  
Phone: 1800-985-5990

Benefits:

Participants in this study may or may not benefit you personally. This is one of several different studies available to you. Overall, we hope to gain information about cyberbullying in adult women, which will be a societal benefit or there may not be any benefit to the participants at all.

Compensation:

You will be asked if you would like to participate in a random drawing of a \$25 Amazon gift card by providing an email address at the end of the survey. Participants may remain eligible for the random drawing even if the participant withdraws from the study or does not complete every question. Once the study has been completed, the research team will reach out and compensate the participant chosen at random.

Voluntary Participation and Withdrawal:

Participation in research is voluntary. You do not have to be in this study. If you decide to be in the study and change your mind, you have the right to drop out at any time. You may skip questions or stop participating at any time. You will not lose any benefits to which you are otherwise entitled.

Confidentiality:

We will keep your records private to the extent allowed by law. Dr. Don Davis and Ms. Joanna Menendez will have access to the information you provide. Information may also be shared with those who make sure the study is done correctly (GSU Institutional Review Board, the Office for Human Research Protection (OHRP)). Please remember that data sent over the Internet may not be secure. We will use a participant number rather than your name on study records. The information you provide will be stored on a computer that is password-protected on a highly secure firewall-protect network. Your name and other facts that might point to you will not appear when we present this study or publish its results. The findings will be summarized and reported in group form. You will not be identified personally. You should be aware that data sent

over the Internet may not be secure. You are encouraged to take the survey in a private location so others cannot see your screen.

**IX. Contact Persons:**

Contact Dr. Don Davis at ddavis88@gsu.edu or 804-335-5173 if you have questions, concerns or complaints about this study. You can also call if think you have been harmed by the study. The IRB at Georgia State University reviews all research that involves human participants. You can contact the IRB if you would like to speak to someone who is not involved directly with the study. You can contact the IRB for questions, concerns, problems, information, input, or questions about you right as a research participant, Contact the IRB at 404-413-3500 or [irb@gsu.edu](mailto:irb@gsu.edu).

**X. Copy of Consent Form:**

You may print a copy of this consent form to keep so that you can refer to the information and numbers provided. You may do so by holding down the “ctrl” key and the letter “p” key at the same time.

If you are willing to volunteer for this research, please click “I agree” below (you must indicate consent in order to go on to the next page).

“I agree” to participate in this study

## **Appendix H**

Recruitment Script

Recruitment Materials Posted on Social Media

**Abstract.** You will complete measures related to cyberbullying experiences and distress. The study takes 30-40 minutes and you are invited to participate in a random raffle of a \$25 Amazon gift card at the end of the survey.

*Description:* A team of researchers at Georgia State University are attempting to learn the degree in which either race, gender, or both amplify the relationship between cyberbullying and distress in women of color.

To participate in this study, you must be at least 18 years old or older, live in the United States, and self-identity as a woman of color (e.g., a woman who is not White, such as Black/African American, Asian American, Latinx/Hispanic, Middle Eastern). We invite you to participate in a brief online survey (link below) that we anticipate will take between 30-40 minutes. If you choose to take part, you will be asked to answer a set of questions online concerning your demographics (age, sex, race, etc.) and experiences. At the end of the survey, you will be invited to participate in a random raffle of a \$25 Amazon gift card.

#### Recruitment Material Posted on SONA

If you self-identified as a woman of color and 18 years old or older at Georgia State University please consider taking part in this important survey in attempting to learn the degree in which either race or gender amplifies the relationship between cyberbullying and distress.

The purpose of the presented study is to examine the relationship between cyberbullying and distress in women of color. A total of 1000 people will be invited to take part in this study. Completion of the survey should take 30-40 minutes.

If you choose to take part, you will be asked to answer a set of questions on-line concerning your demographics (age, sex, race, etc.) and experiences. These will take about 30-40 minutes. You may skip questions, and you can stop or quit at any time.

Your class instructor will grant you 1 hour of research credit for your participation if you complete at least 75% of the questions. No partial credit will be given. You will not be paid for taking part of this research. If you would like to participate, please go to SONA to participate. For more information, contact Dr. Don Davis at [ddavis88@gsu.edu](mailto:ddavis88@gsu.edu) or 404-413-8195.

## Appendix I

### CyberBullying Measures

## Online Victimization Scale

### General Online Victimization

1. People have said negative things (like rumors or name calling) about how I look, act, or dress online.
2. People have said mean or rude things about the way that I talk (write) online.
3. People have posted mean or rude things about me on the internet.
4. I have been harassed or bothered online for no apparent reason.
5. I have been harassed or bothered online because of something that happened at school.
6. I have been embarrassed or humiliated online.
7. I have been bullied online
8. I was threatened online because of the way I look, act, or dress.

### Sexual Online Victimization

9. People have asked me to “cyber” online.
10. People have continued to have sexual discussions with me even after I told them to stop.
11. People have spread rumors about my sexual behavior online.
12. People have asked me for sexy pictures of myself online
13. People have shown me sexual images online
14. I have received unwanted sexual SPAM, e-mails, or messages.

### Individual Online Racial Discrimination

15. People have said mean or rude things about me because of my race or ethnic group online.
16. People have excluded me from a site because of my race or ethnic group online.
17. People have threatened me online with violence because of my race or ethnic group
18. People have shown me a racist image online.

### Vicarious Online Racial Discrimination

19. People have cracked jokes about people of my race or ethnic group online.
20. People have said things that were untrue about people in my race or ethnic group.

21. I have witnessed people saying mean or rude things about another person's ethnic group online.

### Cyberbullying Questionnaire

#### Cyberbullying Perpetration

1. Sending threatening or insulting messages by e-mail
2. Sending threatening or insulting messages by cell phone
3. Hanging humiliating images of a classmate on the Internet
4. Sending links of humiliating images to other people for them to see
5. Writing embarrassing jokes, rumors, gossip, or comments about a classmate on the Internet
6. Sending links with rumors, gossip, etc., of a classmate or an acquaintance to other people for them to read
7. Getting someone's password (nicks, cues, etc.,) and sending e-mail messages to others in this person's name, which could make this person lose face or cause trouble with his or her acquaintances
8. Recording a video or taking pictures by cell phone while a group laughs and forces another person to do something humiliating or ridiculous
9. Sending these images to other people
10. Recording a video or taking pictures by cell phone while someone hits or hurts another person. If so describe...
11. Sending these recorded images to others people
12. Broadcasting online other people's secrets, compromising information or images
13. Deliberately excluding someone from an online group (chat, lists of friends, thematic forums, etc.)



- 14. Sending messages repeatedly that include threats or that are very intimidating
- 15. Recording a video or taking cell phone pictures of some classmate while he or she is carrying out some kind of behavior of a sexual nature
- 16. Sending these images to other people

#### Cyberbullying Victimization

- 17. Receive threatening or insulting messages
- 18. Posting on the Internet or sending humiliating images of me
- 19. Writing embarrassing jokes, rumors, gossip, or comments about me on the Internet
- 20. Hacking me to send messages by e-mail or social networks that could be troublesome for me
- 21. Recording a video or taking pictures by cell phone while a group laughs and forces me to something humiliating or ridiculous
- 22. Recording a video or taking pictures by cell phone while someone hits or hurts me
- 23. Broadcasting online secrets, compromising information or images about me
- 24. Deliberately excluding me from an online group
- 25. Recording a video or taking cell phone pictures of me performing some type of behavior of a sexual nature

#### E-Victimisation Scale and E-Bullying Scale

- 1. How many times did someone tease you using emails, texting, short messages, on a website such as Renren<sup>\*</sup>, etc.?
- 2. How many times did someone call you bad name using emails, texting, short messages, on a website such as Renren, etc.?
- 3. How many times did someone say mean things about you using emails, texting, short messages, on a website such as Renren, etc.?
- 4. How many times did someone say he/she was going to hit/hurt you using emails, texting, short

messages, on a website such as Renren, etc.?

5. How many times did someone threaten you using emails, texting, short messages, on a website such as Renren, etc.?
6. How many times did you tease someone using emails, texting, short messages, on a website such as Renren, etc.?
7. How many times did you call someone bad name using emails, texting, short messages, on a website such as Renren, etc.?
8. How many times did you say mean things about someone using emails, texting, short messages, on a website such as Renren, etc.?
9. How many times did you say you are going to hit/hurt someone using emails, texting, short messages, on a website such as Renren, etc.?
10. How many times did you threaten someone using emails, texting, short messages, on a website such as Renren, etc.?
11. How many times did you make up something about someone to make others not like him/her anymore using emails, texting, short messages, on a website such as Renren, etc.?

#### Cybervictimization Questionnaire

1. Someone has impersonated me on the Internet, posting comments under my name, as if they were me
2. Someone has taken pictures or video recordings of me with a sexual or suggestive content (e.g., on the beach , in a locker room) without my consent and they have disseminated them over the mobile phone or Internet
3. Someone has hung doctored photos of me on the Internet to harm me or laugh at me
4. I was kicked out or not accepted on some chat list, social network contact list, or instant messaging program (e.g., Messenger, What's app), without having done anything just for being me
5. I have received calls on my mobile that are not answered, I guess to annoy me
6. Someone has hung real compromising photos or videos of me on the Internet without my permission, to harm me or make fun of me

7. I have received calls insulting me or making fun of me
8. Someone has made fun of me with offensive or insulting comments on social networks
9. Someone has disseminated, without my permission, via mobile phone or Internet, compromising images or videos of me ( of a sexual, suggestive, or insinuating nature) that I had taken
10. I have been beaten, and others have recorded it and then disseminated it
11. I have received insults through short text messages (SMS) or instant messaging programs (e.g., WhatsApp)
12. I have been impersonated in Twitter, Tuenti,... creating a false user profile (photo, personal details...) with which I was insulted or ridiculed)
13. Someone has made false complaints about me in some forum, social network, or online game, which have cause me to be expelled
14. I have been pressured to do things that I didn't want to (whether or not I finally agreed to do them) threatening me with disseminating my intimate conversations or images
15. They have forced me to do something humiliating, they have recorded it, and then disseminated it to ridicule me
16. They agree to ignore me on the social networks
17. I have received anonymous phone calls, to threaten me or intimidate me
18. Someone who has gotten my password has sent annoying messages to someone I know, as if it were me, to get me into trouble
19. There have been false rumors about me on social network

#### Cyber Victim and Bullying Scale

1. Rumoring on the Internet
2. Using nicknames on the Internet in a disturbing way
3. Using offensive symbols on the Internet

4. Mocking on the Internet
5. Making fun of shared information on the Internet
6. Writing offensive comments about news on websites
7. Using humiliating expressions on the Internet
8. Using someone's identity without his/her permission on the Internet
9. Hiding identity on the Internet
10. Entering someone's private page without permission on the Internet
11. Hacking someone's private webpage without permission
12. Sending infected file/program via e-mails.
13. Sharing videos without permission on the Internet
14. Sharing someone's photos without permission on the Internet
15. Editing photos in offensive manner on the Internet
16. Forcing to talk about sexual issues on the Internet
17. Using sexual symbols while chatting on the Internet
18. Sharing images with sexual content on the Internet
19. Using abusive/insulting language in e-mails
20. Using Internet as a slandering tool
21. Using Internet as a propaganda tool for own benefit
22. Using Internet for fraudulent act

#### Perceived Online Racism Scale

#### Personal Experience of Racial Cyber-Aggression

1. Received racist insults regarding my online profile ( e.g., profile pictures, user ID)
2. Been kicked out of an online social group because I talked about race/ethnicity

3. Been intentionally invited to join a racist online social/hate group
4. Received replies/posts suggesting that I should avoid connecting online with friends from my own racial/ethnic group
5. Received racist insults about how I write online
6. Been threatened of being harmed or killed due to my race/ethnicity
7. Received replies/posts hinting that my success is surprising for a person of my race/ethnicity
8. Received a message with a racist acronym such as FOB (Fresh Off the Boat) or PIBBY ( Put in Black's Back Youth)
9. Been harassed by someone ( e.g., troll) who started a racist argument about me for no reason
10. Received a racist meme ( e.g., racist catchphrases, captioned photos, #hashtags, etc.)
11. Been tagged in (or shred) racist content ( e.g., web sites, photos, videos, posts) insulting my race/ethnicity
12. Received posts with racist comments
13. Received replies/posts hinting that what I share cannot be trusted due to my race/ethnicity
14. Been unfriended/lost online ties because I disagreed with racist posts

#### Online-Mediated Exposure to Racist Reality

15. Been informed about a viral/trending racist event happening elsewhere (e.g., in a different location)
16. Been informed about unfairness in healthcare for racial/ethnic minorities (e.g., biased quality of treatment, insurance issues)
17. Seen online videos ( e.g., YouTube) that portray my racial/ethnic group negatively
18. Encountered online resources (e.g., Urban Dictionary) promoting negative racial/ethnic stereotype as if they are true
19. Been informed about unfairness in financial gains for racial/ethnic minorities (e.g., earning less money than Whites for doing the same work, unfair housing, and loan opportunities)
20. Been informed about unfairness in education for racial/ethnic minorities (e.g., higher suspension rates for racial/ethnic minority students)
21. Been informed about a viral/trending racist event that I was not aware of
22. Seen online news articles that describe my racial/ethnic group negatively
23. Encountered a viral/trending online racist content ( e.g., many like, stars)

24. Encountered online hate groups/communities against non-White racial/ethnic groups

#### Vicarious Exposure to Racial Cyber-Aggression

- 25. Seen other racial/minority users receive racist comments
- 26. Seen other racial/minority users being treated like a second-class citizen
- 27. Seen other racial/minority users being treated like a criminal
- 28. Seen other racial/minority users being threatened to be harmed or killed

### Cyberaggression and Cybervictimization

#### Cyber-Aggression Perpetration

- 1. Posted or re-posted something embarrassing or mean about another person online?
- 2. Sent or forwarded a hurtful message electronically to someone ( by email, text, or Facebook, etc.)
- 3. Posted, re-posted, or texted an embarrassing photo or video of someone that he or she did not want others to see
- 4. Posted or texted a hurtful comment about an online photo or video of somebody else (for example, made fun of how they look)
- 5. Posted or sent messages to purposely exclude a certain person or group of people
- 6. Posted or re-posted something private about another person that he or she did not want others to know
- 7. Used email or text messaging to spread rumors or gossip about someone
- 8. Texted or made hurtful comments about somebody's race or ethnicity
- 9. Texted or made hurtful comments about somebody's perceived sexual orientation
- 10. Texted or made hurtful comments about somebody's perceived sexual behaviors ( for example, called somebody a slut or pervert)
- 11. Said something sexual to somebody else online to embarrass them or to be mean
- 12. Sent sexual content ( photos or jokes) to somebody else online to embarrass them or to be mean

### Cyber-Victimization

- 13.Had something embarrassing or mean posted or re-posted about you online
- 14.Received a hurtful message from someone ( by email, text, or chat)
- 15.Had an embarrassing photo or video of you posted or reposted online that you didn't want others to see
- 16.Had hurtful comments made about an online photo or video of you
- 17.Been purposely excluded online
- 18.Had something personal posted or re-posted about you online that you didn't want others to see
- 19.Had gossip or rumors spread about you online
- 20.Received hurtful comments or messages about your race or ethnicity
- 21.Received hurtful comments or messages about your perceived sexual orientation
- 22.Received hurtful comments or messages about your perceived sexual behaviors (for example, been called a slut or pervert)
- 23.Received a sexual message from somebody who was trying to be mean to you or to embarrass you
- 24.Had sexual content ( photos or jokes) sent to you from somebody who was trying to be mean to you or embarrass you

### Cyberbullying Test

1. Have they ever sent you offensive and insulting messages by cellphone or Internet?
2. Have you ever received offensive and insulting calls on your cellphone or by Internet (Skype . ..)?
3. Have you ever been assaulted to tape the assault and hang it on the Internet?
4. Have they ever diffused your private or compromising pictures or videos by Internet or cellphone?
5. Have they ever taken pictures of you without your permission in places such as locker rooms, beaches, or toilets and hung them on the Internet or diffused them by cellphone?

6. Have you ever received anonymous calls to scare or frighten you?
  7. Have they ever blackmailed or threatened you with calls or messages?
  8. Have they ever harassed you sexually by cellphone or on the Internet?
  9. Has anybody ever signed your blog, pretending to be you, making slandering comments, lying, or revealing your secrets?
  10. Have they ever stolen your password to prevent your access to your blog or e-mail?
  11. Have they ever touched up your photos or videos to diffuse them through social networks or YouTube to humiliate you or make fun of you?
  12. Have they ever harassed you to isolate you from your social network contacts?
  13. Have they ever blackmailed you, making you do things you did not want to do to prevent them from diffusing your intimate matters on the network?
  14. Have they ever threatened to kill you or your family by cellphone, the social networks, or any other type of technology?
  15. Have they ever slandered you through the Internet, telling lies about you to discredit you?
- Have they ever spread rumors about you to harm you?

Note. The 15 items of the Appendix are applied in the victim role (participants report whether they have suffered these behaviors in the past year and with what frequency); then, they are asked if they have carried out these behaviors in the past year and with what frequency (the aggressor role), and finally, they are asked if they have seen some classmates performing these behaviors toward other classmates in the past year and with what frequency (the observer role).

### Cyberbullying and Online Aggression Survey Instrument

Cyberbullying is when someone repeatedly harasses, mistreats, or makes fun of another person (on purpose to hurt them) online or while using cell phones or other electronic devices.

1. I have seen other people being cyberbullied.
2. In my lifetime, I have been cyberbullied.



3. In my lifetime, I have been cyberbullied in a way that really affected my ability to learn and feel safe at school.
4. Someone posted mean or hurtful comments about me online
5. Someone posted a mean or hurtful picture online of me
6. Someone posted a mean or hurtful video online of me
7. Someone created a mean or hurtful web page about me
8. Someone spread rumors about me online
9. Someone threatened to hurt me through a cell phone text message
10. Someone threatened to hurt me online
11. Someone pretended to be me online and acted in a way that was mean or hurtful to me
12. In my lifetime, I have cyberbullied others
13. In the last 30 days, I have cyberbullied others
14. I posted mean or hurtful comments about someone online
15. I posted a mean or hurtful picture online of someone
16. I posted a mean or hurtful video online of someone
17. I created a mean or hurtful web page about someone
18. I spread rumors about someone online
19. I threatened to hurt someone through a cell phone or text message
20. I threatened to hurt someone online
21. I pretended to be someone online and acted in a way that was mean or hurtful to them

#### Florence Cyberbullying-Cyber Victimization Scales

1. Threatening and insulting text messages
2. Violent videos/photos/pictures by mobile phone
3. Threats and insults on the Internet (Web sites, chatroom, blogs, MSN, Facebook, Twitter, MySpace\_
4. Silent/prank phone calls
5. Threatening and insulting emails
6. Videos/photos/pictures of embarrassing or personal situations by mobile phone

7. Threatening and insulting phone calls
8. Violent videos/photos/pictures shared on the Internet
9. Phone calls with rumors about me
10. Videos/photos/pictures of embarrassing or personal situations on the Internet (e-mail, Web sites, YouTube, Facebook)
11. Manipulation private personal data in order to reuse them
12. Ignoring on purpose in an online group
13. Theft or personal information (images, photos) in order to reuse them
14. Rumors on the Internet
15. Theft or password and account (e-mail, Facebook)
16. Exclusion from an online group (chats, forum, Facebook groups)
17. Theft and use of phone book
18. Block in a chatroom or on Facebook in order to exclude from the group

#### European Cyberbullying Intervention Project Questionnaire

##### Cybervictimization

1. Someone said nasty things to me or called me names using texts or online messages
2. Someone said nasty things about me to others either online or through text messages
3. Someone threatened me through texts or online messages
4. Someone hacked into my account and stole personal information (e.g. through email or social networking accounts)
5. Someone hacked into my account and pretended to be me (e.g. through instant messaging or social networking accounts)
6. Someone created a fake account, pretending to be me (e.g. on Facebook or MSN)

7. Someone posted personal information about me online
8. Someone posted embarrassing videos or pictures of me online
9. Someone altered pictures or videos of me that I had posted online
10. I was excluded or ignored by others in a social networking site or internet chat room
11. Someone spread rumors about me on the internet

#### CyberBullying

1. I said nasty things to someone or called them names using texts or online messages
2. I said nasty things about someone to other people either online or through text messages
3. I threatened someone through texts or online messages
4. I hacked into someone's account and stole personal information (e.g. through email or social networking accounts)
5. I hacked into someone's account and pretended to be them (e.g. through instant messaging or social networking accounts)
6. I created a fake account, pretending to be someone else (e.g. on Facebook or MSN)
7. I posted personal information about someone online
8. I posted embarrassing videos or pictures of someone online
9. I altered pictures or videos of another person that had been posted online
10. I excluded or ignored someone in a social networking site or internet chat room
11. I spread rumors about someone on the internet

#### CyberBullying Scale

1. Do other kids use any of the following to bully you? (Circle all that have happened to you)

Email Online video clips of you Text messages/Twitter Social networking site (such as Facebook)

Picture messages Chatroom Instant messaging Virtual world (such as Second Life or the Sims)

Developed a mean website or message board about you

2. Do you use any of the following to bully other kids? (Circle all that you have used to bully)

Email Online video clips Text messages/Twitter Social networking site (e.g., Facebook)

Picture messages Chatroom Instant messaging Virtual world (such as Second Life or the Sims)

Developed a mean website or message board about another kid

3. How often do you get online or text messages from another kid threatening to beat you up or hurt you physically?

4. How often do other kids leave you out of online groups on purpose?

5. How often does another kid say something mean to you (such as calling you names or making fun of you) in a text message or online?

6. How often does a kid who is mad at you try to get back at you by not letting you be in their online group anymore? time

7. How often do you get text or online messages that make you afraid for your safety?

8. How often does a kid tell lies about you in texts or online to make other kids not like you anymore?

9. How often does another kid say online that they won't like you unless you do what they want you to do?

10. How often does a kid try to keep others from liking you by texting or posting mean things about you?

11. How often does another kid send you a message saying they will beat you up if you don't do what they want you to do?

12. How often do you get in online fights?

13. How often does another kid put you down online by sending or posting cruel gossip, rumors, or something else hurtful?

14. How often does another kid pretended to be you and send or post something that damages your reputation or friendships

15. How often does another kid share your personal secrets or images online without your permission?

16. How often have you had to ask an adult to help fix something bad that happened to you online

(like a mean picture of you was posted, people called you names, someone threatened you)?

### Multidimensional Offline and Online Peer Victimization Scale

#### Online Peer Victimization

1. Another child/young person.... send me nasty messages
2. ... called me names
3. ... send me aggressive messages
4. ... insulted me
5. ... embarrassed me
6. ... did not let me participate
7. ... did not let me join a conversation
8. ... excluded me
9. ... told my secrets to others
10. ... acted like I did not exist

#### Cyberbullying Scale

- 1.Nasty text messages
- 2.Phone pictures/photos/video of violent scene
- 3Phone pictures/photos/video of intimate scene
- 4.Silent/prank phone call
- 5.Nasty or rude e-mail
- 6.Insults on Web sites
- 7.Insults on instant messaging
- 8.Insults in chatrooms
- 9.Insults on blogs
- 10.Unpleasant pictures/photos on Web sites

### Cyberbullying Perpetration and Cyberbullying Victimization

### CyberBullying Perpetration (CBP) Scale

1. I have sent someone mean text messages on the mobile phone to harm the person
2. I have said mean things about someone on Instant messenger or in the chat room with intent to upset the person
3. I have sent someone e-mails with intent to harm the person
4. I have posted hurtful messages on Facebook or Twitter to damage the person's reputation
5. I have attempted with intent to harm another person by sending threatening statements via e-mail or text messages
6. I have never said mean things about someone to their friends on instant messengers or in chat rooms to damage the person's relationship
7. I have spread rumors about someone online to damage the person's reputation
8. I have sent someone insulting online messages repeatedly
9. I have said mean things about someone on websites repeatedly to embarrass the person
10. I have posted embarrassing pictures or videos of someone online without their permission to damage the person's reputation
11. I have posted humiliating pictures or videos of someone on websites to embarrass the person
12. I have sent never sexually explicit things to someone via e-mail or text message to embarrass the person
13. I have teased someone about his/her appearance online to emotionally harm the person
14. I have made sexual jokes about someone online to damage the person's reputation
15. I have blocked someone in a chat room to harm the person
16. I have blocked someone on an instant messenger to upset that person
17. I have rejected someone's request playing online games together to harm the person
18. I have excluded someone from online community groups to make them feel left out

19. I have never excluded someone from online group activities to make them feel left out

20. I have ignored someone's comments on social community online to embarrass the person

#### CyberBullying Victimization (CBV) Scale

1. I have received mean text messages on the mobile phone which made me uncomfortable

2. Someone has said mean things about me on instant messenger or in chat rooms to upset me

3. Someone has posted hurtful messages about me on Facebook & Twitter to damage my reputation

4. I have been sent threatening statements via e-mail or text messages which made me insecure

5. Someone has never said mean things about me to my friends on instant messengers or in chat rooms to damage my relationship

6. People have spread rumors about me online to damage my reputation

7. I have received insulting online messages from someone repeatedly

8. I have continued to receive mean text messages or e-mails even after I have asked the sender to stop

9. People have said mean things about me on websites repeatedly to embarrass the person

10. I have received intentional messages from someone which made me upset

11. Someone has posted embarrassing pictures or videos of me online without my permission to damage my reputation

12. Someone has sent private picture or videos of mine on websites without my permission to upset me

13. People have posted humiliating pictures or videos of mine on websites to embarrass me

14. I have never received sexually explicit things from someone in chat room which embarrass me

15. I have received unwanted sexual suggestions from someone in chat rooms which embarrassed me

16. People have made sexual jokes about me online to damage my reputation

17. People have attempted to humiliate me by posting sexual comments or photos on Facebook or Twitter

18. People have spread sexual rumors about me online to damage my reputation
19. I have been sent sexually explicit things from someone via e-mail or text messages repeatedly which made me uncomfortable
20. Someone has teased me about my appearance online repeatedly to upset me
21. I have been blocked in a chat room by other people who want to make me angry
22. Someone has blocked me on an instant messenger to upset me
23. I have been excluded from online community groups which made me feel left out
24. I have never been excluded from online group activities which made me feel left out
25. People have cooperatively excluded me from online community groups to make me feel left out
26. Someone has led members of the online community in excluding me to make me feel left out
27. I have been excluded from online group activity or social community online repeatedly which made me feel left out

#### Cyber Victimization Survey

1. Has someone lied about you online?
2. Have you been physically threatened online?
3. Has something posted online made others laugh at you?
4. Have you been called names online?
5. Has someone pretended to be you online in order to tease or hurt you?
6. Has someone intentionally shared a private message that you sent to a friend in order to tease or hurt you?
7. Have you seen conversations or pictures online that made you feel excluded?
8. Have you felt excluded while involved in an online activity?
9. Has someone posted pictures of you online in order to tease or hurt you?
10. Has someone intentionally shared an embarrassing picture or video of you in order to tease or hurt you?
11. Have you been made fun of online?
12. Have you been teased online?
13. Have rumors been spread about you online?
14. Has something posted online made you upset?



15. Has someone pretended to be someone else online in order to tease or hurt you?

### Revised Cyber Bullying Inventory-II

1. taking over the password of someone's account
2. using someone's account without his/her permission and publishing humiliating posts
3. threatening someone
4. insulting someone
5. sending embarrassing and hurtful messages
6. sharing an inappropriate photo or video of someone without his/her permission
7. sharing a secret with others without the permission of the owner
8. spreading rumors
9. creating an account on behalf of someone without letting him/her know and acting like the account's owner
10. creating a humiliating website

*Note: Please make sure that you marked your response for all the items twice, once for "I did this" column and one for "This happened to me" column*

### Personal Experience Checklist

1. Other kids say nasty things to me by SMS
2. Other kids threaten me over the phone
3. Other kids send me nasty e-mails
4. Other kids harass me over the phone
5. Other kids say nasty things about me on websites
6. Other kids send me computer viruses on purpose
7. Other kids say nasty things about me on an instant messenger or chat room
8. Other kids make prank calls to me

### Cyber Victimization Experiences & Cyberbullying Behavior Scales

Cyber Victimization Scale:

Threats Sent me a(n)...

1. ...threatening comment
- 2....threatening comment whilst pretending to be someone
- 3....threatening comment and it was from someone I don't know
- 4....obscene image and it was from someone I know
- 5....threatening comment and it was from a friend after an argument
- 6....threatening comment and it was from someone I know

#### Sharing images

7. Taken a photograph of me doing something humiliating and shared it without permission.
8. Taken a photograph of me doing something embarrassing and shared it without permission
9. Made a video of me doing something embarrassing and shared it without permission
10. Made a video of me doing something humiliating and shared it without permission
11. Shared my photographs without my permission
12. Personal attack Called me an offensive nickname
13. Referred to me by an offensive nickname
14. Made fun of me because of appearance
15. Blamed me for something I couldn't help

#### Cyberbullying Scale

##### Sharing images

- 1.Made a video of someone doing something humiliating and shared it without permission
2. Made a video of someone doing something embarrassing and shared it without permission
3. Taken a photograph of someone doing something humiliating and shared it without permission
4. Taken a photograph of someone doing something embarrassing and shared it without permission
5. Gossip Forwarded a post with a rumor about someone
6. Forwarded a post with gossip about someone
7. Posted gossip about someone
8. Posted a rumor about someone
9. Forwarded a post with a joke about someone
10. Personal attack Called someone an offensive nickname
11. Referred to someone by an offensive nickname

12. Made fun of someone because of their appearance

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1. Receiving harassing e-mails or instant messages
2. Being mocked in online social utilities because of my physical appearance, character, or an instance I experienced
3. Being invited to social applications including gossip or inappropriate chat
4. Receiving instant messages or e-mails including incorrect or bad things about my friends
5. Seeing incorrect and mean-spirited things written about me
6. Having problems because my personal information is shared online without my consent
7. Confronting with tricks to get my personal information and publish it on the Web
8. Publication of my personal information through e-mails and instant messaging tools without my consent
9. Being specifically and intentionally excluded from an online group/chat room
10. Being blocked by others in instant messaging programs
11. Receiving messages with religious or politic content without my consent
12. Receiving threatening e-mail or instant messages
13. Facing with people using my personal information without my consent
14. Suffering from software aiming to get my personal and publish it on the Web
15. Receiving insulting e-mails or instant messages
16. Publication of my personal photographs and videos without my consent
17. Being disturbed by people I do not want to chat with in the instant messaging programs
18. Deception by people who are pretending to be someone else
19. Losing my passwords or being obliged to change them because of password thieves
20. Seeing people speaking on my behalf using my nickname without my knowledge
21. Receiving obscene e-mails
22. Receiving unwanted content to my personal computer without my consent
23. Facing with cursing or slang language while using instant messaging programs
24. Use of my Webcam images without my consent
25. Seeing obscene images while using the Webcam
26. Receiving proposals with sexual allusion from people I know/I do not know
27. Being urged to vote or sign in a religious, politic, or sports group

28. Confronting with people hiding their identities while communicating with me