



Contents lists available at ScienceDirect

Journal of Adolescence

journal homepage: www.elsevier.com/locate/adolescence

Sexual harassment and appearance-based peer victimization: Unique associations with emotional adjustment by gender and age

Narelle Duncan^{a,*}, Melanie J. Zimmer-Gembeck^a, Wyndol Furman^b

^a Griffith University, School of Applied Psychology, Australia

^b University of Denver, USA

ARTICLE INFO

Keywords:

Sexual harassment
Peer victimization
Emotional adjustment
Social media

ABSTRACT

Introduction: We examined sexual harassment, alongside other forms of peer victimization, as correlates of self-worth, depression, and anxiety (*emotional adjustment*). In addition, we investigated joint moderating effects of gender and age in the relationship between sexual harassment and emotional adjustment.

Methods: Participants were 277 high school and 492 university students (12–24 years, 60% female) residing in Australia. All completed a survey to report sexual harassment experiences, as well as in-person and online/social media appearance-related peer victimization, global self-worth, and social anxiety and depressive symptoms.

Results: Age was positively associated with sexual harassment, as well as with general and social media victimization; males and females did not differ. Participants who reported more sexual harassment reported poorer adjustment, but only the association with depressive symptoms remained significant after controlling for other forms of peer victimization. When gender and age were tested as moderators, the positive association between sexual harassment and depression was significant for all groups but younger males and there was a positive association between harassment and anxiety among only younger females and older males.

Conclusion: Sexual harassment was commonly reported, but rather weakly and intermittently associated with emotional health, after controlling for appearance-related peer victimization. Future research should examine when and why youth seem fairly resilient to negative emotional effects that could follow sexual harassment. It is possible that messages about the cause of sexual harassment are being heard and this aids youth to avoid self-blame and emotional maladjustment.

Sexual harassment is defined as unwelcome sexual attention that can cause perceived harm or negative effects to the target (Dahlqvist, Landstedt, Young, & Gadin, 2016). Physical sexual harassment involves inappropriate sexual contact in the form of brushing up against someone, touching, pinching, grabbing, or flashing (American Association of University Women [AAUW], 2011). Verbal sexual harassment includes being the target of sexual comments or gestures, jokes, rumours, and homophobic-name-calling. Sexual harassment can be nondirect and nonphysical, with indirect harassment involving showing or distribution of pictures, use of notes or messages to harass (AAUW, 2011).

Sexual harassment is a commonly perceived experience, with large-scale survey results showing 40%–85% of adults report some history of experiencing sexual harassment (Bendixen, Daveronis, & Kennair, 2018; Landstedt & Gillander Gadin, 2011; Skoog,

* Corresponding author. Griffith University, School of Applied Psychology, Parklands Dr., Southport, QLD, 4222, Australia.

E-mail address: narelle.duncan@griffithuni.edu.au (N. Duncan).

<https://doi.org/10.1016/j.adolescence.2019.06.016>

Received 12 March 2019; Received in revised form 29 June 2019; Accepted 30 June 2019

Available online 08 July 2019

0140-1971/© 2019 The Foundation for Professionals in Services for Adolescents. Published by Elsevier Ltd. All rights reserved.

Özdemir, & Stattin, 2016). With such a high prevalence, many theories and models have endeavoured to explain why sexual harassment occurs so commonly (Pina, Gannon, & Saunders, 2009). Taken together, the research points to a range of factors and their interactions as important considerations in understanding sexual harassment prevalence. The likely predominant trilogy of factors explaining when sexual harassment is more likely to occur include a power differential between the sexes or individuals, differing perspectives on what constitutes sexual harassment, and gender/job sex-role spillover (Whaley & Tucker, 1998). Equally important is understanding the unique impact of sexual harassment on emotional health and the day-to-day functioning of those who experience it. The primary purpose of the current study was to examine rates of sexual harassment and its association with adolescents' and young adults' emotional adjustment, before and after considering the impact of other forms of harassment and victimization. In addition, gender and age differences in sexual harassment were examined, and analyses conducted to determine if the impact of sexual harassment on emotional adjustment was stronger for young women than men, and for older relative to younger ages.

1. Gender and age differences in sexual harassment types

Women have been found to report experiencing sexual harassment more frequently than men during adolescence (Dahlqvist et al., 2016), young adulthood (Wood, Hoefler, Kammer-Kerwick, Parra-Cardona, & Busch-Armendariz, 2019), and later in the adult years (Australian Bureau of Statistics, 2016). However, this gender difference in self-reported sexual harassment is often smaller than expected. For example, research gathering information from high school students found prevalence rates of ever experiencing sexual harassment ranged from 83% to 85% in girls and 75%–79% in boys (AAUW, 1993, 2001). In a more recent study, 16%–46% of young women reported a history of experiencing a range of forms of verbal sexual harassment, with 16% reporting being shown sexual pictures, but 46% reporting unwelcome sexual comments, jokes, or gestures. For young men, prevalence of some experience of verbal harassment ranged from a low of 10% for sexual picture exposure to a high of 22% for unwelcome sexual comments. For various forms of physical sexual harassment, young women reported 4%–13% compared to much lower prevalence rates for young men of 0.2%–3% (AAUW, 2011).

Age is also related to reports of sexual harassment attitudes and behavior. High school students report more tolerant sexual harassment attitudes relative to university students (Bogart, Simmons, Stein, & Tomaszewski, 1992; Foulis & McCabe, 1997). In addition, there is an increase in sexual harassment experiences between the middle and high school years, as adolescents develop physically, initiate more interactions with the other sex, and begin romantic and sexual behaviors (Petersen & Hyde, 2009). Additional to social changes, adolescents are becoming sensitive to sexual-related interactions and developing their individual understanding of morality, including a better understanding of what is typically acceptable or not in sociosexual interactions. These changes might impact on their perception of behaviors as within or outside their personal understanding of sexual harassment (Ohse & Stockdale, 2008). Thus, some age-related increase in sexual harassment reporting might be due to understanding of, and attitudes towards, sexual harassment (Foulis & McCabe, 1977; Reilly, Lott, & Gallogly, 1986). Adolescents compared to young adults perceive a narrower set of behaviors as sexual harassment (Reilly et al., 1986) and there is an increased sensitivity and reduced tolerance of sexual harassment in young adults relative to adolescents (Foulis & McCabe, 1977). Given these intriguing possibilities, it is surprising, relative to studies of gender, there has been little investigation of adolescent versus young adult differences in sexual harassment. Instead, most sexual harassment research has a focus only on high school students (AAUW, 1993, 2001, 2011), university students (McGinley, Wolff, Rospenda, Liu, & Richman, 2016) or working adults (Mushtaq, Sultana, & Imtiaz, 2015).

2. Emotional adjustment effects of sexual harassment

Sexual harassment is known to have a negative impact on emotional health (Bucchianeri, Eisenberg, Wall, Piran, & Neumark-Sztainer, 2014; Dahlqvist et al., 2016; Goldstein, Malanchuk, Davis-Kean, & Eccles, 2007). One explanation for this can be found in the diathesis-stress model (Zuckerman, 1999), which has been applied to the study of interpersonal stress on emotional adjustment (such as anxiety and depressive symptoms; Hyde, Mezulis, & Abramson, 2008; Michl, McLaughlin, Shepherd, & Nolen-Hoeksema, 2013; Swearer & Hymel, 2015). In sexual harassment, these experiences are assumed to be akin to interpersonal stressors such as rejection and conflict with others. Harassment may be felt as rejection and coercion restricting freedom, autonomy, and choice. For example, in a study of high school students in Norway, nonphysical peer sexual harassment was measured and results supported the hypothesised significant associations with lowered self-worth and increased anxiety and depressive symptoms (Bendixen et al., 2018). Furthermore, sexual harassment has negative outcomes on adults' physical and mental health in the form of depression, anxiety, and stress (Mushtaq et al., 2015; Willness, Steel, & Lee, 2007).

There are also factors which closely relate to but nonetheless are differentiated from sexual harassment in predicting emotional adjustment. Such factors include bullying and teasing. Verbal taunts about appearance, personality or behavior during childhood have been associated with emotional adjustment such as anxiety and depressive symptoms in young adults (Roth, Coles, & Heimberg, 2002). This suggests teasing and sexual harassment are associated with emotional adjustment. However, research shows differentiation between measures that are designed to capture reports of general physical or verbal forms of teasing, victimization, and bullying and measures designed to capture sexual harassment can be a “grey area” (Charmaraman, Jones, Stein, & Espelage, 2013), with both contributing to emotional adjustment (Rodríguez-Muñoz, Moreno-Jiménez, & Sanz-Vergel, 2015; Roth et al., 2002). Despite this finding, a literature search found only one study (Slaatten, Anderssen, & Hetland, 2015) that measured both general victimization separate from sexual harassment (gay-related name calling) as correlates of emotional adjustment. In this study, the experience of sexual harassment was uniquely associated with a higher level of depressive symptoms after controlling for general victimization. Given that so few studies have examined the unique effect of sexual harassment on emotional maladjustment when

other forms of peer victimization are simultaneously considered, we aimed to isolate the effects of sexual harassment on emotional maladjustment by simultaneously considering appearance-related teasing and victimization, which has been associated with poorer emotional adjustment among youth (e.g., see Zimmer-Gembeck, Webb, Farrell, & Waters, 2018).

3. Moderation of effects of sexual harassment by gender and age

The degree to which females and males differ in their perception of social-sexual behaviors may help explain the possible moderating effects of gender on the relationship between sexual harassment and emotional adjustment. In general, females, compared to males, perceive a broader range of behaviors as harassing (Blumenthal, 1998; Rotundo, Nguyen, & Sackett, 2001). Additionally, males relative to females have greater acceptance and tolerance for behaviors they identify as sexual harassment (Ekore, 2012; Reilly et al., 1986). Whether this gender difference in behaviors that may be considered as harassing would result in more negative effects on women than men has not been clear. Although often anticipated that this would be the case, some research found no significant gender moderation on the sexual harassment/emotional adjustment relationship (Duffy, Wareham, & Walsh, 2004), whilst others reported greater emotional adjustment associated with sexual harassment for females than males (Gruber & Fineran, 2016). Even more unclear, some studies found the reverse, with a greater impact of sexual harassment on the emotional adjustment of men compared to women (Kaltiala-Heino, Fröjd, & Marttunen, 2016; Petersen & Hyde, 2009). An explanation for these inconsistent empirical findings may be found in the moderating effects of both gender and age on this relationship. Because the actual experience of sexual harassment, and the perceptions of what is and is not sexual harassment seem dependent on both gender and age (and the developmental maturation of these demographic groups, respectively), it is possible the differing effects of these variables on sexual harassment and emotional adjustment need to be considered. To shed new light on when and why sexual harassment has more implications for emotional adjustment this study examined the moderating effects of both gender and age on this relationship. It is anticipated sexual harassment will have a more negative impact on emotional adjustment in young adult women compared to all other gender age combinations considered in the present study. This hypothesis is based on the possibility of both gender and age moderation of the association between sexual harassment perceptions and adjustment, with women more emotionally impacted by sexual harassment than men, and young adults more emotionally impacted by sexual harassment relative to adolescents.

4. The current study

In summary, our goal was to investigate associations of emotional adjustment with sexual harassment among high school and university students (ages 12–24 years), and young women compared to men. The association of sexual harassment with emotional adjustment was considered alongside other forms of victimization, including general and online/social media teasing and victimization that involved a focus on appearance (*appearance-related victimization*). Measures were chosen that used different language when assessing each form of harassment, victimization, and teasing to reduce measurement overlap as much as possible. Current theory and literature support a link between emotional adjustment and sexual harassment, however findings have not been consistently in support of gender as a moderator of this association (Dahlqvist et al., 2016). A further study aim was to consider whether there is a gender difference in this relationship at the same time as considering the moderating role of age. In consideration of gender and age differences in sexual harassment perceptions and experiences it is anticipated that young adult women will be most negatively affected by sexual harassment. Only one previous study (Slaatten et al., 2015) was located that examined the association of sexual harassment with emotional adjustment net of other forms of appearance-related victimization, and no research could be located that has examined gender and age as joint moderators in the sexual harassment/emotional adjustment link.

5. Method

5.1. Participants

Participants included 769 adolescents and young adults (60% female, 40% male) aged 12.7–24.3 years ($M = 17.9$, $SD = 1.9$). Of these, 277 (36%) were high school students from one of three urban high schools (52% female, 48% male) aged 12.7–17.9 years ($M = 15.8$, $SD = 1.0$) and 492 (64%) were university students from one large urban university (64% female, 36% male) aged 15.6–24.3 years ($M = 19.0$, $SD = 1.1$). Most high school students endorsed their sociocultural background as white Caucasian (77%), with 15% Asian, < 1% Aboriginal and Torres Strait Islander, and 7% other. University students did not report their sociocultural background, but the university reports 59% female, with 82% domestic students (from Australia). Nine participants did not complete most scales and were not included.

5.2. Measures

Global self-worth. Global self-worth was measured using the global self-worth subscale of the Self-Perception Profile for Adolescents (SPPA; Harter, 2012a). The SPPA uses an alternative-choice format, with two descriptions for each item (e.g., some people like the way they are vs. other people often wish they were someone else). Participants select the description most like themselves and then indicate the statement is *really true of me* or *sort of true of me*. Responses are recoded, scored from 1 (*low perceived worth*) to 4 (*high perceived worth*) and averaged. A higher score indicated higher global self-worth. The current study recorded a Cronbach's α of 0.80.

Social anxiety symptoms. Social anxiety symptoms were measured using the 18-item Social Anxiety Scale for Adolescents (SAS-A; La Greca & Lopez, 1998; e.g., I worry about being teased) rated on a 5-point response scale ranging from 1 (*not at all*) to 5 (*all the time*). The SAS-A has three subscales, namely the 8-item Fear of Negative Evaluation (FNE), 6-item Social Avoidance and Distress – General (SAD-General), and 4-item Social Avoidance and Distress – New (SAD-New). Composite scores for the three subscales were created by averaging relevant items, and a total SAS-A score was created by averaging the three subscale scores. Higher scores reflected more variety and frequency of social anxiety symptoms. Cronbach's α was 0.95.

Depressive symptoms. Depressive symptoms were measured using the 13-item Mood and Feelings Questionnaire (MFQ; Angold et al., 1995; e.g., I felt miserable or unhappy). Responses ranged from 1 (*not true*) to 5 (*very true*). Items were averaged, so that a higher score indicated higher depressive symptoms. Cronbach's α was 0.95.

Sexual harassment. Sexual harassment was measured using five items from the 14-item AAUW Education Foundation questionnaire measuring sexual harassment (AAUW, 2001). These five items were formed by condensing items that assessed more specific behaviors into a single item, so much of the content of the 14 items was contained in the 5 items. However, one item deemed too sensitive (e.g., sexual assault) was removed. Four items gathered reports of verbal and/or non-physical sexual harassment experiences (made sexual comments, jokes, gestures or looks at you; showed, given, or left you sexual pictures, photos, notes or messages; written sexual graffiti about you on a wall or other place; spread sexual rumours about you) and one item related to physical sexual harassment (flashed you some sexual part of their body; touched, grabbed, or pinched you in a sexual way; or grabbed you or pulled at your clothing in a sexual way). Response options ranged from 1 (*never*) to 5 (*very often*). Items were averaged so that a higher score indicated greater variety and frequency of sexual harassment. Cronbach's α for the five items was 0.84.

Appearance-related victimization. Six items, based on the Perceptions of Teasing Scale (POTS; Thompson, Cattarin, Fowler, & Fisher, 1995), assessed frequency of appearance-related victimization. Three items queried general victimization about appearance and weight (e.g., [peers] make fun of or tease you about your weight or looks). Three other items queried online experiences of appearance-related victimization (e.g., In the past year, how often have you been teased about the way you look on social media?). Responses ranged from 1 (*never*) to 5 (*very often*). Items were averaged to form a composite to indicate general and online appearance-related victimization, so that a higher score indicated more frequent victimization. Cronbach's α was 0.87 for general appearance-related victimization and 0.82 for online/social media appearance-related victimization.

5.3. Procedure

The university Human Research Ethics Committee approved the study prior to collection of parent consent and adolescent assent for high school students, and self-consent for university students. High school students completed the questionnaire individually online or at school. Each high school student received a \$20 gift voucher for participation. University students were recruited in common areas across campus during orientation week (week prior to class commencement). University students received a coffee voucher for participation. First year psychology students were offered partial course credit (5%) for an Introductory (1st year) Psychology course in lieu of a coffee voucher.

5.4. Overview of analyses

Prior to analyses, variables were inspected for normality. Due to high skew (above cut-off ± 2.58) a square-root transformation was applied to measures of sexual harassment, victimization, and depressive symptoms. This resulted in reduced skew and transformed measures were used in the correlation and regression analyses. After producing descriptive statistics (with all untransformed variables) and examining correlations between all continuous measures, gender (1 = male, 2 = female) differences were tested using independent groups *t*-tests. Multiple regression was used to examine associations of sexual harassment with emotional adjustment prior to and after controls for appearance-related victimization. One model was estimated for each measure of emotional adjustment (global self-worth, social anxiety and depressive symptoms). Finally, the moderating effects of gender and age on the associations between sexual harassment and the three measures of emotional adjustment were tested using SPSS PROCESS macro v2.16 (Hayes, 2012), and the Johnson-Neyman technique (Johnson & Fay, 1950). Simple slope analyses were completed to describe the influence of sexual harassment on emotional adjustment by gender (male and female) and age (12–24 years).

6. Results

6.1. Descriptive statistics, gender differences, and correlations by gender

Means and SDs of primary study variables are shown in Table 1. Table 1 also provides results of independent groups *t*-tests comparing young men and women. Young women, relative to men, reported lower global self-worth, and more social anxiety and depressive symptoms. It should be noted the mean level of sexual harassment, compared to appearance-related general and online/social media victimization, did not differ by sex.

A past history of experiencing sexual harassment, particularly verbal, was reported by many adolescents and young adults, with 79% of participants (females = 78.9%, males = 79.6%, high school students = 74.4%, university students = 81.9%) reporting some history of verbal sexual harassment and 46% (females = 46.1%, males = 46.6%, high school students = 38.3%, university students = 50.8%) physical sexual harassment. General victimization was also common, reported by 68% of participants (females = 68.0%, males = 68.9%, high school students = 57.4%, university students = 74.6%). Social media victimization

Table 1

Means and standard deviations of primary study variables with comparisons between males and females (N = 769).

Variables	Mean	SD	Male (n = 309)		Female (n = 460)		Gender compare <i>t</i> ¹	Effect size <i>d</i>
			Mean	SD	Mean	SD		
Global self-worth	2.88	0.81	2.98	0.79	2.82	0.81	2.70**	0.20
Social anxiety symptoms	2.61	0.94	2.40	0.86	2.74	0.97	-5.08***	0.37
Depression symptoms	2.00	0.97	1.90	0.92	2.06	1.00	-2.38*	0.17
Sexual harassment	1.87	0.85	1.83	0.84	1.89	0.85	-0.96	0.07
General victimization	1.77	0.85	1.73	0.79	1.80	0.88	-1.20	0.08
Social media victimization	1.81	0.71	1.80	0.75	1.81	0.68	-0.14	0.01

p* < .05 *p* < .01 ****p* < .001.

Note. ¹df ranged from 639 to 786. The *df* ranged given that the assumption of equal variance was violated in some comparisons and *t*-tests based on adjustment for this violation are reported.

experienced in the past year was reported by 78% of participants (females = 78.9%, males = 76.1%, high school students = 79.4%, university students = 76.8%).

Pearson's correlations between measures, reported separately for males and females, are shown in Table 2. Sexual harassment and general and social media victimization were significantly negatively associated with global self-worth and significantly positively associated with social anxiety and depressive symptoms for both males and females. Age was also positively associated with sexual harassment, and appearance-related peer victimization (both general and via social media) in both genders, but only two of these associations (between age and sexual harassment, and between age and general victimization) reached significance in both males and females.

6.2. Multivariate models of emotional adjustment, sexual harassment, and victimization

To examine the unique association of sexual harassment with emotional adjustment net of the role of other forms of victimization, global self-worth, social anxiety symptoms, and depressive symptoms were regressed on all measures in two steps. Sexual harassment, gender and the continuous measure of age were entered in Step 1. Across the three models, the IVs in Step 1 (gender, age, and sexual harassment) accounted for 4% of variance, $F(3,765) = 10.68, p < .001$, 6% of variance, $F(3,765) = 16.16, p < .001$, and 9% of variance, $F(3,765) = 24.98, p < .001$, respectively (see Table 3). Sexual harassment was uniquely associated with poorer emotional adjustment, (lower self-worth and more anxiety and depressive symptoms) in Step 1. Regarding demographic control variables of gender and age, gender was associated with all measures of emotional adjustment, with young women reporting lower self-worth and more symptoms. Age was associated with self-worth with older participants reporting lower self-worth.

At Step 2, when general and social media victimization were entered, the R^2_{change} was 6% for self-worth, 9% for social anxiety symptoms and 8% for depressive symptoms with all changes significant, $F_{change}(2, 763) = 24.30, p < .001$, $F_{change}(2, 763) = 38.20, p < .001$, and $F_{change}(2, 763) = 38.42, p < .001$, respectively. After this step, general and social media appearance-related victimization were each uniquely associated with lower global self-worth and higher social anxiety and depressive symptoms. Gender remained significant in all three models. Sexual harassment remained significantly associated only with elevated depressive symptoms.

6.3. Gender and age moderation

Three multiple regression analyses were conducted to determine whether gender and age moderated the association between sexual harassment and emotional adjustment. Two of these models, for social anxiety and depressive symptoms, produced significant 3-way (sexual harassment × gender × age) product terms. In the model of social anxiety, the sexual harassment × gender × age was significant, $B = -0.36, SE = 0.13, t(761) = -2.74, p = .006, 95\% CI [-0.63, -0.10]$. Fig. 1 shows the associations between sexual

Table 2

Pearson's correlations between measures (N = 769).

Variables	1	2	3	4	5	6	7
1. Global self-worth							
2. Social anxiety symptoms	-.55***						
3. Depressive symptoms	-.60***	.59***					
4. Sexual harassment	-.14**	.20***	.31***				
5. General victimization	-.32***	.40***	.40***	.39***			
6. Social media victimization	-.23***	.24***	.37***	.47***	.49***		
7. Age	-.15**	.03	.10	.15**	.28***	.04	

p* < .05 *p* < .01 ****p* < .001.

Note. Correlations for males reported below the diagonal and females above the diagonal.

Table 3
Results of regressing global self-worth, anxiety, and depression on gender, age, sexual harassment and victimization (N = 769).

Independent variables	Dependent variables											
	Global Self-worth				Social Anxiety Symptoms				Depressive Symptoms			
	B	SE	β	sr^2	B	SE	β	sr^2	B	SE	β	sr^2
Step 1												
Gender	-0.14	0.06	-.08*	.01	0.33	0.07	.17***	.03	0.05	0.02	.08*	.01
Age	-0.04	0.02	-.09*	.01	0.03	0.02	.06	.00	0.00	0.01	-.00	.00
Sexual harassment	-0.38	0.10	-.14***	.02	0.47	0.12	.14***	.02	0.31	0.04	.29***	.08
Step 2												
Gender	-0.13	0.06	-.08*	.01	0.31	0.07	.16***	.03	0.05	0.02	.07*	.01
Age	-0.02	0.02	-.05	.00	0.01	0.02	.01	.00	-0.01	0.01	-.04	.00
Sexual harassment	-0.06	0.11	-.02	.00	0.02	0.12	.01	.00	0.16	0.04	.14***	.03
General victimization	-0.56	0.11	-.20***	.03	0.81	0.13	.25***	.05	0.24	0.04	.22***	.04
Social media victimization	-0.36	0.13	-.12**	.01	0.49	0.15	.13**	.01	0.21	0.05	.17***	.02

* $p < .05$ ** $p < .01$ *** $p < .001$.

Note. Results when using transformed variables are reported.

Global self-worth: Step 1 $F(3,765) = 10.68, R^2 = 0.04, p < .001$. Step 2 $\Delta F(2, 763) = 24.30, \Delta R^2 = 0.06, p < .001$. Final model $F(5, 763) = 16.52, p < .001$. Social anxiety symptoms: Step 1 $F(3, 765) = 16.16, R^2 = 0.06, p < .001$. Step 2 $\Delta F(2, 763) = 38.20, \Delta R^2 = 0.09, p < .001$. Final model $F(5, 763) = 25.92, p < .001$. Depressive symptoms: Step 1 $F(3, 765) = 24.98, R^2 = 0.09, p < .001$. Step 2 $\Delta F(2, 763) = 38.42, \Delta R^2 = 0.08, p < .001$. Final model $F(5, 763) = 31.82, p < .001$.

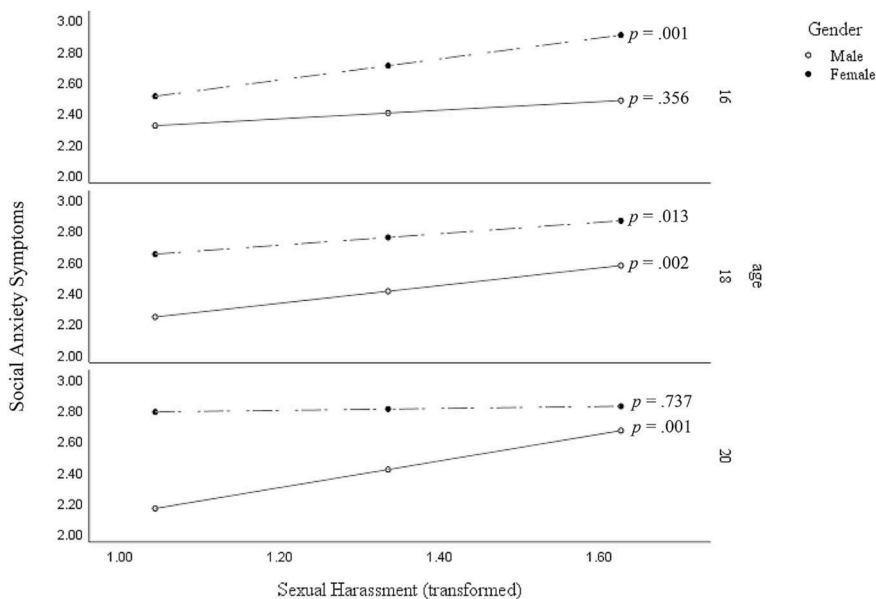


Fig. 1. Simple slopes illustrating gender and age as moderators of the relationship between sexual harassment and social anxiety symptoms.

harassment and social anxiety symptoms for young men and women at three ages (age 16, 18, and 20), which were selected to best illustrate where associations differed by age. The positive association between sexual harassment and social anxiety symptoms was significant for younger (age 18 and under), but not older (age 20 or older) females. The positive association between sexual harassment and social anxiety symptoms was significant for older (age 18 or older), but not younger (age 16 or younger) males. It should be noted all three 2-way interactions (sexual harassment \times gender, sexual harassment \times age, and gender \times age) were significant in this model.

In the model of depressive symptoms, the sexual harassment \times gender \times age interaction was significant, $B = -0.14, SE = 0.04, t(761) = -3.05, p = .002, 95\% CI [-0.22, -0.05]$. As seen in Fig. 2, the positive association between sexual harassment and depressive symptoms was significant for all except younger males. All three 2-way interactions were significant in this model of depressive symptoms.

7. Discussion

The purpose of this study was to consider the role of sexual harassment in emotional adjustment in male and female adolescents

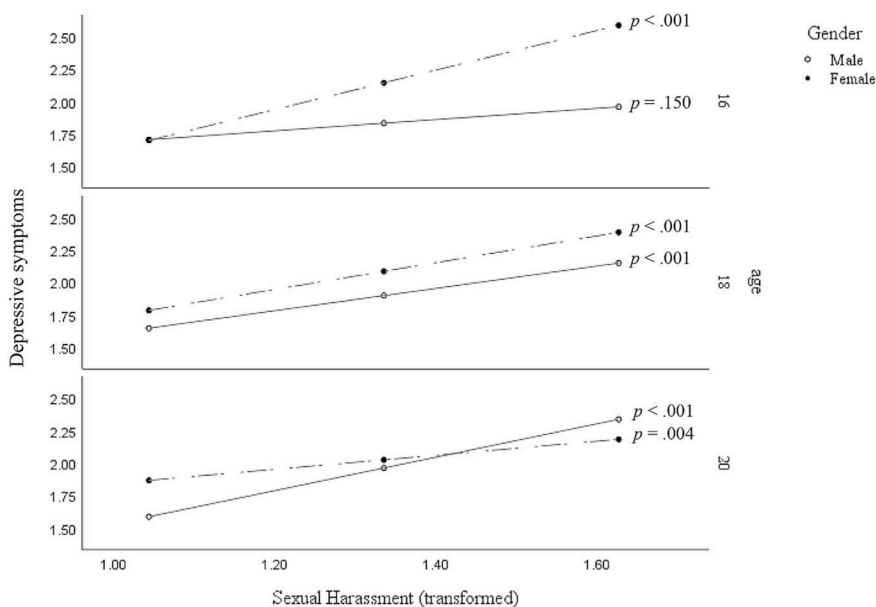


Fig. 2. Simple slopes illustrating gender and age as moderators of the relationship between sexual harassment and depressive symptoms.

and young adults alongside other forms of victimization, and to identify if gender and age conditioned the associations between sexual harassment and three forms of emotional adjustment. In particular, we expected sexual harassment would have a unique link with poorer emotional adjustment, measured as general self-worth and social anxiety and depressive symptoms. We also expected that the relation of sexual harassment with emotional maladjustment would be strongest among young adult women relative to others, given the stronger association expected in women relative to men, and in young adults relative to adolescents. This study extended previous research, by considering harassment together with appearance-related victimization, and examining age and gender in combination as moderators, given developmental maturation changes in cross-sex interactions and perceptions of others and relations that tend to occur in the adolescent to young adult transition (Blumenthal, 1998; Reilly et al., 1986).

7.1. Prevalence of sexual harassment

The first key finding of the current study was the high prevalence of ever experiencing verbal (79%) and physical (46%) sexual harassment reported by high school and university students, with age positively associated with the experience of sexual harassment, but no difference in reports between young women and men. These findings are consistent with prevalence rates, ranging from 40% to 85%, reported in different regions of the world (cited by Bendixen et al., 2018). However, our findings of a lack of gender difference in prevalence of any experience of sexual harassment and in the average level of sexual harassment, are inconsistent with some previous research showing more females report sexual harassment experience than males across the life-span (AAUW, 1993, 2001, 2011; ABS, 2016; Dahinten, 2003). However, previous studies (e.g., Bendixen et al., 2018) have reported similar figures for sexual harassment among youth as found here. A consideration here may be a potential bridging of the gap between girls' and boys' sexual harassment reporting over the last 30 years. This was shown in the AAUW's (1993, 2001, 2011) studies whereby, although more girls reported sexual harassment experience than boys, a higher proportion of boys reported sexual harassment in the most recent survey compared to in the past.

7.2. Sexual harassment and emotional adjustment

Supporting previous findings (Mushtaq et al., 2015; Willness et al., 2007), a second key finding was that sexual harassment was negatively associated with global self-worth and positively associated with social anxiety and depressive symptoms. Yet, this was before we also simultaneously considered age, gender, and appearance-related peer victimization in multivariate models. In these models, sexual harassment remained significantly associated with elevated depressive symptoms only, but some associations with social anxiety were also found when age and gender were considered as moderators. This was surprising, especially given there were only modest correlations between sexual harassment, general appearance-related victimization, and online-social media appearance-related victimization. One explanation for these results comes from attribution theory (Abramson, Seligman, & Teasdale, 1978; Weiner & Graham, 1984). It is possible the experience of rejection and victimization related to appearance is more significant for emotional adjustment than sexual harassment, given appearance is an observable personal trait that is strongly linked to self-esteem, loneliness, and social status with peers in youth (Harter, 2012b; Park, 2007; Webb, Ferguson, & Zimmer-Gembeck, 2015; Zimmer-Gembeck & Webb, 2017). This may result in victims attributing the cause of appearance-related victimization to personal (internal/

self) deficits that are stable and difficult to change. In contrast, sexual harassment includes behaviors that youth might more likely attribute to external and less stable events, such as others' bad behaviour, substance use or misuse of power. There is general support for the view that internal (self) and stable attributions for the cause of stress are more relevant for the onset and escalation of emotional adjustment problems, in comparison to attributing the cause to events that are external and unstable (Graham & Juvonen, 1998; Mathieson et al., 2011; Zimmer-Gembeck, Nesdale, Webb, Khatibi, & Downey, 2016).

Another possibility is the time frame for sexual harassment and appearance-related victimization could have been perceived differently by participants. Participants were asked directly to report any experience of sexual harassment, whereas the time frame for reporting appearance-related victimization was not specified. It is possible participants tended to focus on current, rather than past, appearance-related victimization, resulting in stronger associations for the latter than former.

7.3. Gender and age moderation

The third key finding of this study was that gender and age jointly moderated the relationship between sexual harassment and emotional adjustment, in the forms of depressive and social anxiety symptoms. In particular, young males stood out for *not* showing negative adjustment at a higher level of sexual harassment, whereas the expected association of sexual harassment with more depressive symptoms was found for other sex and age combinations. Also, sexual harassment was associated with greater social anxiety only among older males and younger females. Although we did not support our hypothesis that older females would be most at risk for emotional adjustment problems when they reported more sexual harassment experience, we thus supported the most "opposite" group as least affected; young males were found to be the least affected emotionally when they reported higher sexual harassment relative to their other young male peers. This difference in association between sexual harassment and emotional adjustment in young males is conceivable when acknowledging that this group may be the least mature on average, given that females have been found to be more sociocognitively advanced relative to their male peers (Chiasson, Vera-Estay, Lalonde, Dooley, & Beauchamp, 2017), and young males have been found to report a higher tolerance, lower sensitivity, and narrower set of behaviors as sexual harassment than others (i.e., older males, and young and older females; Reilly et al., 1986).

We also found no significant association between sexual harassment and social anxiety for older females. This finding is different to what we expected, but seems due to the similar anxiety level found among older females, whether they reported low or more elevated sexual harassment experience, and their higher level of anxiety relative to younger females who reported little history of sexual harassment. This suggests there are additional correlates of social anxiety for older females that were not examined here, which may be more relevant than sexual harassment for predicting social anxiety disorder. Some of these factors have been covered in past reviews (e.g., Ollendick & Hirshfeld-Becker, 2002) and are likely to include a range of peer problems, family problems, and cognitive styles.

7.4. Study implications, limitations, and future directions

The findings of this study provide important insights for intervention and public messages about sexual harassment. First, young women and men did not differ in their reported prevalence rates of ever experiencing sexual harassment, suggesting all require equal support in the form of sexual harassment information and assistance. However, it seems that the focus should continue to be on preventing this behavior and continuing to focus on public information campaigns that sexual harassment is all too common and is not the fault of the victim. Thus, continuing public information campaigns about sexual harassment seem a good way forward.

Second, with respect to interventions to improve youth's self-worth and reduce symptoms of depression and social anxiety, it seems that the focus should be placed more widely on preventing general and social media-based, appearance-related victimization and teasing, and personally supporting victims. These forms of victimization each significantly contributed to emotional maladjustment (i.e., lower self-worth, social anxiety symptoms, and depressive symptoms), highlighting the importance for interventions to target these forms of victimization in both adolescents and young adults.

Despite the novel findings of this study, all measures were self-reported. The AAUW Sexual Harassment Survey items had a good Cronbach's α that was similar to those reported by previous researchers adopting variations of the same measure (Espelage, Basile, De La Rue, & Hamburger, 2015). However, there is no known psychometric or scale development information available establishing its validity. Future research may benefit from the validation of this measure of sexual harassment. In addition, the cross-sectional design of this study does not allow for conclusions about the direction of effects. This should be addressed within future longitudinal research, which may also consider inclusion of the effects of alcohol and drug use on the relationship between sexual harassment and emotional adjustment in youth. Finally, content and source of sexual harassment may impact health outcomes. Therefore, future research could consider content such as gay-related name calling and the power differential, as well as same-sex versus opposite sex victimization, when examining associations of sexual harassment with emotional adjustment.

8. Conclusion

Overall, a high prevalence of sexual harassment was found in the current study among both adolescents and young adults, and this harassment seems to have some implications for depressive and social anxiety symptoms, at least for most gender-age combinations. Yet, reports of experienced appearance-related peer victimization seemed to have stronger and more consistent associations with all measures of emotional maladjustment. Moreover, the combination of age and gender identified groups where sexual harassment had more or less association with symptoms, with young men least likely to show elevated symptoms associated with the experience of

sexual harassment. At a time when high profile cases of sexual harassment have, once again, sharpened the focus on sexual harassment and its widespread occurrence, this study adds to the growing evidence-base regarding the negative impact of multiple forms of victimization related to sex, gender, and appearance. Such findings emphasize the importance of developing or expanding public educational campaigns, educational programs or other interventions designed to reduce harassment and victimization or to improve relationship skills among all youth.

Acknowledgements

Support for this study came from the Australian Research Council, DP170102547. We thank Tanya Hawes and Nina Horan for their expertise in data collection and management. We also thank Drew Nesdale, Geraldine Downey, Haley Webb, Allison Waters, and Lara Farrell for advice on the larger project from which these data are drawn. Portions of this study are included in the honours thesis of Narelle Duncan.

References

- Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology, 87*, 49–74. <https://doi.org/10.1037/0021-843X.87.1.49>.
- American Association of University Women (AAUW) (1993). *Hostile hallways: The AAUW survey on sexual harassment in America's schools*. Washington, DC: American Association of University Women. Retrieved from [http://onlinelibrary.wiley.com/libraryproxy.griffith.edu.au/journal/10.1111/\(ISSN\)1746-1561](http://onlinelibrary.wiley.com/libraryproxy/griffith.edu.au/journal/10.1111/(ISSN)1746-1561).
- American Association of University Women (AAUW) (2001). *Hostile hallways: Bullying, teasing, and sexual harassment in school*. Washington, DC: American Association of University Women. Retrieved from <https://www.aauw.org/files/2013/02/hostile-hallways-bullying-teasing-and-sexual-harassment-in-school.pdf>.
- American Association of University Women (AAUW) (2011). *Crossing the line: Sexual harassment at school*. Washington, DC: American Association of University Women. Retrieved from <https://files.eric.ed.gov/fulltext/ED525785.pdf>.
- Angold, A., Costello, E. J., Messer, S. C., Pickles, A., Winder, F., & Silver, D. (1995). Development of a short questionnaire for use in epidemiological studies of depression in children and adolescents. *International Journal of Methods in Psychiatric Research, 5*, 237–249.
- Australian Bureau of Statistics (ABS) (2016). *Personal safety survey, cat. No. 4906.0*. viewed 18 September 2018 <http://www.abs.gov.au/ausstats/abs@nsf/mf/4906.0>.
- Bendixen, M., Daveronis, J., & Kennair, L. E. O. (2018). The effects of non-physical peer sexual harassment on high school students' psychological well-being in Norway: Consistent and stable findings across studies. *International Journal of Public Health, 63*, 3–11. <https://doi.org/10.1007/s00038-017-1049-3>.
- Blumenthal, J. A. (1998). The reasonable woman standard: A meta-analytic review of gender differences in perceptions of sexual harassment. *Law and Human Behavior, 22*, 33–57.
- Bogart, K., Simmons, S., Stein, N., & Tomaszewski, E. P. (1992). Breaking the silence: Sexual and gender-based harassment in elementary, secondary, and post-secondary education. *Sex equity and sexuality in education, 191*–221.
- Bucchianeri, M. M., Eisenberg, M. E., Wall, M. M., Piran, N., & Neumark-Sztainer, D. (2014). Multiple types of harassment: Associations with emotional well-being and unhealthy behaviors in adolescents. *Journal of Adolescent Health, 54*, 724–729. <https://doi.org/10.1016/j.jadohealth.2013.10.205>.
- Charmaraman, L., Jones, A. E., Stein, N., & Espelage, D. L. (2013). Is it bullying or sexual harassment? Knowledge, attitudes, and professional development experiences of middle school staff. *Journal of School Health, 83*, 438–444. <https://doi.org/10.1111/josh.12048>.
- Chiasson, V., Vera-Estay, E., Lalonde, G., Dooley, J. J., & Beauchamp, M. H. (2017). Assessing social cognition: Age-related changes in moral reasoning in childhood and adolescence. *The Clinical Neuropsychologist, 31*, 515–530. <https://doi.org/10.1080/13854046.2016.1268650>.
- Dahinten, V. S. (2003). Peer sexual harassment in adolescence: The function of gender. *CJNR (Canadian Journal of Nursing Research), 35*, 56–73. Retrieved from <http://cjr.archive.mcgill.ca/article/download/1833/1827>.
- Dahlqvist, H., Landstedt, E., Young, R., & Gadin, K. (2016). Dimensions of peer sexual harassment victimization and depressive symptoms in adolescence: A longitudinal cross-lagged study in a Swedish sample. *Journal of Youth and Adolescence, 45*, 858–873. <https://doi.org/10.1007/s10964-016-0446-x>.
- Duffy, J., Wareham, S., & Walsh, M. (2004). Psychological consequences for high school students of having been sexually harassed. *Sex Roles, 50*, 811–821. <https://doi.org/10.1023/B:SERS.0000029099.38912.28>.
- Ekore, J. O. (2012). Gender differences in perception of sexual harassment among university students. *Gender & Behaviour, 10*, 4358–4369.
- Espelage, D. L., Basile, K. C., De La Rue, L., & Hamburger, M. E. (2015). Longitudinal associations among bullying, homophobic teasing, and sexual violence perpetration among middle school students. *Journal of Interpersonal Violence, 30*, 2541–2561. <https://doi.org/10.1177/0886260514553113>.
- Foulis, D., & McCabe, M. P. (1997). Sexual harassment: Factors affecting attitudes and perceptions. *Sex Roles, 37*, 773–798. <https://doi.org/10.1007/BF02936339>.
- Goldstein, S. E., Malanchuk, O., Davis-Kean, P. E., & Eccles, J. S. (2007). Risk factors of sexual harassment by peers: A longitudinal investigation of African American and European American adolescents. *Journal of Research on Adolescence, 17*, 285–300. <https://doi.org/10.1111/j.1532-7795.2007.00523.x>.
- Graham, S., & Juvonen, J. (1998). Self-blame and peer victimization in middle school: An attributional analysis. *Developmental Psychology, 34*, 587–599. <https://doi.org/10.1037/0012-1649.34.3.587>.
- Gruber, J., & Fineran, S. (2016). Sexual harassment, bullying, and school outcomes for high school girls and boys. *Violence Against Women, 22*, 112–133. <https://doi.org/10.1177/1077801215599079>.
- Harter, S. (2012a). *Self-perception profile for adolescents: Manual and questionnaires*. Denver, CO, USA: University of Denver.
- Harter, S. (2012b). *The construction of the self: Developmental and sociocultural foundations* (2nd ed.). New York: Guilford.
- Hayes, A. F. (2012). *Process: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [white paper]*. Retrieved from <http://www.afhayes.com/public/process2012.pdf>.
- Hyde, J. S., Mezulis, A. H., & Abramson, L. Y. (2008). The ABCs of depression: Integrating affective, biological, and cognitive models to explain the emergence of the gender difference in depression. *Psychological Review, 115*, 291–313. <https://doi.org/10.1037/0033-295X.115.2.291>.
- Johnson, P. O., & Fay, L. F. (1950). The Johnson-Neyman technique, its theory and application. *Psychometrika, 15*, 349–367. Retrieved from <https://link.springer.com.libraryproxy.griffith.edu.au/article/10.1007%2FBF02288864>.
- Kaltiala-Heino, R., Fröjd, S., & Marttunen, M. (2016). Sexual harassment and emotional and behavioral symptoms in adolescence: Stronger associations among boys than girls. *Social Psychiatry and Psychiatric Epidemiology, 51*, 1193–1201. <https://doi.org/10.1007/s00127-016-1237-0>.
- La Greca, A. M., & Lopez, N. (1998). Social anxiety among adolescents: Linkages with peer relations and friendships. *Journal of Abnormal Child Psychology, 26*, 83–94. <https://doi.org/10.1023/A:1022684520514>.
- Landstedt, E., & Gillander Gadin, K. (2011). Experiences of violence among adolescents: Gender patterns in types, perpetrators and associated psychological distress. *International Journal of Public Health, 56*, 419–427. <https://doi.org/10.1007/s00038-011-0258-4>.
- Mathieson, L. C., Murray-Close, D., Crick, N. R., Woods, K. E., Zimmer-Gembeck, M. J., Geiger, T. C., et al. (2011). Hostile intent attributions and relational aggression: The moderating roles of emotional sensitivity, gender, and victimization. *Journal of Abnormal Child Psychology, 39*, 977–987. <https://doi.org/10.1007/s10802-011-9515-5>.
- McGinley, M., Wolff, J., Rospenda, K., Liu, L., & Richman, J. (2016). Risk factors and outcomes of chronic sexual harassment during the transition to college: Examination of a two-part growth mixture model. *Social Science Research, 60*, 297–310. <https://doi.org/10.1016/j.ssresearch.2016.04.002>.
- Michl, L. C., McLaughlin, K. A., Shepherd, K., & Nolen-Hoeksema, S. (2013). Rumination as a mechanism linking stressful life events to symptoms of depression and anxiety: Longitudinal evidence in early adolescents and adults. *Journal of Abnormal Psychology, 122*, 339–352. <https://doi.org/10.1037/a0031994>.

- Mushtaq, M., Sultana, S., & Imtiaz, I. (2015). The trauma of sexual harassment and its mental health consequences among nurses. *Journal of the College of Physicians and Surgeons Pakistan*, 25, 675–679. Retrieved from <http://link.galegroup.com.libraryproxy.griffith.edu.au/apps/doc/A428174153/AONE?u=griffith&sid=AONE&xid=7a8d67e1>.
- Ohse, D. M., & Stockdale, M. S. (2008). Age comparisons in workplace sexual harassment perceptions. *Sex Roles*, 59, 240–253. <https://doi.org/10.1007/s11199-008-9438-y>.
- Ollendick, T. H., & Hirshfeld-Becker, D. R. (2002). The developmental psychopathology of social anxiety disorder in youth. *Biological Psychiatry*, 51, 44–58. [https://doi.org/10.1016/S0006-3223\(01\)01305-1](https://doi.org/10.1016/S0006-3223(01)01305-1).
- Park, L. E. (2007). Appearance-based rejection sensitivity: Implications for mental and physical health, affect and motivation. *Personality and Social Psychology Bulletin*, 33, 490–504. <https://doi.org/10.1177/0146167206296301>.
- Petersen, J. L., & Hyde, J. S. (2009). A longitudinal investigation of peer sexual harassment victimization in adolescence. *Journal of Adolescence*, 32, 1173–1188. <https://doi.org/10.1016/j.adolescence.2009.01.011>.
- Pina, A., Gannon, T. A., & Saunders, B. (2009). An overview of the literature on sexual harassment: Perpetrator, theory, and treatment issues. *Aggression and Violent Behavior*, 14, 126–138. <https://doi.org/10.1016/j.avb.2009.01.002>.
- Reilly, M. E., Lott, B., & Gallogly, S. M. (1986). Sexual harassment of university students. *Sex Roles*, 15, 333–358. <https://doi.org/10.1007/BF00287976>.
- Rodríguez-Muñoz, A., Moreno-Jiménez, B., & Sanz-Vergel, A. I. (2015). Reciprocal relations between workplace bullying, anxiety, and vigor: A two-wave longitudinal study. *Anxiety, Stress & Coping*, 28, 514–530. <https://doi.org/10.1080/10615806.2015.1016003>.
- Roth, D. A., Coles, M. E., & Heimberg, R. G. (2002). The relationship between memories for childhood teasing and anxiety and depression in adulthood. *Journal of Anxiety Disorders*, 16, 149–164. [https://doi.org/10.1016/S0887-6185\(01\)00096-2](https://doi.org/10.1016/S0887-6185(01)00096-2).
- Rotundo, M., Nguyen, D., & Sackett, P. R. (2001). A meta-analytic review of gender differences in perceptions of sexual harassment. *Journal of Applied Psychology*, 86, 914–922. <https://doi.org/10.1037/0021-9010.86.5.914>.
- Skoog, T., Özdemir, S. B., & Stattin, H. (2016). Understanding the link between pubertal timing in girls and the development of depressive symptoms: The role of sexual harassment. *Journal of Youth and Adolescence*, 45, 316–327. <https://doi.org/10.1007/s10964-015-0292-2>.
- Slaatten, H., Anderssen, N., & Hetland, J. (2015). Gay-related name-calling among Norwegian adolescents – harmful and harmless. *Scandinavian Journal of Psychology*, 56, 708–716. <https://doi.org/10.1111/sjop.12256>.
- Swearer, S., & Hymel, S. (2015). Understanding the psychology of bullying: Moving toward a social-ecological diathesis-stress model. *American Psychologist*, 70, 344–353. <https://doi.org/10.1037/a0038929>.
- Thompson, J., Cattarin, J., Fowler, B., & Fisher, E. (1995). The perception of teasing scale (POTS) - a revision and extension of the physical appearance related teasing scale (PARTS). *Journal of Personality Assessment*, 65, 146–157. https://doi.org/10.1207/s15327752jpa6501_11.
- Webb, H. J., Ferguson, S., & Zimmer-Gembeck, M. J. (2015). Loneliness, inhibition, and friendlessness: Associations with adolescents' appearance-related concerns, attractiveness, and teasing about appearance. In K. T. Rowe (Ed.), *Social isolation, participation and impact on mental health* (pp. 51–78). New York: NOVA Science Publishers.
- Weiner, B., & Graham, S. (1984). An attributional approach to emotional development. In C. E. Izard, J. Kagan, & B. Zajonc (Eds.), *Emotions, cognition, and behavior* (pp. 167–191). New York: Cambridge University Press.
- Whaley, G. L., & Tucker, S. H. (1998). A theoretical integration of sexual harassment models. *Equal Opportunities International*, 17, 21–29. <https://doi.org/10.1108/02610159810785485>.
- Willness, C. R., Steel, P., & Lee, K. (2007). A meta-analysis of the antecedents and consequences of workplace sexual harassment. *Personnel Psychology*, 60, 127–162. <https://doi.org/10.1111/j.1744-6570.2007.00067.x>.
- Wood, L., Hoefler, S., Kammer-Kerwick, M., Parra-Cardona, J. R., & Busch-Armendariz, N. (2019). Sexual harassment at institutions of higher education: Prevalence, risk, and extent. *Journal of Interpersonal Violence*. <https://doi.org/10.1177/0886260518791228>.
- Zimmer-Gembeck, M. J., Nesdale, D., Webb, H. J., Khatibi, M., & Downey, G. (2016). A longitudinal rejection sensitivity model of depression and aggression: Unique roles of anxiety, anger, blame, withdrawal, and retribution. *Journal of Abnormal Child Psychology*, 44, 1291–1307. <https://doi.org/10.1007/s10802-016-0127-y>.
- Zimmer-Gembeck, M. J., & Webb, H. J. (2017). Body image and peer relationships: Unique associations of adolescents' social status and competence with peer- and self-reported appearance victimization. *Journal of Adolescence*, 61, 131–140. <https://doi.org/10.1016/j.adolescence.2017.10.002>.
- Zimmer-Gembeck, M. J., Webb, H. J., Farrell, L. J., & Waters, A. M. (2018). Girls' and boys' trajectories of appearance anxiety from age 10 to 15 years are associated with earlier maturation and appearance-related teasing. *Development and Psychopathology*, 30, 337–350. <https://doi.org/10.1017/S0954579417000657>.
- Zuckerman, M. (1999). *Vulnerability to psychopathology: A biosocial model*. Washington, DC: American Psychological Association <https://doi.org/10.1037/10316-000>.