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ORIGINAL PAPER

Look @ Me 2.0: Self-Sexualization in Facebook Photographs, Body Surveillance and Body Image

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Abstract Growing attention has been paid to examining how women present themselves on Social Networking Sites (SNSs). Recently, researchers have found that SNSs seem to provide a unique forum for the reproduction of traditional gender roles, including the sexualization of women. In the current study, we evaluated various correlates of self-sexualization in the Facebook profile pictures of young women. Ten Facebook profile photographs of each of 98 young adult women, ranging in age from 18 to 28 years old, were coded for self-sexualization. Participants also completed self-report surveys measuring appearance-related contingencies of self-worth, body surveillance, and internalization of sociocultural beauty norms. Appearance-related contingencies of self-worth and body surveillance were both independently positively associated with self-sexualization in Facebook profile photographs. Although internalization of sociocultural appearance attitudes did not have a direct effect on self-sexualization in Facebook profile pictures, it did have an indirect effect through body surveillance. Potential theoretical and practical implications and directions for future research are discussed.

Keywords Objectification · Body surveillance · Sexualization · Social networking · Facebook

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Introduction

Since coming on the scene a little over a decade ago, the use of Social Networking Sites (SNSs) such as MySpace and Facebook has skyrocketed. In 2010, Facebook achieved the acclaim of the most-visited social networking website (Experian Hitline 2010), and according to most recent estimates has over 800 million users (Facebook 2012; Lenhart 2009). Concurrently, the social science research exploring how and why people use SNSs has exploded. Researchers have found that young adults use SNSs as a way to connect with friends, alleviate boredom, maintain relationships, explore and develop their identity, and as a way of gaining peer acceptance or social capital (Dunne et al. 2010; Lenhart 2009; Pempek et al. 2009; Valenzuela et al. 2009).

Researchers have also explored gender differences in SNS usage, finding that women tend to have more Facebook friends, spend more time on Facebook, post more photographs of themselves, and expend more energy posing for, editing and selecting photographs to post than their male counterparts (McAndrew and Jeong 2012). Further, researchers have found that women tend to post pictures of themselves in more suggestive poses and wearing less clothing than male SNS users (Kapidzic and Herring 2011, 2015; Manago et al. 2008). Given the recent trend of "slut-shaming" and cyber bullying (Roberts 2013), as well as how SNS photograph choices may affect future employment opportunities (Bruzzese 2012), it is important to explore the various constructs related to women sexualizing themselves in their SNS pictures.

In a culture replete with examples of the sexualization of girls and girlhood (see Report of the APA Task Force on the Sexualization of Girls 2007 for a review), it may not be shocking that young women in the U.S. try on and often adopt a hyper-sexualized image. Starting at a young age, girls learn that their appearance matters and that they will be evaluated based on how they appear to others. Similarly, young girls learn that they should be sexually appealing to the male gaze. As Ringrose (2011) notes, there seems to be "a *visual imperative* [for girls] to display a sexy self on… social networking sites" (p. 179, emphasis in original). As the APA Task Force on the Sexualization of Girls (2007) states "if girls learn that sexualized behavior and appearance are approved of and rewarded by society and by the people (e.g., peers) whose opinions matter most to them, they are likely to internalize these standards, thus engaging in self-sexualization" (p. 2). Very little research, however, has attended to the correlates of self-sexualization on SNSs for women. In the current study, we attend to this gap in the literature by exploring theoretically relevant correlates of self-sexualization in the profile pictures of emerging adult women, such as: internalization of sociocultural attitudes about appearance, body surveillance, and appearance-related contingencies of self-worth.

Self-Sexualization

Self-sexualization can be defined as intentionally engaging in behaviors with the goal of looking more sexually appealing, or purposefully putting one's body on

display for others' evaluation (APA Task Force on the Sexualization of Girls 2007; Smolak et al. 2014). The semi-anonymous and disembodied milieu of SNSs provides a fertile ground for this type of self-sexualization to take place. Although researchers have found that, compared to young men, young women tend to post pictures of themselves in more suggestive poses and wearing less clothing (Kapidzic and Herring 2011; Manago et al. 2008), the within-group variability among women in the self-sexualization on SNSs—and what correlates with that variability—has not received much attention.

Hall et al. (2012) examined self-sexualization in MySpace profile photographs with the exploratory goal of identifying any existing differences between various demographic groups along three dimensions of self-sexualization. They found that ritualization of subordination scores (displaying one's self in subordinate position) were higher among Hispanics, average body types, and bisexual women. In addition, objectification and body display (greater nudity) were higher for Black and Hispanic women, along with bisexuals and those with a higher level of education. Body display was lower for those of larger body types and degree of body exposure was less for lesbians. Overall, self-sexualization scores found in this sample were low and the findings are limited in that they are merely descriptive.

The limited research exploring correlates of self-sexualization in profile pictures has focused primarily on personality and media consumption as predictors. For example, researchers have found that participants who scored higher on narcissism were more likely to wear revealing clothing (Buffardi and Campbell 2008; Ong et al. 2011) and strike model-like poses in their profile pictures (Mehdizadeh 2010). Further, research conducted by Kapidzic and Martins (2015) found that the more participants reported watching television, the more their profile pictures focused on their body (vs. their face) and the more likely they were to wear revealing clothing. Much of this research, however, is atheoretical. The current research study is grounded in the tenets of Objectification Theory (Fredrickson and Roberts 1997), a well-supported theory that explains how media consumption can lead women to engage in self-sexualization.

Objectification Theory

Although most in U.S. and Australian samples, numerous researchers have documented the prevalence of the sexual objectification of women in Western society (e.g., Fredrickson et al. 1998; Hatton and Trautner 2011; Reichert 2003; Stankiewicz and Rosselli 2008), with female students reporting objectifying interactions, on average, more than once a week (Swim et al. 2001). Sexual objectification is communicated through interaction with many sources of media (e.g., television, magazines, internet) as well as everyday interpersonal interactions via cat-calls and harassing comments (e.g., Baker 2005; Swim et al. 2001).

Fredrickson and Roberts (1997) proposed that sexual objectification, living in a culture in which a woman's body and/or body parts are separated from her person, leads women to engage in self-objectification (as manifested by body surveillance) and that it is this self-objectification or body surveillance that leads to the psychological consequences and mental health risks associated with sexual

objectification, such as body shame, eating disorders, anxiety, depression, and sexual dysfunction (see Moradi and Huang 2008 for a review). In their review of the research conducted on Objectification Theory over the last decade Moradi and Huang (2008) note, "emerging evidence points to the importance of considering internalization of sociocultural standards of beauty as a intervening variable, in addition to self-objectification and body surveillance" (p. 393).

Although self-objectification (as manifested by body surveillance) can include self-sexualization (engaging in behaviors to present oneself as a sex object for the gaze of another person), they are a unique and distinct constructs. For example, women can monitor their appearance or engage in self-objectification without ever focusing on or engaging in behaviors related to their sex appeal (self-sexualizing) (Smolak et al. 2014). The APA Task Force on the Sexualization of Girls (2007) describes self-sexualization as one of the multitude of ways that girls learn to treat themselves as sexual objects, occurring specifically when girls are confronted with lessons linking sexual behavior and appearance with rewards and approval. Using Objectification Theory (Fredrickson and Roberts 1997) as a framework, we suggest below that the internalization of appearance-related ideals, engaging in body surveillance, and basing self-worth on appearance-related dimensions are all important correlates of self-sexualization in women's SNS profile pictures.

Body Surveillance

Calogero (2004), suggests that women, knowing they will be evaluated by others, come to evaluate themselves "first and best" so as to have perceived control over how others evaluate them. SNSs in particular seem to provide fertile ground for such appearance evaluation to occur due to the centrality of photographs, the context of these pictures being "liked" and commented on, and the wide audience to which these photographs become available. Ringrose (2011) found that photographs of women, but not necessarily males, posted on SNSs often receive remarks about the women's physical appearance. Further, women who are perceived to be physically attractive are more likely to have their SNS friend-requests accepted (Wang et al. 2010). Thus, it is no surprise that young women report spending a great deal of time selecting pictures of themselves to post to SNSs that make them "look good" (Siibak 2009), deleting or "untagging" unflattering photographs of themselves (McLaughlin and Vitak 2012), and doing their best to evaluate themselves "first and best".

The time adolescent girls in Belgium spent using SNSs (Vandenbosch and Eggermont 2012), and the number of Facebook friends adolescent girls in Australia had (Tiggemann and Slater 2013), have been linked to body surveillance. In fact, SNS usage was the only medium in Tiggemann and Slater's (2013) study that was directly related to body surveillance. However, it is unclear from these findings whether SNS usage itself leads to increased body surveillance or if participants who are high in body surveillance are more likely to be drawn to this form of media. de Vries and Peter (2013) found that female participants were more likely to self-objectify (i.e., describe themselves in appearance-based terms rather than competence-based terms) when portraying themselves online, but only when primed with

objectifying stimuli prior to going online. Participants who were primed with neutral stimuli showed no difference in self-objectification when portraying themselves online or offline. Based on this research, we hypothesized that women who were more likely to self-sexualize in their SNS profile pictures would also be more likely to engage in body surveillance.

Internalization of Sociocultural Attitudes about Appearance

The more time adolescent girls in Australia spent on social media (Tiggemann and Miller 2010), and in particular observing sexually objectifying content on their Facebook newsfeed (Vandenbosch and Eggermont 2012), the more likely they were to report internalizing sociocultural attitudes about appearance. This endorsement of sociocultural beauty ideal has in turn been found to be related to women reporting higher levels body surveillance (Nowatzki and Morry 2009; Vandenbosch and Eggermont 2014), photo sharing (Meier and Gray 2013) as well as posting pictures of themselves wearing less clothing and in more seductive poses (Kapidzic and Herring 2011). Kapidzic and Martins (2015) found that internalization of sociocultural beauty standards mediated the relationship between magazine exposure and how much women sexualized themselves in their profile pictures. Based on this research we hypothesized that women who have internalized the sociocultural messages that they should be thin, beautiful, and sexy would be more likely to engage in body surveillance and self-sexualize in their SNS profile pictures. Further, in line with the multidimensional process of self-objectification proposed by Vandenbosch and Eggermont (2014), we hypothesized that the internalization of Western beauty norms would lead women to habitually monitor their own body in comparison to this internalized ideal, and that this body surveillance would mediate the relationship between the internalization of Western sociocultural beauty standards and self-sexualization in profile pictures.

Contingencies of Self-Worth

According to Crocker and Wolfe (2001), people evaluate their self-worth across several different dimensions depending on context (they proposed seven). Contingencies of self-worth, or the dimensions in which a person has based his or her self-esteem, have been found to predict different types of behavior, behaviors that enhance the individual's self-worth within that particular domain (Crocker et al. 2003). For example, the appearance contingency of self-worth predicts behaviors such as grooming, partying/socializing, and joining social groups.

Recently, researchers have begun to investigate the role of appearance contingency of self-worth in SNS photo sharing behaviors. Three studies, in particular, have examined the relationships between gender, appearance contingency of self-worth, and photo sharing (Meier and Gray 2013; Stefanone and Lackaff 2009; Stefanone et al. 2011). Findings from these studies indicate that, compared to men, women share more photographs online, spend more time updating their profiles and are more likely to report that their self-worth was contingent on their appearance. Research conducted by both Meier and Gray (2013)

and Stefanone et al. (2011) found that photo sharing on Facebook and observing sexually objectifying content (Vandenbosch and Eggermont 2012) was correlated with an increased emphasis on appearance-related self-worth.

Since the results from previous studies on contingencies of self-worth have suggested that if a person's self-worth is highly contingent upon his/her appearance, he/she will seek to validate this contingency to protect self-esteem in their external world (Crocker et al. 2003), the posting of self-sexualized photographs on Facebook may be one method used to validate one's physical appearance through other Facebook users' positive comments about one's photographs (e.g., "You look great!"). Thus, we hypothesized that women who reported more appearance-related contingencies of self-worth would also be more likely to self-sexualize in their SNS profile pictures.

The Current Study

In the present study, we sought to build on and extend the meager but growing research on young adult women's SNS self-presentation in three ways. First, we explore several theoretically important correlates of self-sexualization in SNS profile photographs: appearance-related contingencies of self-worth, internalization of sociocultural attitudes about appearance, and body surveillance. The majority of the previous research in this area has focused on gender differences or personality characteristics. Very little attention has been paid to how women vary in how they present themselves and what might predict this variation beyond media consumption. We improve on previous research in the current study by exploring the relationship between constructs grounded in Objectification Theory such as internalization of sociocultural ideals about appearance, body surveillance, and appearance-related contingencies of self-worth in predicting self-sexualization of SNS profile pictures. As with the research on Objectification Theory (see Moradi and Huang 2008 for a review), the research supporting the relationship between media consumption and self-sexualization is one of the more well-researched and well-supported findings in this emerging body of literature. However, important individual differences often show up in the intervening, or more proximal, variables such as internalization of sociocultural beauty standards, body surveillance, and contingencies of self-worth.

A second contribution of the current study involves a more sophisticated measure of self-sexualization than used in previous research. Previous researchers (with the exception of Hall et al. 2012) have measured self-sexualization by analyzing photographs along 1 or 3 dimensions (Hum et al. 2011; Kapidzic and Herring 2011, 2015; Kapidzic and Martins 2015) or through comments made in qualitative interviews (Manago et al. 2008). In the current study, we expand this operationalization to include 13 dimensions of self-sexualization.

Lastly, we apply Objectification Theory (Fredrickson and Roberts 1997) to a relatively unexplored outcome of sexual objectification- the self-sexualization on SNSs. Since its publication in 1997, Objectification Theory has received much attention and empirical support (see Moradi and Huang 2008 for a review). Researchers and theorists have widely acknowledged the prevalence of the sexual

objectification of women, the ways in which it leads women to internalize sociocultural beauty standards, and engage in body surveillance. Further, researchers have documented the many mental health consequences of self-objectification and body surveillance among women. However, the application of this theory to the domain of SNSs, exploring the correlates body surveillance and self-sexualization as they play out in the context of social media, is a relatively new endeavor.

Although it does not directly explore the self-sexualization of Facebook profile pictures, research conducted by Manago et al. (2015) underscores the importance of this type of investigation. They found time spent on Facebook predicted "objectified body consciousness" (conceptualized as body surveillance, appearance contingency of self-worth and enjoyment of sexualization), which in turn predicted greater body shame and decreased sexual assertiveness among women. This not only suggests that social media provides a fertile environment from which to see the self from an observer's point of view, but that it potentially has significant mental health consequences for women. We build on the research conducted by Manago et al. (2015) by exploring these correlates individually and looking at women's self-sexualizing behavior, as demonstrated in Facebook profile pictures, specifically.
In summary, two primary hypotheses were tested in the current study:

H1 Women whose self-worth was highly contingent on their appearance would display more self-sexualization in their Facebook profile photographs than women whose self-worth was less contingent on their physical appearance.

H2 Women with higher levels of body surveillance would have a higher degree of self-sexualization in their Facebook profile photographs than those with lower levels of body surveillance. Women who report a greater internalization of sociocultural ideals about appearance will exhibit more self-sexualization in their Facebook profile photographs. Body surveillance will mediate the relationship between internalization of sociocultural ideals about appearance and women's self-sexualization in their Facebook profile pictures such that those who attach greater importance to attributes associated with the Western beauty ideal will report frequently monitoring their appearance and ultimately self-sexualize in their Facebook profile pictures than those who do not attach as much importance on sociocultural beauty norms.

Methods

Participants

A total of 98 heterosexual women, from a North-Eastern liberal arts public university, participated in both the questionnaire and the Facebook photograph portion of the current study from a North-Eastern liberal arts public university. Twenty-two additional participants completed the questionnaire portion but not the Facebook photograph portion of the study. These participants were not significantly

different on any of the core variables from those who completed the Facebook portion of the study. The final sample was composed of: 89.8 % Caucasian, 3.1 % Black/African American, 3.1 % Multi-racial, and 2.0 % Hispanic women ranging in age from 18 to 28 years ($M = 21.50$, $SD = 2.50$).

Procedure

Data were collected online. Participants were recruited through Facebook advertisements and a campus-wide email both of which briefly explained a study on "Facebook and Self-Image". The email contained a link which directed participants to the survey webpage. Participants were then informed about what participation in the study entailed and basic consent procedures. Next, participants completed questionnaires assessing: demographic information, contingencies of self-worth, internalization of sociocultural ideals about appearance and body surveillance. Then, participants were provided with detailed information about the Facebook portion of the study. This included what information would be obtained from their Facebook site, how it would be stored and used, and who would see it (i.e., only the researchers). Those who wanted to proceed with this portion of the study gave us their name (to connect their data with their Facebook information) and clicked a link to the Facebook Research Page. They were then asked to "friend" the research page by clicking on "add friend". Participants were assured that other "friends" of the Facebook Research Page would not be able to see that they were "friends" with the Facebook Research Page, assuring continued anonymity. Then participants were fully debriefed and thanked for their participation. Participants were defriended immediately after we obtained ten photographs from their Facebook profile. Approval for the study was received from the institutional review board at the host university.

Ten photographs were selected randomly from each participant's Facebook album of profile photographs. Using a random number generator it was determined that every fifth photo would be selected to better capture the variability within participants' photographs overtime. To be selected, the photograph had to meet additional criterion: (1) the photograph had to include the participant, (2) the photograph had to be an adult picture of the participant, and (3) the participant had to be identifiable in the photograph. Any photographs that appeared to be taken prior to adolescence and any group photographs in which it was too difficult to find the participant were not included the study. In these situations, the next photo in the series was then selected instead. When the end of the profile photographs was reached, counting would continue at the beginning of the photographs. To ensure that we had enough data to provide reliable and valid conclusions, participants who had less than 10 Facebook profile photographs were not included in the study.

Measures

Internalization of the "Thin Ideal" was evaluated using the general internalization subscale of the Sociocultural Attitudes Toward Appearance Questionnaire-Version 3 (SATAQ-V3) (Thompson et al. 2004). This scale represents the third version of

the original Sociocultural Attitudes Toward Appearance Questionnaire (SATAQ) (Heinberg et al. 2008; Heinberg and Thompson 1995). The SATAQ-3 measures societal influences on body image and disordered eating.

To address the current research questions, the 9-item general internalization subscale from the SATAQ-3 was used; these questions measure the extent to which women internalize the Western media's messages about physical attractiveness and sociocultural ideals about appearance body type scored on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Two items are reverse score and sample items from this subscale include: "I've felt pressure from TV or magazines to lose weight" and "I compare my appearance to the appearance of TV and movie stars". In prior studies with eating disorder inpatient samples (e.g., Heinberg et al. 2008), Cronbach's alpha was satisfactory at .88. In the current study, Cronbach's alpha for the general internalization subscale was .93.

Body Surveillance/Self-Objectification was examined using the Body Surveillance Subscale of the Objectified Body Consciousness (OBC) Scale (McKinley and Hyde 1996). According to Moradi and Huang (2008), the Body Surveillance subscale "subsumes the relations of general self-objectification with other variables. Thus, body surveillance is important to assess and include in objectification theory research" (pp. 378–379). The body surveillance measures the degree to which individuals engage in habitual body monitoring. The subscale is comprised of 8 items scored on a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree) with 6 items reverse scored. Sample items include: "During the day, I think about how I look many times" and "I think it is more important that my clothes are comfortable than whether they look good on me" (reverse scored). Higher scores were indicative of more body surveillance. Prior research has demonstrated satisfactory reliability for the body surveillance subscale in undergraduate women: Cronbach's alpha = .89 (McKinley and Hyde 1996). In this study, Cronbach's alpha was .90.

Appearance Contingency of Self-Worth was assessed using the appearance subscale of the Contingencies of Self-Worth (CSW) scale developed by Crocker and Wolfe (2001). The full CSW scale is comprised of 35-items measuring all seven contingencies of worth. The appearance contingency subscale consists of 5 items with 2 items reverse-scored using a 7-item Likert scale (1 = strongly disagree, 4 = neutral, 7 = strongly agree). Sample items of the appearance contingency subscale include: "When I think I look attractive, I feel good about myself" and "My self-esteem is unrelated to how I feel about the way my body looks" (reverse scored). Items were averaged with higher scores indicating more self-worth placed on appearance. Cronbach's alpha for each of the subscales in past research using undergraduate samples ranged from .82 to .96. (Crocker et al. 2003). The Cronbach's alpha for the appearance contingency subscale in the present study was satisfactory at .80.

Coding Self-Sexualization in Facebook Profile Photographs

Self-Sexualization in Facebook photographs was coded using a revised version of Hatton and Trautner's (2011) coding scheme. The scale was used in their analysis of

the sexualization of women and men in the magazine *Rolling Stone*. Hatton and Trautner's (2011) sexualization coding scheme was revised for the current research because the type of photographs posted on Facebook were qualitatively different from those in advertisements. To adequately revise the scale for use with Facebook, we established coding rules, categories, and procedure to ensure inter-rater reliability. Four coders worked together in a focus group to revise the scale: the first and second author, and two research assistants (1 male and 1 female). The four team members were trained by the first author in applying Hatton and Trautner's (2011) coding scheme. All four team members individually coded the photographs for the first 5 participants (10 photographs for each participant, totaling 50 photographs) using the original 11 categories (i.e., Clothing/Nudity, Breast/Chest, Buttocks, Genitals, Mouth, Head vs. Body Shot, Pose, Sex Act, Sexual Role Play, and Touch). This was done to understand how people were coding with Hatton and Trautner's scale and to obtain feedback on the validity of measure when applied to Facebook photographs. Through discussion, we established consensus on the categories, such as how they would be applied and whether there were aspects of self-sexualization that were not captured by the existing measure (i.e., eyes, legs/thighs, self-taken). Subsequent meetings were held to resolve any questions/concerns that arose pertaining to resulting categories.

Coding the photographs. After revising the Hatton and Trautner (2011) scale with the coding focus group, the first and second author worked together to jointly code approximately 25 % of the photographs using the revised 13-category coding system that yields scores of 0-25 for each picture. The remaining 75 % of photographs were then individually coded by both the first and second author who worked closely to resolve any questions that arose. To assess the reliability of the coding, 10 % of the photographs were randomly selected to serve as a reliability check. Using Dedoose, Cohen's Kappa were calculated and were greater than .80 for all categories.

A total self-sexualization score was computed for each of the participants using the revised version of the Hatton and Trautner (2011) sexualization coding scheme. After revisions, a 25-point additive scale, consisting of 13 categories at varying weights to reflect the extent which an image was self-sexualized resulted. The two coders' ratings for each picture were averaged and then the scores for each photo were summed to create a total self-sexualization score. Detailed descriptions of each of these categories are provided below.

Clothing/Nudity was scored on a 0–4 point scale: 0 = Unrevealing, conservative everyday clothing, clothing acceptable in an educational or professional setting; 1 = Slightly revealing, moderately low necklines, minimal cleavage, exposed shoulders, tank tops, midriff peeking out, back exposed, shorts or skirts or dresses close to finger-tip or mid-thigh length; 2 = Somewhat revealing, low necklines with considerable cleavage, tube-tops, slightly exposed midriffs, shorts or skirts or dresses shorter than finger-tip or mid-thigh length; 3 = Highly revealing, extremely low necklines with large amount of cleavage; exposed shoulders, 1-piece bathing suit, skin-tight clothing, significantly exposed midriffs, shorts or skirts or dresses shorter than finger-tip or mid-thigh length. 4 = Extremely revealing, such as a bikini bathing suit or lingerie.

Breast/chest was scored on a 0–2 point scale: 0 = breasts/chest was not visible or was not a focal point of the photo (e.g., mostly covered by clothing), 1 = breasts/chest was slightly exposed and/or was somewhat of a focus (e.g., low necklines, considerable breast cleavage,); and 2 = breasts/chest was a major focus of the image (e.g., extremely low necklines, large amount of breast cleavage).

Buttocks were rated on a 0–2 point scale: 0 = buttocks were not visible or were not a focal point of the photo (e.g., forward facing photo, buttocks covered by clothing); 1 = buttocks were somewhat of a focus (e.g., standing sideways with part of buttocks sticking out); 2 = buttocks were a major focus of the image (backward facing photo with buttocks sticking out, buttocks being flaunted).

Genitals were scored on a 0–2 point scale: 0 = the genital area was not a focus of the image; 1 = genital area was slightly a focus (e.g., genitals covered, but legs slightly spread); and 2 = genital area was a major focus of the image (e.g., pants unbuttoned, partially pulled down, legs spread open).

Legs/thighs was scored on a 0–2 point scale: 0 = legs/thighs were not visible or focal points of image, such as having pants on and standing straight up or sitting down, 1 = legs/thighs were slightly exposed (some of leg/thigh showing) or a slight focus of the image, and 2 = legs/thighs were a major focus of the image (e.g., short dress or shorts with leg(s) up or spread).

Mouth was rated on a 0–2 point scale. A zero was given if the participant's mouth did not suggest any kind of sexual activity (e.g., closed lips, broad toothy smiles, and active singing, talking, or yelling); 1 = somewhat suggestive of sexual activity (e.g., lips slightly parted but not smiling; kissy or "duck" faces); and 2 = explicitly suggestive of sexual activity (e.g., mouths wide open but not actively singing/yelling/talking, tongue showing or sticking out, had something in mouth such as a finger).

Eyes were added to the scale and scored on a 0–1 point scale: 0 = eyes were not sexy/seductive and 1 = eyes were sexy/seductive (e.g., sultry, winks, hooded eyes, "bedroom eyes").

Head versus Body Shot was scored on a 0–1 point scale. A zero was given when the image's focus was primarily on the face or head (e.g. a "smile" being the focus of the image, body taking up less space in the image, or when scenery was the obvious focus of the image); a score of 1 reflected a body shot in which the participants' body or body parts were more of a focus (e.g., "showing off" whole body or body parts).

Pose was scored on a 0–3 point scale: 0 = not being posed in any kind of sexual way; 1 = a "flirty" pose where the participant is showing off one's body (e.g., hands on hip, leg cocked); 2 = a pose that is somewhat sexually suggestive or highlighting certain body parts (e.g., posing to show off breasts, butt, thighs, etc.); and 3 = overtly posed for sexual activity such as lying down or having legs spread (e.g., representing a sexual invitation to another person).

Self-taken was scored on a 0–2 point scale: 0 = not self-taken; 1 = self-taken with other(s) in the picture; and 2 = self-taken by themselves (focus solely on the participant). This category was added because self-taken photographs require individuals to take an observers standpoint when viewing themselves in order to

present themselves effectively to others. The tendency to take an outsiders perspective on oneself resembles aspects of body surveillance.

Sex act, as in the original scale, was scored on a 0–1 point scale: 0 = not engaged in a sexual act 1 = engaged in or simulating a sexual act (e.g., kissing, embracing someone, "acting out" fellatio or masturbation).

Sexual role play was scored on a 0–1 point scale: 0 = the participant was not engaged in sexual role play in the photo; 1 = The participant was engaged in sexual role play in the photo (e.g., infantilization—dressing up in child-like clothes; acting out bondage/domination—wearing a leather bustier, leather straps, dog collars, studded bracelets, etc.).

Touch included all forms of sexualized touch (i.e., self-touch, touching others, being touched) and was scored on a 0–2 point scale: 0 = not being touched or not touching another person in a sexual way (e.g., touching shoulder-to-shoulder to fit in photograph with other people); 1 = some sort of suggestive touching (e.g., hands on waist of another person in a possessive or suggestive fashion); 2 = explicit sexual touching (of oneself or another person; hands actively touching in suggestive way such as touching near breasts, buttocks, or genitals).

Results

Descriptives

The self-sexualization scale used to code the profile pictures of the current sample was a 25-point scale. The mean score for the current sample was 19.04 (SD = 13.17). Frequencies for each of the self-sexualization categories were run. The most common category coded above a 0 in the Facebook profile photographs was self-taken (23.94 %) followed by clothing/nudity (21.9 %), pose (14.58 %), head versus body shot (11.80 %), and breast/chest (9.6 %). Categories coded the least frequently were: eyes (5.68 %), mouth (3.58 %), touch (2.06 %), buttocks (1.49 %), sex act (.88 %), sexual role play (.20 %), and genitals was not coded for any of the Facebook profile photographs (See Table 1).

Hypothesis 1

We predicted that women whose self-worth was highly contingent upon their appearance would display more self-sexualization in Facebook photographs. To test this hypothesis, a Pearson Correlation was performed correlating the appearance contingency of self-worth scores and ratings of self-sexualization in Facebook profile photographs. In accordance with the hypothesis, a positive correlation was found that indicated that participants who reported that their self-worth was more contingent on their appearance displayed more self-sexualization in Facebook photographs, r (98) = .21, p = 04. Therefore, hypothesis 1 was supported. For descriptive statistics and intercorrelations among variables, see Table 2.

Table 1 Frequencies of self-sexualization categories

	Count	Percent above 0	Minimum	Maximum	Mean	Median
Breast/chest	285	9.6	0	2	1.2	1
Buttocks	44	1.49	0	2	1.3	1
Clothing/nudity	648	21.9	0	4	1.6	1
Eyes	168	5.68	0	1	1	1
Genitals	0	0	0	0	0	0
Head versus body	349	11.80	0	1	1	1
Legs/thighs	126	4.26	0	2	1.1	1
Mouth	106	3.58	0	2	1.2	1
Pose	431	14.58	0	3	1.1	1
Self-taken	708	23.94	0	2	1.6	1
Sex act	26	.88	0	1	1	1
Sexual role Play	5	.17	0	1	1	1
Touch	61	2.06	0	2	1.4	1

Table 2 Descriptive statistics for and intercorrelations among major variables (N = 98)

	Self-sexualization	Body surveillance	Internalization	Appearance contingency	Information awareness	Societal pressures
Self-sexualization	–					
Body surveillance	.22*	–				
Internalization	.11	.70**	–			
Appearance contingency of self-worth	.21*	.72**	.71**	–		
Age	−.18	.16	−.07	−.05	−.03	.06
Range	0–25	1–6	1–5	1–7	1–5	1–5
Mean	19.04	3.72	2.98	4.92	2.70	3.33
Standard deviation	13.17	1.04	.94	1.08	.95	1.06

* $p < .05$; ** $p < .001$

Hypothesis 2

For hypothesis 2 we predicted that (a) internalization of sociocultural attitudes would be positively correlated with body surveillance, (b) body surveillance would be positively correlated with self-sexualization, (c) internalization of sociocultural attitudes would be positively correlated with self-sexualization and (c′) body surveillance would mediate the relationship between internalization of sociocultural

ideals about appearance and self-sexualization. For the present study, the testing of the mediation hypothesis was conducted with the SPSS macros for bootstrapping as provided by Preacher and Hayes (2008). Researchers have recently recommended the use of the bootstrapping procedure over the Sobel test in assessing indirect effects of mediation, as it does not impose the assumption of normality of the sampling distribution of indirect effects (Preacher and Hayes 2008; MacKinnon et al. 2004). Similarly, it has a higher power than the method to test mediation proposed by Baron and Kenny (1986) while maintaining adequate control over Type I error rate (Hayes 2009). The indirect, direct, and total effects of internalization of sociocultural attitudes towards appearance on self-sexualization in Facebook profile pictures were calculated with body surveillance as a mediator.

For the purposes of the mediation analyses, scale scores were standardized. First it was found that internalization of sociocultural attitudes about appearance was positively associated with body surveillance [$B = .73$, $t\ (96) = 9.55$, $p = .000$; see Fig. 1]. It was also found that body surveillance was positively associated with self-sexualization in Facebook profile pictures [$B = .31$, $t\ (96) = 2.18$, $p = .03$]. However, the total (non-mediated) effect of internalization of sociocultural appearance attitudes on self-sexualization (c path) was not significant [$B = .13$, $t\ (96) = 1.23$, $p = .22$]. Because both the a-path and b-path were significant, mediation analyses were tested using the bootstrapping method with bias-corrected confidence estimates (Preacher and Hayes 2004). In contrast to Baron and Kenny (1986), who argue that to establish mediation there must be an association between the independent variable (internalization of sociocultural ideals about appearance) and the outcome variable (self-sexualization in Facebook photographs), Hayes (2009) suggests that an independent variable can exert an indirect effect on an outcome variable in the absence of an association between the two variables. The indirect effect of internalization of sociocultural appearance attitudes on self-sexualization through body surveillance was significant and estimated to be 2.97 with a 95 % boostrap CI of .44–6.26. An indirect effect is considered to be significant if its 95 % bootstrap CIs from 5000 bootstrap samples does not include zero (Hayes 2009). Although internalization of sociocultural appearance attitudes does not have a direct effect on self-sexualization in Facebook profile photographs, it does seem to have a moderately indirect effect through body surveillance.

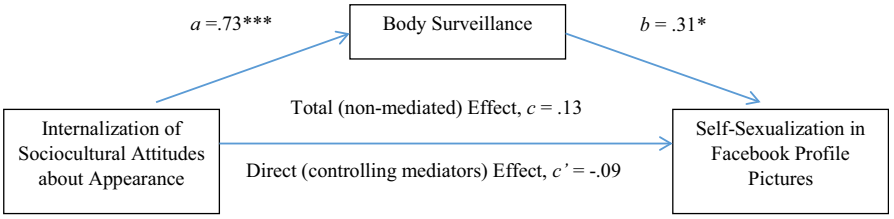

Fig. 1 Model of relationship among internalization of sociocultural attitudes about appearance, body surveillance, and self-sexualization in Facebook profile pictures ($N = 98$). *$P < .05$, **$P < .01$, ***$P < .001$

Discussion

The use of social media among emerging adults is booming, and it seems to be a particularly rich environment for identity exploration and gaining social capital through image presentation (Dunne et al. 2010; Lenhart 2009; Pempek et al. 2009; Valenzuela et al. 2009). The present study extended the small but growing body of literature examining gender and profile picture self-presentation by investigating the within-group variability in women's tendencies to self-sexualize in their Facebook photographs. In particular, with the current study we sought to explore theoretically relevant correlates of self-sexualization of SNS profile pictures such as: internalization of sociocultural ideals about appearance, body surveillance, and appearance-related contingencies of self-worth. Further, we sought to build on previous research by using a more sophisticated measure of self-sexualization.

Consistent with the predictions of the APA Task Force on the Sexualization of Girls (2007), and findings of several researchers (e.g., McRobbie 2008; Ringrose 2011), we found that young women do present themselves in significantly sexualized ways in their profile pictures. However, there was also a wide variability in how much the women in the current study sexualized themselves, as evidenced by the large standard deviation on the measure of self-sexualization. Based on the results of the current study, this variability is due in part to endorsement of appearance-related contingencies of self-worth, body surveillance, and the indirect influence of the internalization of sociocultural beauty norms through body surveillance. In other words, the more the women in the current sample presented themselves in their profile pictures in sexualized ways, the more likely they were to report engaging in body surveillance, and basing their self-worth on appearance-related dimensions. Further, the more women in the current sample internalized sociocultural beauty norms, the more they engaged in body surveillance such that internalization of beauty norms had an indirect effect on self-sexualization through body surveillance.

Despite most researchers having conceptualized the relationship between the internalization of sociocultural beauty norms and self-sexualization as a direct relationship (e.g., Kapidzic and Herring 2011; Kapidzic and Martins 2015), the results from the current study suggest that it might be a more complicated relationship. More specifically, we found that body surveillance explained the route by which the internalization of sociocultural beauty norms predicted self-sexualization in Facebook profile pictures. The current findings fit with the predictions put forth by Fredrickson and Roberts (1997) in Objectification Theory as well as other researchers who found body surveillance to mediate the relationship between the internalization of sexually objectifying media and behavioral outcomes such as sexual behaviors (Vandenbosch and Eggermont 2015) and dietary restraint and binge eating (Dakanalis, et al. 2015). Although this line of research needs to be explored further, it provides some direction for potential interventions, specifically at the juncture between media consumption and body surveillance. For example, Starr and Ferguson (2012) found that the quantity of grade-school girls' media consumption, on its own, was unrelated their levels of self-sexualization. Instead,

they identified a number of protective factors (e.g., parents teaching media literacy or religious values) that mediated the relationship between media consumption and self-sexualization. The APA Task Force on the Sexualization of Girls (2007) similarly provided a list of "Positive Alternatives and Approaches to Counteracting the Influence of Sexualization" including athletics and comprehensive sexuality education.

The question remains as to whether appearance-related self-worth and body surveillance lead women to post more self-sexualized profile pictures, or if posting more sexualized profile pictures leads women to experience greater levels of body surveillance and appearance-related contingencies of self-worth. According to the APA Task Force on the Sexualization of Girls (2007) and Objectification Theory (Fredrickson and Roberts 1997), viewing one's own body in a sexualized- or objectified-way may lead women to put their bodies on display for others in a sexualized- or objectified-manner. Thus, those who engage in more body surveillance and see their self-worth in appearance-related terms may share more sexualized profile photographs of themselves on SNSs *because* they see their bodies largely as sexual objects for the pleasure and consumption of others. Further, based on work done by Stefanone et al. (2011), it was theorized that women whose self-worth was more contingent on appearance may be more likely to use Facebook to post sexualized photographs as a way to gain appearance-related validation (through Facebook user "likes" and comments on photographs).

However, SNSs may alternatively create an environment that *stimulates* body surveillance and contingencies of appearance-related self-worth as a result of self-sexualization. For example, the format of SNSs, with the prevalence of evaluative comments, provides a rich environment for appearance evaluation. Knowing that they will be evaluated on their appearance, Calogero (2004) suggested that women may come to evaluate themselves "first and best", thus exhibiting body surveillance. If the mere act of taking the photographs of themselves (adopting an observer's perspective) and sharing the photographs on their online profile could make women more inclined to value and monitor their own appearance, it is also possible that taking and/or sharing more sexualized profile photographs could increase body surveillance and contingencies of self-worth.

Further, Social Networking Sites do not exist in a social vacuum. Researchers suggest that there is a normative social pressure among adolescent and young adult women to post more self-sexualized photographs of themselves as a way of gaining social capital (e.g., Manago et al. 2008; Valenzuela et al. 2009). Kapidzic and Herring (2011) noted that their participants "understood online social networking as a commoditized environment in which a particular kind of self-exposure might be seen as the currency exchanged for markers of social success and popularity such as compliments and a higher tally of friends… as such, these images are 'socially facilitative'" (p. 107). In qualitative interviews conducted by Manago et al. (2008), young women talked at length about negotiating the fine balance between the pressure to present themselves in sexually desirable ways on SNSs and the desire to avoid being labeled promiscuous. Although this search for parity is not new, it may be intensified on SNSs due to the high prevalence of photographs. Future research should explore the interrelationships between body surveillance, contingencies of

self-worth, self-sexualization, and the balance women seek between being perceived as sexually desirable while avoiding the label of a "slut." Manago et al. (2008) state that this "increased pressure on young women to objectify their sexuality while also preserving their innocence may be a confusing and detrimental influence on their development" (p. 455).

Future researchers might also benefit from exploring the potentially cyclical relationship between self-sexualization, body surveillance, appearance-comparisons, and Facebook users' comments on profile photographs. Lindner et al. (2012) contend that body surveillance may lead women to compare themselves to others, which may lead to certain feelings that continue the cycle of body surveillance. In other words, based on the current results, it is highly likely that women who have internalized sociocultural attitudes about appearance would be more likely to engage in body surveillance and hold appearance-related contingencies of self-worth. Posting pictures on Facebook may provide a unique forum for the expression of this body-focus tendency via the selection, editing, and posting of sexualized pictures allowing for validation in a controlled environment. Valkenburg et al. (2006) found that, among adolescents and emerging adults, peer feedback was directly related to users' self-esteem such that positive feedback was related to positive self-esteem and negative feedback was related to negative self-esteem. Receiving comments on SNS pictures may reinforce existing body surveillance and appearance-related contingencies of self-worth, potentially leading to more self-sexualization.

Spending time on Facebook viewing the pictures posted of others may also lead to upward or downward comparisons and increased body surveillance. The participants in Manago et al.'s (2008) qualitative study on self-presentation in MySpace talked about the prevalence of social comparison on SNSs and the pressure to keep up with the idealized self that others present. According to several research studies (e.g., Dunne et al. 2010; Manago et al. 2008), the images individuals present on SNSs represent idealized images of themselves. As Manago et al. (2008) observe "the complexity of online impression management blurs the distinction between the ideal and the authentic" (p. 454). Previous researchers suggest that appearance contingency of self-worth is positively related to upward appearance comparisons (i.e., comparisons to those who are deemed more physically attractive) (Bailey and Ricciardelli 2010). Taken together, and further supported by the correlation between contingencies of self-worth and body surveillance in the current sample ($r = .21$, $p < .05$), these findings suggest that those women whose self-worth is more contingent on physical appearance may be more likely to get caught in the "circle of objectification", leading to greater body surveillance (Lindner et al. 2012). Future researchers might want to evaluate the relationship between women's tendencies to engage in appearance comparisons with other women on SNSs, appearance contingency of self-worth, comments and "likes" on profile pictures, and women's body surveillance.

Despite the potential insights this research study may offer, several limitations should be noted. This is the first investigation using the self-sexualization scale revised from Hatton and Trautner's (2011) scale. Further study is necessary to establish the scale's validity using other samples. Second, the current sample was

comprised of mostly White, heterosexual women and was relatively small (98 participants). Previous research on self-sexualization in MySpace photographs has suggested there are cultural differences in the tendency to self-sexualize in SNS photographs (Hall et al. 2012; Kapidzic and Herring 2015). Therefore, future researchers may benefit from using this scale with a more diverse sample of women. Further, it is possible that excluding those with <10 profile pictures may have inadvertently eliminated a certain type of participant and that the sample may be biased in that those who were more willing to allow the researchers to view their Facebook page may be more likely to self-sexualize. In addition, this study is correlational. Therefore, conclusions about causality cannot be made. Subsequent research is needed to pinpoint exactly how these variables are related to one another.

Overall, SNS research has revealed that women are among the most frequent visitors of SNSs, are more likely to post sexualized photographs on their online profile than men (e.g., McAndrew and Jeong 2012; Nosko et al. 2012; Thompson and Lougheed 2012) and that, among women, self-sexualization of profile pictures is related to body surveillance and appearance contingency of self-worth. Although many feminists originally "hoped that social media would empower young women to counter mainstream media stereotypes and provide them with the discursive power to intentionally construct new and more vibrant definitions of what it means to be a 'girl'" (Bailey et al. 2013, p. 92), the majority of the evidence seems to support that the traditional gender patterns in communication and self-presentation on SNSs persist (Kapidzic and Herring 2011). Further, the initial findings from research conducted by Manago et al. (2015) suggest that involvement in Facebook is associated with increased body shame and decreased sexual assertiveness. Ringrose and Barajas (2011), proffer the thesis that "the wider popular culture is 'post-feminist', that is rather than challenging gender norms (as with feminism) popular culture is now actually fetishizing and celebrating idealized, binary versions of extreme gender norms, hyper-sexualized femininity for girls and hard, predatory masculinity for boys" (p. 4).

Further research is needed to elucidate the factors that lead some women to self-sexualize in their profile pictures whereas others shy away from it and how this self-sexualization in profile pictures might be linked to feelings of empowerment, sexual assertiveness and agency, and peer dynamics including sexual harassment (Ringrose and Barajas 2011). Although more empirical work is clearly needed to understand how these variables factor into women's decisions surrounding self-sexualization and their mental health consequences, this examination provides the initial steps toward identifying potentially core explanations for the variability among women in SNSs profile pictures.

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