Who is at risk on Facebook? The effects of Facebook News Feed photographs on female college students' appearance satisfaction

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ABSTRACT

This study investigates the effects of Facebook News Feed photographs on female college students' appearance satisfaction. We conduct an experiment in which we expose participants ($N = 116$) to Facebook News Feed photographs of either physically attractive or unattractive females. Participants who look at photographs of physically attractive females are less satisfied with their own physical appearances than those who look at photographs of unattractive females. The effects of the photographs (attractive versus unattractive) are moderated by participants' levels of appearance comparison orientation, self-esteem, and appearance schemas. The findings suggest that female college students with high levels of appearance comparison orientation and appearance schemas, and low levels of self-esteem, are more vulnerable to the negative effects of Facebook News Feed photographs. Implications for developing Facebook-focused prevention programs are discussed.

1. Introduction

The use of social networking sites (SNS) such as Facebook is ubiquitous among young adults (Perrin, 2015). For example, 82% of 18–29-year-olds in the United States are currently Facebook users (Duggan, 2015). Compared to young men, young women prefer and more frequently use SNS such as Facebook (Kimbrough, Guadagno, Muscanell, & Dill, 2013). Existing research has shown that young women's overall Facebook usage is related to their body image concerns (Tiggemann & Miller, 2010; Tiggemann & Slater, 2013, 2014). In particular, Facebook photograph usage (e.g., posting or viewing photographs) is significantly associated with young women's body image disturbances such as weight dissatisfaction (Meier & Gray, 2014).

Ten million new photographs are posted to Facebook every hour (Mayer-Schonberger & Cukier, 2013). Seeing photographs posted by others is a major reason people use Facebook (Smith, 2014). When checking their Facebook News Feed, which is a stream of updates about what online friends are saying and doing, female college students are usually exposed to diverse images of others' physical appearances, which may influence their body image concerns.

Comparisons with idealized images from traditional media have been known to lead to body image concerns among young women (López-Guimerà, Levine, Sanchez-Carracedo, & Fauquet, 2010). Given that viewing stories on News Feed has become important parts of Facebook usage

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for young women, we need to examine whether underlying processes of social comparison linking the use of traditional media to body image can work in the context of Facebook News Feed photographs.

Building on the social comparison, the present study adds to the literature on women's body image by experimentally investigating the effects of Facebook News Feed photographs of females (attractive versus unattractive) on female college students' appearance satisfaction. Prior experimental research (i.e., Haferkamp & Kramer, 2011) has focused on SNS Profiles to investigate the influence of SNS use on body image. Profile pictures on SNS are usually headshots (Haferkamp, Eimler, Papadakis, & Kruck, 2012; Holland & Tiggemann, 2016). In contrast, photographs of a wider range of body types are available on News Feed that is an integral part of Facebook experience. Thus, it is necessary to examine the consequences of body-related comparisons as well as comparisons of facial features in order to understand the overall effects of Facebook photographs on young women's body image. In this sense, this study will contribute to the better understanding of the influence of Facebook photographs on body image by investigating the impact of full-bodied pictures on News Feed.

Even though a growing body of research has explored the influence of Facebook on body image (Holland & Tiggemann, 2016), researchers have not yet systematically explored individual differences in variables that moderate the magnitude of the relationship between exposure to Facebook photographs and young women's body image. This study extends past literature by identifying those who are more vulnerable to the effects of Facebook News Feed photographs. Specifically, this study examines the moderating role of individuals' appearance comparison orientation, self-esteem, and appearance schemas in the influence of Facebook News Feeds photographs on female college students' appearance satisfaction. It is hoped that this study will contribute to identifying protective factors in regard to the influence of Facebook on body image.

2. Social comparison theory

Social comparison theory (Festinger, 1954) posits that individuals are driven to evaluate themselves using objective standards, but if they cannot use objective information, they may gain some information by comparing themselves to others. Extending the original theory, subsequent studies have demonstrated that people engage in social comparisons with the motivation of self-improvement and self-enhancement as well as self-evaluation (Taylor & Lobel, 1989; Wood, 1989). These motivations for social comparisons have been considered as determinants of the direction of the comparison: upward and downward (Buunk & Gibbons, 2007). People with motivations of self-evaluation or self-improvement tend to compare themselves with superior targets in a given domain (i.e., upward comparison) (Gruder, 1971). In contrast, those with a goal of self-enhancement tend to engage in comparisons with inferior targets (i.e., downward comparison) (Wills, 1981).

Ample research has suggested that upward comparisons to idealized thin images of models or celebrities on mass media result in women's negative body image (Grabe, Ward, & Hyde, 2008; Groesz, Levine, & Murnen, 2002; López-Guimerà et al., 2010). Specifically, Cattarin, Thompson, Thomas, and Williams (2000) investigate the role of upward social comparisons in the effects of exposure to television commercials on women's body image by creating three instructional conditions: comparison, distraction, and neutral. Participants in the comparison condition show a greater degree of self-to-model comparison than do participants in the distraction or neutral condition. Participants in the comparison condition are less satisfied with their own appearance than are participants in the other groups. Similarly, Tiggemann and Polivy (2010) examine women's responses to thin idealized images in fashion magazine advertisements under three instructional conditions: control, appearance comparison, and intelligence comparison. In their study, upward appearance comparisons increase participants' body dissatisfaction, whereas downward intelligence comparisons lower their body dissatisfaction.

2.1. Comparison target

When people perceive comparison targets to be similar to themselves in domains relevant to their self-concepts, they are more likely to engage in social comparisons (Festinger, 1954; Lockwood & Kunda, 1997; Miller, Turnbull, & McFarland, 1988). Therefore, female college students may consider ordinary people such as friends or peers as a more important target for appearance comparisons than professional models or celebrities (Heinberg & Thompson, 1992).

Cash, Cash, and Butters (1983) experimentally investigate the effects of appearance comparisons to ordinary people on female college students' body image perceptions. Female college students who view photographs of physically attractive unknown females on magazines give lower self-ratings of their own attractiveness than do those who look at photographs of physically unattractive females or physically attractive professional models. More recently, Carey, Donaghue, and Broderick (2014) examine the role of body comparisons with peers and models as a mediator of the relationship between adolescent girls' endorsement of thinness norms and body image concerns. Body comparisons with peers are found to be a stronger mediator than comparisons with models. These studies illustrate that appearance comparisons to ordinary people such as friends or peers can be more strongly related to young women's body image concerns than comparisons to models or celebrities in traditional forms of media (Jones, 2001; Krones, Stice, Batres, & Orjada, 2005; Lin & Kulik, 2002).

Photographs revealing the physical appearance of ordinary people such as friends or peers are frequently posted on Facebook (Hew, 2011). That is, Facebook provides young women with new opportunities for making appearance comparisons to ordinary people (Fardouly & Vartanian, 2015). Young women are usually exposed to idealized images posted by others on Facebook (Manago, Graham, Greenfield, & Salimakhan, 2008). Therefore, they are likely