Motivations for Social Media Use: Associations with Social Media Engagement and Body Satisfaction and Well-Being among Adolescents
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Corresponding Author:	Hannah Katie Jarman, MSc La Trobe University Melbourne, VIC AUSTRALIA
Corresponding Author Secondary Information:	
Corresponding Author's Institution:	La Trobe University
Corresponding Author's Secondary Institution:	
First Author:	Hannah Katie Jarman
First Author Secondary Information:	
Order of Authors:	Hannah Katie Jarman
	Mathew D. Marques
	Siân A. McLean
	Amy Slater
	Susan J. Paxton
Order of Authors Secondary Information:	
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	La Trobe University	Prof Susan J. Paxton

Response to the Editor:

The authors would like to thank the Editor for their prompt response. We have now addressed the below edits:

Please unblind your manuscript, if needed.

Thank you for this reminder, however this was not necessary for our manuscript.

Page 17, please center the conclusion heading as it should be a level 1 heading.

We have now corrected the conclusion heading so it is level 1 heading (centred).

I need to have you use American Standard English, throughout. Sorry about that. E.g., Table 2's title needs to have the Standardized and Hypothesized changed.

We have updated the manuscript, figures and tables documents so American Standard English is used throughout.

Many Thanks – and I hope you have a very merry Christmas!!

MOTIVATIONS FOR SOCIAL MEDIA USE

Motivations for Social Media Use: Associations with Social Media Engagement and

Body Satisfaction and Well-Being among Adolescents

Hannah K. Jarman[a], Mathew D. Marques[a], Siân A. McLean[a], Amy Slater[b], and Susan J.

Paxton[a]

Author affiliations: [a]School of Psychology and Public Health, La Trobe University,

Melbourne, VIC, Australia, [b]Centre for Appearance Research, University of the West of

England, Bristol, UK

Corresponding author:

Hannah K. Jarman, School of Psychology and Public Health, La Trobe University

T: +61 9479 3879, E: h.jarman@latrobe.edu.au

Mathew D. Marques: M.Marques@latrobe.edu.au

Siân A. McLean: s.mclean@latrobe.edu.au

Amy Slater: Amy.Slater@uwe.ac.uk

Susan J. Paxton: Susan.Paxton@latrobe.edu.au

Author Affiliations and Research Interests

Hannah K. Jarman is a PhD candidate in the School of Psychology and Public Health at La Trobe University, Melbourne. Her research interests lie in the area of body image and well-being among children and adolescents, with a particular focus on the role of social media use.

Mathew D. Marques is a Social Psychologist and Lecturer in the School of Psychological Science at La Trobe University, Melbourne. His research interests include attitudes toward controversial scientific research, and understanding how values and anti-intellectualism shape judgments of public figures such as tall poppies.

Siân A. McLean is a Senior Research Fellow at the Bouverie Centre at La Trobe University, Melbourne. Her interests lie in the area of sociocultural influences on body image and disordered eating, and the development and evaluation of evidence-based prevention programs.

Amy Slater is an Associate Professor in the Centre for Appearance Research at the University of the West of England, UK. Her research interest lies in the area of body image in adolescents and children, specifically the role of sociocultural factors in the development of body image concerns.

Susan J. Paxton is an Emeritus Professor in the School of Psychology and Public Health at La Trobe University, Melbourne. Her research focuses on understanding risk factors for the development of body image and eating disorders, and the evaluation of prevention and treatment interventions for these problems.

Abstract

Adolescents are spending considerable time on social media, yet it is unclear whether motivations for social

media use drive different forms of social media engagement, and their relationships with body satisfaction and

well-being. This study tested a proposed model of the relationships between motivations for social media use,

types of social media engagement and body satisfaction and well-being. Responses to an online survey from

1,432 Australian adolescents (M_{age} = 13.45 years, SD = 1.14, range 11-17; 55.4% boys) were collected.

Structural equational modelling indicates excellent model fit. Specifically, motivations for social media use

(passing time, escapism, social interaction, social capital and appearance feedback) were associated with

engagement (intensity, photo-based use, active use, passive use and liking use) and revealed mixed associations

with body satisfaction and well-being. The findings support the importance of considering motivations for social

media use in future research.

Key words: Adolescent, Body satisfaction, Motivations, Social media, Well-being

Introduction

Adolescents are avid social media users, spending approximately three hours per day on social media (Mingoia et al., 2017a) which suggests social media is central to their daily lives. Although it is likely that motivations for social media use predict engagement, it is unclear which types of motivations drive different forms of engagement. In addition, although the centrality of and investment in social media suggests that social media may influence adolescents' self-evaluations, including body satisfaction and well-being, little is known about the relationships between motivations for social media use, types of social media engagement and body satisfaction and well-being. Examining these relationships will contribute to the understanding of mechanisms through which motivations for social media use (passing time, escapism, social interaction, social capital and appearance feedback) impact body satisfaction and well-being, and potentially identify risk or protective factors for these outcomes. The present study aimed to test a proposed model of relationships between motivations for social media use, types of social media engagement, and body satisfaction and well-being among adolescents.

Social Media and Body Satisfaction and Well-Being

Sociocultural theory suggests that appearance ideals are presented and reinforced through a number of channels, including the media, and that exposure to these influences impacts the development and maintenance of body dissatisfaction and psychological functioning (Keery et al., 2004; Thompson et al., 1999). In line with this, it has been proposed that exposure to social media, which often presents idealized lives and appearances, may reduce body satisfaction and well-being (Perloff, 2014). Reviews have concluded that there is a small, negative relationship between social media use and body satisfaction (e.g., Holland and Tiggemann, 2016) and some studies have found parallel findings for well-being, in that higher social media use has been associated with poorer well-being (e.g., Orben et al., 2019). Sociocultural theory also suggests that the relationships between social media use and body satisfaction and well-being are mediated by internalization of appearance ideals and comparisons (Rodgers and Melioli, 2016). Consistent with this, exposure to social media has been found to increase internalization (Mingoia et al., 2017b) and comparisons (Fardouly et al., 2015) which, given the idealized presentation and content on social media, will likely result in negative self-evaluations.

Although research generally finds higher social media use is related to negative outcomes (Huang, 2017), some inconsistencies are apparent, whereby positive relationships between social media use and well-being have also been observed (e.g., Lai et al., 2018). These inconsistencies in relationships between social media and self-evaluation outcomes may be explained by differences in effects of specific types of social media engagement, and that how an individual uses social media will determine whether the outcome is positive or

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negative. One study examined the impact of active (interactive activities, e.g., posting, commenting) and passive (viewing social media of others without interacting, e.g., browsing) Facebook use on adolescent well-being, specifically depressed mood and loneliness (Frison and Eggermont, 2015). Active use predicted positive, whereas passive use predicted detrimental, effects on well-being 6-months later. Active use may enhance perceived social support where passive use may increase upward comparisons (comparisons with those considered to have more desirable characteristics), accounting for the differential effects on well-being. Although examination of the associations of different types of social media engagement may enhance understanding, to date social media use has primarily been operationalized as duration of use (Mingoia et al., 2017b), which does not capture the richness of the users' experience nor its possible impact. A potentially relevant concept is social media intensity, which refers to the extent to which an individual feels emotionally invested or connected to social media. Although related to duration of social media use, research suggests that social media intensity captures a distinct construct (Saiphoo and Vahedi, 2019) which should be examined alongside duration of use to accurately understand the nuances of the social media well-being relationship (Blomfield-Neira and Barber, 2014). The present research addresses limitations of the narrow focus on duration of social media use in previous research by considering relationships between an array of social media activities and body satisfaction and well-being.

Motivations for Social Media Use

A well-established theory for understanding traditional media use is uses and gratification theory (Katz et al., 1973). This theory proposes that individuals use media purposively to fulfil certain psychological needs. The emphasis on the active and gratifying nature of media use is particularly applicable to the interactive social media environment. Social media allows the user to select and customize their experience, depending on their individual needs, providing them with more control over the content to which they are exposed (Dhir and Tsai, 2017). Theoretically, social media users' psychological needs will drive behavior to fulfil these needs. Thus, the present study proposes that motivations for social media use will play an integral role in the way individuals engage with social media.

To understand the role of motivations in adolescents' social media use, it is important to consider the developmental context of this population. Adolescence is characterized by an increase in peer influence, a desire for a sense of belonging, and exploration of the self and identity (Erikson, 1968; Neinstein and Anderson, 2002). A number of social media affordances align closely with these developmental needs. Social media provides users with the opportunity to develop, curate and share information, consistent with exploration of the self and

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identity. The interactive nature of social media facilitates social interaction and feedback from others, consistent with importance of peer influence and a sense of belonging. Further, the popularity of social media has meant it is now considered habitual among many, even being used as a form of escapism from everyday life. Informed by these developmental considerations, a number of key motivations, distinct from those of adult populations (Dhir and Tsai, 2017), have been identified. These include motivations for social interaction, escapism, information sharing, passing time, social capital and appearance feedback (e.g., Rodgers et al., 2020).

Motivations, Types of Social Media Engagement and Body Satisfaction and Well-Being

In consideration of uses and gratification theory, different motivations for social media use will likely contribute to different types of social media engagement. Empirical support for this proposition exists. In a prospective study that examined these proposed relationships among Flemish adolescents, a number of motivations for using Facebook predicted type of Facebook use over 18-months (Frison and Eggermont, 2016). The motivation 'escapism' positively predicted all types of Facebook use (i.e., active private, active public, and passive). The motivation 'relationship maintenance' positively predicted active private and passive Facebook use, but not active public use. 'Information sharing' positively predicted active public Facebook use. One motivation, 'passing time' did not predict passive Facebook use. This research suggests that adolescents' motivations for Facebook use differentially impact their engagement with Facebook.

Motivations likely not only relate to how an individual engages in social media, but also their body satisfaction and well-being. It has been hypothesized that as specific motivations for social media use may result in specific types of social media engagement, this process may in turn lead to differential outcomes for body satisfaction and well-being (Rodgers, 2016). Yet, few studies have explored these proposed relationships. One study found that motivations for using social media to obtain information about body image was inversely associated with body satisfaction in young American and Korean adults, whereas using social media for self-status seeking regarding body image (i.e., seeking and maintaining social status through body image related posts) was positively associated with body satisfaction only in Korean participants (Lee et al., 2014). Within the well-being literature, motivations to use social media for information sharing and to maintain social interaction have been found to be positively associated with well-being (Rae and Lonborg, 2015). Conversely, motivations such as escapism and passing time may lead to problematic social media use (Ryan et al., 2014), resulting in detrimental effects on well-being. It has been suggested that motivations to increase social capital and obtain appearance feedback will also likely result in diminished body satisfaction and well-being due to those motivations likely leading to increased comparisons with idealized self-presentations on social media (Rodgers,

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2016), as engagement in comparisons on social media has been found to result in poorer body image and well-being (Fardouly et al., 2015).

Past research offers some support for the relationships between motivations for social media use and well-being. Among adolescents, total number of Facebook friends and the need to belong have been found to be associated with an increase in Facebook use, whereas perceived waste of time was associated with a decrease in Facebook use. In turn, Facebook use was positively associated with subjective well-being (Lai et al., 2018). These associations were largely consistent across gender, although stronger among boys. While these findings provide support for relationships between motivations, engagement and well-being, this study, and the literature more generally, fails to differentiate between specific types of social media use (Orben, 2020). The lack of differentiation may also explain the positive association between social media use and well-being in studies examining Facebook use, while other studies suggest an inverse association between well-being and extent of social media use where other indicators of social media are utilized. The type of social media use may determine whether the association with body satisfaction and well-being is positive or negative. Future research is needed to examine this contention, with the potential to inform social media use guidelines for adolescents, their parents and educators identifying beneficial or detrimental aspects of social media engagement.

The existing literature have a number of shortcomings which limit understanding of the complex relationships between motivations for social media use, social media engagement and body satisfaction and well-being. First, research has largely not considered a full range of motivations for social media use or types of social media engagement. Second, although some research has started to examine these relationships in relation to well-being, investigation of the relationships between motivations for social media use and body satisfaction are still limited. Finally, the majority of research has examined Facebook use. However, in recent years Facebook use has declined, whereby approximately half of adolescents aged 13- to 17-years used the site in 2018, with young people favoring photo-based platforms, including Instagram and Snapchat (Anderson and Jiang, 2018), which require exploration. Addressing these shortcomings will provide a more integrative view of the way that motivations for social media use and engagement are related to body satisfaction and well-being.

The Proposed Model

In the present study, the proposed model suggests that motivations for social media use influence social media engagement which, in turn, impacts body satisfaction and well-being. Motivations typically precede behaviors so, in the proposed model, motivations for social media use may influence specific types of social

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media engagement (Frison and Eggermont, 2016). Further, social media engagement and exposure to content on social media has been found to negatively impact adolescents' self-evaluations, specifically body satisfaction (de Vries et al., 2016) and well-being (Orben et al., 2019). However, it is possible that the reverse is also true, whereby body satisfaction and well-being influence motivations for social media use and types of social media engagement. For example, an individual with poor body satisfaction and well-being may be more motivated to seek appearance feedback, or more likely to spend greater time using social media passively. Although both directions are possible, the present study will explore the associations between social media and body satisfaction and well-being as a way to further understand and potentially identify specific motivations or type of social media engagement that could enhance or diminish body satisfaction and well-being. Therefore, the proposed model is based on this assumed direction of relationships, although the cross-sectional nature of the study precludes confirmation of direction.

Research has begun to explore the role of gender within relationships between social media use and body image and well-being. Girls typically engage in greater appearance-focused social media use than boys (e.g., Instagram and Snapchat; Mingoia et al., 2019) and are also prone to lower body satisfaction (Carlisle et al., 2019) and well-being (González-Carrasco et al., 2017). However, boys and girls both spend considerable time on social media, approximately three hours per day (Mingoia et al., 2017a) and experience fear of negative evaluation and appearance pressures equally (Verrastro et al., 2020). According to previous research, the relationships between social media use and body satisfaction and well-being are equivalent for boys and girls (e.g., de Vries et al., 2016; Huang, 2017).

Current Study

The present study tested a cross-sectional model of relationships between motivations for social media use (passing time, escapism, social interaction, social capital and appearance feedback), types of social media engagement (intensity, photo-based use, active use, passive use and liking use) and body satisfaction and well-being among adolescent boys and girls (see Figure 1). Guided by uses and gratification theory (Katz et al., 1973), greater motivation to use social media will likely be related to greater social media use. Therefore, the first hypothesis is that motivations for social media use will be positively associated with social media engagement. However, given the active nature of information sharing, and consistent with previous research reviewed above, it was hypothesized that information sharing motivation will be positively associated with active engagement (intensity, photo-based use and active use) but not associated with inactive engagement

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(passive and liking use). Consistent with this, the second hypothesis was that social media intensity, photo-based use, passive use, and liking use will be negatively associated with body satisfaction and well-being, whereas active use will be positively associated with body satisfaction and well-being. Third, it was hypothesized that motivations for social media use will be directly associated with body satisfaction and well-being and indirectly associated through social media engagement. Consistent with previous research, it was hypothesized that greater social interactions and information sharing motivations will be associated with greater body satisfaction and well-being, whereas greater escapism, passing time, social capital and appearance feedback motivations will be associated with poorer body satisfaction and well-being. Finally, consistent with previous literature, it was hypothesized that these associations will be equivalent across gender.

Methods

Participants

An initial sample of 1,579 adolescents aged 11 to 17 years was recruited, but 147 (9.3%) were excluded as they reportedly did not use social media, leaving a final sample of 1,432 for analyses (M_{age} = 13.54 years, SD = 1.14). Participants identified as male (55.17%), female (41.55%), 'other' (0.98%), or 'prefer not to say' (2.30%). Most participants were born in Australia or New Zealand (85.16%), followed by Asia (8.66%), Europe (3.93%) and other (2.24%). Participants' parents were born in Australia or New Zealand (mothers: 68.64%; fathers: 69.76%), followed by Asia (mothers: 14.50%; fathers: 11.11%), Europe (mothers: 10.56%; fathers: 12.45%) and other (mothers: 6.31%; fathers: 6.68%). Participants' self-reported home postcode was used to compute a score of relative socioeconomic advantage and disadvantage (Australian Bureau of Statistics, 2018), with a range of 1 (most disadvantaged) to 10 (most advantaged). The average score was high (M = 9.32, SD = 1.12), consistent with the demographic profile of the schools recruited.

Measures

Demographics. Participants self-reported age, gender, school year, home postcode, and country of birth (self and parent).

Motivations for social media use. The Motives for Facebook Use scale (Papacharissi and Mendelson, 2010) was used to assess general motivations for social media engagement. The scale was adapted to denote general as opposed to site-specific use by including "I use social media…" at the beginning of each item. Four motivation subscales relevant during adolescence were used (Frison and Eggermont, 2016); information sharing (5-items e.g., "To tell others a little bit about myself"), passing time (5-items e.g., "Because it passes the time away,

particularly when I'm bored"), social interaction (2-items e.g., "To keep in touch with friends and family"), and escapism (3-items e.g., "So I can forget about school, work, or other things"). Participants responded on a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*). Item responses for each subscale were averaged, with higher scores representing greater corresponding motivation. Scores of these four subscales have demonstrated good reliability among adolescent boys and girls (α = .70 - .89; Frison & Eggermont, 2016). Internal reliability in the current study were high (α = .83 - .87). Spearman-Brown coefficients for the 2-item social interaction was moderate (r_s = .65).

Two additional motivation scales, social capital and appearance feedback, were developed for the purpose of this study using unpublished data. Social capital was defined as the motivation to gain social approval and status. Appearance feedback was defined as the motivation to obtain feedback in relation to one's own appearance. First, the authors used their content expertise to generate items relevant to these motivations. These scales initially contained 20- and 13-items, respectively. Second, to reduce participant burden, the subscales were shortened by examining inter-item correlations to inform inclusion or exclusion of items. This stage ensured no items within each scale were too weakly ($r < .30$) or strongly ($r > .90$) related (Boateng et al., 2018). The final shortened version of social capital contained 6-items (r = .55 - .79, e.g., "I use social media to impress people") and appearance feedback contained 5-items (r = .61 - .84, e.g., "I use social media to see if I look as good as my friends"). Participants responded on a 5-point scale (1 = *never*, 5 = *always*). Item responses were averaged, with higher scores representing greater corresponding motivation. Internal reliabilities in the current study were high (social capital α = .91; appearance feedback α = .93).

Social media engagement. A series of measures were used to capture social media use, including intensity, photo-based use, and type of use. Participants were asked if they had a social media profile (yes, no). If participants indicated "no", no additional social media use items were presented. Participants who responded "yes" (N = 1,432; 90.69%) were provided with further social media items.

Social media intensity. Social media intensity and salience was measured with four items from the Facebook Intensity Scale (Ellison et al., 2007), adapted for general social media investment. Participants responded to items, including "I am proud to tell people I am on social media" on a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*). Item responses were averaged, with higher scores representing greater social media intensity. This scale has demonstrated good internal consistency, 2-week test-retest reliability, and structural validity among adolescents (Li et al., 2016). Internal reliability in the current study was high (α = .83).

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Photo-based social media use. Participants also self-reported frequency of Snapchat and Instagram use on a 5-point scale (1 = *never*, 5 = *always*). These platforms are two of the most popular social media platforms among Western adolescents (Anderson and Jiang, 2018) and highly appearance-focused due to the dominance of photo-based content. Frequency of Instagram and Snapchat use were positively correlated (r_s = .40) and so were averaged to represent photo-based social media use.

Active, passive and liking use. The Different Types of Instagram use (Frison and Eggermont, 2017) scale was used to assess types of social media use. The scale was adapted to denote general social media use, rather than Instagram-specific use. The three-item scale focuses on active, passive and liking use (e.g., "How often do you 'like' content/things on social media"). Participants responded on a 7-point scale (1 = *never/hardly ever*, 7 = *more than 7 times a day*). The response scale was not continuous and the data was not normally distributed, therefore scores were dichotomized to represent non-daily (0 = *never/hardly ever – a few times a week*) or daily users (1 = *once a day – more than 7 times a day*).

Body satisfaction. Body satisfaction was indicated by three scales, including body shape satisfaction, appearance esteem and overvaluation of weight and shape.

Body shape satisfaction. An adapted version of the Body Shape Satisfaction Scale (Pingitore et al., 1997) measured body satisfaction with specific body parts. In the original 10-item scale, participants indicate how satisfied they are with a number of physical features. An additional four items were included for this research to ensure relevance for boys and girls (chest, muscles, overall body fat, hair). Participants' responded on a 5-point scale (1 = *very dissatisfied*, 5 = *very satisfied*) and item responses were summed, with higher scores representing greater body shape satisfaction. Discriminant, convergent, and predictive validity as well as 2-week test-retest reliability has been demonstrated by scores on the original scale among adolescents (Bucchianeri et al., 2013). Internal reliability in the current study was high (α = .95).

Appearance esteem. The Appearance Esteem subscale of the Body Esteem Scale (Mendelson et al., 2001) was used to measure appearance esteem. Participants respond to 10-items regarding how often statements about their appearance apply to them (e.g., "I'm pretty happy about the way I look"). Participants responded on a 5-point scale (1 = *never*, 5 = *always*). After reverse coding 6 negatively worded items, a mean score was calculated, with higher scores representing greater appearance esteem. Acceptable internal consistency, test-retest reliability, and structural and convergent validity has been demonstrated among adolescent boys and girls (Kling et al., 2019). Internal reliability in the current study was high (α = .90).

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Overvaluation of weight and shape. Two-items from the Weight and Shape subscale of the Eating Disorder Examination Questionnaire (EDE-Q; Fairburn and Beglin, 1994) assessed overvaluation of weight and shape. Participants indicated how often over the past 28 days their weight and shape had influenced their self-concept (e.g., "Has your weight influenced how you think about (judge) yourself as a person?"). Participants responded on a 7-point scale (1 = *not at all*, 7 = *markedly/a lot*) and item responses were averaged then reversed to be consistent with the direction of the other body satisfaction scales. Higher scores indicate lower overvaluation of weight and shape. Scores on this two-item scale have demonstrated acceptable internal consistency among adolescent girls (McLean et al., 2015). Spearman-Brown coefficient was high (r_s = .92).

Well-being. The Satisfaction with Life Scale (Diener et al., 1985) measured well-being using five-items (e.g., "I am satisfied with my life"). Participants responded on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*) and item responses were averaged, with higher scores representing greater life satisfaction. Good construct validity and reliability has been found for scores on this scale among adolescents (Proctor et al., 2009). Internal reliability in the current study was high (α = .92).

Procedure

Prior to study commencement, ethics approval was obtained from the University Human Ethics Committee (HEC18424). Two private, co-educational secondary schools in Melbourne, Australia were recruited to participate in a cross-sectional study. Informed, opt-out parent consent was obtained, with 35 parents opting to exclude their children from the survey (1.84% opt-out rate). Informed participant assent was obtained, and all data collections were facilitated by the lead author and a team of trained researchers. All students in grades 7-10 who had not been opted out were invited to participate in an online survey. The survey took approximately 30 minutes to complete.

Data Analysis

Data screening, including inspection of statistical parameters of kurtosis and skewness, and their standard errors suggested that data were not normally distributed, and transformations did not correct normality; therefore, non-parametric analyses were conducted for descriptive statistics. Extent of missing data across each outcome was moderate (0-8.50%) and consistent with adolescent research (Diedrichs et al., 2015; Vannucci and Ohannessian, 2019). Little's missing completely at random test (MCAR; Little, 1988) was non-significant (p > .05), indicating that data were missing completely at random.

First, zero-order Spearman correlations were computed to assess associations between study variables for the total sample. Next, the proposed model was tested using structural equational modelling (SEM) in Mplus version 8 (Muthén and Muthén, 2017). A maximum likelihood estimator with robust standard errors was used to adjust for the non-normal distribution (Yuan and Bentler, 2000). Given the range in age of the sample and the possibility of developmentally distinct motivations, age was included in the model as a covariate to motivations for social media use. Body satisfaction was specified as a latent construct, indicated by body shape satisfaction, appearance esteem, and reverse-scored overvaluation with weight and shape. The endogenous variables body satisfaction and well-being were allowed to covary. Model fit was assessed using the following global indices: chi-square test statistic (χ^2) with degrees of freedom, Comparative Fit Index (CFI), Standardized Root Mean Square Residual (SRMR), and Root Mean Square Error of Approximation (RMSEA). Excellent model fit was indicated when $CFI \geq .90$, $SRMR \leq .05$, and $RMSEA \leq .08$ (Hu and Bentler, 1999). Effect sizes were used to interpret the findings, whereby $d = .20, .50$, and $.80$ was defined as small, medium, and large effects, respectively (Cohen, 1988). The model was also tested in the reverse direction.

To examine significant indirect effects within the model, 10,000 bootstrap samples with 95% bias-corrected confidence intervals were estimated (Mackinnon et al., 2004). Given the large number of comparisons examined, the Benjamini-Hochberg procedure (Benjamini and Hochberg, 1995) was used to manage the false-discovery rate (FDR), whereby significance levels were adjusted to account for the risk of Type 1 error. Finally, to assess whether the model pathways were equivalent across gender, multi-group-analyses was conducted using Wald tests to examine differences by gender in each pathway. Of the sample, 52 participants (3.63%) did not identify as male or female so were excluded for these multi-group analyses ($N = 1,380$).

Results

Preliminary Analyses

Descriptive information and zero-order Spearman's correlations between all variables are presented in Table 1. As hypothesized, the associations between motivations for social media use and engagement variables were generally positive. Motivations for social media use and engagement variables were all inversely associated with appearance esteem and overvaluation of weight and shape. Specifically, only one relationship between motivations for social media use and engagement was not significant; social interaction motivation and active use. Motivations for social media use and engagement variables were inversely association with body shape satisfaction, except for three relationships; information sharing motivations, social interaction motivations

and active use. Well-being was inversely associated with all motivations for social media use, except social interaction motivations which was not associated. Well-being was also inversely associated with social media intensity, photo-based social media use and active use, but not associated with passive or liking use. The majority of correlations were small (Cohen, 1988).

Model Fit

Global fit indices indicated excellent model fit; χ^2 (31) = 158.35, $p < .001$, *CFI* = .97, *SRMR* = .03, *RMSEA* = .05 [90% confidence intervals = .05, .06][1]. Figure 2 presents only the significant standardized path coefficients. Table 2 provides all standardized coefficients, 95% confidence intervals, and p-values. In general, the findings demonstrated support for direct associations between motivations for social media use and both social media engagement variables and body satisfaction and well-being in the model. There was no support for indirect associations between motivations and body satisfaction and well-being via social media engagement. When the model was tested in the reverse direction, poorer fit was indicated: χ^2 (25) = 496.45, $p < .001$, *CFI* = .91, *SRMR* = .08, *RMSEA* = .11 [90% CI = .11, .12].

Age only had a significant effect on the motivation escapism (β = 0.16, *SE* = 0.03, $p < .001$), with no other significant effects (information sharing β = 0.05, *SE* = 0.03, p = .09; passing time β = 0.05, *SE* = 0.03, p = .08; social interaction β = 0.01, *SE* = 0.03, p = .80; social capital β = 0.00, *SE* = 0.04, p = .99; appearance feedback β = 0.07, *SE* = 0.04, p = .07). The covariance between body satisfaction and well-being was high (β = 0.56, *SE* = 0.03). Motivations for social media use were positively associated with social media engagement variables, demonstrating small to moderate effects. All motivations, except appearance feedback, were associated with social media intensity. All motivations, except information sharing and appearance feedback, were associated with photo-based social media use. Only two motivation variables, information sharing and social capital, were associated with active use. All motivations, except information sharing and appearance feedback, were associated with passive use. All motivations, except escapism and appearance feedback, were associated with liking use. These findings generally supported the hypotheses regarding the associations between motivations and social media use.

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[1] Model invariance was established between schools. Following the Benjamini-Hochberg procedure, this multi-group analysis suggest only one parameter was significantly different by school; the covariance between passive use and liking use (β = -0.03, SE = 0.01, $p < .001$). Overall, this provides support for model invariance across schools, suggesting the appropriateness of a single analysis including both schools.

Six direct effects were found between motivations for social media use and body satisfaction and well-being variables. Escapism and appearance feedback motivations were inversely associated with body satisfaction and well-being. Passing time motivation was inversely associated with well-being. Information sharing motivation was positively associated with body satisfaction. Effects sizes of these relationships were small to moderate. There were no significant indirect effects, suggesting that the relationships between motivations for social media use and body satisfaction and well-being were not mediated by social media engagement.

Multi-group Analyses by Gender

Of the 62 pathways examined in the multi-group analyses, none met the FDR-corrected significance level after accounting for multiple comparisons. Therefore, in line with the final hypothesis, analyses revealed that the model was equivalent across gender.

Discussion

Adolescents are prolific social media users, yet research is limited by simplistic conceptualization and measures of social media engagement. By exploring a range of motivations for social media use and social media engagement, researchers may begin to understand how these are associated with body satisfaction and well-being. The aim of the present study was to test a proposed model of relationships between motivations for social media use, types of social media engagement and body satisfaction and well-being among adolescents. The first hypothesis was largely supported, whereby motivations for social media use were positively associated with social media engagement. Within the model, none of the social media engagement measures were associated with body satisfaction or well-being, contrary to the second hypothesis. In addition, although there were no indirect relationships between motivations and body satisfaction and well-being, contrary to the third hypothesis, some direct effects emerged. Finally, the proposed model demonstrated excellent fit among adolescents and was equivalent across gender, in line with the fourth hypothesis.

Motivations for social media use were positively associated with engagement, consistent with previous research among adolescents which found that motivations for Facebook use predicted type of Facebook use (Frison and Eggermont, 2016), whilst also extending the findings to more current social media platforms, specifically Instagram and Snapchat. Contrary to the hypothesis, appearance feedback motivation was not associated with any social media engagement variables. Previous research examining appearance feedback found that actual peer appearance feedback did not predict social media use among adolescents (de Vries et al.,

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2016). Although one might assume that individuals who are motivated to use social media to obtain appearance feedback may increase their use, such individuals may also actively avoid social media due to anticipated or experienced negative feedback on social media. Another potential reason for the lack of association may be that the photo-based social media variable did not capture specific appearance-focused activities, such as seeking appearance content, but instead measured frequency of use of photo-based sites such as Instagram and Snapchat. Although these sites primarily present images, without measuring exactly what young people are posting and viewing very little is still known about the exact nature of the content they are engaging with. For example, it is possible that adolescents are exposed to a mix of content, which may not always be dominated by appearance ideals. Instead adolescents may be more focused on relational posts which work to increase social connection with peers. As this is one of the first studies to examine social media motivations specific to body image, further research is needed to clarify these relationships.

Importantly, none of the social media engagement measures were associated with body satisfaction or well-being in the context of the multivariate model. Although reviews have indicated a negative relationship between social media use and body satisfaction (Holland and Tiggemann, 2016) and well-being (Huang, 2017), effects are often small to very small. In the present study, inspection of the zero-order correlations mostly suggests very small, negative associations between social media engagement and body satisfaction and well-being which disappear when the model is examined as a whole. One possibility is that social media engagement is less integral or impactful when motivations for social media use are accounted for, supporting the importance of inclusion of motivations in social media research. Another reason for the lack of association between social media engagement and body satisfaction and well-being within the model may be explained by the lack of alternative mediators between these relationships, such as social comparisons and fear of missing out (FOMO; e.g., Burnell et al., 2019).

There were no indirect relationships between motivations and body satisfaction and well-being which may suggest that social media engagement does not mediate these relationships. Perhaps the content to which individuals are exposed on social media is of more significance than the type of social media activity one is engaging in. For example, passive consumption of more or less appearance-focused content will result in more or less exposure to detrimental impacts, respectively. Investigating the type of content adolescents are engaging with on social media may be a new avenue for research to explore, with particular attention to rapidly changing social media trends and platforms.

A handful of direct effects emerged between motivations for social media use and body satisfaction and well-being. Motivations for social media use to pass time was inversely associated with well-being and escapism was inversely associated with body satisfaction and well-being. Being motivated to use social media to escape everyday life might indicate using social media as a maladaptive coping mechanism, thus accounting for the association with poor well-being. Appearance feedback motivation was inversely associated with body satisfaction and well-being, while information sharing was positively associated with body satisfaction. Of the limited research on this topic, one study found that motivations for social media use around seeking information specific to body image was inversely associated to body satisfaction (Lee et al., 2014). It appears that the motivation for information sharing and information seeking specific to body image (i.e., appearance feedback) are distinct motives with distinct outcomes. Sharing information on social media may provide perceived social support for adolescents (e.g., Lai et al., 2018), whereas seeking body image specific content may result in exposure and consumption of appearance-focused social media activities, which has been identified as a particularly harmful element of social media use (Holland and Tiggemann, 2016).

All of the pathways within the model were equivalent across gender, which replicates and extends findings among European adolescents (de Vries et al., 2016). This suggests that social and appearance pressures experienced by adolescents are similar for both boys and girls, which is consistent with findings that social media images depict idealized male and female bodies (Carrotte et al., 2017). Although less research has examined the impact this has on boys, this type of content has been found to increase pressure and perpetuate the muscular ideal among young men (Tamplin et al., 2018). The findings indicate gender equivalence in the relationship between motivations, social media use, body satisfaction and well-being. These findings have important implications for guidelines, policy and prevention, whereby approaches and materials would likely be suitable for co-educational settings.

The proposed model included age as a covariate to motivations for social media use. Findings revealed that age only had a significant effect on one motivation; escapism. Specifically, older participants were more likely to report higher levels of escapism than young students. Given increasing academic pressure during adolescence, it is perhaps unsurprising that older adolescents are more likely to use social media as a coping mechanism to deal with stress. However, this is particularly concerning given that greater motivation for escapism was also related to lower body satisfaction and well-being in the present study. Although the present model accounts for any potential developmental effects, which extends previous research (Sheldon and Newman, 2019), the role of age within the model was not examined. Future research should explore if the

relationships between motivations for social media use, social media engagement and body satisfaction and well-being vary by age.

When interpreting the findings, several limitations must be considered. First, the data were cross-sectional so causality or direction cannot be assumed. Although the present study proposes that motivations predict social media engagement and body satisfaction and well-being, it is possible that the reverse is true, whereby body satisfaction and well-being predict motivations for social media use and engagement, or that these relationships are reciprocal. Although the reverse model indicated poorer fit, suggesting some support for the hypothesized direction, prospective research is needed to confirm this. Second, the single item measures for active, passive and liking use may have captured limited variability, particularly when dichotomized. Active use reported by the sample was especially low compared to other studies (e.g., Frison and Eggermont, 2017), perhaps reflecting recent trends in social media use, particularly differences between Facebook and Instagram/Snapchat use. Future research should be informed by adolescents to ensure current trends are captured, including the consideration of emerging platforms such as TikTok. Finally, the sample consisted of a homogenous sample of private school students with very high socioeconomic advantage. Future research should address this by recruiting different types of schools from a range of socioeconomic status areas.

The findings have both theoretical and practical implications. Theoretically, the study extends previous work by providing support for an integrated model that considers the relationships between motivations for social media use, social media engagement and body satisfaction and well-being in adolescents. The findings indicate that motivations for social media use are an important consideration when exploring these nuanced relationships. Some motivations (e.g., information sharing) had a positive relationship with body satisfaction, whereas other motivations (e.g., escapism and appearance feedback) had a negative relationship with body satisfaction and well-being. These distinct relationships point to the importance of identifying and differentiating between distinct motivations, which may be used to inform prevention, discussed below. These motivations appear to align closely with constructs such as identity and coping styles; for example, escapism might be considered a coping style used to deal with negative emotions or experiences. Further research is needed to clarify these relationships.

The findings also have important implications for prevention. The present study identified specific motivations which may be targeted in prevention. Specifically, as using social media for information sharing is associated with higher body satisfaction, prevention may encourage this type of use in young people by

promoting positive interactions within social media communities (e.g., sharing hobbies or interests).

Conversely, escapism and using social media to gain appearance feedback may be detrimental for body

satisfaction and well-being, so these should be discouraged. Relationships in the model were invariant among

boys and girls, so these types of approaches would be suitable within co-educational settings. Finally, educators

and parents should have open, honest discussions with adolescents to help them to recognize their specific

motivations for social media use and support them to move to more adaptive motivations. More broadly, public

health messaging or government campaigns could advocate for social media features which encourage more

positive aspects of information sharing and minimize negative aspects (e.g., making appearance feedback less

accessible). In line with this, social media companies themselves should consider their responsibility of the well-

being of users, particularly adolescents, and incorporate strategies that address and promote positive approaches

to social media use.

Conclusion

The present study extended previous research by providing support for an integrated model that

considers the associations of motivations for social media use and types of social media engagement with body

satisfaction and well-being in adolescents. Results showed that motivations for social media use were positively

associated with type of social media engagement. These findings are consistent with uses and gratifications

theory and add to research on applicability of this theory to the social media context. Motivations for social

media use were also directly associated with body satisfaction and well-being, but contrary to predictions, these

relationships were not mediated by type of social media engagement. In addition, with the inclusion of

motivations, measures of social media engagement were not directly related to body satisfaction or well-being in

the model. These findings may suggest that other aspects of the social media experience are important for

adolescents, such as exposure to specific content, although this requires further research. Furthermore, it is

possible that some motivations have a negative influence on body satisfaction while others have a positive

influence. In this manner, findings revealed that motivations for escapism and appearance feedback motivations

were negatively associated with body satisfaction and well-being whereas motivation for information sharing

was positively associated with body satisfaction. Prevention efforts that address motivations for using social

media, with specific focus on reducing motivations associated with escapism and appearance feedback could be

explored within co-educational settings.

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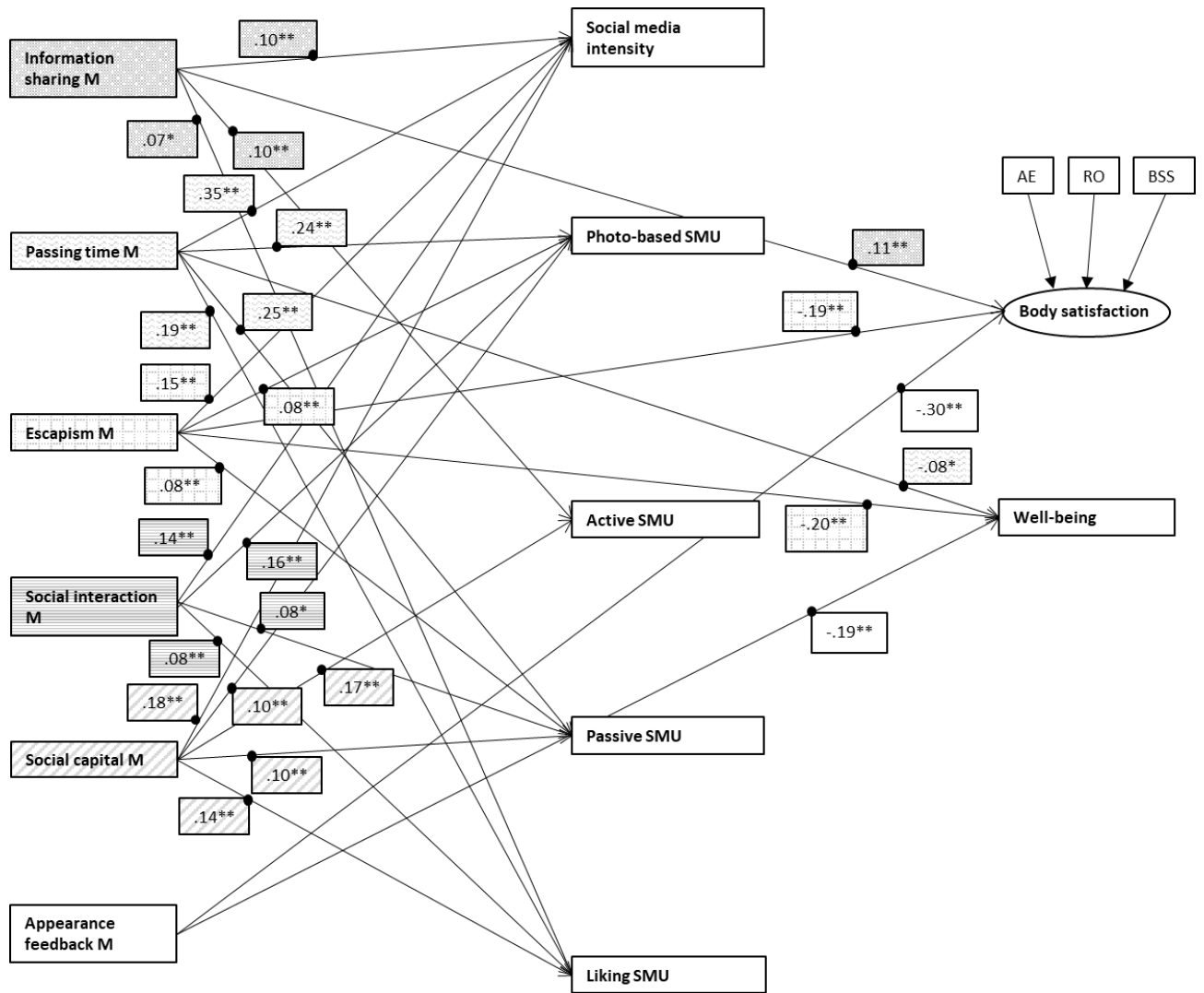
doi:10.1111/0081-1750.00078.

MOTIVATIONS FOR SOCIAL MEDIA USE

Figures
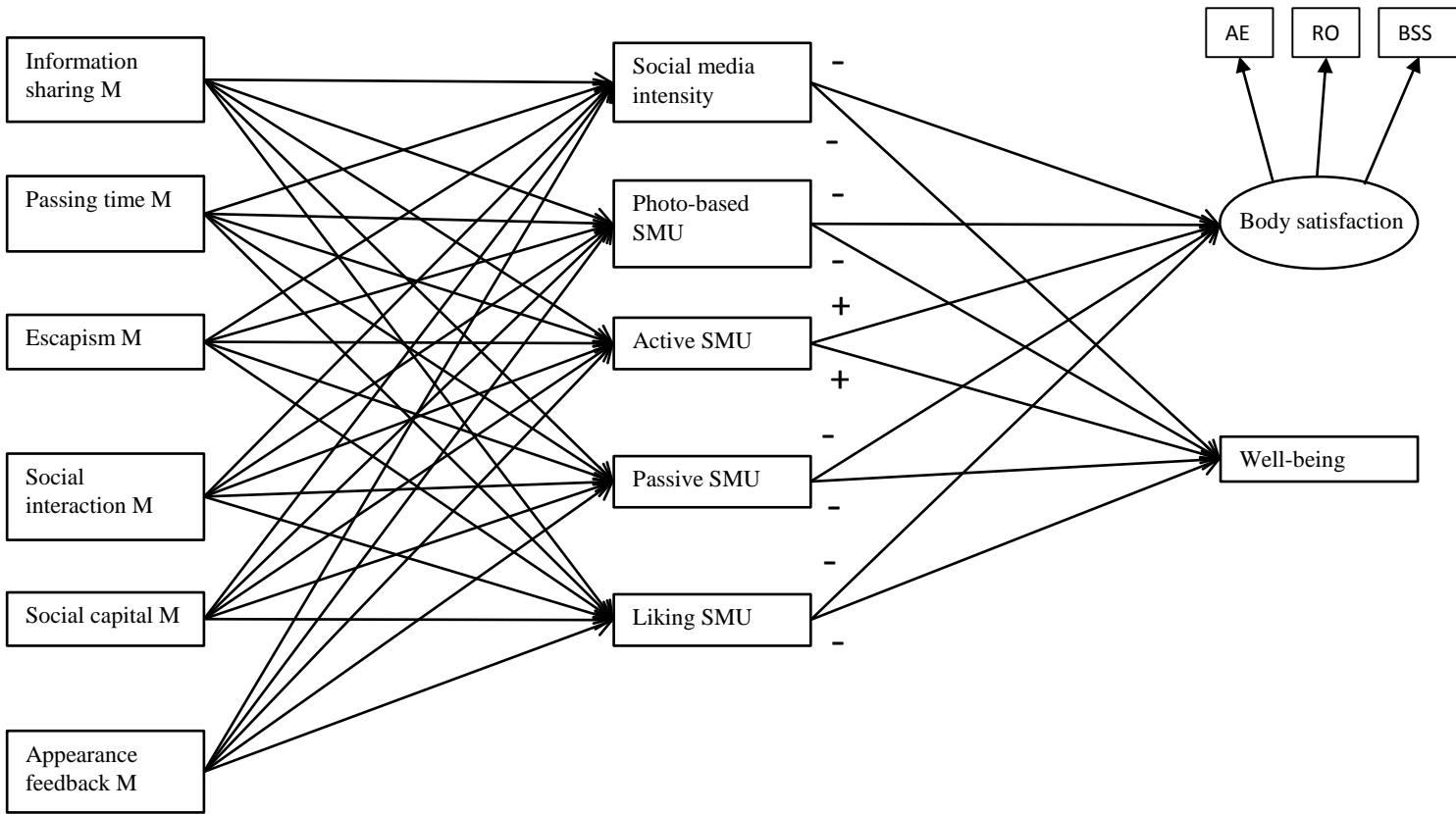
Fig.1 Proposed model of the relationships between motivations for social media use, social media engagement, body satisfaction and well-being

Note. M = motivation, SMU = social media use; Body satisfaction, represented by an oval, was a latent construct which is indicated by appearance esteem (AE), reverse-scored overvaluation of weight and shape (RO), and body shape satisfaction (BSS). All associations between motivations for social media use and social media engagement indicated above are hypothesized to be positive. Hypothesized associations between social media engagement and body satisfaction and well-being are indicated by a positive (+) or negative (-) symbol.

Fig.2 Structural equation model assessing the mechanisms of motivations for social media use, social media engagement, body satisfaction and well-being

Note. Only significant pathways are presented in this figure. M = motivation, SMU = social media use; Body satisfaction, represented by an oval, is a latent construct

* $p \leq .05$, ** $p \leq .01$

MOTIVATIONS FOR SOCIAL MEDIA USE

Tables

Table 1

Means, Standard Deviations, and Zero-Order Spearman's Correlations of the Full Sample

	M (SD)	Range	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Information sharing motivation	2.69 (0.88)	1-5	-													
2. Passing time motivation	3.44 (0.94)	1-5	.27**	-												
3. Escapism motivation	2.69 (1.06)	1-5	.28**	.48**	-											
4. Social interaction motivation	4.05 (0.86)	1-5	.27**	.08**	.08**	-										
5. Social capital motivation	1.71 (0.87)	1-5	.39**	.33**	.29**	.17**	-									
6. Appearance feedback motivation	1.42 (0.75)	1-5	.32**	.27**	.27**	.15**	.70**	-								
7. Social media intensity	3.38 (0.80)	1-5	.34**	.51**	.39**	.25**	.40**	.32**	-							
8. Photo-based SMU	3.36 (1.09)	1-5	.20**	.36**	.27**	.21**	.29**	.28**	.54**	-						
9. Active SMU	.11 (.31)	0-1	.16**	.12**	.10**	.05	.19**	.15**	.24**	.13**	-					
10. Passive SMU	.87 (.33)	0-1	.18**	.29**	.24**	.12**	.22**	.15**	.41**	.40**	.12**	-				
11. Liking SMU	.70 (.46)	0-1	.21**	.28**	.22**	.15**	.28**	.21**	.41**	.39**	.14**	.49**	-			
12. Body shape satisfaction	50.21 (13.02)	14-70	-.03	-.17**	-.20**	-.03	-.15**	-.20**	-.13**	-.07*	-.03	-.10**	-.06*	-		
13. Appearance esteem	3.49 (0.09)	1-5	-.08**	-.21**	-.25**	-.10**	-.26**	-.34**	-.21**	-.18**	-.09**	-.09**	-.07*	-.65**	-	
14. Overvaluation of weight and shape[a]	5.24 (1.87)	1-7	-.18**	-.22**	-.25**	-.12**	-.30**	-.35**	-.22**	-.16**	-.09**	-.11**	-.13**	-.45**	-.57**	-
15. Well-being	5.34 (1.38)	1-7	-.07*	-.16**	-.25**	.00	-.16**	-.21**	-.11**	-.06*	-.06*	-.05	-.05	.52**	.50**	.31**

Note. SMU = social media use, M = mean, SD = standard deviation; [a] reverse-scored

* $p \leq .05$, ** $p \leq .01$.

1

Table 2

Standardized Path Coefficients for the Hypothesized Model

	β	95% CI	*p*-value
Information sharing M > Social media intensity	0.10	0.05, 0.15	<.001
Information sharing M > Photo-based SMU	0.02	-0.04, 0.08	.502
Information sharing M > Active SMU	0.10	0.03, 0.16	.003
Information sharing M > Passive SMU	0.05	-0.01, 0.11	.089
Information sharing M > Liking SMU	0.07	0.02, 0.13	.013
Information sharing M > Body satisfaction	0.11	0.04, 0.18	.002
Information sharing M > Well-being	0.05	-0.01, 0.11	.105
Passing time M > Social media intensity	0.35	0.30, 0.41	<.001
Passing time M > Photo-based SMU	0.24	0.17, 0.30	<.001
Passing time M > Active SMU	0.03	-0.03, 0.09	.270
Passing time M > Passive SMU	0.25	0.19, 0.31	<.001
Passing time M > Liking SMU	0.19	0.13, 0.25	<.001
Passing time M > Body satisfaction	-0.06	-0.14, 0.01	.105
Passing time M > Well-being	-0.08	-0.15, -0.01	.031
Escapism M > Social media intensity	0.15	0.10, 0.21	<.001
Escapism M > Photo-based SMU	0.08	0.02, 0.14	.008
Escapism M > Active SMU	0.01	-0.06, 0.07	.852
Escapism M > Passive SMU	0.08	0.03, 0.13	.002
Escapism M > Liking SMU	0.06	<-0.01, 0.11	.055
Escapism M > Body satisfaction	-0.19	-0.26, -0.12	<.001
Escapism M > Well-being	-0.20	-0.27, -0.13	<.001
Social interaction M > Social media intensity	0.14	0.09, 0.18	<.001
Social interaction M > Photo-based SMU	0.16	0.11, 0.22	<.001
Social interaction M > Active SMU	-0.03	-0.09, 0.03	.305
Social interaction M > Passive SMU	0.08	0.01, 0.14	.019
Social interaction M > Liking SMU	0.08	0.03, 0.14	.005
Social interaction M > Body satisfaction	-0.03	-0.09, 0.03	.348
Social interaction M > Well-being	0.05	-0.01, 0.10	.136
Social capital M > Social media intensity	0.18	0.12, 0.24	<.001
Social capital M > Photo-based SMU	0.10	0.02, 0.17	.009
Social capital M > Active SMU	0.17	0.07, 0.28	.001
Social capital M > Passive SMU	0.10	0.04, 0.15	.001

Social capital M > Liking SMU	0.14	0.07, 0.21	<.001
Social capital M > Body satisfaction	-0.00	-0.10, 0.10	.962
Social capital M > Well-being	0.05	-0.04, 0.13	.261
Appearance feedback M > Social media intensity	-0.01	-0.08, 0.05	.675
Appearance feedback M > Photo-based SMU	0.07	<-0.01, 0.13	.054
Appearance feedback M > Active SMU	0.01	-0.09, 0.12	.812
Appearance feedback M > Passive SMU	-0.05	-0.11, <0.01	.060
Appearance feedback M > Liking SMU	-0.01	-0.07, 0.05	.719
Appearance feedback M > Body satisfaction	-0.30	-0.40, -0.20	<.001
Appearance feedback M > Well-being	-0.19	-0.28, -0.10	<.001
Social media intensity > Body satisfaction	-0.08	-0.16, <0.01	.059
Social media intensity > Well-being	-0.02	-0.10, 0.06	.656
Photo-based SMU > Body satisfaction	-0.00	-0.07, 0.07	.986
Photo-based SMU > Well-being	0.03	-0.03, 0.09	.357
Active SMU > Body satisfaction	-0.02	-0.09, 0.04	.494
Active SMU > Well-being	-0.05	-0.10, 0.01	.118
Passive SMU > Body satisfaction	-0.02	-0.09, 0.05	.517
Passive SMU > Well-being	0.03	-0.04, 0.10	.440
Liking SMU > Body satisfaction	0.06	-0.01, 0.12	.098
Liking SMU > Well-being	0.02	-0.04, 0.08	.497

Note. β = standardized coefficient, CI = confidence interval, M = motivation, SMU = social media use.

MOTIVATIONS FOR SOCIAL MEDIA USE

Acknowledgements