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Instagram Use, InstaMums, and Anxiety in Mothers of Young Children

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The emergence of social media has revolutionised communication and has had a profound effect on many aspects of motherhood. Image-centric social media, despite its overwhelming popularity, has faced much criticism for over idealistic portrayals and the pressures it may place on women throughout pregnancy and the early years of their child's life. This research aimed to determine whether a significant relationship exists between postnatal anxiety and Instagram usage in mothers with young children. The associational, cross-sectional design uses a sample of 210 mothers, aged 22-45, who have one or more children aged under five. An online questionnaire measured anxiety, Instagram usage, and several potentially moderating traits. We found that the relationship between anxiety and online engagement with InstaMums – mothers made famous by Instagram – was moderated by both social comparison orientation and self-esteem. Engagement with InstaMums was associated with greater anxiety in those with higher social comparison orientation; it was also associated greater anxiety in those with lower self-esteem. These findings are discussed in connection with social comparison theory, implications for healthy social media use, as well as avenues for future research.

Keywords: Instagram, Social Comparison, Anxiety, Self-esteem, Motherhood

Introduction

The transitional period of becoming a mother can be highly stressful, especially for primiparous women (Delaney, George Dalmida, & Gaydos, 2015; Kerrick & Henry, 2017; McDaniel, Coyne, & Holmes, 2012). Risk factors for poor mental health are multiple (Clout & Brown, 2015) and may have increased in recent years with the emergence of social media and social networking sites (SNSs; Djafarova & Trofimenko, 2017).

A number of models have been suggested as to how SNS use might impact on psychological well-being (Huang, 2017). It may be that SNS use supports or augments pre-existing relationships, raising well-being, or that the weak relationships formed through SNSs supplant better quality relationships with friends and family, lowering well-being. Alternatively, the effect may be positive or negative depending on user, use, or platform characteristics (e.g., Kraut et al., 2002). Finally, there may be no effect at all. In general, meta-analyses have shown the overall association between time spent using social media and well-being to be negative, but also very small (e.g., Huang, 2017, Orben & Przybylski, 2019). However, the relationship between social media and well-being specifically in mothers of young children has not yet been clarified. Thus, the key aim of this paper is to elucidate the relationship between Instagram use and anxiety in an understudied but very important population – new mothers. In particular, we look at engagement with InstaMums – mothers made famous by Instagram – as social comparison theory suggests that the upward comparison that follows such engagement could be particularly important for well-being. We include two potential moderators – self-esteem and the tendency to compare oneself to others – that are relevant to social comparison processes.

Instagram and Motherhood

The turbulent time of early motherhood is made easier through emotionally supportive networks (Seymour et al., 2015). On Instagram, mothers can create new relationships, maintain old ones, find a place to discuss subjects that might be taboo in other contexts, and get useful advice (Johnson 2014; Yang & Robinson, 2018; Lupton, 2016). However, while there are clearly benefits to Instagram use, some research suggests it could be detrimental to mothers' wellbeing (Djafarova & Trofimenko, 2017) and criticism has been raised regarding how motherhood is portrayed on the SNS (Howorth, 2017). In part due to the visual nature of content, a positivity bias has been noted with users more likely to upload and interact with flattering content (Djafarova & Rushworth, 2017; Lin, Tov, & Qiu, 2014; Reinecke & Trepte, 2014). For those with tendencies to compare their lives to others, being presented with an idealised lifestyle may reduce satisfaction with their own experiences (Sherlock & Wagstaff, 2018; Vogel, Rose, Roberts, & Eckles, 2014; Vogel, Rose, Okdie, Eckles, & Franz, 2015; Wang, Wang, Gaskin, & Hawk, 2017). For example, Slater, Varsani, and Diedrichs (2017) found that viewing "fitspiration" Instagram images reduced the mood of women with a thin-ideal. Similarly, viewing Instagram images of attractive peers or celebrities had a negative impact on mood and body image, particularly in those more likely to compare themselves to others (Brown & Tiggeman, 2016).

This effect may be particularly acute in relation to mothers made famous by Instagram – also called InstaMums – who generally have a large number of followers and regularly discuss their family life and motherhood on Instagram (Djafarova & Trofimenko, 2017). InstaMums are particularly popular with other mothers, who wish to connect with likeminded people and who want to gain knowledge during pregnancy and the postnatal period (Lupton, 2016; O'higgins et al., 2014; Whiting & Williams, 2013). InstaMums, due to their visibility, are perceived as "expert" mothers whose behaviours are worth attending to and emulating. Despite often portraying themselves as "normal" and as friends to their followers (Abidin,

2017; Chae, 2014), InstaMums, like other influencers (Bennett, 2018; Jennings, 2018), create content that is sponsored, or made with the aim of attracting sponsors. As such, they take motherhood into the realms of idealistic marketing (Bakar, 2018; Przystup, 2017). The potentially negative impact of such upward comparison (where we compare ourselves to others who appear to be doing better than ourselves) on well-being is predicted by social comparison theory (Festinger, 1954), has been repeatedly demonstrated in the literature, and will be discussed in more depth in the next section. By presenting idealistic and romanticised images of motherhood (Kerrick & Henry, 2017), while simultaneously attempting to appear similar to their followers (Abidin, 2017), InstaMums may be creating unrealistic expectations in new mothers (Djafarova & Trofimenko, 2017). Discrepancies between these expectations and the realities of motherhood can provoke anxiety (Djafarova & Trofimenko, 2017; Higgins, 1987; Hogg, 2000; Miller, 2007; Wilkins, 2006). For example, some InstaMums reinforce a narrative that a woman can only achieve the status of 'good' mother through spending vast amounts of time with their child to the detriment of other aspects of their life (Elliott, Powell, & Brenton, 2015; Hays, 1996). Failing to live up to these expectations can lead to guilt and anxiety about parental competence (Djafarova & Trofimenko, 2017; Howorth, 2017).

Social Comparison and Other Moderators

The relationship between SNS use and well-being is determined in part by the way in which the SNSs are used. For example, those who use a platform extensively or who consume but do not post, like or comment on content are more likely to experience negative mental health outcomes, while interactive users are the least likely to experience negative outcomes (Escobar-Viera et al., 2018; Yang & Bradford Brown, 2016), a phenomenon best explained by the potential SNSs have to reduce loneliness and nurture relationships (Johnson, 2014; O'higgins et al., 2014; Pittman & Reich, 2016; Yang & Robinson, 2018). In the current

study, we do not explicitly look at active versus passive use of Instagram but do consider two different levels of engagement with Instagram. First, general intensity of use; second, engagement with InstaMums. This connects our work to the wider literature on social media, which frequently uses intensity of use as a variable, while also allowing us to determine whether engagement with InstaMums is uniquely associated with well-being.

As has been shown to be the case in the general population, the degree to which engagement with SNSs lead to negative outcomes for mothers is likely to be moderated by a number of individual differences. For example, social media use has been shown to be associated with more negative outcomes in those with higher social comparison orientation (De Vries et al., 2018), lower life satisfaction (De Vries & Kühne, 2015), higher fear of missing out (Przybylski, Murayama, Dehaan, & Gladwell, 2013), higher tendency towards physical appearance comparisons (Hendrickse, Arpan, Clayton, & Ridgway, 2017) , and lower self-esteem (Ahadzadeh, Sharif, & Ong, 2017).

Given this study's focus on InstaMums, experts or exemplars who are highly visible to mothers of young children, we are particularly interested in social comparison as a possible moderator in this study. Social comparison theory (Festinger , 1954) posits that we derive our self-concept through comparison with others. Comparisons with similar others allow us to gain an accurate view of ourselves. Upward comparisons, where we compare ourselves to those doing better than us, can lead to less-favourable self-perceptions; downwards comparisons can lead to self-enhancement (Wills, 1981). Self-perception will be affected within the specific domain where comparison is happening. So, for example, viewing the social media profile of someone is physically attractive can have a negative impact on self-perceived attractiveness (Haferkamp & Krämer, 2011). Due to the curated and idealised picture that individuals can portray of themselves on social media (Michikyan et al., 2015) upward comparison is the norm (Chou & Edge, 2012), which can lead to negative outcomes

(Slater et al., 2017; Brown & Tiggeman, 2016, de Vries, 2015). However, Collins (1996) suggested that upwards comparisons can also lead to increases in positive affect, for example, through gaining useful information (self-improvement). Thus, social comparison motivation (Helgeson & Mickelson, 1995) must also be considered alongside direction of comparison. Cramer, Song, and Drent (2016) looked at social comparison motivation alongside self-esteem and found that engagement with Facebook led to increases in positive affect when motivation complemented participants' self-esteem. Specifically, positive affect increased in participants with *low* self-esteem if they used Facebook for the purposes of self-enhancement; it increased in participants with *high* self-esteem if they used Facebook for self-improvement.

As previously mentioned, downward comparison can boost one's self-concept and Amaro, Joseph, and de los Santos (2019) demonstrated that this effect does occur in new mothers engaged in social media comparison. However, other work has shown that social media based comparison in mothers is related to depression and lower reported parental competence (Coyne, McDaniel, & Stockdale, 2017). Due to the self-selecting nature of the InstaMum group, alongside the image enhancing qualities of social media, we assume that the social comparison that occurs as a result of engaging with InstaMums will be upwards comparison. Mothers may follow InstaMums for the purposes of useful information and self-improvement, but, in general, we anticipate that this will occur alongside negative consequences for self-perception, particularly in relation to their success as a mother, and affective disposition. Despite their position as upward-comparison role-models, though, InstaMums present themselves as typical mothers. As such, they are simultaneously perceived as exemplars to be emulated and as good candidates for similar (rather than upwards or downwards) comparison by their followers. Thus, we assume that mothers will also engage with InstaMums for the purposes of self-evaluation ("How am I doing as a

mother compared to these people?"). The fact that this comparison is unrealistic and unfair is likely to support the negative consequences mentioned above.

However, there are individual differences in the degree to which one is motivated to compare oneself to others (Gibbons & Buunk, 1999), and we hypothesise that mothers with lower social comparison orientation will be protected against these negative effects (De Vries et al., 2018). We also expect that self-esteem will act as a moderator. Previous work has looked at self-esteem both as a moderator and a mediator of upward comparison. In a mediation model, upward comparison leads to a reduction in self-esteem, which leads to negative outcomes such as depression (e.g., Liu et al., 2017). In a moderation model, the impact of upward comparison on self-esteem is not looked at. Instead, it is hypothesised that the impact of upward comparison will vary depending on individuals' pre-existing level of self-esteem. For example, Ahadzadeh et al. (2017) showed that self-esteem moderates the negative effect of Instagram use on body-satisfaction – those with high self-esteem were less likely to have reduced body-satisfaction following Instagram use. There are also strong theoretical grounds for why self-esteem should be looked at as a moderator in social comparison contexts (e.g., Aspinwall & Taylor, 1993). On the one hand, self-esteem shows a substantial negative correlation with upward comparison (Krizan & Bushman, 2011). As engagement with InstaMums leads to upward social comparison, which in turn might impact on well-being, we expect high self-esteem to reduce this impact. On the other hand, Cramer et al. (2016) demonstrated that people high in self-esteem may actually benefit from upward comparison where it is motivated by a desire for self-improvement. As people who engage with InstaMums are often motivated to seek information for self-improvement, this also suggests that those high in self-esteem are less likely to experience negative effects.

The Current Study

The existing research on how social media could negatively impact users has mostly come from studies of adolescents and young adults (Barry, Sidoti, Briggs, Reiter, & Lindsey, 2017; Hendrickse et al., 2017) – prolific users who are at key developmental life points (Nesi & Prinstein, 2015; Pew Research Center, 2018). The vulnerabilities of women postnatally make them an ideal group to extend this field of research. The current research explores the impact of SNS use, specifically Instagram and engagement with InstaMums, on the well-being of mothers with young children. Anxiety is an important aspect of well-being in relation to social media use (Vannucci, Flannery, Mc Cauley Ohannessian, 2017), motherhood (Wenzel, Haugen, Jackson, & Brendle, 2005; Reck et al., 2008), and social media use in mothers (Padoa, Berle, & Roberts, 2018). Given its prevalence as an issue in this population, anxiety will be used as the key outcome variable.

It is hypothesised that there will be a moderated relationship between engagement with InstaMums and anxiety. Specifically, due to their importance within a social comparison framework, we are investigating the moderating role of self-esteem and social comparison orientation. Scores that reflect maladaptive traits on these measures are expected to relate to higher anxiety in people who report high engagement with InstaMums. In order to differentiate the possible effect of InstaMum engagement from general Instagram use, we have also included a measure of Instagram usage. Social comparison theory does not suggest that self-esteem or social comparison orientation are as relevant to general Instagram usage as they are to InstaMum engagement, so we have not hypothesised a moderating effect in relation to general Instagram usage.

H1: High engagement with InstaMums is associated with higher anxiety in those with high social comparison orientation.

H2: High engagement with InstaMums is associated with higher anxiety in those with low self-esteem.

<div style="text-align: center;">**Methods**</div>

Participants and Procedure

An opportunity sample of 210 women with children aged five and under was recruited through posts on the lead authors' Facebook and Instagram accounts (c. 500 friends and 1000 followers respectively). The sample was predominantly white and middle class. 84% of participants came from the UK, 4% came from Europe (non-UK), and 8% came from North America, while the rest of the sample came from countries around the globe. Participants were aged 22-45 with a mean age of 32.91 (*SD* 4.96). All women stated they had at least one child under the age of five: 46.2% had one child, 37.1% had two children, 11.4% had three children, and 5.2% had four or more children. Approximately 95% of participants had a partner. After they were recruited, participants were directed to a website for the study that provided further information and a link to an online survey hosted by Qualtrics. Before beginning, participants were given sufficient information about the study to be able to give informed consent to participate. They were then asked to provide basic demographic information, before completing the measures described below. Once these were completed, participants were thanked and directed to several websites that provide emotional and practical support to parents. Participants received no compensation.

Measures

The study included measures of anxiety, self-esteem, social-comparison orientation, and Instagram usage, which are described below. A number of other variables were also measured but are not reported in the study.

Anxiety

The Costello-Comrey Anxiety Scale (Costello & Comrey, 1967) is a nine-item measure of a person's vulnerability to states of anxiety which requires responses on a nine-point Likert scale between 1 (*never/absolutely not*) and 9 (*always/absolutely*). Items include "I am a tense 'high strung' person". The scale has been shown to have very good test-retest reliability over a four-month period ($r = .73$; Ogston & Drakeford, 1971), and had internal reliability of .78 in the current study.

Self-Esteem

The Rosenberg Self-Esteem Scale (Rosenberg, 1965) is a 10-item measure of self-esteem, which includes items such as "I take a positive attitude towards myself". It uses a 7-point Likert scale ranging from 1 (*strongly agree*) to 7 (*strongly disagree*). Scores were transformed in such a way that a higher score indicated greater self-esteem. In the current study the internal reliability was found to be .93.

Comparison Orientation

The Iowa-Netherlands Comparison Orientation Measure (INCOM; Gibbons & Buunk, 1999) is an 11-item scale that measures social comparison orientation via responses to statements on a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Statements include "I always pay a lot of attention to how I do things compared with how others do things." Higher scores indicate a greater propensity to compare oneself to others. Internal reliability in the current study was .83.

Instagram Usage

The Instagram Intensity Scale (IIS) is an adapted version of the Facebook Intensity Scale (Ellison, Steinfield, & Lampe, 2007), which was developed to measure frequency of usage and emotional connection to Facebook. The original scale contains an item on number of Facebook friends (10-point scale ranging from ≤10 to >400) and another item on the average

amount of time spent on Facebook per day (6-point scale ranging from <10 mins to >3 hours), then six items on a five-point Likert scale (e.g., "Facebook has become part of my daily routine"). Given the varying response scales, scores for each item need to be standardised before being averaged to create a total score. The adapted measure replaced all instances of the word "Facebook" with "Instagram" and replaced the item on number of friends with two similar items: one on the number of Instagram followers, and another on the number of accounts followed. Reliability analyses showed that the scale had high internal consistency, with a Cronbach's alpha of .89.

In addition, we included a single item measure of the degree to which participants engaged with InstaMums: "*How often do you browse the profile of an InstaMum? (A person you don't know in real life that dedicates their profile to their life as a mother and their children, potentially giving advice and guidance to other mothers)*". This used a 5-point response scale ("Never" to "Very Frequently").

Design and Statistical Analysis

This study used an associational, cross-sectional design. The predictor variables were the two measures of Instagram usage: intensity of use and degree of engagement with InstaMums. The criterion variable was anxiety. Comparison orientation and self-esteem were treated as potential moderators of the relationship between Instagram usage and anxiety. Moderation analysis was conducted using the PROCESS utility for SPSS (Hayes, 2017).

Results

Descriptive Statistics

Prior to analysis, items were reverse coded where necessary. The Shapiro-Wilkes test suggested that the data were normal. To confirm this, we looked at the skewness statistic and checked for outliers using z-scores (>3). No multicollinearity was observed between variables. There were very few missing values ($<.001\%$). When creating subscale totals, missing values were imputed using the participant's mean for the scale in question. Means, standard deviations, and zero-order correlations between all scales are presented in Table 1.

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Moderation Analysis

We used regression analysis to investigate whether trait anxiety could be predicted by the other variables measured in the study, including self-esteem, tendency to compare oneself to others, Instagram usage intensity, and engagement with InstaMums specifically. Unsurprisingly, given the strong association between self-esteem and anxiety, the overall regression model was significant, $F(4,205) = 52.69$, $p < .001$, $R^2_{adj} = .50$. Specifically, self-esteem predicted lower anxiety ($\beta = -.57$, $t(205) = 10.14$, $p < .001$), while a general tendency towards comparing oneself with others predicted higher anxiety ($\beta = .24$, $t(205) = 4.27$, $p < .001$). Instagram usage and InstaMum engagement failed to predict anxiety.

As we were specifically interested in the possible interaction between Instagram usage and individual differences on anxiety, we followed this up with moderation analyses, including self-esteem and social comparison as moderators. Moderation analysis was carried out using

14

Hayes' (2017) PROCESS utility within SPSS. No significant moderation effects were found for general Instagram usage. However, both self-esteem (ΔR^2 = .012, B = -.09 [bootstrapped 95% CI: -.15 to -.02], t(206) = 2.12, p = .035) and social comparison (ΔR^2 = .015, B = .22 [bootstrapped 95% CI: .04 to .39], t(206) = 2.10, p = .037) were found to moderate the relationship between engagement with InstaMums and anxiety.

To interpret these interaction effects, simple slopes were created (see Fig. 1a and 1b). These show the relationship between the predictor (InstaMum engagement) and the criterion variable (anxiety) when the level of the moderator is low, medium, and high (-1SD, 0, +1SD). It is also possible to determine the statistical significance of each of those slopes. Considering self-esteem as a moderator, greater engagement with InstaMums was associated with worse anxiety, but only in those with low self-esteem (B = .17 [bootstrapped 95% CI: .02 to .32], t(206) = 2.16, p = .032). The association between engagement with InstaMums and anxiety was not significant at moderate and high levels of self-esteem. A similar effect was observed when considering social comparison as a moderator. Here, greater engagement with InstaMums was also associated with worse anxiety, but only in those with a higher tendency to compare themselves to others (B = .20 [bootstrapped 95% CI: .01 to .39], t(206) = 2.10, p = .037). There was no significant association in those with low and moderate levels of social comparison.

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Discussion

The aim of this research was to determine whether a relationship could be found between Instagram usage and anxiety in mothers with young children. Specifically, based on social comparison theory, we hypothesised that self-esteem and social-comparison orientation would moderate the degree to which engagement with InstaMums is associated with anxiety. In order to distinguish general Instagram usage from engagement with InstaMums, we also assessed the same moderation model using the Instagram Intensity Scale (an adapted version of the Facebook Intensity Scale; Ellison et al., 2007). These analyses showed that the only aspect of Instagram usage that was associated with anxiety was engagement with InstaMums, and that this was moderated by self-esteem and tendency to compare oneself to others. Specifically, InstaMum engagement was more likely to be associated with higher anxiety in those with lower self-esteem, and those with a higher tendency towards social comparison.

The importance of engagement with InstaMums was supported by initial correlations, which suggested that it was significantly associated with anxiety, while general usage was not. Engagement with InstaMums also showed the strongest (dysfunctional) associations with self-esteem and social comparison, which is in line with previous research that has demonstrated a link between these traits and SNS use (Chae, 2014; Vogel et al., 2014; Vogel et al., 2015; Wang et al., 2017). In contrast, the measure of general Instagram usage did not significantly correlate with any of these variables. This is not too surprising as, while some studies have shown a connection between SNS use and negative mental health (Hendrickse et al., 2017; Lin et al., 2016; Rosenthal et al., 2016), recent large studies have shown that the overall impact of social media use on well-being is extremely small (Huang, 2017, Orben & Przybylski, 2019).

Social comparison theory posits that people make more intense comparisons when the object of comparison holds greater emotional significance (Festinger, 1954). Maternal identity has a highly emotive component (Chae, 2014; Laney et al., 2015), and, as such, mothers are highly likely to compare themselves to others. The current study has shown that upward comparison to the unrealistically positive depictions presented by InstaMums (Bakar, 2018; Djafarova & Trofimenko, 2017) is associated with anxiety in mothers who are low in self-esteem and high in social-comparison orientation. Social comparison theory would suggest that this is due to a domain specific (i.e., in relation to motherhood) negative impact on their self-concept that comes when comparing one's own attributes to others who are more successful. Previous work has shown similar effects in relation to other domains, including body image, physical attractiveness, career success, and social competence (de Vries & Kuhne, 2015; Haferkamp & Krämer, 2011; Hendrickse et al., 2017), but this is the first study to show moderated associations between social comparison processes and negative outcomes within the domain of motherhood. Social comparison theory also suggests that upwards comparison might instead be advantageous for people with high self-esteem who are comparing themselves to others for reasons of self-improvement (Collins, 1996; Cramer et al., 2016). While not significant, there was some evidence that this process may have been at work in the current sample – engagement with InstaMums seemed to be related to reduced anxiety in those with high self-esteem (see Fig. 1a).

Unfortunately, given the associational nature of the study's design, the causal nature of these relationships cannot be ascertained. People may interact with this type of content and become anxious as a result of comparisons, or anxious people may be more drawn to Instagram to make comparisons and self-improvements (Festinger, 1954; Lockwood & Kunda, 1997; Seabrook, Kern, & Rickard, 2016; Shaw, Timpano, Tran, & Joormann, 2015). Alongside the limitations inherent in using a cross-sectional design, the study has a number of other

limitations. First, a convenience sample was used. As a consequence of this, a disproportionate number of participants were from Europe and North America and had a white, middle-class background. While this does not necessarily undermine our conclusions, it does limit our confidence in the degree to which they may be applicable in other populations. Second, InstaMum engagement is assessed by a single question which means that the specifics of how this actually manifests as a behaviour are lacking, and that motives can only be inferred. In addition, while we have proposed that the observed negative effects associated with this item stem from dysfunctional social comparison, it may be the case that they are instead related to the passive nature of the behaviour suggested by the item, which refers to simply following other people rather than actively posting content (e.g., Escobar-Viera et al., 2018). Future research should focus on using a more detailed InstaMum questionnaire alongside a scale that explicitly captures active and passive usage to resolve this ambiguity. Third, anxiety was solely measured by a trait measure of anxiety. In this, we are following past research (Vannucci et al., 2017) that has demonstrated an association between social media use and trait anxiety, and which has hypothesised how such use might impact on anxiety. However, trait anxiety is typically conceptualised as a stable predictor of behaviour, while state anxiety is more typically viewed as a labile outcome. As such, future studies should certainly include a state measure of anxiety.

While under-researched in an academic context, the degree to which Instagram and engagement with InstaMums might benefit or negatively affect mothers has been much debated amongst lay audiences. For example, some articles list the top Mums to follow (Joseph, 2018), while others critique the idealistic standards they portray and the luxury lifestyles that are unobtainable to many (Bakar, 2018). However, Instagram's focus on flattering, filtered images and videos (Djafarova & Rushworth, 2017; Lin et al., 2014; Reinecke & Trepte, 2014) demands an academic inquiry into its impact on identity at this key

developmental point for women. While this research has some limitations, it does make an important contribution to the study of how visual centric SNSs, such as Instagram, may impact on parental wellbeing. The current research suggests that engagement with InstaMums could be associated with negative outcomes in mothers of young children, dependant on the individual.

Clearly, the findings of this study have practical implications. Firstly, Instagram could take further steps to protect the wellbeing of its users, such as making it mandatory for edited images to be labelled as such (Royal Society for Public Health & Young Health Movement, 2017). This might counteract the degree to which the edited unrealistic images seen on InstaMum accounts are seen as a realistic point of comparison. Alternatively, midwives and health care visitors could include digital wellbeing in their discussions with new mothers. By raising awareness of potential risks, especially in women predisposed to low self-esteem and high social comparison, mothers will be able to make better informed decisions about how and whether they use the platform.

Social media is a large part of many women's lives (O'higgins et al., 2014) that provides enjoyment alongside practical and social support. However, in mothers of young children, the present study has shown that one aspect of social media behaviour may be associated with an anxious self-concept in some individuals. Specifically, the association between anxiety and engagement with InstaMums is moderated by the individual's level of self-esteem and their propensity for social comparison. This finding is particularly valuable as there has been little research on this topic before, and most of what has been done has been qualitative in nature. Future research should consider looking at the specifics of InstaMum engagement in more detail and may also wish to look at whether similar interactions between individual differences and Instagram usage are visible in terms of the wellbeing of fathers.

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Table 1

Descriptive Statistics and Inter-correlations (N = 210)

Variable	Mean (*SD*)	2	3	4	5	6
1. Anxiety	4.31 (1.41)	-.68**	.51**	.11	.19**	-.09
2. Self-Esteem	4.86 (1.30)		-.47**	-.05	-.21**	.01
3. Social Comparison	3.57 (0.66)			.12	.27**	-.18*
4. IIS	4.19 (1.21)				.47**	.09
5. InstaMum	3.35 (1.26)					.06
6. No of Children	1.78 (0.91)					

Note. IIS = Instagram Intensity Scale

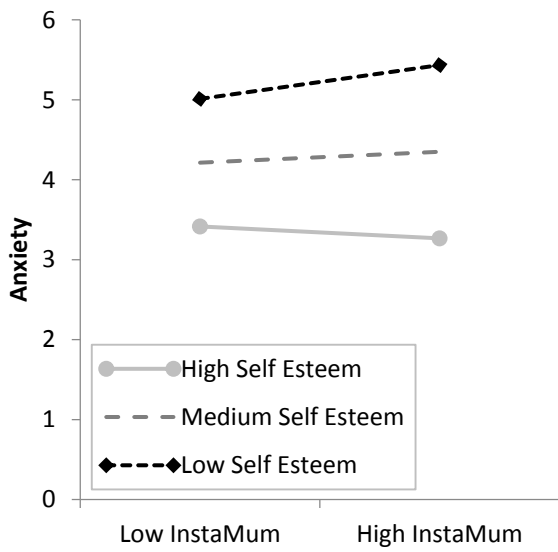* *p* < .05 ** *p* < .01

Figures

Figure 1a. Simple slopes showing interaction between self-esteem and engagement with InstaMums on anxiety
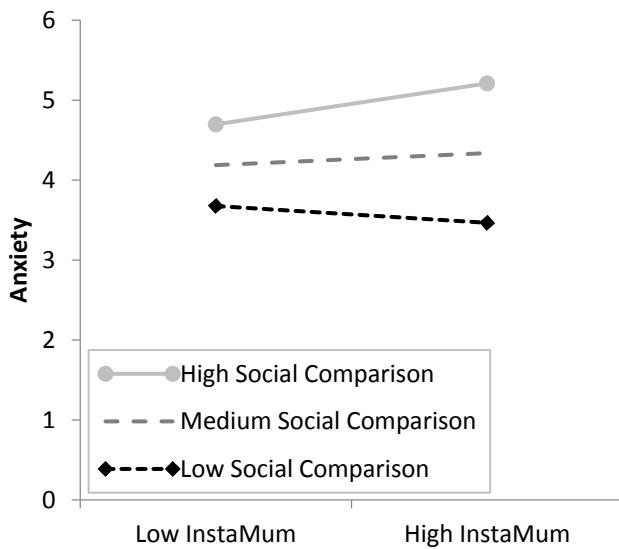

Figure 1b. Simple slopes showing interaction between tendency to compare oneself with others and engagement with InstaMums on anxiety