



Article

# Mommy influencers: Helpful or harmful? The relationship between exposure to mommy influencers and perceived parental self-efficacy among mothers and primigravida

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Gaëlle Ouvrein 

University of Antwerp, Belgium

Utrecht University, The Netherlands

## Abstract

Questions are raised about the potential effects of (future) mothers' regular exposure to the perfect representations of motherhood by mommy influencers. Due to the regular exposure, mothers might see these images as the norm but are not always able to meet with these standards themselves. Based on a survey among mothers and primigravida this study analyzed the association between visiting mommy influencer profiles on Instagram, comparing oneself with these online mothers and perceived parental self-efficacy. For mothers, it was found that both exposure to the content and comparison with the mommy influencers were related to lower perceived parental self-efficacy. For primigravida, the direction of the relationship was different: Regular exposure to mommy influencer content was related to higher parental self-efficacy, meaning that this exposure was helpful. The implications of this study for (future) mothers, mommy influencers, and practitioners who guide mothers through the transition to motherhood will be discussed.

## Keywords

Mommy influencers, parental self-efficacy, social comparison, social learning theory

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## Corresponding author:

Gaëlle Ouvrein, Department of Communication Sciences, University of Antwerp, Sint-Jacobstraat 2, Antwerp 2000, Belgium.

Email: [gaelle.ouvrein@uantwerpen.be](mailto:gaelle.ouvrein@uantwerpen.be)

## Introduction

Social media influencers (SMI) are extremely hot (Ouvrein et al., 2021). While they started as entertainers, SMI more and more become sources for health information in domains, such as food, skin, sports, and recently also parenting (Zou et al., 2021). This work focuses on the latter group, known as mommy influencers. This concept describes mothers who share personal stories and experiences with motherhood on social media (Burke-Garcia et al., 2018).

Many mothers and primigravida (i.e. women who are pregnant for the first time) follow their updates, interact with their content, and ask questions and advice (Hunter, 2016; Morrison, 2011). Becoming a parent is an intense and confusing developmental period (Coyné et al., 2017; Mendes and Silva, 2012), associated with conflicting feelings such as happiness and pride but also insecurity, fear, anxiety, stress, and fatigue (Nystrom and Ohrling, 2004). Moreover, the period is accompanied by a change in identity. Parents need to reorganize their identities and define their new role as a parent (Mercer, 2004; Nystrom and Ohrling, 2004; Phillips and Broderick, 2014) by observing other (online) parents (Bandura, 2001; Mercer, 2004). Research indicated that the search for inspiration and examples for this new identity already starts during pregnancy (Archer and Kao, 2018). For mothers who are pregnant with their first child, there is no input from their own experience yet which makes the input from online others extra valuable. It is therefore interesting to also increase insights on primigravida's parenting-related social media use here.

Although it is known that (new) mothers and primigravida actively use social media and interact with mommy influencers (Johnson, 2015), a double feeling seems to arise when discussing the helpfulness of this content for the transition into motherhood. On one hand, mommy blogger content is oftentimes seen as a counter-reaction toward the traditional representation of the perfect motherhood in mainstream media, helping mothers developing more realistic and attainable ideas (Hopper, 2014; Hunter, 2016; Lopez, 2009). On the other hand, realizations are growing that the myth of perfect motherhood and the homogeneous representation of it seems to retain in the online environment (Lopez, 2009; Orton-Johnson, 2017; Zappavigna, 2016). Findings from studies investigating the impact of online mommy content on mothers' feelings and relationships with the children are also mixed. Some studies reported a positive impact, with the interactions with mommy influencers being considered as helpful for real information, inspiration, and support in the short run (e.g. Germic et al., 2021; Holtz et al., 2015; Hunter, 2016). However, other scholars raised concerns that the regular exposure to the romanticized pictures of mommy influencers stimulates feelings of uncertainty and failure among mothers and primigravida who might believe that this perfect motherhood is the norm (Archer, 2019a; Bakar, 2018). Some even called social media "toxic" for new moms (Dallas, 2021).

This study addresses this issue and aims to investigate the impact of visiting mommy influencer accounts and comparing oneself with these moms on perceived parental self-efficacy among mothers and primigravida. We therefore rely on the Social Learning Theory and Social Comparison Theory. In that way, this study fits within the increasing attention for the difficulties associated with becoming a mother (Archer and Kao, 2018)

and the need for more diverse parenting voices (Galvan, 2021). Some concrete advice will be formulated within this context.

### *The radical act of mommy influencers and the return to picture perfect*

Mothers have been sharing and following stories and advice from others for a long time. In the past decades, mothers have increasingly used online platforms, such as blogs and social media channels for this (Hudders, De Jans, and De Veirman, 2020; Moujaes and Verrier, 2021). This contributed to the development of mommy bloggers and mommy influencers. Burke-Garcia et al. (2018: 2) define a mommy blogger as “a mother who blogs about her children, motherhood, parenting or related topics.” A mommy influencer, which we focus on here, can be considered as a mommy blogger who uses social networking sites as her blogging platform. Today mommy influencers are mostly active on YouTube, Instagram, and TikTok (Hudders et al., 2020; Moujaes and Verrier, 2021). Most mommy influencers post about everyday experiences with the children, but there are also mommy influencers that become known for content on specific topics such as difficult pregnancy or premature babies (Lopez, 2009).

Many mommy bloggers and mommy influencers started blogging from a counterreaction toward the traditional representation of ideal motherhood in the mainstream media (Hopper, 2014; Hunter, 2016; Lopez, 2009; Zappavigna, 2016). The mass media has a long history of representing the perfect mother idea and giving the audience the impression that they should embody this (Feasey, 2013; Lopez, 2009). These perfect moms in TV-series, movies, magazines, and advertisements are referred to as alpha moms and represent white, upper-middle class, independent, and competent mothers who have an ideal balance between their jobs and their household. They are perfect in both their jobs and being a mom, and they have plenty of time and energy to invest in both (Douglas and Michaels, 2004; Feasey, 2013; Germic et al., 2021; Hopper, 2014). Moreover, traditional media narratives often create impressions on the morality around motherhood, by stimulating the idea of a polarization between the “good” and the “bad” mother, in which the latter is oftentimes a lower income mom or a mom who is part of a minority group based on gender roles or sexual orientation (Barnett, 2006). This homogeneous representation is problematic because motherhood is not a one-size-fits all experience (Barnett, 2006; Feasey, 2013; Lopez, 2009). Motherhood has different meanings for different women. Elements such as race, class, sexual orientation, and culture steer the meaning and completion of motherhood but are largely ignored in the mainstream media (Barnett, 2006).

In contrast, the first mommy bloggers and influencers wanted to represent real motherhood, including the struggles, the pain, and the daily grind (Friedman, 2013; Zappavigna, 2016). Authenticity and diversity became central in the narratives that they wanted to bring (Lopez, 2009). It was in 2005 that Alice Bradley (writer and mommy blogger), followed by many others, started talking about the Radical Act of Mommy Blogging (Lopez, 2009), which would be able to reconstruct the social image of motherhood (Germic et al., 2021; Orton-Johnson, 2017). However, this changed across the years. Given their popularity and their personal approach, these mommy bloggers increasingly got the attention of brands and marketeers (Hunter, 2016; Lopez, 2009). Around 2007, a commercialization trend of mommy influencers could be observed

(Bakar, 2018; Hunter, 2016), with an increasing number of them doing sponsored posts and starting to live from their job as influencer (Archer, 2019b). As a result, the posts needed to meet with commercial standards and lost much of their authenticity and diversity (Archer, 2019a, 2019b; Bakar, 2018; Hunter, 2016). Indeed, increasing criticism among audience members on the fact that mommy bloggers' content became less honest and realistic could be observed (Lopez, 2009). Textual analyses conducted in response to that confirmed that the mommy blogging industry again became dominated by a Western, white, idealized, and unrealistic motherhood representation (Archer, 2019a, 2019b; Galvan, 2021; Lopez, 2009). A minority of mommy influencers stuck to the idea that they should bring real pictures and stories to meet with the needs of today's moms. One of the famous international examples is the ironically called profile of The Perfect Mom (<https://www.instagram.com/theperfectmom/?hl=en>). There also seems to be a category in between the picture-perfect moms and the realistic moms, which can be referred to as the semi-perfect moms. This group makes it feel real enough at first glance, but when you look in detail the representation is still not real. One example is a mother sitting on the carpet with her baby, both crying. When you look at the details though, it seems that the carpet is white and all clean, there are no toys in the background and the dishes are gone (Prakash, 2021).

### *Mommy influencers and their audience*

Mommy bloggers and influencers are followed by many mothers and future mothers (Baker and Yang, 2018). Several studies noticed an increase in the use of social media during pregnancy (Harpel, 2018; Smith et al., 2020) and during the first years after giving birth (McDaniel et al., 2012). Following mommy influencers on Instagram has become very popular in the recent years as most women already have profiles on this platform and can thus easily start following (Germic et al., 2021; Hunter, 2016).

Mothers and primigravida have several reasons for following mommy influencers. First, mothers and expecting women like the access to personal everyday experiences and struggles of other moms (Germic et al., 2021; Lupton, 2016; Orton-Johnson, 2017). They feel like they can relate with their situations and events (Morrison, 2011). New moms in particular feel insecure and are desperately looking for others who can tell them what to do and how to be a "good" mom (Prakash, 2021). This is especially helpful for those not riding on a pink cloud during pregnancy or after giving birth. These young moms indicated that it is not easy to find and ask social support in their direct environment because pre- and postnatal unhappiness and depressions are still taboo (Vazquez and Miguez, 2019). On social media they can easily and with low effort (e.g. likes and comments) interact with the mommy influencers and even ask their advice, which makes them feel supported and less lonely (Holtz et al., 2015; Hunter, 2016). They can do this in an anonymous way and with the guarantee that they will probably never meet in person, which further stimulates them to open up about difficult topics (Holtz et al., 2015; Lupton, 2016; Orton-Johnson, 2017; Prakash, 2021). In a focus-group study on mothers' social media use, moms even stressed out that they find more advice, support, and information in the online environment compared to face-to-face interactions (Lupton, 2016; Orton-Johnson, 2017). Social support is essential for a fluent transition into motherhood

and for limiting the negative experiences (Leahy-Warren et al., 2012; Montgomery et al., 2012). Having enough social support as a mother has been associated with a better health for the mother, better parenting practices, and a better relationship between the parents (McDaniel et al., 2012). Finally, apart from the informational and supportive needs, mothers and primigravida like to connect with others who are at the same stage in their lives. While making real connections with traditional celebrity mothers is rather difficult, this is easier with SMI. Several followers reported that interactions with SMI are experienced as interpersonal and intimate (Ouvrein et al., 2021), with some of them who even indicated that they see these SMI as their (parasocial) friends (Baker and Yang, 2018; Lopez, 2009). New mothers in the study of Baker and Yang (2018), for instance, talked about their “friends on social media” for referring to mommy influencers. Especially, the perfect and semi-perfect mommy influencers might function as friends. When comparing how much Flemish mothers liked a mixed list of perfect mommy influencers and realistic mommy influencers, it appeared that the mommy influencers who bring the perfect pictures scored clearly higher on likeability (work in progress).

### *Social learning theory and parental self-efficacy*

Although mothers can immediately feel supported and connected by following and interacting with mommy influencers, concerns rise about the potential long-term effects of regular confrontation with the perfect representation of motherhood on mothers’ own perceptions and ideas (Germic et al., 2021; Marulli, 2021). To explain this, we rely on Social Learning Theory. According to this theory, people learn new behaviors by observing others and imitating their behaviors (Bandura, 2001). These others thus function as referees for the prevailing norms concerning specific behaviors (Hendriks and Burgoon, 2003). When women enter their new role as a mother, they must learn many new things and will thus observe other mothers, off-line and online, to see what is expected and to help them define and shape these new tasks (Mercer, 2004). The learning processes are based on the mechanisms of punishment and rewards. More specifically, the learning will be slowed down when one observes punishment for the behavior and it will be accelerated when the behavior is being rewarded (Bandura, 1989). The latter is especially the case with behavior from SMI, as it is rewarded with popularity and many likes and comments (Rosenthal-von der Pütten et al., 2019). That explains why many people follow SMI and try to imitate their behaviors (Dinh and Lee, 2021). Especially women seem to fantasize about imitating the lives of the women they follow on social media (Lewallen, 2016). Primigravida and “new” moms are vulnerable to such social influences because the transition to motherhood is completely new and overwhelming and often accompanied with role conflicts and physical, social, and emotional insecurity (Coyne et al., 2017; Nystrom and Ohrling, 2004).

A central concept within these observational learning processes is one’s self-efficacy. Bandura defines self-efficacy as “the belief in one’s capabilities to organize and execute the courses of action required to manage prospective situations” (Bandura, 1995: 2). This concept has a direct link with behavior, in a sense that a higher self-efficacy is related to a better performance (cf. Self-efficacy theory; Bandura, 1989). Applied to a context of parenting the concept of parental self-efficacy arose. Parental self-efficacy actively starts

to develop during pregnancy (Brunton et al., 2020; Razurel et al., 2017) and refers to the belief in one's capability to organize and do the tasks that are related to parenting (Leahy-Warren et al., 2012).

In line with self-efficacy theory, parental self-efficacy has been related to actual parental competences (Coyne et al., 2017; Jones and Prinz, 2005). Coleman and Karraker (2003) for instance associated it with higher responsiveness and engagement with the child. Moreover, higher parental self-efficacy has been linked with several positive outcomes such as lower chances for the development of pre- and post-natal depression (Mohammad et al., 2011) and higher general happiness as a parent (Coleman and Karraker, 2003).

Several studies investigated the predictors of parental self-efficacy, mostly among mothers. It is known, for instance, that age, number of children, and parental experience are positively associated with parental self-efficacy (Brunton et al., 2020; Froman and Owen, 1990; Salonen et al., 2009; Shorey et al., 2014). For gender, it has been found that mothers generally score higher compared to fathers (Reece and Harkless, 1998). Some scholars argued that these findings can be explained by the different meaning of parental self-efficacy for fathers and mothers. Following the traditional gender norms, parental self-efficacy of mothers seems to be translated into emotional nurturing skills, whereas for fathers it is characterized by interactive playing with the child and developing parental control (Murdock, 2013). Furthermore, parental self-efficacy of mothers and primigravida is highly influenced by her mental state (Brunton et al., 2020; Razurel et al., 2017). Several studies reported that a negative mental state, high stress levels, low feelings of social support, and pregnancy-related anxiety are related with lower parental self-efficacy (e.g. David and Khatib, 2021; Haslam et al., 2006; Leahy-Warren et al., 2012; Razurel et al., 2017; Shorey et al., 2014). Also, cultural background is known to be an important influencer of parenting practices (Celada, 2010). However, research actually comparing self-efficacy across cultures is very limited (Celada, 2010; David and Khatib, 2021). One of the exceptions is the recent study of David and Khatib (2021) which found that mothers in Western Capitalist societies score lower on parental-self efficacy and higher on parenting stress compared to collectivist societies.

Apart from individual explanations, sociocultural factors, such as the media representation of motherhood, might also shape mothers' parental self-efficacy (Celada, 2010; Germic et al., 2021). This idea has already been recognized for the representation of ideal motherhood in traditional media. Although the standards are unattainable, people seem to use them to develop ideas about what the perfect ways are to raise children and feel bad about it when they cannot meet them (Thurer, 2007). These implications might go further for the representation of motherhood on social media, as mothers are exposed to this content on a daily basis and have more direct and intimate contact with their "perfect" exemplary figures, making it more real and attainable (Ouvrein et al., 2021). Nevertheless, research linking parental self-efficacy with parenting-related social media use is scarce and inspired by conflicting expectations.

Due to the easy and unlimited access to parenting information and personal stories on social media, parental self-efficacy might be boosted (Glatz and Buchanan, 2021). At the same time though, the overload of online information might complicate the processing, which might result in not using the parenting information for developing or improving



self-efficacy or even hindering the development of parental self-efficacy (Shrivastav and Hiltz, 2013). The study of Germic and colleagues (2021) tested this link between social media exposure and parental self-efficacy and found that mothers who look for parenting information on social media reported lower scores on parental self-efficacy. However, the authors did not specify which platforms the mothers used for the information. Including this aspect might be important, as different platforms have different “norms.” Instagram, which we focus on here, has a strong photo- and appearance-based nature and is known as a platform on which people try to present their best/perfect selves (Coyne et al., 2017). It is known that visuals can easily represent underlying differences in power structures and inequality, which might further stimulate the impressions of perfectionism (PwC, 2017). By constantly presenting the image of perfect moms, mommy influencers on Instagram might strengthen stereotypes about motherhood (McDaniel et al., 2012). More specifically, mothers who are exposed to heavy amounts of the ideal motherhood might accept this as the norm (Hendriks and Burgoon, 2003). This can result in an increase in the societal pressure to be a perfect mom (Coyne et al., 2017; Johnson, 2015). Indeed, “new” mothers indicated that the societal pressure to be a perfect mom and family is extremely high nowadays (Meeussen and Van Laar, 2018). This is especially the case in Western individualist societies in which values such as independence, autonomy and freedom are central also within motherhood (David and Khatib, 2021). These negative feelings and high pressure might impact mothers’ parental self-efficacy (e.g. Germic et al., 2021; Marulli, 2021). This Mask of Motherhood, as Susan Maushart called it, is not only observable among existing mothers but also among expecting mothers (Feasey, 2013). We therefore want to test the association between visiting mommy influencer profiles (cf. The perfect motherhood) and parental self-efficacy among mothers and primigravida. Following the existing knowledge, we propose:

*H1:* There is a negative association between regular exposure to mommy influencers and (a) mothers’ and (b) primigravida’s perceived parental self-efficacy.

### *Social comparison with mommy influencers*

According to Coyne and colleagues (2017), it is not the frequency of social media use that is important among mothers but what they do with the content and then more specifically whether processes of social comparison are activated. This idea is supported by the Social Comparison Theory (Festinger, 1954). This theory states that when people are exposed to information about others, they tend to compare themselves and their lives and use that information to confirm and work on their own identity development (Festinger, 1954). The literature distinguishes between downward social comparison (i.e. comparing with someone in a worse situation); lateral comparison (i.e. comparing with someone equal); and upward social comparison (i.e. comparing with someone with a higher status, such as an influencer) (Festinger, 1954; Tosun et al., 2020). Upward social comparison has been regularly investigated in the context of ideal body representations of (famous) women and the impact on respondents’ body self-esteem and image (e.g. Gerber et al., 2018; Lewallen and Behm-Morawitz, 2016). Although upward social comparison can work inspiring, it is also

considered dangerous, especially on social media, as people tend to present themselves better than reality (Coyne et al., 2017). As a result, people compare their “worst selves” with the “best selves” of others (Coyne et al., 2017). These negative comparisons can make them feel bad about themselves and their lives (De Vries and Kühne, 2015). Research related upward social comparison with several negative feelings, such as feeling sad, distressed, depressed (Gibbons and Gerrard, 1989), frustrated, jealous, hostile (Chrisler et al., 2013; Testa and Major, 1990; Tiggeman and McGill, 2004) and with decreased self-esteem (Testa and Major, 1990). Women participate very often in negative social comparisons on social media and also report more negative consequences of that compared to men (Coyne et al., 2017; Lewallen, 2016).

Although it is known that mothers and primigravida compare themselves regularly with famous online mothers (Hopper, 2014; Johnson, 2015; Phillips and Broderick, 2014), insights on these comparisons are limited. According to the theory, they tend to compare mostly with the dominant peer image that they find online (Festinger, 1954), which is the “perfect Instagram mother” (cf. Upward comparison; Germic et al., 2021; Press, 2006). When comparing themselves with an unrealistic representation of motherhood, mothers might have the feeling of not being able to meet the standards. As a result, they might feel failed and inadequate (McDaniel et al., 2012; Marulli, 2021; Moujaes and Verrier, 2021; Press, 2006). This was confirmed by the recent study of Tosun and colleagues (2020) who measured mothers’ feelings after downward and upward social comparison. While downward social comparison resulted in positive feelings (e.g. optimism, inspiration, admiration), upward social comparison resulted in negative feelings (e.g. envy, sadness, dissatisfaction, feeling inadequate). These negative social comparisons and feelings might stimulate doubts and negative perceptions about their skills as mothers in a similar way as perfect bodies on social media make women doubt about their bodies and self-worth (Coyne et al., 2017; Djafarova and Trofimenko 2017; Germic et al., 2021).

Accordingly, a few studies that linked comparison with parental self-efficacy found that regular comparisons with both ordinary parents (cf. Lateral comparison; Coyne et al., 2017) and celebrity parents (cf. Upward comparison; Chae, 2015) resulted in lower parental self-efficacy. One recent study on social comparisons among pregnant women reported similar results, with women who interacted more often with InstaMums experiencing more anxiety and uncertainty when they participated in social comparison with these moms (Moujaes and Verrier, 2021). We aim to retest this idea in the context of mommy influencers and expect that:

*H2:* There is a negative association between social comparison with mommy influencers and (a) mothers’ and (b) primigravida’s perceived parental self-efficacy.

## Method

### Sample

A total of 803 ( $N=803$ ) women participated in the study ( $M_{\text{age}}=30.96$ ;  $SD=3.70$ ; range 19–43). In all, 95% of them had the Belgian nationality and 80% of them had a degree



from higher education, meaning that the group was quite homogeneous on cultural background. Approximately one-third (33.7%) of them was pregnant at the moment of their participation. For one-third of them this was their first pregnancy. Participants were recruited via social media accounts of midwives and daycares who spread the call. The study protocol was approved by the Ethics Committee for the Social Sciences and Humanities of the University of Leuven. A pilot study was conducted among a convenience sample of 6 women (24–32 years old). No issues appeared.

## Measures

*Perceived parental self-efficacy* was measured using the Parenting Sense of Competence Scale (PSOC, Johnston and Mash, 1989). Participants answered the 17 items on a 5-point Likert-type scale ranging from *totally disagree* (1) to *totally agree* (5). The total score was calculated as the mean score of the items (Cronbach's  $\alpha = .82$ )

*Exposure to mommy influencers* was measured by asking how often in the past 6 months participants had actively visited profiles of mommy influencers on Instagram. We therefore provided participants with a definition of mommy influencers. Participants answered this question on a 7-point Likert-type scale ranging from *less than one time per month* (1) to *several times per hour* (7).

*Comparison with mommy influencers* was captured using a continuous scale from 0 (*never*) to 10 (*always*) on which participants indicated how often they compare themselves and their families with mommy influencers when they are confronted with the content of them.

Based on previous research on perceived parental self-efficacy, we included the control variables *age*, *number of kids*, and *parental anxiety*. For the latter variable, we included the anxiety subscale from the Depression Anxiety Stress scale as developed by Lovibond and Lovibond (1995) and translated and validated in Dutch by De Beurs, Van Dyck, Marquenie, Lange, and Blonk (2001). The scale is developed to measure anxiety related to parenting and kids. Participants with kids indicated to which extent they agree with the 15 items on a 5-point Likert-type scale ranging from *totally disagree* (1) to *totally agree* (5) (Cronbach's  $\alpha = .92$ ). Primigravida received an adapted version measuring their anxieties related with the pregnancy and the unborn child (Cronbach's  $\alpha = .92$ ).

## Results

### Descriptive results

An overview of the descriptive statistics and correlations can be found in Table 1. To compare the model for mothers versus primigravida, the data were split between mothers with kids ( $N = 652$ ) and women who were pregnant for the first time ( $N = 98$ ). Mothers who were pregnant and had one or more kids were left out because it was impossible to disentangle the impact of their experience as a mother and the impact of their pregnancy. This study is part of a larger project on the social media use of mothers and expecting women in which variables are tested for which it does not matter whether the mother already has children or not.

**Table 1.** Descriptive statistics and correlations.

	1	2	3	4	5	6	7	8	9	10	11
1. M_age											
2. M_number of kids	.33***										
3. M_anxiety	-.12***	-.01									
4. M_exposure mommy influencers	-.03	.04	.09*								
5. M_comparison mommy influencers	-.06	-.05	.13***	.32***							
6. M_self-efficacy	-.02	-.04	-.45***	-.13***	-.21***						
7. PG_age											
8. PG_anxiety							.11				
9. PG_exposure mommy influencers							.07	.01			
10. PG_comparison mommy influencers							.12	.20	-.23*		
11. PG_self-efficacy							.113	-.18*	.33***	.02	
M	31.30	1.6	1.96	4.31	4.87	3.59	28.86	2.18	4.21	4.31	3.42
SD	3.64	.72	0.68	1.47	2.53	0.43	3.57	0.72	1.29	2.52	0.36
Range	21-43	1-5	1-5	1-7	0-10	1-5	19-38	1-5	1-7	0-10	1-5

M = Mothers; PG = Primigravida.

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

**Table 2.** Hierarchical regression analysis mothers with kids.

	Perceived parental self-efficacy			
	Model fit	R <sup>2</sup>	ΔR <sup>2</sup>	β
MODEL 1	$F(3, 625) = 54.88; p < .001$			
Block 1: control variables		.209		
Age				-.07
Number of kids				-.02
Parental anxiety				-.46***
MODEL 2	$F(4, 624) = 43.07; p < .001$			
Block 1: control variables		.216	.008*	
Age				-.07
Number of kids				-.02
Parental anxiety				-.45***
Block 2: Exposure (H1)				
Visiting mommy influencer profiles				-.09*
MODEL 3	$F(5, 623) = 38.31; p < .001$			
Block 1: control variables		.235	.019***	
Age				-.07*
Number of kids				-.03
Parental anxiety				-.44***
Block 2: Exposure (H1)				
Visiting mommy influencer profiles				-.04
Block 3: Social comparison (H2)				
Social comparison with mommy influencers				-.15***

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

Both groups regularly visit mommy influencer accounts on Instagram ( $M_{\text{moms}} = 4.31$ ;  $SD = 1.46$ ;  $M_{\text{primigravida}} = 4.21$ ;  $SD = 1.29$ ). More specifically, these women visit these profiles on average at least once per week and 44% of them visit them every day. When they visit these profiles, these women compare themselves about half of the time ( $M_{\text{moms}} = 4.87$ ;  $SD = 2.53$ ;  $M_{\text{primigravida}} = 4.31$ ;  $SD = 2.52$ ). Participants' perceived parental self-efficacy was relatively high ( $M_{\text{moms}} = 3.59$ ;  $SD = .43$ ;  $M_{\text{primigravida}} = 3.42$ ;  $SD = .36$ ). Mothers' perceived parental self-efficacy was significantly higher than for primigravida,  $t(748) = .17$ ;  $p < .001$ .

### Hierarchical multiple regressions

To test our hypotheses hierarchical multiple regressions were performed in SPSS. In Block 1, we entered the control variables age, number of kids (only in the model for mothers) and parental/pregnancy-related anxiety. Next, as predicted by H1, the visiting of mommy influencers was added in Block 2, followed by a comparison with mommy influencers in Block 3 (H2).

The model fit explained variance and standardized coefficients for the model for mothers and the model for primigravida can be found in, respectively, Tables 2 and 3.

**Table 3.** Hierarchical regression analysis primigravida.

	Perceived parental self-efficacy			
	Model fit	R <sup>2</sup>	ΔR <sup>2</sup>	β
MODEL 1	$F(2, 95) = 2.56; p = .083$			
Block 1: control variables		.051		
Age				.14
Parental anxiety				-.20
MODEL 2	$F(3, 94) = 5.67; p = .001$			
Block 1: control variables		.153	.102***	
Age				.11
Parental anxiety				-.20*
Block 2: Exposure (H1)				
Visiting mommy influencer profiles				.32***
MODEL 3	$F(4, 93) = 4.24; p = .003$			
Block 1: control variables		.154	.001	
Age				.12
Parental anxiety				-.19
Block 2: Exposure (H1)				
Visiting mommy influencer profiles				.33***
Block 3: Social comparison (H2)				
Social comparison with mommy influencers				.03

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

The model with three blocks for the mothers was significant:  $F(5, 623) = 38.31, p < .001$ , and explained 23.5% of the variance in perceived parental self-efficacy. The explained variance increased significantly from 20.9% (Block 1) when the hypothesized predictors were added in Blocks 2 and 3. In Model 2, visiting mommy influencers was negatively related to perceived parental self-efficacy ( $\beta = -.09, p = .01$ ). However, when we added comparison with mommy influencers in Block 3, this association disappears. In Model 3, there is a significant negative relationship between comparison with mommy influencers and perceived parental self-efficacy ( $\beta = -.15, p < .001$ ). Concerning the control variables, it was found that both age ( $\beta = -.07, p = .05$ ) and parental anxiety ( $\beta = -.44, p < .001$ ) were negatively associated with perceived parental self-efficacy. The number of kids did not add to the model.

Switching to the model of the primigravida, it appeared that the model with 3 blocks was significant,  $F(4, 94) = 4.24, p = .003$ , but had no added value in explaining perceived parental self-efficacy, which is why we continued with Model 2,  $F(3, 93) = 5.67, p = .001$ , which explained 15.3% of the variance in perceived parental self-efficacy. Compared to model 1, adding the variable consumption of mommy influencer content significantly contributed to the model, increasing the explained variance from 5.1% to 15.3%. This variable also appeared to be significantly related to perceived parental self-efficacy ( $\beta = .32, p = .001$ ) in a positive way meaning that primigravida who visited more mommy influencers reported higher perceived parental self-efficacy. Concerning the

control variables, anxiety related to pregnancy was negatively associated with parental competences ( $\beta = -.20, p = .04$ ). Age was not related to primigravida's perceived parental self-efficacy.

## Discussion

Although previous research reported on mothers' and primigravida's use of social media, insights are lacking on the potential relationship between regular exposure to romanticized images of motherhood by mommy influencers and mothers' and primigravida's perceived parental self-efficacy. This study tried to fill in this gap by conducting a survey study among mothers and primigravida.

Based on our descriptive data, it can be learned that mothers and primigravida visit Instagram profiles of mommy influencers regularly. Almost half of them visit these profiles every day. As the content on these profiles is very often a perfect and unattainable representation of motherhood (Archer, 2019a; Bakar, 2018; Hunter, 2016; Lopez, 2009), the first part of this study tried to see whether this exposure can be related to the perceived parental self-efficacy (H1). Based on the results it can be concluded that mothers who visited more often profiles of mommy influencers had lower scores on the parental self-efficacy scale, which confirms our hypothesis. Several explanations can be given for this finding. First, this result is in accordance with the Social Learning Theory (Bandura, 2001). This theory states that people learn by observing behavior of others who are rewarded for that (Bandura, 1995; Rosenthal-von der Pütten et al., 2019). In this case, mothers learn what is expected from a perfect mother based on observations of mommy influencers and apply this knowledge to form their own perceptions and expectations about motherhood. The constant exposure to these perfect images can result in the internalization of this motherhood ideal, increase the pressure to be a perfect mom (McDaniel et al., 2012; Meeussen and Van Laar, 2018), and make mothers insecure (Archer, 2019a; Bakar, 2018). These processes can be observed in a lower perceived parental self-efficacy. This implies that it is not just the mainstream media that teaches mothers how to raise their children but also the online media environment (Thurer, 2007). Another possible explanation might have to do with mothers' processing difficulties due to the overload on information on social media (Shrivastav and Hiltz, 2013). Research indicated that especially people with low experience on a certain topic, such as new mothers, have a hard time to process much information from multiple sources at the same time (Ettenson et al., 1987). This can also be linked to a lack of media literacy (cf. One's skills to critically assess and evaluate media content) (Germic et al., 2021). Finally, also the sociocultural background of these mothers might contribute to the explanation. Previous research reported that compared with collective societies, mothers in individualist societies experience more stress related to parenting and feel less competent (David and Khatib, 2021). Moreover, in these societies in which individualism and independence is central, these mothers feel like they can rely less on their social network of friends and family (David and Khatib, 2021) and might therefore look for support online and come across the idealistic representations of motherhood there. In line with this idea, it has been found that people who adhere to individualist cultural values have larger online social networks and spend more time with them (Rosen et al., 2010). These factors together might explain

why the mothers who regularly visit mommy influencers accounts score lower on perceived parental self-efficacy.

This result also follows the findings of Germic and colleagues (2021) who reported a negative association between looking for parenting information on social media and parental self-efficacy. Our study adds that this is also the case for regular exposure to the popular content on mommy influencer accounts. Moreover, our study can also add something about the exposure of primigravida, a group that has not been investigated in this context. It appeared that for primigravida the results were in the other direction, meaning that they developed a higher perceived parental self-efficacy when they more often visited mommy influencers. This is in line with the research stating that mommy influencers contribute to easy access to information. Having more information then results in developing higher perceived competences (Glatz and Buchanan, 2021).

In the second part of the study, we looked further than pure exposure and investigated the potential negative link between comparisons with mommy influencers and parental self-efficacy (H2). This hypothesis was confirmed for the mothers, for which a negative relationship was found between how often mothers compared themselves and their lives with that of mommy influencers and their perceived parental self-efficacy. This can be explained by the Social Comparison Theory (Festinger, 1954). As the presented motherhood is so perfect, this upward social comparison might give mothers the feeling that they are not able to meet the standard, which might result in lower perceived parental self-efficacy. This result is also in line with studies in the context of exposure to ideal bodies online and how this is related to lower self-esteem and body image (Gerber et al., 2018; Lewallen and Behm-Morawitz, 2016), a mechanism that seems to be similar. The relationship between parental self-efficacy and exposure to mommy influencers disappeared when comparison was added, which indicated that mothers are not passive online users, but what they do with the content is crucial for explaining the associations with parental self-efficacy. For primigravida though, the comparisons did not contribute to the model. As these women did not have children yet, it is possible that comparisons with mothers with children were less relevant for them. We also see in the descriptive data that the comparisons with mommy influencers are indeed lower for the primigravida. In that way, primigravida can take advantage from the mere exposure to information and stories of others (see H1).

This study has some limitations. First, it should be noted that there is still a considerable amount of variance in perceived parental self-efficacy unexplained, especially for primigravida. It might thus be important to look further into the role of other variables. Future research might, for instance, include personality traits that are related to perceived competences, self-esteem, and social comparison, such as measures of identification with feminism (Feltman and Szymanski, 2017; Germic et al., 2021), and elements of the Big Five, such as neuroticism and extraversion (VanderZee et al., 1996). Also, social comparison orientation might be interesting to include as it controls for individual differences in one's tendency to compare with others (Gibbons and Buunk, 1999). Related to that, it should be noticed that the cross-sectional approach of this study does not allow to make definite conclusions about causality and only offers limited insights in individual differences. Although research in the context of TV suggested similar processes in which the confrontation with the ideal motherhood impacts mothers' perception on parenting



and self-worth (Thurer, 2007), it is also possible that mothers' parental self-efficacy steers their decision to follow mommy influencers or not. Future research might thus benefit from using a longitudinal design and a more heterogeneous group (e.g. mothers with different cultural background). Second, we measured how often mothers and primigravida visited profiles of mommy influencers. Although many of these mommy influencers bring the picture perfect of motherhood, they are not all like that. Although the picture perfect mommy influencers seem to be more popular (work in progress), it is possible that some participants explicitly look for Instagram content that represents the real motherhood, but this was not included. Future research can ask what type of content participants are exposed to on these profiles. Moreover, future research might compare our findings from the appearance-based platform Instagram with findings for other platforms, which are more focused on text, such as Twitter or Blogger. It is possible that words bring a less explicit and more diverse idea of motherhood compared to visuals, from which it is known that they stress out inequality (PwC, 2017).

Despite these limitations, this study has implications for mothers, primigravida, practitioners and mommy influencers. It is important to realize that following mommy influencers has many advantages, especially for primigravida. It provides them with information and support, which can contribute to an increase in parental self-efficacy and overall well-being. However, it also has some pitfalls. Mothers and primigravida should realize that the representations of motherhood by mommy influencers are often inspired by commercial benefits and are therefore not always realistic. Comparing oneself with such content can stimulate feelings of doubt and failure, lower one's perceived parental self-efficacy, and eventually also impact on mothers' actual performances. Practitioners such as midwives and health organizations that help mothers and primigravida through the transition to motherhood can help increase their awareness and guide them to other, less-biased information sources as well. Mommy influencers themselves should be aware of the fact that the represented motherhood online is still very homogeneous and unrealistic and that this might set unrealistic expectations among mothers. Although the mommy blogging landscape is in movement, with for instance an increase in Black mommy influencers, more diversity in parenting voices online is still necessary for all mothers to find communities they can relate to (Galvan, 2021).

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## ORCID iD

Gaëlle Ouvrein  <https://orcid.org/0000-0002-6231-3569>

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### **Author biographies**

Gaëlle Ouvrein (PhD) is a postdoctoral researcher (50%) and an assistant professor (50%) at respectively University of Antwerp and Utrecht University. Her research concentrates on the interactions and relationships between celebrities and their audiences, mostly adolescents. Her PhD concentrated especially on the negative interactions, taking the form of online celebrity bashing.