



Parents' Feelings, Distress, and Self-Efficacy in Response to Social Comparisons on Social Media

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Abstract

Parents' social comparisons on social networking sites (SNS) is a research area of growing interest. In this study, we examined parents' positive and negative feelings when comparing with other parents and associations with self-reported distress (i.e., stress and depression) and self-efficacy. We used a sample of 422 Swedish parents of children below the age of five ($M_{age} = 1.29$ years). In a first step, we examined construct validity of two new measures on parents' positive and negative feelings when doing comparisons on SNS. In a second step, we examined associations with self-reported parenting. Results showed that parents reported more positive feelings than negative feelings in relation to other parents on SNS. Further, negative feelings when doing social comparisons were linked to more distress and lower level of self-efficacy, whereas positive feelings when doing social comparisons predicted higher level of self-efficacy, but not distress. These results suggest that negative feelings are related to lower actual levels of distress and self-efficacy, but positive feelings can have an instant positive effect on parents' perceived competence, but not on their well-being. Practitioners can encourage parents to reflect on who they compare with on SNS and why, as it might enable evaluations that could lead to self-improvement rather than weakening of oneself as a parent.

Keywords Parents' social comparisons · Social networking sites · Distress · Self-efficacy

Highlights

- Parents report more positive feelings than negative feelings about their parenting when comparing with other parents.
- Parents' negative feelings are related to more distress and lower self-efficacy.
- Parents' positive feelings are related to more self-efficacy.
- Parents' feelings, distress, and self-efficacy in response to social comparisons on social media.

Social networking sites (SNS) constitute arenas in which parents can receive and share information with other parents on specific parenting issues. In 2019, the ten most popular social media platforms were Facebook, Twitter, Reddit, YouTube, LinkedIn, Instagram, Tumblr, Snapchat, Pinterest, and WhatsApp (Pew Research Center, 2019). Such arenas can be valuable and offer support in the parenting

role. In addition, on these sites, parents can post photos and information about their children (i.e., "sharenting", Blum-Ross & Livingstone, 2017), as a form of self-imagining or self-presentation (e.g., Damkjaer, 2018). Most parents use SNS daily (Bartholomew et al., 2012; Glatz et al., 2023), and although the use is not related to negative parental outcomes (Coyne et al., 2017; Ögel-Balaban & Altan, 2019), it increases engagement in social comparisons (de Vries & Kühne, 2015; Steers et al., 2014; Vogel et al., 2014), which can have negative consequences for parents.

Many parents appreciate connecting with other parents on SNS, but they also mention that there is a pressure to "show off" and that one can feel like a less competent parent when comparing oneself with other parents (Drafarova & Trofimenko, 2017; Strange et al., 2018). In fact, parents generally portray an overly positive picture and

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narrative regarding family-life and parenthood on SNS (Drafarova & Trofimenko, 2017). In this study, we introduced two measures of parents' positive and negative feelings when doing social comparisons on SNS and we examined the construct validity of these measures. Further, we examined associations between these measures on the one hand and parents' reports of their distress (depression and stress) and self-efficacy on the other hand.

Social comparison theory, developed in the early 1950/s (Festinger, 1954), describes the drive within individuals to gain accurate self-evaluations. According to this theory, social comparisons help people evaluate themselves, as they relate information about others to their own abilities and attitudes (Festinger, 1954; Gerber et al., 2018; Suls & Wheeler, 2000). By comparing with others, individuals can evaluate their own competence as a way of defining the self, which can have an impact on a persons' identity development (Madge & O'Connor, 2006; Plantin & Daneback, 2009). Evaluating oneself to others might be especially important when entering a new role (Gerber et al., 2018; Suls & Wheeler, 2000), such as the parenting role. In the early stages of their parenting role, parents might feel insecure and in need of validation in their parenting role and comparisons with others can offer a framework including information that one is acting "correct" (Price et al., 2017). For example, seeing that other parents are doing the same as oneself can be comforting to parents. This would, theoretically, result in positive feelings about one's own parenting. However, comparisons can also signal to parents that they are not doing so well. Seeing that others are doing much better than oneself might place a burden on parents in their parenting role. In this sense, parents would experience their own parenting negatively in relation to other parents. Hence, depending on the evaluation when comparing with others, parents can either feel positive or negative about their own parenting.

SNS offers a unique context for comparisons. On SNS, parents can compare themselves with other parents who are not within proximity of themselves (e.g., comparisons with celebrities and/or so called "influencers"), so called comparative reference groups (e.g., Bauman & May, 2004). This is different from an offline context, where the number of parents to compare with is lower. Additionally, offline, parents often compare with others in their closest social network, and these parents are more likely to endorse similar values and practices. Finally, on SNS, parents can choose what information they want to share, resulting in a parenting ideal that often is not realistic and difficult, if not impossible, to reach. In fact, research has shown that parents rarely discuss and show real problems or admit challenges they face when being on SNS (Drafarova & Trofimenko, 2017). Because of these aspects, SNS is a particularly suitable arena for the study of parents' social comparisons.

Research on Parents' Social Comparisons

Only a handful of studies have examined parents' social comparisons on SNS. In a study by de los Santos et al. (2019), the authors examined posts on social networking sites for mothers (SNSM), and specifically the type of posts and emotions expressed in these posts and following comments. Results showed that negative emotions were most often expressed for self-enhancing comparisons (i.e., seeing oneself as better than other mothers), while comparisons with mothers who were perceived as doing better were most commonly combined with expression of positive emotions. Hence, not only do parents make different types of comparisons, but the emotional expressions when doing these comparisons might be different.

Regarding the potential consequences of social comparisons, a few studies have examined the links between social comparisons on SNS and various parenting outcomes. Social comparisons have been linked to more role overload and depression (Coyne et al., 2017; Padoa et al., 2018), and lower sense of competence among mothers of young children (Coyne et al., 2017). These studies show evidence that more social comparisons are linked to higher distress and lower perceived parenting competence. These studies, however, examined social comparisons in a rather simplistic manner, by asking parents whether they compare themselves to other parents they have seen on SNS or not. A few other studies have examined parents' own reported feelings and perceptions of their own parenting role when comparing with others, and, thus, have extended the studies above. To measure parents' feelings and thoughts when doing comparisons can inform about how parents perceive themselves in *relation* to others, and specifically if they feel better or worse than other parents that they see on SNS.

Amaro et al. (2019) developed a measure based on the Social Comparison Rating Scale (Allan & Gilbert, 1995), in which parents marked on a ten-point scale one of two bipolar constructs (e.g., inferior/superior; less competent/more competent). In the study, parents were given made-up comments from other parents on a sensitive topic that parents had chosen themselves (e.g., vaccination, sleep training) and they were to rate themselves in relation to the other parents (based on the comments). Higher values on their scale indicated that parents felt better/more competent than other parents and lower levels indicated that parents felt worse/less competent than other parents. Further, Sidani et al. (2020) developed a 7-item scale of negative feelings towards one's own parenting competence when doing comparisons with other parents. The authors measured parents' perceptions that other parents did a better job as a parent or seemed happier in their life than they did. Hence, this scale tapped into negative feelings about one's own parenting and life when comparing with other parents.

Results from the studies by Amaro et al. (2019) and Sidani et al. (2020) showed that when parents felt *worse* or *less competent* than other parents, they reported higher levels of depression (Sidani et al., 2020) and less parental satisfaction (Amaro et al., 2019). In the study by Amaro and colleagues, this association was explained by negative perceptions about the SNS context (i.e., less belonging, and more negative feelings). Thus, parents who felt less competent in comparison to other parents felt less belonging and more negative feelings, which in turn predicted less parenting satisfaction. These studies add important knowledge about parents' social comparisons, specifically as they did not focus solely on the frequency of social comparisons, but more on parents' perceptions and emotions about their own competence as parents in relation to others.

Although the studies referred to above have moved the field forward in examining parents' feelings when doing social comparisons on SNS, there is a lack of knowledge about the unique associations between positive and negative feelings on the one hand and parenting outcomes on the other hand. Additionally, earlier studies have used single parenting outcomes (i.e., parenting satisfaction or parental depression), and it is still unknown about the generalized associations with parenting outcomes.

The Present Study

In this study, we take a starting point in the studies mentioned above, but we examine positive and negative feelings as two separate constructs, and we also examine how these two are linked to multiple parenting outcomes. To examine both positive and negative feelings—as unique predictors of parenting outcomes—offer examinations of both frequency of these feelings and different associations with parents' cognitions and distress. This is done in the present study. We used a sample of parents of children below age 5 and examined parents' positive and negative feelings when doing social comparisons on SNS. We focused on this developmental period, as parents are relatively new in their parenting role, and social comparisons might be especially important for their process of identification in this new role (Gerber et al., 2018; Madge & O'Connor, 2006; Plantin & Daneback, 2009; Suls & Wheeler, 2000).

There were two aims to this study. First, we introduce two comprehensive measures of parents' positive and negative feelings when doing comparisons (including both written information, such as comments, and photos). We examined construct validity of these two measures and potential differences in the level of parents' positive and negative feelings. Second, we examined the links between positive and negative feelings when doing social comparisons and parents' reports of distress (stress and depression)

and self-efficacy. This study moves the field forward, by studying associations between social comparisons and parenting outcomes depending on type of feeling (positive and negative), frequency of feeling (more versus less positive feelings and more versus less negative feelings), and type of outcome (distress versus self-efficacy).

We posed three research questions, and two hypotheses:

- Research question 1 (RQ1): Do parents report more positive or negative feelings about their own parenting when comparing with other parents on SNS?
- Research question 2 (RQ2). Are positive and negative feelings uniquely associated with parenting outcomes?
- Research question 3 (RQ3): Are positive and negative feelings more strongly related to some of the parenting outcomes (i.e., stress, depression, self-efficacy)?

We explored research questions 2 and 3 by including both positive and negative feelings as different constructs in the same model and examined how these were associated with parenting outcomes. Based on earlier research, we posed two hypotheses about some of the associations:

- Hypothesis 1 (H1): Parents who feel more positive about their own parenting role when comparing with other parents on SNS will report more self-efficacy than parents who feel less positively. Earlier research has not examined the link to stress and depression, and thus, we explored these associations without a priori hypotheses.
- Hypothesis 2 (H2): Parents who feel more negative about their parenting when comparing with other parents on SNS will report lower levels of self-efficacy and more depression than parents who feel less negatively. Although earlier studies have not examined the association with stress, we expect that the results would follow the same pattern as our predictions regarding depression (i.e., more negative feelings will be linked with more stress).

Materials and Methods

Procedures and Participants

In this study, we used reports from 422 Swedish parents of children below age 5 ($M_{age} = 1.29$ years), which was part of a project examining parents' use of the internet and SNS conducted in the beginning of 2020. Parents were recruited both online and offline, but all parents responded to the same survey via a secure online platform handled by the university. The survey took approximately 20–30 min to complete, and parents could fill it out either on their smartphone or a computer. In compensation for participation, parents received 50 Swedish crowns (approximately 5

US dollars). Parents who were recruited offline ($n = 108$) were all visitors at family centrals (i.e., voluntary meeting place for parents at health care centers) in a town in mid-Sweden (population 154,000 in year 2019). Online recruitment ($n = 314$) was done via advertisement on parenting sites and forums, parenting blogs, and on Facebook.

Parents were between 26 and 40 years of age ($M_{age} = 32.41$) and the majority (84%) were mothers. Among the children, there were equal number of girls ($n = 208$) and boys ($n = 211$). Almost all parents (93%) lived together with a partner (93%). About half of the participants were first-time parents (46%) and the rest had either two children (40%) or more than two children (14%). Concerning employment, 77% had a full-time job and the rest of the parents had a part-time job or were students. This was a rather highly educated sample, with 74% having a university degree or a degree from a professional school, 24% had a high school degree only, and 2% had graduated ninth grade only. A small percentage of the parents were unemployed or on sick leave (6%). Finally, most parents were born in Sweden (92%).

Compliance with Ethical Standards

This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the national authority for ethical issues in research (number masked for anonymous review). Informed consent was obtained from all individual participants included in the study. The authors have no competing interests to declare that are relevant to the content of this article.

Measures

Feelings while doing Social Comparisons

With a starting point in Festinger's social comparison theory (Festinger, 1954) and with a basis in earlier research and social comparison scales (Allan & Gilbert, 1995; Feinstein et al., 2013; Park & Baek, 2018), we developed two measures of parents' positive and negative feelings when doing general social comparisons on SNS (not specific to one platform and including both written posts and photos). Specifically, we developed questions that captured feelings related to being engaged in social comparisons, which were based on Smith's (2000) feelings related to either undesirable (envy and shame) or desirable (pride) outcomes for self when comparing with other people. Additionally, the items captured what has been measured in other studies on parental comparisons, namely feelings of being more or less competent in comparison to other parents (Amaro et al., 2019; Sidani et al., 2020). Differently to other parental comparison measures, however, we used separate items for

positive and negative feelings about one's own parenting. This was done to explore the full variation within positive and negative feelings, rather than measuring only the extreme ends (e.g., high levels of positive or high levels of negative feelings). Hence, these items captured positive and negative feelings that parents might have regarding their own parenting in relation to other parents they see on SNS. For all items, parents responded on a Likert scale ranging from 1 (*Strongly disagree*) to 4 (*Strongly agree*).

The four questions on the negative feelings scale were: "I get jealous when I see how other parents seem to be having it based on their posts and photos on SNS (Item 1)," "When I see other parents' photos and information on SNS, I feel like a bad parent (Item 2)," "Based on other parents' posts and photos on SNS, it seems as they are more in control of their parenting than I am (Item 3)," and "I feel worried about my parenting and my child when I compare myself with other parents on SNS (Item 4)." Cronbach alpha for this scale was 0.81.

The four questions on the positive feelings scale were: "Based on other parents' posts and photos on SNS, I feel like I am a better parent (Item 5)," "When I compare myself with other parents on social media, I feel proud of the parent I am (Item 6)," "I feel like a more competent parent than other parents I see on SNS (Item 7)," and "When I compare myself with other parents on SNS, I feel satisfied with my parenting and my relationship with my child (Item 8)." Cronbach alpha for this scale was 0.83.

Other SNS and Social Comparison Measures

We used three measures to examine construct validity of our measures of positive and negative feelings when doing social comparisons. First, we asked parents about their SNS use ("How often do you use SNS?") and parents reported on a Likert scale ranging from 1 (*Never*) to 6 (*Several times a day*). We gave the following examples to illustrate different types SNS and contexts: Instagram, Facebook, blogs, vlogs, social forum, discussion forum.

Second, we used one statement to measure whether parents do comparisons on SNS ("I compare with other parents on SNS"). For this item, parents responded on a Likert scale ranging from 1 (*Strongly disagree*) to 4 (*Strongly agree*). It should be noted that a single-item scale has some potential limitations regarding construct validity when measuring complex constructs. The reason we used this single item, however, was to be able to compare our results with prior research (Coyne et al., 2017; Padoa et al., 2018).

Third, we measured parents' general comparison orientation with the parent-adjusted version of the Iowa–Netherlands Comparison Orientation Measure (Buunk & Gibbons, 2006; Gibbons & Buunk, 1999) developed by Chea (2015). This measure has been widely

used to measure social comparisons and consists of six items specifically on parents' general tendencies to compare (e.g., "I often compare how my little one is doing with how other kids are doing"). For all items, parents responded on a Likert scale ranging from 1 (*Strongly disagree*) to 4 (*Strongly agree*).

Parental Reported Distress

We used two scales to measure parents' self-reported distress. These measures are different from the feelings included in the social comparison scales, as they are measures on perceived *absolute* levels of distress, rather than feelings *in relation* to others with whom parents are comparing.

First, we used the parental stress scale (Berry & Jones, 1995), which consists of 18 items measuring negative and positive components of the parenting role. The items were translated from English to Swedish in accordance with the guidelines of the International Test Commission (Hambleton, 2001). Examples of items are: "The major source of stress in my life is my child(ren)," "Caring for my child(ren) sometimes takes more time and energy than I have to give," "I enjoy spending time with my child(ren)," and "Having child(ren) gives me a more certain and optimistic view for the future." Positive items were reversed so that higher values indicated more stress and negative feelings. Parents responded on a Likert scale ranging from 1 (*Strongly disagree*) to 4 (*Strongly agree*). Cronbach alpha was 0.86.

Second, we used the Center for Epidemiologic Studies Depression Scale (Radloff, 1977), which measures depressive symptoms in a general population. In this study, we used the Swedish translated and validated version of this scale (for more information, see Gatz et al., 1993). Parents were asked to rate how often they experienced a list of 20 symptoms during the last week. Examples of symptoms are: "I was bothered by things that usually don't bother me," "I felt that I was just as good as other people," "I felt sad," and "I felt hopeful about the future." Some items were reversed, and higher values indicated higher levels of depression. Response options ranged from 1 (*Rarely or none of the time*) to 4 (*Most or all of the time*). Cronbach alpha was 0.92.

Parental Self-Efficacy

To measure parental self-efficacy, we used the Karitane Parenting Confidence Scale by Črnčec et al. (2008); a scale that is recommended to use on samples of parents of young children (Wittkowski et al., 2017). The scale was translated from English to Swedish and consisted of 15 items covering both specific tasks, such as feeding and soothing, as well as items on general perceived competence. Examples are: "I can soothe my child when he/she is distressed," "If my child

has a common cold or a light fever, I am confident about handling this," "I am confident about helping my baby to establish a good sleep routine," and "I feel I am doing a good job as mother/father." Parents responded to a Likert scale ranging from 1 (*No, hardly ever*) to 4 (*Yes, most of the time*). Cronbach alpha was 0.69.

Strategy of Analyses

All analyses were performed using Mplus 7.11 (Muthén & Muthén, 1998–2012) with the Maximum Likelihood estimator. To evaluate model fit, we used three indices: Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA). CFI and TLI values between 0.90 and 0.95, and RMSEA values between 0.05 and 0.08 are considered indicators of an acceptable fit (Byrne, 2012).

We examined the validity of the social comparison feelings measures using Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). We divided the sample in two by using the random split function in SPSS. We ran an EFA on the first sample, in which we compared models with 1–5 factors, and we performed CFAs on the second sample to confirm the factor solution found in the EFA. The decision on number of factors in the EFA were based on theoretical relevance, model fit, Eigenvalue, and parsimony (see Preacher et al., 2013). We assigned items to a factor if they loaded greater than 0.40. After the factor analyses, we ran a Structural Equation Model (SEM) in which we examined the associations between social comparisons on the one hand and parental stress, depression, and self-efficacy on the other hand.

Results

In this section, we report three sets of results (1) properties of the measures, (2) descriptive statistics on the measures, and (3) associations among social comparisons, distress, and self-efficacy.

Measurement Properties

The sample was divided into two sub-samples, Sample 1: $n = 203$ and Sample 2: $n = 221$. An EFA with both positive and negative feelings items using Sample 1 showed that a 1-factor solution did not fit the data well, $\chi^2 = 297.58$ (20), $p < 0.001$; CFI = 0.52; TLI = 0.33; RMSEA = 0.26. The 2-factor and 3-factor solutions, however, were both better in terms of model fit, $\chi^2 = 32.43$ (13), $p = 0.002$; CFI = 0.97; TLI = 0.93; RMSEA = 0.09, and $\chi^2 = 11.95$ (7), $p = 0.102$; CFI = 0.99; TLI = 0.97; RMSEA = 0.06, for the 2-factor

Table 1 Factor loadings from the EFA on the social comparison items

	2-factor solution		
	Factor 1	Factor 2	
1. I get jealous when I see how other parents seem to be having it based on their posts and photos on SNS	0.75	0.05	
2. When I see other parents' photos and information on SNS, I feel like a bad parent	0.89	−0.06	
3. Based on other parents' posts and photos on SNS, it seems as they are more in control of their parenting than I am	0.71	−0.07	
4. I feel worried about my parenting and my child when I compare myself with other parents on SNS	0.59	−0.03	
5. Based on other parents' posts and photos on SNS, I feel like I'm a better parent	0.01	0.66	
6. When I compare myself with other parents on social media, I feel proud of the parent I am	−0.06	0.82	
7. I feel like a more competent parent than other parents I see on SNS	−0.13	0.73	
8. When I compare myself with other parents on SNS, I feel satisfied with my parenting and my relationship with my child	0.03	0.68	
	3-factor solution		
	Factor 1	Factor 2	Factor 3
1. I get jealous when I see how other parents seem to be having it based on their posts and photos on SNS	0.75	0.01	0.08
2. When I see other parents' photos and information on SNS, I feel like a bad parent	0.89	−0.09	0.03
3. Based on other parents' posts and photos on SNS, it seems as they are more in control of their parenting than I am	0.71	−0.07	−0.04
4. I feel worried about my parenting and my child when I compare myself with other parents on SNS	0.59	−0.06	0.00
5. Based on other parents' posts and photos on SNS, I feel like I'm a better parent	0.04	0.73	0.27
6. When I compare myself with other parents on social media, I feel proud of the parent I am	−0.04	0.71	0.43
7. I feel like a more competent parent than other parents I see on SNS	−0.11	0.79	0.31
8. When I compare myself with other parents on SNS, I feel satisfied with my parenting and my relationship with my child	0.06	0.55	1.44

$N = 203$. Bolded loadings are over 0.40, which often is seen as a cut-off for factor loadings

and 3-factor solutions, respectively. In Table 1, we report factor loadings for the items in these two solutions.

Both solutions produced a first factor including the items that were developed to capture negative comparison feelings. The four other items intended to measure positive comparison feelings all loaded strongly on a second factor in both solutions. However, in the 3-factor solution, especially one item (Item 8) also loaded strongly on a third factor. This item measured parents' satisfaction with their parenting role and their relationship with the child. The RMSEA was somewhat higher than is considered acceptable in the 2-factor solution. However, comparing the content of the solutions, the third factor in the 3-factor solution seemed not to be significantly distinct from the second factor.

Based on the results from the EFA above, we ran two CFAs: one with two factors and one with three factors (using Sample 2, $n = 221$). In the first CFA, Items 1–4 loaded on the negative feelings factor and Items 5–8 loaded on the positive feelings factor. In this model, we also estimated the correlation between the two factors. This model showed a good fit to the data, $\chi^2 = 44.87$ (18), $p < 0.001$; CFI = 0.96; TLI = 0.94; RMSEA = 0.08. The second CFA examined the two factors described above and an additional

third 1-item-factor (Item 8). This model also produced a good fit to the data, $\chi^2 = 44.87$ (17), $p < 0.001$; CFI = 0.96; TLI = 0.94; RMSEA = 0.09. In fact, the χ^2 were almost identical in these two models, but the RMSEA were somewhat better for the 2-factor solution than for the 3-factor solution. In the 3-factor solution, the positive feelings factor and the 1-item factor correlated strongly ($r = 0.82$), which, again, indicate that these are probably not distinct factors. All factor loadings were above 0.60 in both models. Based on these results, we decided to proceed with the 2-factor solution.

Descriptive Statistics of the Social Comparison Measures

Means and standard deviations, as well as correlations of the social comparison measures are reported in Table 2. To answer research question 1, we compared means on parents' negative feelings and positive feelings. A t-test showed that the mean of positive feelings measure was significantly higher than the mean of negative feelings measure, $t(421) = 17.35$; $p < 0.001$. Hence, parents felt more positive than negative about their parenting in relation to other parents on SNS.

Table 2 Means, standard deviations and correlations of social comparison measures

	1	2	3	4	5	M	SD
1. Negative feelings	.					1.53	0.56
2. Positive feelings	0.08	.				2.31	0.77
3. Use of SNS	0.12*	0.14**	.			5.38	0.96
4. SC on SNS	0.64***	0.25***	0.20***	.		2.16	0.88
5. General SC	0.47***	0.20***	0.20***	0.50***	.	2.32	0.52

$N = 422$. Use of SNS = “How often do you use SNS?” (Response options 1–6); SC on SNS = “I compare with other parents on SNS” (Response options 1–4); General SC = the parent-adjusted version of the Iowa–Netherlands Comparison Orientation Measure (Chea, 2015), (Response options 1–4)

* $p < 0.05$; *** $p < 0.001$

General use of SNS was positively correlated with both negative feelings ($r = 0.12$, $p = 0.011$) and positive feelings ($r = 0.14$, $p = 0.003$) when doing social comparisons, with similar strength. Hence, use of SNS increased the likelihood of experiencing both negative and positive feelings regarding their own parenting when doing social comparisons. Further, negative feelings correlated significantly with parents’ frequency of doing comparisons on SNS ($r = 0.64$, $p < 0.001$) and general comparison orientation ($r = 0.47$, $p < 0.001$). Positive feelings also correlated significantly, but weaker, with the social comparison item and general comparison orientation ($r_s = 0.25$ and 0.20 , both $p_s < 0.001$). Hence, both positive and negative feelings when doing social comparisons correlated in expected ways with measures of general social comparisons and social comparisons on SNS, with stronger correlations for negative feelings than for positive feelings. The correlations were moderate in strength indicating that they measure related, but not completely overlapping constructs.

Associations between Social Comparisons and Parenting Variables

The analytical model to test associations between feelings on the one hand and distress and self-efficacy on the other hand is illustrated in Fig. 1. This model was used to answer research questions 2 and 3, as well as to test hypotheses 1 and 2. We used the full sample ($n = 428$) to test this model. Correlations between the social comparison factors, as well as among all dependent variables, were estimated in the model. The metric of the latent factors (negative feelings and positive feelings) was set by fixing the first factor loading to one.

The final model produced an acceptable fit, $\chi^2 = 100.50$ (42), $p < 0.001$; CFI = 0.97; TLI = 0.95; RMSEA = 0.06. Results are reported in Table 3. Result showed that both positive and negative feelings were both, uniquely, associated with parenting outcomes (as examined in RQ2). The associations, however, differed depending on the type of feelings (as examined in RQ3). As hypothesized (H1), positive feelings predicted higher levels of self-efficacy ($\beta = 0.13$; $p = 0.008$). It did not, however, significantly

predict levels of stress ($\beta = -0.08$; $p = 0.093$) or depression ($\beta = -0.00$; $p = 0.953$). Negative feelings significantly predicted lower levels of self-efficacy ($\beta = -0.48$; $p < 0.001$), and higher levels of depression ($\beta = 0.53$; $p < 0.001$) and stress ($\beta = 0.54$; $p < 0.001$). This was in accordance with our second hypothesis.

Sensitivity Analysis

To determine the robustness of the results, we included the following variables as covariates in an additional SEM model: Parents’ gender, children’s age and gender, parents’ number of biological children, parents’ education and employment, and family structure (living with a partner versus not). Strength and significance of the estimates did not change.

Discussion

In this study, we examined parents’ positive and negative feelings when comparing with other parents on SNS. Specifically, we examined the construct validity of two newly developed measures and we explored associations with parenting outcomes. The results showed that parents reported more positive feelings than negative feelings when comparing with other parents on SNS. Additionally, the associations between social comparisons on the one hand and parents’ distress and self-efficacy on the other hand differed as a function of the *type* of feelings (negative versus positive) when doing social comparison. Negative feelings when doing social comparisons were significantly associated with more stress and depression, and lower levels of self-efficacy. Positive feelings, on the other hand, were significantly associated with parents’ reports of self-efficacy, but not with their reports of distress.

Parents’ Positive and Negative Feelings in Relation to Other Parents

The results showed that it was more common for parents to feel positive about their own parenting *in relation* to other

Fig. 1 Analytical model. Note. Model used to examine positive and negative feelings when doing social comparisons as predictors of parent variables

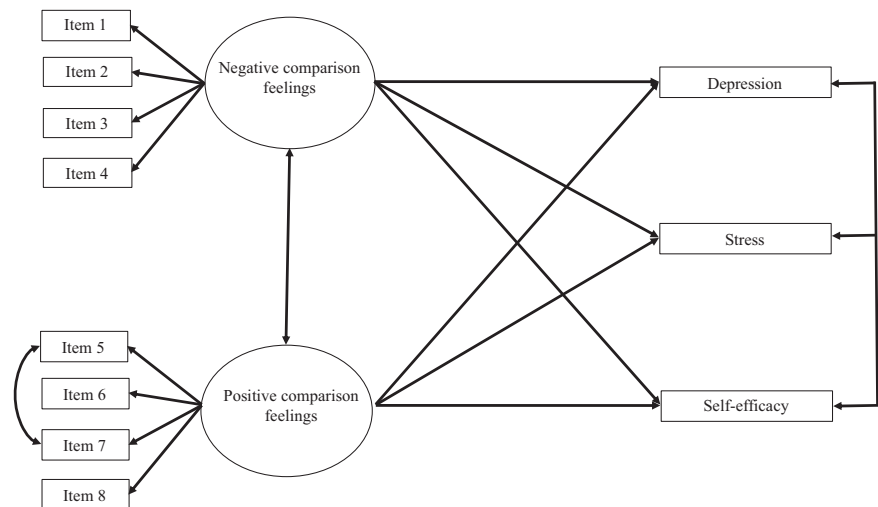


Table 3 Coefficients from SEM-model

DV	B	SE	β	<i>p</i>
Negative feelings when doing social comparisons as a predictor				
Self-efficacy	−0.08	0.01	−0.48	<0.001
Stress	0.19	0.02	0.54	<0.001
Depression	0.22	0.03	0.53	<0.001
Positive feelings when doing social comparison as a predictor				
Self-efficacy	0.03	0.01	0.13	0.008
Stress	−0.03	0.02	−0.08	0.093
Depression	0.00	0.02	−0.00	0.953

N = 422

parents they see on SNS than to feel negative (RQ1). This is in line with an earlier study, in which there were more posts indicating superiority in relation to other mothers on blogs, forums, and Facebook groups for moms (de los Santos et al., 2019). The results of our study are also in line with earlier studies on comparisons and emotions in other populations. Specifically, people have been shown to report more positive feelings about oneself (e.g., pride) in relation to others (offline and online) than negative feelings about oneself (e.g., depression/shame) (Buunk et al., 1990; Park & Baek, 2018). Hence, although parents, in general, portray a more positive image on SNS than the reality (Drafarova & Trofimenko, 2017; Strange et al., 2018), parents in this study still felt more positive about their own parenting role when comparing with other parents S.

One possible explanation for more positive feelings is that people pay more attention to certain things that can help them maintain positive feelings and perceptions of themselves (Buunk et al., 1990). Such filters might operate to help parents re-evaluate things they see on SNS and see beyond the overly positive image of parenting. That way, their evaluation of themselves might be more balanced and

“correctly.” Further, although the general image of parenting might be overly positive on SNS, parents might strategically choose with whom they compare themselves. If parents compare with others who they think are doing worse than themselves (i.e., downward social comparisons, see Corcoran et al., 2011; Festinger, 1954), they might feel especially positive about their own parenting role in comparison to others. Importantly, however, our measure did not examine *whom* parents compare with. Hence, we do not know if the positive feelings are a result of comparisons with parents who they think are doing worse (i.e., downward social comparisons) and if the negative feelings are a result of comparing with parents who they think are better than themselves (i.e., upward social comparisons). For example, it is possible that parents might feel positive about their own parenting role when seeing others; either because they feel better than other parents they see or potentially because they feel like they are acting in line with other parents whom they consider are doing well (Festinger, 1954; Park & Baek, 2018). Parents’ feelings should be studied further by examining with whom they compare and their interpretation or perspectives of the parents with whom they compare.

Another explanation why parents in our data reported more positive feelings has to do with the characteristics of this specific sample. Research has shown that parents’ use of the internet and SNS differs between different groups (Glatz et al., 2023). Our sample included an overrepresentation of mothers and parents with higher education. It is possible that social comparisons are more common in certain parent groups or that certain socio-demographic variables (e.g., gender, education, age) play a role in parents’ feelings when doing social comparisons. For example, studies have shown that middle-class ideals of what constitutes a “good parenthood” often become the ideals for many parents (Lareau, 2002), and it is possible

that working-class parents might feel less competent when doing social comparisons or that social comparisons might be experienced differently depending on class. Further, what is considered a middle-class ideal of “good parenting” is often partly about ideals of motherhood (Widding, 2015). Research has shown that mothers often experience higher expectations on involvement in child rearing practices than do fathers (e.g., Fuegen et al., 2004). These gendered ideals can also be presented on SNS (Arnold & Martin, 2016). Many parenting sites still target mothers more so than fathers, and as a result reinforce gender stereotypes in parenting. Specifically, content on SNS might illustrate mothers as having the most important role in child rearing and expected to do more childcare practices than are fathers (Fletcher et al., 2008; Morawska et al., 2021). As a result, mothers might find it difficult to reach the ideals, and, thus, experience more negative emotions when doing social comparisons than are fathers. Parents’ feelings when doing comparisons should be examined in diverse parenting samples to conclude about unique and general processes.

Associations between Social Comparisons and Parenting Outcomes

In line with our first hypothesis, positive feelings about one’s own parenting role when comparing with other parents were significantly associated with higher self-efficacy. This result corroborates and strengthens prior findings in the literature (Amaro et al., 2019). When parents compare with other parents and feel better, they might feel enhanced in their parenting role and receive validation on their abilities. Knowing that parental self-efficacy is driven by mastery experiences (Bandura, 1977; Jones & Prinz, 2005), seeing that one is doing better than other parents might increase feelings of efficacy. Additionally, feeling superior to other parents might not only have effects on the individual parents’ perceived efficacy, but also for the family as a whole and for different systems in the family (Kerr & Bowen, 1988). Specifically, self-efficacy is a strong predictor of positive parenting practices, which are the foundation for positive parent-child relationships and child development (e.g., Glatz & Buchanan, 2015b). For parents who feel like they are doing better than other parents they see on SNS, they might be encouraged in their parenting role, which can have positive effects on their parenting practices.

Regarding negative feelings, the results also supported our second hypothesis: Negative feelings when comparing oneself with other parents on SNS were related to undermined self-efficacy and increased depression. These results are consistent with earlier studies including similar outcomes (Amaro et al., 2019; Sidani et al., 2020), suggesting that negative feelings when comparing one’s own parenting to other parents have a potential negative effect on parents’

beliefs and distress. The fact that the results have been found in different countries (e.g., the USA, Sweden) indicates that these might be universal patterns. Although the offline context might differ for parents in these countries (e.g., access to parenting support, equality in the co-parenting relationship), how parents experience the online context and how it influences their parenting might not differ.

In this study, we went beyond earlier studies, as we examined three different parenting outcomes (depression, stress, and self-efficacy) and we measured feelings in a broader way in comparison to earlier studies. Uniquely, we used separate measures of positive and negative feelings, and included these in the same model to predict all three parenting outcomes. That way, our study offered a comprehensive examination of unique associations between positive and negative feelings on the one hand and parenting outcomes on the other hand. The results showed that the associations differed depending on both the type of feeling and the type of parenting outcome.

The results suggested that both positive and negative feelings were uniquely associated with parenting outcomes, even when controlling for the other type of feelings. Our data showed that the associations regarding positive feelings were limited to parental cognitions, and that there were no significant associations with parents’ reports of depression and stress. Hence, these results suggest that feeling better in one’s parenting role when comparing with other parents can give parents a sense of validation about being able to handle parenting-related issues in a good way, but it might not, necessarily, influence parents’ distress. One explanation for differences in links to parenting outcomes is that depression, stress, and self-efficacy might constitute different domains of parenting (Taraban & Shaw, 2018) and might interact in different ways with the parents’ social environment. Additionally, it might be that changes in distress might be visible over a longer time period and, thus, were not captured with our cross-sectional data.

Unlike the results on positive feelings, negative feelings were a significant predictor of all three parenting outcomes. If parents felt negative about their own parenting role when comparing with other parents, this tended to have an overall association with different domains of parenting. Since positive and negative feelings were included in the same model, these results suggest that negative feelings constitute a stronger predictor of parenting than do positive feelings. Potential mechanisms for different associations between feelings and parenting outcomes should be explored in future studies.

New Measures of Positive and Negative Feelings

In this study, we developed two measures of parents’ positive and negative feelings when doing social comparisons on SNS.

This gave us the opportunity to examine these feelings as two separate constructs, rather than two ends of a continuum (i.e., higher positive feelings versus higher negative feelings). This is the first study in which these constructs are fully separated. The results suggest that the factors examined in this study should be treated as two separate constructs (i.e., the items loaded highly on two separate factors, the correlation between these two constructs was non-significant, and the measures were associated in different ways with other relevant measures). From these results, combining positive and negative feelings when doing social comparisons into one measure, not considering the full variation within these two constructs, or only measuring one of them can lead to flawed conclusions about parents' social comparisons. Interestingly, negative feelings when comparing with other parents were more strongly associated with comparisons on SNS and general comparison orientation than were positive feelings. This suggests that earlier social comparison measures likely are biased towards parents' negative feelings, and do not necessarily capture the multitude of parents' feelings. With our measures, we have started to break down the complexity of parents' social comparisons and feelings related to these comparisons. It should be noted, however, that our scales did not measure parents' comparisons about specific parenting issues, as have been done in earlier studies (e.g., Amaro et al., 2019). The scales it includes similar phrasing as in the Iowa–Netherlands Comparison Orientation Measure (Buunk & Gibbons, 2006; Chea, 2015; Gibbons & Buunk, 1999), which has been used in the parenting literature. Hence, the measures introduced in this study can be used to measure general social comparisons among parents of young children. Validation with other samples is encouraged to test the generalizability and validity of these measures.

Limitations and Suggestions for Future Research

This study has some limitations that should be mentioned. First, our sample was non-representative regarding ethnicity, gender, and education, which limits generalizations. The results in this study, thus, describes social comparisons and potential consequences among mothers with higher education who were born in the country of the data collection. Regarding gender, for example, very few studies have examined social comparisons among both mothers and fathers. In the only study, to our knowledge, Sidani et al. (2020) used a sample of 44% fathers. The authors showed that negative feelings when doing social comparisons were linked to higher levels of depression even after controlling for gender. This speaks to the possibility that social comparisons might be linked to parents' well-being, independent of the parents' gender. In future research, it will be important to use a sample that includes fathers and mothers. Second, in our study, we used cross-sectional data, which limits

conclusions regarding reciprocal relations and long-term consequences of social comparisons. For example, parents who feel less efficacious might, as a result, feel more negative about their parenting when comparing with others—rather than the reverse direction of influence. Additionally, it is possible that the short-term and long-term consequences of social comparisons might be different. Negative feelings when doing comparisons on SNS might have instant associations with self-efficacy and distress, and these effects might or might not persist in a longer perspective. To get a better understanding of potential reciprocal processes and short-term versus long-term consequences of social comparisons, there is a need for longitudinal data. Third, we did not include the child's behavior in this study. It is possible that parents differ in feelings when doing social comparisons depending on their experiences with the child. For example, children's behaviors have shown to influence parental self-efficacy: Parents who report more externalizing behaviors in their child also report lower levels of efficacy (e.g., Glatz & Buchanan, 2015a, 2015b, 2022; Slagt et al., 2012; van Eldik et al., 2017). In such, it is possible that parents of children with more challenging behaviors feel more negatively when comparing themselves with other parents on SNS, which might not be the case for parents who experience fewer challenging behaviors in their children.

Implications for Practice

The results of this study highlight some important aspects to consider when supporting parents in a contemporary society, in which social media is a natural part of being and becoming a parent. First, the results suggest that parents felt more positive about their parenting when comparing with other parents on SNS, and that this has the potential to strengthen them in their parenting role (i.e., higher levels of self-efficacy). However, although parents, in general, report more positive feelings about their own parenting *in relation* to other parents on SNS, our results suggest that this does not necessarily mean they report lower *absolute levels* of depression and stress. Hence, although parents might feel positive about their parenting role, parents might still need support to handle their parenting role in a positive way. Second, parents who feel negative about their own parenting when comparing with others, might need extended support. Parents' negative feelings might stem from a general uncertainty and inability to think critically about the parenting norms and ideals being spread online (Valan et al., 2018); competencies that they might need help to develop.

Practitioners who meet parents on a regular basis play an important role in helping parents to reflect about what they face on SNS. Specifically, parents might need to think about with *whom* they compare themselves and *why* they do these

comparisons. To reflect on these aspects might identify certain parenting ideals that parents face on SNS and can help parents better understand their feelings when seeing different photos and comments. Additionally, studies have shown an association between parents' social support and social comparisons (Coyne et al., 2017). Specifically, some parents might be engaged in social comparisons to compensate for limited support from people in their closest environment. This might be a parent group in need of additional support. Reflecting on when, why, and how parents are comparing with other parents on SNS might enable evaluations that could lead to self-improvement rather than weakening of oneself as a parent.

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Compliance with Ethical Standards

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References

- Allan, S., & Gilbert, P. (1995). A social comparison scale: psychometric properties and relationship to psychopathology. *Personality and Individual Differences*, 19(3), 293–299. [https://doi.org/10.1016/0191-8869\(95\)00086-L](https://doi.org/10.1016/0191-8869(95)00086-L).
- Amaro, L. M., Joseph, N. T., & de los Santos, T. M. (2019). Relationships of online social comparison and parenting satisfaction among new mothers: the mediating roles of belonging and emotion. *Journal of Family Communication*, 19(2), 144–156. <https://doi.org/10.1080/15267431.2019.1586711>.
- Arnold, L. B., & Martin, B. (Eds.) (2016). *Taking the village online: mothers, motherhood, and social media*. Demeter Press. <http://www.jstor.org/stable/j.ctt1rrd9jq>.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>.
- Bartholomew, M. K., Schoppe, S. S. J., Glassman, M., Kamp Dush, C. M., & Sullivan, J. M. (2012). New parents' Facebook use at the transition to parenthood. *Family Relations: An Interdisciplinary Journal of Applied Family Studies*, 61(3), 455–469. <https://doi.org/10.1111/j.1741-3729.2012.00708.x>.
- Bauman, Z., & May, T. (2004). *Att tänka sociologiskt*. Korpen.
- Berry, J. O., & Jones, W. H. (1995). The Parental Stress Scale: initial psychometric evidence. *Journal of Social and Personal Relationships*, 12(3), 463–472. <https://doi.org/10.1177/0265407595123009>.
- Blum-Ross, A., & Livingstone, S. (2017). “Sharenting,” parent blogging, and the boundaries of the digital self. *Popular Communication*, 15(2), 110–125. <https://doi.org/10.1080/15405702.2016.1223300>.
- Buunk, A. P., & Gibbons, F. X. (2006). Social comparison orientation: a new perspective on those who do and those who don't compare with others. In S. Guimond (Ed.), *Social comparison and social psychology: Understanding cognition, intergroup relations, and culture* (pp. 15–32). Cambridge University Press.
- Byrne, B. M. (2012). *Structural equation modeling with Mplus: Basic concepts, applications, and programming*. Routledge/Taylor & Francis Group.
- Chea, J. (2015). “Am I a better mother than you?”: Media and 21st-century motherhood in the context of the social comparison theory. *Communication Research*, 42(4), 503–525. <https://doi.org/10.1177/0093650214534969>.
- Corcoran, K., Crusius, J., & Mussweiler, T. (2011). Social comparison: motives, standards, and mechanisms. In D. Chadee (Ed.), *Theories in social psychology* (p. 119–139). Wiley Blackwell.
- Coyne, S. M., McDaniel, B. T., & Stockdale, L. A. (2017). “Do you dare to compare?” Associations between maternal social comparisons on social networking sites and parenting, mental health, and romantic relationship outcomes. *Computers in Human Behavior*, 70, 335–340. <https://doi.org/10.1016/j.chb.2016.12.081>.
- Črnčec, R., Barnett, B., & Matthey, S. (2008). Development of an instrument to assess perceived self-efficacy in the parents of infants. *Research in Nursing & Health*, 31(5), 442–453. <https://doi.org/10.1002/nur.20271>.
- Damkjaer, M. S. (2018). Sharenting = good parenting? Four parental approaches to sharenting on facebook. In G. Mascheroni, C. Ponte, & A. Jorge (Eds.) *Digital parenting. the challenges for families in the digital age* (pp. 209–218). Nordicom.
- de los Santos, T. M., Amaro, L. M., & Joseph, N. T. (2019). Social comparison and emotion across social networking sites for mothers. *Communication Reports*, 32(2), 82–97. <https://doi.org/10.1080/08934215.2019.1610470>.
- de Vries, D. A., & Kühne, R. (2015). Facebook and self-perception: Individual susceptibility to negative social comparison on facebook. *Personality and Individual Differences*, 86, 217–221. <https://doi.org/10.1016/j.paid.2015.05.029>.
- Drafarova, E., & Trofimenko, O. (2017). Exploring the relationships between self-presentation and self-esteem of mothers in social media in Russia. *Computers in Human Behavior*, 73, 20–27. <https://doi.org/10.1016/j.chb.2017.03.021>.
- Feinstein, B. A., Hershenberg, R., Bhatia, V., Latack, J. A., Mewly, N., & Davila, J. (2013). Negative social comparison on Facebook and depressive symptoms: rumination as a mechanism. *Psychology of Popular Media Culture*, 2(3), 161–170. <https://doi.org/10.1037/a0033111>.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117–140. <https://doi.org/10.1177/001872675400700202>.
- Fletcher, R., Vimpani, G., Russell, G., & Keatinge, D. (2008). The evaluation of tailored and web-based information for new fathers. *Child: Care, Health and Development*, 34(4), 439–446. <https://doi.org/10.1111/j.1365-2214.2008.00811.x>.
- Fuegen, K., Biernat, M., Haines, E., & Deaux, K. (2004). Mothers and fathers in the workplace: How gender and parental status influence judgments of job-related competence. *Journal of Social Issues*, 60(4), 737–754. <https://doi.org/10.1111/j.0022-4537.2004.00383.x>.

- Gerber, J. P., Wheeler, L., & Suls, J. (2018). A Social comparison theory meta-analysis 60 + years on. *Psychological Bulletin*, 144(2), 177–197. <https://doi.org/10.1037/bul0000127>.
- Gibbons, F. X., & Buunk, B. P. (1999). Individual differences in social comparison: Development of a scale of social comparison orientation. *Journal of Personality and Social Psychology*, 76(1), 129–142. <https://doi.org/10.1037/0022-3514.76.1.129>.
- Glatz, T., Alsarve, J., Daneback, K., & Sorbring, E. (2023). An examination of parents' online activities and links to demographic characteristics among parents in Sweden. *Journal of Family Social Work*, 26(1). <https://doi.org/10.1080/10522158.2023.2197958>.
- Glatz, T., & Buchanan, C. M. (2022). Exploring how adolescent boys' and girls' internalizing and externalizing behaviors impact parental self-efficacy: a vignette study. *Family Relations*, 1–14. <https://doi.org/10.1111/fare.12696>.
- Glatz, T., & Buchanan, C. M. (2015a). Change and predictors of change in parental self-efficacy from early to middle adolescence. *Developmental Psychology*, 51(10), 1367–1379. <https://doi.org/10.1037/dev0000035>.
- Glatz, T., & Buchanan, C. M. (2015b). Over-time associations among parental self-efficacy, promotive parenting practices, and adolescents' externalizing behaviors. *Journal of Family Psychology*, 29(3), 427–437. <https://doi.org/10.1037/fam0000076>.
- Jones, T. L., & Prinz, R. J. (2005). Potential roles of parental self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review*, 25(3), 341–363. <https://doi.org/10.1016/j.cpr.2004.12.004>.
- Kerr, M. E., & Bowen, M. (1988). *Family evaluation: an approach based on Bowen theory*. W W Norton & Co.
- Lareau, A. (2002). Invisible inequality: Social class and childrearing in black families and white families. *American Sociological Review*, 67(5), 747–776. <https://doi.org/10.2307/3088916>.
- Madge, C., & O'Connor, H. (2006). Parenting gone wired: empowerment of new mothers on the Internet. *Social & Cultural Geography*, 7(2), 199–220. <https://doi.org/10.1080/14649360600600528>.
- Morawska, A., Baker, S., & Johnston, S. (2021). "The parent trap": gender stereotypes and parenting roles in an Australian parenting website. *Australian Journal of Psychology*, 73(3), 272–281. <https://doi.org/10.1080/00049530.2021.1906162>.
- Muthén, B. O., & Muthén, L. K. (1998–2012). *Mplus user's guide* (8th ed.). Muthén & Muthén.
- Padoa, T., Berle, D., & Roberts, L. (2018). Comparative social media use and the mental health of mothers with high levels of perfectionism. *Journal of Social and Clinical Psychology*, 37(7), 514–535. <https://doi.org/10.1521/jscp.2018.37.7.514>.
- Park, S. Y., & Baek, Y. M. (2018). Two faces of social comparison on Facebook: The interplay between social comparison orientation, emotions, and psychological well-being. *Computers in Human Behavior*, 79, 83–93. <https://doi.org/10.1016/j.chb.2017.10.028>.
- Pew Research Center (2019). Social media fact sheet. <https://www.pewinternet.org/fact-sheet/social-media/>.
- Plantin, L., & Daneback, K. (2009). Parenthood, information and support on the internet. A literature review of research on parents and professionals online. *BMC Family Practice*, 10(34). <https://doi.org/10.1186/1471-2296-10-34>.
- Preacher, K. J., Zhang, G., Kim, C., & Mels, G. (2013). Choosing the optimal number of factors in exploratory factor analysis: a model selection perspective. *Multivariate Behavioral Research*, 48(1), 28–56. <https://doi.org/10.1080/00273171.2012.710386>.
- Price, S. L., Aston, M., Monaghan, J., Sim, M., Tomblin, M. G., Etowa, J., Pickles, M., Hunter, A., & Little, V. (2017). Maternal knowing and social networks: Understanding first-time mothers' search for information and support through online and offline social networks. *Qualitative Health Research*, 28(10), 1552–1563. <https://doi.org/10.1177/1049732317748314>.
- Radloff, L. S. (1977). The CES-D Scale: a self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1(3), 385–401. <https://doi.org/10.1177/014662167700100306>.
- Sidani, J. E., Shensa, A., Escobar-Viera, C. G., & Primack, B. A. (2020). Associations between comparison on social media and depressive symptoms: a study of young parents. *Journal of Child and Family Studies*. <https://doi.org/10.1007/s10826-020-01805-2>.
- Slagt, M., Decović, M., de Haan, A. D., van den Akker, A. L., & Prinzie, P. (2012). Longitudinal associations between mothers' and fathers' sense of competence and children's externalizing problems: The mediating role of parenting. *Developmental Psychology*, 48(6), 1554–1562. <https://doi.org/10.1037/a0027719>.
- Smith, R. H. (2000). Assimilative and contrastive emotional reactions to upward and downward social comparisons. In J. Suls & L. Wheeler (Eds.), *Handbook of social comparison: theory and research* (pp. 173–200). Kluwer Academic Publishers. https://doi.org/10.1007/978-1-4615-4237-7_10.
- Steers, M.-L. N., Wickham, R. E., & Acitelli, L. K. (2014). Seeing everyone else's highlight reels: how facebook usage is linked to depressive symptoms. *Journal of Social and Clinical Psychology*, 33(8), 701–731. <https://doi.org/10.1521/jscp.2014.33.8.701>.
- Strange, C., Fisher, C., Howat, P., & Wood, L. (2018). 'Easier to isolate yourself...there's no need to leave the house'—A qualitative study on the paradoxes of online communication for parents with young children. *Computers in Human Behavior*, 83, 168–175. <https://doi.org/10.1016/j.chb.2018.01.040>.
- Suls, J & Wheeler, L (Eds.) (2000). *Handbook of social comparison*. Kluwer Academic/Plenum.
- Taraban, L., & Shaw, D. S. (2018). Parenting in context: revisiting Belsky's classic process of parenting model in early childhood. *Developmental Review*, 48, 55–81. <https://doi.org/10.1016/j.dr.2018.03.006>.
- van Eldik, W. M., Prinzie, P., Deković, M., & de Haan, A. D. (2017). Longitudinal associations between marital stress and externalizing behavior: Does parental sense of competence mediate processes. *Journal of Family Psychology*, 31(4), 420–430. <https://doi.org/10.1037/fam0000282>.
- Valan, L., Sundin, K., Kristiansen, L., & Jong, M. (2018). Child health nurses' experiences and opinions of parents' Internet use. *Early Child Development and Care*, 188, 1738–1749. <https://doi.org/10.1080/03004430.2017.1278697>.
- Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2014). Social comparison, social media, and self-esteem. *Psychology of Popular Media Culture*, 3(4), 206–222. <https://doi.org/10.1037/ppm0000047>.
- Widding, U. (2015). Parenting ideals and (un-)troubled parent positions. *Pedagogy, Culture & Society*, 23(1), 45–64. <https://doi.org/10.1080/14681366.2014.919955>.
- Wittkowski, A., Garrett, C., Calam, R., & Weisberg, D. (2017). Self-reported measures of parental self-efficacy: A systematic review of the current literature. *Journal of Family Studies*, 26, 2960–2978. <https://doi.org/10.1007/s10826-017-0830-5>.
- Ögel-Balaban, H., & Altan, Ş. (2019). The use of facebook by turkish mothers: its reasons and outcomes. *Journal of Child and Family Studies*. <https://doi.org/10.1007/s10826-019-01568-5>.