# Social Media Engagement and Fear of Missing Out (FOMO) in Primary School Children

Peter D'Lima[a] & Andrea Higgins[b]

*Cardiff University*

*Contact: peter.d'lima@birmingham.gov.uk

[a] Birmingham City Educational Psychology Service

[b] Cardiff University

# Social Media Engagement and Fear of Missing Out (FOMO) in Primary School Children

This study explored primary school children's personal use and views of social media and the social and psychological drivers that may underpin engagement. 100 children, aged 9 - 11 years old, in a Welsh, urban local authority completed an online questionnaire investigating social media engagement (SME) and perceptions of use, Fear of Missing Out (FOMO), and ways to support young social media users. Six children were interviewed to further explore ways to overcome the reported challenges with SME. 82% of children surveyed used social media and a significant positive correlation was found between levels of FOMO and SME. Thematic analysis revealed that children enjoyed using social media and managed risks with assertiveness and initiative. However, conflict between competing motivations and underlying assumptions regarding stranger interaction could place children at risk. The findings convey a strong argument for more in-depth, psychologically informed, primary e-safety curricula addressing peer pressure, self-worth, and online interactions with strangers.

**Keywords:** social media engagement; social media use; primary school; fear of missing out; belonging; e-safety.

## Introduction

Social media can be defined as a "group of internet-based applications…that allow the creation and exchange of user generated content" (Kaplan & Haenlein, 2010, p. 61). This usually involves having a public or semi-public profile within a bounded system; a list of users with whom one is connected; and the ability to view and interact with one's list of connections and the connections of others within the system (Boyd & Ellison, 2007). A nationwide study by the Office of Communications (OfCom; 2019) found that 21% of 8-11-year olds in the United Kingdom (UK) have social networking profiles, despite the majority of social media having age restrictions limiting use to those above 13 years (e.g. Snapchat; Houseparty; Tiktok

Instagram; National Society for the Prevention of Cruelty to Children (NSPCC), 2020; OfCom, 2019). Similarly, 78% of young people under 13 years had a social networking profile according to the Comres survey of 1,200 young people aged between 10 and 18 (Coughlan, 2016). These findings exhibit the futility of age restrictions on social media, which could be interpreted as tokenistic in keeping children happy and safe online. The legal restriction may also create confusion amongst schools ~~staff~~ and parents as to how to support primary-aged children to navigate social media positively whilst it is not a legal activity for children.

Educational psychologists (EPs) are expected to empower others to think psychologically, assess risk, and plan intervention in the best interests of children and young people (CYP; Health and Care Professions Council (HCPC), 2015). Furthermore, seeking and advocating for the voice of CYP is central to the work of EPs and is aligned with the person-centred emphasis within the legislation in England and Wales (Welsh Government, 2018~~;~~ Department for Education (DfE) & Department of Health (DoH), 2015). Consequently, this study endeavoured to investigate the social and psychological underpinnings of primary-aged children's social media use and harness the views of the children promote support for CYP who engage with social media.

***Social Media Use in Primary School Children***

Primary-aged children in the UK are using social media (Livingstone et al., 2017; OfCom, 2019). Yet research exploring the social and psychological factors related to social media use has primarily focused on adolescents. For example, studies have investigated adolescent social media use and its relationship with: social connectedness (Allen et al., 2014); mental health (Kelly et al., 2018); sleep quality (Woods & Scott, 2016); and peer influence (Sherman et al., 2016). Less exists on similar social and psychological variables within social media use amongst primary-aged children in UK populations, providing a rationale for the current study.

Within the primary-aged research that exists, findings indicate that social media use can have positive and negative associations. For example, the English Children's Commissioner

conducted social media use focus groups with 37 primary school children aged 8-12 years (2018) and found that children enjoyed using social media and stressed its importance for maintaining social relationships. It has also been found to: enhance communication, social connections and technical skills (Ito et al., 2009); sustain friendships that already exist in the real world (Livingstone & Brake, 2010); and have commercial benefits, such as gaining access to video clips, promotions and discounts (Patchin & Sameer, 2010). Furthermore, O' Keeffe and Clarke-Pearson (2011) synthesised benefits and noted that social media platforms can also be used to stimulate creativity through the sharing of ideas, artistic and music endeavours, and promote community engagement through raising money for charity events.

However, developmentally, both children and adolescents may be more vulnerable than adults when using social media due to increased susceptibility to peer pressure and less developed self-regulation (O'Keeffe & Clarke-Pearson, 2011). For example, primary-aged children have shared that social media made them feel self-conscious and that they sought validation through *likes* and attention gained through social media (English Children's Commissioner, 2018). Furthermore, Weeden and colleagues (2013) found that 82% of primary-aged children who had social networking profiles knew that strangers could see their photos, Clarke and Crowther (2015) found that 28% of 8-12-year olds had talked to someone they didn't know using social media. Contact with unknown individuals online could be viewed as the first step to potentially meeting that person in real-life. Livingstone and Bober (2005) found that 8% of 9-19-year olds had met someone in person after meeting them for the first time online. Whilst an understanding of the benefits and risks of social media use can be useful in protecting young people, often the underlying psychological and/or social processes that compel children to use social media are overlooked. In planning effective support and intervention for CYP who use social media, this study emphasizes the importance of understanding these processes.

### *The Need to Belong*

A sense of belonging has long been considered an integral human need that allows one to thrive psychologically (Baumeister & Leary, 1995; Deci & Ryan, 1985; Glasser, 1998; Maslow, 1943). The desire to belong may be a key social driver in social media use (Beyens et al, 2016). Belonging can be viewed as being grounded within a certain group (e.g. friends; classroom; school) and involving subjective perceptions of belonging to this group (Dunleavy & Burke, 2019; Maher et al., 2013). This sense of belonging is influenced by feedback as to whether one is a part of it and is therefore a fluid construct that can shift dynamically in response to changing circumstances and responses (Dunleavy & Burke, 2019; Maher et al., 2013). Consequently, there may be a relationship between the drive to belong with peers, perceptions of peers using social media use and social media use itself. This study posits that a psychological construct called *Fear of Missing Out* (*FOMO*; Przybylski et al., 2013) may relate to this drive to belong.

### *Fear of Missing Out (FOMO)*

FOMO is defined as a 'pervasive apprehension that others might be having more rewarding experiences from which one is absent' (Przybylski et al., 2013, p.1). FOMO has been found to mediate the link between individual differences in need, mood, life satisfaction and social media engagement in adults as measured by the Social Media Engagement Questionnaire (SMEQ; Przybylski et al., 2013). FOMO has also been found to predict social media addiction (Blackwell et al., 2017).

Deci & Ryan's self-determination theory (SDT; 1985) emphasises three basic psychological needs: competence (i.e. the ability to effectively engage with the world); autonomy (i.e. personal initiative in relation to one's life); relatedness (i.e. closeness to others; belonging). Przybylski and colleagues (2013) propose that those low in basic need satisfaction may be motivated towards social media as a vehicle to have these social needs met. Alternatively, they posit that deficits may make someone more sensitive to FOMO therefore indirectly driving social media use to reduce this negative experience (Przybylski et al., 2013).

Consequently, this study proposes that FOMO warrants exploration within primary-aged children because FOMO may influence their drive towards social media use and this theoretical perspective may help professionals to better understand and plan for how best to support social media engagement amongst primary-aged children.

### *Aims of the current study*

The aim of this study was to explore primary-aged children's views and experience of social media use and investigate the psychological and social influences on use. The following research questions influenced the research design:

- How are primary-aged children using social media?
- What is the relationship between social media engagement (SME) and FOMO amongst primary-aged children?
- What do primary-aged children perceive as the benefits and challenges associated with social media use?
- What are primary-aged children's ideas about how to overcome the challenges associated with social media use?

## *Method*

### *Research Design*

A mixed-methods approach was adopted to explore both quantitative and qualitative date in reference to social media use amongst primary school children aged 9-11 years old. This approach is posited to enhance the depth and breadth of the study and to support the triangulation of findings (Mertens, 2015). The researcher was the allocated EP for the schools, which meant access to gatekeepers (i.e. headteachers) to participants. Thus, convenience sampling was used. A sequential exploratory design was used whereby the qualitative data collected in the questionnaire went on to inform the structure and content of the semi-structured

interviews (i.e. understanding perceptions of ways to overcome challenges; Carayon et al., 2015).

*Participants*

100 primary school children were recruited from Years Five and Six in four schools in a Welsh urban local authority from a maximum potential sample size of 360 children. Ages ranged from 9-11 years old (M = 10.04, SD = 0.76). Age distribution of the sample was 27% aged 9, 42% aged 10, and 31% aged 11. Following this, six children participated in semi-structured interviews from a maximum potential sample size of 15. This study was a preliminary investigation so other potential variables (e.g. gender; ethnicity) were not included.

*Ethical Considerations*

Ethical approval and supervision for the study was provided by Cardiff University, School of Psychology Ethics Committee (2018). This included ensuring: informed consent; right to withdraw; debriefing; anonymous questionnaire completion; secure storage of audio interview data while transcription and anonymisation of data took place and subsequent audio deletion. All participants were given information about the study, had parental/carer consent and provided child assent before doing the questionnaire. Further consent and assent was gained for participation in the interviews. Anonymous online questionnaire and individual semi-structrued interviews were used to ensure that social media use was not inadvertently promoted by exposure to other children's views (e.g. via a focus group), as children were under the age for legal use.

*Procedure*

Participants completed an anonymous questionnaire (Appendix A) on Qualtrics, an online survey platform, during school time. The questionnaire was piloted with a small group of children and the researcher. No changes resulted other than a school adult being close-by during completion to support literacy needs. A child-friendly thematic map of challenges associated with social media use (Appendix B) was derived from initial theming of the questionnaire data and used as a stimulus for interviews about ways to support children with the challenges of social media use. One school was then randomly selected to take part in interviews and six students were randomly selected to share their views, given parental consent and child assent.

*Measures*

The online questionnaire (Appendix A) contained:

- a revised 10-item version of the UK *'Children Go Online'* questionnaire (Livingstone, 2004), which originally surveyed internet use. The revised questionnaire in the study ensured that there was a specific focus on social media use. An example of an item is: 'Do you use social media or social networking sites?' or 'In the past week, how many different people have you been in touch with or spoken to through social media or social networking sites?'
- four open, qualitative questions related to the research questions (i.e. benefits, challenges, ways to help).
- two quantitative measures: adapted versions of the Social Media Engagement questionnaire (SMEQ; Przybylski et al., 2013), which measures how individuals use social media in their daily lives, and the FOMO scale (Przybylski et al., 2013), which focuses on an individual's level of FOMO. Adaptations involved:
    - converting American-English into British-English (e.g 'vacation' changed to 'holiday') and;
    - ensuring age-appropriateness for children aged 9-11 years (e.g. 'in jokes'

changed to ‘private jokes’; ‘moderately true of me’ changed to ‘neither true nor false’)

The SMEQ (Przybylski et al., 2013) consists of five 8-point Likert scale items. Individual scores are computed by summing responses to all five items with internal consistency of $\alpha = .82$ to .89 (Przybylski et al., 2013). The SMEQ has not been utilised specifically with primary-aged samples. However, questions are similar to the UK *‘Children Go Online’* questionnaire (Livingstone, 2004) which has been used extensively to understand children’s internet use.

The FOMO scale (Przybylski et al., 2013) consists of ten items that are rated on a 5-point Likert scale ranging from ‘not at all true of me’ and ‘extremely true of me’. Individual scores are computed by averaging responses to all ten items with internal consistency of $\alpha = .87$ to .90 (Przybylski et al., 2013). The FOMO scale has been used to validly measure FOMO in adolescent samples (Tomczyk & Selmanagic-Lizde, 2018; Beyens et al., 2016). Furthermore, the FOMO scale’s significant positive correlation with the Need for Popularity Scale (Santor et al., 2000) and the Need to Belong Scale (Leary et al., 2013) amongst a sample of adolescents demonstrates the scale’s convergent validity (i.e. the degree to which a measure correlates with another measure with which it is theoretically related; Howell, 2013). Consequently, this study posits the appropriateness of the use of this measure with primary-aged children.

***Data Analysis***

Descriptive statistics and data related to the revised UK ‘Children Go Online’ questionnaire (Livingstone, 2004) were analysed using Qualtrics and a Statistical Package for the Social Sciences (SPSS).

The relationship between scores on the SMEQ (Przybylski et al., 2013) and FOMO scale (Przybylski et al., 2013) were analysed using a Spearman’s Rank Correlation ~~in SPSS~~,

which is appropriate for ordinal, scales such as the SMEQ and FOMO scale (Howell, 2013). 93 data entries were included, seven were excluded due to unanswered questions.

A thematic analysis (Braun & Clarke, 2006) was used to analyse the qualitative data gathered in response to the four open-ended questions in the questionnaire and the data elicited within the semi-structured interview. A deductive analysis was used, meaning that the study imposed a framework (i.e. benefits, challenges, ways to help) from which to view and analyse the data. The analysis contains a mixture of semantic themes (i.e. describing the data at face-value) and latent themes (i.e. analysing underlying ideas or assumptions underpinning data items; Braun & Clarke 2006). An independent EP provided as a measure of confirmability (i.e. the extent to which the findings are supported by the data set when examined by others; Lincoln & Guba 1985). There was 82% agreement, conveying the confirmability of the findings that follow (Lincoln & Guba, 1985).

## Findings

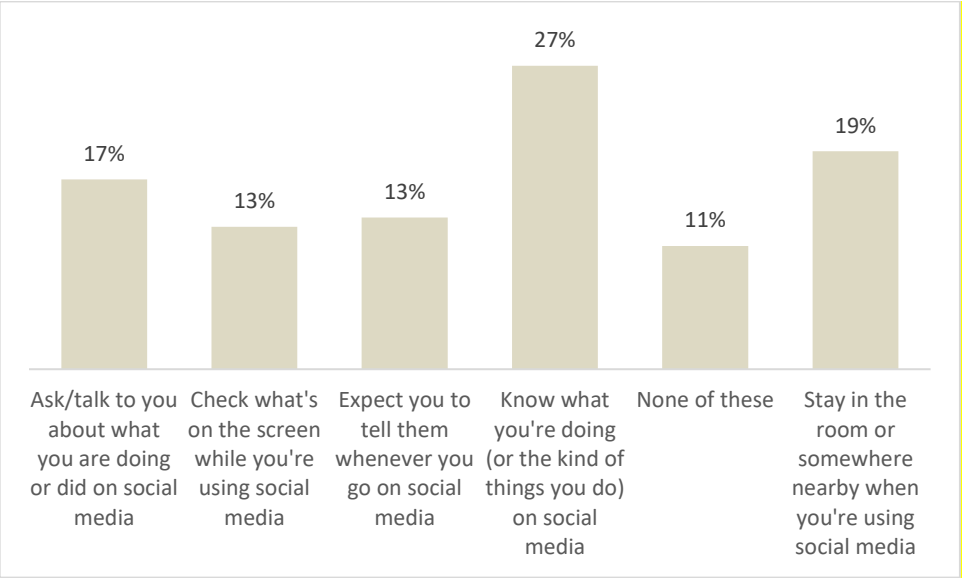
The findings of the study will be outlined with the support of a series of figures and tables generated using Qualtrics and SPSS.

### *How are primary-aged children using social media?)*

82% of the children surveyed reported using social media in different parts of their home: bedroom (47%), lounge (32%) or whilst moving around on a portable device (10%; e.g. iPad). Generally, there tends to be some level of parental/carer monitoring or supervision, as shown in Figure 1, although for a small proportion (11%) no monitoring took place.

Figure 1

*The level of monitoring provided by parents/carers when the children surveyed are accessing social media*




56% of the children used social media to interact with their friends and 33% with members of their family. A small proportion (3.11%) have interacted with those they have never met before, in the week before taking the survey.

A substantial proportion of children showed high SME. For example, 25% use social media every night before they sleep, and 17% of children use it every day as soon as they wake up (Figure 2). Similarly, 15% of children are using social media between 1- 4 hours a day and 8% using it for four or more hours on a weekday, with 20% using social media for 4+ hours at the weekends (Figure 3 ).

Figure 2
*Level of social media engagement (SME) amongst children surveyed as measured by the social media engagement questionnaire (SMEQ*)

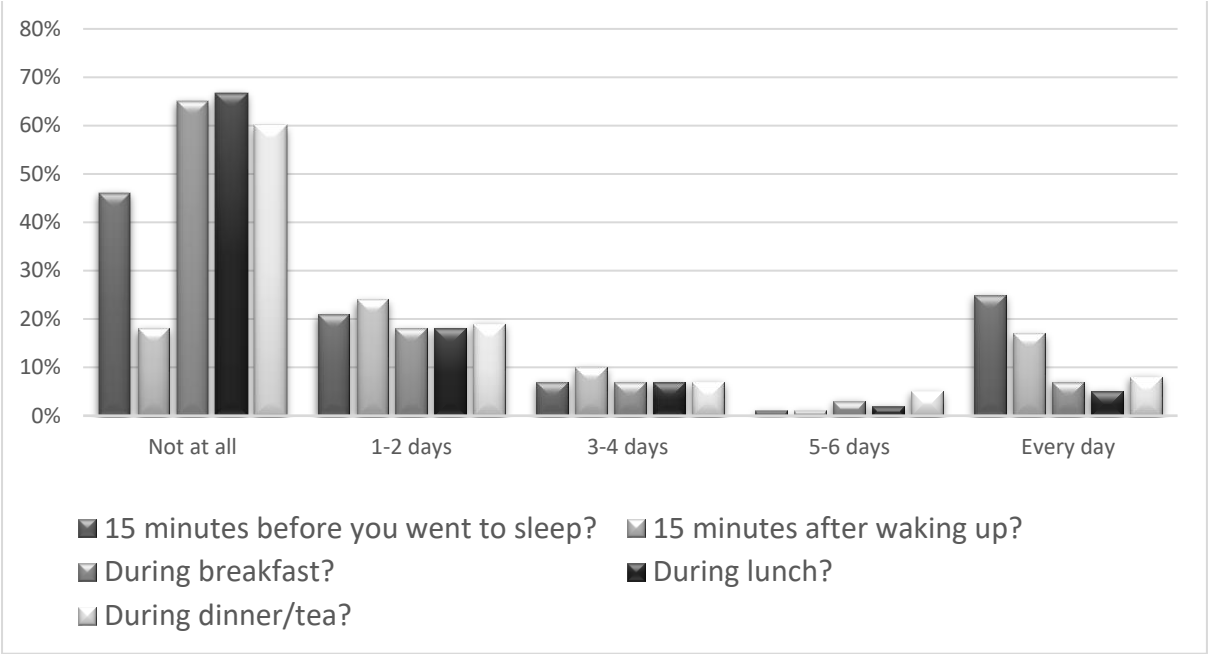
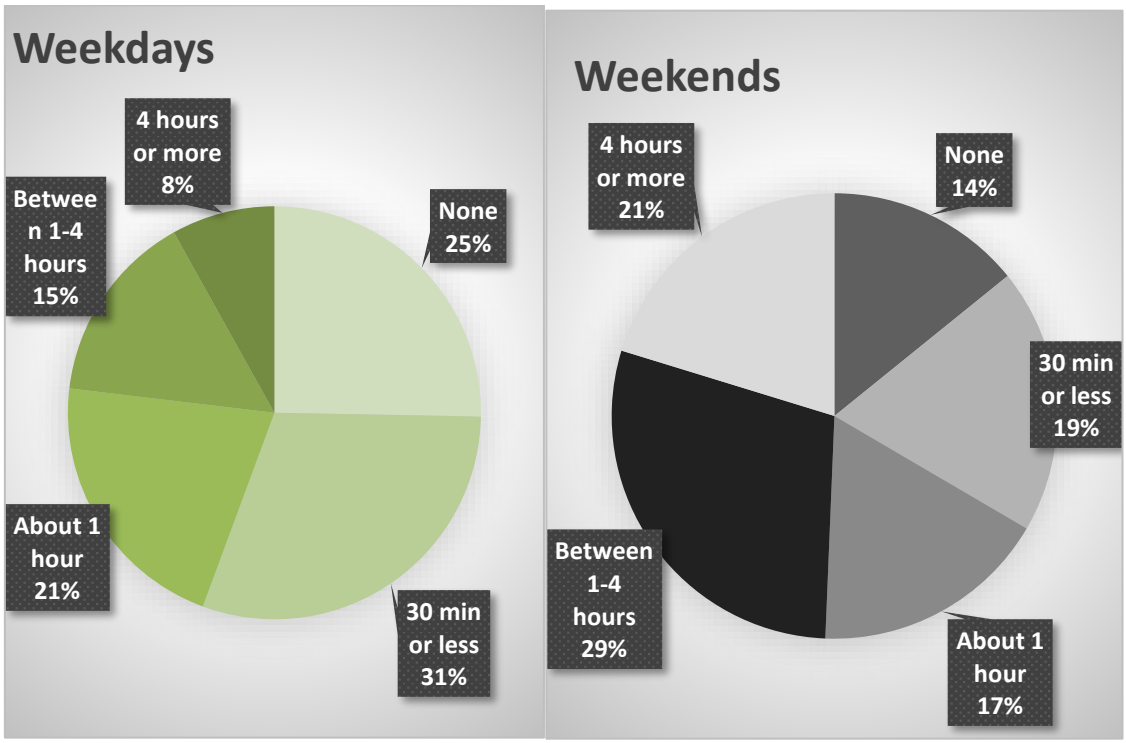

80%
70%
60%
50%
40%
30%
20%
10%
0%
Not at all
1-2 days
3-4 days
5-6 days
Every day
15 minutes before you went to sleep?
15 minutes after waking up?
During breakfast?
During lunch?
During dinner/tea?

**Figure 3**

*Time spent on social media on weekdays and at weekends*




***What is the relationship between SME and FOMO amongst primary-aged children***?

The online questionnaire endeavoured to explore whether FOMO as a psychological construct could be associated with some of the variance in children's SME as measured by the SMEQ. Descriptive statistics are included below in Table 1.

Table 1

*Descriptive statistics for participants' scores on the Fear of Missing Out (FOMO) scale and the Social Media Engagement Questionnaire (SMEQ)*

| | | Statistic | Standard Error |
|---|---|---|---|
| Level of SMEQ | Mean | 12.7634 | .90701 |

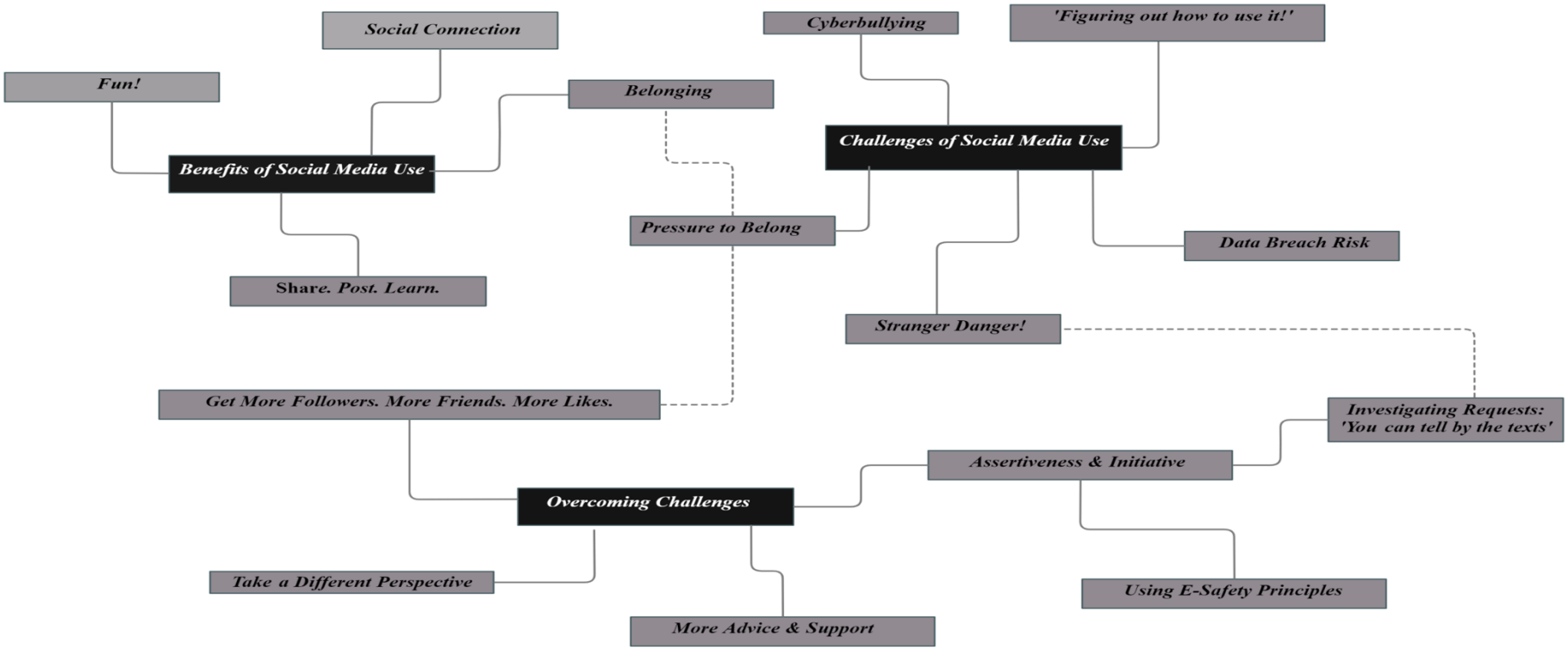
| | | | |
|---|---|---|---|
| | Standard Deviation | 8.74692 | |
| | Range | 35.00 | |
| Level of FOMO | Mean | 2.1043 | .06576 |
| | Standard Deviation | .63416 | |
| | Range | 3.20 | |

The Spearman's Rank Correlation was conducted on the FOMO and SMEQ variables, and a weak positive relationship ($r$ (91) = .22, $p$ < .05) was found, which was significant at the 0.05 level ($p<0.05$).

***Thematic analysis***

Figure 3

*Overall Thematic Map of Questionnaire and Interview Data*




Note: Single solid lines demonstrate hierarchical relationships between themes and subthemes and a dotted line indicates a tentative relationship

***What do primary-aged children view as the benefits and challenges associated with social media use?***

*Pseudonyms are used throughout to promote readability*.

Through thematic analysis, four main themes were identified as perceived ***benefits*** of social media use: "Social Connection"; "Share.Post.Learn."; "Fun!" and "Belonging". The ability to "*talk to friends and family*" and "*to connect with people*" was important. For example, Billy uses social media to see if his "*friends are okay over the holidays."* It was also valued as a way to "*research things*", and a vehicle to share information about themselves: social media "*lets other people look at my photos or videos and comment on them and say whether they liked them or not (sic)"* and Kali enjoyed social media because *"you can express your opinion".* Social media also had positive emotional benefits such as being "*fun*" and "*enjoyable*" and supported feelings of belonging, for Aaliyah said, "*I use social media because all of my friends use it…*" and Morgan notes "*so I can talk to them (friends) about it (social media) without feeling left out of conversations*".

Five main themes were identified as perceived ***challenges***: "Pressure to Belong"; "Stranger Danger!"; "Cyber bullying"; "Figuring out how to use it!"; and "Data Breach Risk".

For the participants, there was a sense that the pressure to belong may influence their social media use. For example, Simon shared that "*people can be mean to you if you don't have it*" and Rhys explained that "*friends not liking your post*" can be difficult for young people. A key challenge for participants was the potential for unsafe interactions with strangers or adults, a potential risk-described by Gwenydd: "*someone pretending to be a young girl that you know but is actually a old man…* (sic)". Yet, potentially linked

to the pressure to belong, Ahmed shared that young people can be "*talking or accepting to strangers/follow requests from strangers if…(they) are friend thirsty*". 'Thirsty' is a slang term for someone who is desperate or too eager for something (Urban Dictionary, 2020), in this case eager to potentially have more friends and/or an increased social media presence.

Further challenges presented by participants were cyberbullying and how "*arguments can carry on online and escalate*", "*figuring out how to use*" social media and "*knowing when people are trying to scam/hack you*"

***What are primary-aged children's ideas about overcoming challenges associated with social media use?***

Four main themes emerged when participants were asked to consider ***ways to overcome challenges***: "Get More Followers. More Friends. More likes."; "Take a Different Perspective"; Assertiveness & Initiative", with sub-themes entitled "Using E-Safety Principles" & "Investigating Requests: 'You can tell by the texts'"; and "More Advice & support"

In response to the pressure to use social media and increase social media presence, there were two positions: to engage in behaviours that would result in more followers, friends and likes or adopt a different perspective on the pressure felt. For example, Zelda emphasised engaging with social media that provided the most opportunities for friends:

> "*Like if it was on Snapchat and you weren't get any friends, you could try another website, if you were allowed, like Instagram and see if you get more there and go on that more (sic).*"

Similarly, Sebastian suggested screening social media content prior to uploading to maximise engagement or approval:

> "*Maybe like ask someone first if they like it and if they like it, then…like (if) they respond saying it's a good idea then put it up online, but if they say no, leave it offline*."

Tiffany emphasised that children **"***can just put a notification on other peoples' account, so they can keep up with them.*" Conversely, some participants encouraged a broader perspective as to why someone may not have engaged with your social media content to ease the pressure for belonging or approval. For example, Ivor said that "*it's just that maybe they haven't seen it (i.e. the post)*" or Sebastian who shared:

> "*Like some friends might be in a tough situation right now and if you keep messaging them, they might not like it, they could probably tell you to stop messaging them which could involve into a fight (sic)."*

Tiffany emphasises considering why people may pursue followers:

> "*it doesn't matter how many followers you have as long as you know them…they probably just want their friends to see that they have more followers than them."*

Other participants felt that social media was less important and that children should "*get more time outside to know what it's like without a phone or laptop with them*" or that children should not "*spend so much time on social media*."

Overall, participants appeared to be able to respond to challenges with "assertiveness and initiative". For example, if Charlie had a request from a stranger, he shared that "*I would stop talking to him. I would block him and then go tell my parents*

*that someone might be trying to follow me that's a bit suspicious…*" Similarly, Ivor shared the importance of making social media settings private "*so if someone adds you as a friend, they can't look at your profile unless you add them as a friend*." Participants also felt confident in investigating requests from unknown people and whether requests posed a risk. This latent sub-theme ("Investigating Requests: 'You can tell by the texts'") highlights the assumptions underpinning these strategies. For example, Zelda explained:

> *"…like you can tell by the texts. If you don't know them, they're either young or they're older and you can either tell by the texts, like what words they're using…If they're using complicated words or older kind of words, then they're probably quite older than what they are."*

Similarly, Sebastian shared that a strategy could be to "…*maybe, ask them what their name is and if they say they go to your school, say 'I don't know anyone that goes to my school with this name'"* and Charlie explained that it could help to ask the person questions and see if they are trying to be similar to you by copying your answers, "*if he gets all those questions at the same time, there's a chance that he's being a bit…he's trying to pretend (to be younger) …".*

Following this, children shared the importance of seeking further advice or support and would generally welcome further help with social media. Zelda shared that children can approach their family to help guide them on social media as families can "*sort it out for you and say, 'I've got you on private now, don't add anyone unless you show me'*" and Benjamin shared that "*they should have lessons on how to use it easier and stay safe (sic).*"

**Discussion**

The purpose of this study was to explore primary school children's social media use, their views of use, their levels of SME and FOMO, and to hear their voices in

considering ways to overcome the challenges inherent in using social media.

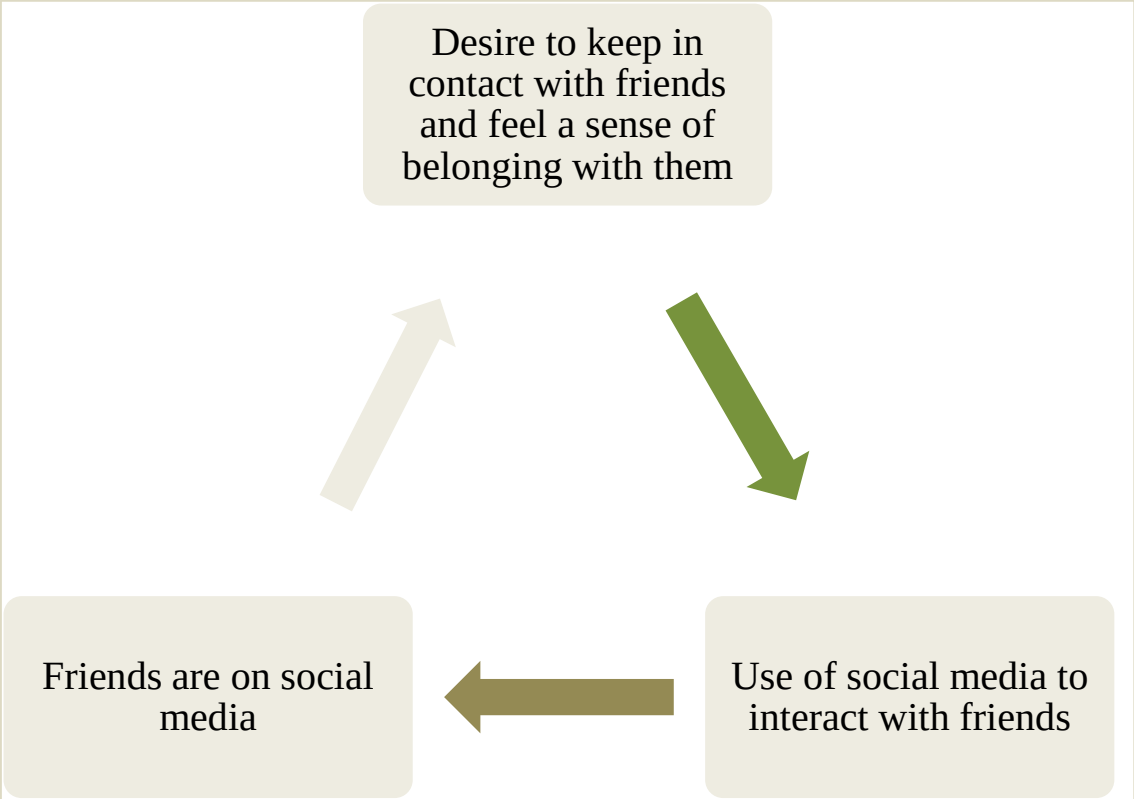
82% of children reported using social media, despite all being under the legal age for use (Weeden et al., 2013), with a substantial proportion showing high SME, especially at the weekends. Additionally, approximately 60% of participants engage with social media in their bedroom or on a portable device. Thus, in keeping with the research, it may be that social media use amongst participants is less adult regulated and relies more on trust between parents and children, and children's own self-regulation strategies (Boulton et al., 2016). Thus, the exploration of social media use in primary-school children is advantageous in keeping them safe and happy during use.

The children in the study reported many benefits to their social media use. The most commonly cited reasons hinged around connecting socially with friends and family, replicating findings from other studies of primary aged children's social media use (English Children's Commissioner, 2018). Furthermore, the functional benefits of using social media and the perception of it as 'fun' were also commonly noted as positive factors. A smaller proportion of children explained how social media use helped them feel that they belonged with their peer group ("Belonging"). However, belonging appeared to represent a 'double-edged sword' as the desire to belong was also cited as a challenge of social media use ("Pressure to Belong"). Drawing on social identity and self-categorization theory (Tajfel & Turner, 1986), peer pressure can occur when a person identifies strongly with a group (e.g. peers) and then exhibits a tendency towards adopting the group's beliefs, attitudes, and behaviours (e.g. interacting via social media) as this results in further acceptance within the group (Tajfel & Turner, 1986). Increased peer activity on social media has been associated with increased compulsive use of social

media (Turel & Osatuyi, 2017), compulsivity being conceptualised as the inability to cease engagement or manage use effectively (Dalley et al., 2011). A cyclical way of looking at how children's desire to belong and associated peer pressure could influence social media use is proposed in Figure 4.

**Figure 4**

*A proposed conceptualisation of the relationship the desire to belong, peer pressure and social media use*




In this study, social media appeared to be very rewarding; however, the rewards combined with peer influences could contribute towards high levels of SME. There is evidence that these can lead to the development of compulsive checking and excessive engagement with social media (Oberst et al., 2017), which is associated with poor outcomes. For example, large amounts of-time spent on social media has been associated

with low self-esteem in adults (Kalpidou et al., 2011), poor peer relationships in older adolescents (Barker, 2009), and higher depressive symptoms (poor sleep and increased online harassment) in 14-year-olds (Kelly et al., 2018). Turkle (2011) warns of the 'tethered self', the idea of a person always being connected to technology which could distract from real-life, social experiences in the here and now. The regular connection with social media as evidenced in those children with high SME in this study may therefore have implications for the emotional well-being of children (Przybylski et al., 2013).

For example, individual differences could make certain children more vulnerable to detrimental outcomes. Experiencing high levels of FOMO whilst using social media may be associated with negative mood, as it can prompt a person to feel that other people are having more fun (Przybylski et al., 2013). Within this study, a weak, positive relationship was found between scores on the FOMO scale and scores on the SMEQ, meaning that those who experienced more FOMO tended to have higher levels of SME. These findings are purely correlational and so causation between these two variables cannot be implied. However, the underlying psychological processes underpinning FOMO can be unraveled to potentially offer a deeper insight into children's social media use in this study.

Social comparison theory (Festinger, 1954) posits that people compare themselves to others to reduce uncertainty in certain situations and to help in understanding and defining the 'self'. Upward social comparison occurs when comparing oneself to someone with qualities that are perceived to be superior; whilst, downward social comparison occurs when comparing oneself to someone with qualities perceived to be inferior (Festinger, 1954). Understandably, social media is a forum that ~~may~~ fosters

social comparison as it allows users to show aspects of themselves, compare themselves with others and receive feedback (Shin et al., 2017). In this way, it may contribute to upward social comparison as social media users often present an idealized, positively skewed image of themselves when using social media (Rosenberg & Egbert, 2011). This upward social comparison may in turn influence the development of FOMO. For example, Chou and Edge (2012) found that Facebook users thought other users were happier and more successful than them, especially if they didn't know these people well. This has implications for some children in the study who perceived related challenges in not receiving positive feedback from peers on social media or issues related to acquiring friends or followers. This in conjunction with upward social comparison could further influence children's experience of FOMO and the desire to belong.

Turel and Osatuyi (2017) have found that the ability to deal effectively with social pressures to use social media reduced levels of compulsive use. The ways to overcome peer pressure discussed here revealed two very different coping techniques: "Get More Followers. More Friends. More Likes" or "Take a Different Perspective". Methods to increase approval and connection in response to pressure were shared by all participants, with only half also considering taking alternative perspectives. This could reflect a literal interpretation of the question (i.e. managing the pressure to get friends prompted ideas to get more friends). Alternatively, it may be that children are less compelled to veer from peer norms, preferring to work within the expectations of the peer group as this may contribute to their sense of relatedness or belonging within this group (Deci & Ryan, 1985).

This pressure to acquire friends and social approval on social media appears to conflict with children's awareness of "Stranger Danger!" and associated e-safety principles. Participants showed great assertiveness and initiative when discussing social media use and yet some constructed social media as a forum to make new friends and become famous and were therefore tempted to make friends with strangers or adults, despite the dangers. Four of the children interviewed shared how they would investigate if an interaction with someone posed a risk. However, assumptions underlying these strategies have implications for e-safety learning in schools ("Investigating Requests: 'You can tell by the texts'"). Three children felt that a child could confirm the person's age by looking at their profile, potentially not realising that a person's profile may not be a reliable source of information. One child felt that the use of complicated, adult-like language would be a sign that the person was an adult and was pretending to be younger, assuming that adults can be easily identified through their use of language. These assumptions could reflect the age and developmental maturity of the children. Nevertheless, if these children are using social media, the onus may lie with schools and parents/carers to ensure that children are aware of how deceit can be used to gain someone's trust online. This has relevance for the 3% of children within this study who reported speaking to someone they do not know on social media and the 10% of children who receive little guidance/monitoring during social media use. These issues become more important as children move into adolescence. For example, a research study, which comprised of 1765 teenagers, revealed that teenagers were more at risk of unwanted online sexual solicitation than adults whilst using social media (Baumgartner et al., 2010).

Despite these assumptions, children in the study appeared very aware of e-safety principles ("Using e-safety principles") and seemed equipped with self-regulation

strategies to deal with the challenges related to social media ("More Advice/Support"). The ability to independently problem solve assertively when dealing with online issues is deemed more advantageous than adults regulating and 'policing' their social media use (Boulton et al., 2016). Therefore, children's responses may convey the positive effect of current e-safety curricula on keeping primary school children safe and happy during social media use. However, this study provides strong preliminary evidence for the inclusion of topics within that curricula that include FOMO and its relationship with SME, peer pressure, self-worth, and online interactions with strangers.

### *Strengths, Limitations and Future directions*

#### *Strengths*

This is the first time FOMO has been explored with a primary-aged sample. Furthermore, the child's voice is at the centre of the study and findings were disseminated to the schools involved, providing an opportunity to contribute to e-safety curricula in these schools specifically informed by the voices of the children who attend.

#### *Limitations*

Although FOMO or SME have a correlational relationship in this study, no causal inferences between the variables can be made. The small sample size also meant that differences between age-groups would have not provided meaningful or reliable insights and thus, the relationship between age and FOMO and SMEQ has not been explored.

Additionally, gender and ethnicity data were not gathered for the study and both gender and culture have been found to moderate the way social media is used. For example, more individualistic cultures tend to use more self-promotion than more collectivist cultures (Sheldon et al., 2017) and gender has been found to moderate the association between technology-based social comparison and feedback seeking and depressive symptoms (Nesi, & Prinstein, 2015). Furthermore, the convenience sampling method used means that findings cannot necessarily be generalised to the wider population of primary-aged children.

Lastly, the study did not include the voices of school staff or parents/carers in considering ways to overcome challenges in the children's social media use. Collaboration with these key figures could have been more likely to foster change in the home and school system and is generally deemed more powerful than providing recommendations or advice to schools and parents (Wagner, 2000; Miller & Rollnick, 2012).

*Future Directions*

Future research could seek to enlist the power of peers to develop a cross-age teaching intervention to educate children on issues related to social media, belonging, peer pressure, FOMO and self-worth. Boulton and colleagues (2016) found that a cross-age teaching intervention was more successful in helping both tutors and tutees develop their understanding of online risk, when compared to controls who received tuition only from adults.

Secondly, Turel and Osatuyi (2017) suggest that work around mindfulness may be used to deal with problematic SME. Mindfulness is the practice of attending to the present moment and observing thoughts, feelings and sensations without judgement (Kabat-Zinn,

2013). A mindfulness-based intervention may help children to deal more effectively with the difficult thoughts and feelings associated with peer pressure, the need to belong and FOMO.

**Implications for EP Practice**

EPs are well positioned to apply psychology to support the wellbeing and safety of children, either through their direct or indirect work with children. The following considerations may be beneficial in achieving this:

Exploring SME and FOMO when working with CYP who present with a low sense of emotional wellbeing may help to consider appropriate pathways for intervention. For example, gratitude or appreciation is associated with lowering depressive symptoms as it supports positive reframing (Lambert et al., 2012; Seligman, 2011). Therefore, gratitude journaling could be useful in supporting CYP who have difficulties with FOMO as it endeavours to shift the focus from what one may be missing out on to what one appreciates in his/her life (Lambert et al., 2012).

The '*Teaching Online Safety in Schools Non-Statutory Guidance*' (DfE, 2019) emphasizes the importance of supporting CYP to evaluate what they see online and also to recognise techniques for persuasion that may be used to manipulate children. The themes of "Stranger Danger!" and "Investigating Requests: 'You can tell by the texts'" support the importance of this recommendation for CYP in this study. EPs may also include psychologically-informed activities/discussions which consider evaluating social media content and SME in relation to belonging, peer pressure, self-worth and FOMO.

The Emotional Literacy Support Assistant (ELSA) programme (ELSA Network, 2013) involves EPs training school staff to support the wellbeing of CYP in schools. The primary school programme focuses on supporting the development of a positive sense of self through Borba's five building blocks of self-esteem: a sense of security; selfhood; mission; affiliation; and competence (Borba, 1989). EP Supervision for ELSAs is an essential component of the programme (Osborne & Burton, 2014), a valuable opportunity for ELSAs to also consider how CYP's sense of self may interact with their relationship with social media. Supervision could also be a vehicle for ELSAs to be supported to consider ways for CYP to develop a positive sense of self so that they can reap the benefits of social media use whilst reducing the potential influence of social media on FOMO and associated difficulties, such as upward social comparison and negative mood.

## Conclusion

The study's findings emphasize the importance of e-safety curricula and how it can empower children to navigate social media independently and safely. Whilst children will inevitably face challenges on social media, they appear confident in dealing with these. However, the underlying psychological rationale for social media use may need to be explored more within e-safety curricula to continue helping children to be safe and happy using social media.

## Acknowledgements

The authors would like to thank the children and schools who took part in this study, without whom this study would not have been possible.

## Disclosure Statement

No potential conflict of interest was reported by the authors.

## References


Allen, K. A., Ryan, T., Gray, D. L., McInerney, D. M., & Waters, L. (2014). Social media use and social connectedness in adolescents: The positives and the potential pitfalls. *The Educational and Developmental Psychologist*, *31*(1), 18-31. https://doi.org/10.1017/edp.2014.2

Baker, Z. G., Krieger, H., & LeRoy, A. S. (2016). Fear of missing out: Relationships with depression, mindfulness, and physical symptoms. *Translational Issues in Psychological Science*, *2*(3), 275. https://doi.org/ 10.1037/tps0000075

Barker, V. (2009). Older adolescents' motivations for social network site use: The influence of gender, group identity, and collective self-esteem. *Cyberpsychology & behavior*, *12*(2), 209-213. https://doi.org/ 10.1089/cpb.2008.0228

Baumeister, R.F. & Leary, M.R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, II7*(3), 497–529. https://doi.org/10.1037/0033-2909.117.3.497

Baumgartner, S. E., Valkenburg, P. M., & Peter, J. (2010). Unwanted online sexual solicitation and risky sexual online behavior across the lifespan. *Journal of Applied Developmental Psychology*, *31*(6), 439-447. https://doi.org/10.1016/j.appdev.2010.07.005

Beyens, I., Frison, E., & Eggermont, S. (2016). "I don't want to miss a thing": Adolescents' fear of missing out and its relationship to adolescents' social

needs, Facebook use, and Facebook related stress. *Computers in Human Behavior, 64*, 1-8. https://doi.org/10.1016/j.chb.2016.05.083

Blackwell, D., Leaman, C., Tramposch, R., Osborne, C., & Liss, M. (2017). Extraversion, neuroticism, attachment style and fear of missing out as predictors of social media use and addiction. *Personality and Individual Differences, 116*, 69-72. https://doi.org/10.1016/j.paid.2017.04.039

Borba, M. (1989). *Esteem Builders: A K-8 Self-Esteem Curriculum for Improving Student Achievement, Behavior and School Climate*. Jalmar Press.

Boulton, M. J., Boulton, L., Cameron, E., Down, J., Hughes, J., Kirkbride, C., Kirkham, R., Macauley, P., & Sanders, J. (2016). Enhancing primary school children's knowledge of online safety and risks with the CATZ Cooperative Cross-Age Teaching Intervention: results from a pilot study. *Cyberpsychology, Behavior, and Social Networking*, *19*(10), 609-614. https://doi.org/10.1089/cyber.2016.0046

Boyd, D.M., & Ellison, N.B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication, 13*(1), 210-230. https://doi.org/10.1111/j.1083-6101.2007.00393.x

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.https://doi.org/10.1191/1478088706qp063oa

Carayon, P., Kianfar, S., Li, Y., Xie, A., Alyousef, B., & Wooldridge, A. (2015). A systematic review of mixed methods research on human factors and ergonomics in health care. *Applied Ergonomics, 51*, 291-321. https://doi.org/10.1016/j.apergo.2015.06.001

Cardiff University. (2018). Cardiff University's Children and Vulnerable Adults Policy. https://www.cardiff.ac.uk/__data/assets/pdf_file/0009/995094/2019_Safeguarding_Policy___Procedure.pdf

Children's Commissioner (2018). *Life in 'likes': Children's Commissioner report into social media use among 8-12 year olds*. Children's Commissioner.

Chou, H. T. G., & Edge, N. (2012). "They are happier and having better lives than I am": the impact of using Facebook on perceptions of others' lives. *Cyberpsychology, Behavior, and Social Networking*, *15*(2), 117-121. https://doi.org/10.1089/cyber.2011.0324

Clarke, B., & Crowther, K. (2015). *Internet safety report: Key findings*. Family Kids & Youth.

Coughlan, S. (2016). Safer Internet Day: young ignore 'social media age limit'. *British Broadcasting Corportion (BBC) News*. http://www.bbc.co.uk/news/education-35524429

Dalley, J. W., Everitt, B. J., & Robbins, T. W. (2011). Impulsivity, compulsivity, and top-down cognitive control. *Neuron*, *69*(4), 680-694. https://doi.org/10.1016/j.neuron.2011.01.020

Deci, E.L., & Ryan, R.M. (1985). *Intrinsic motivation and self-determination inhuman behavior*. Plenum.

Department for Education (DfE) and Department of Health (DoH) (2015). *Special Educational Needs and Disability Code of Practice: 0-25*. Department for Education.

DfE. (2019). *Teaching Online Safety in Schools Non-Statutory Guidance*. Department for Education.

Dunleavy, G., & Burke, J. (2019). Fostering a sense of belonging at an international school in France: An experimental study. *Educational & Child Psychology*, *36*(4), 34. https://doi.org/10.1080/02671522.2019.1615116

Emotional Literacy Support Assistant (ELSA) Network. (2013). http://www.elsanetwork.org

Festinger, L. (1954). A theory of social comparison processes. *Human relations*, *7*(2), 117-140. https://doi.org/10.1177/001872675400700202

Glasser, W. (1998). Choice theory: *A new psychology of personal freedom*. Harper Collins.

Health and Care Professions Council (HCPC; 2015). Standards of proficiency-Practitioner psychologists. HCPC.

Howell, D. C. (2013). *Statistical methods for psychology* (8th ed.). Wadsworth.

Ito, M., Horst, H. A., Bittanti, M., Stephenson, B. H., Lange, P. G., Pascoe, C. J., Robinson, L., Baumer, S., Cody, R., Mahendran, D., Martínez, K. Z., Perkel, D., Sims, C., & Tripp, L. (2009). *Living and learning with new media: Summary of findings from the Digital Youth Project*. MIT Press.

Kabat-Zinn, J. (2013). *Full catastrophe living : using the wisdom of your body and mind to face stress, pain, and illness*. Penguin Random House.

Kalpidou, M., Costin, D., & Morris, J. (2011). The relationship between Facebook and the well-being of undergraduate college students. *CyberPsychology, behavior, and social networking*, *14*(4), 183-189. https://doi.org/10.1089/cyber.2010.0061

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, *53*(1), 59-68. https://doi.org/10.1016/j.bushor.2009.09.00312

Kelly, Y., Zilanawala, A., Booker, C., & Sacker, A. (2018). Social media use and adolescent mental health: Findings from the UK Millennium Cohort Study. *EClinicalMedicine*, *6*, 59-68. http://doi.org/10.1016/j.eclinm.2018.12.005

Lambert, N. M., Fincham, F. D., & Stillman, T. F. (2012). Gratitude and depressive symptoms: The role of positive reframing and positive emotion. *Cognition & Emotion*, *26*(4), 615-633.http://doi.org/10.1080/02699931.2011.595393

Leary, M. R., Kelly, K. M., Cottrell, C. A., & Schreindorfer, L. S. (2013). Construct validity of the need to belong scale: Mapping the nomological network. *Journal of personality assessment*, *95*(6), 610-624. https://doi.org/10.1080/00223891.2013.819511

Lincoln, Y. S., & Guba, E. G. (1985). Establishing trustworthiness. In Y. S. Guba (Ed.), *Naturalistic inquiry* (pp. *289*-327). Blackwell Publishing.

Livingstone, S. (2004). *UKCGO (UK Children Go Online) Child Questionnaire* [online]. http://eprints.lse.ac.uk/501/

Livingstone, S., & Bober, M. (2005). *UK Children Go Online: Final report of key project findings*. London School of Economics and Political Science.

Livingstone, S., & Brake, D. R. (2010). On the rapid rise of social networking sites: New findings and policy implications. *Children & society*, *24*(1), 75-83. http://doi.org/10.1111/j.1099-0860.2009.00243.x

Livingstone, S., Davidson, J., Bryce, J., Batool, S., Haughton, C., & Nandi, A. (2017). Children's online activities, risks and safety: a literature review by the UKCCIS evidence group. LSE Research Online. http://www.lse.ac.uk/business-and-

consultancy/consulting/consulting-reports/childrens-online-activities-risks-and-safety

Maher, A., Cobigo, V. & Stuart, H. (2013). Perspectives in Rehabilitation. Conceptualizing belonging. *Disability and Rehabilitation, 35*, 1026–1032. https://doi.org/10.3109/09638288.2012.717584

Maslow, A.H. (1943). A theory of human motivation. *Psychological Review, 50*, 370–396. https://doi.org/10.1037/h0054346

Mertens, D. M. (2015). *Research and evaluation in education and psychology : integrating diversity with quantitative, qualitative, and mixed methods* (4th ed.). Sage.

National Society for the Prevention of Cruelty to Children (NSPCC) (2020). *Netaware: Your guide to social networks, apps and games*. https://www.net-aware.org.uk/

Nesi, J., & Prinstein, M. J. (2015). Using social media for social comparison and feedback-seeking: Gender and popularity moderate associations with depressive symptoms. *Journal of abnormal child psychology*, *43*(8), 1427-1438.

Oberst, U., Wegmann, E., Stodt, B., Brand, M., & Chamarro, A. (2017). Negative consequences from heavy social networking in adolescents: The mediating role of fear of missing out. *Journal of adolescence*, *55*, 51-60. https://doi.org/10.1016/j.adolescence.2016.12.008

Office of Communications (OfCom) United Kingdom (2019). *Children and Parents: Media Use and Attitudes Report*.

https://www.ofcom.org.uk/__data/assets/pdf_file/0023/190616/children-media-use-attitudes-2019-report.pdf

O' Keeffe, G. S., & Clarke-Pearson, K. (2011). The impact of social media on children, adolescents, and families. *Pediatrics*, *127*(4), 800-804. https://doi.org/10.1542/peds.2011-0054

Osborne, C., & Burton, S. (2014). Emotional Literacy Support Assistants' views on supervision provided by educational psychologists: what EPs can learn from group supervision. *Educational Psychology in Practice*, *30*(2), 139-155. https://doi.org/10.1080/02667363.2014.899202

Patchin, J., & Sameer, H. (2010). Trends in online social networking: Adolescent use of MySpace over time. *New Media and Society, 12(2),* 197-216. https://doi.org/10.1177/1461444809341857

Plano Clark, V. L. (2019). Meaningful integration within mixed methods studies: Identifying why, what, when, and how. *Contemporary Educational Psychology*, *57*, 106-111. https://doi.org/10.1016/j.cedpsych.2019.01.007

Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, *29*(4), 1841-1848. https://doi.org/10.1016/j.chb.2013.02.014

Miller, W. R., & Rollnick, S. (2012). *Motivational interviewing: Helping people change*. Guilford press.

Rosenberg, J., & Egbert, N. (2011). Online impression management: Personality traits and concerns for secondary goals as predictors of self-presentation tactics on

Facebook. *Journal of Computer-Mediated Communication*, *17*(1), 1-18. https://doi.org/10.1111/j.1083-6101.2011.01560.x

Santor, D. A., Messervey, D., & Kusumakar, V. (2000). Measuring peer pressure, popularity, and conformity in adolescent boys and girls: Predicting school performance, sexual attitudes, and substance abuse. *Journal of youth and adolescence*, *29*(2), 163-182. https://doi.org/10.1023/A:1005152515264

Seligman, M. E. (2011). Flourish: a visionary new understanding of happiness and well-being. Atria.

Sheldon, P., Rauschnabel, P. A., Antony, M. G., & Car, S. (2017). A cross-cultural comparison of Croatian and American social network sites: Exploring cultural differences in motives for Instagram use. *Computers in Human Behavior, 75,* 643-651.https://doi.org/10.1016/j.chb.2017.06.009

Sherman, L. E., Payton, A. A., Hernandez, L. M., Greenfield, P. M., & Dapretto, M. (2016). The power of the like in adolescence: Effects of peer influence on neural and behavioral responses to social media. *Psychological science*, *27*(7), 1027-1035. https://doi.org/10.1177/0956797616645673

Shin, Y., Kim, M., Im, C., & Chong, S. C. (2017). Selfie and self: The effect of selfies on self-esteem and social sensitivity. *Personality and Individual Differences*, *111*, 139-145.https://doi.org/10.1016/j.paid.2017.02.004

Sohn, S., Rees, P., Wildridge, B., Kalk, N. J., & Carter, B. (2019). Prevalence of problematic smartphone usage and associated mental health outcomes amongst children and young people: a systematic review, meta-analysis and GRADE of the evidence. *BMC Psychiatry*, *19*(1), 1-10. https://doi.org/10.1186/s12888-019-2350-x

Tajfel, H., & Turner, J. C. (1986). An integrative theory of intergroup conflict. In W. G. Austin, & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Brooks-Cole.

Thirsty (n.d.) In *Urban Dictionary*. https://www.urbandictionary.com/define.php?term=thristy

Tomczyk, Ł., & Selmanagic-Lizde, E. (2018). Fear of Missing Out (FOMO) among youth in Bosnia and Herzegovina—Scale and selected mechanisms. *Children and Youth Services Review*, *88*, 541-549. https://doi.org/10.1016/j.childyouth.2018.03.048

Turel, O., & Osatuyi, B. (2017). A peer-influence perspective on compulsive social networking site use: Trait mindfulness as a double-edged sword. *Computers in Human Behavior*, *77*, 47-53. https://doi.org/10.1016/j.chb.2017.08.022

Turel, O., & Serenko, A. (2012). The benefits and dangers of enjoyment with social networking websites. *European Journal of Information Systems*, *21*(5), 512-528. https://doi.org/10.1057/ejis.2012.1

Turkle, S. (2011). *Alone together: Why we expect more from technology and less from each other*. Basic Books.

Wagner, P. (2000). Consultation: Developing a comprehensive approach to service delivery. *Educational Psychology in Practice*, *16*(1), 9-18. https://doi.org/10.1080/026673600115229

Weeden, S., Cooke, B., & McVey, M. (2013). Underage children and social networking. *Journal of Research on Technology in Education*, *45*(3), 249-262. https://doi.org/10.1080/15391523.2013.10782605

Welsh Government (2018). *Draft Additional Learning Needs Code for Wales*. Welsh Government.

Woods, H. C., & Scott, H. (2016). # Sleepyteens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression and low self-esteem. *Journal of adolescence*, *51*, 41-49. https://doi.org/10.1016/j.adolescence.2016.05.008

Appendix A *Child-Friendly Thematic Map Stimulus for Interview*

- **Contact with people you don't know**
- **Contact with people pretending to be younger**


- ***How to use it!***

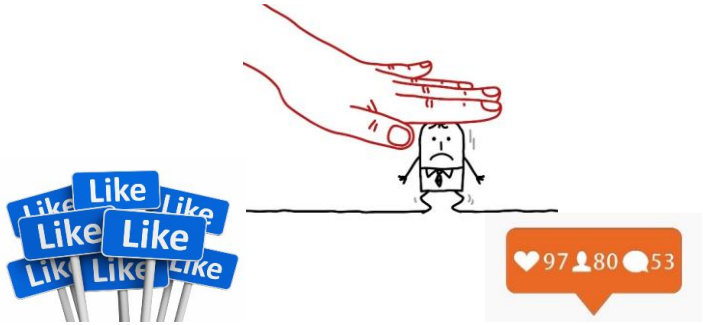
Prompt:

What can the child do to help themselves?

What can others do to help them?

## Challenges of Social Media Use

***What help do children need to deal with these challenges?***




- ***Pressure for likes***
- ***Pressure to get friends/followers& keep up with friendships***


- **People finding out or stealing your personal info**
- **Sharing info that you shouldn't**

- ***Cyber-bullying***