Stressed, but connected

Adolescents, their perceptions of and coping with peer pressure on Instagram

Claudia Riesmeyer, Elena Pohl, and Larissa Ruf

Abstract

Among social network sites (SNS), Instagram has become one of the most important platforms for adolescents (age 10–19 years), especially in Germany. They use it to share experiences and meaningful content and above all, to interact with their peers. Norms, defined by the peer group, influence adolescents' behavior, online as much as offline. This influence on aligning one's needs with expectations in the SNS environment leads to pressure. How adolescents perceive this pressure from their peer group in detail on Instagram and how they cope with it has seldom been the focus of qualitative research within communication studies thus far. What patterns and potential coping strategies become apparent in adolescents' behavior? Do these strategies tend to be problem-solving or avoidant oriented? This paper addresses this need and uses in-depth interviews, drawn via purposive sampling, with 30 adolescents to investigate the strategies adolescents develop to cope with perceived forms of peer pressure. Results show that the peer group has both positive and negative effects on adolescents. Positive in that they are an important reference for adolescents, an effect, that is enhanced by Instagram, which allows interpersonal connections with peers. Then again negative in that adolescents, among other things, feel pressure to communicate with the group and to follow its aesthetic ideals at Instagram in order not to be excluded from the group or otherwise sanctioned. In order to deal with this perceived peer pressure, adolescents develop both active (problem-solving oriented) and avoidant coping strategies, including designing their own media environment according to their needs, supporting each other, and encouraging each other in their own actions. In these coping strategies, the peer group can again have positive or negative impacts. Positive, e.g., as adolescents can share their experiences; negative, e.g., as adolescents might obey the group norms disregarding their personal interests. The findings thus highlight the need to support adolescents in coping with these forms of peer pressure. To be able to act and counter the perceived pressure, adolescents need motivational, emotional, and reflexive skills that can be promoted through media literacy programs.

Gestresst, aber miteinander verbunden. Jugendliche, ihre Wahrnehmung von und ihr Umgang mit Gruppendruck auf Instagram

Zusammenfassung

Unter den Social Network Sites (SNS) hat sich Instagram zu einer der wichtigsten Plattformen für Jugendliche (10-19 Jahre) entwickelt, insbesondere in Deutschland. Sie nutzen die Plattform zum Austausch von Erfahrungen und Inhalten und vor allem zur Interaktion mit Gleichaltrigen. Normen, die von der Peer-Group definiert werden, können ihr Verhalten sowohl online als auch offline beeinflussen. Dieser Einfluss auf die Anpassung der eigenen Bedürfnisse an die Erwartungen im Umfeld wird als Druck wahrgenommen. Wie Jugendliche diesen Druck von ihrer Peer-Gruppe im Detail auf Instagram wahrnehmen und wie sie damit umgehen, stand bisher selten im Mittelpunkt qualitativer Forschung. Welche Muster und möglichen Bewältigungsstrategien zeigen sich im Verhalten der Jugendlichen? Sind diese Strategien eher problemlösungs- oder vermeidungsorientiert? Der Aufsatz setzt sich mit diesen Fragen auseinander und untersucht anhand von Leitfadeninterviews mit 30 Jugendlichen, welche Strategien sie entwickeln, um mit dem wahrgenommenen Druck umzugehen. Die Befunde zeigen, dass die Peer-Group positive und negative Effekte bei der Instagram-Nutzung auf Heranwachsende haben kann. Sie stellt für sie eine wichtige Bezugsgrösse dar; ein Effekt, der durch die Natur der Plattform noch verstärkt wird, die zwischenmenschliche Verbindungen mit Gleichaltrigen ermöglicht. Gleichzeitig verspüren Heranwachsende den Druck, mit der Gruppe kommunizieren und deren ästhetischen Idealen auf Instagram folgen zu müssen, um nicht aus der Gruppe ausgeschlossen oder anderweitig sanktioniert zu werden. Um mit diesem wahrgenommenen Gruppendruck umzugehen, entwickeln die Heranwachsenden verschiedene aktive und vermeidende Bewältigungsstrategien, u.a. indem sie sich selbst ein mediales Umfeld entsprechend ihrer Bedürfnisse gestalten, sich gegenseitig unterstützen und im eigenen Handeln bestärken. Diese Bewältigungsstrategien kann die Peer-Group wiederum positiv oder negative beeinflussen. Die Peer-Group kann zum Beispiel dabei helfen, mit Gruppendruck umzugehen und Erfahrungen teilen zu können. Negativ bestimmt sie die Bewältigung des Gruppendrucks, da Heranwachsende den Gruppennormen ohne Rücksicht auf ihre persönlichen Interessen entsprechen müssen. Die Befunde unterstreichen die Notwendigkeit, Heranwachsende bei der Bewältigung dieser Formen von Gruppendruck zu unterstützen. Um handeln zu können und dem wahrgenommenen Druck entgegenzuwirken, benötigen Jugendliche motivationale, emotionale und reflexive Fähigkeiten, die durch medienpädagogische Angebote gefördert werden können.

1.   Introduction

Social network sites (SNS) have become integral in the everyday life of adolescents, a period which spans from age 10 to 19 (WHO 2019). Accessible through mobile devices, media use has become more frequent (Swist et al. 2015). Today, German adolescents between 15 and 16 years old spend 196 minutes per day online (Smahel et al. 2020, 23). Thus, adolescents' social contexts broaden from offline encounters to the world of SNS, alongside their «desire to maintain relationships, express themselves to diverse audiences, and discover new information and ideas» (Swist et al. 2015, 5). 75 % of German 14- to 15-year-olds use SNS at least once a day (Smahel et al. 2020, 30). Among SNS, Instagram is increasingly popular (Mackson, Brochu, and Schneider 2019); for 66 % of adolescents in Germany, Instagram is the most important platform (Feierabend et al. 2020).

Instagram is a platform for adolescents to share experiences and content which are meaningful to them where, above all, communication and interaction with peers are basic motives for use (Lilley, Ball, and Vernom 2014). Furthermore, the peer group defines which behaviors are expected and which are not (Chua and Chang 2016). Thus, peer groups influence adolescents' behavior (Global Kids Online 2019; Haddon 2013). In regard to negative influences, SNS pose risks to adolescents' wellbeing, i. e., the Fear of Missing Out (FoMO, see Przybylski et al. 2013) and so does the peer group (Mackson, Brochu, and Schneider 2019). These arguments in mind, we argue that pressure in the context of SNS might originate from the peers as adolescents might perceive pressure to align their needs with peer expectations. While the role of the peer group has been in the focus of research in the past (e. g., Chua and Chang 2016; Geber and Hefner 2019; Geber, Baumann, and Klimmt 2019; Geber et al. 2019), little is known about how adolescents actually cope with the pressure perceived on SNS, specifically on Instagram and whether, the platform's distinct characteristics under consideration, specific patterns arise. In regard to this Collin et al. (2011, 7) argue that the sense of belonging fostered by SNS and peers has the potential «to promote resilience, which helps young people to successfully adapt to change and stressful events.» With the gap in research on coping in mind and given the importance of the peer group, we furthermore argue, that peers may play an important role in adolescents' way of coping with the pressure they perceive on Instagram.

Having identified these gaps in research, we conducted in-depth interviews with adolescents to investigate how they perceive peer pressure on Instagram and which strategies they might develop to cope with this. To fill the gap on coping, this paper uses the psychological concept of coping by Folkman and Lazarus (1980), which fits the purpose particularly as coping strategies are highly individual and defined by situational adaptability. We assume that specific coping patterns may be developed by adolescents in the framework of challenges with social peer pressure on Instagram.

2. Adolescents' Use of Instagram

Instagram is designed to share photos and videos from an individual account. The platform's directed friendship model allows users to follow accounts and accumulate followers on their own, without a technical requirement of reciprocity (Baker and Walsh 2018). Whereas other SNS, such as Twitter, focus on text-based messages, Instagram stands out for its visual communication modalities (Grieve 2017; Sheldon and Bryant 2016). It allows posts to be produced, disseminated, and consumed in «close to real-time» (Baker and Walsh 2018, 4558), which increases the perceived social presence of communication (Jeong and Lee 2017). Unsurprisingly, the central motives for Instagram use are social interaction with others, knowledge about others, documentation of everyday life, and the possibility of self-expression (Lee et al. 2015; Sheldon and Bryant 2016).

The use of Instagram provides several positive implications for adolescents, such like it may promote and enhance interpersonal connections with peers (Swist et al. 2015). Furthermore, filters and effects let users edit and experiment with their self-presentation online, thus Instagram provides adolescents the opportunity to edit and experiment with public personas (Baker and Walsh 2018; Wiederhold 2018). In all of this, Instagram may foster identity formation, community-building, and creativity (Schurgin O'Keeffe and Clarke-Pearson 2011; Swist et al. 2015). By sharing peer norms and collective identities, implicated by Instagram, adolescents develop their identity (boyd 2014; Erikson 1959, 1968), a sense of belonging, making them feel like part of a community (Swist et al. 2015).

However, the platform also carries risks to emotional well-being: Swist et al. (2015) indicated how these new technologies are contributing to poorer mental health outcomes. 11- to 16-year-olds responded with «cyber bullying,» «seeing stuff you don't want to see, like porn,» «making you feel envious of others,» «strangers,» and «it puts you under pressure to make your life out to be amazing» (Lilley, Ball, and Vernon 2014, 11) when asked about the downsides of SNS. What becomes obvious is the risk of experiencing «upsetting and potentially harmful content and practices» (Swist et al. 2015, 68) which have been shown to be associated with decreased self-efficacy, happiness, and satisfaction with life, and increased depression and loneliness (Mackson, Brochu, and Schneider 2019; Santarossa and Woodruff 2017).

These impacts of Instagram on adolescents' well-being are, though already reflected in many works, still in the focus of academic attention in this context today. Scholars have argued that the effects, whether positive or negative, are socially determined (Swist et al. 2015), and with the preceding implications in mind, examining the role of peers in this process seems important (Yau and Reich 2018). Belonging and self-disclosure are important processes for identity development (which can be fostered by Instagram), but are, foremost, peer processes (Davis 2012). Generally, peers can be defined as a group of age mates with «similar background, tastes, values, and

interests» (Brown and Larson 2009, 76). They «constitute a subset of interactions and activities that contribute to learning social norms and developing values» and «might be affiliated with or centered on prosocial characteristics and antisocial or deviant behaviors» (Conley and Vasudevan 2017, 581). In the context of SNS, the peer group consists of strong ties, defined by more frequent communication, increased intimacy, and contact in the offline world, and weak ties, which do not necessarily require a pre-established offline relationship (Ouwerkerk and Johnson 2016; Schrock 2016).

WHO (2019) defines adolescence as a period with the most rapid human development, in which «both the individual and the environment influence the changes taking place.» From a normative perspective, the role of peers is amplified, which again mirrors adolescents' reasons for using Instagram. The peer group defines norms, which consist of behaviors are acceptable and desirable, and which are not, on SNS such as Instagram and the offline world alike (Chua and Chang 2016; Geber and Hefner 2019; Geber, Baumann, and Klimmt 2019; Geber et al. 2019). Concrete, Yau and Reich (2018, 201) identified three peer norms that underlie the self-presentation of US adolescents on Instagram: 1) appear interesting, 2) appear likeable, and 3) appear attractive. These norms are both injunctive, as adolescents perceive these norms as something they should obey to, and descriptive, as adolescents observe how their peer group abides to them and in consequence, act accordingly. With these established norms, the peer group exerts pressure on its members: It demands the norms to be respected and members of the group behave accordingly; if they do not, adolescents fear penalties. Penalties on Instagram range from negative feedback and harsh comments to bullying. Chua and Chang (2016) showed how adolescents adapted to media-dictated standards of beauty on Instagram, which became peer norms, out of fear of being judged by others.

It can be summarized that adolescents are exposed to many peer influences (Lilley, Ball, and Vernom 2014). They encounter feelings of belonging and exclusion, of individuation and adaptation, and of imposed values and norms, from their peer group (Mascheroni and Vincent 2016). We define these influences as perceived pressure to align one's needs with expectations in the SNS environment, expectations that are, in turn, determined by peers (boyd 2008). Despite the relevance of Instagram for adolescents and the interaction with peers there, the perceived forms of peer pressure and the coping strategies of adolescents have rarely been studied so far.

3. Forms of Social Peer Pressure on Instagram

When it comes to the specific forms of pressure on Instagram, one has to first differ between social and/or (socio-)technical forms of pressure. Technical modalities of SNS may add to the magnitude of the pressure exerted on adolescents, for example,

in the case of Snapchat, with its stories disappearing after 24 hours. Although Instagram added a «story» option similar to Snapchat, this platform is defined by the permanent display of pictures posted on one's personal feed. We focus on social peer pressure on Instagram which is defined in three ways: communication urge, fear of missing out, and feeling of conformity.

3.1 Communication urge

Permanent availability can be a burden for adolescents (Mascheroni and Vincent 2016). Instead of a feeling of solidarity, communication stress can arise (van den Bulck 2003; van Djick 2013; Walsh, Whiten, and Young 2008, 2009). Although this may be related to the adolescent's subjective perception, the perceived stress may be actively caused by the social environment. As adolescents use SNS primarily to maintain interpersonal relationships (Lilley, Ball, and Vernom 2014), peers can exert pressure to be available at all times and to respond to news just in time (Seiffge-Krenke, Aunola, and Nurmi 2009).

3.2 Fear of missing out

Mobile media offer the possibility to communicate with peers independent of time and place, in which the needs for closeness and group membership can be satisfied. However, the described constant contact with relevant others can also lead to a strong desire to always be up-to-date and thus, convey the feeling of constantly missing something important (Klimmt et al. 2018). This is called «Fear of Missing Out» (FoMO; Przybylski et al. 2013). Approximately 91 % of adolescents feel the need to stay informed about their circle of friends, which is a primary reason to use SNS such as Instagram (Feierabend, Rathgeb, and Reutter 2018). A correlation between the duration of online use and the feeling of loneliness becomes obvious: Those who often feel lonely use the Internet for an above-average period of time (Albert et al. 2019). Accordingly, participation in social media becomes even more important, because adolescents can obtain the information they urgently need (or *feel* they need), and thus, counter the fear of being excluded from something relevant in their peer group. However, this urge can be accompanied by stress (Reinecke et al. 2016). Feeling stressed resembles a cycle: Adolescents fear they are missing something on SNS and therefore, use mobile media more frequently, which, in turn, favors the feeling of stress and can lead to even more use. Aside from the perceived pressure, the fear of missing out can climax in exclusion from the group, a penalty by peers for disobeying peer norms (see Chua and Chang 2016).

3.3   Feeling of conformity

Adolescents must adapt to peer norms if they wish to avoid sanctions. Sanctions can range from peer exclusion to bullying (Festl 2016; Festl et al. 2017). Social peer pressure can affect risky multimedia activities, such as publishing personal information, contacting strangers, or sending intimate images. The extent of the influence depends on the degree of actual or assumed appreciation in the group (Baumgartner, Valkenburg, and Peter 2011). This influence can put pressure on adolescents to adapt to peer norms to consolidate or increase their social status within their peer group (Festl, Scharkow, and Quandt 2015). In particular, adolescents with low self-esteem adapt to peer norms, especially when exposed to peer pressure (Zimmermann et al. 1997).

Although much research focuses on understanding the negative causal effects of SNS (e.g., on the link between Instagram use and depression, Lup, Trub, and Rosenthal 2015; see also Frisont and Eggermont 2015; Lee et al. 2014; Wolfers, Festl, and Utz 2020) and the role of the peers is known to be an important one (e.g., Yau and Reich 2018), whether the pressure in the context of SNS might be specifically arising from social interaction with peers has not been analyzed, especially in the context of Instagram as a platform for visual self-presentation. Furthermore, primarily surveys are used (Swist et al. 2015), leaving out the possibilities of a qualitative approach for deeper understanding in this highly social and possibly unconscious behavior. To fill this research gap, this paper analyzes in a first step how exactly adolescents perceive different forms of social pressure exerted by their peers on Instagram. The paper follows a methodological qualitative approach that openly captures all forms of peer pressure without focusing from the outset only on it's positive or negative effects. Therefore, our first research question is: *Which concrete form of peer pressure do adolescents perceive when using Instagram (RQ1)?*

4.   Coping with Social Peer Pressure

The perception of peer pressure implies the question of how adolescents deal with it. To investigate adolescents' coping strategies on Instagram, this paper makes use of the basal psychological concept of coping, as defined by Folkman and Lazarus (1980, 223): It «refers to the specific way, both behavioral and psychological, in which individuals master, tolerate, reduce, or minimize stressful events.» Lazarus (1993, 8) described coping as a process in which «a person's ongoing efforts in thought and action to manage specific demands are appraised as taxing or overwhelming.» Coping includes the level of action and the level of cognition. The individual tries to balance perceived external pressure with his or her psychological, physical, and social well-being. Ideally, coping develops new skills that help the individual to cope in similar situations. Coping can also be aimed at short-term relief but does not solve

the problem in the long term. The empirical research of the past 20 years reached consensus on two theoretical modes of coping, which was to draw a distinction between avoidant and active coping (Roth and Cohen 1986).

Regarding our research interest, this concept seems particularly appropriate as coping strategies are highly individual and defined by situational adaptability.

> «[C]oping is preceded by situation-specific appraisals that influence the selection of coping strategies. Consequently, coping responses are likely to depend on the particular situation and specific characteristics of the problem at hand» (Seiffge-Krenke Aunola, and Nurmi 2009, 261).

As coping styles are highly contextual, they (must) change over time and across situations to be effective (Lazarus 1993). Therefore, we assume that specific coping patterns may be developed by adolescents in the framework of challenges with social peer pressure on Instagram.

4.1 Active coping

This strategy is characterized by its problem-solving orientation. The individual actively deals with the stressor and tries to change something in the situation (Folkman and Lazarus 1980). This coping strategy also includes the mindset of the person concerned, the will to change something in the situation, to acquire solution strategies, or to play through possible solution paths in one's head, and to anticipate results (Seiffge-Krenke, Aunola, and Nurmi 2009). Thus, active coping strategies are evaluated positively regarding their effectiveness and long-term benefit. Adolescents' functional active coping strategies include seeking information or advice and accepting support from their social environment (Dumont and Provost 1999). Social support seeking may be the most influential strategy for adolescents with incurring peer stressors (Saha et al. 2014). The peer group can foster a sense of belonging and security, which might help adolescents. Amichai-Hamburger (2005) described self-confidence that goes hand-in-hand with identification as part of a group. This indicates support on an emotional level, that adolescents might experience. As they are always in contact with each other, experiences can be shared, and solutions developed. The peer group offers orientation and stabilization, and enables confronting stressors together instead of alone. Furthermore, when it comes to SNS modalities, adolescents have the advantage of being as technically well-versed as their peers (Schurgin O'Keeffe and Clarke-Pearson 2011). Thus, the peer group may be of help when dealing with technical-based challenges on Instagram as well.

4.2 Avoidant coping

This coping strategy represents a «defense system» (Folkman and Lazarus 1980, 221). The focus is on the reduction of tension and stress, although nothing about the stressor itself is being changed (Dumont and Provost 1999). Instead, one often adapts to it to avoid negative emotions or sanctions. Thus, avoidant coping strategies are appropriate for reducing immediate negative emotions and excitement in the short term, without long-term reduction (Sandler et al. 2000). The individual uses selective perception in a situation, tries to ignore the situation or the stressor completely, or distances him- or herself from his or her needs and emotions (Folkman and Lazarus 1980). To avoid negative emotions or sanctions, adolescents may be tempted to adapt to their peers. Sanctions, such as exclusion or bullying, are especially detrimental for adolescents, due to their focus on their peer group. Thus, the motivation to avoid sanctions may be correspondingly high. Chua and Chang (2016) showed how adolescents try to meet their peers' norms of physical beauty, editing photographs, using makeup, as well as planning and staging pictures. In reaction to critiques of the pictures, adolescents adapt their actions. This coping style is regarded as less functional, especially for adolescents, because they do not acquire any long-term effective action skills.

Previous research on coping concentrated on drastic curtailments in the lives of children and adolescents (e.g., Chen and Lee 2013; Frisont and Eggermont 2015; Lee et al. 2014; Wolfers, Festl, and Utz 2020). Less consideration has been given to dealing with everyday challenges triggered by the use of SNS, which is a pressing issue in the present, regarding the importance and omnipresence of SNS with mobile media. Although the role of the peer group is known to be an important one, not much is known about their impact on coping. Therefore, in a second step, this work will take an exploratory approach to the way in which adolescents cope with the pressure they face. Furthermore, it has yet to be evaluated by using a qualitative research approach how adolescents cope with social peer pressure on Instagram. To fill this research gap, we use an explorative qualitative approach and the two major coping strategies (active and avoidant coping) as a basic grid serving as framework to systematize Instagram-specific strategies of adolescents. Therefore, our second research question is: *How do adolescents cope with perceived social peer pressure on Instagram (RQ2)?*

5. Method

To answer both research questions, explorative in-depth interviews were conducted. In awareness of the fact that well-tested scales exist for perceived peer pressure and coping strategies (e.g., Brown, Clasen, and Eicher 1986), a qualitative research approach was deliberately chosen. This methodological design is well-suited for examining mindsets, opinions, and behaviors (Flick 2018) because it is often difficult

for adolescents to express themselves about these complex and subconscious perceptions or to scale approval or rejection. Furthermore, focusing only on negative effects – as previous research often does (e.g., Frisont and Eggermont 2015; Lee et al. 2014; Lup, Trub, and Rosenthal 2015; Wolfers, Festl, and Utz 2020) – was ruled out by the explorative, qualitative approach. Finally, because coping strategies are highly individual and develop situational, a qualitative approach provided the possibility to survey the specific coping patterns which may be developed by adolescents in the framework of challenges with social peer pressure on Instagram because this methodological approach offered more time and space to reflect openly on the perception and following actions, especially with regard to coping strategies on SNS/Instagram.

5.1 Sample characteristics

A total of 30 interviews were conducted in May and June 2018. Participants were recruited through a purposive-sampling approach to cover as broad a spectrum of sociodemographic backgrounds as possible (age, gender, and school type; Lindlof and Taylor 2011; Ritchie et al. 2014). The interviewees consisted of 10 boys and 20 girls between 14 and 17 years of age, the strongest Instagram usage group with active Instagram accounts (Feierabend et al. 2020). When recruiting, care was taken to ensure equal distribution of school types (lower secondary school, secondary school, grammar school). All adolescents came from XXX (information blinded for the review process) or neighboring communities. The interviews were conducted face-to-face, recorded, transcribed, and anonymized – the names in the following results are fictional and do not relate back to their real name. Before the interviews, adolescents and their parents gave their written consent and were informed about data collection, data protection, and anonymization. In addition, they had the opportunity at any time during the interview to ask follow-up questions, not to answer questions, and to stop the interview if necessary. The average interview duration was 35 min.

5.2 Interview guide and analysis

The development of the interview guide was theory-driven. It was based on the theoretical assumption named above and consisted of two sections. The third aspect (coping) was inductively collected through line-by-line coding of the whole interview transcript, since these subconscious processes were unlikely to be specifically identifiable by the adolescents.

Instagram use and perceived peer norms: In the first section, the use of Instagram (compared to other SNS, e.g., Facebook and Snapchat) and perceived norms on Instagram among peers were recorded. The aim was to confirm that results from previous studies were applicable to our specific sample as well (e.g., Chua and Chang

2016; Geber and Hefner 2019; Geber, Baumann, and Klimmt 2019; Geber et al. 2019; Yau and Reich 2018).

Peer pressure: The second section focuses on adolescents' ability to reflect on the role their peers play. Based on the state of research on risks on SNS and Instagram in particular (i.e., communication urge, Mascheroni and Vincent 2016; FoMO, Przybylski et al. 2013; feeling of conformity, Baumgartner, Valkenburg, and Peter 2011), it was investigated whether perceived social pressure exerted by the peer group became evident in the adolescents' statements.

Coping: Line-by-line coding of the whole interview was used, as it was unlikely that major coping strategies of adolescents would manifest at particular points in the interview, due to the lack of introspective capability of the adolescents. The aim was not to look for confirmation of already known active and avoidant coping strategies (e.g., Folkman and Lazarus 1980; Lazarus 1993), but to openly capture, through the articulation of the adolescents, how they concretely act when they perceive peer pressure on Instagram.

All sections were transferred in 19 main questions (up to four follow-up questions). If answers to a specific follow-up question had already been given, the question was omitted. In a pretest, the questions, their logical sequence, and comprehensibility were examined. In addition, the pretest served as interviewer training, thus ensuring a uniform procedure for interviewers acting independently.

All interview transcripts were read, marked, and jointly analyzed by two of the three authors. All analysis steps for each transcript were recorded in Excel spreadsheets, condensed, and jointly discussed and interpreted in order to meet the quality criterion of intersubjective comprehensibility (Meyen et al. 2019) and to identify similarities and differences between the statements of the adolescents.

The construct of perceived social peer pressure is complex so that latent connections of meaning and unconscious processes in adolescents became apparent only after each entire interview transcript was analyzed. Consequently, the individual constructs, which are the research focus of this work, were not recorded in fixed blocks. A category system developed from the state of research served as the basis for the analysis and for the interview guideline. The two broad categories of social peer pressure perception and coping strategies were operationalized deductively based on the state of research and supplemented inductively during the analysis of the interview transcripts by further characteristics, concrete expressions, and if necessary, mixed forms. Furthermore, categories for adolescents' Instagram specific coping strategies were developed inductively.

Social peer pressure perception is the recognition of potential dangers, such as communication stress (e.g., Baumgartner, Valkenburg, and Peter 2011; Mascheroni and Vincent 2016; Przybylski et al. 2013). This includes conscious naming and unconscious rewriting of risks. Adolescents' experiences, as well as descriptions of external

experiences, were categorized. The focus was on the perception of the urge to communicate, the fear of missing out, and the feeling of conformity. In addition, during the analysis, the inductive characteristics of orientation toward the aesthetic ideals of the peer group and reflection of the external impact were recorded as new sub-categories.

How adolescents deal with the perception of the pressure exerted by Instagram was analyzed in the category *coping with pressure* (e.g., Folkman and Lazarus 1980; Lazarus 1993). Adolescents' strategies were embedded and systematized in this basic grid. *Active coping* involves adolescents' active attempt to change something in the situation and to seek help. In the context of Instagram, this means, for example, dealing resolutely with hate comments or addressing parents and peers. Adolescents' level of action as well as their cognitive handling of pressure is considered. On Instagram, for example, this means enduring dissonance between what is expected of the environment and one's needs. Active coping was operationalized as the reinforcement of one's mindset, the creation of the media environment according to one's needs, and the orientation toward peers for help and support. *Avoidant coping* on Instagram is characterized by avoidance behavior. This is the case when adolescents adapt to peer norms without changing the situation. By adapting, adolescents can only avoid negative sanctions. This includes the adaptation of one's mindset as well as the orientation toward peers as a joint adaptation to the perceived pressure.

6. Results

6.1 Perceived Social Peer Pressure

To answer the first research question, we analyzed the interviews concerning the perception of social peer pressure. This pressure is perceived by adolescents in five dimensions, which are expressed as peer norms: (1) fear of missing out (Przybylski et al. 2013), (2) urge to communicate (e.g., Mascheroni and Vincent 2016), (3) feeling of conformity (Baumgartner, Valkenburg, and Peter 2011), (4) orientation towards aesthetic ideals of the peer group, and (5) reflection of external impact. While the first three forms confirm the well-studied forms of perceived peer pressure also for Instagram, the last two forms expand the knowledge base and prove the relevance of norms as a cause for perceived social peer pressure.

1. *Fear of missing out*. This pressure manifests in the perception of being isolated from communication with others without the use of Instagram. Adolescents are afraid of missing something. «I don't want to delete it (Instagram) because then I won't get to catch up on what's going on with them (her peers),» Gloria (17)

explained. It is important for adolescents to keep in touch with friends. Tina (14) formulated this point very clearly: «I do believe I would miss something out and that I would not be able to join the conversations.» This pressure of missing something is intensified by the story function, because this content can be accessed for only a limited time. In addition, peers seem to set the norm to use Instagram regularly, and only their content is shared. Non-use of the application automatically leads to exclusion from peer communication, as Diana (15) states: «I didn't get my cell phone unlocked for a while, so I was a bit out of touch with the world. That was a weird feeling, I feel isolated from the world.»

2. *Communication urge*. One consequence of the fear of missing out is the compulsion from peers to always be online and reachable, which is also perceived as social norm. Adolescents are encouraged by their peers to react to contributions (e.g., comment, share, or like) and to follow accounts to be up-to-date. This demand is perceived as pressure, especially regarding the time needed and the distraction. Gloria (17) describes: «You have a need to share. When something nice happens or something looks nice, you always have to share it, I don't know, it's really awful.» Some adolescents talk about self-discipline, not having to react immediately, and report how they cannot maintain it. «Sometimes, it might be annoying if the mobile phone is lying there, and someone is texting you, and you think, you should be paying attention (to the class), and you text back anyway» (Olivia, 17). Despite the resolution of not wanting to react, group pressure is high enough to break with the resolution. At the same time, adolescents are encouraged to share content with others and present themselves on Instagram. This is perceived as «strenuous» (Hannah, 16) and described as a «need to communicate» (Gloria, 17), but adolescents do not question it. Taking photos and putting them online is done «automatically» in an everyday routine (Gloria, 17).

3. *Feeling of conformity*. This pressure, perceived as an automatism, too, manifests that adolescents have to behave analogously to the peer norm. This norm consists of the application's use (downloading the app). Those who do not use Instagram are not only excluded from peer group communication («I felt like an outsider,» Daniel, 15) but also are sanctioned for it (e.g., ridiculed), see Rita (15): «A friend of mine always says 'Can't you just upload *normal* pictures?'» and Ina (15) «And if you post something funny, then you are immediately made out to be weird by the others.» Most feared by the adolescents is to be excluded from the group entirely. The pressure emerging from this leads to suppressing the concerns about Instagram, as Nina (14) said, «I didn't really want to download it, but then I thought, I'll download it.» This peer norm also influences the way people present themselves. Pictures are designed to conform to meet peers' demands and to avoid possible

sanctions (e.g., negative reactions). Adolescents have internalized this norm and automatically adapt their self-presentation, partly without reflecting on it, partly they reflect on it, but still behave according to the expectations of their peers.

4. *Orientation towards aesthetic ideals of the peer group*. If pictures are posted, then the adolescents feel pressure to show themselves from their «most beautiful side» (Gustav, 16). One should present oneself perfectly and if necessary, stage oneself. There is a compulsion to «only upload good pictures» (Henry, 17). At the same time, adolescents see only beautiful pictures on Instagram, perceive these to be the norm, adapt this norm, and thus, force peers to present themselves on Instagram in accordance with the norm, which, in turn, can influence their own presentation. This is i.e., explained by Bea (14): «Most of us try to post pictures where they look perfect. Mine don't always look perfect, but one tries to make it look as good as possible.» The peer group observes exactly who posts what content and how. An ideal image of the self to be shown on Instagram gives adolescents the possibility to present themselves only through visual elements. They reported several attempts or staged photo shoots to take the 'perfect' picture. Moreover, only positive emotions and moments are shared, the «good sides of life» (Mia, 15). «I wouldn't post a picture of myself wailing and comment how shitty my day was» she said. The norm of orientation toward aesthetic ideals also includes the erasure of images that generate too few reactions.

5. *Reflection of external impact*. Adolescents anticipate how essential the effect of their self is on others. They constantly assess their external impact and their peers' reactions. At the same time, they feel the pressure of having to control which images of them are available: «How others see you. Of course, you just want to control that somehow» (Diana, 15). It is important for adolescents to make a positive impression on their peers and to adapt their self-presentation accordingly. Positive feedback (quantifiable in the form of likes and comments) motivates them to further adapt to the perceived peer norm.

6.2 Interim conclusion (RQ1)

Perceived peer pressure has an impact on adolescents, although they are not completely aware of it. They described a kind of diffuse feeling of unease, ranging from indisposition to concrete anxiety, which illustrates the emotional or psychological strain of pressure on Instagram. Adolescents on Instagram perceive different variants of pressure on a daily basis, which is triggered by peers and adapted in their actions. Pressure is expressed in peer norms, which affect use of the application, constant accessibility (action and reaction), and self-presentation. Peers sanction non-standard

behavior (i.e., exclusion from communication, negative reactions to posted pictures). When adolescents adapt to peer norms, they are simultaneously supporting the establishment of these norms and helping create further pressure. Thus, a cycle of perceived pressure and action is created, similar to the cycle provoked by FoMO (Przybylski et al. 2013): The fear of missing out on something leads to higher usage, which, in turn, favors perceived stress and even more usage. Adolescents reflect only to a certain extent on their perception of pressure, or they do reflect but show an inability to express the reflection in words and more so, behave in accordance to perceived peer norms nevertheless. The high number of statements in this respect made it clear how strongly the perceived pressure effects adolescents. However, it is often difficult for them to articulate their thoughts and fears. Instead, they describe the automatism of their actions (without questioning the causes), or they deny their feelings altogether, degrading them as «unnecessary» and «inappropriate» as if feeling that way is not allowed.

6.3 Coping with Perceived Social Peer Pressure

The second research question examined how adolescents cope with perceived social peer pressure and which patterns may arise. In the interviews, five coping strategies were identified, some active, some avoidant (e.g., Folkman and Lazarus 1980; Lazarus 1993): (1) reinforcement of one's mindset (active), (2) creation of media environment according to one's needs (active), (3) orientation toward peers for help and support (active), (4) adaptation of one's mindset (avoidant), and (5) orientation toward peers as a joint adaptation to the perceived pressure (avoidant).

1. *Reinforcement of one's mindset*. This mindset manifests in the awareness of and insistence on one's needs and the composure to withstand dissonance—despite perceived group pressure. This active coping strategy starts with posting pictures: In this coping strategy, priority is given to one's personal liking of the contributions; peers and their self-representation play only a subordinate role. «I only post what I want, and what I feel comfortable with» (Daniel, 15). He also described the limits of his actions, within which he felt comfortable and which he did not exceed. Adolescents attach greater importance to their needs and do not weigh them against peer norms and expectations. «Yeah, some of my friends do [certain poses and trends], but I tell them it doesn't look good» (Bea, 14). Their personal opinion is the measure of their actions, and they show certain sovereignty and feelings of self-worth.

2. *Creation of a media environment according to one's needs*. For the majority of adolescents, designing the media environment according to their needs is a suitable strategy for dealing with the pressure exerted by their peers on Instagram and thus, can be typologized as an active, problem-solving oriented coping strategy. For example, adolescents take breaks from Instagram when the perceived pressure becomes too great. Bea (14) turned off her mobile phone at the weekend, and did not use it again until Monday. In addition to these short-term breaks, adolescents also take bigger actions when necessary, for example, when «it becomes overwhelming. When you've got a lot on your mind and it starts to annoy you, when you get overwhelmed with texts» (Nils, 16). One way to deal with this perceived pressure is to delete the account or uninstall the app. The design of this media environment also includes deciding whom adolescents choose to follow and who is allowed to follow them. Elena (16) tried to secure her privacy and thus, has a private account, because she does not «want people to see my pictures when the people seem strange to me from what I can see on their Insta-profiles.» Jana (15) stated, «you feel like you could control a little bit more who sees the pictures.» Both filtered the content of their media environment and reflected which content or which accounts they follow. Adolescents who use this active coping strategy are characterized by a solution orientation. This strategy is particularly evident in their approach to conflict resolution. These adolescents seek direct contact to solve conflicts («You simply ask them what's the issue,» Nils, 16). In the same way, they actively cope with negative comments or hate speech online: «I always disable the comment option under my posts, because you always get comments you know to be simply fake, from someone whom you do not know at all» (Rosa, 16).

3. *Orientation toward peers for help and support*. Adolescents give each other advice (e.g., on privacy settings), take care of each other, and make joint decisions. Olivia (17) had a friend who gave her general advice when she started to use the app: «That was the best advice because at the beginning you don't know your way around.» In this way, the peer contact in their joint experiences offered orientation, relatable support, and role models, effects that lasted until the present as Olivia (17) stated: She «still thinks about what she [her friend] said» when she uploads pictures today. In addition to general information and technical support, emotional support becomes evident. In exchanging credentials, adolescents tackle the overwhelming opportunities and challenges of Instagram together, for example, in sharing accounts (Tina, 14: «I think it's very important that we support each other. I also have access to his account.»). In this way, they not only protect themselves but also reduce complexity and the feeling of being overwhelmed alone. Finally, they make joint decisions about what to post or not to

post. Adolescents sound out the limits with which they feel comfortable. In the process, new norms emerge in contrast to existing peer norms. This close contact with peers (in contrast to others) offers adolescents emotional support and confirms the development of their self-esteem and feeling of sovereignty. Peer orientation can be an active coping strategy.

4. *Adaptation of one's mindset*. In contrast to active coping strategies, avoidant coping pursues the approach of acting evasively and adapting one's behavior to existing peer norms to deal with perceived pressure. Dissonant peer feedback leads to self-doubt, which motivates adolescents to change their opinion: In case of negative peer feedback, Olivia (17) would be «unsettled but I'd think ‚No [the picture] is not ugly, but then I'd tell myself it's ugly and then I'd delete it because I wouldn't find it beautiful myself anymore.» This strategy of adaptation to the demands and reactions of others may serve adolescents' self-protection. Not only can they avoid negative reactions in this way, but they can also avoid the hurt that comes with rejection: If they do not like a picture themselves, their peers' rejection does not hurt as much. The adolescents are partly aware of what is happening— like in the case of Olivia, that they actively persuade themselves that a picture is no longer beautiful and then delete it. Nevertheless, the deletion itself is not questioned. This action can be an indication that the coping strategy has proved helpful and necessary, and why adolescents continue to use it.

5. *Orientation toward peers as a joint adaptation to the perceived pressure*. Although peers can offer help and support, another strategy is to adapt jointly to social pressure. Thus, adolescents orient themselves by their peers' behavior and in doing so avoid sanctions (e.g., exclusion of the peer group). This orientation begins with downloading the app, as Olivia (17) stated: «Everyone had it, and they all asked, 'Why don't you have it?' And then I started thinking, I should download it myself and just see what everything is about.» If everyone in one's peer group uses Instagram, then one cannot and may not close oneself off from it (see also FoMO, RQ1). In this way, adolescents adapt their behavior to that of their peers automatically, though they might reflect on it, they are either unable to put their feelings into words and more so, act in a way to avoid conflicts by adapting peer norms. Adolescents described a certain standard on Instagram, which everyone adheres to and nobody questions. Like Diana (15), who described how she made comments under friends' pictures, although she «thought it was a little weird at first,» but since her friends did it exactly the same way to her, she said «then I'll do it that way too.» Although this standard is not fixed, everyone knows what he or she can post. For this purpose, pictures may also be staged, or only those that allow the adolescent to appear in a positive light are posted. Adolescents try to

avoid following sanctions in the form of negative or missing reactions, as they delete the images that are rejected by their peers: «I delete the picture because it doesn't seem to go down well with others» (Diana, 15). This, in turn, can generate attention and pressure that adolescents want to avoid by adapting the peer norm. They are characterized by pronounced impression management and want to control the external impact of their self-representation, because constant control of the external impact may increase the subjective feeling of control by better anticipating the feedback.

6.4 Interim conclusion (RQ2)

Active coping strategies are, according to Folkman and Lazarus (1980), problem-solving oriented. Adolescents deal very consciously with the situation. They are aware of their needs, which they do not put aside because of a strong peer connection and represent their opinion to others. Because these adolescents are more independent on their peers, they consider consequences for their personal well-being (e.g., uninstalling the app). Avoidant coping strategies are much more peer-oriented than active strategies. To avoid stress or sanctions, adolescents anticipate and accept peer pressure. They either try to adapt from the start not to get into unpleasant situations, or they neglect their needs afterwards to justify their decisions.

The interviews also revealed mixed forms of action strategies that can be assigned to both active and avoidant coping. This result is illustrated by a phenomenon that emerged during the course of the interviews: Many of the adolescents either had two Instagram profiles with different privacy settings or shared their profile with friends. They presented themselves on their public accounts in the way that peers set as the norm and thus, gave in to peer pressure (avoidant). However, they also created a second media environment according to their needs. On the other account, they did not have to pay attention to peer norms, because they made a conscious choice who could follow this account (active). Lilli (14) described it this way:

> «One account is public […] I rather watch what I post, where I post pictures with friends from time to time. And on the other one I simply post everything. That's a bit of a spam account, it's also private.»

Furthermore, adolescents have joint accounts with their best friends, where they act together to reduce complexity. They make decisions together and do not have to bear the responsibility alone, as illustrated in the explanation of the strategies. In this manner, Henry (17) described feeling pressured to upload only «good pictures.» This was not the case on the account he shared with friends. In this way, they decided together what to post and what not («I ask my friends, 'Should I post this picture on our account?' and then we decide together,» Felix, 15). In the group, they supported

each other emotionally in the event of negative reactions from outsiders (active strategies). At the same time, they did not act confidently, and based their actions on the peer norms (avoidant strategies) to minimize uncertainty.

7. Discussion

The aim of this study was to assess the perception of peer pressure on Instagram among adolescents and to analyzes their active and avoidant coping strategies. As our results show, adolescents' needs, values, and opinions are repeatedly confronted by the norms and expectations of their environment. This confrontation causes a great deal of friction, especially with the important peer group. In line with previous research, the findings illustrate the relevance of the peer group for adolescents and its influence on them (e.g., Chua and Chang 2016; Geber and Hefner 2019; Geber, Baumann, and Klimmt 2019; Geber et al. 2019; Yau and Reich 2018). These influences are described on Instagram as pressure that can lead to stress (RQ1), which shows both in terms of fear of missing out (e.g., Przybylski et al. 2013), communication urge (e.g., Mascheroni and Vincent 2016), and feeling of conformity (Baumgartner, Valkenburg, and Peter 2011). However, besides these known forms of peer pressure, results show that adolescents additionally perceive the pressure to orientate towards aesthetic ideals of the peer group and to anticipate and reflect about external impacts on their self-presentation. There seems to be a vicious cycle, the beginning and end of which are difficult to discern: Adolescents perceive peer norms on Instagram, adapt to them, and thus, shape the enforcement of the norms on Instagram. This behavior, in turn, strengthens the perception of the norms, thus strengthening the pressure, which is then exerted.

However, the perception of pressure often manifests in a feeling of «diffuse discomfort» that cannot be characterized. Adolescents partly lack the ability to reflect on this, experiencing a diffuse discomfort but acting automatically in some cases. In other cases, they showcase signs of self-reflection, but disregarding their own needs still behave according to the expectations of their peers. This diffuse indisposition was very pronounced among the adolescents interviewed, which speaks of a high level of suffering and demonstrates again the benefit of the qualitative approach used in this study. Only through the openness of the methodological approach this finding could be recorded.

This perception of pressure is also problematic because they (outside their peer group) lack a contact person who takes their needs and perceived pressure seriously. «It was really good to talk to you about this,» explained Tina (14). Her relief showed the psychological strain of the rigorous peer norms on Instagram and puts adolescents' need for support outside the peer group into focus. Parents and the core family in addition to teachers are challenged. The perceived pressure affects adolescents'

mood and well-being in many ways. They are often unaware of their needs and neglect them, which can intensify the feeling of «discomfort.» Not only are negative emotions caused, but also positive feelings are impaired. The constant pressure on Instagram means that adolescents can no longer enjoy some moments.

This different awareness of adolescents' perception of pressure is reflected in their coping strategies. Nevertheless, they manage to apply action strategies in dealing with peer norms and perceived group pressure (RQ2). In doing so, they implement action strategies or look for ways to avoid pressure (e.g., Folkman and Lazarus 1980; Lazarus 1993). These strategies are peer-oriented. Peers are the cause of perceived pressure and a way of dealing with it (problem-solving and avoidance). In addition, mixed forms of coping strategies illustrate the relevance of the peer group for adolescents. As an action strategy, they design a media environment according to their needs.

A limitation of our study is that interviewing adolescents about their perceived peer pressure might trigger only forms of pressure of which they were aware. In addition, self-reports mainly assess those social norms that adolescents are conscious and are able to articulate (Flick 2018). To handle with this limitation an option could be to track first adolescents' profiles on Instagram, analyze their profiles, and then use these results as primary task and ask them about the backgrounds of each post and reaction on Instagram. Furthermore, all results are based on the recalled perceptions of the adolescents in the moment of the interview. Therefore, long-term studies are needed to more adequately assess the development process of both the individual and situational perception of social peer pressure and developed coping strategies.

Besides these limitations, this study demonstrated that pressure on social media weighs heavily on adolescents, and that a large part of the pressure emanates from their peers. It also became clear that this pressure represents a great emotional burden for adolescents. At the same time, we showed how many processes take place automatically. This makes it all the more important to support adolescents in coping with these forms of peer pressure. For this purpose, however, it must first be understood which coping strategies they use to recognize where support can be offered. To be able to act and counter the perceived pressure, adolescents need motivational, emotional, and reflexive skills that can be promoted through media literacy programs. Only if adolescents become aware of their needs and demands, and can articulate and reflect on them, will they be in a position to act analogously to this knowledge. Ideally, sovereign action would manifest in that self-esteem does not depend on peers' reactions, and adolescents are prepared to endure confrontations and dissonances between their and their peers' opinions.

References

Albert, Mathieu, Klaus Hurrelmann, Gudrun Quenzel, Ulrich Schneekloth, Ingo Leven, Hilde Utzmann, and Sabine Wolfert. 2019. «Summary». In *Shell Jugendstudie 2019. Eine Generation Meldet Sich Zu Wort*, edited by Deutsche Shell Holding GmbH. Weinheim: Julius Beltz GmbH & Co. KG. https://www.shell.de/ueber-uns/shell-jugendstudie/_jcr_content/par/toptasks.stream/1570708594823/cc089c96f35209143fdfdcbead8365dc26f9a238/shell-youth-study-2019-summary-en.pdf.

Amichai-Hamburger, Yair. 2005. «Personality and the internet». *Computers in Human Behavior* 18, 1-10. https://doi.org/10.1016/S0747-5632(01)00034-6.

Baker, Stephanie Alice, and Michael James Walsh. 2018. «'Good Morning Fitfam': Top posts, hashtags and gender display on Instagram». *New Media & Society* 20, 4553-4570. https://doi.org/10.1177/1461444818777514.

Baumgartner, Susanne E., Valkenburg, Patti M., and Jochen Peter. 2011. «The influence of descriptive and injunctive peer norms on adolescents' risky sexual online behavior». *Cyberpsychology, Behavior and Social Networking* 14, 753-758. https://doi.org/10.1089/cyber.2010.0510.

boyd, danah. 2008. *Taken out of context: American teen sociality in networked publics*. Berkeley: University of California.

boyd, danah. 2014. *It's complicated: The social lives of networked teens.* New Haven.

Brown, B. Bradford, Clasen, Donna R., and Sue A. Eicher. 1986. «Perceptions of peer pressure, peer conformity dispositions, and self-reported behavior among adolescents». *Developmental Psychology* 22, 521–530. https://doi.org/10.1037/0012-1649.22.4.521.

Brown, B. Bradford, and James Larson. 2009. «Peer Relationships in Adolescence». In *Handbook of Adolescent Psychology*, ed. Richard M. Lerner, and Laurence Steinberg, 74-103. New York: Wiley.

Chen, Wenhong, and Kye-Hyong Lee. 2013. «Sharing, liking, commenting, and distressed? The pathway between facebook interaction and psychological distress.» *Cyberpsychology, Behavior, and Social Networking* 16, 728-734. https://doi.org/10.1089/cyber.2012.0272.

Chua, Trudy Hui Hui, and Leanne Chang. 2016. «Follow me and like my beautiful selfies: Singapore teenage girls' engagement in self-presentation and peer comparison on social media». *Computers in Human Behavior* 55, 190-197. https://doi.org/10.1016/j.chb.2015.09.011.

Collin, Philippa, Rahilly, Kitty, Richardson, Ingrid, and Amanda Third. 2011. *The Benefits of Social Networking Services: A literature review.* Melbourne: Cooperative Research Centre for Young People, Technology, and Wellbeing.

Conley, Tara L., and Lalitha Vasudevan. 2017. «Peer cultures». In *The SAGE Encyclopedia of Out-of-School Learning*, ed. Kylie Peppler, 581-583. Thousand Oaks: Sage.

Davis, Katie. 2012. «Friendship 2.0: Adolescents' experiences of belonging and self- disclosure online». *Journal of Adolescence* 35, 1527-1536. https://doi.org/10.1016/j.adolescence.2012.02.013.

Dumont, Michelle, and Marc A. Provost. 1999. «Resilience in adolescents: Protective role of social support, coping strategies, self-esteem, and social activities on experience of stress and depression». *Journal of Youth and Adolescence* 29, 343-363. https://doi.org/10.1023/A:1021637011732.

Erikson, Erik H. 1959. *Identity and the life cycle*. New York.

Erikson, Erik H. 1968. *Identity: Youth and crisis*. New York.

Feierabend, Sabine, Thomas Rathgeb, and Theresa Reutter. 2018. «JIM 2018. Jugend, Information, Medien. Basisstudie Zum Medienumgang 12- Bis 19-Jähriger in Deutschland». JIM-Study 2018. Youth, Information, Media] Edited by Medienpädagogischer Forschungsverbund Südwest. Medienpädagogischer Forschungsverbund Südwest. https://www.mpfs.de/fileadmin/files/Studien/JIM/2018/Studie/JIM2018_Gesamt.pdf.

Feierabend, Sabine, Thomas Rathgeb, Hediye Kheredmand, and Stephan Glöckler. 2020. «JIM-Studie 2020. Jugend, Information, Medien. Basisuntersuchung Zum Medienumgang 12- Bis 19-Jähriger». [JIM-Study 2020. Youth, Information, Media] Edited by Medienpädagogischer Forschungsverbund Südwest (mpfs). Medienpädagogischer Forschungsverbund Südwest (LFK, LMK). https://www.mpfs.de/fileadmin/files/Studien/JIM/2020/JIM-Studie-2020_Web_final.pdf.

Festl, Ruth. 2016. «Perpetrators on the internet: Analyzing individual and structural explanation factors of cyberbullying in school context». *Computers in Human Behavior* 59, 237-248. https://doi.org/10.1016/j.chb.2016.02.017.

Festl, Ruth, Scharkow, Michael, and Thorsten Quandt. 2015. «The individual or the group. A multilevel analysis of cyberbullying in school classes». *Human Communication Research* 41, 535-556. https://doi.org/10.1111/hcre.12056.

Festl, Ruth, Vogelgesang, Jens, Scharkow, Michael, and Thorsten Quandt. 2017. «Longitudinal patterns of involvement in cyberbullying: Results from a latent transition analysis among adolescents». *Computers in Human Behavior 66*, 7-15. https://doi.org/10.1016/j.chb.2016.09.027.

Flick, Uwe. 2018. *An introduction to qualitative research*. Thousand Oaks: Sage.

Folkman, Susan, and Richard Lazarus. 1980. «An analysis of coping in a middle-aged community sample». *Journal of Health and Social Behavior* 21, 219-239. https://doi.org/10.2307/2136617.

Frison, Eline, and Steven Eggermont. 2015. «The impact of daily stress on adolescents' depressed mood: The role of social support seeking through Facebook.» *Computers in Human Behavior* 44, 315-325. https://doi.org/10.1016/j.chb.2014.11.070.

Geber, Sarah, and Dorothee Hefner. 2019. «Social norms as communicative phenomena: A communication perspective on the theory of normative social behavior». *Studies in Communication and Media* 8, 6–28. https://doi.org/10.5771/2192-4007-2019-1-6.

Geber, Sarah, Baumann, Eva, and Christoph Klimmt. 2019. «Where do norms come from? Peer communication as a factor in normative social influence on risk behavior». *Communication Research* 46*, 708–730. https://doi.org/10.1177/0093650217718656.

Geber, Sarah, Baumann, Eva, Czerwinski, Fabian, and Christoph Klimmt. 2019. «The effects of social norms among peer group on risk behavior: A multilevel approach to differentiate perceived and collective norms». *Communication Research*. https://doi.org/10.1177/0093650218824213.

Global Kids Online. 2019. *Comparative report*. Florence: UNICEF.

Grieve, Rachel. 2017. «Unpacking the characteristics of Snapchat users: A preliminary investigation and an agenda for future research». *Computers in Human Behavior* 74, 130-138. DOI: 10.1016/j.chb.2017.04.032.

Haddon, Leslie. 2013. «Mobile media and children». *Mobile Media & Communication* 1, 89–95. https://doi.org/10.1177/2050157912459504.

Jeong, David C., and James Lee. 2017. «Snap back to reality: Examining the cognitive mechanisms underlying Snapchat». *Computers in Human Behavior* 77, 274-281. https://doi.org/10.1016/j.chb.2017.09.008.

Klimmt, Christoph, Hefner, Dorothee, Reinecke, Leonard, Rieger, Diana, and Peter Vorderer. 2018. «The permanently online and permanently connected mind. Mapping the cognitive structures behind mobile Internet use». In *Permanently online, permanently connected. Living and communication in a POPC world*, ed. Peter Vorderer, Dorothee Hefner, Leonard Reinecke, and Christoph Klimmt, 18-28. New York: Routledge.

Lazarus, Richard. 1993. «From psychological stress to the emotions: A history of changing outlooks». *Annual Review of Psychology* 44, 1-22. https://doi.org/10.1146/annurev.ps.44.020193.000245.

Lee, Eunji, Lee, Jung-Ah, Moon, Jang Ho, and Yongjun Sung. 2015. «Pictures speak louder than words. Motivations for using Instagram». *Cyberpsychology, Behavior and Social Networking* 18, 552-556. https://doi.org/10.1089/cyber.2015.0157.

Lee, Yu-Kang, Chang, Chun-Tuan, Lin, You, and Zhao-Hong Cheng. 2014. «The dark side of smartphone usage: Psychological traits, compulsive behavior and technostress.» *Computers in Human Behavior* 31, 373-383. https://doi.org/10.1016/j.chb.2013.10.047.

Lilley, Claire, Ball, Ruth, and Heather Vernon. 2014. *The experiences of 11-16 year olds on social networking sites*. London: NSPCC.

Lindlof, Thomas R., and Bryan C. Taylor. 2011. *Qualitative communication research methods*. London: Sage.

Lup, Katherina, Trub, Leora, and Lisa Rosenthal. 2015. «Instagram #Instasad? Exploring associations among Instagram use, depressive symptoms, negative social comparison, and strangers followed». *Cyberpsychology, Behavior, and Social Networking* 18, 247-252. https://doi.org/10.1089/cyber.2014.0560.

Mackson, Samantha B., Brochu, Paul M., and Barry A. Schneider. 2019. «Instagram: Friend or foe? The application's association with psychological well-being». *New Media & Society* 21, 2160-2182. https://doi.org/10.1177/1461444819840021.

Mascheroni, Giovanna, and Jane Vincent. 2016. «Perpetual contact as a communicative affordance: Opportunities, constraints, and emotions». *Mobile Media & Communication* 4, 310-326. https://doi.org/10.1177/2050157916639347.

Meyen, Michael, Löblich, Maria, Pfaff-Rüdiger, Senta, and Claudia Riesmeyer. 2019. *Qualitative Forschung in der Kommunikationswissenschaft. [Qualitative Research in Communication Studies]*. Wiesbaden: Springer. https://doi.org/10.1007/978-3-658-23530-7.

Ouwerkerk, Jaap W., and Benjamin K. Johnson. 2016. «Motives for Online Friending and Following: The Dark Side of Social Network Site Connections». *Social Media and Society* 2, 1-13. https://doi.org/10.1177/2056305116664219.

Przybylski, Andrew K., Murayama, Kou, DeHaan, Cody R., and Valerie Gladwell. 2013. «Motivational, emotional, and behavioral correlates of fear of missing out». *Computers in Human Behavior* 29, 1841-1848. https://doi.org/10.1016/j.chb.2013.02.014.

Reinecke, Leonard, Aufenanger, Stefan, Beutel, Manfred E., Dreier, Michael, Quiring, Oilver, Stark, Birgit, Wölfling, Klaus, and Kai W. Müller. 2016. «Digital Stress over the life span: The effects of communication load and internet multitasking on perceived stress and psychological health impairments in a German probability sample». *Media Psychology* 20, 1-26. https://doi.org/10.1080/15213269.2015.1121832.

Ritchie, Jane, Lewis, Jane, Elam, Gilliam, Tennant, Rosalind, and Nilufer Rhim. 2014. «Designing and selecting samples». In *Qualitative research practice*, ed. Jane Ritchie, Jane Lewis, Carol McNaughton Nicholls, and Rachel Ormston, 111-146. London: Sage.

Roth, Susan, and Lawrence Cohen. 1986. «Approach, avoidance and coping with stress». *American Psychologist* 41, 813-819. https://doi.org/10.1037/0003-066X.41.7.813

Saha, Runa, Huebner, E. Scott, Hills, Kimberly J., Malone, Patrick S., and Robert F. Valois. 2014. «Social coping and life satisfaction in adolescents». *Social Indicators Research* 115*,* 241-252. https://doi.org/10.1007/s11205-012-0217-3.

Sandler, Irwinn N., Tein, Jenn-Yun, Mehta, Paras, Wolchik, Sharlene, and Tim Ayers. 2000. «Coping efficacy and psychological problems of children of divorce». *Child Development* 71, 1099-1118. https://doi.org/10.2307/1132347.

Santarossa, Sara, and Sarah Woodruff. 2017. «#SocialMedia: Exploring the Relationship of Social Networking Sites on Body Image, Self-Esteem, and Eating Disorders». *Social Media and Society* 3, 1-10. https://doi.org/10.1177/2056305117704407.

Schrock, Andrew R. 2016. «Exploring the Relationship Between Mobile Facebook and Social Capital: What Is the "Mobile Difference" for Parents of Young Children?» *Social Media and Society* 2, 1-11. https://doi.org/10.1177/2056305116662163.

Schurgin O'Keeffe, Gwenn, and Kathleen Clarke-Pearson. 2011. «The impact of social media on children, adolescents, and families». *Pediatrics* 127*,* 800-804. https://doi.org/10.1542/peds.2011-0054.

Seiffge-Krenke, Inge, Aunola, Kaisa, and Jari-Erik Nurmi. 2009. «Changes in stress perception and coping during adolescence: The role of situational and personal factors». *Child Development* 80, 259-279. https://doi.org/10.1111/j.1467-8624.2008.01258.x.

Sheldon, Pavica, and Katherine Bryant. 2016. «Instagram: Motives for its use and relationship to narcissism and contextual age». *Computers in Human Behavior* 58, 89-97. https://doi.org/10.1016/j.chb.2015.12.059.

Smahel, David, Machackova, Hana, Mascheroni, Giovanna, Dedkova, Lenka, Staksrud, Elisabeth, Ólafsson, Kjartan, Livingstone, Sonia, and Uwe Hasebrink. 2020. *EU Kids Online 2020: Survey results from 19 countries*. London: EU Kids Online. https://doi.org/10.21953/lse.47fdeqj01ofo.

Swist, Teresa, Collin, Philippa, McCormack, Jane, and Amanda Third. 2015. *Social media and the wellbeing of children and young people: A literature review.* Perth, WA.

Van den Bulck, Jan. 2003. «Text messaging as a cause of sleep interruption in adolescents, evidence from a cross-sectional study». *Journal of Sleep Research* 12, 263. https://doi.org/10.1046/j.1365-2869.2003.00362.x.

Van Dijck, Jan. 2013. *The culture of connectivity: A critical history of social media*. Oxford: Oxford University Press.

Walsh, Shari P., White, Katherine M., and Ross McD. Young. 2008. «Over-connected? A qualitative exploration of the relationship between Australian youth and their mobile phones». *Journal of Adolescence* 31, 77-92. https://doi.org/10.1016/j.adolescence.2007.04.004.

Walsh, Shari P., White, Katherine M., and Ross McD. Young. 2009. «The phone connection: A qualitative exploration of how belongingness and social identification relate to mobile phone use amongst Australian youth». *Journal of Community & Applied Social Psychology* 19, 225-240. https://doi.org/10.1002/casp.983.

WHO. 2019. *Achieving universal health coverage for the world's 1.2 billion adolescents*. Available at https://www.who.int/maternal_child_adolescent/adolescence/universal-health-coverage/en/ (accessed 28 November 2019).

Wiederhold, Brenda Kay. 2018. «The Tenuous Relationship Between Instagram and Teen Self-Identity». *Cyberpsychology, Behavior, and Social Networking* 21, 215-216. https://doi.org/10.1089/cyber.2018.29108.bkw.

Wolfers, Lara, Festl, Ruth, and Sonja Utz. 2020. «Do smartphones and social network sites become more important when experiencing stress? Results from longitudinal data.» *Computers in Human Behavior* 109, Article 106339. https://doi.org/10.1016/j.chb.2020.106339.

Yau, Joanna C., and Stephanie M. Reich. 2018. «„It's just a lot of work". Adolescents' self-presentation norms and practices on Facebook and Instagram». *Journal of Research on Adolescence* 29, 196–209. https://doi.org/10.1111/jora.12376.

Zimmerman, Marc A., Copeland, Laurel A., Shope, Jean T., and Terry Dielman. 1997. «A longitudinal study of self-esteem: Implications for adolescent development». *Journal of Youth and Adolescence* 26, 117-141. https://doi.org/10.1023/A:1024596313925.