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**How does social media usage affect loneliness in youth? A  
systematic review**

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# Table of Contents

Abstract .....	1
1 Introduction .....	2
1.1 <i>Theoretical Foundations</i> .....	2
1.1.1 <i>Social media</i> .....	2
1.1.1.1 <i>Active/passive social media use</i> .....	4
1.1.1.2 <i>Loneliness</i> .....	4
1.1.2 <i>Loneliness</i> .....	4
2 Method.....	5
2.1 <i>Search strategy</i> .....	5
2.2 <i>Elegibility criteria</i> .....	6
2.3 <i>Studies selection</i> .....	6
2.4 <i>Bias risk within the individual studies</i> .....	8
3 Results .....	9
3.1 <i>Social Media Use Effects</i> .....	15
3.1.1 <i>Social Media Use Quality</i> .....	15
3.1.2 <i>Social Media Use Quantity</i> .....	16
3.2 <i>Antecedents of social media use</i> .....	16
4 Discussion.....	17
4.1 <i>Are the effects of social media use good or bad?</i> .....	17
4.2 <i>Do antecedents influence the level of loneliness?</i> .....	18
4.3 <i>How social media use affects loneliness in youth</i> .....	19
4.4 <i>Limitations</i> .....	19
4.5 <i>Possible directions</i> .....	20
4.6 <i>Conclusion</i> .....	20
Bibliography .....	22
Sitography.....	26



## **Abstract**

**Background:** Nowadays, social media platforms have become one of the most popular ways of socializing among young people. Precisely because of their centrality, the literature about them is extensive and difficult to summarize.

**Objectives:** The following systematic review, focusing on the relationship between social media usage and loneliness among youth, has the goal of bringing order to a much debated topic. This systematic review is intended to allow the reader to build critical thinking about the nature of the relationship between social media usage and loneliness in youth, to identify new areas of study to investigate and topics to clarify.

**Methods:** The bibliographic research, conducted on the SCOPUS and EBSCOHost platforms, was carried out in two parts. The first one, the study of theoretical literature, tried to trace back to the fundamental studies in the history of social media theories. The second part covers significant studies on the central theme of the research. In this regard, research from 2010 to 2022 was considered. At the end of the studies selection, the number of 19 studies was obtained. These articles were analyzed and discussed.

**Results:** The results illustrate the prevailing findings on the topic. It is shown how most of the articles focus on the study of the effects of social media use or on the antecedents that lead to it.

**Conclusions:** This systematic review represents a further step to collect and have a more precise idea of what multiple studies have investigated and demonstrated. The relationship between social media usage and loneliness in youth is reviewed and the main theories are briefly outlined, accompanied by studies that support them. Findings are discussed and prospects are examined, helping to map out a horizon for future research.

## **1 Introduction**

Nowadays, social media can be considered as an integral part of our lives, with purposes and nuances that do not stop at mere entertainment, but can extend to use in business and social activity. Among the most widely used social network sites (SNSs) we can find Facebook, Instagram, and Twitter, with the first two reaching relatively 2.9 billion users and 1.4 billion users (Statista, 2022). The presence of social media for about ten years means that entire generations have been born or grown up accompanied by their constant presence, putting millions of young people in a condition where social life is not conceived without the presence of social media. For this very reason, many studies in recent years have focused on the analysis and influence of social media in the lives of young people. The presence of a substantial literature on the topic implies a basic difficulty in summarizing the results of studies and the boundaries demarcated by scholars so far. This systematic review aims precisely to bring order and clarity to the state of the art regarding a topic that is important in understanding the world of social media for young people nowadays, allowing the reader to form critical thinking on this topic. The question we ask, then, is "How does social media affect loneliness in youth?".

### *1.1 Theoretical Foundations*

To answer the question previously posed it can be useful to be familiar with the basics of the two key terms that characterize the study: "social media" ([1.1.1](#)) and "loneliness" ([1.1.2](#)).

#### *1.1.1 Social media*

As Aichner et al. (2021) explain, the term "social media" has changed meaning over the years, but since the earliest definitions (Wellman, 1996; Romm et al. 1997; Garton et al. 1997) they have always been a way of bringing people together online. The underlying systematic review uses the definition of social media given by Kapoor et al. (2018, p. 536), who wrote that social media is "made up of various user-driven platforms that facilitate diffusion of compelling content, dialogue creation, and communication to a broader audience. It is essentially a digital space created by the people and for the people, and provides an environment that is conducive for interactions and networking to occur at different levels (for instance, personal, professional, business, marketing, political, and societal)". This definition highlights how social media are not only used for recreational purposes, but are digital platforms that can be used for specific purposes. With regard to social network sites and their relationship with loneliness, we can start by analyzing the theories that have most characterized

research in the field of social media. According to the narrative review presented by Smith et al. (2021), these are three: social displacement theory, rich-get-richer model, social compensation model.

The social displacement theory was first reported by Kraut et al. (1998). The basic concept is that spending time on social media and the Internet displaces the time of Face-to-Face interactions, which are considered by the author to be deeper and more fulfilling social interactions. Specifically, in the previously mentioned study (Kraut et al. 1998), 93 households were studied. A decrease in the level of communication between family members is noted over time. Therefore, the scholars interpreted the results by postulating that time spent on the Internet is associated with increasing levels of loneliness and lower levels of social support. Subsequent studies have confirmed this theory, Wang et al. (2018, p. 42) argue that "for heavy active Facebook users, the results confirm the displacement hypothesis,". Song et al (2014) also found a weak correlation between Facebook use and loneliness.

In 2002 Kraut et al., referring to the 1998 study (Kraut et al., 1998), performed a 3-year follow-up of 208 of the participants who had participated in the first survey. They found that "negative effects dissipated" (Kraut et al., 2002, p. 49). They speak, therefore, of a rich-get-richer model, in which extroverted individuals are enriched by Social Media Usage (SMU). Regarding loneliness, according to this model, introverted individuals experience greater social isolation, while extroverted individuals experience it less. Confirmation of this theoretical position was given by Valkenburg et al. (2017, p. 39) who found "positive concurrent relationships between adolescents' SNS use and their social self-esteem". Mention should also be made of the study by Cheng et al. (2019), who found a positive and significant correlation between extraversion and online social capital. Twenge et al. (2019, p. 1894) also reported other studies that confirm the same model (Liang & Fu, 2015; Lima, Marques, Muinos, & Camilo, 2017).

The social compensation model is posited by Valkenburg and Peter (2009) as the antithesis of the rich-get-richer effect. While the latter, in fact, argues that social network sites have a positive effect on those who are already emotionally rich and with an offline social network, the Social Compensation Model states a poor-get-richer effect (Frison, Eggermont, 2020, p. 723), in which social media, if used correctly, can influence the level of perceived loneliness and social anxiety in a positive way (Valkenburg and Peter, 2009). According to this model, the absence of Face-to-Face interaction and greater control of the social situation might actually help the individual with less social capital (Ellison, 2007). Precisely because of its asymmetrical nature compared to the Rich-Get-Richer Model, this model, nevertheless finding a good following (Sutcliffe et al, 2018; Yavich et al. 2019), also has several criticisms. For example, Takahira et al. (2008), found that Internet use has a positive effect on youth with already high social capital. Precisely because it is considered the opposite of the

rich-get-richer model any article exclusively advocating the latter can be considered to contradict the Social Compensation Model.

#### *1.1.1.1 Active/passive social media use*

As has already been mentioned in this section, a strand of study differentiates between passive and active social media use. To define these two constructs, reference can be made to Webster et al. (2021, p. 199), which argues that passive social media use "is when the user is simply scrolling on their phone or other device for no specific purpose other than to browse as one might do in a clothing store when not looking for anything in particular," while active SMU is "when the user is intentionally connecting with others through the platform."

#### *1.1.2 Loneliness*

Loneliness, or "the unpleasant experience that occurs when a person's network of social relations is deficient in some important way" (Perlman & Peplau, 1981, p. 31), is described by Francis (1976) as a situation of lack of companionship and desire for social interactions other than the one actually experienced. Ryan and Patterson (1987) described it as the unpleasant feeling brought on by a lack of both quantitative and qualitative social networking. In the article already cited by Perlman & Peplau (1981), personal factors that can influence feeling lonely are highlighted. These factors are shyness, low self-esteem and the absence of social-skills. Generally, it is possible to notice how to feel lonely is subjective. Specifically, during adolescence it is possible to notice peaks of perceived social isolation (PSI), which can be either objective or subjective (Cacioppo, Cacioppo, 2014). Both of these types are linked to a decline in the individual's level of health. Perceived social isolation can be a predictor of risk factors, such as, for example, premature death (Holt-Lunstad, 2015; Pantell et al., 2013).

The possibility of combating perceived social isolation and, more generally, loneliness at a sensitive age such as adolescence, emerging adulthood (Arnett, 2000) and young adulthood proves, therefore, to be an attractive prospect that could improve the well-being of entire groups of lonely or perceived lonely youth. For this reason, it is believed that the topic of loneliness related to social media use among young people is a topic of paramount importance at the present day, which, if treated carefully and knowledgeably, could prove to be a resourceful field.

## 2 Method

### 2.1 Search strategy

This review followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) guideline. A literature search was carried out to investigate the topic from different points of view: after an initial analysis about the construct "loneliness" and the definition of "social media" (the results of which are set out in the "Introduction" section), current knowledge on the investigated area was studied more specifically. First, a preliminary investigation preempted the presence of other systematic reviews on the same topic. To do this, a separate study was performed using "systematic review," "social media," and "youth" as key terms, linked together by the Boolean Operator "and". Having ascertained that there were no other systematic reviews on the same topic, the actual survey, conducted between April and June 2022, was carried out. This main subject was studied through a literature search examining the relationship between social media and loneliness in young people. At the end of the screening and analyzing process, the number of 19 articles was obtained, as shown in **"Figure 1"**.

Searches were run between April and June 2022 in SCOPUS and EBSCOHost. The databases on EBSCOHost selected as appropriate were "APA PsycInfo", "APA PsycArticles", and "Psychology and Behavioral Sciences Collection". These databases were selected because they cover areas inherent to what is being discussed in this review. The literature search covered academic journals written between 2010 and 2022. The year 2010 was chosen as cut-off year because it can be considered as the first year in which scholarly definitions of the term "social media" began to describe users no longer as close acquaintances or bound together by common interests, but also as individuals within a system used by companies and important personalities to reach the masses (Aichner et al.; 2021). Three searches were conducted to track the literature, using the following keywords: "social media" (7 terms: social media, Facebook, Twitter, Instagram, Snapchat, Tumblr, Social Networking), "youth" (5 terms: youth, adolescents, young people, teen, young adults), "loneliness" (4 terms: loneliness, social isolation, social exclusion, lonely), "self-esteem" (5 terms: self-esteem, self-concept, self-worth, self-evaluation, self-perception), "systematic review" (1 term: systematic review). The reported words were combined in the following ways: "social media-youth-loneliness", "social media-youth-self-esteem", "social media-youth-systematic review", linked together by the Boolean Operator "and". The total number of articles tracked was 1.026.



## *2.2 Eligibility criteria*

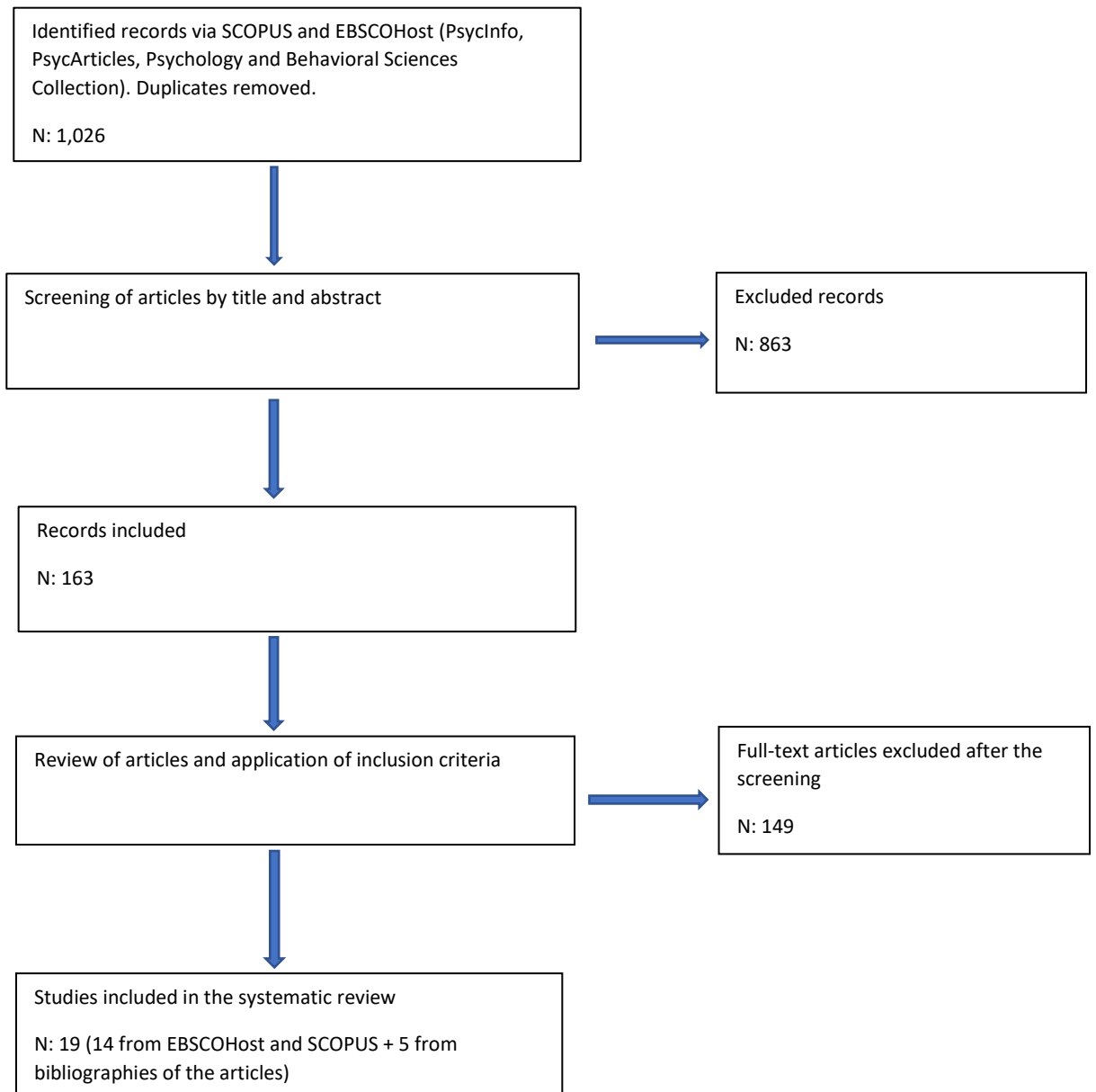
The initial screening, done by reading titles and abstracts, showed as result the number of 1.026 articles. During this phase, an article was not considered eligible if: (1) it was not in English, (2) it did not distinguish social media use from use of the Internet or other technological tools, (3) it did not address the association between social media use and loneliness (4) it was not published in an academic journal. The application of these inclusion criteria yielded the number of 163 articles. These research papers were read thoroughly and the same criteria were applied, plus, articles in which (5) was not considered a sample of individuals in the most neutral condition possible (6) the mean age was less than 10 years old or more than 20 years old, the period when a child starts developing into an adult, were excluded.

After this second time of review, as can be seen from the flow diagram in "**Figure 1**", a total of 19 studies were obtained, which, subsequently, were included in the systematic review.

The "STROBE Statement" for observational studies and the "JBI Critical Appraisal Checklist for analytical cross-sectional studies" for cross sectional studies were used to sanction the reliability of the reported articles.

## *2.3 Studies selection*

The search undertaken on "SCOPUS" and on the "EBSCOHost" platform (performed on the "PsycInfo", "PsycArticles" and "Psychology and Behavioral Sciences Collection" databases) provided a total of 1,026 bibliographic citations. Of these, 863 were excluded from the reading of abstracts and titles because they did not meet the eligibility criteria. The last 163 research papers were read and, upon a comparison with eligibility conditions, another 149 were removed. By reading the bibliographies of the studies attached to the search, 5 more articles were tracked down and, upon analysis and comparison with the inclusion criteria, were attached to the study. These last 19 articles were deemed suitable for inclusion in the systematic review. A flow chart summarizing the selection process can be found in "**Figure 1**".



**Figure 1.** Flow diagram of the literature search (modified from the PRISMA suggested flow diagram)

#### 2.4 Bias risk within the individual studies

The studies taken into analysis are not without possible bias. In "Table 1" the articles studied have been divided according to the risk of bias. We can see that one of the major limitations is that within cross-sectional studies it is not possible to draw a causal origin relationship with certainty. This draws attention to the importance of undertaking future studies of longitudinal design. Sample bias is not widespread in the studies addressed. Some of these studies (LR Baker, DL Oswald, 2010

Reference	Causal bias	Sample bias	Self-report Items/constructs	Antecedents/mediators
LR Baker, DL Oswald; 2010		×		
Frison, Eggermont; 2020			×	×
Blachnio et al.; 2016	×	×		
Lin et al.; 2022	×			×
Kross et al.; 2013				
Teppers et al.; 2014	×	×	×	
Sarmiento et al.; 2020	×			
Wang et al.; 2018				
Twenge et al.; 2019			×	
Lee et al.; 2016	×			×
Grace et al.; 2014	×			×
Floros, Siomos; 2013	×			
Bonetti et al.; 2010	×			
Apaolaza et al.; 2013	×			
Karsay et al.; 2022			×	
Lopez, Hartmann, Apaolaza; 2019	×	×		
He, Liu, Shen; 2021	×	×	×	
Berryman et al.; 2018				
Yang; 2016	×	×		

**Table 1.** Bias risk within individual studies (according to the "Limitations" part of each paper)

Teppers et al., 2014; Yang, 2016), in fact, used a convenience sample. Others dealt with disparity in gender divergence (Blachnio et al., 2016). The other papers (Lopez, Hartmann, Apaolaza, 2019; He, Liu, Shen; 2021) pointed out that the sample they took could not be representative of the whole

population. The third item, "Self-report items/constructs," highlights the fact that loneliness is a subjective dimension, so several studies (Frison, Eggermont, 2020; Teppers et al., 2014; Twenge et al., 2019; Karsay et al., 2022; He, Liu, Shen, 2021) found it necessary to draw attention to how it was not possible to present observational data, but only self-reports. The last item "Antecedents/mediators" refers to the fact that the construct of loneliness can also vary based on private personal relationships that do not have to do with social media use.

### 3 Results

Although the literature on the topic needs more order and agreement among studies, as we can see from “**Table 2**”, most of the studies considered (95%) believe that there is a relationship between social media usage and loneliness in youth.

One part of the studies (3.1) tends to study the consequences of social media use on youth, while the other (3.2) analyzes the predictors leading to social media usage. Following these two approaches, we try to understand: what predicts and leads to social media usage?

Authors	Design	Sample size and age	Country	Social Media Platform	Theory	Results
LR Baker, DL Oswald; 2010	Cross Sectional	N: 207 Mage: 19.19 138 girls	U.S.A.	Facebook	//	Among relatively shy individuals, Facebook use is positively associated with perceived social support. For less shy individuals, however, it is not associated with social support. Among relatively shy individuals there is a positive association between Facebook use and satisfaction,

Authors	Design	Sample size and age	Country	Social Media Platform	Theory	Results
						importance, and closeness with facebook friends. Among less shy individuals there is no association found between Facebook use and satisfaction, importance and closeness of facebook friends.
Frison, Eggermont; 2020	Longitudinal	N: 1,612 12-19 y.o. 55% boys	Flanders (northern part of Belgium)	Facebook	Rich-Get-Richer Model Poor-Get-Poorer Model	In the long run, the effect given by Facebook differs depending on the type of activity. While active use of Facebook leads to positive effects, passive use leads to negative effects, increasing the level of loneliness.
Blachnio et al.; 2016	Cross Sectional	N: 550 Mage: 19.86 71% girls	Poland	Facebook	Rich-Get-Richer Model	Facebook addiction is positively correlated with the level of loneliness. In turn, high levels of self-promotion and loneliness may be predictors of both standard Facebook use and Facebook addiction.

Authors	Design	Sample size and age	Country	Social Media Platform	Theory	Results
Lin et al.; 2022	Cross Sectional	N: 390 Mage: 19.39 138 boys	China	Social Network Sites	//	Active social network sites use is negatively correlated with loneliness and positively correlated with perceived social support.
Kross et al.; 2013	Longitudi nal	N: 82 Mage: 19.52, 53 girls	U.S.A.	Facebook	//	Loneliness does not correlate significantly with Facebook use to predict changes in affective or cognitive well-being.
Teppers et al.; 2014	Cross Sectional	N: 256 Mage: 15.88 64% girls	Belgium	Facebook	Poor-Get- Poorer Model	Adolescents who used Facebook to compensate for poor interpersonal skills had a higher risk of being even more lonely.
Sarmiento et al.; 2020	Systemati c Narrative Review	12-18 y.o.	Various countrie s	Social Network Sites	Social Compensatio n Model	Most of the results found a relationship between loneliness and social media use among adolescents. In addition, the feeling of loneliness predicted the perception of reasons for social media use, frequency or intensity of use, time spent and type of activity. In addition, lonelier adolescents were more likely to

Authors	Design	Sample size and age	Country	Social Media Platform	Theory	Results
						make online connections.
Wang et al.; 2018	Longitudinal	N: 1,188 Mage: 14.30 55% boys	Belgium	Facebook	Stimulation hypothesis  Social Displacement theory	The increase in the level of active public Facebook use is correlated with a linear decrease in the level of social loneliness, while the relationship between emotional loneliness and active public Facebook use reveals a U-shaped curve.  In addition, the results seem to indicate that feelings of lacking a social network lead to more active Facebook use.
Twenge et al.; 2019	Longitudinal	13–18 y.o. N:8.2 million	U.S.A.	Social Network Sites	Social Displacement theory	The level of loneliness increased between 2010 and 2017, which were years when in-person social interaction was declining while social media use was increasing.  It is also noted that adolescents with low levels of in-person social interaction and

Authors	Design	Sample size and age	Country	Social Media Platform	Theory	Results
						high levels of social media use reported the highest level of loneliness.
Lee et al.; 2016	Cross Sectional	N:4920 Mage: 14.73 50.5% girls	Malaysia	Social Media	//	The study investigates how the use of social network sites is influenced by the relationship with parents. A good relationship with both parents was negatively associated with a sense of loneliness on social.
Grace et al.; 2014	Longitudinal	N:123 Mage: 13.3	Australia	Social Media	//	The level of loneliness decreases with social media use, although not significantly.
Floros, Siomos; 2013	Cross Sectional	N: 1971 12–19 y.o. 51.7% boys	Greek	Social Network Sites	//	Internet addiction disorder is negatively correlated to optimal parenting and motives for social network participation.
Bonetti et al.; 2010	Cross Sectional	N: 626 13–16 y.o.	Australia	Social Media	//	Lonely individuals open up more online and with people more different from them (such as adults they do not know) and seem to see social media as a safer way to talk about how they feel.



Authors	Design	Sample size and age	Country	Social Media Platform	Theory	Results
						While age affects loneliness, gender does not.
Apaolaza et al.; 2013	Cross Sectional	N: 344 12–17 y.o.	Spain	Tuenti (Spanish online social network)	//	Social media use involved socializing on social media instead of in real life, which in turn involved solitude.
Karsay et al.; 2022	Longitudinal	N: 79 Mage: 17.55 58% girls	Austria	Social Media	//	A relationship is traced between loneliness and social media browsing.
Lopez, Hartmann, Apaolaza; 2019	Cross Sectional	N: 344 12–17 y.o. 48% males	Spain	Tuenti (Spanish online social network)	Rich-get-richer model	A model with three classes of loneliness is described. When used to increase one's social network, the outcomes were negative; however, it can be useful for increasing the sense of inclusion when used by people with a non-low starting level of perceived loneliness.
He, Liu, Shen; 2021	Cross Sectional	N: 1270 Mage: 14.50 45% females	China	Social Network Sites	//	Conflict with parents is positively associated with loneliness, which, in turn, is positively associated with social network addiction.

Authors	Design	Sample size and age	Country	Social Media Platform	Theory	Results
Berryman et al.; 2018	Cross Sectional	N: 467 Mage: 19.66 335 females	U.S.A.	Social Media	//	Vaguelooking slightly predicted the perception of higher loneliness and thoughts related to suicide.
Yang; 2016	Cross Sectional	N:208 Mage: 19.43 78% females	U.S.A.	Social Network Sites	//	While social media interaction and browsing have a negative correlation with loneliness, broadcasting is positively correlated with it.

**Table 2.** Articles analyzed

### 3.1 Social Media Use Effects

The effects of social media use can be studied from a qualitative (3.1.1) or quantitative (3.1.2) point of view.

#### 3.1.1 Social Media Use Quality

Regarding the quality of use, the literature on the subject (Frison, Eggermont, 2020; Teppers et al., 2014; Sarmiento et al., 2020; Wang et al., 2018; Berryman et al., 2018; Yang, 2016; Lin et al., 2022), generally agrees that there is an active and a passive way to use social network sites. Active use is negatively correlated with loneliness (Lin et al., 2022), while passive use leads to negative effects, it increases the perceived loneliness and decreases adolescents' perceptions of friend support (Frison, Eggermont, 2020). There is general agreement, then, that active use is correlated with less loneliness, while passive use can be detrimental. Studies have also investigated two other different qualitative domains: the difference between public/private use (Frison, Eggermont, 2020) and emotional/social loneliness (Wang et al., 2018). Regarding the first differentiation, Frison and Eggermont (2020) found a relationship between loneliness and public Facebook use and wrote that active public Facebook use

increases adolescent's perceptions of friend support. While no relationship was found between private active use and loneliness, this type of use was found to influence the level of perceived friend support (improving perceived well-being). Further confirmation to these findings comes from Wang et al. (2018), who in their study found that both social loneliness and emotional loneliness decrease over time when related to active public Facebook use. The relationship between social and emotional loneliness and public active Facebook use turns out to be a U-shaped curve relationship, according to this study. Part of the literature agrees on the fact that passive actions, such as browsing (Karsay et al., 2022) and vaguelooking (Berryman et al., 2018), are positively correlated with loneliness. The only result contrary is the one of Yang (2016), who found a negative correlation between perceived loneliness and browsing. However, the author argues that browsing can be considered as an active action, in fact it allows the adolescent to stay connected with his peers, and it is therefore comparable to an active experience.

### *3.1.2 Social Media Use Quantity*

Most of quantitative studies focus on the issue of time and frequency spent on social media platforms (Bonetti et al., 2010; Teppers et al., 2014; Kross et al., 2013; Twenge et al., 2019). Twenge et al. (2019) using data collected between 1976 and 2017, found that perceived level of loneliness among adolescents increases in years when social media use is more widespread.

On the frequency study, the topic turns out to be contradictory. Floros and Siomos (2013), in their article, question whether one can define the daily use of social network sites as an actual addiction. In fact, it is possible to notice that the online world is used as an extension of the offline world, where one has the opportunity to be socially active. Despite this, there is evidence that repeated use of social media threatens the level of perceived loneliness. In their paper, in fact, Floros and Siomos (2013), trace a positive relationship between social media use frequency and loneliness.

### *3.2 Antecedents of social media use*

Several studies (Blachnio et al., 2016; Teppers et al., 2014; Wang et al., 2018; Apaolaza et al., 2013) confirm the fact that young people with a pre-existing high level of social isolation are more likely to spend time on social media platforms. While, according to some studies, this attitude lowers the level of loneliness (Wang et al., 2018), for others it increases it (Twenge et al., 2018). Basically, there is common agreement that online loneliness decreases, but the implications of this attitude on offline loneliness are uncertain. Teppers et al. (2014), in addition to confirming the fact that lonelier people

are more likely to use social media to compensate the poverty of their social network, found that this motive does not improve people's well-being and, in fact, is likely to increase the level of loneliness. Similar result is found by Twenge et al. (2018), who found that the highest level of social loneliness was tracked in adolescents with low levels of low in-person social interaction and high levels of social media use. Thus, this research and others (Apaolaza et al., 2013) argue that enriching one's social network online causes an increase in the level of loneliness. Differently, Wang et al. (2018) argue that the lack of a pre-existing social network would lead to an active social media use, which, as discussed above, would allow for a reduction in perceived loneliness. Furthermore, as a conclusion to their systematic narrative review, Sarmiento et al. (2020) argue that the analysis of the studies found leads them to think that the lonelier adolescents perceived online interactions more positively and were more motivated to make friends online.

Another possible relevant antecedent can be the relationship with parents (He, Liu, Shen, 2021; Lee, 2016; Floros and Siomos, 2013). The main result is that a negative relationship with parents can lead to loneliness, which in turn can lead to social network sites addiction. Floros and Siomos (2013) proposed, as best way to interact, an ideal parenting style in which the parents care about their children and respect their autonomy. In their opinion, a problematic relationship with parents can negatively influence the motives that lead to the use of social network sites. This increases the young person's risk of social media addiction. An optimal parental bonding, therefore, reduces the motives to become involved with social network sites, also limiting the risk of developing an addiction.

## **4 Discussion**

In this systematic review an attempt to shed light on the interaction that persists between loneliness and social media use in youth was made. The results of the articles were collected and divided according to two study trends. One part of the studies (4.1) focused on analyzing the effects of social media use, while a second part (4.2) addressed the study of the antecedents leading to it. This section discusses the results of both of these types of studies.

### *4.1 Are the effects of social media use good or bad?*

At the level of social media use effects, the literature finds several points of disagreement. In fact, articles on the topic mainly support three different theories: social displacement theory (Twenge et

al., 2019; Wang et al., 2018), rich-get-richer model (Frison, Eggermont, 2015; Blachnio et al., 2016; Teppers et al., 2014; Lopez, Hartmann, Apaolaza, 2019), social compensation model (Wang et al., 2018; Frison, Eggermont, 2015). As can be seen from this short list, the results of some studies (Wang et al., 2018; Frison, Eggermont, 2015) agree with more than one theory. Specifically, Frison and Eggermont (2015) found that, in the long run, active use of social media leads to a reduction in perceived loneliness; this result, according to the scholars, confirms the rich-get-richer model, while passive use may lead to an increase in perceived loneliness. This second result implies a poor-get-poorer effect. The latter, on a theoretical level, can be placed next to the social displacement model. Moreover, it is possible to note the fact that often even the same scholars who devise a particular model do not exclusively side with that model. Kraut et al. (2002) revisited work previously done (Kraut et al., 1998) by moving from supporting the social displacement model to the rich-get-richer model.

Within the framework just described, it is conceivable that there is no single model capable of predicting the effects of social media use. What changes the outcome of this action would seem to be the mode of use (Frison, Eggermont, 2015; Lin et al., 2022; Wang et al., 2018; Berryman et al., 2018; Yang, 2016; Karsay et al., 2022). Regarding the mode of use, the reviewed articles agree that passive use of social media can be potentially dangerous for a young person's mental health, while active use, whether public or private (Wang et al., 2018), is negatively correlated with loneliness.

#### *4.2 Do antecedents influence the level of loneliness?*

There is a general agreement (Teppers et al., 2014; Sarmiento et al., 2020; Bonetti et al., 2010) that people with a preexisting high level of social loneliness and lower social skills are more likely to use social media to compensate for the lack of social networking. However, the results regarding the outcome of this compensation are contradictory. While according to some articles (Teppers et al., 2014; Lopez, Hartmann, Apaolaza; 2019) the use of social media to compensate for a lack in offline social network leads to an increase in loneliness, according to others (LR Baker, DL Oswald, 2010; Wang et al., 2018) it leads to a decrease. What can be seen, then, is how a poor-get-richer model (corresponding to the social compensation model) is opposed to a poor-get-poorer model (corresponding to social displacement theory). Another antecedent that may be important in determining the outcome of social media use is the relationship with parents (Floros, Siomos, 2013; He, Liu, Shen, 2021; Lee et al., 2016). As the study by Floros and Siomos (2013) points out, a good parenting style can affect the motives that lead to social media use. It would seem, then, that any

antecedent can lead to motives that lead to a certain type of social media use, which in turn negatively or positively influences the level of perceived loneliness.

#### *4.3 How social media use affects loneliness in youth*

After separately examining antecedents and effects of the type of use, one can finally get a clearer and more general idea of what the present articles on the topic have highlighted. Antecedents influence the type of social media use, this could mean that a motive that leads to active social media use can actually help and reduce the level of loneliness. Conversely, a motivation that leads to passive use may lead to an increase.

In this research, it can be seen that the relationship between social media and loneliness in youth is demonstrated by all but one studies (Kross et al., 2013), in which Facebook use and loneliness do not have a significant relationship to justify changes in the individual's well-being. At the present historical moment, therefore, the literature agrees that social media has a strong impact on the relationship between youth and loneliness. This certainty opens up several new perspectives and questions the type of relationship and how to regulate it. To these questions different studies give different answers. As it turns out, a theoretical position that integrates various models with each other is increasingly developing.

#### *4.4 Limitations*

This paper is not without limitations. Starting from the analysis of the internal biases of the studies considered, it is emphasized (1) that most of them (68%) were cross-sectional. This, implies the impossibility of drawing causal links between the variables considered. Another limitation (2) is the presence of discordant qualitative studies, in order to have a clearer point of view it would be necessary to focus on studies that analyze the possible dimensions that influence the relationship between social media and loneliness in youth. Beyond that, (3) several studies (LR Baker, DL Oswald, 2010; Teppers et al., 2014; Yang, 2016; Blachnio et al., 2016; Lopez, Hartmann, Apaolaza, 2019; He, Liu, Shen; 2021) have incurred sample bias. However, at a general level, the samples of the studies belong to populations from different geographical areas, this makes it possible to generalize the results to the entire global population avoiding cultural bias. At a more general level, the review also has limitations. First, (4) non-English language articles were discarded. This fact may preclude access to papers written in some parts of the world and consequently not taking into

consideration some more remote cultures. Also (5), the fact that mean age was considered could limit the veracity on the age of the participants, as it is possible that in some studies young people slightly over 20 or under 10 were also interviewed.

#### *4.5 Possible directions*

As seen above, the research topic can be studied in several ways. In fact, one could proceed by using a more holistic perspective, including and admitting multiple elements that affect the youth's perceived loneliness. This would allow one to reach a situation where it would be possible to identify the elements of risk to a passive social media use and use them as premonitory for a positive change, which would reverse the passive type of use to active. The scenario just described would make it possible to increase well-being through social media use. The fact that social media platforms can be resources for improving a young person's state of well-being has been confirmed by several studies, such as Cipolletta et al. (2020), in which, however, it is also pointed out that they can be a risk factor. Grace et al. (2014) also show that it is possible, through a tailored one-on-one intervention, to increase the youth's level of social participation by using social network sites.

It is possible to see that social network sites do not prove to be dangerous or beneficial per se. Rather, they turn out to be a tool and it is important to know how to use them. In fact, they come with potential but also risks. It is necessary, therefore, to be aware of the use one is making of them, without ending up in habit. Osatuyi & Turel (2018, p. 95), in a study about the dual relationship between self-regulation and habits, show that habit "drives SNS use and the experience of addiction symptoms".

#### *4.6 Conclusion*

This article reviewed several articles on the topic of the relationship between social media use and loneliness in young people. It was highlighted how this relationship is significant and influential on quality of life. The need to belong is inherent in human beings, and the feeling of being excluded online can be just as damaging as feeling excluded offline. It has been made clear that there can be a difference in the type of use, which can be active or passive, and it has been pointed out that the passivity of an action can be a criterion interpreted differently from person to person (Karsay et al., 2022). A final point to note is that, over the years, papers no longer tend to have a single theoretical perspective, but accept different perspectives and integrate different approaches with each other. There does not seem to be a single reliable model; in fact, the relationship between loneliness and

social media depends on several factors. The antecedents found in this article are the preexistent loneliness perceived, the intensity and frequency of time spent online and the relationship with parents.

In the future, it is important to continue the research with the goal of identifying what antecedents and motives lead to active social media use.

Ultimately, instead of categorizing social media platforms exclusively as good or bad for mental health, it is necessary to see them as a tool to know how to use. Future research should focus on teaching and explaining which is the best way to use social media platforms in youth in order to take advantage of the valuable potential they have, rather than letting it be overshadowed by the risks that each revolution involves.



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## **Sitography**

<https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>