

Feeling alone among friends: Adolescence, social networks and loneliness

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Abstract

Adolescents are particularly susceptible to feelings of loneliness and social relationships are therefore an important part of their development. The aim of the present study is to explore the patterns of adolescents' use of Social Network Sites, e.g. Facebook, in relation to friendships, focusing on the differences between teenagers with a high and low level of loneliness. Participants (N=988) were aged 14-22 (M age = 16.32, SD = 1.59) and attended secondary schools in the north of Italy. The “loneliness group” includes more girls, older adolescents and subjects dissatisfied with their online and offline relationships; lonely adolescents consider their online contacts less as “true friends” and meet friends less frequently in person than the “no loneliness” group; the “loneliness” group believe it is easier to relate with peers online. Implications and suggestions for future research are discussed.

Keywords

Social Network Sites, Facebook, Adolescence, Loneliness, Friendships

Introduction

Several authors (e.g. Pfeil et al., 2009; Poulin & Chan, 2010) emphasize the importance of creating good peer relationships during adolescence, but this can be difficult for those who experience feelings of loneliness (Bonetti et al., 2010; Greenwood, 2008). Loneliness can be defined as a

surface trait (Asendorpf & Van Aken, 2003) characterized by feelings of social disconnection, which are emotionally distressing and particularly common among the young (Goossens, 2006). This phenomenon occurs especially when individuals perceive a discrepancy between their desired and achieved levels of satisfaction in social interaction. Online communication, particularly on social networks such as Facebook, has become a very important means of relationship for adolescents (Mesch, 2005; Valkenburg & Peter, 2007; Subrahmanyam et al., 2008). Their social life takes place online as well as offline (Teppers et al., 2014).

Young people use Social Network Sites (SNSs) to form and maintain intimate clique relationships with peers (Courtois et al., 2012) and to help themselves in the regulation of communications (Biolcati et al., 2013). SNS users thus share their thoughts with friends, renew old friendships and create new ones (Ellison et al., 2007; Baek et al., 2013). In particular, Kujath noted that most of the SNS contacts are people already known: “respondents tended to use Facebook and MySpace to keep in touch with people that they already knew, as well as to meet new people that they have never met before” (Kujath, 2011, p.77). In this way, adolescents that use SNSs and have no particular social problems can increase and strengthen friendships. However, less is known about the effects of SNSs on teenagers who experience loneliness (Morahan-Martin & Schumacher, 2003; Teppers et al., 2014). Are there any differences between lonely or not lonely adolescents in their use of the Internet and SNSs for friendships and socialization?

Considering the previous theories on the impact of loneliness on users of the Internet, Lee and colleagues (2013) show that the use of SNSs can improve the well-being of lonely people through the facilitation of self-disclosure and social network support, and also provide emotional support and modulate negative moods (see Morahan-Martin & Schumacher, 2003). The internet can help in socializing people that lack sufficient resources in face-to-face relations (Baiocco et al., 2011) and may help to overcome shyness and inhibition (Teppers et al., 2014).

On the other hand, some studies (e.g. Nie, 2001; Kim et al., 2009) claim that spending too much time online subtracts time from important relationships like friends: this adversely affects the well-being, increases loneliness and reduces social contacts. Nevertheless, the relationship between SNSs use, friendships and loneliness in adolescence remain still unclear.

The current study

The present survey investigates the use of SNSs in relation to friendships in a large sample of Italian adolescents. In the wake of several authors (Valkenburg et al., 2005) the current study aims to explore differences between lonely and not lonely adolescents in patterns of Facebook use, by focusing on friendship, on the degree of satisfaction, on the perception of depth in peer relationships and on the simplicity of entering into relationships.

Previous research has shown that loneliness is positively associated with more time spent on Facebook (Erdo an, 2008; Lemieux et al., 2013). We therefore expect that, compared to others, lonely adolescents are more likely to spend time online, are more at ease in online relationships

even though these relationships are not developed in “daily real life”. Age and gender differences in usage patterns of online communication will also be investigated.

Materials and Methods

Participants

The participants consisted of 918 adolescents (49.9% females) recruited from upper secondary schools in the province of Rimini (Italy): 415 (45.2%) attending a high school, 312 (34.0%) a technical school and 19 (20.8%) a professional institute. Their age ranged from 14 to 22 years old (M age = 16.32 years, SD = 1.59).

Measures

Participants completed a questionnaire (56 items) that consists of three parts. The first part is related to demographics and to Internet and SNSs use. The second part consists of questions about friendship: the number of friends on SNSs, how important it is to stay in touch with friends (on a scale from 1 to 10), whether the subject has a group of offline friends, how many participants are satisfied with their online and offline friends, whether virtual friends are also friends in life, how much online friends are considered “true friends”, whether it is easier to meet and talk on the net or in real life and whether it is easier to meet new friends online or offline.

The last part consists of the UCLA Loneliness Scale (Russell, 1996) ($\alpha = .865$). This scale includes 20 items (e.g. “*How often do you feel that you lack companionship?*”) to determine loneliness on a four-point scale, with 1 = never and 4 = often.

Results

Internet and social network sites use

Most of the participants (80.6%, $n=740$) use the Internet on a daily basis, whereas only 0.1% ($n=1$) never use it. Males primarily use a desktop computer (45%, $n=207$), while females prefer the mobile phone/smartphone/iPhone (39.7%, $n=182$) ($F(2)=13.256$, $df=2$, $p<.001$).

In reply to the question “*How many hours do you spend during the day on the Internet?*”, 15.8% ($n=145$) responded less than 1 hour, 33.2% ($n=305$) 1-2 hours, 25.3% ($n=232$) 2-3 hours, 12.5% ($n=115$) 3-4 hours, and 13.2% ($n=121$) more than 4 hours.

Almost all of the sample (98.4%, $n=903$) has a social network profile, and a Facebook profile is the most widely used (95.5%, $n=877$).

Regarding the reason for SNS use (three choices): 838 (92.8%) out of 903 respondents say it is to “*communicate with friends*”, 585 (64.8%) to “*contact persons already known*”, 300 (33.2%) to “*look at the profiles of others*”, 186 (20.6%) to “*meet new friends*”, 98 (10.9%) to “*play on-line and use applications*”, 38 (4.2%) to “*present myself on the web*”, 35 (3.9%) to

“find a romantic relationship” and 8 (0.9%) “other”.

Regarding what they primarily do on SNSs (three choices): 787 (87.2%) out of 903 respondents say “I chat and send private messages”, 407 (45.1%) “I post photos and links on my profile”, 326 (36.1%) “I look at other profiles”, 296 (32.8%) “I comment what my friends post”. There is a significant difference in sex (Table 1) where females choose more often “I post photos and links on my profile” and “I look at other profiles” while males choose more frequently “I comment what my friends post” and “I play on-line and use applications”.

Table 1. Sex differences in activity on the SNSs.

Activity on the SNSs	Male % - n	Female % - n
“I chat and send private messages”	89.2 - 404	85.1 - 383
“I update my status”	16.8 - 76	18.0 - 81
“I post photos and links on my profile”	37.1 - 168	53.1 - 239
“I comment what my friends post”	36.2 - 164	29.3 - 132
“I look at other profiles”	32.7 - 148	39.6 - 178
“I read my message board”	21.6 - 98	22.9 - 103
“I play on-line”	11.9 - 54	4.9 - 22

$\chi^2=33.6$, $df=7$, $p<.000$

Friendships

Regarding the number of friends on social networks, 20.9% ($n=189$) have from 300 to 500 friends and 16.9% ($n=153$) from 700 to 1000. Note that only 5% ($n=45$) have less than 100 friends. Almost all the sample (98.6%, $n=905$) say they have a group of friends who meet “in person”. A large part of the participants (87.6%, $n=791$ of 903 respondents) stated that most of their online friends are also real life friends.

We also investigated the extent to which online friends are considered true friends in real life, and more than half of the sample (51.6%, $n=474$) say “less than half”, 23.4% ($n=215$) “around half”, 18.6% ($n=171$) “more than half” and 4.7% ($n=43$) “all”, (1.6%, $n=15$ missing). A large portion of the sample (67.6%, $n=621$) think that it is easier to meet their friends in person, while 32.4% ($n=297$) prefer to meet them on the web. A similar proportion appears when questioning whether it is easier to create new friendships in daily life or on the web: 63.8% ($n=586$) prefer daily life, 36.2% ($n=332$) on the web. Lastly, we asked where the subject prefers to talk with friends and in that case most of the participants (96.0%, $n=881$) say they prefer talking in person, and only 4% ($n=37$) online.

Loneliness

The UCLA Loneliness Scale foresees a minimum score of 20 and a maximum of 80. Among

the adolescents examined, the minimum score was 21, while the maximum was 71. The mean score was 43.52 (SD=8.246). We split the sample on the top 25% (last percentile): the group that scored from 21 to 48 was named “No Loneliness” (NL) (73.2%, $n=672$) and the group from 49 to 71 “Loneliness” (L) (26.8%, $n=246$). The L group was then compared with the NL group. The L group is composed of 150 females (61.0%) and 96 males (39.0%), while the NL group is composed of 308 females (45.8%) and 364 males (54.2%) ($\chi^2=16.516$, $df=1$, $p<.000$).

It is interesting to note that there is no significant difference between the two groups with respect to time spent on the Internet, the hours spent on SNSs and the part of the day that they connect to the web. Similarly, there is no significant difference in the number of friends on Facebook.

There is, however, a significant difference between the L group and the NL group in terms of having a group of offline friends: among the few who say they do not have a group of offline friends, there are more people from the L group (NL: 0.3% $n=2$ vs L:4.5%, $n=11$) ($\chi^2=22.472$, $df=1$, $p<.000$).

The L group say they do not meet the majority of their friends in real life more than the NL group (NL: 9.2% $n=61$ vs L: 21.3% $n=51$, $\chi^2=23.887$, $df=1$, $p<.000$).

A significant difference can also be observed for the question “*How many of your virtual friends are also friends that you meet in real life and that you consider true friends?*”. On a scale from 1 to 4 (where 1 = “*less than half*”, 2 = “*about half*”, 3 = “*more than half*”, 4 = “*all*”) the L group say they consider “*less than half*” of online friends their true friends more frequently than the NL group (L: 63.2%, $n=151$ vs NL: 48.6%, $n=323$, $df=3$, $\chi^2=15.371$, $p<.002$).

A further significant difference arises for the question “*Is it easier to meet your friends on the net or in real life?*”. The L group in fact say more “on the net” than the NL group (L: 39.8% $n=98$ vs NL: 29.6% $n=199$, $\chi^2=8.601$, $df=1$, $p<.002$).

Finally, there is also a significant difference for the question “*Do you prefer to talk with friends on the net or in real life?*”, where the L group again say more “on the net” than the NL group (L: 7.7% $n=19$ vs NL: 2.7% $n=18$, $\chi^2=11.849$, $df=1$, $p<.001$).

As far as the main reason for the use of SNSs is concerned, the L group chooses more frequently “*to meet new friends*” and “*to present myself on the web*”.

Table 2. Differences between No Loneliness group and Loneliness group in reasons for SNS use.

<i>Reason of SNSs use</i>	<i>NL group</i> % - <i>n</i>	<i>L group</i> % - <i>n</i>
“Contact persons already known”	64.6 - 429	65.3 - 156
“Communicate with friends”	94.3 - 626	88.7 - 212
“Look at other profiles”	33.6 - 223	32.2 - 77
“Meet new friends”	19.1 - 127	24.7 - 59
“Find a romantic relationship”	4.1 - 27	3.3 - 8
“Play on-line and use applications”	12.7 - 84	5.9 - 14
“Present myself on the web”	3.5 - 23	6.3 - 15

$\chi^2=16$, $df=7$, $p<.020$

The ANOVA analysis reveals other significant differences summarized in Table 3.

Table 3. Means and ANOVA differences for L and NL group among study variables.

Measures	<i>M</i>	<i>SD</i>	<i>L</i>	<i>NL</i>	<i>F</i>
Age	16.32	1.59	16.63	16.20	13.62***
Importance to be in touch with friends (1,10)	7.42	1.98	7.03	7.56	12.95***
Degree of satisfaction of online friends (1,5)	2.13	0.91	1.93	2.21	16.78***
Degree of satisfaction of offline friends (1,5)	3.16	0.85	2.66	3.34	129.76***

Note. *** $p < .001$.

Discussion and conclusion

Online communication with friends is confirmed to be very important among the adolescents in our sample, and Facebook is the most popular SNS used to keep in touch with peers. In accordance with Baiocco and colleagues (2011) face-to-face interaction with online contacts was much more frequent and desirable and Facebook is primarily used to communicate and to keep in touch with people already known (Kujath, 2011). Our data expand on the suggestion of Valkenburg and Peter (2007) that communication via the social network may be useful in

enhancing the quality of existing friendships. According to the *rich-get-richer hypothesis* (Desjarlais & Willoughby, 2010) adolescents who are already comfortable in social interactions may use the computer to seek out additional opportunities to socialize (Teppers et al., 2014; Ellison et al., 2007).

Online relationships appear more labile and superficial (Subrahmanyam & Greenfield, 2008). On average, the number of Facebook contacts is very high, but only less than half of the contacts are considered “real friends”. Most adolescents prefer to speak face-to-face with friends and it seems easier for them to meet friends in person. However it is interesting to note that more than a third of the sample considers it easier to meet friends and to know new ones online (Mesch, 2005) SNSs are also confirmed as being an easy opportunity to socialize for some adolescents (Gross, 2004).

Unexpectedly, but in line with a previous study (Subrahmanyam & Lin, 2007), loneliness was not related to the total time spent online. It was, instead, related to the participants’ gender and age: females reported greater loneliness than males and older subjects appear to be more lonely than younger ones (Brage & Meredith, 1994). It is likely that older girls place more importance on significant dyadic relationships and are more prone to experiencing problems internalized as feelings of loneliness. Adolescents with high loneliness levels use SNSs for the same amount of time (weekly) as others and have a high number of contacts online but they are nevertheless more dissatisfied with their friendships probably because they perceive such relationships as shallower. They encounter their friends less face-to-face, find it more difficult to relate in person with friendships and tend to use SNSs to meet new friends. Loneliness seems to be more related to dissatisfaction with the offline dimension of friendship and other individual variables, on which the SNSs seems to have a little impact. Some variables, such as social anxiety, shame, poor emotional competence need to be investigated more deeply.

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