Grooming, Cyberbullying and Sexting in Chile according to sex and school management or administrative dependency

Grooming, Ciberbullying y Sexting en estudiantes en Chile según sexo y tipo de administración escolar

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Abstract

Introduction: Children, teenagers and young men are increasingly experiencing their well-being related to the internet and the new digital technologies. The objective of this study is to describe the presence of Cyberbullying, Sexting and Grooming in students in Chile according to gender and type of school management or administrative dependency. Subjects and Method: Exploratory and descriptive study. The sample design was non-probabilistic by quotas in 60 transactional establishments. The sample was weighted considering the age range and gender according to national data. The Digital Literacy Questionnaire “Divergente-SerDigital” (2010) was applied to a sample of 12,926 students, aged 5 to 18 years. 4,790 men and 8,136 women. Average age 13.17 years. Frequencies were analyzed and the Chi-squared contrast statistic was used to determine statistically significant differences. Results: The item Total Grooming (cheating) is presented as the main risk, 12.6% in municipal dependent schools (MDS), 8.2% in subsidized private schools (SPS), and 8.4% in private schools (PS). When considering gender, Grooming is observed mainly in Men, 20.4% in MDS, 19.9% in SPS and, 16.9% in PS. It is noteworthy that Women perform less Cyberbullying (active) according to school administration with 4.2% in MDS, 2.4% in SPS and, 2.6% in PS, with statistically significant differences (p ≤ 0.05) in relation to Men. It also highlights the indicator Sexting (send) in Men, higher in PS with 10.6%. Conclusion: Grooming, Cyberbullying and Sexting risks are presented in the three types of administration with specific characteristics. These data can be a guide to work in promotion and prevention as well as in the schematization of cases according to type of school administration.
Introduction

At the global level, an emerging socio-technological scenario called the ‘digital revolution’ is being experienced, reorganizing several dimensions in human, social, industrial and political terms. The ‘digital revolution’ is a construct that is understood as the influence, the growing, everyday use of the Internet and high-speed digital systems, the massive use of social networks, the social diffusion of information technologies, groups of computerized children, among other phenomena. This leads different authors and political organizations to point out that humankind faces profound changes in various dimensions. Sociohistorical and technological changes known as the ‘digital revolution’.

This is the context in which children, adolescents, and young people experience their biopsychosocial well-being and health increasingly related to the Internet and the new digital technologies. For this reason, health and education in the promotion of biopsychosocial well-being and quality of life should consider this dimension of social interaction.

The digital age presents risks and opportunities that can be observed, studied and addressed. Among the risks are scenarios such as: a) harassment or aggression between adults on the Internet or cyberbullying, b) harassment or aggression between minors or peers on the Internet or cyberbullying, c) dissemination of sexual intimacy or sexting, e) aggressions against teachers or former teachers on social networks, and f) online deception of minors by adults or grooming, complex challenges, to name a few. It should also be considered that the risks in the digital world can be related and enhanced, as in the case of ‘revenge porn’, where sexting and cyberbullying are presented and enhanced.

Out of the risks researched on the Internet, cyberbullying has the largest number of studies and publications with the greatest conceptual development, models, and studies. In the development of the cyberbullying area, there are different conceptual and operational definitions, type of variable measured or time of occurrence observed, that is to say, there is not yet a unified knowledge area in this field. The terms cyberbullying, grooming, and sexting, as well as their definition, are under construction. They are concepts approached from different paradigmatic perspectives. Out of the three concepts, grooming is the only one criminalized in Chile (Law 20.526).

As global research indicates, the prevalence of cyberbullying among young people varies between 10% and 53%, depending on the definition of cyberbullying and the studied age group. In the USA, approximately 30% of secondary school students report some experience of cyberbullying and in the UK, 20% of children between the ages of seven and eleven report having experienced cyberbullying. In this global context, it stands out the low percentage reported by the National Survey on Prevention, Aggression, and Harassment in Schools, SIMCE at 8th grade, carried out by the Ministry of Education of Chile in 2011, which shows that abuse through the electronic media corresponds to 5%.

At the global level and in capitalist or free market systems, in particular, the economic, social and cultural inequality is a constant. In the European Union, for example, the social gap is widening. In Spain, the children of blue-collar workers tend to remain blue-collar workers. Only 27% of them attend high school. Something similar is observed in the south of the world. Chile is one of the most unequal economies in the world. As in other dimensions and attributes, inequality is observed and projected in the digital divide. The gap in access to new technologies is between ‘information-rich and information-poor regions and countries’, between groups of different socioeconomic status (SES), and types of social education. Against the general trend, the gap according to SES or type of school administration is not observed in a cyberbullying survey carried out in 2014, where 11.4% reported having been a victim of some type of cyberbullying and 12.5% was in Santiago. Also, there were no significant differences in the victims according to gender, grade, and type of school in Santiago, Chile.

In this context, the objective is to identify the presence of grooming, cyberbullying, and sexting in primary and secondary school students in Chile at a national level by type of school administration and gender.

It is important to manage base data and avoid reproducing the approach from ‘black veils’ or pathology as a focus. The comprehensive biopsychosocial and psychoeducational health model is a plausible alternative where prevention and promotion work in an integrated way with intervention. In this sense, positive psychology can be useful in the promotion, prevention, and intervention, where higher levels of information, well-being, and satisfaction are promoted from work and specific information.

Patients and Method

Research with a quantitative, exploratory and descriptive methodological framework. The type of sampling was non-probabilistic by quotas. The sample was weighted with representation in the different quotas, which were segmented according to three variables: type of school administration (type of school), age
range (5 to 18 years) and gender. 4,790 men and 8,136 women, with an average age of 13.17 years. In municipal dependent schools (MDS), 755 women and 613 men (1,368 students), in subsidized private schools (SPS), 6,057 women and 2,838 men (8,895 students), and in private schools (PS), 1,324 women and 1,339 men (2,663 students) participated in 60 educational establishments nationwide. Table 1 shows the sample made up of 12,926 primary and secondary school students in Chile by type of school administration.

The selection of the participating schools was based on the national quotas according to the three types of schools in the center, south and north areas of the country, considering meeting the quotas for primary and secondary education according to gender and age. Because the age groups were unequally represented in the sample, they were weighted in order to give them back their respective weight in the studied population. Table 2 shows the expansion factors of the quotas established according to age range and gender.

The sample was calculated with 95% of confidence and 1% of sampling error. It was assumed 95% confidence, which corresponds to a Z value of 1.96. The data collection at the national level was carried out in a single moment, May and June 2010. Instrument

It was used the online Digital Literacy Questionnaire ‘Divergente-SerDigital’[3], a battery of instruments (dimensions) that work independently or together, addressing related topics in a coherent way in seven dimensions and 56 components (41 components with statistical evidence) in the questionnaire for children aged five to nine. Dimension 1: Use and possession of digital technology. Dimension 2: Use and possession of video games and digital music. Dimension 3: Social networking risk and care of personal information. Dimension 4: Handling of codes in a digital context and online relationships. Dimension 5: Use of social networks and platform preferences. Dimension 6: Self-efficacy in digital and traditional media and participation. Dimension 7: Preferred learning style and subject. The instrument has ten dimensions and 131 components for adolescents aged 10 to 14 years; 12 dimensions and 139 components for young people aged 15 to 29 years; 12 dimensions and 139 components for adults (aged 30 to 49 years) and over 50 years old.

The psychometric characteristics of the instrument are observed in two moments. I) Validity of sample content. In this context, a group of five experts in the area and 167 people in pilot testing were asked to evaluate the reagents, indicating if: a) they were suitable for the measured variable, b) they were suitable for the studied population, and c) the language was suitable for the studied population. Based on this analysis, the items that did not meet these criteria were deleted. II) The second psychometric analysis performed was the reliability index based on the calculation of internal consistency using Cronbach’s alpha. The Digital Literacy Questionnaire ‘Divergente-SerDigital’ presents a general internal consistency coefficient Cronbach alpha of .848, presenting evidence of acceptable level of reliability.

This research used Dimension 3 ‘Social network
risk and care of personal information’, specifically six items. Cyberbullying items: 1. (In the last year) ‘Have you received threats or discrimination through the Internet or cell phone?’ 2. ‘Have you made threats or discriminated against on the internet or cell phone?’ Grooming items: 3. (In the last year) ‘Has any adult contact ever cheated on you through social networks or cell phones with his or her identity?’ 4. (In the last year) ‘Has an adult on the Internet or cell phone pressured you to get private information?’ Sexting items: 5. (In the last year) ‘Have you received on your cell phone or Internet pictures or videos in underwear or nudes?’ 6. (In the last year) ‘Have you received on your cell phone or Internet pictures or videos in underwear or nudes?’

The access, registration, and verification were made from the educational institution, with the people in charge of implementing the process. The research process has the ethics committee approval letter, informed consent of the parents and informed consent of the participating students. Four fundamental ethical problems in research were actively avoided. 1. ‘Hide the nature of the investigation from the participants’ 2. ‘To expose participants to acts that could harm or diminish their self-esteem’. 3. ‘To invade the privacy of the participants’ and 4. ‘To deprive the participants of the benefits’

Statistics

For the statistical analysis of the data, the Chi-square contrast test was used to determine the significant differences between the groups. At the operational level, the letters a and b, which appear in the tables as a subscript, indicate the presence (p < 0.05) with different letters or the absence of a significant difference with the same letter (p > 0.05) when comparing the profiles according to the type of school dependency.

Results

Risks on the Internet are presented with specific characteristics in the different groups of the population according to the type of school administration and gender. In the general table, by type of school administration, table 3 shows that grooming is the highest risk indicator, in the item ‘(In the last year) Has any adult contact ever cheated on you through social networks or cell phones with his or her identity?’, in MDS (12.6%), with statistically significant differences (p < 0.05) with the SPS (8.2%) and the PS (8.4%), which do not present significant differences between them (p > 0.05). The grooming indicator ‘(In the last year) Has any adult on the Internet or cell phone pressured you to get private information?’ also shows higher percentages in the profiles of MDS students (6.3%) with statistically significant differences (p < 0.05) with PS (4.1%) and no significant difference with SPS (5.0%).

The cyberbullying indicator ‘(In the last year) Have you received threats or discrimination through the Internet or cell phone?’ is present in 7.7.% of the MDS profiles with no statistically significant difference with the SPS profiles (7.0%) and with a statistically significant difference when compared to PS (5.4%). In the active indicator of cyberbullying ‘(In the last year) Have you made threats or discriminated against on the Internet or cell phone?’, it is transversal. There are no significant differences in the profiles of MDS (6.4%), PS (6.2%) and SPS (5.5%).

Table 3. Grooming, Cyberbullying and Sexting according of school management or administrative dependency

<table>
<thead>
<tr>
<th>School management or administrative dependency</th>
<th>CM</th>
<th>CPS</th>
<th>CPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has any contact ever cheated on you through social networks or cell phones with his or her identity?</td>
<td>12.6%&lt;sup&gt;a&lt;/sup&gt;</td>
<td>8.2%&lt;sub&gt;b&lt;/sub&gt;</td>
<td>8.4%&lt;sub&gt;b&lt;/sub&gt;</td>
</tr>
<tr>
<td>Has an contact on the Internet or cell phone pressured you to get private information?</td>
<td>6.3%&lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.0%&lt;sub&gt;a,b&lt;/sub&gt;</td>
<td>4.1%&lt;sub&gt;b&lt;/sub&gt;</td>
</tr>
<tr>
<td>Total / Sum Grooming</td>
<td>18.9%</td>
<td>13.2%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Have you received threats or discrimination through the Internet or cell phone?</td>
<td>7.7%&lt;sup&gt;a&lt;/sup&gt;</td>
<td>7%&lt;sub&gt;a&lt;/sub&gt;</td>
<td>5.4%&lt;sub&gt;b&lt;/sub&gt;</td>
</tr>
<tr>
<td>Have you made threats or discriminated against on the internet or cell phone</td>
<td>6.4%&lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.5%&lt;sub&gt;a&lt;/sub&gt;</td>
<td>6.2%&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
<tr>
<td>Total / Sum Cyberbullying</td>
<td>14.1%</td>
<td>12.5%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Have you shared pictures or videos of you in underwear or nudes through your cell phone or Internet?</td>
<td>5.0%&lt;sub&gt;a,b&lt;/sub&gt;</td>
<td>4.1%&lt;sub&gt;a&lt;/sub&gt;</td>
<td>6.1%&lt;sub&gt;b&lt;/sub&gt;</td>
</tr>
<tr>
<td>Have you received on your cell phone or Internet pictures or videos in underwear or nudes?</td>
<td>7.7%&lt;sup&gt;a&lt;/sup&gt;</td>
<td>5.1%&lt;sub&gt;b&lt;/sub&gt;</td>
<td>5.8%&lt;sub&gt;a,b&lt;/sub&gt;</td>
</tr>
<tr>
<td>Total / Sum Sexting</td>
<td>12.7%</td>
<td>9.2%</td>
<td>11.9%</td>
</tr>
</tbody>
</table>

The letters a and b that appear in the tables as a subscript indicate the presence (p < 0.05) or no presence (p > 0.05) of significant difference in the multiple comparisons between the profiles. Equal letters = (p > 0.05) / No Statistically Significant difference. Different letters = (p < 0.05) Statistically significant difference.
The sexting indicator (active) ‘(In the last year) Have you shared pictures or videos of you in underwear or nudes through your cell phone or Internet?’ stands out because it presents a particular trend. The highest percentage is in PS students (6.1%), with a statistically significant difference with SPS students (4.1%). The MDS profiles (5.0%) do not present a statistically significant difference with the other two groups. The sexting indicator (receive) ‘(In the last year) Have you received on your cell phone or Internet pictures or videos in underwear or nudes?’ shows a trend with a higher percentage in the MDS profiles (7.7%), followed by the PS (5.8%) without presenting statistically significant differences between them. A smaller percentage is observed in the SPS (5.1%) with statistically significant differences with the MDS.

In relation to the sum or total of the percentages, the presence of grooming appears as the main risk in the three types of schools. In students of MDS (18.9%), SPS (13.2%) and PS (12.5%).

In relation to the type of school and gender, Table 4 shows the risk of grooming with a higher presence in men of SPS 19.9% and PS 16.9%. In municipal dependent schools, shared risk is 20.4% for men and 17.7% for women.

Cyberbullying indicators show statistically significant differences in almost all the comparison points according to type of school and gender. The Cyberbullying indicator (active) ‘(In the last year) Have you made threats or discriminated against on the Internet or cell phone?’ shows higher percentages in men, in the three types of school administration, with statistically significant differences (p<0.05) with 9.0% in men of MDS, 11.9% in men of SPS, and 9.6% in men of PS. As a complementary result, women do less cyberbullying than men. Cyberbullying (active) in women is observed in 4.2% in MDS, 2.4% in SPS, and 2.6% in PS, with statistically significant differences in relation to the percentages of men in each type of school administration.

In the Cyberbullying indicator (passive) ‘(In the last year) Have you received threats or discrimination through the Internet or cell phone?’, there are no statistical differences in the profiles according to gender in the MDS, with 7.4% in women and 8.2% in men. The statistical differences are observed when comparing SPS, with 5.2% for women and 10.8% for men; and for PS, 4.4% for women and 6.4% for men. Total cyberbullying is higher in men.

The sexting indicators show higher percentages in men with statistically significant differences in relation to women. The sexting indicator (active) ‘(In the last year) Have you shared pictures or videos of you in underwear or nudes through your cell phone or Internet?’ stands out the percentage of men in PS with 10.6% in relation to women with 1.6%. There is also

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<td>Has any contact ever cheated on you through social networks or cell phones with his or her identity?</td>
<td>11.7%</td>
<td>13.7%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Has an contact on the Internet or cell phone pressured you to get private information?</td>
<td>6.0%</td>
<td>6.7%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Total / Sum Grooming</td>
<td>17.7%</td>
<td>20.4%</td>
<td>10%</td>
</tr>
<tr>
<td>Have you received threats or discrimination through the Internet or cell phone?</td>
<td>7.4%</td>
<td>8.2%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Have you made threats or discriminated against on the internet or cell phone</td>
<td>4.2%</td>
<td>9.0%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Total / Sum Ciberbullying</td>
<td>11.6%</td>
<td>17.2%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Have you shared pictures or videos of you in underwear or nudes through your cell phone or Internet?</td>
<td>3.3%</td>
<td>7.0%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Have you received on your cell phone or Internet pictures or videos in underwear or nudes?</td>
<td>4.9%</td>
<td>11.3%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Total / Sum Sexting</td>
<td>8.2%</td>
<td>18.3%</td>
<td>5.7%</td>
</tr>
</tbody>
</table>

a and b determine significant differences between groups (p < 0.05). Equal letters = (p > 0.05) / No Statistically Significant difference. Different letters = (p < 0.05) Statistically significant difference.
a significant gap in the MDS profiles by gender (women 2.8% and men 6.7%) and SPS (women 2.8% and men 6.7%). The sexting indicator (receive) (In the last year) Have you received on your cell phone or Internet pictures or videos in underwear or nudes? shows higher percentages in men, with a higher presence in MDS of 11.3%, followed by SPS with 9.6% and PS with 9.2%. These differences show statistical differences in relation to women in the three types of school. This trend is maintained in the total sexting data with 8.2% in women and 18.3% in men of MDS; 5.7% in women and 16.3% in men of SPS and 4.0% in women and 19.8% in men of PS.

Discussion

The objective is to identify and describe the percentages of cyberbullying, grooming, and sexting in primary and secondary school students in Chile by type of school administration and gender. This purpose appears facing the lack of information, guidance data, and unified views (operationalization) on the definitions of the main risks on the Internet. This lack is also observed in the temporal measure used for its measurement and methodologies in the investigations or in the measured behavior. For this reason it is possible to observe that the prevalence of cyberbullying varies between 5% and 34%, depending on the studies. In Chile, we have cyberbullying data from 5%23, with no differences between types of school administration11, others that indicate 10.6% of aggression through the Internet23 or with a greater presence in men (22.7%), with a significant difference, as in this research.

Cyberbullying has specific characteristics and knowing this allows the work of promotion and prevention along with the intervention focused on risks and cases. The difference between men and women opens the possibility of positive campaigns to reinforce the high points in women, who made less cyberbullying (active) than men, with 2.4% in SPS, 2.6% in PS, and 4.2% in MDS.

Elements such as these and the interest of health professionals and pediatricians in receiving information from social networks can be a scenario of interaction and communication for promotion and prevention in education and health from the active agents. One way is to use the fragmentation that technology allows according to topics (videos, Gifs, infographics, among others) according to risks and specific data on prevention and promotion in education and health.

According to the data obtained, the highest percentage of children, adolescents and young people, over 80%, do not report having experienced deception on the Internet (grooming), aggression on the Internet (cyberbullying) or exposed sexuality (sexting) in the last year. Among the three risks assessed in 12,926 primary and secondary school students, grooming (deception, false identities, and pressure) is the one that has the highest total percentage in the three types of school. The traditional gap or inequality is consistent in the profiles in relation to the statistically significant differences in total grooming in men. It is a higher risk in men where total grooming is 20.4% in MDS, 19.9% in SPS and 16.9% in PS. In the investigations in general, data point in this direction. A research with a pre-teens sample aged 10 to 12 identified that 27.9% of the participants reported having been victims of cyberbullying at least once a week during the last six months19. In Peru, the level of cyberbullying among students was 27.7%. In this country, there have also been publications on bullying in schools in areas where there was terrorism, with a prevalence rate close to 50%24. In this phenomenon, there is a margin of black figure. For each case reported, there may be three cases that are not reported to parents or classmates24.

From prevention, promotion, and cases, the person has an active role, where he or she participates and influences, along with other variables, in his or her well-being and integral health. People are active agents and competent people arrange diverse resources, personal and environmental, to achieve an objective in a particular socio-historical context. The actions of people are protective or risk factors in well-being and quality of life, as is the case with social skills, skills for the good life and the empowerment of virtuous circle26. For this reason, the analysis must be made from a social and contextual perspective considering people and their social environment.

Beyond the data, the description of grooming, cyberbullying, and sexting by type of school and gender makes it possible to focus on prevention in the different establishments. An educational process may be more relevant to PS students addressing sexting risk specifically, for example, in men. When a talk on prevention is given at MDS, it may be pertinent to address the risk of cyberbullying or grooming in men and women. Although the risks are present in the different groups, there are particular elements that make it possible to focus the work of prevention or applied to cases.

A major difficulty faced by health, education and parenting professionals and workers is that the concepts of grooming, cyberbullying, and sexting are not present in the reporting systems of the Superintendency of Education in Chile (2013 to 2017), in government investigations or in the Digital Agenda 2017. These concepts are not present in the Safe School program of the Ministry of Education of Chile or in general, they are not present in the School Coexistence programs of the Schools or PEI.
References


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Conflicts of Interest

Authors declare no conflict of interest regarding the present study.

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