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Gender Differences in Social Media Use and Cyberbullying in Belize

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Abstract

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Intro: Cyberbullying is a global issue that usually occurs with increased social media usage. A number of studies have found significant gender differences in social media use and cyberbullying, although gender differences are not consistent across studies. Despite the increase in access to cellphones and Internet in Belize, no studies have investigated how adolescents are using these resources. The purpose of this study was to investigate gender differences involving how adolescents in Belize are using social media and if cyberbullying is a problem.

Methods: A written 25 question survey was created based on previous cyberbullying and social media surveys. It consisted of ranking items, rating items on a 5-point scale, yes or no questions, and questions that asked students to check all that apply. Counselors from all six districts of Belize were asked to disseminate the surveys to all of the primary and secondary schools in their districts.

Results: 303 participants responded with 68 males and 235 females. A chi-square test of independence found that females were significantly more likely to post very often to Snapchat, $\chi 2\ (4) = 13.78$, $p<.01$, and Instagram, $\chi 2\ (4) = 14.95$, $p<.01$. Females were also significantly more likely to prevent certain people from accessing their social media content, $\chi 2\ (1) = 5.67$, $p=0.02$. Males were significantly more likely to use a gaming

console for about six hours a day, $\chi 2$ (6) = 14.79, $p<.05$. 15% of the students had been a victim of cyberbullying and there was not a significant difference between genders, $\chi 2$ (1) = 2.28, $p=0.10$. However, females were significantly more likely to report cyberbullying to an adult, $\chi 2$ (3) = 8.84, $p=0.03$.

Discussion: These results provide preliminary information about social media use and cyberbullying in Belize. It indicates that gender differences exist within social media use and cyberbully reporting, and future studies should investigate influencing cultural factors.

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Gender Differences in Social Media Use and Cyberbullying in Belize

Introduction

Cyberbullying is a relatively recent phenomenon that occurs with increased social media usage in countries throughout the world (Sakellariou, Carroll, & Houghton, 2012). Numerous incidents of cyberbullying have been reported in countries such as the United States, Australia, Taiwan, South Africa, Turkey, and Mexico (Aricak et al., 2008; Burton & Mutongwizo, 2009; Gámez-Guadix, Villa-George, & Calvete, 2014; Huang & Chou, 2010; Lenhart, 2007; Sakellariou, Carroll, & Houghton, 2012). In 2006, an international review of 14 studies conducted in Canada, Australia, the United States, and the United Kingdom found that between 10 to 42 percent of participants were victims of some form of cyberbullying (Kraft, 2006). Most of the research studies about cyberbullying exist in Europe, North America, Australia, and Asia, while no studies have been conducted in South America despite the increase in cell phones and internet access in recent years.

Definition

Cyberbullying first needs to be defined in a comprehensive way. Jung et al. (2014) briefly defined cyberbullying as repeatedly inflicting harm to another person through the use of electronic devices. A longer definition was provided by Bill Belsey who stated that cyberbullying "…involves the use of information and communication technologies such as email, cellphone and text messages, instant messaging, defamatory personal websites, and defamatory online personal polling websites to support deliberate, repeated and hostile behavior by an individual or group that is intended to harm others (Burton & Mutongwizo, 2009, p. 1)." Cyberbullies use a number of different sites and

means of communication to attack their victims, which is important to keep in mind when conducting research on it.

Negative Effects

The negative effects of cyberbullying have been investigated by a number of studies. Cyberbullying victims have been shown to have higher depressive symptoms, decreased self-esteem, academic problems, and increased suicidal ideation (Faryadi, 2011; Udris, 2014). The relationship between cyberbullying and depression is not culture-bound with studies finding similar results in Spain, Korea, Mexico, and the United States (Gámez-Guadix, Orue, Smith, & Calvete, 2013; Gámez-Guadix, Villa-George, & Calvete, 2014; Jung et al., 2014; Selkie, Kota, Chan, & Moreno, 2015). Additionally, some studies have found that the negative effects of cyberbullying may vary based on the gender of the person being bullied. A study in 2013 found that cyberbullying victimization was a significant predictor of depression for female high school students but not for males (Bauman, Toomey, & Walker, 2013). It also found that being a cyberbully was a significant predictor of suicide attempts for males but not for females. Given these differences, it is important to not only study cyberbullying but also how it is affecting genders differently.

Literature Review

As stated previously, research on cyberbullying has been conducted in a number of countries throughout the world. A lot of studies have been conducted in the United States where 92% of adolescents' report that they go online daily and 71% have more than one type of social media account (Lenhart, 2015). Studies have found that anywhere

from 3% to 72% of students in the United States have been a victim of some form of cyberbullying (Selkie, Fales, & Moreno, 2016). The large difference in estimated prevalence is most likely due to differences in research designs (e.g., different definitions of cyberbullying, age groups, etc.). One study in 2007 used a nationally representative sample of 935 teenagers and found that 32% had been a victim of some form of cyberbullying (Lenhart, 2007). This estimated prevalence may be more accurate because the study used a specific definition of cyberbullying and attempted to get a representative sample of the population. Additionally, while most of the research focuses on students from elementary school through high school, another study by MacDonald and Roberts-Pittman (2010) found that 22% of college students have also been cyberbullied during college. This suggests that cyberbullying affects a wide range of age groups in the United States.

Studies in the United States have also shown that there are gender differences in both social media usage and cyberbullying. A large study conducted in 2007 found that Instagram and Snapchat are dominated by girls in the United States with 61% of girls using Instagram compared to 44% of boys and 51% of girls using Snapchat compared to 31% of boys (Lenhart, 2007). Videogames are more male oriented with 84% of boys playing video games online compared to 59% of girls. Another study conducted in 2013 found that 60% of adolescents have a private Facebook profile, which means that they only allow their friends to see their profile (Madden, Lenhart, Cortesi, Gasser, Duggan, Smith, & Beaton, 2013). This was significantly different by gender with more girls (70%) having a private profile compared to boys (50%). These gender differences in social

media usage and communication may also affect gender differences in cyberbullying in the United States. One study found that a higher percentage of girls (38%) reported being a victim of cyberbullying than boys (26%) (Lenhart, 2007). These gender differences may be cultural therefore it is important to investigate cyberbullying trends in other countries.

Australia has also conducted a number of studies on cyberbullying. A study in 2012 investigated cyberbullying among 1,530 male primary and secondary school students (Sakellariou, Carroll, & Houghton, 2012). It found that 11.5% of the students had experienced cyberbullying during the school year. This is on the lower end of the prevalence estimates for cyberbullying in other countries, however, this study only included male students. Higher prevalence results were found in another study that included both male and female primary and secondary students in Australia (Dooley, Gradinger, Strohmeier, Cross, & Spiel, 2010). That study found that 20% of the students had been a victim of cyberbullying with more girls (11%) being a victim than boys (9%). The overall estimates of prevalence in Australia are lower than some of those in the United States, however, a similar trend of more females being victims of cyberbullying was found.

Cyberbullying has also been a reported problem in countries in Asia. In Taiwan, a study in 2010 found that 35% of the junior high school students surveyed had been victims of cyberbullying (Huang & Chou, 2010). The gender differences results found the opposite trend of western countries with more male students reporting experiences of being a victim of cyberbullying than females. Another study conducted in Korea found a

much lower cyberbullying prevalence (3%) among elementary and middle school students, but it found a similar trend in gender differences (Jung et al., 2014). Specifically, the results found that significantly more males (14%) were involved in cyberbullying than females (5%). It appears that more males are victims of cyberbullying but more males are also the perpetrators. This information suggests that gender differences in cyberbullying are influenced by culture, although it is unclear exactly what aspects of culture are driving these differences.

To our knowledge, no studies on cyberbullying and social media usage have been conducted in South America, however, a study on cyberbullying was conducted on adolescents in Mexico in 2014 and it is a country that borders Belize (Gámez-Guadix, Villa-George, & Calvete, 2014). This study found a high prevalence rate of cyberbullying with 42% of adolescents reporting that they had performed a cyberbullying behavior and 45% reporting that they had been a victim of cyberbullying. Significantly more boys (47%) than girls (39%) had performed a cyberbullying behavior and more boys (47%) than girls (45%) were victims of cyberbullying although that was not a significant difference. These results relate more to the gender difference trends found in Asia, and the overall high prevalence of cyberbullying suggests this is a problem that needs to be addressed in Mexico.

Alarmingly, some studies have found that students are unwilling to report that they have been a victim of cyberbullying or that they know a victim of cyberbullying to an adult. A study conducted in the United States in 2008 found that 90% of the surveyed 12 to 17 year olds reported that they did not tell an adult about cyberbullying incidents

(Juvonen & Gross, 2008). Another study in the United States found that the majority of the middle and high school students did not believe that adults at their school could help them if they were being cyberbullied (Agatston, Kowalski, & Limber, 2007). The students were more likely to report being a victim of cyberbullying to a parent, however, a number of students were afraid that their parents would remove online privileges.

A study conducted in Canada investigated whether there were gender differences in whether or not a student would report being a victim of cyberbullying (Li, 2006). The study found that no significant gender differences existed on whether students believed that adults could help stop cyberbullying. However, it found that females were significantly more likely than males to report being a cyber victim to adults. Another study conducted in Australia and Austria also found significant gender differences (Dooley, Gradinger, Strohmeier, Cross, & Spiel, 2010). They found that about 90% of girls had asked an adult for help with cyberbullying compared to 79% of boys in Australia. Additionally, a similar pattern was found in Austria with significantly more girls (42%) compared to boys (19%) seeking help. This indicates that gender differences in reporting cyberbullying may exist in other countries as well.

To our knowledge, no studies have been conducted on social media use and cyberbullying in Belize, despite the fact that Belize has seen a rise in technology and internet usage in recent years. The number of cellphone users in Belize increased from 7% to 61% from 2000 to 2016, and the reported percentage of people using the internet in 2016 was 45% (Belize Profile, 2016; Mobile Cellular, 2015). These recent changes in technology usage mean that it is important to get information about how it is being used

especially by younger people. Collecting information about gender differences in social media usage and cyberbullying can help officials in Belize understand if cyberbullying is a problem and how it is connected to social media usage.

Purpose

The purpose of this study is to investigate whether there are gender differences in social media use and cyberbullying in Belize. Our first hypothesis is that there will be significant gender differences in the social media sites that Belize youth are using. Based on previous research in the United States, we hypothesize that Snapchat and Instagram will have more female users and gaming consoles will be used more by males.

Our second hypothesis is that significant gender differences will exist with social media privacy. Since females in the United States are more likely to prevent someone from accessing their Facebook profile content, we expect that significantly more females will keep social media content private in Belize.

Our third hypothesis is that we will find significant gender differences in cyberbullying. Since we found mixed results on whether more males or females will report being a victim of cyberbullying, it is unclear whether we should expect more females or males to report being a victim of cyberbullying in Belize. However, previous research does support our hypothesis that more females will be willing to report cyberbullying incidents to an adult.

Methods

Participants

The participants in this study were recruited from primary and secondary schools in the six districts of Belize. Of the 303 participant responses, 68 were males and 235 were females between the ages of 11 to 25 years old (M=14.77, SD=2.07). The students above the age of 18 were still included in this study because they were still in the secondary school environment. Most of the participants were from the district of Belize (73%) while the rest of the participants were from Cayo (14%) and Toldeo (13%). None of the participants were from the districts of Orange Walk, Stann Creek, or Corozal.

Sampling Procedure

Counselors with the Ministry of Education in Belize disseminated the surveys to willing participants after obtaining both the child and the parent's consent. The counselors were instructed to contact all of the students in primary and secondary schools in their school districts, so the schools were selected using convenience sampling. Surveys were administered in the child's classroom during a break period in the school day. In order to keep the survey information private, envelopes were given with the survey so students could conceal their answers after completion. Additionally, no identifying information was collected on the surveys in order to keep the participants anonymous. Participants were not compensated for taking the survey.

Sample Size

The sample size for both genders was intended to be equal, however, this study had a much larger number of female respondents compared to males. A chi-square test of independence was still used to assess gender differences because the assumptions of independence and expected frequencies were not violated for most of the questions. If the

cells had an expected count of less than five, the fisher's exact test was referenced. However, caution should still be used to interpret the results because of the uneven sample sizes and because the data was obtained using convenience sampling.

Measures

A written 25 question survey was used to collect the data for this study. The survey took about 10 minutes to complete and it consisted of ranking items, rating items on a 5-point scale, yes or no questions, and questions that asked them to check all that apply. The survey asked them a few demographic questions (age, district, year in school, and gender) and then it asked them about how much time they spend on social media sites, what devices they used to access these sites, and their experiences with cyberbullying. Figure A1 is a copy of the survey that was used in this study.

All of the counselors received the same written instructions about disseminating the survey to the participants, and they were able to contact the head researcher if they had any questions. This is the first social media and cyberbullying survey administered in Belize, so it does not have previously established cultural validity. However, it is based on previously conducted social media and cyberbullying surveys in Canada and Mexico (Gámez-Guadix, Villa-George, & Calvete, 2014; Li, Q, 2006).

Research Design

Counselors first contacted the parents of students in order to obtain consent. Once all parents at a school had been contacted, counselors set up a time with school for the surveys to be distributed. Students were given an envelope containing an assent form and the social media survey by their school counselor during a break period in their school

day. The students were instructed to review the assent form and if they wished to participate in the study, they had to sign it. Students had approximately 15 minutes to complete the assent form and survey. If the students did not want to participate, they were instructed to remain in their seats until the 15-minute survey-taking period was complete. After approximately 15 minutes elapsed, the students were told to place the survey and assent form, completed or not, back into the envelope. The students sealed the envelopes and return them to the counselors, who then mailed them to Daniel Houlihan Ph.D. at Minnesota State University, Mankato.

Data Analysis

Demographic information was collected on grade level, gender, age, and districts of Belize, however, grade level was removed from the analysis because the majority of the participants' responses to grade level were missing. The question may not have been clear enough to obtain accurate answers. Both gender and age were only missing about 1% of the data and the districts variable was missing about 13% of the data.

All of the relevant questions were checked for out-of-range responses and inaccurate responding. Many of the respondents seemed confused by the ranked questions that asked them to rank items from most to least. Respondents with odd responses (e.g., indicating that all items were the most used) were removed, which caused some of the ranked questions to have over 50% of the data counted as missing. This resulted in the removing of 4 out of the 5 ranked questions from the analysis. The only ranked question that remained was about responses to bullying on social media because

all of the items on that question were missing less than 20% of the data. None of the other questions had a large problem with odd responding or missing data.

Since this study used a new survey, internal consistency reliability was measured on the questions that used rating scales (1=Very Often to 5=Never). It found an acceptable Cronbach's Alpha of .76 for the questions related to how often students are posting to different social media sites. An acceptable Cronbach's Alpha of .73 was also found for the questions about how often students are talking to social media friends outside of social media.

Results

Social Media Sites

Frequencies were run to gain percentages for the data. Facebook (75%) had the largest percentage of students using it daily while Twitter had the lowest percentage (7%). Additionally, 19% of students reported that they post to Facebook very often compared to only 2% posting very often to Twitter. However, Snapchat (20%) and other social media sites (28%) both had higher percentages of students posting very often to their sites. These results can be seen in Table B1.

Gender Differences for Social Media Sites

Instagram and Snapchat both had significant gender differences in usage. According to a chi-square test of independence, there was a significant relationship between a student's gender and how often they post material on Instagram, $\chi 2\ (4) = 14.95$, $p<.01$. As seen in Table B2, males were more likely to report never posting (64%) than females (39%), and females were more likely to report posting very often (16%)

than males (5%). A similar significant relationship was found for Snapchat, $\chi 2$ (4) = 13.78, $p<.01$. Males were more likely to report never posting (70%) than females (44%), and females were more likely to report posting very often (24%) than males (7%). These results can be seen in Table B3.

Electronic Devices

The results of this study indicated that 67% of students used smartphones, 43% used computers, and 41% used an iPad or tablet device to access the web. Students reported using smartphones the most with an average of 4.18 (*SD*=2.00) hours per day, and gaming consoles were used the least with an average of 2.18 (*SD*=1.74) hours per day (Table B4). Additionally, smartphones were used to access social media an average of 3.79 (*SD*=2.03) hours per day, while gaming consoles were only used an average of 2.05 (*SD*=1.65) hours per day (Table B4).

Gender Differences in Electronic Devices

According to a chi-square test of independence, there was a significant relationship between a student's gender and how many hours a day they spend using a gaming console, $\chi 2$ (6) = 14.79, $p<.05$. Seven of the cells had an expected count of less than five, therefore, the fisher's exact test was referenced and it found that the relationship was also significant ($p=.01$). As seen in Table B5, the percentage of males (16%) using a gaming console six hours a day was twice as high as females (8%). Additionally, females (65%) were more likely to report using a gaming console one hour a day than males (34%).

Social Media Privacy

Students were also asked to report if they prevent certain people from accessing their social media content. 76% reported that they prevent certain people from accessing posts, while 24% reported that they did not. Teachers were prevented the most out of all types of people with 49% of students reporting that they prevent their teachers from accessing their social media content. Friends were prevented the least with only 22% of students reporting that they prevent a friend (Table B6).

Gender Differences in Social Media Privacy

A chi-square test of independence found that there was a significant relationship between a student's gender and whether they prevent certain people from accessing their social media content, $\chi 2$ (1) = 5.67, p=.02. As seen in Table B7, females were more likely to prevent certain people from accessing their social media content (79%) than males (64%).

Cyberbullying

Relating to cyberbullying, 15% of students reported being bullied on a social media site. This varied by district with 14% of the students being cyberbullied in Belize, 10% in Toledo, and 24% in Cayo. Overall, 66% of the surveyed students reported that they had a friend who has been bullied on a social media site. 72% of students also reported knowing someone who had bullied others while on social media, and 62% of students reported that cyberbullying was a problem in their school. Students ranked their responses to bullying on a scale of 1 to 4 (1 = most, 4 = least). They reported that they would most likely respond to bullying on social media by ignoring it (M=2.00, SD=1.08),

reporting it (*M*=2.03, *SD*=1.06), and blocking it (*M*=2.05, *SD*=1.03). They were least likely to participate in it (*M*=3.74, *SD*=0.74).

Gender Differences in Cyberbullying

According to a chi-square test of independence, there was not a significant gender difference for whether a student experienced being bullied on a social media website, $\chi 2$ (1) = 2.28, *p*=.10. However, as can be seen in Table B8, more males (21%) reported being bullied on a social media site than females (13%).

A chi-square test of independence found that there was a significant relationship between a student's gender and whether they know a friend who has been cyberbullied, $\chi 2$ (1) = 4.93, *p*=.03. Females were more likely to report knowing a friend who had been cyberbullied (66%) than males (50%). Additionally, there was a significant relationship between a student's gender and whether they know people who have cyberbullied others on social media sites, $\chi 2$ (1) = 12.06, *p*=.001. Females were also more likely to report knowing someone who cyberbullied others (76%) than males (54%). Similar significant results were found for the relationship between gender and whether students believe that cyberbullying is a problem in their school, $\chi 2$ (1) = 6.29, *p*=.01. Females were more likely to report that they think it is a problem (65%) than males (48%).

There was only one significant gender difference among the ranked responses to cyberbullying. A significant relationship was found between a student's gender and whether they would report cyberbullying, $\chi 2$ (3) = 8.84, *p*=.03. As seen in Table B9, females were more likely to rank reporting cyberbullying as the action they would be most likely to do (48%) than males (26%).

Discussion

The results of this study supported our first hypothesis of significant gender differences occurring within social media sites. Snapchat and Instagram both had significantly more females using those sites often, and males were spending significantly more time using gaming consoles. This is similar to the results found in the United States and suggests that social media sites in Belize are being used in a similar way.

Our second hypothesis was also supported by the results of this study. Similar to the United States, females were more likely than males to prevent certain people from accessing their social media content. The percentages were higher in Belize for both males and females, however, our study also asked a broader question about privacy of all social media content compared to the study in the United States that only asked about Facebook. It is possible that the percentages in our study would have been lower if the question only asked about Facebook privacy.

The third hypothesis in our study was only partially supported. We did not find significant gender differences for being a victim of cyberbullying. More males reported being a victim of cyberbullying compared to females, which is similar to the results found in Asia and Mexico. This indicates that some aspect of culture shared between countries in Asia and Belize may be influencing this gender difference. Additionally, the overall prevalence of cyberbullying in Belize (15%) was much lower than the prevalence in Mexico (42%) (Gámez-Guadix, Villa-George, & Calvete, 2014). This is surprising because the countries are so close to each other and they share a similar trend in gender differences. However, this difference may exist because of the differences between the

Belize and Mexico samples. 84% of the students in the Mexico study had access to cellphones that they could use to communicate, compared to 67% of the students in our sample that had access to smartphones. Additionally, 94% of the students in the Mexico sample used the Internet compared to the estimated prevalence of 45% of the population of Belize having access to the Internet (Belize Profile, 2016). This means that as cell phone and internet access increase in Belize, the number of students being cyberbullied may increase as well.

An interesting and unexpected result of this study occurred with the gender differences in the other cyberbullying questions. Despite the results indicating that more males are cyberbullying victims, females were significantly more likely to know a friend who has been cyberbullied. Females were also significantly more likely to know a cyberbully and think that cyberbullying is a problem at their school. This gender difference may be occurring because of communication differences between genders. Students may be more willing to talk about cyberbullying with female students and this would result in more female students being aware that cyberbullying is occurring at their school.

Our third hypothesis also predicted that more females would report cyberbullying incidents to an adult compared to males. This hypothesis was supported by the results with significantly more females reporting that they would most likely respond to cyberbullying by reporting it. The results of our study are similar to the results found in Austria but much lower than the results found in Australia (Dooley, Gradinger, Strohmeier, Cross, & Spiel, 2010). It is possible that students in Australia feel like they

can trust adults at their school to help with cyberbullying compared to students in other countries. Studying how Australia handles cyberbullying in schools could help increase the number of students seeking help in other countries.

Limitations

While this study provides a lot of preliminary information about social media usage and cyberbullying in Belize, there are a number of limitations that should be considered. This study used convenience sampling so the results might not generalize to the adolescent population in Belize. Additionally, surveys were sent to all of the districts of Belize and responses were only received from three of the six districts. Most of the responses came from the district of Belize, and this also limits the generalizability of the study.

Another limitation of this study is the large difference between the number of males and females in this study. In order to protect confidentiality, no specific school information was collected, however, it is possible that some of the schools that were surveyed were female only schools. Another possibility is that females were more willing to take an optional survey during school time. It is unclear exactly why the responses were overwhelmingly from females, but for the most part it did not affect the ability of the chi-square tests of independence to detect significant differences. When there was an issue of expected cell counts of less than five, the fisher's exact test was referenced. This test helps correct this problem, however, those results should still be considered with caution.

The survey in this study also has some limitations. While it is based on questions used in previous studies, it has not been evaluated for validity or test-retest reliability with the current population. Additionally, the grade level and ranked questions seemed to confuse a number of the students, which resulted in the removal of these items from the study. The survey also may have missed some of the commonly used social media sites in Belize because 38% of the students selected "Other" when asked what social media sites they use daily.

Implications for Future Research and Conclusion

The results of this study can provide a good basis for future studies conducted in Belize and possibly other countries in South America. It can be used by officials in Belize to help formulate a plan to address cyberbullying in each school district and for each gender. Future replications of this study should re-evaluate the ranked questions on the survey and possibly include an example of how ranked questions should be answered. Additionally, future researchers could include an initial verbal explanation of how to answer ranked questions and the grade level question. A new question that should be included in a replicated version of this study should be about whether the participant has cyberbullied other people. This would give us an idea about how many students are self-reported cyberbullies and if a significant gender difference exists.

Further research also needs to be conducted to assess validity and test-retest reliability of this survey and use a better sampling procedure. While convenience sampling provided preliminary information about cyberbullying in Belize, it is unclear if this result can generalize to the overall population. It is also important for future studies

to get samples from all of the districts of Belize and get a sample sizes that are more similar between genders.

An interesting study that could be conducted in the future should look at cultural factors influencing gender differences in cyberbullying. It looks like some cultural factors may be causing more males to be victims of cyberbullying in countries in Asia and Belize. Multiple studies in North America and Europe indicate that females prefer indirect and verbal aggression, which might be why cyberbullying is more female oriented (McAndrew, 2014). However, studies in Asia and South America have also found similar trends with girls preferring relational aggression and boys preferring overt aggression (Cheng, 2009; Hines & Fry, 1994; Huang & Chou, 2010). Therefore, it is still unclear why there are similar trends in aggression across cultures, but there are different gender differences in cyberbullying. Other cultural factors may be influencing this difference.

In conclusion, this is the first study to provide information about social media usage and the prevalence of cyberbullying in Belize. It also provides evidence that gender is influencing social media usage and some aspects of cyberbullying. Cyberbullying has already started among students in Belize and future studies need to monitor the changes overtime.

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Appendix A

Figure A1. Questions from the Belize Social Media and Cyberbullying Survey

Name: _____

Demographics

Grade Level/Year in school _____

Male [ ] Female [ ]

Age: _____

<<<<< Check (√) the district your school is in.

How often do you post materials on the following sites/apps? (*Circle one*)

• Facebook:	Very Often	Often	Sometimes	Rarely	Never
• Instagram:	Very Often	Often	Sometimes	Rarely	Never
• Twitter:	Very Often	Often	Sometimes	Rarely	Never
• Snapchat:	Very Often	Often	Sometimes	Rarely	Never
• kik:	Very Often	Often	Sometimes	Rarely	Never
• Other_____	Very Often	Often	Sometimes	Rarely	Never

Do you make new friends using these sites or apps? (*Check one*) [ ] Yes [ ] No

How often do you receive positive feedback for the pictures you post of yourself?

Very Often Often Sometimes Rarely Never

How often do you receive negative feedback for the pictures you post of yourself?

Very Often Often Sometimes Rarely Never

Of the friends that you talk to on social media, how often do you talk to them outside of social media sites/apps? (*Circle one*)

• Facebook:	Very Often	Often	Sometimes	Rarely	Never
• Instagram:	Very Often	Often	Sometimes	Rarely	Never
• Twitter:	Very Often	Often	Sometimes	Rarely	Never
• Snapchat:	Very Often	Often	Sometimes	Rarely	Never
• kik	Very Often	Often	Sometimes	Rarely	Never
• Other_____	Very Often	Often	Sometimes	Rarely	Never

Usage

Devices (phone or laptop or iPad/tablet device)

Which web access device do you use? [ ] Smart phone [ ] Computer [ ] iPad/tablet device

How many hours a day do you spend using the following devices?

- Smart phone: [ ] 1 hour [ ] 2 hours [ ] 3 hours [ ] 4 hours [ ] 5 hours [ ] 6 hours
- Computer: [ ] 1 hour [ ] 2 hours [ ] 3 hours [ ] 4 hours [ ] 5 hours [ ] 6 hours
- iPad/tablet device: [ ] 1 hour [ ] 2 hours [ ] 3 hours [ ] 4 hours [ ] 5 hours [ ] 6 hours
- Xbox/PlayStation/etc: [ ] 1 hour [ ] 2 hours [ ] 3 hours [ ] 4 hours [ ] 5 hours [ ] 6 hours

How many hours a day do you spend on social media using these devices?

- Smart phone: [ ] 1 hour [ ] 2 hours [ ] 3 hours [ ] 4 hours [ ] 5 hours [ ] 6 hours
- Computer: [ ] 1 hour [ ] 2 hours [ ] 3 hours [ ] 4 hours [ ] 5 hours [ ] 6 hours
- iPad/tablet device: [ ] 1 hour [ ] 2 hours [ ] 3 hours [ ] 4 hours [ ] 5 hours [ ] 6 hours
- Xbox/PlayStation/etc: [ ] 1 hour [ ] 2 hours [ ] 3 hours [ ] 4 hours [ ] 5 hours [ ] 6 hours

Sites

Which of these sites do you use daily? (Mark √ all that apply)

[ ]Facebook [ ]Snapchat [ ]Twitter [ ]Instagram [ ]kik [ ]Confessional Sites Other_____

Rank in order which social media sites/apps you use most often. (1 = *Most*, 6 = *Least*)

- ____ Facebook
- ____ Snapchat
- ____ Twitter
- ____ Instagram
- ____ kik
- ____ Confessional Sites
- ____ Other: _____

Rank in order which social media sites/apps your friends use most often (1 = *Most*, 6 = *Least*)

- ____ Facebook
- ____ Snapchat
- ____ Twitter
- ____ Instagram
- ____ kik
- ____ Confessional Sites
- ____ Other: _____

Preferences

Rank which social media characteristic you find most appealing. (1 = *Most*, 5 = *Least*)

- _____Anonymity (e.g., kik)

- _____Camera Usage (e.g., SnapChat)
- _____Networking Capabilities (e.g., Facebook, LinkedIn)
- _____Picture/Video Blog (e.g., Instagram, Tumblr, YouTube)
- _____Literary Blog (WordPress, Blogger)

Rank your reasons for social media participation. (1 = *Most*, 5 = *Least*)

- _____Learning
- _____Interaction
- _____Personal Expression
- _____Escape
- _____To Entertain

In your experience, what is social media most used for? (*Check all that apply*)

[ ] Picture sharing [ ] Video chat [ ] Confession site [ ] News feed [ ] Event sharing
[ ] Text based conversations [ ] Status updates [ ] General gossip

Which of the following methods do you use most often when communicating with friends?

[ ] Picture sharing [ ] Video chat [ ] Confession site [ ] News feed [ ] Event sharing
[ ] Text based conversations [ ] Status updates [ ] General gossip

Social Media Image

Do you prevent certain people from accessing content you post on social media? [ ] *Yes* [ ]No

- ***If yes*, who do you prevent from accessing the content?** (*Check all that apply*)

[ ] Boss [ ] Teachers [ ] Parents/guardians [ ] Relatives [ ] Friends Other:_____

Participation (Active vs. Passive)

When you comment on a post, do you usually comment anonymously? [ ] Yes [ ] No

When you post a comment anonymously, is it usually: [ ] Positive ***or*** [ ] Negative

Do you feel like you miss out on things if you don't check social media site often? [ ] Yes [ ] No

Violence and Bullying

Have you experienced being bullied while on a social media site? [ ] Yes [ ] No

Do you have a friend that has been bullied while on a social media site? [ ] Yes [ ] No

Do you know people who have bullied others while on a social media site? [ ] Yes [ ] No

Is social media bullying something that presents a problem in your school? [ ] Yes [ ] No

Rank which you would be most to do in response to bullying on social media. (1 = *Most*, 4 = *Least*)

- _____ Participate in it
- _____ Ignore it
- _____ Report it
- _____ Block it

Appendix B

Table B1
Social Media Usage

Social Media Site	Percent Using Daily	Percent Posting Very Often
Facebook	75%	19%
Snapchat	34%	20%
Twitter	7%	2%
Instagram	31%	13%
Kik	13%	8%
Confession Sites	8%	N/A
Other	38%	28%

Table B2
Percentages for Gender and Posting on Instagram

Gender	Frequency of Posting on Instagram				
	Never	Rarely	Sometimes	Often	Very Often
Male	64%	10%	17%	3%	5%
Female	39%	19%	16%	11%	16%

Table B3
Percentages for Gender and Posting on Snapchat

Gender	Frequency of Posting on Instagram				
	Never	Rarely	Sometimes	Often	Very Often
Male	70%	9%	7%	7%	7%
Female	44%	12%	10%	11%	24%

Table B4
Electronic Device Usage per Day

Electronic Device	Average Hours Used	Average Hours on Social Media
Smartphone	4.18 (*SD*=2.00)	3.79 (*SD*=2.03)
Computer	2.82 (*SD*=1.74)	2.76 (*SD*=1.82)
iPad/Tablet Device	3.08 (*SD*=2.00)	2.90 (*SD*=1.99)
Gaming Console	2.18 (*SD*=1.74)	2.05 (*SD*=1.65)

Table B5
Percentages for Gender and Hours Spent on a Gaming Console per Day

Gender	Hours Spend on a Gaming Console					
	1	2	3	4	5	6
Male	34%	16%	16%	11%	8%	16%
Female	65%	11%	4%	7%	5%	8%

Table B6
Percent of Students that Prevent Access from a Specific Type of Person

Type of Person	Prevent Access to Social Media Content	
	No	Yes
Boss	83%	17%
Teachers	51%	49%
Parents/Guardians	54%	47%
Relatives	58%	42%
Friends	78%	22%
Other	57%	43%

Table B7
Percentages for Gender and Preventing Access to Social Media Content

Gender	Prevents Access to Social Media Content	
	No	Yes
Male	36%	64%
Female	21%	79%

Table B8
Percentages for Gender and Experienced Bullying on Social Media

Gender	Experienced Bullying on Social Media	
	No	Yes
Male	79%	21%
Female	87%	13%

Table B9

Percentages for Gender and Likelihood of Reporting Cyberbullying

Gender	Likelihood of Reporting Cyberbullying			
	1 (Most)	2	3	4 (Least)
Male	26%	26%	31%	18%
Female	48%	22%	21%	10%

Students were asked to rank their responses to cyberbullying on a scale from 1 to 4 (1 = most, 4 = least).