

Article

Virtual Relationship Violence and Perspectives on Punishment: Do Gender or Nationality Matter?

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Abstract: Given the increasingly popular use of socially interactive technology (SIT), it is believed that the way in which individuals communicate and experience relationships has drastically been changing. For those who partake in this electronic world, damaging behaviors akin to those found in the real world have emerged. Yet, we know little about the extent of these behaviors in the context of romantic relationships, especially from a gender or cultural standpoint. Research on dating violence generally indicates that women experience in-person victimization at higher rates than men, although some research has called this into question. It also suggests that some national groups experience higher rates of violence than others. However, research is almost non-existent when it comes to exploring violence in the digital world. This study investigated gender and nationality in (1) the nature and extent of socially interactive intimate violence, and (2) perceptions of the seriousness of virtual relationship violence. Using a sample of students from the United States and Poland, findings revealed that socially interactive technology may serve as a new avenue for aggressing against partners, as virtual relationship violence was not uncommon and reflected some patterns present in the real world. Some unexpected patterns also emerged. The results of this research signal a possible transferability of covert intimate violence and highlight ways in which inequalities may exist in our virtual worlds.

Keywords: technology; text messaging; social networking; intimate partner violence; electronic victimization

1. Introduction

Modern technology has allowed us to connect with other individuals in more ways than ever before. Through asynchronous and synchronous methods of interpersonal communication media, our interactions are no longer limited to face-to-face conversations [1,2]. What's more, the interconnectivity of this digital age has brought about shifts in how we experience and encounter one another. Mobile cell phone short messaging services and computer facilitated social networking, both forms of virtual communication, have transformed personal communications and somewhat replaced conventional means of social exchanges. The United States is at the forefront of this communication revolution, with other countries such as those in Europe exponentially increasing socially interactive communications [3]. However, new issues and concerns arise with technological advancements; unintended and unanticipated consequences often emerge. For instance, while virtual communications were intended to ease the way by which we connect [1,2], they have also been misused and known to facilitate harmful behaviors [4]. Media attention has focused on virtual peer violence in the form of cyber harassment and cyber bullying, and it has highlighted the damaging effects such victimization has had on some youth [5–7]. These consequences parallel those found in real world victimization [8]. Yet little research has investigated whether such behavior exists among adults, particularly in the context of intimate relationships, and whether the virtual acts are perceived as innocuous in nature or injustices that need to be addressed. Given the transformations that have taken place in our communication, and given that intimate aggression is not an uncommon experience for young adults, it is thought that social media may present new avenues for aggression, with acts in the virtual world mimicking those in the “real world”.

1.1. Interpersonal Communication Media

The most popular forms of communication today are no longer what they used to be, changing from traditional gatherings, written letters in sealed envelopes, or even a long telephone call to a friend to chatting over social networking or short messaging services. Technology has rapidly advanced and is now a well-established part of our lives. Young adults in particular have grown up in a world where it has always existed, and they have become dependent on social media as means of communication [9]. Technology has, by and large, become a substitute for mediated social interactions [2]. Online social network sites like Facebook and Twitter have taken place of some direct exchanges just as short-messaging services, also known as text messaging, have somewhat replaced written letters and phone conversations. Mobile phones also allow for access to social networking, so they may be used to complete tasks that were once limited. Taken together, digital media have undoubtedly influenced our social interactions and even begun to shape our identities [1]. The real world and virtual world have become highly intertwined.

Examining the use of socially interactive technologies, a lead consumer is the United States. Over 80% of Americans have mobile phones with about over two-thirds of owners using short messaging services (*i.e.*, text messaging) [10]. However, other countries are using such digital media at increasing rates. For instance, estimates suggest that slightly less than 80% of Poles own mobile phones and, of those owners, over three-quarters send and receive short messages [10]. Estimates also suggest that over three-quarters of the American population use the Internet [11] and about two-thirds of the Polish

population do [12]. This reveals similarities in general use of socially interactive technology, which has allowed us to communicate with others without having to be physically present in the same area. Therefore, comparable digital use exists in these countries.

While social media has had many positive things to offer such as the ability to connect, meet, and exchange information, we have not really given much thought to the downside of it, especially when it comes to how it may influence our personal, intimate relationships. Research indicates that technology can change real life behavior [13], and individuals have used it as a means by which they can transgress [5–7,14]. Thus, a transferability of negative behaviors may be taking place from the real to the virtual world; an old act in a new guise. Numerous stories have surfaced about online harassment and peer bullying, highlighting the consequences of such victimization, yet socially interactive violence among the adult population has received little attention, and intimate relationships have received even less. This age group is important to study because its members have the highest risk of being victimized by intimates [15,16]. Exploring this may yield noteworthy insights and offer new discourse in relationship research.

1.2. What Do We Know about Intimate Partner Violence Victimization?

Since research on intimate partner violence victimization via socially interactive technology is almost nonexistent, it is important to consider what we know about in-person intimate partner violence. From a global perspective, research on dating violence generally posits inequality among particular groups' victimization experiences. For instance, gender and nationality are regarded as key variables in understanding victimization and even accessing resources. Women experience in-person intimate partner victimization at higher rates than men [17], particularly those between the ages of 16–24 [16], and some countries have higher rates of intimate partner violence victimization than others [18]. In the United States, it is estimated that about one out of every four women and one out of every thirteen men will experience intimate partner violence in their lifetime [19], some estimates being higher, and it is estimated that more women than men will be stalked in their lifetime [17]. Abroad, it is estimated that about one out of every three females will experience such acts [18]. In Poland, for example, research suggests that over one-third of females will experience physical and/or sexual violence [20]. Thus, females in both countries have comparable victimization rates.

However, research has noted that there may not be such gender discrepancies when it comes to psychologically aggressive behavior. Psychological aggression includes expressive behavior (e.g., name calling and insults) [17,21] as well as coercive control (monitoring and control) [17]. In the United States, it is estimated that about 50% of females and 50% of males report lifetime victimization [17]. National survey estimates asking about whether a partner insulted or swore at the respondent, or did or said something to spite the respondent have reflected similar estimates per year for married couples [22], and other research has suggested that the numbers are much higher at over two-thirds to three-quarters per year for each respective behavior among engaged couples [23]. In Poland, estimates derived using similar Conflict Tactics Scale measures revealed that about 90% of females and 80% of males experience psychological aggression in the context of dating relationships [24]. Thus, alarmingly high rates of such violence exist in both countries. This shows that, in contrast to other forms of intimate partner violence that point to females being at greater risk of

victimization, psychological aggression may not discriminate against the sexes. Therefore, cultural differences may account for psychologically violent victimization experiences.

Despite a lack of research on socially interactive intimate violence, extensive documentation exists suggesting that dating violence increases in frequency and severity over time, and so it can be inferred that partner violence through electronic media also increases in frequency and severity over time. These are not new types of abusive behavior, but rather existing behavior now being seen in a new outlet. Psychological aggression in the context of intimate relationships is important to study for numerous reasons. For one, psychological and emotional intimate partner violence has resulted in numerous consequences [25–28], and some research suggests it may be more devastating than physical violence because it tears at one's sense of self [23]. Anxiety, depression, and stress-related symptoms are some of the many noted outcomes. Further, such acts are important to study because they emerge prior to more observable acts of violence, such as physical aggression, and predict them [22,27–30]. Therefore, psychological aggression is an important component of intimate partner violence.

If psychologically aggressive behaviors transcend into the digital world, we may witness patterns similar as those documented in the real world, which should cause concern given the noted negative sequelae associated with such experiences. As noted, this phenomenon has been found to occur for peer violence. However, adults may not regard these behaviors as serious due to their indirect nature, and while individuals in one culture may view certain behaviors as offensive, individuals in another culture may not. Countries that treat in-person intimate partner violence as a serious matter may have citizens that regard virtual partner violence in the same light. While the United States has made great progress in addressing and responding to intimate partner violence over time, other countries have a longer way to go in victim-oriented services. For instance, criticism has emerged in Poland for a lack of proper institutional responses and for victim blaming in cases of intimate partner violence [31]. Additionally, research in the European Union suggests that there are higher levels of violence acceptability when victim blaming exists and when violence against women is seen as less severe [32]. This, in turn, may influence perceptions of the seriousness of virtual relationship violence. All of this lends way to the following questions: *Do countries comparable in socially interactive technology use share similar intimate victimization experiences or is there a digital divide? Are perceptions of virtual relationship violence the same across groups or do they differ?*

2. Aim of the Study

Research has generally documented higher rates of in-person intimate partner violence against females than males, and differences in the occurrence of such violence based on nationality. Yet, when it comes to covert violence, it can be said that similar victimization rates have generally been observed. Research has also shown that the acceptability of intimate partner violence is influenced by perceptions of its seriousness, but limited research has investigated beliefs of virtual relationship violence. Therefore, the aim of the study is two-fold.

First, it investigates gender and nationality in socially interactive intimate partner violence experiences. Based on the research, it is predicted that females will have rates of victimization equal to or slightly higher than males. It is also anticipated that inequalities will be evidenced in American and Polish victimization experiences based on the previously highlighted findings. Therefore, the hypotheses are as follows:

H₁: It is hypothesized that females will experience socially interactive intimate violence at rates equal to or slightly higher than males.

H₂: It is hypothesized that *socially interactive intimate violence will be higher among Poles than Americans* based on research indicating that Polish individuals are victimized at higher rates than their American counterparts.

Second, the study explores perceptions of the seriousness of virtual relationship violence by examining attitudes toward punishment of socially interactive intimate violence. Using the variables of gender and nationality:

H₃: It is hypothesized that *women will hold more punitive views on socially interactive violence than men* based on research indicating that women generally experience higher rates of intimate partner violence victimization.

H₄: It is hypothesized that *Americans will hold more punitive views on socially interactive violence than their Polish counterparts* since domestic violence is not often regarded as serious of a matter by institutions in Poland when compared to the United States.

3. Methodology

3.1. Participants, Data Collection & Procedures

This study was reviewed and approved by the Principal Investigator's Institutional Review Board, a committee responsible for ensuring that ethical standards are met when conducting research involving human subjects. The study used a sample of college students from the United States and from Poland. A total of five colleges served as sites that were visited. Data were collected through surveys taken by students willing to participate in the study. An online survey was subsequently used to reach a larger number of college students in both countries who did not take the in-person survey. The surveys were identical with the exception of the language they were written in; surveys distributed in the United States were in English while surveys distributed in Poland were in Polish. The surveys were completely voluntary, anonymous, and completed by those 18 years of age and older.

3.2. Measures

In the first part of the investigation, *Gender* and *Nationality* served as independent variables while *Socially Interactive Intimate Violence* served as the dependent. *Gender* includes the sex the respondent identifies with (1 = male, 2 = female) while *Nationality* includes where the respondent resides (1 = United States, 2 = Poland). *Socially Interactive Intimate Violence* was defined as an intentional psychological act/acts of aggression perpetrated by one partner against another via socially interactive means (*i.e.*, social networking and short messaging services/text messaging) designed to hurt or inflict pain. Participants were asked whether they experienced an act/acts by someone they were romantically involved with that intended to upset, anger, or hurt them through short messaging services/text messaging and/or social networking. This is similar to a working definition suggesting that emotional harm or the threat of it directed toward one's sense of self is at the base of psychological aggression [23] and it is consistent with how others operationalized it [33]. Some measures have been criticized in the research base for measuring violence but not the respective consequences, which are

important from a victim-oriented standpoint, so this measure attempted to remedy that [34]. Responses were dichotomized (1 = no, 2 = yes). The respondents were also asked about the means by which the acts occurred (1 = text messaging only, 2 = social networking posts only, 3 = both text messaging and social networking posts).

In the second part of the study, Gender and Nationality served as the independent variables while Attitudes towards the Punishment of Virtual Relationship Violence functioned as the dependent variable. Attitudes towards the Punishment of Virtual Relationship Violence referred to the belief about the seriousness of virtual relationship violence. It was measured by asking respondents whether there are any circumstances where punishment such as arrest or criminal sanction should be given for hurtful, harmful, or wrongful behavior that occurred through text messaging and/or social networking, and, if so, to identify what those behaviors were. Responses were dichotomized for the former question relating to beliefs on punishment (1 = no, 2 = yes) while responses were coded for the contingent question.

4. Data Analyses and Results

4.1. Descriptive Statistics

A total of 516 surveys were collected online and 132 surveys were collected in person (N = 648). All responses were entered into the same dataset. Of these surveys, 86 surveys (*i.e.*, 78 online surveys and 8 in-person surveys) were discarded due to missing data. As a result, 86.7% of the original sample was used (N = 562). The majority of student respondents in the study were White (70.3%), female (70.4%), undergraduates (81.5%), and resided in the United States (84.8%). The age of the participants ranged from 18 to 58 years of age with a mean of 23.2 years (SD = 5.7 years). When examining Polish and American students, descriptive statistics revealed that the groups contained similar characteristics. For instance, the majority of student respondents in the American sample were White (65.5%), female (71.5%), and undergraduates (83.8%) with a mean age of 23.4 (SD = 6.1) while the majority of student respondents in the Polish sample were also White (97.6%), female (63.5%), and undergraduates (68.2%) with a mean age of 22.1 (SD = 3.4). All respondents reported having recently used mobile cellular phones and/or social networking sites (100.0%). On average, respondents reported sending and/or receiving 73.4 text messages per day (SD = 139.6) and spending about 2.5 hours per day on social networking (SD = 2.6).

Results revealed that socially interactive intimate violence is not uncommon. The majority of the sample (60.5%) indicated that their partners had sent a text and/or made a post designed to upset, anger, or hurt them at some point in time. When looking at the ways by which partners aggressed, results showed that most psychological aggression involved both text messaging and social network posting (32.1%), followed by text messaging only (23.1%), followed by social network posting only (5.3%). Results also indicated that over three-quarters of respondents (76.3%) felt that punishment should be given at times when hurtful, harmful, or wrongful acts committed through socially interactive technology. Of the respondents feeling punishment is warranted, nearly half the sample felt there were multiple acts for which one should be punished (46.2%). Among the acts identified were combinations of threats, harassment, bullying, libel, slander, and defamation of character. Others felt punishment should only be implemented when there were serious direct threats

to life (21.3%), followed by only when physical injury resulted (9.6%), followed by when harassment, stalking or bullying occurs (8.2%), followed by libel, slander, and/or defamation (5.8%).

4.2. Bivariate Analyses

In order to investigate whether virtual relationship violence varies by gender and/or nationality, bivariate tests were performed. Cross-tabulations revealed a statistically significant difference between *Gender* and *Socially Interactive Intimate Victimization* ($\chi^2 = 16.36$, $df = 1$, $p < 0.001$). The results suggested that more females reported experiencing socially interactive intimate victimization than not, but more males reported no victimization than having experienced it. Specifically, about two-thirds of females reported being victimized (66.1%) compared to less than one-half of males (46.9%). This supports the hypothesis that suggests that rates of socially interactive violence would be equal or slightly higher among females; here, it is moderately higher for females. Cross-tabulations also indicated that there was a significant relationship between *Nationality* and *Socially Interactive Intimate Victimization* ($\chi^2 = 34.36$, $df = 1$, $p < 0.001$). The results indicated that about two-thirds of American students reported victimization (65.8%) while only one-third of Polish students did (30.3%). See Tables 1 and 2. While results revealed a significant relationship, it was in the opposite direction of what was expected. Americans had reported experienced higher levels of socially interactive intimate violence than Poles.

Table 1. Cross-tabulations of gender and socially interactive intimate violence (N = 526).

Variable	Gender	
	Male	Female
Victimization % Yes	46.9	66.1

$\chi^2 = 16.36$; $df = 1$; $p < 0.001$.

Table 2. Cross-tabulations of nationality and socially interactive intimate violence (N = 526).

Variable	Nationality	
	The United States	Poland
Victimization % Yes	65.8	30.3

$\chi^2 = 34.46$; $df = 1$; $p < 0.001$.

An additional examination was undertaken to explore the means by which individuals were victimized. It revealed that American students were hurt by both text(s)/SMS and SN post(s), followed by text(s)/SMS only, then SN post(s) only while Polish students were hurt most by text(s)/SMS only, then both text(s)/SMS and SN post(s), then SN post(s). This is interesting to note and it appears that Poles may not as bothered by negative social network behavior as their counterparts. It also might point to the more personal nature of text messaging in serving as a platform to transgress. In addition, preliminary results from qualitative focus group interviews (not shown) may offer some insight here, as Polish students indicated that they shared less personal information on SN sites than American students, which may explain why Poles reported less victimization. Nevertheless, the finding revealed that nationality was associated with reports of socially interactive intimate violence experiences.

Bivariate analyses were also performed for the second aim of the study to examine whether a relationship exists between *Gender* and *Attitudes toward the Punishment of Virtual Relationship Violence*, and *Nationality* and *Attitudes toward the Punishment of Virtual Relationship Violence*. Cross-tabulations revealed statistically significant differences for both. See Tables 3 and 4.

Table 3. Cross-tabulations of gender and attitudes toward punishment (N = 526).

Variable	Gender	
	Male	Female
Punishment % Yes	61.5	82.2

$\chi^2 = 16.36; df = 1; p < 0.001.$

Table 4. Cross-tabulations of nationality and attitudes toward punishment (N = 526).

Variable	Nationality	
	The United States	Poland
Punishment % Yes	75.3	81.2

$\chi^2 = 34.46; df = 1; p < 0.001.$

There was a statistically significant difference between Gender and Attitudes toward the Punishment of Virtual Relationship Violence ($\chi^2 = 19.70, df = 1, p < 0.001$), and between Nationality and Attitudes toward the Punishment of Virtual Relationship Violence ($\chi^2 = 1.06, df = 1, p < 0.001$). The results suggested that most females believed punishment was warranted (82.2%) and most males also felt the same way (61.5%), but to a lesser extent. Additionally, most Polish students felt punishment is needed for harmful acts of virtual relationship violence (81.2%), and most Americans also felt this way (75.3%), but only marginally. While the former relationship was expected, the latter was not. Using a layered analysis, follow-up comparisons among these groups revealed a statistically significant difference among groups ($\chi^2 = 18.13, df = 1, p < 0.001$). Polish women had the highest rates of believing punishment was warranted (86.0%), followed by American women (81.5%), followed by Polish men (71.4%), followed by American men (59.4%).

If the majority of females and Americans reported experiencing socially interactive intimate victimization, and if the majority of males and Poles reported not experiencing such victimization, then the results from attitudes on punishment are interesting. They could indicate that females are pressing for punishment at higher rates than males because they are more likely to have been hurt by socially interactive violence. Alternatively, they might signal that men are more tolerant of covert violence than women in both countries, possibly due to gender role socialization. Findings may also be the result of American men being more likely than Polish males to receive actual punishment for offenses against intimate partners [31], making them fear the possibility of punishment if they ever engaged in such offenses.

4.3. Multivariate Analyses

In order to determine if gender and nationality were still significant predictors of socially interactive violence and attitudes toward its seriousness, two separate explorations were conducted. First, logistic regression analysis was implemented using nested models to examine the influence of various

variables socially interactive intimate violence victimization. Age was entered first in the first model, followed by the number of text messages sent/received per day and the amount of time spent per day on social networking in the second model, followed by gender and nationality in the final model. This permitted for an investigation of their independent effects.

The results indicated that the overall model was statistically significant ($\chi^2 = 60.53$, $df = 5$, $p < 0.001$), explaining 15.2% of variance in socially interactive intimate victimization. The difference in Chi-Square statistic suggested that the addition of *Gender* and *Nationality* in the final model significantly improved the model fit. See Table 5.

Table 5. Logit estimates of characteristics on socially interactive intimate violence (N = 562).

Variable	1	2	3
Age	-0.043**	-0.031	-0.045*
# Texts Sent Per Day	-	0.002*	0.001
# Hours Spent on Social Networking Per Day	-	0.046	0.043
Gender	-	-	0.745***
Nationality	-	-	-1.53***
Nagelkerke R Square	0.019	0.038	0.152
Model χ^2	7.041**	14.391*	60.534***
Change in χ^2	-	7.351	46.143

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (two-tailed test of statistical significance).

Results of the analyses signaled that Age, Gender, and Nationality were all significant in the final model, but number of text messages sent per day and number of hours spent on social networks per day were not. As age increased, the odds of victimization decreased. Gender and Nationality were more robust predictors of socially interactive intimate violence than Age. In comparison to males, females had 2.1 times the odds of experiencing socially interactive relationship violence. In comparison to those in the United States, those in Poland had .22× the odds of experiencing it. Stated in another way, those in the United States had nearly 5× times the odds of experiencing socially interactive intimate violence when compared to their Polish counterparts.

In the second investigation, the results suggested that the overall model was statistically significant ($\chi^2 = 21.95$, $df = 5$, $p < 0.001$), explaining 8.0% of variance in socially interactive intimate victimization. The change in Chi-Square statistic suggested that the addition of the final block significantly improved the model fit. See Table 6. *Gender* was the only significant variable in the final model. In comparison to males, females had over 3× the odds of believing punishment was warranted for socially interactive intimate partner violence ($p < 0.001$).

Table 6. Logit estimates of characteristics on attitudes toward punishment of virtual relationship violence (N = 562).

Variable	1	2	3
Age	0.010	0.008	0.017
# Texts Sent Per Day	-	-0.001	-0.001
# Hours Spent on Social Networking Per Day	-	0.048	0.015
Gender	-	-	1.137***
Nationality	-	-	-0.444
Nagelkerke R Square	0.001	0.004	0.080
Model χ^2	0.215	0.946	21.946***
Change in χ^2	-	0.731	21.000

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ (two-tailed test of statistical significance).

5. Discussion

This study analyzed high-risk victimization groups for socially interactive intimate partner violence experiences and perceptions of appropriate responses to it while challenging the assumption that our virtual environments are separate from our real one. The findings revealed that technology has provided us with a forum whereby partners can and have transgressed. Victimization was not uncommon and neither was a call for punishment. This may be indicative of a transferability of behavior and perceptions from the real to the virtual world and suggest that both environments are connected. Indeed, they hold similar patterns.

When exploring communicative violence among intimates in the virtual world, the results revealed that 60% of the sample reported experiencing communicative intimate violence through text messaging and/or social networking. This total estimate is higher than the amount of psychological violence reported in the National Intimate Partner and Sexual Violence Survey (*i.e.*, about 50% for females and males) [17], but lower than the International Dating Violence Study (*i.e.*, about 90% for females and 80% for males) [24]. Nevertheless, the estimates fall within the ranges found for in-person experiences of psychological violence. Turning to bivariate tests, the results showed that approximately two-thirds of females reported being victimized (66.1%) compared to less than one-half of males (46.9%), and about two-thirds of American students reported victimization (65.8%) while only one-third of Polish students did (30.3%).

This study predicted that women would have similar or slightly higher rates of victimization than their male counterparts, and it found support for this, mimicking real world patterns. The study also predicted that socially interactive violence would be lower for Americans than Poles, but it found evidence to the contrary. One plausible explanation for this finding may exist in cultural differences. It is possible that Americans are more inclined to report such experiences than their Polish counterparts.

Multivariate analyses that followed suggested that age, gender, and nationality were important in understanding socially interactive intimate violence victimization, but the frequency of socially interactive technology use was not. Specifically, the older one was, the lower the odds of experiencing socially interactive violence, and in comparison to males, females had higher odds of reporting socially interactive victimization. Additionally, in comparison to American respondents, Polish respondents had lower odds of such victimization. It is possible that one may age out of such behavior [35]. It is

also possible that females and Americans report higher rates of socially interactive intimate partner violence experiences because (1) they actually experience higher rates, or (2) it is a social artifact. In the former case, classical feminist theorists would suggest that findings pointing to higher rates of female victimization may be explained by the gendered nature of power relations in that all human behavior takes place in a stratified system based on gender that is largely dominated by males [36]. Another explanation may reside in the highly individualistic culture of the United States and the more collective nature of Poland [37]. It is possible that collective cultures look after their members more than individualistic ones and, accordingly, deter would-be offenders. On the other hand, it is possible that those living in collective cultures may view intimate violence as a private matter.

In the case of the latter, males and Poles may underreport their experiences as a symptom of social arrangements that dictate the way they behave. Specifically, gender role theory would state that social and behavioral prescriptions are constructed based on one's gender, which are expressed in a variety of social settings and can differ across cultures. For instance, according to gender role socialization, males are taught to be tough and refrain from expressing feelings in the same manner females do. Since violations of these social norms may result in the males as being perceived as weak or vulnerable, they withhold from admitting to these experiences. From symbolic interaction theory, this phenomenon is referred to as "doing gender" [38]. Changes can occur when social structures do, so gender is the byproduct of socialization and culture. Additionally, social norms dictate the seriousness of certain forms and types of violence. In patriarchal societies, intimate partner violence and more specifically psychological aggression may be viewed as less serious in nature than stranger violence or physical and sexual aggression, influencing the results. These are all possible interpretations that need further investigation, as there is a possibility that gender symmetry may exist once accounting for these factors.

Nevertheless, such speculations present interesting avenue for thought. While typical family violence theories argue that those with power perpetrate violence against the powerless in the real world [36], such theories may also explain violence in the socially interactive world. The findings offered in this study may signal that the power relations are still important in understanding violence, regardless whether it takes place in-person or through social media. Additionally, they may indicate that studying gender roles is more important in providing accurate assessments. Therefore, continuing to study socialization by integrating power relations with gender role expectations may be key to a more comprehensive understanding of interpersonal relationship communications.

When examining attitudes toward punishment of virtual relationship violence, findings revealed that the vast majority of the sample was in favor of punishment at times when hurtful, harmful, or wrongful acts were committed through socially interactive technology. Of those respondents who felt punishment is warranted, about half the sample felt there were multiple acts deserving of punitive responses. Females were more likely to believe punishment should be used than males, and Polish respondents were more likely than American ones to hold these outlooks. Further investigation revealed that Polish women were the most likely to view socially interactive intimate victimization as a serious matter while American males were the least likely. Given the way injustices have been noted in Poland for in-person violence, and the ways inequalities are evidenced for protection, this may signal a call for treating dating violence more seriously. In the multivariate test, gender was the only significant predictor of belief in punishment, with females having higher odds of feeling it is necessary

and males having lower odds. Part of this finding may be due to females having more experiences of such victimization than males. However, part of it may be derived from gender inequalities that still exist in our society, meaning that males may be socialized to perceive such issues as less serious in nature than females do. As previously mentioned, the findings may also be the byproduct of a culture that is more likely to punish males for intimate partner violence. Further research that is qualitative in nature may be particularly useful in helping to explain this finding. Interestingly, theoretical insight offered to explain socially interactive intimate partner violence may also be used to explain attitudes on punishment.

The results from this study may be indicative of victimization patterns and explanations found in the real world. They signal gender differences in experiences as well as beliefs on appropriate responses. While the findings contribute to our knowledge on the transferability of dating behaviors to the virtual world, they should be interpreted with caution. Males and Poles reported less experience of interactive intimate violence, but it does not mean they experienced less violence. It depends on how they perceive of violence and whether they feel free to admit it. It is possible that it is more acceptable for women to come out as victims of such dating violence than it is for men. Men may also be socialized to minimize or ignore psychological acts of aggression while females may take them more seriously. Likewise, the results might point to cultural differences in norms on reporting such violence. In the United States, it is likely more acceptable for women to report being a victim whereas in Poland, violence in the context of intimate relationships is still seen as a private matter and not adequately responded to by their criminal justice system [31]. As a result, it is possible that the rates of socially interactive victimization are underreported not only for men, but also for Polish women. Psychological violence may not be seen as particularly harmful by all, so the question of where the line is crossed comes into play. Future research may wish to investigate when psychological violence turns abusive and when the consequences of it should be a public health concern.

As with any study, this one is not immune from limitations. The sample used in this study consisted of a convenience sample of college students volunteering to take part in the study. These respondents may be systematically different from non-respondents. Additionally, they may be different from the general population. Nevertheless, they were used for a number of reasons. First, consistent with research, their age group represents those at highest risk of intimate partner violence victimization. The average age was about 22 years, which places them at risk of intimate partner violence [15,16]. Second, they represent an age group and population that rely on socially interactive technology for communication. Third, they can consent to participate. Fourth, data can be obtained across sites in an inexpensive way. The sample is also limited in that there were more American students and females than Polish students and males. Future research should aim for a more representative sample of respondents. Another limitation that exists is in the measures. Definitions of psychological aggression vary from study to study, and it seems there is no consensus. However, most studies have commonalities in the way they define and measure it by look at expressive behaviors designed to hurt or upset someone. Future research may wish to investigate individual psychological acts of aggression, the consequences each holds, and the patterns evidenced to determine whether and when it should be a concern warranting some type of intervention or response. The measure for seriousness of virtual relationship violence by asking about whether and when punishment is warranted may also be subject to debate. Yet another limitation arises with memory recall and the length of time. This study asked

about any lifetime experiences rather than the past year. While research has inquired about one, the other, or both, this study was a simple exploration to develop an underdeveloped area of research. It is hoped that future research will explore a multitude of areas including not only yearly estimates of socially interactive violence, but also risk factors, consequences, and prevention strategies for such victimization.

Nevertheless, little research has been conducted on interpersonal violence in Poland and very little has been established regarding the impact of socially interactive violence in either culture, which is important with our rapidly and intensely evolving technological world. This study expands insights into socially interactive intimate violence experiences across different national groups, and it also examined attitudes toward such violence. The results of this research may signal the ways in which inequalities exist in the virtual world, mimicking real world patterns, and it may offer directions for future research on this contemporary issue. Overall, the results signal that socially interactive intimate violence and attitudes on punishment are more attributable to social and cultural contexts than to the use of technology.

This transferability of behaviors suggests that they can occur in other realms. According to routine activities theory [39], when three elements (*i.e.*, a motivated offender, a suitable target, and a lack of a capable guardian) converge in time and space, an offense is likely to occur. In this case, social media provides offenders with the perfect opportunity to engage in psychological aggression/violence against someone since the virtual world is so difficult to police. As our sources of communication continue to grow, so too may the ways by which we experience relationships. The impact of new social technologies on such violence is an area that should be given serious consideration because of the way we have inextricably linked our real and virtual communities, and behaviors holding grave consequences are now evidenced. If cyber bullying has been noted to produce the same consequences as in-person school bullying, then it is possible that cyber intimate violence might do the same. Given that psychological aggression often precipitates physical violence, this is worthy of consideration.

The misuse of technological development has, by and large, been unanticipated, overlooked, and ignored. Socially interactive victimization may result in a reduced quality of life for those who experience it. The results of this research hint at the need for studying not only socially interactive intimate violence, but also new intervention strategies in these digital media experiences. Given that most respondents would like socially interactive harmful behaviors to be addressed and viewed in a serious light, it indicates that we are lagging. People have not yet seen the responses they wish to see when it comes to handling acts of communicative aggression that have the potential to inflict harm on another. As the real and virtual worlds coalesce, understanding how technologies contribute to intimate violence could lead to applications that might shape resistance to such violence. Future studies could also analyze specific interventions to discover if respondents would actually step in for cases where they witness abusive behaviors taking place, or they could explore other ways in which such behavior may possibly be prevented or reduced.

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