

Web-based Education for Preventing Sexual Violence among Junior High School Students in Japan

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Background: The World Health Organization has recognized intimate partner violence and sexual violence as significant international health and human rights issues, and has recommended strengthening preventive measures. These are serious human rights problems that need to be addressed as soon as possible. In Japan, there has been an increase in sexual violence that involves people who meet each other via the Internet.

Objective: This study was performed to investigate the influence of web-based education for preventing sexual violence among junior high school students in Japan.

Methods: From September 2015 to February 2016, we surveyed a total of 788 students aged 13 to 14 years at 10 junior high schools where the principals gave approval for this research. Group education concerning domestic violence was provided to all students. We investigated the usefulness of education for preventing sexual violence by web-based education. The attitude of participants to perpetration of physical and emotional violence was assessed, as well as utilization of healthy conflict resolution skills in peer and dating relationships of participants.

Results: A total of 730 students consented to participate in this study (valid response rate, 92.6%) before receiving group education, and 671 consented to the follow-up survey (valid response rate, 85.2%). Students who completed internet learning after group education (intervention group, n=305) were compared with those who did not participate in internet learning (control group, n=366). In boys, web-based education achieved improvement of attitudes to physical violence, other-oriented emotional reactivity (empathy), assertiveness, discussion with other individuals, and attack avoidance, while girls showed improvement of discussion with other individuals.

Conclusions: This study suggested that web-based education on prevention of sexual violence is effective for decreasing the occurrence of violence and increasing healthy conflict resolution.

Keywords: violence, education, gender differences, sexuality

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I. Introduction

The World Health Organization has recognized intimate partner violence (IPV) and sexual violence as significant international health and human rights issues, and has recommended strengthening preventive

measures¹⁾. IPV is defined as harmful physical, emotional, and sexual violence perpetrated by a current or past partner or spouse that occurs in both heterosexual and homosexual couples. Sexual violence is unequal, non-consensual, and forced sexual activity, which not only includes IPV but also sexual abuse and sex crimes

such as rape and indecent assault¹). These are serious human rights problems that need to be addressed as soon as possible. Because preventive education that avoids the creation of perpetrators and victims is most important for the prevention of IPV and sexual violence, there is a need for investigation, implementation, and assessment of education programs.

In 2015, the Domestic Violence Prevention Law was revised in Japan so that protection orders could also be issued for violence perpetrated by partners living at the same address, and the Stalker Regulation Law was revised so that repeated sending of e-mail could also be regulated²). Both the number of cases of stalking and the number of spousal violence cases increased dramatically in Japan after implementation of the Stalker Regulation Law and the Spousal Violence Prevention Law, respectively³). With the expansion of social media networks in recent years, there has also been an increase in sexual violence involving people who meet via the Internet⁴). Use of the Internet by young people has increased the risk of sexual violence and attempts at unwanted sexual contact. For example, schoolgirls have been coerced by threatening language via e-mail and message boards to become involved in prostitution or send their photos⁴). According to the 2015 National Police Agency report, with regard to indecent assault of both men and women, the number of cases recognized, the number of cases with arrests, and the number of people arrested began to increase in 1999 and in 2015 reached the highest level since indecent assault and public assaults began to be classified separately in 1966³). The number of reported victims of indecent assault was much larger among women than men, being 7186 (11.0% injured) and 214 (0.3% injured), respectively⁵).

The historical literature on victimization has generally suggested that crime, violence, and victimization affecting persons or property can be explained by assessing the situational characteristics of a given event. A recent study suggested that there are potential pathways between Internet contact and sexual offenses⁶). In addition, a Japanese study demonstrated that factors such as sending messages and photos to strangers via the Internet, attitudes toward sexual behavior, and recognition of dating violence are related to the risk of sexual violence in early adolescence⁷). In this context, the self-control theory of Gottfredson and Hirschi has stimulated much research and discussion about the influence of low self-control on criminal and analogous behavior⁸). Recent investigations into the applicability of self-control to victimization have assessed violence

against women, including sexual assault⁹), intimate partner violence¹⁰), and stalking¹¹). There has been a focus on violent behavior towards victims because this is where gender differences are expected to be most pronounced¹²). Moreover, a study performed in the USA showed that low self-control and routine activity indicators were significantly correlated with sexual assault among female college students¹³).

Also in the USA, “Expect Respect” support groups are a selective prevention strategy designed to prevent and reduce perpetration of violence and victimization among at-risk middle school and high school students, which have achieved a significant self-reported increase in healthy relationship skills after completion of the social skills training program¹⁴). Although it is considered important to provide education for early adolescents that enhances their recognition of dating violence and encourages them to develop respectful male-female relationships¹⁵), only a few substantial studies have been performed concerning education for the prevention of sexual violence among junior high school students. We believe that multiple interventions based on a cognitive behavioral approach are necessary to reduce the risk of dating violence and sexual violence for early adolescents. Accordingly, if people who frequently use the internet in their daily lives receive the message “Don’t support sexual violence” on the web in their leisure time, this may lead to more effective prevention of violence. However, there have been no studies concerning e-learning using web-based education for teaching early adolescents to prevent and cope with dating violence and sexual violence in the community or on the internet in Japan.

We hypothesized that a web-based education program for the prevention of sexual violence among school students (based on the cognitive behavioral approach and emphasizing the importance of self-control) could be developed by obtaining information about their attitudes to violence in peer/dating relationships and their understanding of healthy conflict resolution skills for peer/dating relationships. To perform instructional design, teaching tools and processes were constructed on the basis of the attention, relevance, confidence and satisfaction (ARCS) model of Keller¹⁶) and the nine instructional events of Gagne¹⁷), involving nine instructional events that are theoretical concepts for assisting students to attain knowledge, skills, and attitudes. Based on the instructional design thus obtained, motivation to learn is encouraged by web-based education. While introducing the ARCS model and Gagne’s nine instructional events, we provided

students with participatory education characterized by spontaneous and independent learning in cooperation with their teachers. Accordingly, we investigated the influence of web-based education on prevention of sexual violence among junior high school students in Japan.

II. Methods

1. Participants

From September 2015 to February 2016, we surveyed a total of 788 students aged 13 to 14 years at 10 junior high schools where the principals gave approval for this research. We focused on second-year students at junior high schools, who are starting to have more interest in sex and in sexual relationships, but are not often involved in sexual activity. This study was approved by the ethics committee of Saga University (No. 27-57).

2. Educational objectives

1) To learn about the characteristics of relationships between junior high school students that can prevent violence among friends. 2) To learn about equal male-female relationships in order to prevent violence between male and female students. 3) To learn about the risks of

starting relationships with strangers in the community or on the internet in order to prevent sexual crimes and sexual violence.

3. Educational content

We have developed a web-based e-learning program for junior high school students as a method of providing education about preventing and coping with dating violence and sexual violence in the community or on the internet.

This e-learning program was based on the “program for junior high school students regarding prevention of dating violence and sexual assault by social and internet sources¹⁸⁾” that was developed during a previous study, and was created with the cooperation of junior high school teachers independently of the present study to ensure its quality. We conducted an intervention study after confirming the validity of this education program developed for junior high school students by performing assessment before and after education.

The theme of the program is “Learning how to protect our body, life, and mind.” The program is composed of 3 units, each of which requires approximately 30 min for viewing. Thus, approximately 90 minutes is needed to complete all of the units (**Table 1**). The learning materials

Table 1 Education content of the units

<p>Unit 1 What is a good relationship with your friends?</p> <ul style="list-style-type: none"> (1) Let’s learn about adolescence. (2) Let’s think about your personality and those of your friends. (3) Let’s think about how you associate with your friends. (4) Let’s think about how to handle a difference of opinion. <p>Unit 2 What is an equal male-female relationship?</p> <ul style="list-style-type: none"> (1) Let’s think about your unique qualities. (2) Let’s learn about gender. (3) Let’s learn about dating violence. (4) Let’s learn about associating with your partner on equal terms. <p>Unit 3 What are the risks of starting a relationship with a stranger in the community or on the internet?</p> <ul style="list-style-type: none"> (1) Let’s learn about the risks of providing information on the Internet and the possibility of sexual violence. (2) Let’s learn about sexual violence in the community. (3) Let’s learn about unwanted pregnancy. (4) Let’s learn about sexually transmitted infections.
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include an animated movie and simple explanations are provided in a manner that can attract the interest of junior high school students.

4. Method of delivery (Figure 1)

All students received group education concerning domestic violence. The control group only received group education, while the intervention group received both group education and individualized web-based education. Web learning was provided during health and physical education classes and self-study time. Students could watch the unit continuously or intermittently as many times as they wanted. Attendance at education and the number of hours of participation in learning on the website were recorded by using the individual ID no. of each student. The control and intervention groups underwent a follow-up test at 3 months after receiving their group education.

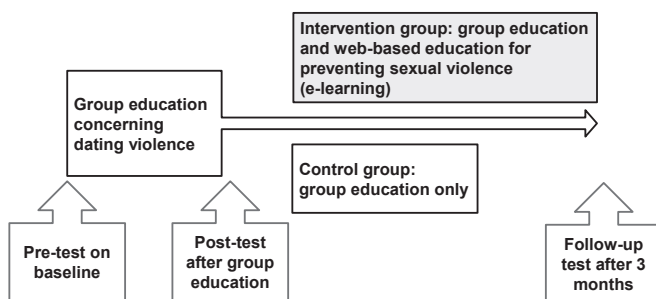


Figure 1 Method of research

5. Survey methods

All students from the intervention and control groups participated in a survey that was conducted by dating violence prevention specialists before group education. Prior to group education, the investigator delivered an information sheet and survey cards to each participating teacher. An information sheet was given to the teachers that provided instructions about the method of handing out and collecting the survey cards. Importance was attached to maintaining the confidentiality of all participants in the survey. Each completed card was placed into an envelope by the student immediately after filling it in and then was collected by the class teacher. The information sheet for students included a detailed description of the study objectives, methods for protecting the secrecy of personal data, a statement that participation in the survey was voluntary, and the

contact details for the authors. It was also explained that students did not have to answer questions they could not understand or which they did not want to answer and that they could refuse to submit their completed survey cards if they wanted. After group education was completed, the students were asked to give their impressions of it and consultation about violence.

At 3 months after group education, the control group performed the follow-up test by the same method as before group education. Students from the intervention group participated in individualized learning after group education and performed the follow-up test at 3 months after group education. The students were asked to give their impressions of individualized learning using web-based teaching tools and consultation about violence.

If students wrote that they wanted to receive consultation about sexual violence in the columns for recording comments, we provided consultation in cooperation with the Saga Prefectural General Domestic Violence Center and the Saga Sexual Violence Relief Center (Saga Mirai).

6. Details of the survey

- 1) Each participant was asked about their gender.
- 2) Attitude to perpetration of violence in peer and dating relationships.

This scale has been used to assess violence prevention education for junior and senior high school students in the United States¹⁴. To confirm its applicability to junior high school students in Japan, the program we developed was employed for education of junior high school students and the scale was used for assessment before and after the program.

Violence perpetration was assessed using a 10-item scale, containing 2 items on physical abuse perpetration and 8 items on emotional violence perpetration¹⁴. The response options ranged from 0 to 3. The perpetration scale had a Cronbach's alpha of .81.

Each participant was asked if any of the following actions/events sometimes occurred while they were with their boyfriend, girlfriend, or a close friend. The items were included in attitude to perpetration of physical violence (I slapped them, etc.), attitude to perpetration of emotional violence (I yelled or screamed at them, etc.).

- 3) Healthy conflict resolution in peer and dating relationships skills.

Healthy conflict resolution was assessed using 10 items¹⁴. Behaviors reported for self and boyfriend/girlfriend or close friend were combined in one scale¹⁴.

The response options ranged from 0 to 3. The Cronbach's alpha for the healthy conflict resolution scale was .85.

Each participant was asked if any of the following actions/events sometimes occurred while they were with their boyfriend, girlfriend, or a close friend. The items were included in other-oriented emotional reactivity/empathy (I asked lots of questions so I could understand where they were coming from, etc.), assertiveness (I let them know how I felt, etc.), attack avoidance (I left the room to cool down, etc.).

7. Data analysis

The measures assessed were the mean scores for the attitude to perpetration of violence, the mean scores for healthy conflict resolution in peer and dating relationships, and the mean scores for individual categories [perpetration of physical violence, perpetration of emotional violence, emotional reactivity (empathy), assertiveness, discussion with other individuals, and attack avoidance]. Two-way ANOVA was employed to assess whether there was a significant interaction between measures of the effect of intervention between the baseline and follow-up surveys stratified by gender. The Statistical Package for the Social Sciences (SPSS 25.0) was used for these analyses and the level of significance was set at $p < 0.05$.

III. Results

Group education concerning dating violence was provided to all students. A total of 730 students consented to participate in this study (valid response rate, 92.6%) before and after receiving group education, and 671 consented to the follow-up survey (valid response rate, 85.2%). Students who completed internet learning after group education (intervention group, $n=305$) were compared with those who did not participate in internet learning (control group, $n=366$).

Among boys, a significant main effect between baseline and follow-up was noted with respect to the attitude toward perpetration of physical violence ($F(1.649) = 10.31$, $MSe = 0.40$, $p = 0.001$), empathy ($F(1.631) = 19.47$, $MSe = 0.65$, $p < 0.001$), assertiveness ($F(1.630) = 10.56$, $MSe = 0.62$, $p = 0.001$), discussion with other individuals ($F(1.643) = 11.22$, $MSe = 0.92$, $p = 0.001$), and attack avoidance ($F(1.640) = 13.75$, $MSe = 0.78$, $p < 0.001$). In addition, the main effect of intervention was significant with regard to the attitude toward perpetration of physical violence ($F(1.604) =$

11.94 , $MSe = 0.40$, $p = 0.001$), attitude to perpetration of emotional violence ($F(1.605) = 13.49$, $MSe = 0.22$, $p < 0.001$), empathy ($F(1.631) = 32.01$, $MSe = 0.64$, $p < 0.001$), assertiveness ($F(1.630) = 14.21$, $MSe = 0.62$, $p < 0.001$), discussion with other individuals ($F(1.643) = 16.74$, $MSe = 0.91$, $p < 0.001$), and attack avoidance ($F(1.640) = 11.55$, $MSe = 0.78$, $p = 0.001$). Furthermore, the interaction between baseline vs. follow-up and intervention was significant in relation to the attitude to perpetration of physical violence ($F(1.647) = 5.09$, $MSe = 0.39$, $p = 0.024$), empathy ($F(1.629) = 4.36$, $MSe = 0.62$, $p = 0.037$), assertiveness ($F(1.628) = 11.33$, $MSe = 0.61$, $p = 0.001$), discussion with other individuals ($F(1.641) = 13.78$, $MSe = 0.88$, $p < 0.001$), and attack avoidance ($F(1.638) = 12.27$, $MSe = 0.75$, $p < 0.001$).

Among girls, a significant main effect was noted between baseline and follow-up with regard to the attitude toward perpetration physical violence ($F(1.724) = 10.80$, $MSe = 0.31$, $p = 0.001$), attitude to perpetration of emotional violence ($F(1.683) = 4.76$, $MSe = 0.15$, $p = 0.029$), assertiveness ($F(1.709) = 16.98$, $MSe = 0.47$, $p < 0.001$), discussion with other individuals ($F(1.717) = 27.05$, $MSe = 0.58$, $p < 0.001$), and attack avoidance ($F(1.715) = 7.83$, $MSe = 0.78$, $p = 0.005$). In addition, the main effect of intervention was significant in relation to the attitude toward perpetration of physical violence ($F(1.724) = 5.48$, $MSe = 0.31$, $p = 0.019$), attitude to perpetration of emotional violence, and attack avoidance ($F(1.715) = 6.56$, $MSe = 0.78$, $p = 0.011$). Furthermore, the interaction between baseline vs. follow-up and intervention was significant with respect to discussion with other individuals ($F(1.715) = 5.40$, $MSe = 0.57$, $p = 0.020$).

IV. Discussion

1. Violence in peer and dating relationships

In boys attending junior high school, web-based education on coping with and preventing sexual violence was more effective than group education alone for improving attitudes to sexual violence in peer and dating relationships between the baseline and follow-up surveys. According to a recent survey of sexual harassment in Japan, 12.7% of boys and 24.5% of girls have suffered any of the following harassments: unwanted coercive sex, body touching, catcalling by strangers, and stalking¹⁹). Therefore, it seems likely that the topics on dating violence and sexual violence in the community or on the internet that were explained by showing local

Table 2 Two-way ANOVA for differences of the attitude toward perpetration of violence and healthy conflict resolution in peer and dating relationships according to the interaction between baseline/follow-up or intervention group/control group, and each mean value

	Intervention group (n=305)		Control group (n=366)		Baseline-Follow-up		Intervention-Controul		Interaction Baseline-Follow-up × intervention- Controul		
	Baseline	Follow-up	Baseline	Follow-up	F	p	F	p	F	p	
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)							
Boys											
Attitude to perpetration of violence in peer and dating relationships mean (0-3)	0.46 (0.42)	0.33 (0.42)	0.55 (0.49)	0.52 (0.50)	4.27	0.039	14.13	<0.001	1.60	0.206	
Attitude to perpetration of physical violence perpetration	0.49 (0.62)	0.22 (0.44)	0.55 (0.71)	0.50 (0.65)	10.31	0.001	11.94	0.001	5.09	0.024	
Attitude to perpetration of emotional violence perpetration	0.45 (0.41)	0.36 (0.44)	0.56 (0.48)	0.52 (0.50)	2.55	0.111	13.49	<0.001	0.64	0.424	
Healthy conflict resolution in peer and dating relationships mean (0-3)	1.68 (0.62)	2.15 (0.62)	1.62 (0.63)	1.65 (0.70)	21.78	<0.001	27.76	<0.001	17.30	<0.001	
Empathy	1.92 (0.76)	2.33 (0.70)	1.70 (0.80)	1.84 (0.85)	19.47	<0.001	32.01	<0.001	4.36	0.037	
Assertiveness	1.76 (0.72)	2.17 (0.76)	1.74 (0.75)	1.73 (0.85)	10.56	0.001	14.21	<0.001	11.33	0.001	
Discussion with other individuals	1.81 (0.95)	2.34 (0.80)	1.78 (0.96)	1.76 (0.99)	11.22	0.001	16.74	<0.001	13.78	<0.001	
Attack avoidance	1.10 (0.88)	1.61 (0.92)	1.11 (0.83)	1.12 (0.84)	13.75	<0.001	11.55	0.001	12.27	<0.001	
Girls											
Attitude to perpetration of violence in peer and dating relationships mean (0-3)	0.43 (0.38)	0.34 (0.35)	0.48 (0.40)	0.41 (0.39)	6.98	0.008	4.51	0.034	0.11	0.742	
Attitude to perpetration of physical violence perpetration	0.42 (0.57)	0.23 (0.40)	0.47 (0.60)	0.37 (0.59)	10.80	0.001	5.48	0.019	1.09	0.297	
Attitude to perpetration of emotional violence perpetration	0.43 (0.38)	0.36 (0.38)	0.49 (0.40)	0.42 (0.38)	4.76	0.029	3.59	0.059	0.00	0.979	
Healthy conflict resolution in peer and dating relationships mean (0-3)	1.91 (0.46)	2.18 (0.48)	1.89 (0.50)	1.99 (0.53)	23.02	<0.001	7.54	0.006	4.45	0.035	
Empathy	2.13 (0.61)	2.28 (0.56)	2.14 (0.64)	2.17 (0.68)	3.20	0.074	1.34	0.247	1.44	0.230	
Assertiveness	1.99 (0.66)	2.29 (0.70)	1.99 (0.69)	2.13 (0.67)	16.98	<0.001	2.25	0.134	2.61	0.107	
Discussion with other individuals	1.91 (0.79)	2.34 (0.64)	1.94 (0.79)	2.11 (0.78)	27.05	<0.001	3.19	0.075	5.40	0.020	
Attack avoidance	1.38 (0.89)	1.68 (0.89)	1.32 (0.86)	1.39 (0.88)	7.83	0.005	6.56	0.011	2.89	0.089	

data stimulated the interest of junior high school boys in these familiar problems, resulting in a stronger effect of education. However, this study did not detect any effect of web-based education on the attitude to perpetration of physical violence and emotional violence among girls. The number of reported victims of indecent assault was much larger among women than men⁵⁾. Thus, girls may have not been able to increase their awareness of potentially being perpetrators of violence against friends and partners, since girls are more likely to be victims as shown in data³⁾⁹⁾ from web-based education.

According to the 2013 Cabinet Office survey of children aged 10-17 years, 51.9% of junior high school students have a mobile phone²⁰⁾. A recent study revealed that 42.3% of boys and 41.5% of girls sent messages to strangers via mobile phone or the Internet, and 18.3% of boys and 21.0% of girls sent their photos to strangers¹⁹⁾. According to the 2015 Cabinet Office survey, the percentage of junior high school students possessing a mobile phone has increased to 60.9%²¹⁾. Use of mobile phones is expected to become even higher due to increasing popularity of games played on smartphones.

Considering the increasing use of mobile devices such as smartphones and tablet computers at junior high schools and in the home, it is important to strengthen web-based education for reducing dating violence by preventing and coping with sexual violence.

2. Healthy conflict resolution in peer and dating relationship

Web-based education for preventing and coping with sexual violence was more effective in increasing healthy conflict resolution in peer and dating relationships between the baseline and follow-up surveys in both boys and girls than the education provided to the control group. Thus, a program combining group education for dating violence with education for preventing sexual violence in the community or on the internet was shown to improve the effectiveness of teaching boys and girls to respect each other in peer and dating relationships. A program developed in the USA to selectively prevent and reduce dating violence among at-risk middle school students was reported to achieve a significant self-reported

increase in healthy relationship skills¹⁴). In addition, a recent Japanese study clarified that recognition of dating violence is related to awareness of the importance of mutual respect in male-female relationships²²). Therefore, providing the message to junior high school students that they could avoid becoming victims or perpetrators of sexual violence by learning about dating violence and by learning how to establish a respectful male-female relationship, and also by gaining knowledge about sexual violence-related crimes and avoidance of unwanted sexual contact, probably led to an increase in healthy conflict resolution in peer and dating relationships.

In the present study, improvement with respect to empathy, assertiveness, discussion with other individuals, and attack avoidance was noted among boys in the intervention group compared with boys in the control group. However, there was no improvement in relation to empathy, assertiveness, and attack avoidance among girls from the intervention group versus the control group. The factors with a protective effect against perpetration of adolescent dating violence are reported to be relationship factors (including feeling a sense of attachment to school) and individual factors, such as cognitive dissonance about perpetrating dating violence, empathy, average school grade, and verbal IQ²³). According to a recent Japanese study showed girls significantly higher scores for attitude toward equal dating relationship and the positive relationship with school teachers compared with boys²²). Girls may not be able to feel much assertiveness and attack avoidance by web-based education. With respect to sexual violence, it has been reported that women tend to be the victims and men tend to be the perpetrators^{3) 22}). These suggest that education to prevent sexual violence should take such gender-related differences into account and should be provided during adolescence when there is an increase in the number of students who start dating and having sex. Because the program contained a lot about information about women tending to suffer from sexual violence and case studies related to girls, it seems that girls may not be able to feel much empathy towards their counterparts. Therefore, we need to improve the program, with gender attributes being taken into account.

Since dating violence and sexual violence are still not included in the government curriculum for junior high school students, it is unlikely that sufficient education for preventing peer violence or sexual violence will be provided in the present circumstances. Therefore, increasing opportunities to learn about healthy conflict resolution in peer and dating relationships should lead to a decrease in the risk of students themselves being

involved in violence. With the growth and development of mind and body, junior high school students develop more interest in and desire for persons of the opposite sex and sexual activity, and they are also influenced by their environment²⁴). In Japan, a study was recently conducted on the development of e-learning to prevent dating violence, and the preliminary results suggested improvement in the understanding of dating violence, indicating the effectiveness of e-learning among college students²⁵). However, junior high school students were not enrolled in that study and measures for sexual violence were not investigated. The results of the present study suggested that if web-based education about coping with and preventing sexual violence is provided before the sexual activity of students begins to increase and before students become either victims or perpetrators of sexual violence, their awareness of how to nurture equal peer and dating relationships will be raised, resulting in an increase in healthy conflict resolution in peer and dating relationships.

V. Limitations

The program is composed of 3 units, each of which requires approximately 30 min for viewing. Thus, approximately 90 minutes is needed to complete all of the units. Students in the intervention group were allowed to watch the unit either continuously or intermittently as many times as they wanted. Although we assessed their participation in web learning and the number of hours involved, we were not able to completely determine the effect of education in relation to the study hours with physical education classes and self-study time. Long-term assessment could not be performed in this study, because the surveys that assessed the effects of educational intervention were carried out at junior high schools before graduation of the students. It is necessary to investigate more reliable and appropriate methods of assessment for validating the effectiveness of education about sexual violence. It is also necessary to widen the range of subjects receiving education and assess the effectiveness of the program for preventing violence. In the future, the details and methods of providing education should be investigated further to strengthen the educational program for the prevention of sexual violence. In addition, we need to enhance education on prevention of sexual violence according to the developmental stage of the target students, as well as with regard to gender attributes, considering the availability of information about sex such as the details

of any sex education obtained from previous study or from the media.

VI. Conclusion

This study suggested that web-based education for preventing sexual violence is effective in decreasing such violence among boys attending junior high school. In addition, web-based education may be effective for improving healthy conflict resolution in peer and dating relationships among both boys and girls.

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Compliance with Ethical Standards

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Main Works:

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Membership in Learned Societies:

- Japanese Association of School health
 - Japan Society of Adolescentology
 - Japan Society of Maternal Health
 - Japan Academy of Midwifery
 - Japan Academy of Nursing Education
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