PROBLEM STATEMENT:

Teen dating violence is a serious, but preventable, public health crisis with long-lasting negative impacts at the local, regional, and national level. Current approaches to prevention are hindered by many complicating factors and innovative evidence-based solutions for prevention are desperately needed.

The Problem

Teen dating violence (TDV) is a pervasive, complex problem and current solutions are insufficient. Over 40% of all students in the U.S. will have been in an abusive relationship by the time they graduate from college with nearly 1.5 million high school students physically abused by a dating partner every year (Forke, et al., 2008; CDC, 2006).

Teen dating violence is defined as the physical, sexual, psychological, or emotional violence occurring within an adolescent dating relationship or stalking (CDC, 2017). Approximately 25% of all teens report having been abused by a partner within the past year (Foshee, et. al., 1996), 9.6% through physical abuse (CDC, Youth Risk Behavior Surveillance, 2015). Further, by the time they graduate from college, 44% of all undergraduate students in the U.S. will have been in an abusive relationship (Forke, et. al., 2008).

Although young women (ages 16 to 24) experience the highest rates of dating violence TDV is an "equal opportunity problem," affecting teens throughout the United States regardless of gender, socio-economic status, race, ethnicity, or sexual orientation (Rennison & Welchans, 2000; The National Center for Victims of Crime, http://www.ncvc.org/).

The Impact

Students in abusive relationships are affected in a variety of ways both physically and emotionally. Victims of TDV tend to have lower grades in school and show higher incidences of binge drinking, suicide attempts, and violence in future relationships (Banyard & Cross, 2008; CDC, 2006). Teens in abusive relationships are also at a much higher risk of becoming pregnant than their counterparts with studies indicating that those adolescent girls who experience TDV are 4 to 6 times more likely to become pregnant (Silverman, et. al., 2001).

The Complicating Factors

Lack of Awareness of TDV

Although TDV and intimate partner violence (IPV) share many common traits, issues of awareness and disparate treatment by school districts and state courts uniquely complicate solutions to address TDV. In 2006, the United States began recognizing the first week in February as National Teen Dating Violence Awareness and Prevention Week. In 2010, Congress made the first resolution to designate the entire month of February as the National Teen Dating Violence Awareness and Prevention Month.

Prior to these campaigns, awareness of TDV was low with a 2004 study revealing that "eighty-one percent of parents surveyed either believe dating violence is not an issue or admit they don't know if it's an issue" (Women's Health, 2004). Further complicating awareness among parents, only thirty-two percent of teens who have been in an abusive relationship have confided

in a parent – and when they *have* spoken with a parent, seventy-eight percent have stayed in the abusive relationship despite the advice of their parent (Liz Claiborne, Inc., 2009).

Educational System Disparity

State school systems vary in their treatment of TDV, with fewer than one-half (currently only twenty-two states) either requiring or encouraging the inclusion of TDV in the curriculum. In 2007, the first legislation of its kind in the U.S. was passed in Texas, requiring that all Texas school districts, among other actions, develop safety plans, enforce protective orders, and educate students about TDV (Texas House Bill 121, 2007). Other states have since followed suit with their own legislation but not all impose the same requirements.

Importantly, some legislation lack funding for implementation or for enforcing penalties for noncompliance. For example, although the state of Georgia requires the State Board of Education to "develop a rape prevention and personal safety education program and a program for preventing TDV for grades 8 through 12" no such program has been developed by Georgia's State Board of Education (Ga. Code Ann. § 20-2-314, 2010). Reflecting this failure by Georgia's Board of Education, the state's State Law Report Card is the lowest (received an "F") as determined by Break the Cycle, a national nonprofit organization preventing TDV (Break the Cycle, 2016).

Protective Order Disparity

In addition to disparate treatment by school systems, requirements for getting a protective order (P.O.) through the state courts also vary from state to state. Some states do not allow a minor to *seek* a P.O. while other states do not allow a P.O. to *apply against* a minor. Other states will not grant a P.O. against a dating partner unless they have lived together or have a child together. This patchwork of laws further convolutes an already complicated problem. It discourages adolescents from seeking protection through the court system and it highlights the importance for the educational system to aid in TDV prevention.

Ineffective Programs

Unfortunately those school systems which have adopted a TDV program have not fully achieved the sought-after results of reduced violence perpetration. A 2016 review, the first to empirically evaluate school-based programs, found that existing school programs are not affecting "to a significant extent" TDV perpetration and victimization behaviors (De La Rue, et. al., 2016). The review goes on to say that the results "highlight the need for modifications to dating violence prevention programs including the incorporation of skill-building components and a need to address the role of bystanders" (De La Rue, et. al., 2016).

PROPOSED SOLUTION:

TDV Video Games

TDV video games designed for prevention meet the recognized need to raise TDV awareness, provide relevant educational information, and change unhealthy attitudes regarding adolescent dating relationships. TDV video games also mitigate the existing complicating factors of resource constraints, adolescent reluctance to engage, and importantly, those deficiencies in existing programs as identified by De La Rue and other researchers.

The Need for Research & Development

The need for an evidence-based approach to TDV prevention is critical and with the issue affecting students throughout their middle-school, high-school, and college years, the Education System is needed at the forefront for prevention. Not only are parents generally oblivious to the reality of TDV, they are also often incapable of properly educating and addressing the issues of TDV. Although schools are the ideal forum to address and educate students about TDV, existing programs have been found to be inadequate when it comes to actually preventing the perpetration of violence.

Addressing Deficiencies in Existing Programs

While the use of video games to address TDV prevention is in its infancy, its limited application has already shown them to be effective at overcoming those defects in existing school programs as identified by De La Rue and other researchers. TDV Video games are more effective:

- Students prefer digital content for learning generally;
- Students prefer a self-paced exploratory approach for sensitive topics like dating abuse; and
- Complex, nuanced topics like emotional abuse are more quickly learned and better retained when experienced contextually via the interactive nature of videogames.

Theoretical and Empirical Support

The first meta-analysis of existing TDV prevention programs found that the programs currently in use in schools "are not affecting [dating violence perpetration and victimization] behaviors to a significant extent" and "highlight the need for [...] incorporation of skill-building components and a need to address the role of bystanders" (De La Rue, et. al., 2016). TDV video games address those issues which hinder the effectiveness of existing programs from properly educating adolescents about the issue of TDV.

Video Games afford greater privacy than traditional programs.

Importantly, for issues of a sensitive nature, many students avoid seeking help. A survey of callers to *Kids Help Line*, a national helpline in Australia, found that 49% of young male callers were reluctant to seek help due to fears "that people would react negatively, and they would be judged as crazy or uncool [or teased for being weak]." (Campbell, 2004)

By presenting TDV information through a digital game, adolescents are able to explore specific aspects of TDV at their own pace and in relative privacy. A student in an initiative based in the European Union (EU) evaluating the role of digital games to prevent dating abuse, said about playing a TDV video game in comparison to classroom discussion "... it's quite private as well because you don't have to, whereas teachers encourage you to say stuff in front of everybody else..." (Bowen, et. al., 2014).

Video Games are more effective than other mediums when addressing nuanced topics.

Additionally, the interactive nature of digital games are better suited for addressing nuanced issues like emotional or psychological abuse than static content. This interactive element also supports:

- Experiential learning (allowing students to experience something, rather than just reading about it);
- <u>Discovery learning</u> (allowing students the flexibility of exploring a topic thereby recognizing critical aspects of that topic on their own); and
- <u>Contextual learning</u> (allowing the students to learn about TDV within the context in which it applies) (Bowen, et. al., 2014).

Video Games are preferred by adolescents.

Not only do adolescents prefer using computers over traditional methods while learning and digital medium over other mediums, they appreciate when their preference is taken into consideration. Participants in the Bowen (2014) study stated "I think people are more likely to listen more instead of just a teacher telling you stuff..." and "It doesn't feel like you're on the computer for an hour because it's like a game...".

Related R/R&D

Existing Research

The proposal is to develop and add new and unique components to prototypes that already exist and are functioning. Previous research utilizing a subset of TDV video games was conducted from November 2015 – January 2016 using online participants through Amazon's Mechanical Turk service (Crecente & Jacobs, 2017). The results of the exploratory study were promising, showing that those players playing the TDV digital games showed a significant improvement in attitude regarding relationship abuse and gender norms, whereas players of the control digital games unrelated to TDV showed no significant change. The study was limited in the sample that was drawn and was not large enough to distinguish differential efficacy among the TDV games but did lay the groundwork for future studies to further validate the viability of these games as persuasive tools.

Subsequent research by Dr. Ruud Jacobs at Erasmus University confirmed these findings. Samples were drawn from Dutch secondary schools and Erasmus University reaching a total of 262 students. The study found that the students playing the two TDV games in the study were less accepting of angry behaviors in relationships as compared to those playing the control game (Jacobs, 2017).

Inherent Advantages of Video Games

This use of digital games is more conducive to a learning environment for adolescents; it better addresses nuanced issues (e.g. emotional abuse) and it provides for experiential, contextual, and discovery learning in ways that non-interactive medium cannot. Further, TDV video games meet the need to address bystander intervention and incorporates skill-building components as discussed by De La Rue (2016) in the only meta-analysis of existing school programs performed to-date.

Potential application

States recognize the need to educate young people on abusive relationships and many of their legislatures have crafted legislation requiring schools to integrate TDV curriculum into their existing courses. Unfortunately existing programs have been shown to be inadequate when it comes to preventing violence perpetration and do not address bystander intervention (De La Rue). TDV games address these deficiencies while also providing a program preferred by adolescents and designed for use by educators and/or parents having no specialized knowledge.

- <u>Educators</u>: These features position TDV video games as a program of choice for school districts mandated to address TDV and an affordable solution for those schools seeking to educate their students in the absence of a legislative mandate.
- Parents: These digital games are designed to just as easily be used by parents as by educators. Those parents seeking to engage their children on the topic of TDV can first educate themselves by playing a variety of TDV video games and then, if they choose to initiate a conversation, can ask their child to play their preferred game. After, the parent and child can have a conversation from a shared perspective which is not about the child but instead about the problem of TDV.
- Adolescents: Availability of the games on all platforms make them accessible to
 those students seeking to understand the dynamics of unhealthy dating
 relationships outside of the classroom as well; TDV video games are currently
 available for use via web browser for PCs and laptops, on smartphones and tablets
 running Android, Blackberry, iOS, and Windows phone operating systems, and
 also through Amazon's Echo device.

Gaming Against Violence White Paper on Teen Dating Violence (TDV)

TDV Video Games: Proposed Use and Call for Further Research

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References

Banyard VL, Cross C. Consequences of teen dating violence: Understanding intervening variables in ecological context. Violence Against Women. 2008; 14(9):998-1013.

Bowen, E. Walker, K. Mawer, M. Holdworth, E. Sorbring, E. Helsing, B. Bolin, A. Leen, E. Held, P. Awouters, V. Jans S. (2014). "It's like you're actually playing as yourself": Development and Preliminary Evaluation of "Green Acres High," a Serious Game-Based Primary Intervention to Combat Adolescent Dating Violence. *Psychosocial Intervention*, 23(2014), 43-55.

Break the Cycle (2010). State Law Report Cards. Retrieved December 31, 2016 from https://www.breakthecycle.org/sites/default/files/pdf/2010-Dating-Violence-State-Law-Report-Card-Full-Report.pdf.

California State Board of Education. (2008). *Health Education Content Standards for California Public Schools*. California Department of Education, 39.

Campbell, Marilyn A (2004) Possibilities and Perils of School Cybercounseling. International Journal of PEP Inc. 8(1): pp. 19-29.

Centers for Disease Control and Prevention (2016). Youth Risk Behavior Surveillance – United States 2015. Morbidity and Mortality Weekly Report, June 10, 2016; 11.

Centers for Disease Control and Prevention (2017). Understanding Teen Dating Violence – Fact Sheet.

Crecente, D., Jacobs, R. (2017). Gaming Against Violence: An Exploratory Evaluation through Mechanical Turk of the Efficacy of Persuasive Digital Games in Improving Unhealthy Relationship Attitudes. *Games and Learning Alliance* 6th *International Conference, GALA 2017, Lisbon, Portugal, December 5-7, 2017, Proceedings.* Dias, J.; Santos, P.A.; Veltkamp, R.C. (Eds.) pp. 259-262.

De La Rue, L., Polanin, J. R., Espelage, D. L., & Pigott, T. D. (2016). A meta-analysis of school-based interventions aimed to prevent or reduce violence in teen dating relationships. *Review of Educational Research*, 0034654316632061.

DiSalvo, B. J., Guzdial, M., Mcklin, T., Meadows, C., Perry, K., Steward, C. & Bruckman, A. (2009). Glitch Game Testers: African American Med Breaking Open the Console. In Proceedings of DiGRA 2009.

Forke CM, Myers RK, Catallozzi M, Schwarz DF. (2008). Relationship Violence Among Female and Male College Undergraduate Students. *Arch Pediatr Adolesc Med.* 2008;162(7):634-641. doi:10.1001/archpedi.162.7.634

Foshee VA, Linder GF, Bauman KE, Langwick, SA, Arriaga, XB, Heath, JL, McMahon, PM & Bangdiwala, S (1996). The Safe Dates project: theoretical basis, evaluation design, and selected baseline findings. American Journal of Preventive Medicine 1996; 12(Suppl 2):39-47.

Fullerton, T., Swain, C., and Hoffman, S. (2004). Game Design Workshop: designing, prototyping and playtesting games. San Francisco, CA: CMP Books.

Ga. Code Ann. § 20-2-314 (2010).

Jacobs, R.S. (2017). Playing Against Abuse: Effects of Procedural and Narrative Persuasive Games. In *Playing to Win Over: Validating Persuasive Games* (pp. 121-143). Erasmus University Rotterdam. Retrieved from http://hdl.handle.net/1765/102769.

Liz Claiborne Inc. Study on teen dating abuse conducted by Teenage Research Unlimited; February 2009.

Price, Byers, & the Dating Violence Research Team. (1999). The Attitudes Toward Dating Violence Scales. *Journal of Family Violence*. 1999; 14(4):351-375.

Rennison C.M., Welchans S (2000). BJS Special Report: Intimate Partner Violence. Bureau of Justice Statistics.

Silverman, Jay G., Anita Raj, Lorelei A. Mucci, and Jeanne E. Hathaway. Dating Violence Against Adolescent Girls and Associated Substance Use, Unhealthy Weight Control, Sexual Risk Behavior, Pregnancy, and Suicidality. American Medical Association, August 1, 2001; Vol. 286, No. 5.

Texas House Bill 121.

http://www.capitol.state.tx.us/tlodocs/80R/billtext/html/HB00121I.htm.

The National Center for Victims of Crime, http://www.ncvc.org/.

Women's Health. Family Violence Prevention Fund; June/July 2004.