Published in final edited form as:

J Interpers Violence. 2021 February ; 36(3-4): NP1586–1606NP. doi:10.1177/0886260517746946.

Development and Psychometrics of Instruments to Assess School Personnel's Bystander Action in Situations of Teen Relationship Abuse and Sexual Assault

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Abstract

This article describes recently developed instruments that assess school personnel's bystander barriers and intentions in situations of teen relationship abuse, sexual assault, and sexual harassment, as well as perceptions of school readiness specific to relationship abuse, sexual assault, and sexual harassment prevention and response. Participants were 1,150 high school personnel from 25 schools in New Hampshire, Massachusetts, and Maine. Specific instruments focused on bystander intentions, bystander action, barriers to bystander action, and perceptions of school readiness. Participants were randomly divided into two groups for analysis—the exploratory sample (ES; $n = 575$) and the confirmatory sample (CS; $n = 575$). Overall, the measures demonstrated acceptable fit indices. Results suggested that most measures and subscales had adequate reliability, but a few subscales had less than ideal internal consistency, which can likely be attributed to the small number of items. More work is needed, but these measures act as a starting point by which the role of school personnel in prevention initiatives and bystander intervention can be evaluated.

Keywords

bystander; sexual assault; sexual harassment; relationship abuse; school personnel; school climate

Researchers continue to document the concerning rates of aggression among adolescents, including three specific types of aggression that are especially common among high school students: (a) relationship abuse (RA; physical, sexual, and psychological aggression that happens between current or former dating partners), (b) sexual assault (SA; any unwanted sexual behavior ranging from sexual contact to completed rape that can occur between

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Authors' Note

The findings and implications presented in this article do not represent the official views of the Centers for Disease Control and Prevention (CDC).

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

individuals in any type of relationship, including acquaintances and strangers), and (c) sexual harassment (SH; any harassment of a sexual nature such as unwanted sexual advances and request for sexual favors; Basile, Smith, Breiding, Black, & Mahendra, 2014; Espelage, Low, Anderson, & De La Rue, 2014; U.S. Equal Employment Opportunity Commission, n.d.; Vagi, Olsen, Basile, & Vivolo-Kantor, 2015; Young, Grey, & Boyd, 2009). In addition, researchers have documented the negative psychological, physical, social, and academic impacts that RA, SA, and SH, here on out referred to as RASASH, have on high school students (Banyard & Cross, 2008; Edwards, 2015; Holt & Espelage, 2007). The current study extends research on this critical topic by presenting preliminary findings on the development of a set of new school-based tools to assess how school personnel respond to and seek to prevent RASASH.

Bystander-Focused Prevention

In response to the concerning rates of and negative outcomes associated with RASASH, it is critical that we develop and implement comprehensive, evidence-based RASASH prevention efforts for adolescents. As such, researchers and practitioners are increasingly recognizing that engaging school personnel (e.g., school administrators, teachers, coaches, support staff [e.g., bus drivers]) and parents is a critical component to effective RASASH prevention efforts (Centers for Disease Control and Prevention, 2017; Charmaraman, Jones, Stein, & Espelage, 2013; Espelage, Low, Polanin, & Brown, 2013; Yoon & Barton, 2008; Yoon & Bauman, 2014). The idea that school personnel can play a critical role in preventing RASASH is consistent with increasing recognition that all community members have a role to play in preventing violence (Banyard, 2015; Banyard, Weber, Grych, & Hamby, 2016). Bystanders are individuals who witness an emergency incident, such as an act of aggression (Banyard, 2013). Bystanders have the potential to prevent violence and aggression, stop an act of aggression once it has started, and provide support to victims in the aftermath of being the victim of an aggressive incident (Banyard, 2013). Bystanders can also play an important role in shifting social norms to be intolerant of all forms of aggression and promote positive bystander action (used interchangeably with helping in this article; Banyard, 2013).

Gaps in Bystander Research—The Role of School Personnel

To date, researchers have focused almost exclusively on bystander action among high school personnel in situations of bullying among adolescents (Aceves, Hinshaw, Mendoza-Denton, & Page-Gould, 2010; Hektner & Swenson, 2012; Novick & Isaacs, 2010). Far less research has focused on the role that school personnel play in preventing and responding to RASASH among high school students. School personnel likely play a critical role in preventing and responding to these forms of aggression among teens for distinct reasons. First, a substantial proportion (i.e., ranging from 28%- 72% depending on the type) of RASASH happen on school property (S. Black & Hausman, 2008; B. M. Black, Weisz, & Jayasundara, 2012; Molidor, Tolman, & Kober, 2000; Turner, Finkelhor, Hamby, Shattuck, & Ormrod, 2011). Second, 40% to 66% of RA among teens happens in the presence of others (S. Black & Hausman, 2008; Molidor et al., 2000). Although it is likely that some of these “others” are students, the literature on bullying suggests that school staff also witness incidents of aggression. Thus, school personnel likely have an opportunity to directly intervene to

prevent or stop RASASH among teens and/or provide assistance to teens in the aftermath of RASASH incidents.

Yet, there is a dearth of research on school personnel's actual bystander action in situations of teen RASASH. Although a handful of studies have examined the extent to which high school personnel receive RA training (Khubchandani et al., 2012) or high school personnel's perceptions of RA among teens (Gonzalez-Guarda et al., 2014), we were only able to locate a few studies that directly asked high school personnel about their own bystander action in situations of teen RASASH. In an unpublished doctoral dissertation, Morey (2002) found that high school personnel were generally reluctant about intervening in situations of teen RA and often minimized the prevalence of RA in their school. Most recently, Edwards, Rodenhizer, & Eckstein (2017) conducted focus groups with high school personnel at three New England public high schools. School personnel identified their own barriers to intervening in such situations, which included concerns about negative consequences of intervening (e.g., having to report the abuse) and the inability to help due to lack of skills or other job demands (Edwards, Rodenhizer, & Eckstein, 2017). School personnel also discussed the ways that they intervened before (e.g., talking with teens about healthy relationships), during (e.g., breaking up fights between dating partners), and after (e.g., comforting victims) instances of teen RASASH (Edwards, Rodenhizer, & Eckstein, 2017).

In another study that examined high school students' bystander action in situations of RA and SA, some students noted concerns that school personnel would tell others and/or gossip about students' experiences, which served as a barrier to engaging school personnel in situations of teen RA and SA (Edwards, Rodenhizer-Stämpfli, & Eckstein, 2015). Specific to bullying and SH, research by Espelage and colleagues has documented that school personnel also have a powerful role as shapers of norms and behavior for students, which can be considered a form of prosocial bystander action. For example, gender equitable attitudes and intolerance of SH among school personnel is associated with lower rates of bullying and SH among middle school students (Espelage, Polanin, & Low, 2014; Rinehart & Espelage, 2016).

School Climate

School personnel play individual roles as bystanders who take specific actions that may de-escalate risk for RASASH, and role models and norm setters for students. School personnel can also be important reporters on school climate variables that have been linked to these problems. School climate is a complex construct generally used to describe the qualities of interactions among adults and students in school (Hoy, Smith, & Sweetland, 2002). School climate is often measured using student perceptions of how students get along with one another and how they feel they are treated by school staff (Brand, Felner, Shim, Seitsinger, & Dumas, 2003; Gottfredson, Gottfredson, Payne, & Gottfredson, 2005; Hoy et al., 2002). Student perceptions of supportive school climate have been linked to positive student adjustment, commitment to learning, and academic achievement (Brand et al., 2003; Phillips, 1997), as well as school safety (Astor, Benbenishty, Zeira, & Vinokur, 2002; Gottfredson et al., 2005). One marker for school climate is student perceptions of teachers' willingness to help (i.e., engage in bystander action) in situations of abuse and assault

(Edwards, Rodenhizer-Stämpfli, & Eckstein, 2015). School personnel bystander action may be one leverage point for improving school climate and thus more research on this specific topic is important.

Community Readiness

School climate is one part of larger school community readiness to address RASASH. Community readiness focuses on the degree to which the community is prepared to take action on the issue of interest (R. W. Edwards, Jumper-Thurman, Plested, Oetting, & Swanson, 2000; Plested, Edwards, & Jumper-Thurman, 2006). The Tri-Ethnic Center for Prevention Research community readiness model originally included six domains, specifically community efforts (e.g., programs and policies), community knowledge of efforts (e.g., how aware are community members of current efforts related to the issue), leadership concern (e.g., to what extent are community leaders, such as policy makers or administration, concerned with the issue), community climate (e.g., community's attitude toward the issue), community knowledge of the issue (e.g., how much do community members know about the issue), and resources related to the issue (e.g., time, money, people, space; R. W. Edwards et al., 2000; Plested et al., 2006; Stanley, 2014). Although not yet examined specific to school readiness to prevent and respond to RASASH, community readiness as a construct has been found to be very important in understanding and tailoring prevention efforts related to youth substance use (Oetting et al., 1995; Plested et al., 2006), and other forms of violence prevention (Edwards, Moynihan, Rodenhizer-Stämpfli, Demers, & Banyard, 2015). It may be an important moderator for understanding student focused prevention program effectiveness. Prevention programs' effects may be enhanced in environments where school climate is positive and/or when community readiness in the school for RASASH is high. For example, research has documented that a different but related community variable, collective efficacy, was related to increased bystander behavior among later adolescents and emerging adults (Edwards, Mattingly, Dixon, & Banyard, 2014). Indeed, research and theory suggests that variables like community readiness may not only enhance the implementation of prevention programs for students but also help us better understand variability in whether school personnel take action to prevent RASASH or report challenging barriers to stepping in (Banyard, Edwards, & Seibold, 2015; Edwards, Moynihan, et al., 2015). Measuring school personnel's attitudes and behaviors starts to move our measurement models beyond an all too exclusive focus on individual student variables. Improving readiness, perhaps by increasing school staff bystander action, may enhance prevention work that is more focused on students.

Measures of School Personnel Bystander Behavior

School personnel's bystander attitudes and actions are a potentially important component of school climate, may moderate prevention efforts in schools, and yet are an understudied topic. In part, this may be due to the lack of measures of bystander attitudes and behaviors that are specific to school personnel. To date, we are unaware of any established instruments that assess school personnel's bystander action behaviors and barriers in situations of teen RASASH (and related constructs, that is, perceptions of school readiness to address RASASH). Having psychometrically sound instruments that assess these constructs are

important for various reasons. First, school personnel bystander instruments are needed to document the incidence, prevalence, correlates, and predictors of school personnel's bystander action behaviors and related constructs. Without such instruments, it is not possible to conduct rigorous research that can inform policy and practice. Second, school personnel bystander instruments are needed to evaluate the effectiveness of bystander-focused prevention initiatives that target school personnel. Third, measures that assess school personnel's perceptions of school readiness specific to preventing and responding to RASASH could provide useful community-level moderators of student prevention program outcomes. A number of measures of bystander attitudes and behaviors have been developed and tested with college students. Although these serve as a basis for measuring experiences of school personnel, we also know from a growing number of research studies about bystanders to RASASH in high schools that the types of behaviors observed and the range of actions that may be possible are quite different in high school settings (Edwards, Rodenhizer-Stämpfli, & Eckstein, 2015). Furthermore, we know from studies of college students that the role of the bystander in relation to those who need help (friend, stranger) affects attitudes and behaviors (Bennett, Banyard, & Edwards, 2015). The role of school personnel in relation to students is unique and quite different from studying college students intervening with peers. Thus, current bystander measures are inadequate to the research questions posed in the current study.

Current Study Aims

The purpose of this article is to describe recently developed instruments that assess school personnel's bystander barriers and intentions in situations of teen RASASH as well as perceptions of school readiness specific to RASASH prevention and response. In addition, drawing from a large sample of New England high school personnel, we provide preliminary psychometric data (i.e., factor structure and internal consistencies) on the instruments. Measures were developed using formative research by the current authors (*different dataset*) and established measures of bystander attitudes and behaviors created for use with college students (Banyard, Moynihan, Cares, & Warner, 2014).

Method

Participants

Participants were 1,150 high school personnel from 25 schools in New Hampshire, Massachusetts, and Maine who participated in a larger cluster randomized control trial to evaluate a bystander-focused violence prevention curriculum. In this article, we present data on the survey instruments used in the baseline (Time 1) data. The mean age of participants was 44.47 (range = 18–78, $SD = 11.81$). The majority of participants identified as female (67.8%) and White (97.8%). The sample comprised academic subject teachers (53.8%), special education teachers (8.7%), physical education teachers and coaches (2.9%), academic support staff (15.0%), counselors/social workers (7.9%), administrative support (5.0%), administrators (2.9%), nurses (2.0%), and facility support (2.2%). On average, school personnel had worked at the school for 9 years (range = 0.08–45.00 years, $SD = 8.17$ years).

Procedure

Following institutional review board approval, a high school administrator sent out an email from the principal investigator (PI) describing the study and inviting school personnel to participate. The PI also requested that (a) school administrators include a brief statement prior to the PI's recruitment email encouraging school personnel to complete the survey, (b) school administrators send a reminder email to school personnel a few weeks after the initial request was sent, and (c) school administrators make an announcement about the survey at staff and faculty meetings. In addition, fliers advertising the study were posted in areas of the school (e.g., staff lounge, mailroom) where school personnel frequented. All recruitment messages contained a link to the online survey (that was unique to each school); one individual requested to complete a paper-and-pencil version of the survey via mail. All participants were provided with a detailed description of the study; informed consent was obtained by having participants check a box that they read and understood the consent form and wished to participate. We did not ask participants to sign the consent form to maintain the anonymity of the surveys. Approximately 41% of the school personnel who were invited completed the survey. Following the completion of the survey, participants were provided with a list of resources to learn more about RA and SA, as well as information on how to get help personally for these issues. Finally, participants had the opportunity to enter their name into a raffle for the chance to win a US\$250 gift card. Of note, at the end of the survey, participants were redirected to an entirely new survey to enter their name into the gift card raffle so that their survey responses would remain anonymous.

Measures

Bystander intentions.—The Bystander Intent to Help Questionnaire–School Personnel (BIHQ-SP) was created based on previous research with high school students and high school personnel (Edwards et al., 2015; *different study/dataset*). Items capture school personnel's intention to intervene in situations of teen RASASH. The BIHQ-SP consisted of 10 items (e.g., "How likely would you be to comfort a teen who is a victim of relationship abuse or sexual assault?"). Response options range from 1 (*very unlikely*) to 4 (*very likely*).

Bystander efficacy.—Modeled after previous research (Banyard, 2008; Banyard et al., 2014), we created 12 statements, comprising the Bystander Efficacy Scale–School Personnel (BES-SP), that assess school personnel's confidence in their ability to perform various bystander actions in situations of teen RA and SA. On each of the items (e.g., "Speak up to a student at my school who is making excuses for forcing someone to have sex with them."), participants rate their confidence to perform the behavior on a scale from 0 (*quite uncertain*) to 100 (*very certain*). Higher scores indicate greater bystander efficacy.

School personnel barriers to bystander action.—The Barriers to Bystander Action Scale–School Personnel (BBAS-SP) was created based on previous research (Edwards, Rodenhizer-Stämpfli, & Eckstein, 2015, 2017) to assess school personnel's perceived barriers to take bystander action in situations of teen RA and SA. Response options on each of the items (e.g., "I am too busy to intervene in situations of teen RA and SA.") ranged from 1 (*disagree strongly*) to 4 (*agree strongly*).

Perceptions of school readiness.—Modeled after other measures of community readiness (Edwards, Jones, & Rodenhizer-Stämpfli, 2014; Edwards, Moynihan, et al., 2015; Oetting et al., 1995; Plested et al., 2006; Stanley, 2014), we created items to tap into school personnel's perceptions of each five domains of their school's readiness to prevent and respond to RASASH, including efforts, knowledge of efforts, community climate, knowledge of the issue, and resources. Response options for each of the items (e.g., "There is a lot of time and/or money spent at our school on programs and initiatives to prevent relationship abuse and sexual assault among students") range from 1 (*strongly disagree*) to 4 (*strongly agree*).

Analysis Plan

Consistent with other research employing multilevel factor analyses (Huang et al., 2015), we randomly divided the sample into two groups—the exploratory sample (ES; $n = 575$) and the confirmatory sample (CS; $n = 575$). Exploratory factor analysis (EFA) was used to estimate the factor structure of each measurement scale with four items or more using the ES. A succession from one to four factors was extracted using geomin rotation, depending on previous findings and/or conceptual expectations, with a maximum of two extracted factors for most scales. The default oblique rotation for EFA in Mplus, geomin rotation, was used as it allows for correlated factors. Factor loadings, fit indices, and conceptual understanding of the factors were used to determine the optimal factor structure. For measures with three items, we estimated a one-factor EFA to report factor loadings; however, fit indices cannot be measured because the model is under-identified.

We report a variety of fit indices for each model with continuous outcome variables, following recommendations (Huang et al., 2015), including the root mean square error of approximation (RMSEA; good fit $< .06$) and the standardized root mean square residual (SRMR; good fit $< .08$). The comparative fit index (CFI; good fit $> .95$) and Tucker–Lewis Index (TLI; good fit $> .95$), which are used to indicate how much better a model fits the data compared with the baseline model where all variables are uncorrelated, is also reported. Finally, the Bayesian Information Criterion (BIC) is reported. The BIC is useful when comparing multiple models; models with lower BICs indicate better fits. Also, in keeping with the general recommendations for EFA, other criteria used in arriving at a final factor structure included removing items loading high on more than one factor and removing items with loadings $< .30$. Once the factor structure was determined with EFA, confirmatory factor analysis (CFA) was used to test that factor structure using the CS data, with the fit indices described above estimated. For these models, the variances of factors were set to 1 and the loadings were allowed to vary, and all factors were correlated.

For all analyses, the “type = complex” command in Mplus 7 (Muthén & Muthén, 1998–2016, 2010) was used to account for the nested structure of the data. For scales where the items were considered continuous, the default method of full information maximum likelihood was used to derive the factors, thus accounting for missingness.

Finally, the reliability of the survey instruments was examined by estimating Cronbach's alpha using IBM SPSS Statistics, Version 24. Reliability scores of .70 or higher were considered acceptable in accordance with general recommendations (Nunnally & Bernstein,

1994). Cronbach's alphas implicitly assume a single-level factor structure and may be biased either positively or negatively depending on the intraclass correlation (ICC) and the reliability at each level (Geldhof, Preacher, & Zyphur, 2014). Given the relatively low ICC for the items used in the CFA estimations, Cronbach's alpha is likely a reasonable estimate.

Results

The fit indices for all models with four or more items are presented in Table 1. For each scale, the indices for the EFA models are presented; these are followed by the CFA results. Table 2 presents the standardized factor loadings from the "best" model for both the EFA and CFA.

Bystander Intentions

A comparison of fit indices for a one-factor, two-factor, and three-factor model indicated best fit for the data with the two-factor model (RMSEA = .065; SRMR = .037; CFI = .93; TLI = .88). Item 1, "ignore a group of boys referring to girls as 'sluts'"; Item 6, "gossip to other staff about what a student told them"; and Item 10, "talk to teens about healthy relationships," had factor loadings less than .30. Next, the two-factor model, excluding Items 1, 6, and 10, was fit using the CS dataset. The RMSEA (.064) was slightly above the accepted cutoff for good fit and the TLI (.94) was slightly below the accepted cutoff for good fit. The SRMR (.035) and CFI (.96) showed good model fit. All standardized factor loadings were greater than .30 (Table 2). Factor 1 consists of items measuring "Proactive Bystander Intentions" and factor 2 consists of items measuring "Reactive Bystander Intentions." Factor 1 showed acceptable reliability ($\alpha = .79$) whereas Factor 2 showed questionable reliability ($\alpha = .65$).

Bystander Efficacy

A comparison of fit indices for one-factor through four-factor models indicated best fit for the three-factor model of bystander efficacy. All fit indices indicated excellent model fit (RMSEA = .027; SRMR = .022; CFI = .99; TLI = .98). All items had factor loadings greater than .30 and low cross-loadings (Table 2). The three-factor model was then tested using the CS dataset. All fit indices indicated reasonable model fit (RMSEA = .057; SRMR = .050; CFI = .94; TLI = .92). Factor loadings for this measure were all greater than .30 (Table 2). In addition, Cronbach's alpha were calculated for each factor and determined to be acceptable: "Verbal Disagreement" (Factor 1; $\alpha = .76$), "Providing Help" (Factor 2; $\alpha = .78$), and "Speak Out Against Excuses for Assault" (Factor 3; $\alpha = .97$).

School Personnel Barriers to Bystander Action

One-factor and two-factor models for the measure of school personnel barriers to bystander action were estimated. The two-factor model showed excellent fit indices (RMSEA = .000; SRMR = .002; CFI = 1.00; TLI = 1.02). All items had factor loadings greater than .30 and low cross-loadings, as shown in Table 2. The two-factor model was then fit using the CS dataset. As with the EFA, the two-factor model showed excellent model fit (RMSEA = .000; SRMR = .014; CFI = 1.00; TLI = 1.01). All factor loadings were greater than .30 and cross-loadings were low (Table 2). Despite excellent model fit, the Cronbach's alpha for

both “Intervening Worsens Situation” (Factor 1; $\alpha = .65$) and “Cannot Intervene” (Factor 2; $\alpha = .63$) were less than ideal. The low reliabilities can likely be attributed to a lack of items in each factor.

Perceptions of School Readiness

A comparison of fit indices for a one-factor through a five-factor model of the measure of perceptions of school readiness indicated best model fit for the four-factor model, with the five-factor model not converging. Although this model had the best fit out of the models that were assessed, most fit indices still indicated unacceptable model fit (RMSEA = .111; SRMR = .038; CFI = .92; TLI = .83). Several items had low factor loadings or relatively high cross-loadings. An analysis of the factors obtained did not align with the community readiness dimensions. Using both the EFA results and a conceptual understanding of the dimensions of community readiness, a CFA was fit with the items hypothesized to relate to each dimension assigned to a factor except for the items with low loadings deleted from the model. This five-factor model showed relatively good fit (RMSEA = .072; SRMR = .048; CFI = .95; TLI = .93). The factors are “Efforts” (Items 1 and 2), “Knowledge of Efforts” (Items 3 and 4), “Resources” (Items 6 and 7), “Climate Related to School Personnel” (Items 8, 10, 11, and 12), and “Knowledge of the Issue” (Items 5 and 14). Items 9 and 13 did not load highly on any factor and when included as a separate factor (climate relating to students) significantly reduced model fit. Thus, they were excluded from this model. Cronbach’s alphas for these factors were all well above the cutoff of .70 except for Knowledge of the Issue with $\alpha = .68$.

Discussion

In this article, we endeavored to describe the adaptation, development, and psychometric properties of survey instruments aimed at assessing school personnel’s bystander action in situations of teen RA and SA. Measures were created for constructs that initial research (Edwards et al 2015; *different study/dataset*) suggests could be important to target in school personnel trainings on how to promote healthy relationships among students and were modeled on established measures of bystander action among college students. As a whole, the fit indices for our measures, both created and adapted, were found to be acceptable. Most measures and subscales also demonstrated adequate reliability, although four of the subscales had less than ideal internal consistency. This is likely due to the fact that these scales had a small number of items. Ideally, researchers include a more comprehensive number of items to assess their construct of interest. However, there were time constraints imposed by the participating schools as well as concerns about survey fatigue (Porter, Whitcomb, & Weitzer, 2004) leading to the development of brief, as opposed to comprehensive, instruments. Despite the acknowledged issues, the measures described fill a critical gap in research on bystander action among school personnel in situations of teen RASASH.

Some of the longer instruments were multifactorial. For example, it is noteworthy that bystander intentions emerged into actions taken before and after/during instances of RA and/or SA. This is consistent with models of bystander helping described among college

students suggesting that there are different stages in which individuals can intervene (McMahon & Banyard, 2012). Multifactorial measures also allow researchers to understand the nuances in attitudes and behaviors as related to the occurrence of RASASH.

The current study takes next steps in exploring measures of bystander attitudes and behaviors among school personnel in situations of teen RASASH. These instruments can be used both to understand under what conditions high school personnel help and correlates of helping behaviors as well as tools to evaluate the effectiveness of bystander-focused violence prevention programs that seek to engage school personnel. Although in the bullying prevention literature, there is increasing calls to engage school personnel in bullying prevention (Yoon & Barton, 2008; Yoon & Bauman, 2014), there is little research on the role of school personnel in preventing RASASH among high school youth. We hope that these measurement tools will encourage researchers to examine this critical, yet sorely under-researched area.

Limitations and Future Research

Several shortcomings of the current study should be noted, which also inform future research. First, the sample, while large, lacked racial and ethnic diversity. Future research would benefit from using more diverse samples. Moreover, some of the subscales demonstrated internal consistencies that were less than ideal, which underscores that additional measurement development research is warranted. Given that these are relatively new constructs in research on bystander action and RA and SA, a next important study may be qualitative, including focus groups with additional groups of school personnel. Also, data are self-reported and some respondents may not have disclosed their true beliefs or intentions.

Implications

There are a number of instruments created to measure bystander behavior and its correlates among college students. Yet, there is a lack of instruments created to measure these constructs among school personnel considering the important role they play in students' own bystander behavior. It indicates a need for the development of reliable and validated tools for bystander behavior and attitudes toward RA and SA among high school students, especially because they have the potential to influence bystander prevention strategies. The current study presents a series of mostly reliable measures in an effort to address this issue.

Acknowledgments

We owe a great deal of gratitude to our school and community partners and the 50+ research assistants and program facilitators. Without these agencies and individuals, this project would not have been possible.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Funding for this study was provided by the Centers for Disease Control and Prevention (CDC), Grant R01-CE002524.

Biography

Katie M. Edwards, PhD, is an Assistant Professor of psychology and women's studies and faculty affiliate of Prevention Innovations Research Center and the Carsey School of Public Policy at the University of New Hampshire (UNH). Dr. Edwards' interdisciplinary program of research focuses broadly on better understanding the causes and consequences of interpersonal violence, primarily intimate partner violence (IPV) and sexual assault (SA) among adolescents and emerging adults. Dr. Edwards uses this research data to develop, implement, and evaluate IPV and SA prevention, intervention, and policy efforts.

Stephanie N. Sessarego, MA, is a third-year doctoral student in social psychology and member of the Interpersonal Violence Research Laboratory (IVRL) at the University of New Hampshire. Ms. Sessarego received her Master's degree in Forensic Psychology from the University of Denver in 2015. Ms. Sessarego's interdisciplinary program of research broadly focuses on risk factors for and outcomes of repeat sexual victimization experiences.

Linda R. Stanley, PhD, is a Senior Research Scientist at the Tri-Ethnic Center for Prevention Research at Colorado State University, where her major research focus is epidemiology, etiology, and prevention of substance use in American Indian youth. Dr. Stanley holds a PhD in economics, and has published in the fields of psychology, substance abuse prevention, marketing, economics, public policy, social work, and communication.

Kimberly J. Mitchell, PhD, is a Research Associate Professor of Psychology at the Crimes against Children Research Center located at the University of New Hampshire. Her areas of research focus on childhood violence exposure, peer victimization, technology-involved victimization, violence prevention, and childhood adversity. Dr. Mitchell has directed and/or co-directed multiple federally-funded grants that focus on youth and technology, including the internationally recognized Youth Internet Safety Surveys.

Robert P. Eckstein, PysD, is a Senior Lecturer at the University of New Hampshire for the Department of Psychology and the Justice Studies Program. He is also the Lead Trainer and Curriculum Development Specialist for Prevention Innovations Research Center

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P. Caroline Leyva, M.P.A., serves as a Lead Trainer of the Bringing in the Bystander® program, and Curriculum Development Specialist for UNH's Prevention Innovations Research Center. While living in Hawai'i, Caroline founded and was the Executive Director of a not-for-profit for queer youth and young adults, synthesizing prevention, leadership and social justice using a youth-led model. Caroline also served as the State of Hawai'i federal fellow, 2006–2009, for SAMHSAs Center for Substance Abuse Prevention. Caroline's current work, through the UNH Department of Psychology, focuses on adaptation of the Bringing in the Bystander® program for high school audiences and serving as the prevention

and curriculum development specialist on a project that looks at preventing sexual violence through a comprehensive, peer-led initiative.

Victoria L. Banyard, PhD, is a Professor in the Department of Psychology at the University of New Hampshire. She has published on violence prevention, resilience, and mobilizing bystanders to help prevent interpersonal violence.

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Table 1.

Fit Indices for Exploratory and Confirmatory Factor Models of Measures of Bystander Behavior.

Measure	χ^2	df	RMSEA	SRMR	CFI	TLI	BIC
Bystander Intentions—10 items							
EFA–1 factor	266.1	35	.113	.077	0.73	0.65	12,334
EFA–2 factors	82.4	26	.065	.037	0.93	0.88	12,200
EFA–3 factors	No convergence						
CFA–2 factors	41.2	13	.064	.035	0.96	0.94	6,550
Bystander Efficacy—12 items							
EFA–1 factor	351.6	54	.104	.120	0.79	0.74	49,414
EFA–2 factors	124.4	43	.061	.045	0.94	0.91	48,893
EFA–3 factors	44.9	33	.027	.022	0.99	0.98	48,784
EFA–4 factors	45.9	24	.042	.013	0.98	0.96	48,806
CFA–3 factors	139.3	51	.057	.050	0.94	0.92	
School Personnel Barriers to Bystander Action—Five items							
EFA–1 factor	371.8	10	.154	.062	0.84	0.67	5,141
EFA–2 factors	371.8	10	.000	.002	1.00	1.02	5,089
CFA–2 factors	315.1	10	.000	.014	1.00	1.01	5,299
Perceptions of School Readiness—14 items							
EFA–1 factor	1,563.6	77	.196	.126	0.54	0.46	11,428
EFA–2 factors	700.5	64	.141	.063	0.80	0.72	10,376
EFA–3 factors	390.3	52	.114	.053	0.90	0.82	10,053
EFA–4 factors	293.6	41	.111	.038	0.92	0.83	9,976
CFA–5 factors	161.6	44	.072	.048	0.95	0.93	8,633

Note. RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; CFI = comparative fit index; TLI = Tucker–Lewis Index; BIC = Bayesian information criterion; EFA = exploratory factor analysis; CFA = confirmatory factor analysis.

Table 2.

Factor Loadings for Final Exploratory and Confirmatory Factor Models.

Measure	EFA Factor Loadings				CFA Factor Loadings			
	F1	F2	F3	F4	F1	F2	F3	F4
Bystander Intentions–10 items								
1. Ignore a group of boys who are referring to girls as “sluts”	–.24	–.08						
2. Tell a group of boys calling a girl a “slut” to stop	.54	–.01			.54			
3. Physically intervene in a physical fight between a dating couple	.54	.15			.58			
4. Verbally tell a dating couple in a physical fight to stop	.91	–.03			.88			
5. Verbally tell a dating couple in a verbal fight to stop	.83	.03			.86			
6. Gossip to other school staff about what a teen tells them without the teen’s permission	.05	.16						
7. Comfort a teen who is a victim of abuse	–.02	.77				.62		
8. Try to get a teen who is being abused help	.17	.59				.75		
9. Talk to teens about getting help for abuse and SA	.06	.48				.50		
10. Talk to teens about healthy relationships	–.09	.03						
Cronbach’s α					.79	.65		
Bystander Efficacy–12 items								
1. Express concern/discomfort if a student makes a joke about a women’s body	–.01	–.02	.73		.65			
2. Express discomfort if a student says rape victims are to blame for rape	–.02	.23	.41		.63			
3. Talk to a student who I suspect is in an abusive relationship	.20	.03	.44		.65			
4. Get help for a student to tells me they are in an abusive relationship	.00	.83	–.09			.80		
5. Speak up to staff who are providing misinformation about SA	.13	–.01	.49		.62			
6. Take action if a student says they had sex with someone who did not give consent	.18	.40	.11			.72		
7. Get help if I hear an abusive relationship is impacting a student	.01	.88	.02			.82		
8. Speak up to a student making excuses for forcing someone to have sex	.94	–.01	.05				.95	
9. Speak up to a student making excuses for having sex with someone unable to give consent	1.02	–.01	–.04				.99	
10. Speak up to a student making excuses for using physical abuse	.90	.03	.00				.95	
11. Speak up to a student who is being verbally abusive	.24	.16	.50		.77			
12. Speak up to a student who is always calling/texting their partner	.00	.08	.61		.52			
Cronbach’s α					.76	.78	.97	
School Personnel Barriers to Bystander Action–5 items								
1. Intervening could have negative impacts	.69	–.01			.51			
2. Intervening will only make the situation worse	.64	.14			.60			
3. I am too busy to intervene	.01	.75				.35		
4. It is not my responsibility to intervene	–.01	.66				.37		
5. I do not have the knowledge or skills to intervene	.25	.43				.53		
Cronbach’s α					.65	.63		
Perceptions of School Readiness–14 items								
1. There are programs and policies to try to prevent SA and Abuse	.88	.01	.00	–.03	.90			
2. There are programs and services to try to help victims of SA and abuse	.89	–.03	–.01	.01	.87			

Measure	EFA Factor Loadings				CFA Factor Loadings			
	F1	F2	F3	F4	F1	F2	F3	F4
3. Students know about the programs, rules, and services for SA and abuse	.52	.30	-.03	.03		.83		
4. Staff know about the programs, rules, and services for SA and abuse	.58	.17	.13	-.03		.85		
5. Students know a lot about relationship abuse and SA	.35	.26	-.02	.07				.64
6. There is a lot of time/money spent on programs to prevent abuse and SA	.03	.91	.00	-.01				.91
7. There is a lot of time/money spent to help kids who are victims of abuse and SA	-.01	.92	.01	-.02				.85
8. Staff at this school care about preventing abuse and SA among students	-.02	.00	.95	.01			.90	
9. It is important to students to try to stop abuse and SA from happening	-.07	.11	-.02	.74				
10. It is important to staff to try to stop abuse and SA from happening	.03	-.06	.28	.61			.50	
11. Staff care about helping victims of abuse and SA	-.03	.01	.98	-.03			.91	
12. Staff think it important to help in situations of teen abuse and SA	.11	-.01	.51	.19			.60	
13. Students think it is important to help in situations of teen abuse and SA	.09	.14	.30	.21				
14. Staff know a lot about relationship abuse and SA	.24	.28	.13	.14				.76
Cronbach's α					.88	.81	.84	.90

Note. Factor loadings .30 are in bold. EFA = exploratory factor analysis; CFA = confirmatory factor analysis; SA = sexual assault.