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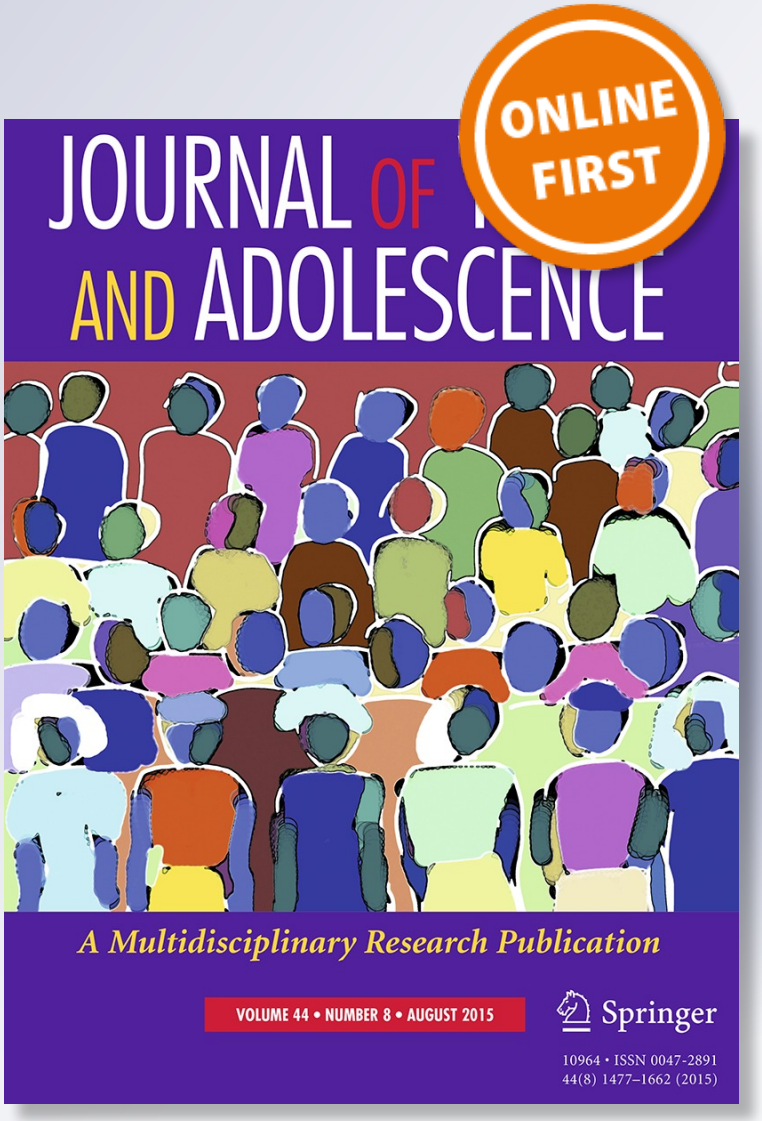
Journal of Youth and Adolescence
A Multidisciplinary Research Publication

ISSN 0047-2891

J Youth Adolescence
DOI 10.1007/s10964-015-0338-5



Springer

J Youth Adolescence
DOI 10.1007/s10964-015-0338-5

EMPIRICAL RESEARCH

Prosocial Bystander Behavior in Bullying Dynamics: Assessing the Impact of Social Capital

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Received: 17 June 2015 / Accepted: 31 July 2015

Abstract Individuals who observe a bullying event, but are not directly involved as a bully or victim, are referred to as bystanders. Prosocial bystanders are those individuals who actively intervene in bullying dynamics to support the victim and this prosocial behavior often ends the bullying. The current study examines how social capital in the form of social support, community engagement, mental health functioning, and positive school experiences and characteristics is associated with the likelihood of engaging in prosocial bystander behavior in a large sample ($N = 5752$; 51.03 % female) of racially/ethnically diverse rural youth. It was hypothesized that social capital would be associated with an increased likelihood of engaging in prosocial bystander behavior. Following multiple imputation, an ordered logistic regression with robust standard errors was run. The hypothesis was partially supported and results indicated that social capital in the form of friend and teacher support, ethnic identity, religious orientation, and future optimism were significantly associated with an increased likelihood of engaging in prosocial bystander behavior. Contrary to the hypothesis, a decreased rate of self-esteem was significantly associated with an increased likelihood of engaging in prosocial bystander behavior. The findings highlight the importance of positive social relationships and community engagement in increasing prosocial bystander behavior and ultimately decreasing school bullying. Implications were discussed.

Keywords School bullying · Bystander · Adolescence · Rural · Social capital

Introduction

A bystander is an individual who witnesses an emergency event, but is not directly involved. Social psychology textbooks are replete with stories of bystanders who observed emergency situations such as stabbings and sexual assaults without providing assistance (Myers 2002). However, equally as important is the question of why bystanders might choose to behave in a prosocial manner (Batson 1998). Various situational and dispositional characteristics impact prosocial bystander behavior. For example, observing someone engage in prosocial behavior significantly increases the likelihood of witnesses replicating that behavior (Bryan and Test 1967; Rushton and Campbell 1977). Other situational factors such as victim appearance, severity of victim need, cost of helping, and the number of bystanders present also impact prosocial behavior (see Batson and Powell 2003 for a review; Darley and Latane 1968). Further, prosocial bystanders appear to display certain dispositional characteristics such as empathy, an internal locus of control (i.e., belief that life events result from personal actions), a strong belief in fairness, and high social responsibility (see Batson and Powell 2003 for a review; Bierhoff et al. 1991). However, researchers have largely neglected to examine how the presence of social capital impacts bystander behavior, especially for bystanders present during episodes of bullying.

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Published online: 07 August 2015

Youth with access to social capital are likely enmeshed in a network of supportive social relationships that might lead to engagement in prosocial activities. The presence of supportive others might encourage youth to display prosocial bystander behavior (e.g., defend victims of bullying). First, it is possible that supportive others might model prosocial bystander behavior, making this positive behavior the norm, and thus increasing the likelihood that others also engage in this behavior. Second, the presence of social support might decrease fear of becoming the next victim as a result of standing up to the bully. Past research indicates that defense of the victim has the potential to decrease rates of bullying and to buffer against the negative impact of bullying on victims. Given this positive impact of prosocial bystander behavior, it is incumbent upon researchers to gain a more comprehensive understanding of the individual- and school-level characteristics that impact prosocial (i.e., defending the victim) bystander behavior. Further, bullying typically peaks in adolescence, highlighting the importance of gaining insight into how to increase prosocial bystander behavior and prevent bullying during this developmental period. The current study aims to uncover how social capital indicators in the form of social support, community engagement, mental health functioning, and positive school experiences and characteristics are associated with prosocial bystander behavior.

Social Capital Theory

Social capital refers to the benefits gained from social relationships (Putnam 2000). Specifically, individuals form and invest in social relationships with the expectation of fulfilling goals and profiting from their interactions with others (Coleman 1988; Lin 2001). Putnam described the mutual benefit of social capital as the force that drives people to maintain social networks: "Social capital refers to features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit" (Putnam 1995; p. 67). Social capital theorists argue that social ties offer four beneficial resources: access to *information* about opportunities that might not be available to those outside of the relationship, the potential to *influence* the person in power, *social credentials* (e.g., being socially connected to certain individuals indicates access to resources), and *reinforcement* of an individual's identity and sense of self-worth (Lin 2001; Lin et al. 2001).

Given these benefits of social capital, it follows that the presence of social capital would be associated with positive outcomes for adolescents. In support of this, one study of rural youth that used social capital theory as a guiding framework found that, over 3 years, social capital in the form of parental and friends' support significantly predicted decreased depression and anxiety and increased self-esteem. In addition, social capital in the form of religious orientation and ethnic identity significantly predicted increased self-esteem (Smokowski et al. 2014a).

In light of the beneficial impact that social capital has on adolescent mental health, it is likely that social capital influences other aspects of adolescent development, such as bystander behavior. The current study assesses if and how direct measures of social capital (i.e., friends', teachers', and parental support), as well as factors that foster social capital development (i.e., community engagement, mental health functioning, and positive school experiences and characteristics) are associated with prosocial bystander behavior. Youth benefiting from these forms of social capital likely perceive the world as safe and assume that their defense of the victim will be encouraged by their sources of social support.

Bystanders in the Bullying Dynamic

The vast majority of bullying episodes are witnessed by bystanders (Atlas and Pepler 1998; Craig et al. 2000; Hawkins et al. 2001; Kerzner 2013). While many bystanders reinforce the bully or ignore the situation, a small percentage defend the victim in an effort to interrupt the bullying dynamic. In one study of 60 videotaped bullying episodes of youth in Grades 1 through 6, researchers found that bystanders defended the victim only 10 % of the time (Atlas and Pepler 1998). In another study of the same age group, 306 videotaped bullying episodes were coded and bystanders defended the victim 19 % of the time (Hawkins et al. 2001). Studies using self- and peer-report surveys of bystander behavior mirror these results. In a sample of 573 Finnish students in Grade 6, 17 % reported defending the victim (Salmivalli et al. 1996). A study of 9397 Canadian youth in Grades 4 through 11 paints a slightly more optimistic picture. These youth self-reported on their bystander behavior and 31 % reported helping the victim most of the time and 18 % reported helping the victim all of the time (Trach et al. 2010). Overall, the prevalence of observed defending behavior varied from 10 to 19 % and self-reported defending rates range from 17 to 31 %.

Past research suggests that bystanders who support the victim have the power to interrupt the bullying dynamic. For example, in a sample of youth in Grades 1 through 6, bystander defense of the victim ended the bullying 57 % of the time (Hawkins et al. 2001). In another study of 6762 Finnish children ages 9 through 11, defending behavior was significantly associated with decreased levels of classroom bullying (Salmivalli et al. 2011). Further, defending the victim mitigates the negative outcomes associated with bullying victimization. Although victims generally report lower quality of life compared to

non-victimized youth, victims who perceived high levels of peer support (e.g., being defended during bullying episodes) reported less of a decrease in quality of life than victims who did not perceive high levels of support (Flaspohler et al. 2009). Taken together, past bystander research highlights the vital role that prosocial bystander behavior has on decreasing rates of bullying and ameliorating the negative impact that bullying has on victims.

Social Capital Variables Associated with Prosocial Bystander Behavior

Demographic Variables

It is well documented that, compared to boys, girls are more likely to behave as prosocial bystanders and support victims during bullying episodes (Barchia and Bussey 2011; Poyhonen et al. 2010; Salmivalli et al. 1996). In terms of age, defending behavior appears to decrease with age. For example, compared to middle school students, youth in elementary school were more likely to defend the victim (Poyhonen et al. 2010) and compared to high school students, youth in middle school reported more defending behavior (Barchia and Bussey 2011). However, other researchers have found that compared to younger students, older students were significantly more likely to intervene to defend the victim (Barhight et al. 2013) indicating the need for additional research. In regards to individual school performance, high grades indicate academic investment and could be indicative of other prosocial, rule following behaviors, such as defending victims of bullying.

Concerning familial influences on bystander behavior, it is well established that, compared to single parent families, two parent families are more financially stable (Churaman 1992) and that youth from two parent families report lower rates of aggression, delinquency, and internalizing disorders (Griffin et al. 2000; Miller and Taylor 2012; National Survey of Children's Health 2007; Vaden-Kiernan et al. 1995). Thus, it is possible that financial stability and residence in a two parent household might also be associated with increased prosocial behavior, such as prosocial bystander behavior. However, this relationship remains uninvestigated.

Social Capital Through Social Support: Friends, Parents, and Teachers

As youth enter adolescence, peer relationships become an increasingly important form of social support and friends' support in particular represents a significant form of social capital that buffers against social maladjustment and internalizing problems (Furman and Buhrmester 1992; Waldrip et al. 2008). Social standing in the classroom provides some insight into whether or not youth are supported by their peers and friends. Sociometric popularity, also referred to as acceptance, is the extent to which an individual is liked or disliked by his or her peer group (Asher et al. 1996) and perceived popularity is assessed by asking youth to nominate the peers that they perceive as being the most and least popular (Cillessen and Rose 2006). Both of these constructs are associated with bystander behavior.

For example, in a sample of youth ages 8 through 10, there was a significant and positive association between both sociometric and perceived popularity and defending behavior. Compared to less well-liked and popular children, well-liked and popular youth were more likely to defend victims. However, for adolescents ages 11 through 14, sociometric popularity, but not perceived popularity, was significantly and positively associated with defending behavior (Caravita et al. 2009). These findings were partially confirmed in a sample of elementary and middle school youth and both sociometric and perceived popularity were positively associated with defending behavior (Poyhonen et al. 2010). Finally, in a sample of students in Grade 6, compared to bullies, victims, outsiders (i.e., passive bystanders), and defenders (i.e., those who supported the bully), defenders received the highest number of "like most" nominations and had the highest social status in the class (Salmivalli et al. 1996). These findings suggest that, in general, across age groups, being liked by one's peers and being popular is a form of social capital associated with defending behavior. It is possible that the defending behavior itself increases youth's sociometric and perceived popularity. However, it is also possible that highly liked and popular youth feel supported by their friends and classmates, which gives them the confidence to defend victims of bullying. Defending the victim puts youth at risk of being victimized (Caravita et al. 2009), but having high social status might provide youth with a feeling of security and the confidence to defend victims. Although perceived friends' support is a slightly different construct than sociometric and perceived popularity, it is also a form of social capital that denotes the presence of positive social relationships. Further, youth who perceive their friends to be supportive might be well-liked by classmates. Being backed up by a cadre of supportive friends likely provides youth with the confidence to support the victim, thus increasing prosocial bystander behavior.

In addition to friends' support, parental support is also an important form of social capital for adolescents. Supportive parents foster a positive relationship with their children by encouraging, praising, and spending time with them. Parental support indicates that parents are invested in their children's current and future success and likely encourage their children to excel academically, connect

with prosocial peers and adults, and engage in prosocial activities. Thus, parental support promotes healthy youth development and functioning. For example, a high level of parental support was associated with increased adolescent self-esteem and decreased symptoms of depression (Boutelle et al. 2009; Rueger et al. 2010; Smokowski et al. 2013a). Youth internalize and then replicate their relationship with their parents (Bowlby 1973; Siegler et al. 2003), thus a child who was raised by supportive parents might be inclined to reenact this positive relationship in the peer context. Indeed, youth ages 9 through 11 years old who reported supportive parents and a high self-concept received the most "like most" nominations in the class, indicating that they were prosocial and got along well with their classmates (Inguglia et al. 2013). Further, parents' support was associated with enhanced self-esteem and decreased internalizing problems over the next 2 years (Smokowski et al. 2014b). In another sample of youth ages 16 through 18 years, a lack of family support was strongly associated with emotional and behavioral dysfunction (Garnefski and Diekstra 1996), which likely negatively impacted peer relationships. It is possible that these findings carryover to bullying situations and that bystanders with supportive parents replicate the support they experience at home by defending the victim.

Teachers' support is a third form of social capital that influences adolescents' behavior in the school environment. Youth who view their teachers as supportive are engaged in school and are well prepared for class, pay attention in class, and value academic success (Klern and Connell 2004); it is possible that this prosocial behavior extends outside of the academic realm and into the bullying dynamic. Perhaps youth who perceive high levels of teachers' support act as defenders because they know that teachers will step into support them if needed. Further, perceived teachers' support could serve as a deterrent to join in bullying. If students generally perceive their teachers to be supportive, perhaps they assume that teachers will intervene in bullying situations and thus students refrain from supporting the bully in an effort to avoid being caught by a concerned teacher. Indeed, in one study of 238 Korean-American youth in Grades 3 through 12, teachers' support was significantly associated with a decreased likelihood of assisting the bullying and ignoring the situation, but was also significantly associated with a decreased probability of defending the victim. These findings suggest that teachers' support effectively decreased negative bystander behavior, but did not facilitate prosocial bystander behavior (Choi and Cho 2012). Further research is needed to investigate the relationship between teachers' support and bystander behavior.

Social Capital Through Community Engagement: Religious Orientation and Ethnic Identity

Both religious orientation and ethnic identity are forms of social capital that serve to connect youth to prosocial and supportive peers and adults. Religious orientation is a measure of the importance that youth place on religion and participation in religious activities. Religious institutions are often tight knit and supportive communities that enhance members' wellbeing. For example, participation in religious activities and a belief in the importance of religion were associated with increased self-esteem (Bagley and Mallick 1997; Le et al. 2007) and decreased aggression (Leach et al. 2008; Smokowski et al. 2015a, b). Youth with high religious orientation value religion and likely attend religious sermons and ceremonies that expose them to prosocial religious principles. Further, many religious groups advocate for peace and camaraderie and support doctrines that discourage violence. It follows that, compared to youth who do not value religion, youth with a high religious orientation might be more likely to defend victims. However, there is very little research examining the connection between religion and bystander behavior. The one existing study of 426 Puerto Rican youth ages 10–12 years, found no significant differences in youth's negative (e.g., assisting the bully) and prosocial bystander behavior for those who attended church and for those who did not (Mercado-Crespo 2013). Given the dearth of literature, additional research is needed to further investigate the connection between religious orientation and bystander behavior.

Ethnic identity refers to an individual's ethnic self-identification (Bernal and Knight 1993) and to his or her feeling of connection to that ethnicity (Phinney et al. 2001). A strong sense of ethnic identity indicates that youth feel a sense of belonging and membership to their ethnic group and likely seek out opportunities to connect with that group. Thus, ethnic identity functions as a form of social capital, connecting youth to prosocial institutions such as churches or community centers, exposing youth to positive adult and peer role models who share the same race, ethnic affiliation, or language. Further, ethnic identity is related to successful psychological functioning (Phinney 1990) such as decreased levels of depression (Kiang et al. 2013), anxiety (Tynes et al. 2012), aggression (Flanagan et al. 2011; Smokowski et al. 2015a, b), and increased self-esteem (Corenblum and Armstrong 2012). Past research indicates that high ethnic identity is also associated with an absence of negative peer relationships, suggesting that ethnic identity might be associated with positive social interactions (Huang 2012), such as prosocial bystander behavior. Given that ethnic identity indicates a feeling of

belonging, compared to youth with low ethnic identity, youth with high ethnic identity might be more inclined to engage in prosocial bystander behavior because they feel that members of their ethnic group will support and protect them from becoming victimized.

Social Capital Through Mental Health Functioning: Future Optimism and Self-Esteem

Although mental health is not a direct measure of social capital, it impacts social capital acquisition. Optimistic, confident, and engaged youth are desirable social companions for peers and adults and thus more easily accrue social capital than youth plagued by depression and anxiety. Future optimism is an individual's sense of hope about the future and is a catalyst for the formation of plans, goals, and commitments (Nurmi 1991; Seginer 2008). Further, optimism about the future enhances mental health functioning in vulnerable youth (McCabe and Barnett 2000; Polgar and Auslander 2009). A related construct, self-esteem, refers to an individual's interpretation of personal worth and the degree of confidence one has in him or herself and the extent to which an individual values him or herself (Alessandri et al. 2015; Blascovich and Tomaka 1991). Self-esteem and future optimism are closely tied as youth who have a current positive view of themselves (i.e., high self-esteem) likely also have a positive view of their future (i.e., high future optimism). Indeed, researchers have found a positive and significant association between self-esteem and future optimism (Seginer and Shoyer 2012; Smokowski et al. 2014a). Youth with high self-esteem and future optimism might have the confidence to engage in defending behavior; however, research is mixed. In one study of cyberbullying, there was no association between self-esteem and prosocial bystander behavior (Machackova et al. 2013), a finding that was replicated in a study of traditional bullying (Kabert 2010). However, other studies have found that self-esteem was a significant and positive predictor of defending behavior (Salmivalli et al. 1999; Turetsky 2013).

Social Capital Through Positive School Experiences and Characteristics

The term school connectedness refers to a student's belief that the adults and peers at school care about him or her as an individual and about his or her academic development (Center for Disease Control and Prevention 2011). Youth who are not connected to school are at risk for poor academic achievement and dropping out prior to the end of tenth grade (Battin-Pearson et al. 2000). Thus, school connectedness is a form of social capital that buffers against the risk factors associated with dropping out of school. A feeling of connection to school likely denotes satisfaction with the school experience and school satisfaction is a form of social capital associated with improved functioning. For example, school satisfaction is associated with decreased symptoms of depression (Eamon 2002; Millings et al. 2012; Witherspoon et al. 2009) and increased self-esteem (Huebner and Gilman 2006; Smokowski et al. 2014a). Youth who are satisfied with school likely view the teachers and students as supportive and perceive school to be a safe place. Thus, these youth might be inclined to defend victims of bullying because they assume that their peers and teachers will support their efforts.

Certain school characteristics might also impact a youth's inclination to defend victims. For example, compared to larger schools, smaller schools have lower rates of violence (Ferris and West 2004), crime (Chen 2008), vandalism (Walker and Gresham 1997), and bullying (Bowes et al. 2009). It follows that relative to youth in larger schools, youth in smaller schools report feeling safer (Lleras 2008) and might therefore be inclined to assist victims of bullying without the fear of being victimized. Other characteristics of schools, such as rates of poverty and suspension, impact the school climate and youth's inclination to defend victims. High rates of student poverty and suspensions are associated with increased bullying and victimization (Bradshaw et al. 2009). It follows that lower rates of student poverty and suspensions might be associated with decreased bullying and victimization, perhaps due to more prosocial bystanders in these schools. Finally, teacher turnover rate represents the percentage of teachers who leave school each year and might impact bystander behavior. A low teacher turnover rate provides continuity for students and allows them to form close and lasting bonds with their teachers, thus bolstering their social capital. Perhaps teachers who return year after year are invested in and attuned to their students and are likely to encourage positive youth behavior.

Hypotheses

The thesis guiding the current study was that the presence of social capital would be associated with an increased likelihood of engaging in prosocial bystander behavior. Specifically, it was hypothesized that being female, younger, from a two parent family as well as receiving high grades and not receiving free or reduced price lunch would be significantly associated with an increased likelihood of engaging in prosocial bystander behavior. Given the lack of research on race, no definitive hypothesis was made. Further, it was hypothesized that social capital in the form of social support (i.e., supportive friends, parents, and

teachers), community engagement (i.e., ethnic identity and religious orientation), mental health functioning (i.e., self-esteem and future optimism), and positive school experiences and characteristics (i.e., school satisfaction, small school size, low percentage of students receiving free or reduced price lunch, low teacher turnover rate, and low suspension rate) would be associated with an increased likelihood of engaging in prosocial bystander behavior. See Fig. 1.

Method

Current Study

The United States Centers for Disease Control and Prevention funded the current research through a cooperative agreement with the North Carolina Academic Center for Excellence in Youth Violence Prevention (NC-ACE). The Rural Adaptation Project (RAP), one part of the NC-ACE project, is a 5-year longitudinal panel study of more than 7000 middle- and high-school students from 26 public middle- and 12 public high-schools located in two rural, economically disadvantaged counties in North Carolina. Throughout the 5 years study, a complete middle school census (all students in Grades 6 through 8) from County 1 was included in the RAP sample and each year the new sixth grade class was added to the sample. Because County 2 was larger both geographically and in student population, a random sample of 40 % of middle school students was taken in Year 1 and each year a new random sample of 500 sixth graders was added. Students from both counties were tracked longitudinally through middle- and high-school. The scale measuring prosocial bystander behavior was administered starting in Year 4, thus only one wave of data (Year 4 data) was available for the current analysis and includes youth in Grades 6 through 11.

Procedure

Approval was obtained from the Institutional Review Board from a major research university in the Southeastern United States. Both counties followed a nearly identical data collection procedure. In line with school district policies, County 1 adopted the assessment as a normal part of school proceedings, whereas County 2 sent a letter to parents explaining the study; if parents from County 2 did not want their child(ren) to participate, they sent a letter requesting that their child(ren) be removed from the study roster. Participants in both counties filled out online assessments in school computer labs closely monitored by research staff. Prior to filling out the assessment, all participants were notified that participation was voluntary and they could decline at any time without negative repercussions. Participant's then assented to participate by reading and electronically signing an assent screen. In order to maintain confidentiality, each participant had a unique identification number and no identifying information was collected. Assessments took between 30 and 45 min to complete and participants received a $5 gift card as an incentive.

Participants

The analytic sample consisted of all participants who participated in Year 4 of the RAP study ($N = 5752$), about half of which were female (51.03 %; $n = 2935$). The racial/ethnic composition mirrored the diversity of the surrounding community and 29.40 % ($n = 1691$) identified as Caucasian, 25.85 % ($n = 1487$) as African American, 24.32 % ($n = 1399$) as Native American, 12.70 % ($n = 730$) as mixed race or other, and 7.74 % ($n = 445$) as Latino. Participants' age ranged from 11 to 19 years old ($M = 14.42$; $SD = 1.78$) and students were in Grades 6 through 11, with about 15–20 % in each grade. The majority of the sample received free or reduced price lunch (76.95 %; $n = 4426$) and resided in a two-parent households (81.99 %; $n = 4716$) and a little more than half (55.62 %, $n = 3199$) reported receiving A's and B's whereas the remainder reported receiving C's, D's, and F's.

Measures

Data for the RAP study were collected using a modified version of the School Success Profile (SSP; Bowen and Richman 2008), a 195-item youth self-report with 22 scales that measure perceptions and attitudes about school, friends, family, neighborhood, self, and health and well-being. Since its inception in 1993, the SSP has been administered to tens of thousands of middle and high school students and has a well-documented reliability and validity (Bowen et al. 2005). The modified version of the SSP used in the current study, the School Success Profile Plus (SSP+), included 17 of the original SSP scales, plus 12 additional scales. The current study used five of the original SSP scales included on the SSP+ and two of the additional scales; all measures in the current study come from Year 4 of the RAP study.

Prosocial Bystander Behavior

Prosocial bystander behavior is any action taken on the part of a bystander to protect or defend the victim. Like the majority of the scales used in the SSP+, the prosocial bystander scale was a modified version of a longer scale that had been validated by previous studies. In the current

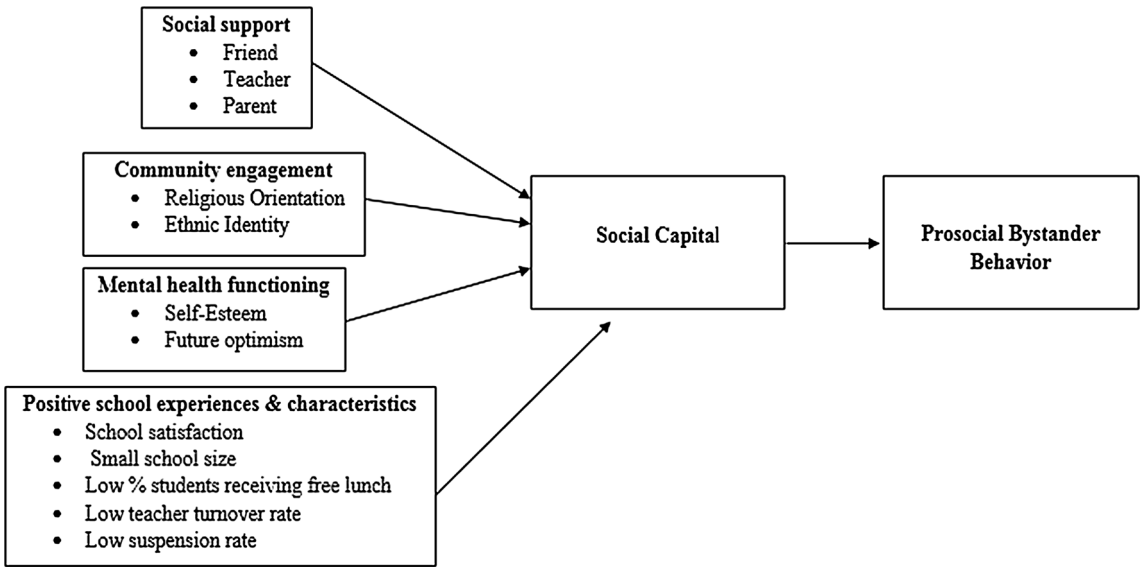

Fig. 1 Conceptual model of social capital factors hypothesized to be associated with prosocial bystander behavior

study prosocial bystander behavior was assessed with a 4-item modified version of the Defender Scale from the Participant Role Questionnaire (PRQ; Salmivalli et al. 1996), which has been validated in a number of studies across age groups and geographic locations (e.g., Goosens et al. 2006; Salmivalli et al. 1997; Sutton and Smith 1999; Tani et al. 2003). Prior to answering these questions, participants were presented with a definition of bullying:

> It is bullying, when another student makes someone feel bad on purpose and repeatedly. A student is being bullied when one or more other students:
> say mean or hurtful things, make fun of him/her, or call him/her mean and hurtful names; completely ignore him/her leave him/her out of things on purpose; hit, kick, or shove, him/her; try to make other students dislike him/her by spreading lies about him/her; Please keep this explanation of bullying in mind when you answer the following questions.

Following this definition, participants were provided with a prompt that stated: "When you see someone else being bullied, how often do you behave in the following ways?" The original items from the PRQ are short, so three items were revised to include more detail: the PRQ item "Comforts the victim afterward" was reworded to read, "I tried to comfort the person who always gets pushed, shoved, or teased;" the PRQ item "Tells some adult about the bullying" was reworded to read, "I asked an adult to help someone who was getting pushed, shoved, or teased;" and the PRQ item "Encourages the victim to tell the teacher about the bullying" was reworded to read "I encouraged the person who gets pushed, shoved, or teased to tell a teacher." The defender subscale has a number of items detailing how the bystander attempted to defend the victim; however, due to limited space on a lengthy assessment, there was not room to include all of these items and these items were combined into a single item that read, "I tried to defend the students who always get pushed, shoved, or teased." Each item was rated on a 4-point Likert scale (*Strongly Agree*, *Agree*, *Disagree*, *Strongly Disagree*) and Cronbach's alpha was .91 in the current sample ($M = 2.03$, $SD = 1.00$).

Variables Associated with Prosocial Bystander Behavior

Demographic Variables Associated with Prosocial Bystander Behavior

Demographic variables included gender (male was the reference group) and age. Race was coded as four dichotomous variables Hispanic, African American, American Indian, and Mixed Race/Other (Caucasian participants were the reference group). Receipt of free or reduced price lunch was used as a proxy for socioeconomic status (SES) and *No* was the reference group, family structure was dichotomized as a two parent household or another type of family situation (reference group), and school grades were dichotomized into high grades (receiving A's and B's) and low grades (C's, D's, and F's), which was the reference group.

Social Capital Through Social Support: Friends, Parents, Teachers

Friend Support The five-item Friend Support scale (Bowen and Richman 2008) gauged participants' perceptions of how

supportive their friends are. Example items included: "I can count on my friends for support" and "I can trust my friends." Each item was rated on a 3-point Likert scale (*Not Like Me*, *A Little Like Me*, or *A Lot Like Me*) and the Cronbach's alpha reliability was 0.94 in the current sample ($M = 2.38$, $SD = 0.62$).

Parent Support The five-item Parent Support scale (Bowen and Richman 2008) measured the degree to which an adult caregiver in the participants' home provided emotional support in the past 30 days. Example items included: "How often did the adults in your home let you know that you were loved?" and "How often did the adults in your home tell you that you did a good job?" Each item was rated on a three-point Likert Scale (*Never*, *Once or Twice*, or *More than Twice*) and the Cronbach's alpha reliability was 0.94 in the current sample ($M = 2.58$, $SD = 0.59$).

Teacher Support The eight-item Teacher Support scale (Bowen and Richman 2008) measured participants' perceptions of their teachers' supportive behavior. Example items included: "My teachers care about me" and "My teachers give me a lot of encouragement." Each item was rated on a four-point Likert scale (*Strongly Disagree*, *Disagree*, *Agree*, or *Strongly Agree*). Cronbach's alpha reliability was 0.92 in the current sample ($M = 3.06$, $SD = 0.63$).

Social Capital Through Community Engagement: Religious Orientation and Ethnic Identity

Religious Orientation The influence of religion in participants' lives was assessed with the three-item religious orientation scale (Bowen and Richman 2008). Example items included: "My religious faith gives me strength" and "My religious faith influences the decisions I make." Each item was rated on a three-point Likert scale (*Not Like Me*, *A Little Like Me*, or *A Lot Like Me*) and the Cronbach's alpha reliability was 0.93 in the current sample ($M = 2.32$, $SD = 0.71$).

Ethnic Identity The strength of participants' ethnic identity was assessed with Phinney's five-item Multigroup Ethnic Identity Measure (MEIM; Phinney and Ong 2007). Example items included, "I have a strong sense of belonging to my own ethnic group," and "I feel a strong attachment towards my ethnic group." Each item was rated on a five-point Likert scale (*Strongly Disagree, Disagree*, *Neither Agree or Disagree*, *Agree*, and *Strongly Agree*) and Cronbach's alpha reliability was 0.95 in the current sample ($M = 3.21$, $SD = 1.12$).

Social Capital Through Mental Health Functioning: Future Optimism and Self-Esteem

Future Optimism Expectations for future success were measured with the 12-item Future Optimism scale (Bowen and Richman 2008). Example items included "When I think about my future, I feel very positive" and "I see myself accomplishing great things in life." Each item was rated on a four-point Likert scale (*Strongly Disagree*, *Disagree*, *Agree*, and *Strongly Agree*) and Cronbach's alpha reliability was 0.97 in the current sample ($M = 3.33$, $SD = 0.69$).

Self-Esteem Self-esteem was measured using an eight-item adapted version of the Rosenberg Self-Esteem Scale (Rosenberg 1965). Example items included, "I feel good about myself" and "I am able to do things as well as most other people." Each item was rated on a 3-point Likert scale (*Not Like Me*, *A Little Like Me*, or *A Lot Like Me*) and Cronbach's alpha reliability was 0.96 in the current sample ($M = 2.61$, $SD = 0.54$).

Social Capital Through Positive School Experiences and Characteristics

School Satisfaction The seven-item School Satisfaction scale (Bowen and Richman 2008) assessed participants' overall satisfaction with school experiences. Example items included: "I enjoy going to this school" and "I get along well with teachers at this school." Each item was rated on a three-point Likert scale (*Not Like Me*, *A Little Like Me*, or *A Lot Like Me*) and the Cronbach's alpha reliability was 0.88 in the current sample ($M = 2.28$, $SD = 0.52$).

School Characteristics School characteristics were obtained from publically available administrative data and included: school size ($M = 477.21$, $SD = 238.97$), percentage of students receiving free or reduced price lunch ($M = 0.77$, $SD = 0.42$), teacher turnover rate (i.e., the percentage of teachers who did not return to school at the start of each school year; $M = 14.03$, $SD = 10.08$), and average number of short term (i.e., less than 10 days; $M = 34.75$, $SD = 21.47$) suspensions per 100 students. See Table 1 for summary statistics of all scales and Table 2 for bivariate correlations.

Data Analysis

The dependent variable was non-normally distributed with a skewness of .53 and a kurtosis of 1.97. Linear regression models assume that the disturbances are normally

Table 1 Scale summary statistics

Scale	Scale range	Mean	SD	Cronbach's alpha
Prosocial bystander behavior	1–4	2.03	1.00	0.91
Friend support	1–3	2.38	0.62	0.94
Parent support	1–3	2.58	0.59	0.94
Teacher support	1–4	3.06	0.63	0.92
Religious orientation	1–3	2.32	0.71	0.93
Ethnic identity	1–5	3.21	1.12	0.95
Future optimism	1–4	3.33	0.69	0.97
Self-esteem	1–3	2.61	0.54	0.96
School satisfaction	1–3	2.28	0.52	0.88
School size	N/A	477.21	238.97	N/A
% Student's receiving free/reduced lunch	N/A	0.77	0.42	N/A
Teacher turnover	N/A	14.03	10.08	N/A
Average # short term suspensions	N/A	34.75	21.47	N/A

distributed and when this assumption is violated, it is common practice to take the natural-logarithm transformation of the dependent variable. For example, in economics, income is a typical dependent variable that is often skewed, thus the natural-logarithm of income [i.e., ln(income)] is used as the dependent variable in linear modeling (Greene 2003). Following this convention, the natural-logarithm of the prosocial bystander scale was taken; however this did not sufficiently address the non-normal distribution. A histogram indicated that the prosocial bystander scale remained non-normally distributed with a skewness of .10 and a kurtosis of 1.52. Thus, it was not possible to analyze the prosocial bystander scale in its original metric and it was therefore converted into ordinal levels and a logistic regression was run.

The prosocial bystander scale had four categories and one-third of participants scored a 1 (*Never*) and the rest of the participants were fairly evenly spread between 2 (*Once*), 3 (*Sometimes*), and 4 (*Often*). Thus, this scale was recoded so that the dependent variable, y, had four ordinal levels, ranging from 1 to 4. Values of 1 of y remained coded as 1, values of 1.1–2 of y were recoded into the value of 2, values of 2.01–3 of y were recoded into the value of 3, and values of 3.01–4 of y were coded into the value of 4. Ordered logistic regression assumes that each value of y is determined by changes in the independent variables. There are k ordinal categories of y and the model assumes $k - 1$ threshold or cutoff values (Long and Freese 2006). For the current study, k is 4 thus the number of threshold values is 3. Ordered logistic regression is used to model the probability of reporting each of the ordinal categories, in this case four, as a function of the independent variables and the likelihood of being in 1 of 4 ordinal categories can be expressed by the following equations:

$$\Pr(y=1|x) = \frac{\exp(\tau_1 - \mathrm{x}\beta)}{1+\exp(\tau_1 - \mathrm{x}\beta)},$$

$$\Pr(y=2|x) = \frac{\exp(\tau_2 - \mathrm{x}\beta)}{1+\exp(\tau_2 - \mathrm{x}\beta)} - \frac{\exp(\tau_1 - \mathrm{x}\beta)}{1+\exp(\tau_1 - \mathrm{x}\beta)}$$

$$\Pr(y=3|x) = \frac{\exp(\tau_3 - \mathrm{x}\beta)}{1+\exp(\tau_3 - \mathrm{x}\beta)} - \frac{\exp(\tau_2 - \mathrm{x}\beta)}{1+\exp(\tau_2 - \mathrm{x}\beta)} \quad \text{and}$$

$$\Pr(y=4|x) = 1 - \frac{\exp(\tau_3 - \mathrm{x}\beta)}{1+\exp(\tau_3 - \mathrm{x}\beta)}$$

where τ_1, τ_2, and τ_3 are the threshold values, β is a vector representing a regression coefficient, X represents independent variables, and an exponent of the coefficient is an odds ratio. The STATA program *ologit* (i.e., an estimator of maximum likelihood) was used to estimate the ordered logistic regression and robust standard errors, also referred to as Huber-White standard errors, were obtained using the STATA command *vce(robust)*. Robust standard errors permit accurate model estimation even in the presence of clustering.

The current data is multilevel (i.e., individual students nested within 38 middle and high schools), making the presence of clustering effects a potential issue. Compared to students from different schools, students from the same school might be more similar on an outcome measure, indicating the presence of clustering. Clustering violates the independent-observation assumption embedded within a regression model, potentially leading to an inaccurate test for statistical significance (Bickel 2007). The intra-class correlation coefficient (ICC; Raudenbush and Bryk 2002) was used to test the clustering effects of the dependent variable in its original metric (i.e., as a continuous variables). The ICC is defined by the following equation:

Table 2 Bivariate correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Prosocial Bystander behavior	1.000												
2. Friend support	0.147***	1.000											
3. Parent support	0.126***	0.316***	1.000										
4. Teacher support	0.174***	0.285***	0.292***	1.000									
5. Ethnic identity	0.160***	0.206***	0.270***	0.244***	1.000								
6. Religious orientation	0.151***	0.229***	0.323***	0.212***	0.420***	1.000							
7. School satisfaction	0.145***	0.386***	0.292***	0.478***	0.254***	0.271***	1.000						
8. Self-esteem	0.079***	0.287***	0.441***	0.244***	0.260***	0.341***	0.321***	1.000					
9. Future optimism	0.188***	0.266***	0.327***	0.310***	0.277***	0.281***	0.244***	0.391***	1.000				
10. School size	−0.008*	0.042***	−0.026***	−0.016***	−0.023***	−0.014**	0.023***	−0.006	−0.003	1.000			
11. Free/reduced lunch	−0.042***	−0.088***	−0.028***	−0.006	0.018***	−0.063***	−0.056***	0.034***	0.006	−0.087***	1.000		
12. Teacher turnover	0.036***	−0.025***	−0.005	−0.026***	0.007	−0.017***	−0.049***	−0.004	−0.005	−0.293***	0.079***	1.000	
13. Short term suspensions	−0.037***	−0.068***	−0.055***	−0.050***	0.005	−0.064***	−0.057***	−0.011*	−0.014**	0.018***	0.332***	0.111	1.000

* <.05; ** <.01; *** <.001

$$\text{ICC} = \frac{\sigma_u^2}{\sigma_u^2 + \sigma_e^2}$$

where σ_u^2 is the between-group variance, and σ_e^2 is the within-group variance. Results indicated that clustering effects were quite low and the ICC value was .0472 for the prosocial bystander scale, showing that less than 5 % of the variation in outcome variables lies between schools. Despite this low ICC, robust standard errors were still used to be conservative and correct for this minimal clustering.

Multiple imputation was used to address missing data. Only 4.0 % of the data were missing for the dependent variable and rates of missingness for the independent variables ranged from 0 to 11.3 %. Such modest patterns of missing data require between 2 and 10 imputations (Rubin 1987), thus 10 imputed data sets were created. The dependent variable and 21 independent variables collected in Year 4 were imputed along with predictors used only for imputation (the independent variables collected in Years 1 through 3).

Results

Overall, 33.57 % of the sample reported never behaving as a prosocial bystander, 26.02 % reported once behaving as a prosocial bystander, 22.93 % reported sometimes behaving as a prosocial bystander, and 17.48 % reported often behaving as a prosocial bystander. The prosocial bystander model with all independent variables fit the data as evidenced by a Chi-square of 577.32 (with 21 degrees of freedom) that was statistically significant at .001 level. An average student had a likelihood of 32.03 % of reporting never behaving as a prosocial bystander, a 28.09 % likelihood of reporting once behaving as a prosocial bystander, a 24.02 % likelihood of reporting sometimes behaving as a prosocial bystander, and a 15.87 % likelihood of reporting often behaving as a prosocial bystander. See Table 3.

Demographic Variables Associated with Prosocial Bystander Behavior

Compared to males, females had a significantly higher probability of reporting frequent prosocial bystander behavior (13.35 % for males vs. 18.63 % for females, $p < .0001$). Age was significantly associated with a decreased probability of reporting frequent prosocial bystander behavior. Participants who were 11 years old had a 24.32 % ($p < .0001$) probability of reporting frequent prosocial bystander behavior while students who were 19 years old had an 8.45 % ($p < .0001$) probability of reporting frequent prosocial bystander behavior. Compared with Caucasian students, Native American students

Table 3 Model predicted probabilities for prosocial bystander behavior

Characteristic	Sig	Never	Once	Sometimes	Often
All		0.3203	0.2809	0.2402	0.1587
Demographic variables					
Age (years)	<.0001				
11		0.2166	0.2528	0.2874	0.2432
12		0.2443	0.2641	0.2760	0.2156
13		0.2742	0.2730	0.2624	0.1904
14		0.3063	0.2792	0.2470	0.1675
15		0.3404	0.2824	0.2303	0.1469
16		0.3762	0.2824	0.2130	0.1284
17		0.4135	0.2793	0.1953	0.1119
18		0.4518	0.2732	0.1777	0.0973
19		0.4906	0.2643	0.1606	0.0845
Gender	<.0001				
Female		0.2796	0.2743	0.2598	0.1863
Male		0.3658	0.2827	0.2180	0.1335
Free/reduced lunch					
Yes		0.3176	0.2806	0.2415	0.1603
No		0.3293	0.2817	0.2358	0.1532
Race					
Caucasian (ref. group)		0.3099	0.2797	0.2452	0.1652
African American		0.3257	0.2814	0.2375	0.1554
Latino		0.3467	0.2826	0.2273	0.1434
Mixed/other		0.2761	0.2735	0.2615	0.1889
Native American	.047	0.3433	0.2825	0.2289	0.1453
Living arrangement	.009				
Two-parent family		0.3269	0.2815	0.2369	0.1546
Other type of family		0.2908	0.2766	0.2544	0.1781
Grades	.031				
A's and B's		0.3093	0.2796	0.2455	0.1656
C's, D's, and F's		0.3344	0.2820	0.2333	0.1503
Social capital: social support					
Friend support	.003				
Low		0.3655	0.2827	0.2182	0.1337
Medium		0.3325	0.2819	0.2342	0.1514
High		0.3011	0.2784	0.2495	0.1710
Parent support					
Low		0.3259	0.2814	0.2374	0.1553
Medium		0.3223	0.2811	0.2392	0.1574
High		0.3188	0.2807	0.2409	0.1596
Teacher support	<.0001				
Low		0.4302	0.2770	0.1875	0.1053
Medium		0.3489	0.2827	0.2262	0.1422
High		0.2755	0.2733	0.2617	0.1894
Social capital: community engagement					
Ethnic identity	<.0001				
Low		0.3922	0.2814	0.2053	0.1210
Medium		0.3269	0.2815	0.2369	0.1547
High		0.2677	0.2713	0.2654	0.1956

Table 3 continued

Characteristic	Sig	Never	Once	Sometimes	Often
Religious orientation	.004				
Low		0.3587	0.2828	0.2214	0.1371
Medium		0.3293	0.2817	0.2357	0.1532
High		0.3012	0.2784	0.2495	0.1709
Social capital: mental health functioning					
Self-esteem	.005				
Low		0.2628	0.2700	0.2677	0.1995
Medium		0.2978	0.2779	0.2511	0.1733
High		0.3353	0.2821	0.2329	0.1498
Future optimism	<.0001				
Low		0.4880	0.2650	0.1617	0.0853
Medium		0.3771	0.2824	0.2125	0.1280
High		0.2778	0.2739	0.2607	0.1877
Social capital: positive school experiences and characteristics					
School satisfaction					
Low		0.3466	0.2826	0.2273	0.1435
Medium		0.3259	0.2814	0.2374	0.1553
High		0.3059	0.2791	0.2472	0.1678
Size					
Small (140)		0.3300	0.2817	0.2354	0.1528
Medium (570)		0.3177	0.2806	0.2415	0.1603
Large (1000)		0.3056	0.2791	0.2473	0.1680
% Receiving free/reduced lunch					
Low (60 %)		0.3073	0.2793	0.2465	0.1669
Medium (78 %)		0.3216	0.2810	0.2395	0.1579
High (95 %)		0.3354	0.2821	0.2328	0.1497
Teacher turnover					
Low (0 %)		0.3261	0.2814	0.2373	0.1551
Medium (25 %)		0.3158	0.2804	0.2424	0.1615
High (50 %)		0.3056	0.2791	0.2473	0.1680
Average # suspensions per 100 students					
Low (5)		0.3228	0.2811	0.2389	0.1571
Medium (43)		0.3196	0.2808	0.2405	0.1591
High (90)		0.3156	0.2804	0.2424	0.1615

Each probability was chosen for one category of an independent variable of interest while all other independent variables were fixed at the sample mean level

had a significantly lower probability of frequently engaging in prosocial bystander behavior (16.52 % for Caucasian students vs. 14.53 % for Native American students, $p = .047$). A Chi-square likelihood ratio test yielded that overall race was not significantly associated with prosocial bystander behavior: $X^2(4, N = 5752) = 4.00, p = .41$. Youth living in a two parent family had a significantly lower probability of engaging in frequent prosocial bystander behavior compared to youth living in another type of family situation (15.46 % for two-parent family vs. 17.81 % for another type of family situation, $p = .009$). Participants who reported receiving high grades had a significantly higher probability of engaging in frequent prosocial bystander behavior compared to participants who reported receiving low grades (16.56 % for high grades vs. 15.03 % for low grades, $p = .031$).

Social Capital Through Social Support: Friends, Parents, Teachers

Participants with high levels of friend support had a significantly higher probability of reporting frequent prosocial bystander behavior compared to students with low levels of friend support (17.10 % for high vs. 13.37 % for low,

$p = .003$). A similar trend was found for teacher support; youth who reported high rates of teachers support had a significantly higher probability of reporting frequent prosocial bystander behavior compared to youth who reported low levels of teacher support (18.94 % for high vs. 10.53 % for low, $p < .0001$). Parental support was not significantly associated with prosocial bystander behavior.

Social Capital Through Community Engagement: Religious Orientation and Ethnic Identity

Compared to youth with low rates of religious orientation, youth with high rates of religious orientation had a significantly higher probability of engaging in frequent prosocial bystander behavior (13.71 % for low vs. 17.09 % for high, $p = .004$). A similar pattern was evident for ethnic identity (12.10 % for low vs. 19.56 for high, $p < .0001$).

Social Capital Through Mental Health Functioning: Future Optimism and Self-Esteem

Youth with high rates of future optimism had a significantly higher probability of reporting frequent prosocial bystander behavior compared to youth with low rates of future optimism (18.77 % for high vs. 8.53 % for low, $p < .0001$).Youth who reported high levels of self-esteem had a significantly lower probability of engaging in frequent prosocial bystander behavior compared to youth who reported low levels of self-esteem (14.98 % for high vs. 19.95 % for low, $p = .005$).

Social Capital Through Positive School Experiences and Characteristics

Positive school experiences and school characteristics were not significantly associated with the probability of engaging in prosocial bystander behavior. See Table 3.

Discussion

Prosocial bystanders are vital to interrupting and preventing bullying victimization, yet little is known about the individual and school level characteristics associated with prosocial bystander behavior. To increase rates of prosocial bystander behavior, researchers need to gain a more comprehensive understanding of what individual and school level factors need to be targeted. The current study addressed this glaring gap in bullying research by examining if and how the presence of social capital in the form of social support, community engagement, mental health functioning, and positive school experiences and characteristics were associated with the likelihood of engaging in prosocial bystander behavior.

Demographic Variables Associated with Prosocial Bystander Behavior

Based on past research, it was hypothesized that compared to boys, girls would be more likely to engage in prosocial bystander behavior (Barchia and Bussey 2011; Poyhonen et al. 2010; Salmivalli et al. 1996). This hypothesis was supported and girls had a significantly higher likelihood of reporting sometimes or often engaging in prosocial bystander behavior compared to boys. Boys and girls are socialized differently: girls are raised to value relationships and nurturance, while boys learn to emphasize independence and competition (Davies 2004). Prosocial bystander behavior is a form of nurturance that aims to protect the victim from maltreatment, thus, based on how girls are often socialized, it follows that they are more likely than boys to engage in this behavior.

In terms of age, it was hypothesized that compared to older students, younger students would be more likely to behave as prosocial bystanders. In line with past research (Barchia and Bussey 2011, Pozzoli and Gini 2010; Poyhonen et al. 2010), this hypothesis was supported. We add to the research base by illustrating that previous research applies to an ethnically/racially diverse sample in a rural school district. Current findings indicate that perhaps as youth age they shy away from intervening in conflicts in which they are not directly involved. However, it is also possible that because rates of bullying decrease throughout middle and high school, older youth are faced with fewer opportunities to display prosocial bystander behavior. Future intervention research should center on creating programs that encourage youth of all ages, especially older youth, to support victims of bullying.

Overall, race was not significantly associated with prosocial bystander behavior; however, compared with Caucasian youth, Native American youth had a significantly lower probability of engaging in frequent prosocial bystander behavior. In the current sample, a higher percentage of Caucasian participants reported having been bullied compared to Native American participants (35.18 % of Caucasians vs. 21.11 % of Native Americans). Past research suggests that, compared to non-victimized youth, victims were significantly more likely to act as prosocial bystanders and defend the victim (Pozzoli et al. 2012; Salmivalli et al. 1996). Thus, the higher rates of bullying victimization reported by Caucasian students in the current sample could account for their higher probability of frequent prosocial bystander behavior relative to Native American participants.

Contrary to our hypothesis, youth from two parent families had a significantly lower probability, compared to

youth from another family situation, of engaging in frequent prosocial bystander behavior. Single parent families face significant stressors such as financial instability (Churaman 1992); given their increased exposure to hardships, it is possible that youth from these families are more empathetic to the plight of others and are thus inclined to assist victims of bullying. Finally, in line with our hypothesis, youth reporting high grades had a significantly higher probability of reporting frequent prosocial bystander behavior compared to youth who reported low grades. Receiving high grades indicates engagement in prosocial activities such as attending and paying attention in class and completing homework. Based on current findings, it seems that participation in these prosocial behaviors is associated with other prosocial actions such as protecting victims of bullying. Further, receipt of high grades could indicate social capital; youth with high grades are likely engaged in school, positively connected to teachers, and invested in their future success.

Social Capital Through Social Support: Friends, Parents, Teachers

Social support represents a significant form of social capital and it was hypothesized that high rates of support from friends, parents, and teachers would be associated with an increased probability of engaging in prosocial bystander behavior. This hypothesis was partially supported. Friends' and teachers' support, but not parental support, were associated with an increased likelihood of engaging in prosocial bystander behavior.

Friends' support is an important form of social capital indicating that youth are connected to caring and nurturing peers who provide support during difficult times. Indeed, friends' support is a promotive factor for rural youth that is associated with high self-esteem (Smokowski et al. 2013a), increased ethnic identity (Evans et al. 2014), and decreased anxiety (Smokowski et al. 2013b). Having supportive friends suggests that youth are embedded within a positive friend network, which could increase bystanders' confidence that defending the victim would not result in his or her own victimization because a friend would intervene if needed. The current finding that friends' support was associated with an increased likelihood of engaging in frequent prosocial bystander behavior highlights the importance of fostering friendships as a means of increasing prosocial bystander behavior and decreasing bullying. Functional social skills are vital to forming and maintaining friendships and weak social skills were associated with poor friendship quality (Crawford and Manassis 2011), suggesting that the inclusion of social skills training aimed at fostering friendships is an important component of anti-bullying interventions. Social skills training would likely strength friendship quality, perhaps leading to increased prosocial bystander behavior.

Teachers' support is also a form of social capital and indicates that youth feel connected to and supported by their teachers. The perception of teachers' as supportive enhances youth's school experience by heightening their feeling of safety and belonging. Feeling safe and supported might enable youth to defend victims because the presence of caring teachers mitigates the fear of becoming victimized as a result of defending the victim. Current findings highlight that youths' perceptions of their teachers as supportive positively impacts prosocial bystander behavior, indicating that another important component of anti-bullying interventions might be the inclusion of curricula aimed to strengthen student–teacher relationships. Current bullying interventions fail to address student–teacher relationships, however, social skills training programs such as the Adolescent Curriculum for Communication and Effective Social Skills (ACCESS) program focuses on improving middle and high school youths social skills relating to both peers and adults (e.g., teachers; Walker et al. 1988). Incorporating elements of this social skills program into anti-bullying curricula could lead to improved adolescent-teacher relationships, increased perceptions of teachers' support, and ultimately increased prosocial bystander behavior.

Teachers and friends are more proximal to school bullying than parents. Current findings indicate that this proximity makes friends and teachers particularly strong influences on youth's bystander behavior. It appears that although parents do impact youth's behavior in general, in the school setting, friends and teachers have a greater influence. These findings highlight the importance of fostering positive friend and teacher relationships in the school as a mechanism for creating a positive school atmosphere and increased rates of prosocial bystander behavior.

Social Capital Through Community Engagement: Religious Orientation and Ethnic Identity

In support of our hypothesis, high levels of religious orientation and ethnic identity were significantly associated with an increased likelihood of engaging in prosocial bystander behavior. Religious orientation and ethnic identity are forms of social capital that connect and engage youth with prosocial peers and adults. The current results suggest that youth who value religion have a higher likelihood of supporting victims than youth who do not value religion. This finding is in line with past research showing that valuing religion is associated with increased self-esteem (Bagley and Mallick 1997; Le et al. 2007) and decreased aggression (Leach et al. 2008; Smokwoski et al.

2015). Youth who feel positively about themselves and refrain from aggression likely possess the self-confidence necessary to protect victims of bullying.

A high ethnic identity indicates that youth feel a sense of belonging to their ethnic group. Perhaps youth with a strong connection to their ethnic group feel supported and protected by classmates of their same ethnicity and feel safe supporting the victim knowing that their ethnic group members will support their efforts. Further, if a member of someone's ethnic group is being victimized, a high ethnic identity might further encourage youth to intervene to support the victim. Taken together, the current findings on religious orientation and ethnic identity highlight the importance of connecting adolescents to a community that extends beyond the confines of school. Youth who engage with one another outside of school at religious gatherings or cultural centers form strong social bonds, which might promote prosocial bystander behavior during episodes of bullying. While schools cannot require engagement in religious or cultural activities, current findings suggest that providing avenues for youth to connect and engage with one another outside of school could be beneficial in terms of strengthening social connections and ultimately increasing prosocial bystander behavior.

Social Capital Through Mental Health Functioning: Future Optimism and Self-Esteem

In support of our hypothesis, high future optimism was significantly associated with an increased probability of engaging in frequent prosocial bystander behavior. Youth with high future optimism feel positively about the future, which suggests an overall positive appraisal of life and indicates that these youth expect good outcomes from their behavior. Thus, youth with high future optimism might assume that something positive will occur if they intervene to support a victim. Further, optimistic youth are likely desirable social companions and thus easily accrue social capital in the form of supportive relationships. The presence of supportive others decreases the chances of the bully turning on the prosocial bystander, further enhancing youth's ability to support victims. Current findings suggest that fostering optimism about the future is a potential way of increasing prosocial bystander behavior. Perhaps anti-bullying interventions should be expanded to become more holistic in nature and include components on positive short and long term goal setting and acquisition in order to foster youths' future optimism.

Counter to our hypothesis and past research (Salmivalli et al. 1999; Turetsky 2013), compared to youth with high self-esteem, those with low self-esteem had a significantly higher probability of engaging in prosocial bystander behavior. Typically, victims of bullying report lower rates of self-esteem relative to bullies and non-involved youth (Graham and Juvonen 1998; Huitsing et al. 2012; Pollastri et al. 2009) and as previously mentioned, victims of bullying also tend to behave as prosocial bystanders (Pozzoli et al. 2012; Salmivalli et al. 1996). These two relationships may help explain why low self-esteem in the current study was associated with an increased probability of engaging in positive bystander. The group of youth reporting low rates of self-esteem might have consisted predominantly of victimized youth who have a higher probability of engaging in positive bystander behavior. It is possible that these youth with low self-esteem engaged in prosocial bystander behavior in an effort to increase their feelings of self-worth and self-esteem. Further research is needed to explore these complex relationships.

Social Capital Through Positive School Experiences and Characteristics

Counter to our hypothesis school satisfaction and school characteristics were not significantly associated with prosocial bystander behavior. Perhaps the school characteristics that were included are simply unrelated to bystander behavior. School size, teacher turnover, and other school characteristics may not be salient because bullying dynamics are universal and pervasive. Alternately, the characteristics we included may not be the relevant ones. Assessing youth's perceptions of school characteristics, such as the degree to which youth view their peers as being tolerant of bullying and prosocial bystander behavior, would be useful measures to include in future studies.

Limitations

Although the current study added to the literature on bystander behavior, the findings must be considered in light of certain limitations. Prosocial bystander behavior varies widely from actively confronting the bully to calling the victim away and comforting him or her. It would have been ideal in the current study to include additional items on the prosocial bystander scale that more accurately assessed the nature of the defending behavior; however, this was not possible due to limited space on a long assessment. Due to space and time constraints, participants completed online surveys in classrooms and the presence of others could have effected participant's answers. Although research staff closely monitored participants to ensure privacy and confidentiality, it would have been ideal to have participants fill out surveys in private rooms. Finally, the unique ethnic/racial composition of the current sample and the rural location warrant caution in generalizing the findings to other populations and geographic locations.

Conclusion

The current study examined how the presence of social capital in the form of social support, community engagement, mental health functioning, and positive school experiences and characteristics were associated with prosocial bystander behavior. In line with our hypotheses, social capital in the form of friend and teacher support, religious orientation, ethnic identity, and future optimism were significantly associated with an increased likelihood of engaging in prosocial bystander behavior. Contrary to our hypotheses, high self-esteem was associated with decreased likelihood of engaging in frequent prosocial bystander behavior. The findings indicate that friend and teacher support foster prosocial bystander behavior. Disenfranchised and socially isolated youth are therefore at risk of not intervening to support victims and current findings highlight the importance of helping these youth become engaged in supportive relationships. Given that prosocial bystanders have the ability to stop bullying episodes and thus reduce overall rates of school bullying, researchers and school personnel should seek ways to increase the social capital of school aged youth. Fostering prosocial bystander behavior is a key to decreasing school bullying and social capital acquisition is vital to this process.

Acknowledgments Funding for this research was provided through a cooperative agreement with the U.S. Centers for Disease Control and Prevention's National Center for Injury Prevention and Control (5 U01 CE001948-03).

Authors' contributions Both CBRE and PRS conceived of the study by jointly creating the theoretical framework and selecting the independent variables. CBRE conducted the multiple imputation and the data analysis and wrote the manuscript. PRS obtained the funding to make the current study possible, implemented the data collection, oversaw the data analysis, and assisted in drafting and editing the manuscript. Both authors read and approved the final manuscript.

Funding Funding for this research was provided through a cooperative agreement with the U.S. Centers for Disease Control and Prevention's National Center for Injury Prevention and Control (5 U01 CE001948-03).

Compliance with Ethical Standards

Conflicts of interest The authors report no conflicts of interest.

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