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Protective Factors in American Indian Communities and Adolescent Violence

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Abstract

Purpose—With their distinct cultural heritage and rural boundaries, American Indian reservation communities offer a unique opportunity to explore protective factors that help buffer adolescents from potential risk behaviors such as violence. Prior published research on Indian communities has not explored three potential protective factors for violence - parental monitoring of adolescents and friends, adolescents' self-efficacy to avoid fighting, and adolescents' interest in learning more about their traditional culture. This paper explores the relationship between these factors and reduced risk of reported violence.

Methods—In 1998, 630 American Indian students in grades 6–12 were surveyed in five Midwestern, rural Indian reservation schools. Path analysis was used to identify the direct and indirect association of the three potential protective factors with reduced violence behavior.

Results—There were significant gender differences both in perceived parental monitoring and in adolescents' self-efficacy. For female adolescents, parental monitoring had the strongest inverse relationship with female adolescents' involvement in violence. Female adolescents' self-efficacy and their interest in learning more about their culture were also inversely associated with violence and therefore potentially important protectors. Male adolescents who reported more interest in learning the tribe's culture had better self-efficacy to avoid violence. However, self-efficacy did not successfully predict their reported involvement in peer violence.

Conclusions—These findings support exploring gender differences, parental monitoring, self-efficacy training as well as cultural elements in future violence intervention studies. Further investigation is needed to identify protective factors for risk behaviors among male adolescents and test the generalizability to non-reservation based adolescents.

Keywords

American Indian adolescents; protective factors for peer violence; parental monitoring; self-efficacy; traditional culture

INTRODUCTION

With their distinct cultural heritage and rural boundaries, American Indian reservation communities offer a unique opportunity to explore protective factors that help buffer adolescents from potential risk behaviors such as violence. As with many communities, the majority of Indian youth do not experience peer violence. According to the CDC [1], in 2011 8.2% of American Indian and Alaskan Native students were threatened or injured with a weapon at school compared to 7.4% overall of youth of all races. Similarly, 8.8% American Indian students felt unsafe to attend school compared to 5.9% overall of youth of all races. Although published studies of rural Indian adolescent violence have not been reported, Bearinger [2] assessed violence among urban Indian youth in Minneapolis between 1995 and 1998 and found 19% had witnessed someone being stabbed, 25% carried a weapon in the past month, and 27.8% threatened to shoot or stab someone. Speaking with respect to all youth, as Bearinger and others have noted, violence continues to be one of the “nation’s most urgent health problems of young people.”

While American Indian communities are not predisposed to violence, violence has been a reality in many Native communities for hundreds of years through the processes and subsequent trauma of colonization. Extensive literature documents a series of traumatic assaults that continue to have profound effects on native communities today [3,4,5,6,7]. Additionally, research by Brave Heart [8] and others have documented continued feelings of threat and related loss due to theft of lands and resources, and destruction of systems including kinship, economic, political, educational, spiritual, and health systems. Emotional and physical violence extends into modern times as documented in the conflicts related to the exercise of treaty rights [9]. Victimization and violent crimes on these reservations are further complicated by legal system jurisdictional disputes [10]. Recent research surveying parents of children 10–12 years old on Indian reservations document that, “there has been a continual, persistent, and progressive process of loss that began with military defeat and continues through to today with loss of culture. As one elder so poignantly put it: ‘I feel bad about it. Tears come down. I feel weak about how we are losing our grandchildren.’” [11].

Given this historical and social context it is particularly useful to analyze the elements of resilience indigenous to reservation communities that contribute to their survival. Drawing from the resilience framework, it may be possible to identify modifiable buffers against adolescent violence and explore their possible paths of impact. If so, future interventions supporting these protective factors may be developed to help lessen adolescent risk taking including violence [12]. The goal of this paper is to explore three distinctly different classes of potential protective factors that are found in Indian communities – parental monitoring of adolescents and their friends, adolescents’ self-efficacy to avoid fighting, and adolescents’ interest in learning more about their culture.

With respect to the first class of potential parental protective factors, prior studies have been conducted primarily with white, African American and Latino samples. These studies have documented that adolescents' perceived positive parent-child relationships and parent connectedness are associated with lower participation in peer violence and other risk behaviors [13,14,15,16,17]. Foshee [14] further reported that the perceived parental behavior of monitoring their children and friends was a significant protective factor against peer violence and date violence in these populations.

Turning to research with Indian populations, published studies of adolescents' perceptions of parents found their perceived connectiveness with parents as well as their perception of parents' attitudes about antisocial behavior were significant predictors of adolescents' mental health and health risk behaviors [12,18,19,20,21]. A study by Swaim found family sanctions were important protective factors for American Indian adolescents with respect to alcohol, marijuana, inhalants, and other use [22]. A second study by this group also found family sanctions and family norms against alcohol use protected Indian adolescents from alcohol use [23]. In another study, although protective family and peer influence was not directly related to substance use, it was negatively correlated with risky and dangerous behaviors [24].

Compared to alcohol and drug use research, there are limited studies on the relationship between these perceived parental characteristics and peer violence among Indian adolescents. In a study of urban Indian adolescents, an inverse relationship was documented between peer violence and adolescents' perceptions that their parents would disapprove of antisocial behavior [2]. No published studies, to our knowledge, examined the relationship between Indian adolescents' peer violence and their perceptions that parents monitor their behavior along with their friends.

A second class of potential protective variables concerns adolescents' self-efficacy (ie, confidence and competence) that they can avoid health risk behaviors in a variety of populations [25]. A literature review by Baban [26] showed self-efficacy in intervention projects successfully reduced risk behaviors in smoking, sexual behavior, alcohol abuse, eating habits, and exercise. Earlier published work documented a positive significant relationship between Indian adolescents' self-efficacy and their refusal skills for drug use and sexual activity [12, 27]. Self-efficacy, together with school bonding, peer social skills, and refusal skills, were found to be negatively associated with American Indian child drug use and experimentation [27]. A study by Scott also showed self-efficacy was associated with decreased depressive symptoms [28]. However, again the relationship of self-efficacy to peer violence has not been studied with Indian adolescents.

A third class of buffers is related to indigenous culture specific to each native community. Although Indian communities have a rich cultural and political history, long-term impacts of processes relating to colonialism including loss of land, and forced assimilation have impacted the access that Native adolescents have to systems of traditional knowledge. The loss of cultural knowledge and traditional values concern many Indian communities and for this reason, programs have been developed to support students' access to their indigenous cultures and histories [29]. Pride in one's culture is hypothesized to be a protective factor in

these programs [29, 30]. These studies found that enculturation, that is participation in and identification with traditional cultural elements, was associated with resilience outcomes such as school attitude and performance and less involvement in health risk behaviors such as alcohol and other substance use. A study by Leland [31] also showed Navajo adolescents' attitude toward Navajo culture was correlated with their resiliency. In Baldwin's study, although cultural identity was not directly associated with American Indians' alcohol and drug use, it was related to social support and protective family and peer influences, which in turn, protected Indian adolescents from risky and dangerous behaviors [24]. However, the association with violence was not studied. Therefore, an unanswered question is whether there might be a relationship between peer violence and such cultural indicators as native adolescents' interest in learning more about their indigenous lifeways and traditional cultures.

Taken together, these three types of protective factors represent strengths of Indian communities that have yet to be tested with respect to Indian adolescents' peer violence. To address these gaps, this study explores whether American Indian students reported less violence behavior if they had: 1) higher perceived parental monitoring of their behavior and their friends; 2) higher self-efficacy in avoiding violence behavior; and 3) greater interest in learning about their nation's culture and history.

METHODS

Sample

This analysis is part of a larger study of health risk behaviors. The Youth Intervention Project (YIP) addressed sexual behaviors as well as peer violence. In 1998, 630 American Indian students in grades 6–12 were surveyed in five Midwestern, rural schools which included two high schools and their three feeder middle schools. Four of the five schools were located on American Indian reservations; 97% of the students were identified as Indian in these schools. The fifth school was a high school located in a reservation border town with a majority White student body. A total participation rate of 85% for students in Grades 6–12 was achieved. Of 807 students completing the written survey, we excluded 177 students who indicated that they were not American Indian resulting in the final sample of 630 observations used in our analyses. Only American Indian students were included in the sample to be analyzed since the focus of our paper is on protective factors for Indian adolescents. The University of Wisconsin Institutional Review Board approved the study protocols.

Measures

Following Institutional Review Board approved procedures, a confidential 171-item written survey was administered in the spring of 1998. Surveys were administered in classrooms by trained surveyors. Based on advice from teachers in the participating schools, the survey was read aloud to students in sixth grade since a small number of students' reading level hampered their timely completion of the survey. Other grades completed the survey silently.

Dependent and independent measures were drawn from scales and items with established validity and reliability where possible. The dependent variable in this study is a measure of adolescents' peer violence behavior. The independent variables include perceived parental monitoring, self-efficacy in avoiding violence, interest in learning the tribe's history and culture, and demographic variables.

Three self-reported violence behavior items were used in the survey, and each item was measured on a three-point scale: 1) In the past 3 months, did you tell someone you were going to beat them up? (0: Never, 1: Not in the past 3 months, 2: Yes); 2) In the past 3 months, were you in a physical fight? (0: Never, 1: Not in the past 3 months, 2: Yes); 3) In the past 3 months, were you in a physical fight in which you were badly hurt? (0: Never, 1: Not in the past 3 months, 2: Yes). Violence behavior was measured by aggregating a total score from the three items, which ranged from 0 to 6. A higher score indicated more involvement in violence.

Two validated scales measured our hypothesized protective factors related to other Problem Behavior Theory domains [32]. These were adapted for violence behavior. They included: perceived parental monitoring [33] and a self-efficacy measure developed specifically for American Indian populations [34]. As shown in Table 1, perceived parental monitoring was measured by parents' awareness of adolescents' social life, their friends, their friends' parents, their plans with friends, and their adolescents' spending. Parental monitoring scores ranged from 0 to 45. A higher score indicated more parental monitoring. Self-efficacy was measured by adolescents' confidence in staying away from violence behavior and calming down from an upset situation. It ranged from 0 to 12. A higher score indicated better self-efficacy in avoiding violence.

Interest in the tribe's culture was measured by the Indian adolescent's interest in learning about the tribe's culture or its history. This item was generated by the study team. The scale ranged from 0 to 3, with a higher score indicating more interest in learning about the tribe's culture and history.

Analyses

We hypothesized that adolescents' gender, grade and interest in their tribe's culture indirectly influenced their violence behavior outcome via their parental monitoring and self-efficacy. We also hypothesized that their perceived parental monitoring and self-efficacy were directly associated with violence behavior.

Descriptive analysis was used to describe the Indian adolescent population. We also conducted path analysis by using Mplus 6, in order to identify the direct and indirect contribution of potential protective factors in explaining their violence behavior. We tested if adolescents' gender, grade, and interest in the tribe's culture influenced the violence behavior through their perceived parental monitoring and self-efficacy. We also investigated if their perceived parental monitoring and self-efficacy were significantly related to their violence behavior suggesting they are potential protectors.

RESULTS

Descriptive analyses of the direct and indirect independent variables and the dependent variable are shown in Table 2. About half of the respondents were male (53%). They ranged from grade 6 to grade 12. As with earlier studies, the majority of students did not report being involved in peer violence. Less than forty percent (37%) of the respondents reported they were involved in a fight in the past three months. Overall, the respondents reported an average violence behavior score of 2.98, with a variance of 2.14, out of 6 points in total.

An important issue was how comparable the incidence of reported peer violence in our earlier study was to more recent studies. To address this question, we examined survey results from more recent studies regarding “being in a peer fight” and also “being injured.” As seen in Table 3, we found reasonable comparability [35, 36, 37, 38].

Bivariate analyses were conducted. An unadjusted regression was run for the total sample. There was a significant gender difference in the violence behavior, with females having less involvement in violence compared to males. Perceived parental monitoring, self-efficacy, and interest in the tribe’s culture were all positively associated with lower scores in the violence behavior outcome. Respondents’ school grade was not significantly related to the violence behavior outcome.

Overall Path Analysis

Path analysis was conducted to explore the nature of the direct and indirect relationships between the independent variables and the dependent variable for the total sample of males and females in aggregate. This was used to explore key components of the models. As shown in Table 4, path analysis results suggest that both perceived parental monitoring and self-efficacy in avoiding violence were significant protective factors against violence ($p < 0.05$). According to the standardized coefficients results, these two factors may be equally important in protecting adolescents from violence.

There was a significant gender difference in perceived parental monitoring and self-efficacy ($P < 0.05$). Females reported experiencing more parental monitoring and better self-efficacy in avoiding violence than did males. While school grade wasn’t related to the perceived parental monitoring, it was positively related to better self-efficacy ($P < 0.05$), which showed self-efficacy increased as students progressed through school. Interest in the tribe’s culture was positively related to perceived parental monitoring and self-efficacy ($P < 0.05$). Among the three indirect protective factors (gender, grade, and cultural interest), interest in the tribe’s culture had the strongest positive relationship with perceived parental monitoring and self-efficacy in avoiding violence.

Perceived parental monitoring was significantly associated with increased self-efficacy. Adolescents who perceived more monitoring from their parents, also expressed more confidence in their ability to avoid getting into violence ($P < 0.05$).

This model only explained 4% of variance in the violence outcome when both males and females were included in the same model. Given the gender difference in the general model, we tested the hypothesized model on females and males separately.

Path Analysis for Females

As shown in Table 4 and Figure 1, path analysis results indicated both perceived parental monitoring and self-efficacy in avoiding violence were significant protective factors for violence among female adolescents ($p < 0.01$). The standardized coefficients results indicated that parental monitoring plays the most important potential role in protecting female adolescents from violence.

Among female adolescents, school grade was significantly related to self-efficacy ($P < 0.01$), but not to parental monitoring. Self-efficacy increased as students progressed through school. Interest in the tribe's culture was positively related to perceived parental monitoring ($P < 0.01$), but not to self-efficacy. Female adolescents who showed more interest in learning the tribe's culture also received more parental monitoring.

For female adolescents, perceived parental monitoring was significantly associated with increased self-efficacy. Those who perceived their parents were monitoring them more were also more confident they could avoid getting into violence ($P < 0.01$).

The Chi-square test indicated this model is a good fit for the data ($\chi^2 = 0.45$, $P = 0.80$). RMSEA and CFI also indicated a good fit of data ($CFI = 1.00$, $RMSEA = 0.00$). Values over 0.95 for CFI and under 0.50 for RMSEA are interpreted as indicating a good-fitting model. This model explained 17% of variance in the violence outcome.

Path Analysis for Males

In contrast to females, this model didn't predict violence outcome in male adolescents very well. As shown in Table 4 and Figure 2, the only significant construct in this model is the relationship between the interest in the tribe's culture and self-efficacy ($p < 0.01$). Male adolescents who reported more interest in learning the tribe's culture also had better self-efficacy in avoiding violence. However, self-efficacy didn't successfully predict reported involvement in peer violence.

DISCUSSION

Consistent with our hypothesis, we found that parental monitoring and self-efficacy were associated with reduced violence behavior among female American Indian adolescents. Adolescents who reported more parental monitoring and increased self-efficacy in avoiding violence were significantly less likely to get into violence. In addition, perceived parental monitoring and self-efficacy were positively associated to each other. Those who had more parental monitoring were also more confident in their ability to avoid violence. However, contrary to our hypotheses, this was not true for males.

Both gender and interest in the tribe's culture were indirectly associated with the violence outcome via the adolescents' perceived parental monitoring and self-efficacy. Those who

showed more interest in learning the tribe's culture were more likely to receive parental monitoring and had more self-efficacy in avoiding violence. Although school grade was not associated with parental monitoring, our analysis indicated that adolescents' self-efficacy increased as they progressed through school. However, this may be due to censoring effects as students who were involved in risk behaviors were more likely to drop out of school over time. Among gender, grades, and interest in tribe's culture, the interest in tribe's culture had the strongest positive relationship with parental monitoring and self-efficacy. It would appear that there is potential synergy between these three variables at least for females.

For the first time, this study documented the importance of parental monitoring in protecting adolescents from violence. Parental knowledge of adolescents' friends and activities was strongly related to a reduced violence risk among female Indian adolescents. Consistent with Chewning's previous study on sexual behavior [12], we found that adolescents' perception that parents monitored their adolescents' social activity and friends was associated with, and possibly helped protect against, adolescents engaging in peer violence. In the midst of well-documented peer influence on violence, these analyses provide a more balanced picture of the importance of parental influence. They suggest that Indian communities already have parental monitoring models and adolescent cultural interest to build on as potential protective factors in programs they may wish to develop or expand in the future.

This study also showed self-efficacy was a potentially important protective factor against violence with Indian adolescents. Adolescents who reported more confidence in avoiding violence were less likely to report getting into violence. Adolescents with increased self-efficacy appear to have better skills avoiding and/or dealing with situations where violence arises. This is consistent with findings on other risk behaviors and populations [27, 39]. Together it suggests the potential for addressing self-efficacy in curricula and intervention programs to build adolescents' ability as well as their confidence to avoid violence.

To the best of our knowledge, this is the first study showing that an adolescent's interest in the tribe's culture had a strong positive, indirect relationship with adolescents' violence behavior. Based on our model, interest in learning the tribe's culture was positively related to parental monitoring and increased self-efficacy in avoiding violence. A recent study by Goodkind [40] successfully promoted cultural identity, self-esteem, positive coping strategies, quality of life, and social adjustment in American Indian adolescents by integrating healing of historical trauma, reconnecting to traditional culture, parenting/social skill-building, and strengthening family relationships into the intervention. Research by Pavkov [41] acknowledged the importance of inherent strengths of tribal communities for tribal youth and suggests that future interventions integrate tribal culture and the healing traditions of old. Lacourt [29] developed an oral history curriculum to strengthen a traditional practice of indigenous education. These studies align with our findings and indicate further study is needed to understand the dynamics underlying the association and how this desire for cultural understanding can be encouraged and addressed most effectively.

One of the most interesting findings in this study is the gender difference in Indian adolescents' violence behavior, their efficacy in avoiding violence, and the parental

monitoring they received. Gender difference in adolescents' violence behavior was previously reported by other studies [14,42]. Protective factors appear to have different dynamics for male and female Indian adolescents regarding their safer sexual behaviors. It is interesting that Go et al. [42] also found gender difference in Cambodian adolescent delinquency. In their study, ethnic identity was significant for only male adolescents, while parental discipline was significant for only females. These studies suggest the need for future study of gender differences in adolescents' risk behaviors, especially in minority adolescents. Both Go's study and our study highlight the potential important impact of ethnic identity, ethnic culture, and parental factors on the minority adolescents, and their different dynamics in male and female adolescents.

Our earlier study had identified the power of perceived peer sexual behavior for males' sexual behavior [12]. Unfortunately we did not have perceptions of peer violence behavior. We encourage other researchers to explore this potential relationship since we were unable to do so with this data set. Beside parental monitoring and self-efficacy, the authors also tested other modifiers to predict male adolescents' violence behavior. Among these were academic performance, self-esteem, depression, suicidal intention, and other risk behaviors. Only other risk behaviors such as substance use and sexual behaviors were strongly associated with male adolescents' violence behaviors. Future study is needed to identify protective factors for overall risk behaviors among male adolescents.

Limitations of this study need to be considered. Although study participants ranged from grade 6 to grade 12, there were fewer participants from grade 10 (N=44), grade 11 (N=39), and grade 12 (N=41). Thus the findings from this study are less generalizable to these grades. In addition, there is considerable cultural diversity among American Indian communities. It is important to test the relationships observed in this study in other Indian nations. These data were collected in 1998 and the question is whether these findings apply today. The findings from four studies presented in Table 3, suggest that our data are reasonably comparable to self-reported violence patterns in more recent studies.

Taken together, these analyses reinforce how complicated the dynamics underlying adolescents' involvement in violence are. However, they also suggest the importance of exploring parental, self-efficacy training as well as cultural elements in intervention programs. Further, these exploratory analyses lend support for multi-pronged programs to reduce violence and increase students' self-efficacy. There needs to be attention to gender differences in the design and execution of these programs.

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Figure 1.

Path analysis model for females with standardized path coefficient

* $p < 0.05$ ** $p < 0.01$

Figure 2.

Path analysis model for males with standardized path coefficient

* $p < 0.05$ ** $p < 0.01$

Table 1**Measures**

Parental monitoring $\alpha=0.90$	
1	If I am going to be home late, I am expected to let my parents know.
2	I tell my parents whom I'm going to be with before I go out.
3	When I go out at night, my parents know where I am.
4	My parents know who my friends are.
5	My parents know the parents of my friends.
6	I talk to my parents about the plans I have with my friends.
7	When I go out, my parents ask me where I'm going.
8	My parents usually know what I am doing after school.
9	My parents know how I spend my money.
Self-efficacy $\alpha=0.56$	
1	How sure are you that you can keep yourself from getting into physical fights?
2	How sure are you that you can stay away from situations where you could get into a fight?
3	How sure are you that you can calm down if you get upset about something?
Interest in the tribe's culture	
1	Are you interested in learning more about your tribal culture and history (for example, skills like drumming, beading, ricing, or about tribal government)?

Table 2

Description of sample (n=630)

	Mean or Percentage	SD	Scale Minimum	Scale Maximum
Gender				
male	53%		0	1
Grade				
6 th	23%		0	1
7 th	21%		0	1
8 th	21%		0	1
9 th	15%		0	1
10 th	7%		0	1
11 th	6%		0	1
12 th	7%		0	1
Interest in Tribe's culture				
Not interested	7%		0	1
A little interested	15%		0	1
Somewhat interested	32%		0	1
Very interested	46%		0	1
Self-efficacy	7.16	3.72	0	12
Parental monitoring	25.5	11.6	0	45
Violence total score	2.98	2.14	0	6

Table 3

Comparison of reports on Indian Adolescents violence behavior prevalence

	YIP* (1998)	Bureau of Indian Affairs (1997)	Great tribe of Navajo Nation (2003)	Rutman (2008)	Smokowski (2009)
Be in a fight	37%	44%	49%	20%	44%
Be injured	7%	8%	7%	17.50%	8.60%

* YIP: Youth Intervention Project

Table 4

Path analysis results for overall population/female population/male population

Overall Population (n=630)	Estimate	S.E.	P	STDYX
Effects				
from efficacy to violence	-0.06	0.02	0.01	-0.11
from parental to violence	-0.02	0.01	0.04	-0.12
Effects				
from gender to parental	2.40	0.92	0.01	0.09
from grade to parental	0.37	0.36	0.31	0.05
from culture to parental	1.38	0.54	0.01	0.11
Effects				
from gender to self-efficacy	0.62	0.31	0.05	0.08
from grade to self-efficacy	0.16	0.07	0.02	0.08
from culture to self-efficacy	0.61	0.16	0.00	0.16
Effects between parental and self-efficacy	4.84	2.23	0.03	0.10
Female Population (n=295)				
Effects				
from efficacy to violence	-0.09	0.02	0.00	-0.20
from parental to violence	-0.06	0.01	0.00	-0.33
Effects				
from grade to parental	-0.24	0.28	0.39	-0.04
from culture to parental	2.11	0.63	0.00	0.21
Effects				
from grade to self-efficacy	0.36	0.10	0.00	0.16
from culture to self-efficacy	0.32	0.28	0.25	0.07
Effects between parental and self-efficacy	5.79	1.90	0.00	0.16
Male Population (n=335)				
Effects				
from efficacy to violence	-0.01	0.03	0.84	-0.01
from parental to violence	-0.01	0.01	0.67	-0.02
Effects				
from grade to parental	0.85	0.61	0.17	0.10
from culture to parental	0.90	0.81	0.27	0.06
Effects				
from grade to self-efficacy	0.01	0.09	0.92	0.01
from culture to self-efficacy	0.80	0.18	0.00	0.22
Effects between parental and self-efficacy	4.80	4.13	0.25	0.09