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A Comparison of the Drug Use and Protective Factors of Rural and Urban Students

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Abstract: Based on data from the Communities that Care Youth Survey (CCYS), the authors compare the relationships between the drug use and protective factors of rural and urban students in grades 6, 8, 10, and 12. The authors used a rural/urban index that classifies zip codes into ten categories with percentage urban/rural. Only the 2 extreme categories (those zip codes that are 90% or more rural versus 90% or more urban) were used. Findings indicated urban and rural students are similar in terms of drug use. Rural students had higher rates of alcohol use in all grades. Rural youth had higher protective factor scores.

Keywords: Rural students; drug use; alcohol use; urban students; opioid; prescription narcotics; protective factors

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Introduction

Rural/urban differences in social interaction and institutions are frequently attributed to corresponding differences in value systems. Explanations of delinquency have directly and indirectly revolved around the characteristics associated with the degree of urbanization of an area. In 1930, Sorokin, Zimmerman and Galpin published a Sourcebook for Rural Sociology, which indicated there was a cache of knowledge on the subject. Scholarly attention to urban rural differences continued with the result being that by the 1950s there existed stacks of knowledge devoted to a host of sociological variables (Lentz, 1956). In delinquency reference was made to informal means of social control employed in rural areas; compared to the more formal means used in urban areas (Donnermeyer & DeKeseredy,

2013; Osgood & Chambers, 2002, 2003). Rural areas are seen as places where everyone knows what everybody does so all acts are visible. Local law enforcement is also less likely to formally charge any but the most serious crime (Menifield, Rose, Homa, & Cunningham, 2001**).** Approximately 50 percent of the U.S. population lives in urban areas of 500,000 or more, so much of what we know about youth crime is based on those communities. But, one in four Americans lives in a rural community with a population of 2,500 or fewer, and an additional 12 percent live in towns or cities with populations below 50,000.

The protective factor model of delinquency prevention is a proven way of reducing anti-social behaviors among youth. This model is based on the simple premise that to prevent a problem from happening, we need to identify the factors that reduce the chance of the anti-social problem developing and then find ways to reduce the risks. Protective factors exert a positive influence and buffer against the negative influence of risk, thus reducing the likelihood that adolescents will engage in problem behaviors. Protective factors identified through research include strong bonding to family, school, community, pro-social peers; and healthy beliefs and clear standards for behavior (Dufur, Hoffman, Braudt, Parcel, & Spence, 2015; Gilliard-Matthews, Stevens, Nilsen, & Dunaev, 2015). These factors are associated with rural communities. This paper uses data from the 2014 Communities that Care Youth Survey (CCYS), to examine the protective factors of rural and urban 6 thru 12 grade students across three domains (peer, individual, school) and their effect on/relationship with the drug use of these same students.

Literature

Protective Factors

The authors assess the literature inspired proposition that associates rural with a protective environment and urban with a riskier one. Criminologists can quickly see protective factors as clear products of Hirschi's (1969) social control theory (Hill & Pollock, 2015; Schaefer, Vito, Marcum, Higgins, & Ricketts, 2015a, 2015b; Wallace, 2001)).

Rural communities have been characterized as being dominated by extended family where traditional values were not penetrated and supervision was constant. Is criminology/sociology mired in these tired stereotypes in which rural characteristics are seen as protective factors for youth while urban characteristics are seen as risk factors? Using these ideas Biggar, Forsyth, Chen, and Richard (2016**)** analyzed eighty-four protective factor scores. Twenty-six (26) of the 84 protective factors show no significant difference between rural and urban students; on 50% (N=42) of protective factors rural youth had higher scores. Urban youth had higher protective scores on 16 factors. These findings indicated that rural students still have more protective factors than urban students as the literature indicates.

Peer influence may be the principal proximate cause of most deviant behavior of youth (Warr, 2002). A child's peers can support deviant behavior by providing attitudes,

motivations, and rationalizations, as well as the opportunities to engage in delinquent acts. Other research determined that adolescents with deviant peers self-reported more delinquent behavior and higher levels of depression than other children, even those with no friends. Association with deviant friends has been shown to predict substance use, delinquency, and violence (Dishion, Bullock, & Granic, 2002; Norman & Ford, 2015; Patterson, DeBaryche, & Ramsey, 1989).

Family variables have been widely researched and found to have profound impact on deviant behavior, but these family factors may not be as strong as once thought and/or are closely tied to variables external but associated with the family. These include individual psychological characteristics, school environment, peer relationships, and community environment (Loeber & Farrington, 1998; Loeber, Farrington, Stouthamer-Loeber, & Van Kammen, 1998). Deficient socialization early in life is not likely to be remedied by successful socialization later in life. (Moffitt, 1993). The community in which a child lives, to include the children in their neighborhood and school, has been found to have an impact on deviant behavior.

After the home, most children spend the rest of their time in school; this gives school an important role, because of the relationships the child forms with his peers at school (Johnson, 1979). This identifies the transmission of behaviors between closely associated adolescents as the primary mechanism for influence, suggesting that a child's closest friends have the strongest influence on the child's behavior (Forsyth, Asmus, Howat, Pei, Forsyth, & Stokes, 2014; Forsyth, Biggar, Forsyth, & Howat, 2015; Forsyth, Howat, Pei, Forsyth, Asmus, & Stokes, 2013; Payne & Cornwell, 2007; Rocheleau & Chavez, 2015; Schaefer, Vito, Marcum, Higgins, & Ricketts, 2015a, 2015b).

Rural/Urban Drug Use and Crime

Criminology has given scant attention to the subject of rural crime or police officers (Bankston & Jenkins, 1982; Donnermeyer & DeKeseredy, 2013; Gibbons, 1972; Osgood & Chambers, 2003). For as long as arrests data have been complied in the United States the number of arrests has been highest in large cities, moderate in suburban communities, and lowest in rural places. This pattern of crime partially reflects that a large part of the population of the United States has lived in urban areas for more than a century. FBI statistics confirm that the larger the community, town, or city the higher the arrest rate. The collection and study of crime data originated in urban arenas and the concepts framing such behavior was created there. In the study of crime, rural data like the theft of farm equipment and livestock have been lacking. Recently, rural sociology has become more focused on environmental crime; corporate mistakes; and pollution. In addition, most criminologists have not bothered to look directly at the problem; taking for granted that nothing of interest was there; until the manufacture of methamphetamine became part of rural commerce and marijuana redefined the term cash crop.

The exception seems to be the occupation of game warden and the crime of poaching which has received scholarly attention (Carter, 2004, 2006; Dizard, 2003; Forsyth, 1993a, 1993b, 1994, 2008; Forsyth & Forsyth, 2009, 2010, 2012; Forsyth & Marckese, 1993a, 1993b; Forsyth, Gramling & Wooddell, 1998; Hampshire, Bell, Wallace & Stepukonis, 2004; Jacoby, 2001; Lawson, 2002, 2003; McMullan & Perrier, 2002; Sherblom, Keranen & Withers, 2002). Their job is dangerous with wardens getting killed and assaulted on the job. Wardens are seven times more likely to be assaulted with a firearm or cutting object than police; and game wardens are more than twice as likely to be injured by an assault than are police (Carter, 2004). Implicit in these foci are the parallels which can be drawn between literature on urban police officers and game wardens and poachers, drug dealers, and other criminals. The general feeling in criminology is that these crimes are committed by urban visitors and represent urban problems/influences in rural areas and not criminals with rural backgrounds (Osgood & Chambers, 2002; Ousey & Wilcox 2007). Other researchers (Eliason, 2008; Forsyth & Marckese, 1993a, 1993b; Forsyth, 1993a; 1993b; Forsyth & Forsyth, 2009; 2010; 2012; 2018) have confirmed quite the opposite; these are indeed criminals with rural backgrounds. These crimes are part of a subculture of many rural communities. Interestingly it was the rural police force of game wardens who were first burdened with a rural crime ripple (Gibbons, 1972). [1] Police work in rural areas is becoming remarkably similar to more urban arenas as urban problems of drug, crimes, violence, and gangs have crept into the hinterland. These ideas are supported by data that shows that rural communities have an increased need for drug rehabilitation facilities (Staton, et al, 2018; Jones, 2018) due to increased drug use (Border, 2018; Van Gundy, 2006). The idea is that rural America had become more urban-like regarding drug use and change in the work of game wardens is representative (Osgood & Chambers, 2002; Ousey & Wilcox, 2007).

Biggar, Chen, and Forsyth (2016) compared eight anti-social behaviors (ASB) of rural and urban students among four grades (6, 8, 10, 12). In most anti-social behaviors throughout all four grade levels rural students had lower levels. Out of 32 possible comparisons rural students had higher frequencies in 5 and same in 2 and lower in 25 ASBs. Recent urban /rural research comparisons have started to analyze the use and abuse of illegal substances-including drugs and alcohol. Some data suggests that rural youth use alcohol more often and at younger ages than their urban counterparts (Van Gundy, 2006). Illicit drug use, including the misuse of prescription opioids is a substantial public health concern for both rural and urban youth. Researchers have suggested illicit drug use and misuse rates of prescription opioids are comparable among rural and urban residents. They have also suggested that illicit drug use and misuse rates of prescription opioids among rural residents are on a downward trend (Johnson *et al,* 2020). Such findings could be the result of different measures of use (lifetime; 12 months; 30 day; seeking treatment) being compared (Borders, 2018; Jones, 2018; Staton, Ciciurkaite, Havens *et al,* 2018).

Methodology

Data for this study were collected from the 2014 Louisiana Communities that Care Youth Survey (CCYS). This biennial survey is administered on even years, to sixth, eighth, tenth, and twelfth grade private and public-school students. The survey is designed to assess students' involvement in a specific set of problem indicators, as well as their exposure to a scientifically valid risk and protective factors identified in the Risk and Protective Factor Model of adolescent problem behaviors. Examples of indicators include drug use prevalence, antisocial behaviors, bullying, mental health, etc. Table 1 shows the number of students and the characteristics of survey participants in 2014. Each student completes vis computer during a designated class period/time. The survey is in scantron format. Students have approximately 60 minutes to complete 131 questions. Passive consents are used to secure parental permission for participation. Teachers are given a short script to read to students just prior to administration. The script served as informed assent and included references to the voluntary nature of the survey and privacy. No identifiable data is collected from the survey. The data are analyzed using optical mark recognition imaging scanners and populated into reports. The results are disseminated at various aggregated levels, including State, region, parish and by individual schools. All school level reports are password protected and require consent to access. Analysis of rural and urban differences are not included as part of the CCYS analysis at any level. Therefore, reporting differences that may exist will add to existing reports and begin to fill the reporting gap that accounts for differences in populations.

The survey focuses on students across Louisiana in grades 6, 8, 10, and 12. Because some schools surveyed students in the odd grades and some students were eliminated because they were not honest in their responses, the final statewide sample in grades 6, 8, 10, and 12 that was used for the statewide summary in 2014 was 90,437 students. Table 1 contains the characteristics of the students from the State of Louisiana who completed the survey in 2014. [2]

Table 1: 2014 CCYS Survey

Grade	*Number*	*Percent*
6	27,132	29.3
8	26,389	28.5
10	22,363	24.1
12	16,721	18.1
Gender		
Male	43,481	48.1
Female	46,956	51.9
Ethnicity		

Grade	*Number*	*Percent*
African American	37,766	36.5
Asian	2,483	2.4
Hispanic	5,865	5.7
Native American	4,017	3.9
Pacific Islander	918	0.9
White	48,196	46.6
Other	4,280	4.1

This research compares drug use and protective factors across the four (6, 8, 10, 12) grades in the year 2014 comparing rural and urban students. The rural/urban variable created from the 2010 U.S. Census data has ten categories: each calculated by percent rural starting with less than 10 percent and ending with more than 90 percent with a zip code. Table 2 has the number of zip codes in each category. The zip codes shown in Table 2 show uneven/lower numbers in some of the categories. The categories can be seen as a continuous variable, or it could be collapsed into fewer categories. We choose two extreme categories (0-10% and 90.1-100%) because it is a more valid reflection of the difference between urban/rural. However, future studies may want to stratify beyond two categories to capture other populations. Students taking this anonymous survey were asked to provide their zip code of residence. Researchers using CCYS data *are not allowed to report zip codes in any research or reports nor are they allowed to report numbers within any single zip code.* Table 2 represents ***allowed data***; that protects school identity, a requirement of the Louisiana Office of Behavioral Health (OBH). Individual schools collected the data, under guidance provided by the Cecil Picard Center for Child Development and Lifelong Learning located on the campus of the University of Louisiana at Lafayette.

Table 2. Number of Zip codes in Each Category

Percent Rural	*No of zip codes*
0 - 10%	111
10.1% - 20%	35
20.1% - 30%	34
30.1% - 40%	31
40.1% - 50%	23
50.1% - 60%	23
60.1% - 70%	15
70.1% - 80%	7
80.1% - 90%	5
90.1% - 100%	232

Findings

Variables

Drug Use: Our findings from drug use are presented in tables 3.1-3.4. Eleven drugs were used in the survey. Each question regarded use in the last 30 Days. This analysis will only discuss those with *significant differences* and those substances with the same rate of use *(indicated by a p-value of 1)*. Given the large sample the tendency is toward significance.

1. Alcohol beverages (beer, wine liquor) –more than a few sips.
2. Marijuana (grass, pot) or hashish (hash, hash oil).
3. LSD or other hallucinogens.
4. Cocaine or crack.
5. Inhalant Sniffed glue, breathed the contents of an aerosol spray can, or inhaled other gases or sprays, in order to get high.
6. Methamphetamines (meth speed, crank, crystal meth).
7. Stimulants, **other than methamphetamines** (such as amphetamines, Ritalin, Dexadrine) without a doctor telling you to take them.
8. Sedatives, (tranquilizers, such as Valium or Xanax, barbiturates, or sleeping pills) without a doctor telling you to take them.
9. Heroin or other opiates.
10. Prescription drugs (narcotics such as Oxycontin, methadone, morphine, codeine, Demerol, Vicodin, Percocet) without a doctor telling you to take them.
11. MDMA (X, E, "Molly", or ecstasy)

Grade 6: In Table 3.1 are the drug use results for 6th graders. Only one substance, alcohol had significant use differences between rural and urban students in grade 6, with rural students having higher levels of use. The other ten substances showed no significant differences. Heroin and Ecstasy had the same level of use among rural and urban students.

Grade 8: In table 3.2 are the drug use results for 8th graders. Only three of the 11 substances had significant use differences. Alcohol use was higher among rural students. Both marijuana and cocaine use had higher use among urban students. Hallucinogens, Stimulants, Heroin, and Prescription Narcotic Drugs had the same level of use among rural and urban students.

Grade 10: In table 3.3 are the drug use results for 10th graders. Only two of the 11 substances had significant use differences. Alcohol use was higher among rural students. Marijuana had higher use among urban students. Methamphetamines and Sedatives had the same level of use among rural and urban students.

Grade 12 : In table 3.4 are the results for 12th graders. Five substances had significance use differences. Alcohol use continued to be higher among rural students. Urban students had higher rates of use among four drugs: marijuana, hallucinogens, cocaine, and ecstasy. Methamphetamines and Heroin had the same level of use among rural and urban students.

Protective Factors

As shown in tables 4.1-4.4, seven protective factors were used. These factors belong to three domains. Each factor is made up of several individual questions from the survey. Bach-Harrison, the authors of the survey, do not allow these individual questions to be published.

Protective Factors
School Domain
Opportunities for Prosocial Involvement
Rewards for Prosocial Involvement
Peer And Individual Domain
Belief in the Moral Order
Religiosity
Interaction with Prosocial Peers
Prosocial Involvement
Rewards for Prosocial Involvement

Grade 6: As can be seen Table in 4.1 Grade 6; 6 of the protective factors had significant differences; urban youth had higher protective scores on only 1 factor and rural youth had higher protective scores on the remaining 5. There was no significance difference on 1 protective factor.

Grade 8: As shown in Table 4.2 only one factor had no significant difference between rural and urban youth. Rural youth had higher protective scores on 5 of the 6 factors with significant differences.

Grade 10: Among youth in grade 10 rural and urban youth showed no significant differences on 2 factors. On three of the five factors with significant differences rural youth had higher protective scores and urban students had higher protective scores on two.

Grade 12: Among youth in grade 12 rural and urban youth showed no significant differences on 2 factors. On four of the five protective factors with significant differences rural youth had higher protective scores.

Table 5 summarizes both drug use and protective factors in each grade so that a comparison is easier. Overall, rural students have higher protective factor scores. But these factors do not seem to affect drug use. There are twenty-eight chances for protective factors scores (4 grades x 7 factors) and forty-four chances for drug use (4 grades x 11 drugs). Rural students had higher scores on 17 of 28 protective factors. Urban students had higher

Table 3. 2014 Drug Use by Grade

Table 3.1

2014 Grade 6

	Percent Rural					
	0 - 10%		*90.1% - 100%*			
	Percent	*Sample*	*Percent*	*Sample*	*p-value*	*Sign difference*
Alcohol Past 30 days	5.3%	6640	6.8%	3177	0.00289858	YES
Marijuana Past 30 days	0.8%	6609	0.5%	3166	0.096619884	NO
Hallucinogen Past 30 days	0.2%	6586	0.1%	3165	0.258259989	NO
Cocaine Past 30 days	0.2%	6581	0.1%	3162	0.258477027	NO
Inhalants Past 30 days	2.4%	6570	1.8%	3170	0.058824132	NO
Methamphetamines Past 30 days	0.2%	6529	0.1%	3151	0.259512723	NO
Stimulants Past 30 days	0.2%	6509	0.3%	3151	0.33882983	NO
Sedatives Past 30 days	1.5%	6512	1.6%	3154	0.707487953	NO
Heroin Past 30 days	0.1%	6500	0.1%	3141	1	NO
Prescription Narcotic Drugs Past 30 days	0.2%	6512	0.4%	3134	0.073533849	NO
Ecstasy Past 30 days	0.1%	6469	0.1%	3118	1	NO

Table 3.2

2014 Grade 8

	Percent Rural					
	0 - 10%		*90.1% - 100%*			
	Percent	*Sample*	*Percent*	*Sample*	*p-value*	*Sign difference*
Alcohol Past 30 days	14.5%	6590	19.5%	3575	6.86446E-11	YES
Marijuana Past 30 days	4.8%	6546	3.0%	3565	1.50339E-05	YES
Hallucinogen Past 30 days	0.4%	6542	0.4%	3554	1	NO
Cocaine Past 30 days	0.6%	6534	0.3%	3553	0.040161421	YES
Inhalants Past 30 days	3.6%	6534	3.5%	3557	0.795758457	NO
Methamphetamines Past 30 days	0.3%	6509	0.2%	3545	0.351175233	NO
Stimulants Past 30 days	0.5%	6505	0.5%	3546	1	NO
Sedatives Past 30 days	2.4%	6501	2.1%	3548	0.337048696	NO
Heroin Past 30 days	0.2%	6496	0.2%	3551	1	NO
Prescription Narcotic Drugs Past 30 days	0.9%	6486	0.9%	3542	1	NO
Ecstasy Past 30 days	0.3%	6481	0.4%	3542	0.407774541	NO

Table 3.3

2014 Grade 10

	Percent Rural					
	0 - 10%		*90.1% - 100%*			
	Percent	*Sample*	*Percent*	*Sample*	*p-value*	*Sign difference*
Alcohol Past 30 days	27.3%	6125	33.4%	2885	2.88207E-09	YES
Marijuana Past 30 days	12.0%	6107	8.5%	2872	6.77753E-07	YES
Hallucinogen Past 30 days	0.8%	6106	0.6%	2874	0.300957092	NO
Cocaine Past 30 days	0.5%	6099	0.4%	2871	0.517396444	NO
Inhalants Past 30 days	2.1%	6101	1.7%	2874	0.203497344	NO
Methamphetamines Past 30 days	0.4%	6092	0.4%	2871	1	NO
Stimulants Past 30 days	1.0%	6094	0.7%	2868	0.161590025	NO
Sedatives Past 30 days	3.1%	6090	3.1%	2865	1	NO
Heroin Past 30 days	0.3%	6083	0.2%	2865	0.393289643	NO
Prescription Narcotic Drugs Past 30 days	1.8%	6090	1.7%	2869	0.737546769	NO
Ecstasy Past 30 days	0.7%	6086	0.4%	2866	0.087424284	NO

Table 3.4

2014 Grade 12

	Percent Rural					
	0 - 10%		*90.1% - 100%*			
	Percent	*Sample*	*Percent*	*Sample*	*p-value*	*Sign difference*
Alcohol Past 30 days	39.2%	4861	43.3%	2194	0.001163499	YES
Marijuana Past 30 days	18.8%	4844	12.8%	2195	5.02428E-10	YES
Hallucinogen Past 30 days	1.8%	4846	0.5%	2195	1.64264E-05	YES
Cocaine Past 30 days	0.9%	4850	0.4%	2195	0.023730341	YES
Inhalants Past 30 days	0.9%	4847	0.7%	2197	0.393522423	NO
Methamphetamines Past 30 days	0.4%	4834	0.4%	2193	1	NO
Stimulants Past 30 days	1.4%	4835	1.1%	2195	0.304623629	NO
Sedatives Past 30 days	3.5%	4836	3.4%	2195	0.831842667	NO
Heroin Past 30 days	0.4%	4835	0.4%	2193	1	NO
Prescription Narcotic Drugs Past 30 days	2.3%	4840	2.2%	2192	0.794210351	NO
Ecstasy Past 30 days	1.2%	4832	0.4%	2192	0.001364988	YES

Table 4. 2014 Protective Factors by Grade

Table 4.1

2014 Grade 6

	Percent Rural					
	0 - 10%		*90.1% - 100%*			
	Percent	*Sample*	*Percent*	*Sample*	*p-value*	*Sign difference*
School Domain						
Opportunities for Prosocial Involvement	56.9%	7363	56.5%	3374	0.747652	No
Rewards for Prosocial Involvement	49.5%	7376	56.6%	3390	9.43E-12	Yes
Peer And Individual Domain						
Belief in the Moral Order	58.2%	6739	63.8%	3222	0.00000007	Yes
Religiosity	43.1%	6601	54.9%	3167	6.38E-28	Yes
Interaction with Prosocial Peers	54.2%	7181	60.4%	3330	2.44E-09	Yes
Prosocial Involvement	60.6%	7159	57.9%	3307	0.009199	Yes
Rewards for Prosocial Involvement	55.0%	7126	57.8%	3314	0.007544	Yes

Table 4.2

2014 Grade 8

	Percent Rural					
	0 - 10%		*90.1% - 100%*			
	Percent	*Sample*	*Percent*	*Sample*	*p-value*	*Sign difference*
School Domain						
Opportunities for Prosocial Involvement	62.5%	7144	68.3%	3710	2.28E-09	Yes
Rewards for Prosocial Involvement	50.5%	7157	58.8%	3714	1.27E-16	Yes
Peer And Individual Domain						
Belief in the Moral Order	65.2%	6684	71.3%	3597	3.63E-10	Yes
Religiosity	58.1%	6600	67.7%	3563	3.88E-21	Yes
Interaction with Prosocial Peers	58.1%	6968	65.2%	3679	1.12E-12	Yes
Prosocial Involvement	57.1%	6965	56.6%	3698	0.570379	No
Rewards for Prosocial Involvement	56.2%	7050	63.3%	3713	1.66E-12	Yes

Table 4.3

2014 Grade 10

	Percent Rural					
	0 - 10%		*90.1% - 100%*			
	Percent	*Sample*	*Percent*	*Sample*	*p-value*	*Sign difference*
School Domain						
Opportunities for Prosocial Involvement	63.7%	6606	61.4%	2990	0.028881	Yes
Rewards for Prosocial Involvement	59.4%	6613	63.0%	2996	0.000773	Yes
Peer And Individual Domain						
Belief in the Moral Order	55.9%	6201	57.3%	2903	0.212992	No
Religiosity	54.1%	6145	66.1%	2877	5.21E-27	Yes
Interaction with Prosocial Peers	55.6%	6492	60.6%	2950	0.00000432	Yes
Prosocial Involvement	55.0%	6445	52.7%	2957	0.043404	Yes
Rewards for Prosocial Involvement	63.0%	6524	62.5%	2976	0.674287	No

Table 4.4

2014 Grade 12

	Percent Rural					
	0 - 10%		*90.1% - 100%*			
	Percent	*Sample*	*Percent*	*Sample*	*p-value*	*Sign difference*
School Domain						
Opportunities for Prosocial Involvement	62.9%	5226	63.1%	2278	0.862888	No
Rewards for Prosocial Involvement	43.6%	5221	50.7%	2279	1.43E-08	Yes
Peer And Individual Domain						
Belief in the Moral Order	54.5%	4897	58.0%	2221	0.005487	Yes
Religiosity	50.9%	4863	61.8%	2211	1.01E-17	Yes
Interaction with Prosocial Peers	51.8%	5121	57.9%	2257	0.00000141	Yes
Prosocial Involvement	53.0%	5080	49.2%	2258	0.002748	Yes
Rewards for Prosocial Involvement	63.7%	5091	62.6%	2257	0.360059	No

Table 5. Summary of Drug Use and Protective Factors

	Grade 6	*Grade 8*	*Grade 10*	*Grade 12*	*Totals*
Protective scores					
No significant difference Between Rural-Urban	1	1	2	2	6
Rural sign. higher	5	5	3	4	17
Urban sign. higher	1	1	2	1	5
Drug Use					
No significant difference Between Rural-Urban	10	8	9	6	33
Rural sign. higher	1	1	1	1	4
Urban sign. higher	0	2	1	4	7

protective scores on five factors. Six protective factors showed no significance differences. Overall, drug use shows minor difference between rural and urban students with thirty-three of the forty-four possible chances having no significance difference. Of the remaining eleven drugs urban students had higher use on seven while rural students had higher use on four drugs.

Discussion

As can be seen from the analysis of the data rural and urban students are becoming more similar in the use of drugs. This is occurring in spite of a more protective rural environment. Research on the drug use of students is important because it can predict the criminal future for an area. Researchers (Forsyth, Asmus, Forsyth, Stokes, & Mayne, 2011; Patterson, 1986; Patterson, DeBaryche, & Ramsey, 1989; Ratcliff & Robins, 1979) found that serious antisocial behavior in adults rarely takes place without high levels of childhood antisocial behavior. The best predictor of criminal behavior at any age is prior criminal behavior. Some researchers claim that 5 to 10 percent of delinquents commit the vast majority, 75 to 90 percent, of serious offenses by delinquents. These chronic or habitual delinquents typically begin committing serious offenses before 13 years of age (Forsyth, Asmus, Forsyth, Stokes, & Mayne, 2011; Kempf-Leonard, Tracy, & Howell, 2001; Shoemaker, 2009; Tracy, Wolfgang, Figlio, 1990; Wolfgang, Figlio, & Sellin, 1972). The earlier the age of drug use and anti-social behavior patterns the more persistent and serious the later crimes.

Studies have determined that distant peers influence a child's behavior as well (Bursik & Grasmick, 1993). They opined that adolescents respond to the behavior models that facilitate the preservation of their existing social circles. They want to preserve the connection between their behavior and their friends' behavior; and opportunities for behavior that seem beneficial to their social identity (Payne & Cornwell, 2007). This is reflective of people

in the community; the characteristics of a child's neighborhood impact on behavior (Bursik & Grasmick, 1993; Gilliard-Matthews, Stevens, Nilsen, & Dunaev, 2015). Most of these studies have looked at urban areas, so it is not clear if these assumptions hold true for other communities (Hoffman, 2006). Research indicates that social networks within the community can function to control unruly children and crime in general. After school activities and positive mentoring by adults can serve to protect children from the social chaos and deviance in their neighborhood (Patchin, Huebner, McCluskey, Varano, & Bynum, 2006).

Association with delinquent friends increases delinquency and drug use while association with prosocial groups has a protective effect (Plenty & Sundell, 2015; Schreck & Miller, 2003; Welsh, 2000). Urban students often attend more populated schools. This increases the risk of negative peer groups (National Center for Educational Statistics, 1996). This is particularly relevant among inner city communities where students report higher rates of witnessing violence or being a victim of a violent crime (Fox & Bouffard, 2015; Scherzer & Pinderhughes, 2002; Hong & Eamon, 2012). This research would seem to question the viability of protective factors in general. Examining the role of specific protective factors may be more fruitful in further research.

Notes

1. Louisiana State Game Wardens are Federally commissioned which allows them to enforce fisheries laws in the United States Territorial Seas, and laws associated with the United States Migratory Bird Treaty Act. Additionally, ***all*** Louisiana State Game Wardens are POST certified. POST (Peace Officer Standards and Training) certified law enforcement officers of the state can enforce all laws within the state. While the emphasis is on wildlife, fisheries, and boating laws, they are tasked regularly with enforcing other laws such as: criminal, traffic, and drugs. Increasingly their jobs are more like traditional police officers.

2. Some of the limitations of FBI crime data are overcome by self-report studies. A number of researchers rather than relying on official reports of arrests, have drawn upon samples of various populations and have directly inquired through survey questionnaires regarding the respondents past delinquent behavior. This method aimed at adolescents not identified by law enforcement agencies as juvenile delinquents is designed to reveal and measure under identified and unreported instances of juvenile delinquency. Self-report studies clearly show that delinquent behavior is far more common and widespread than is indicated by official statistics. Findings from these studies over time has led researchers to conclude that enormous numbers of young people appear to be involved in delinquent acts. The conclusion does not deny that crime may be more concentrated in some groups, but that it is also unlikely to be absent in other groups. Such studies clearly support the contention that official statistics fail to completely measure the volume of delinquency and the incidence of many specific delinquent acts (Hindelang, Hirschi, & Weis, 1979; Hirschi, 1969).

   Every delinquent act committed by a person is witnessed by him; he cannot commit delinquency acts without knowing it (otherwise, there is nothing to explain). Obviously, the police do not

have such omnipresence…In short, the records of the police are, on a priori grounds, a weaker measure of the commission of delinquent acts than presumably honest self-reports (Hirschi, 1969, p.64).

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