Circumstances Preceding Dropout Among Rural High School Students: A Comparison with Urban Peers

Véronique Dupéré
Mélissa Goulet
Isabelle Archambault
Université de Montréal

Tama Leventhal
Tufts University

Eric Dion
Université du Québec á Montréal

Robert Crosnoe
University of Texas at Austin

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This study examined whether recent disruptive events would increase the likelihood of high school dropout among both rural and urban youths, and whether the types of disruptive events preceding dropout would be different in rural vs. urban environments. Based on interviews conducted with early school leavers and matched at-risk schoolmates (N = 366) in 12 disadvantaged Canadian high schools, recent disruptive events appeared to generally trigger dropout. However, the prevalence of some types of events associated with dropout varies according to the environment. In agreement with social disorganization and formal/informal social control models, crises involving child welfare services or the juvenile justice system (e.g., an arrest after a fight) represented a lower share of triggering events among rural than urban leavers (8% vs. 26%, respectively), whereas those involving peer conflicts and rejection (e.g., exclusion from one's peer group) were overrepresented among rural compared to urban leavers (26% vs. 10%, respectively). These differences are thought to represent upsides and downsides associated with the relative density, stability, and overlapping nature of rural adolescents' social networks. Practical implications are discussed, notably regarding the relevance and contextual adaptation of prevention programs as a function of place.

Véronique Dupéré, École de psychoéducation, Université de Montréal, Institut de recherche en santé publique de l'Université de Montréal (IRSPUM), and Centre jeunesse de Montréal – Institut Universitaire (CJM-IU); Eric Dion, Département d'éducation et de formation spécialisées, Université du Québec à Montréal; Tama Leventhal, Eliot-Pearson Department of Child Study and Human Development, Tufts University; Robert Crosnoe, Department of Sociology and Population Research Center, University of Texas at Austin; Mélissa Goulet, École de psychoéducation, Université de Montréal; Isabelle Archambault, École de psychoéducation, Université de Montréal.

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All correspondence should be directed to Véronique Dupéré, Professeure agrégée, École de psychoéducation, Université de Montréal, C.P. 6128, succursale Centre-Ville, Montréal, QC H3C 3J7 (veronique.dupere@umontreal.ca).

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In both Canada and the United States, high schools with high dropout rates are located in areas of concentrated disadvantage (DePaoli, Balfanz, & Bridgeland, 2016). Although many of these schools are found in poor inner-city neighbourhoods, a significant portion is located in economically distressed small towns or rural areas (Canadian Rural Revitalization Foundation [CRRF], 2015; DePaoli et al., 2016; Nugent, Kunz, Sheridan, Glover, & Knoche, 2017). In fact, some rural schools have poverty and dropout rates rivalling those found in the most disadvantaged urban schools (Lefebvre, 2012; Lichter & Brown, 2011; Strange, 2011), and this problem is likely to endure, given the increasing presence of pockets of deep poverty in rural communities (Burton, Lichter, Baker, & Eason, 2013; CRRF, 2015). Even though the factors influencing important youth educational outcomes like dropout may differ to some extent in rural and urban areas of concentrated disadvantage, very few studies have directly examined this issue. Studies examining the factors associated with high school dropout or related outcomes in disadvantaged communities have typically focused on either rural or urban communities, precluding direct urban-rural comparisons (Burton et al., 2013; Coladarci, 2007; Conger, 2013; Nugent et al., 2017; Semke & Sheridan, 2012). To address this gap, the present

study examines disruptive events precipitating rural and urban youths' departure from school.

High School Dropout: Risk Factors Common to Urban and Rural Youths

High school dropout is thought to result from long-term exposure to adversity at the community, family, and individual levels (Rumberger, 2011). For instance, some of the factors most strongly and consistently associated with dropout include low community and family socioeconomic status (SES), chronic academic failure, and learning and behavior problems. According to leading theoretical models of dropout, these long-term risk factors should affect all youths similarly, regardless of where they live. However, recent theoretical and empirical work suggests that high school dropout results not only from prolonged exposure to long-term risk factors, but also from recent exposure to disruptive events (Dupéré et al., 2018; Dupéré et al., 2015). The nature of these triggering events might vary to some extent for rural and urban youths.

Most studies examining dropout among both urban and rural youths aimed at comparing dropout rates after adjusting for background characteristics (see Jordan, Kostandini, & Mykerezi, 2012; Mykerezi, Kostandini, Jordan, & Melo, 2014; Peguero, Ovink, & Li, 2015; Roscigno, Tomaskovic-Devey, & Crowley, 2006). Two of these studies nevertheless probed for potential rural-urban differences in terms of the risk factors associated with dropout (Jordan et al., 2012; Peguero et al., 2015). Their findings indicate that by and large, long-term risk factors for dropout (e.g., family disadvantage) had a similar importance for both urban and rural youths.

Despite these general similarities, the results of these two studies also hint at some potential differences. Even though they did not specifically focus on the immediate circumstances triggering the decision to drop out, some of their findings incidentally suggest that circumstances may not be the same for rural and urban youths, notably when it comes to social relationships and involvement in delinquent activities. Participation in extracurricular activities was negatively linked with dropout in rural communities, but not in urban communities (at least for some racial/ethnic groups), whereas being part of a gang was more strongly associated with dropout in urban communities than it was in rural communities (Jordan et al., 2012; Peguero et al., 2015). Concepts of formal and informal social controls embedded in social disorganization models provide one avenue for framing these scattered findings.

Informal and Formal Social Controls in Rural and Urban Areas

Social disorganization models aim to explain differential involvement in deviant behaviors across types of communities (Braga & Clarke, 2014; Kaylen & Pridemore, 2013b; Sampson, 2012). These models typically focus on crime, but have also been extended to other related behaviors, like school dropout (Crane, 1991; Harding, 2011). It is proposed that social control of youths' deviant behaviors takes two forms: It can be exerted informally, when residents monitor and regulate local youths, or it can be exerted formally, via juvenile justice or child welfare systems (Kubrin & Weitzer, 2003; Sampson, Raudenbush, & Earls, 1997). The two forms of social control, informal and formal, are thought to influence one another, and to work best in communities where they operate in a balanced manner (Kubrin & Weitzer, 2003). There are reasons to believe that informal control plays an outsized role for rural youths, whereas formal social controls interfere more often with youths' lives in urban contexts.

Informal social control in rural areas. Informal social control is exerted through local social networks (Sampson, Raudenbush, & Earls, 1997). In general, denser networks are thought to offer a greater capacity for informal control. In other words, when residents of a community know each other, their collective capacity to informally regulate one another's behavior increases, thus reducing the need to resort to agents of formal control, like the police (Kaylen & Pridemore, 2013b). Because in smaller rural communities social networks tend to be dense, adolescents' delinquent activities rarely lead to arrests, thereby shielding local youths from the negative consequences associated with arrest and incarceration (Donnermeyer & DeKeseredy, 2013; Kaylen & Pridemore, 2013b; Kirk & Sampson, 2013; Weisheit, Falcone, & Wells, 2005). Like other residents, rural adolescents are part of dense, overlapping peer networks, as they often know most of their local same-age peers, and tend to interact with the same friends in and out of school (Pozzoboni, 2015). For well-integrated youths, stable and overlapping peer networks can contribute to deterring involvement in deviant behaviors, and can be a source of support and protection (Crockett, Shanahan, & Jackson-Newsom, 2000; Hamm, Schmid, Farmer, & Locke, 2011; Petrin, Farmer, Meece, & Byun, 2011).

Yet social disorganization scholarship also suggests that these same networks can introduce risk. Dense networks are sometimes mobilized to achieve questionable goals, like the exclusion of individuals or groups who do not fit in to the dominant local culture (Browning, 2009; Sampson, Morenoff, & Earls, 1999). When youths become excluded from such networks, they may be particularly prone to experiencing feelings of doom and inescapability. Rural adolescents sometimes describe their social worlds as "fishbowls," where information circulates widely and rapidly, and where rumors damaging one's reputation tend to persist once established (Pettigrew, Miller-Day, Krieger, & Hecht, 2011; Pozzoboni, 2015; Seaton, 2007; Shoveller, Johnson, Prkachin, & Patrick, 2007). Social exclusion seems, in fact, to hold special meaning in rural

contexts. Based on student reports, cases of severe bullying are more frequent in rural schools than they are in urban schools (Evans, Smokowski, & Cotter, 2016; Leadbeater et al., 2013). Some evidence suggest that disadvantaged rural youths themselves identify bullying and social isolation as one of their top concerns (Meek, 2008; Powell, Taylor, & Smith, 2013). Sexual minority youths attending rural schools feel that their peers are especially hostile (Swank, Frost, & Fahs, 2012). Among rural high school students, low community attachment and desires to leave for the city and not return is associated with disengagement in school as well (Petrin et al., 2011). Finally, higher suicide rates in rural areas as opposed to urban areas suggest that marginalized rural individuals may be particularly prone to developing feelings of entrapment, along with strong escape desires (Hirsch & Cukrowicz, 2014).

Irrespective of the type of community in which youths live, bullying and rejection can lead to school avoidance and dropout (e.g., Smalley, Warren, & Barefoot, 2017). However, social isolation, rejection, and bullying may be particularly detrimental to the school careers of rural adolescents. In his sociological model, Tinto (1975) suggests that social adjustment problems are more likely to lead to dropout in small, homogeneous schools than they are elsewhere, since non-conventional students who do not fit in to the dominant culture do not easily have access to alternative social niches in these schools. Rural areas limit the access to alternative niches in another way. In such areas, excluded or bullied students cannot switch schools to start over and make new friends, because the catchment areas of their schools are often so large that a transfer is infeasible (Dupéré et al., 2015; Shoveller et al., 2007). In the absence of alternatives, excluded students may use dropout as a strategy to avoid aversive social situations (Pozzoboni, 2015). Theoretically, there are therefore reasons to suspect that exclusion from the peer group may play a role in a larger share of dropout cases in rural contexts than it does in urban contexts.

Formal social controls in urban neighborhoods. In contrast with rural communities, where informal strategies tend to be preferred to control youths' deviant behaviors (Donnermeyer, 2016; Kaylen & Pridemore, 2013b; Weisheit et al., 2005), formal social controls are used in excess in many disadvantaged inner-city neighborhoods (Sampson & Loeffler, 2010). To illustrate, adolescents living in such neighborhoods are particularly likely to be arrested and prosecuted; to incur harsh punishment when found guilty; and to be reported to and investigated by child protection agencies, and as a result end up in out-of-home placement (e.g., Cross, Finkelhor, & Ormrod, 2005; Dettlaff et al., 2011; Sampson & Loeffler, 2010; Wakefield, Wildeman, & Wildeman, 2014). A number of factors may explain this pattern. In the United States, the differential treatment of racial minorities concentrated in disadvantaged urban neighborhoods is thought to play an outsized role (Sampson & Loeffler, 2010), but other factors operating in the United States and elsewhere are also considered important.

First, formal institutions are concentrated in urban areas, and are comparatively scattered and thinly spread across large rural areas (see Donnermeyer, 2016; Donnermeyer & DeKeseredy, 2013; Kaylen & Pridemore, 2013a; Riebschleger & Pierce, 2018; Weisheit et al., 2005). This differential concentration could, in and of itself, make formal interventions more likely in urban areas than in rural areas. To illustrate, the fraction of high schools where a police officer is regularly present is much higher in urban schools than it is in rural schools, thus increasing the proportion of offenses occurring in urban schools that end up being reported (Na & Gottfredson, 2013). Second, adults and service providers in rural communities generally treat youths' misbehavior less formally than do their urban counterparts, once again because of intersecting social networks (e.g., see Donnermeyer, 2016; Kaylen & Pridemore, 2013a). For instance, rural storeowners are prone to address shoplifting by contacting a member of the offender's family with whom they might be acquainted, rather than the police.

The low reliance on formal social control in rural areas might have educational implications. Events like arrest, incarceration, and institutional placement are disruptive, and young people experiencing these events during high school are at greater risk of dropout, even after accounting for other factors (Kirk & Sampson, 2013; Vinnerljung, Öman, & Gunnarson, 2005). Such events may thus contribute to a smaller share of dropout cases in rural as opposed to urban areas, but this later proposition has received little research attention.

Informal and Formal Social Controls in the United States and Other Western Countries

The social disorganization literature on informal and formal social controls and their diverging uses and meanings across communities is overwhelmingly U.S.-based. Some of the findings from this literature are potentially specific to the United States, but key conclusions have been found to apply to other Western countries, at least to some extent (Sampson, 2012).

Social exclusion seems to represent a similarly important issue for residents of rural areas in many Western countries. Previous research suggests that poor social integration in rural areas is highly deleterious to adjustment, not only in the United States (rural Midwest; Elder & Conger, 2000), but also in the United Kingdom (rural Scotland; Brown & Prudo, 1981) and Canada (rural British Columbia and Ontario; Ferguson, Tilleczek, Boydell, & Rummens, 2005; Leadbeater et al., 2013). Relatedly, higher rates of suicide

in rural areas, as opposed to cities, have been observed in all regions of the world, and this phenomenon is thought to reflect amplified distress associated with factors such as lack of belonging, low social support, and conflicts in social relationships (Hirsch & Cukrowicz, 2014). These findings suggest that rural youths in many countries present a particular sensitivity to breakdowns in their informal networks.

Despite important differences, encounters with agents of formal social control are also likely to play an outsized role in urban youths' lives, not only in the United States, but also in other Western countries including Canada. As a result of particular dynamics related to race and segregation in the United States, poor urban neighborhoods are overwhelmingly comprised of segregated minority enclaves, and incarceration rates in these enclaves tend to be very high (Sampson, 2012; Sampson & Loeffler, 2010). In contrast, in Canada, the population of disadvantaged urban neighborhoods is mixed, and primarily comprised of poor Whites who live alongside poor but often educated and upwardly mobile immigrants from all regions of the world (Oreopoulos, 2008). Moreover, overall incarceration rates are much lower in Canada than in the United States (e.g., Hartney, 2006; Tonry, 2013). Yet, as in the United States, young Canadians from disadvantaged urban communities tend to be overrepresented in the criminal justice and child welfare systems, suggesting that urban youths in Canada may be more often exposed to disruptive events involving these systems, as compared with their rural peers (e.g., Neil & Carmichael, 2015).

Objectives

The goal of this study was to examine whether the circumstances surrounding the decision to drop out of high school differed among rural and urban youths. In hypothetical terms, it was expected that recent disruptive events would increase the likelihood of dropout among both rural and urban youths, but that the types of disruptive events preceding dropout would be different in rural and urban environments. Specifically, it was anticipated that recent disruptive events reflecting breakdowns in, and exclusion from, social relationships (e.g., isolation, bullying, etc.) would be particularly prevalent among rural early school leavers, whereas recent disruptive events related to formal social controls (e.g., involvement with the police, courts, child welfare services, etc.) would be less prominent than they were among urban early leavers. Other recent disruptions involving recent problems at school or in the family were expected to be similarly prevalent in rural and urban contexts. Furthermore, it was expected that the differences between rural and urban early school leavers would remain after accounting for key background characteristics, like immigration status. Finally, complementary qualitative content analysis of early school leavers' discourse concerning the disruptive events that preceded their departure from school were expected to echo the detailed rural/urban dynamics described in the criminological literature on informal and formal social controls. To illustrate, it was expected that rural early school leavers would describe peer conflicts that more readily degenerate into social exclusion than would their urban counterparts.

Method

Sampled Schools

Twelve public high schools participated in the project (three in 2012-13, four in 2013-14, and five in 2014-15). These schools were located in Montreal (Quebec, Canada) and surrounding rural/semi-rural areas. At the time of data collection, Quebec was the Canadian province with the highest dropout rate. In the participating schools, the average dropout rate was 36%, more than twice the provincial average (MELS, 2014). On average, the proportion of families living at or below Statistics Canada's poverty threshold in the 12 schools' catchment areas was 31%, well above the 20% cutoff often used to identify poverty areas (Bishaw, 2014).

The sampling procedure was deliberately designed to contrast students attending disadvantaged schools located in disadvantaged urban or rural/semi-rural areas where dropout is concentrated (CCL, 2006; Lefebvre, 2012). As such, half (n = 6) of the sampled schools were located in central Montreal neighborhoods and were attached to the central city school board. Montreal is the second largest city in Canada, and at the time of data collection, its metropolitan census area included about four million people (Statistics Canada, 2016), and was thus roughly comparable in size to the metropolitan statistical areas of Boston or Seattle (U.S. Census Bureau, 2016).

The other half (n = 6) of the participating schools were "rural" or "semi-rural." Multiple definitions exist for these terms, some based on structural/demographic criteria, other on more constructivist approaches (Brown & Shucksmith, 2016; Coladarci, 2007). Because of constraints related to data availability, in the present study "rural" and "semi-rural" were defined based on a structural/demographic approach solely, using the criteria developed in a recent Organisation for Economic Co-Operation and Development (2010) report on rural Quebec. That is, rural regional county municipalities were defined as those in which more than 50% of the population lives in areas of low population density (less than 150 per km^2) and less than 25% of the population lives in a population center of at least 200,000

(in the present study, none of the rural regional county municipalities had a population center over 12,000). Semi-rural regional municipalities were defined as those in which 15%-50% of the population lived in low-density areas and less than 25% of the population lived in an urban center of 500,000 residents or more (in the present study, none of the semi-rural regional county municipalities had a population center over 70,000 residents).

Ideally, enough rural and semi-rural schools would have been included to allow for separate analysis of these two contexts, but budget constraints made this impossible. Including only rural schools was also not a possibility: interviewers had to drive roundtrip for each individual interview (see "Sampled Students" below), often more than once because of no-shows. Accordingly, the participating schools had to be within 120 km (M = 75 km; SD = 20 km)

Table 1

Urban and Rural Schools' Characteristics

	Urban schools (n = 6)		Rural schools (n = 6)	
	M/%	*SD*	*M*/%	*SD*
Characteristics of the larger region[1]				
Total population	1,999,765	--	62,968	33,339
(Total pop. of the metropolitan area)	4,060,700		--	
Density (person/km^{2,})	4,016	--	106	100
Employment rate (%)	74.5	--	72.0	2.3
Average income per person ($CAD)	26,481	--	24,073	1,304
Characteristics of the school catchment area				
Index of socioeconomic disadvantage[2]	22	6	18	4
Characteristics of the schools[3]				
Size	1018	504	1191	579
Dropout rate	42	10	30	9
Characteristics of the student body[4]				
Family background				
Immigrant status (%)	71.1***		9.7	
Parental education	3.06*	0.29	2.69	0.22
Maternal employment (%)	64.7*		77.3	
Paternal employment (%)	78.1*		64.7	
Separated parents (%)	49.9		53.4	
School background				
Special education (%)	23.5		19.1	
Dropout risk index (global)	-0.80	0.32	-0.68	0.30
Dropout risk index (items)				
Retention	1.58	0.20	1.57	0.12
Appreciation of school	2.65	0.11	2.55	0.07
Perception of grades	3.20	0.06	3.12	0.07
Importance of grades	3.39*	0.13	3.23	0.05
Aspirations	5.21**	0.21	4.75	0.14
Language arts grades	8.34	0.27	8.52	0.33
Math grades	8.51	0.23	8.47	0.30

Note. Means and percentages were compared based on t tests (for means) or chi-2 tests (for percentages).[1] Montreal region for urban schools (statistics are for Montreal Island in its entirety) or of regional county municipalities for rural schools; data concerning 2014-2015 from the Institut de la statistique du Québec (ISQ, 2015).[2] This index captures the presence in the catchment area of low-educated mothers and unemployed parents.[3] Based on Quebec's Ministry of Education (MELS, 2014).[4] According to the screening questionnaire administered to all students aged 14 and up (see Measure section for details).
*p < .05. ** p < .01. ***p < .001.

of the research offices, located in Montreal, leaving a limited pool of non-urban high schools with high dropout rates within relatively close proximity to the city. Therefore, we recruited four schools in rural regional county municipalities and two in semi-rural ones. Since the main findings were similar in rural and semi-rural schools, students from the six rural and semi-rural schools were considered as a single group in the analyses and were referred to as "rural" for the sake of brevity.

Descriptive statistics for rural and urban schools are presented in Table 1. As compared with urban schools, rural schools were located in communities with much smaller population sizes and densities, and with slightly lower employment rates and average incomes per person. The rural and urban schools did not differ in terms of size and dropout rates, and the socioeconomic profile of their catchment area was similar according to an index reflecting census-measured maternal education and parental unemployment. However, some differences emerged in terms of the socio-demographic and academic characteristics of the student body (measured during the general screening phase of the study, see "Sampled Students"). As expected, the proportion of students with at least one immigrant parent born outside the country was much higher in urban than in rural schools. In addition, the average level of parental education was higher in urban than rural schools, which was also expected. Canada's immigration policies favor educated applicants, but once having entered the country, these credentials are not always recognized, leaving many skilled immigrants underemployed in low-paying jobs (Knowles, 2016). Perhaps due to higher parental skill levels, and because immigrant parents tend to value education and instil high academic aspirations in their children (Krahn & Taylor, 2005), urban students had higher academic aspirations and attributed more importance to grades than their rural peers, even though they were otherwise similar in terms of actual grades and retention.

Sampled Students

In the participating schools, all students of at least 14 years of age were invited to participate in the first phase of the study, which took place at the beginning of the school year. Students who agreed (N = 6,773; participation rate = 97%) answered a short screening questionnaire about basic socio-demographics and general questions about school achievement and engagement that were part of a validated index measuring students' level of risk for high school dropout (Archambault & Janosz, 2009; see "Measures" section for more details). Then, in a second phase taking place during the rest of the school year, a subset of participants was invited to an individual interview. These participants were informed that the interview would focus on the stressful situations they encounter in their lives and its potential impact on their school functioning. Interviews were usually conducted in person, at a time and location (i.e., home, school, private room in a community center) chosen by participants or, as a last resort, over the phone. All interviews were audio-recorded and conducted by trained interviewers.

The goal of the sampling design was to interview 30 at-risk adolescents in each school (or 360 overall): 15 who had recently dropped out and 15 resilient, matched at-risk but persevering schoolmates. In the end, 183 early school leavers and 183 matched at-risk students were interviewed (N = 366). These participants were recruited in the following manner. First, the schools informed the research team whenever a student dropped out, and these students were then invited for an interview. Second, after each completed interview with a recent school leaver, a matched persevering student from the same school, the same program, and of the same gender was selected. This matched schoolmate also had to have a similar score on the dropout risk index (see Measures), and, to the extent possible, a corresponding profile in terms of age, ethnicity, family structure, and family SES (parental education, work status). The matching procedure was generally successful, as the early leavers and matched at-risk students were very similar, even though a few differences favoring matched students remained for family status and parental employment (full results available upon request, see also Dupéré et al., 2018, for details).

For the interview part of the study, we attempted contacts with 652 youth among the 6,773 initially screened. Among those, 108 (16.5%) could not be reached after multiple calls. An additional 178 (27.3%) refused to take part in the interviews. The remaining 366 participated, representing 56.1% of those with whom contacts were attempted. This represents a good participation rate considering that the approached students were among the most at-risk within highly disadvantaged high schools. In fact, participation rates under 25% are typical among early school leavers (see Dupéré et al., 2015). Small but significant correlations were found between non-participation and male gender (r = .11, p < .05), but not with urban/rural status or other background variables.

Measures

Background characteristics assessed during the screening phase. The goal of the screening phase was to assess students' initial risk for dropout. To do so, basic background characteristics identified as the strongest predictors of high school dropout in recent reviews of the literature were measured through self-reported questionnaires, including basic socio-demographics and individual markers of school functioning (Rumberger,

2011). The descriptive statistics for these measures are available in Table 1.

The self-reported socio-demographic information included gender (0 = female; 1 = male), age (in years), immigrant status (at least one parent born outside Canada), parental education (maximum level attained by one parent, from 1 = primary to 4 = university), maternal and paternal employment status (0 = unemployed; 1 = employed), and family structure (0 = youth lives with both parents; 1 = parents separated/divorced). Complementary information about youth's racial/visible minority status was obtained during the interviews (0 = White; 1 = visible minority according to Statistics Canada's definition, 2017); this variable was highly correlated with immigrant status (r = .71). Income was not assessed as adolescents (≥ 14 years old) can reliably report on some key aspects of their family's SES, including parental education, employment and family structure, but not income. However, adolescents' reports on other aspects of family SES are highly correlated with maternal reports of family income, and thus capture this dimension to some extent (Ensminger et al., 2000).

The self-reported school antecedents included special education placement and dropout risk. Dropout risk was measured with an index combining answers from seven questions capturing major risk factors for dropout, including educational achievement (language/math grades 1 = *0-35%* to 14 = *96-100%*), attainment (retentions 1 = *none* to 4 = *three times or more*) and engagement, measured through four questions about appreciation of school (1 = *I do not like school at all* to 4 = *I like school a lot*) importance of grades (1 = *not important at all* to 4 = *very important*), aspirations (1 = *no particular aspirations* to 6 = *university aspirations*); and perceptions of grades (1 = *among the worst students* to 5 = *among the best students*). The index combining these items was validated in a large sample of high school students recruited across the province of Quebec and has good reliability and predictive validity (Archambault & Janosz, 2009). In the current sample, predictive validity and internal consistency were similarly good (area under the ROC curve = 0.81; α = 0.76), and scores on the index predicted dropout more accurately than administrative data on failures, truancy and suspensions (Gagnon et al., 2015).

Exposure to recent disruptive events measured during the interviews. The adolescent version of the Life Events and Difficulty Schedule (LEDS; Brown et al., 1992) was used to measure disruptive events occurring over a 12-month period preceding school departure among early leavers, or preceding the interview among youths still in school. The descriptive statistics for LEDS-based measures are provided in Table 2.

The LEDS is a semi-structured, interview-based instrument considered the gold standard for comprehensively assessing exposure to disruptive events among adults and youths (Harkness & Monroe, 2016). The LEDS is sometimes described as a hybrid instrument that allows for both quantitative and qualitative analyses because participants' discourse can be quantified based on existing codebooks, and in parallel, raw interview data can be used to extract new meanings from participants' detailed descriptions of their life circumstances (Brown, 2004). As this study was the first to use the LEDS in a sample of academically at-risk adolescents, minor adaptations were necessary, notably to better capture school-related events like suspensions and expulsions. Importantly, the inter-rater reliability of the adapted LEDS remained high (ICC or κ = .79 - .90), as did convergent validity with other sources of information (i.e., administrative records; for additional details on psychometrics, see Dupéré et al., 2017).

Interviewed adolescents were asked about disruptive events that involved them or significant others. More specifically, they were questioned about criminal and legal issues and conflict with peers, but also about events related to school or their family, as well as those occurring in other important domains like health, work, housing, or money. Follow-up questions were asked for each of these domains. In the legal domain for instance, details were asked about any contacts with the police, arrests, legal proceedings, and court appearances (as a perpetrator, a victim, or a witness). Interviewers followed guidelines for asking questions and used timelines to date events. Interviewers did so consistently: adherence to interview protocol was confirmed by listening to a random subset of audio-recorded interviews (Dupéré et al., 2017).

After an interview, the interviewer applied the LEDS coding procedure. He or she prepared short vignettes (~ 150 words) objectively describing each event experienced in the past 12 months. Using the LEDS coding manual, two research assistants blind to the adolescent's status (early school leaver or matched at-risk) independently rated stressors along various dimensions. Inter-rater reliability ranged from good to excellent (between .81 and .90, see Dupéré et al., 2017), and any discrepancies between raters were resolved in team meetings. Research assistants first classified the events' *nature* by choosing, for each stressor, one subcategory among about 100. Based on this classification, the events were found to be distributed relatively equally between five broad categories: family-, school-, legal- and peer-related events, and a fifth "miscellaneous" residual category. The *severity* of the events was also rated on a five-point scale (1 = *marked*, 2 = *moderate-high*, 3 = *moderate-low*, 4 = *some*, 5 = *little*).

Based on previous detailed analyses examining which type of events were associated with dropout in this sample (Dupéré et al., 2018), we focus on exposure to at least one severe or moderate event in the three months prior to dropout or prior to the interview for matched at-risk

Table 2

Urban and Rural Students' Level of Exposure to Any Type of Stressors, as Reported During the Individual Interviews

	Rural youth (n = 180)		Urban youth (n = 186)	
	M/%	*SD*	*M*/%	*SD*
Acute disruptive events				
Recent exposure (last 3 months)				
≥ 1 severe event	17.2*		8.6	
≥ 1 moderate event	25.6		18.8	
Past exposure (3-12 months ago)				
Nb of severe events	0.32	0.66	0.24	0.63
Nb of moderate events	0.69*	1.05	0.47	0.87
Chronic disruptive difficulties				
≥ 2 severe difficulties	18.9		15.6	

Note. Nb = number. Means and percentages were compared based on *t* tests (for means) or chi-2 tests (for percentages).

† $p < .10$. *$p < .05$. **$p < .01$.

students. According to established LEDS cutoffs, severe events were defined as ones receiving moderate-high threat ratings or above, and moderate events received moderate-low threat ratings.

Past exposure to disruptive acute events and to chronic difficulties. For reasons just explained, the analyses focus on recent exposure to stressors. However, the LEDS interviews covered much more than that, and other LEDS-based indices were used to capture important risk factors for dropout not assessed during the screening phase of the study. First, the LEDS does not only measure disruptive events that occurred in the past three months. Rather, it covers a whole year, making it possible to control for exposure to disruptive events in the nine-month window prior to the focal period. Two variables representing the total number of severe and moderate events experienced during this nine-month window were thus computed.

Second, in addition to exposure to discrete, acute events, the LEDS also measures exposure to chronic stressors, or difficulties, present over months and even years (for details and psychometric properties, see Dupéré et al., 2017). These chronic stressors capture long-term risk factors for dropout such as conflictual family environments or chronic poverty. Previous findings indicate that the risk for dropout was higher among youths exposed to at least two severe and ongoing difficulties that had been present in their lives for a minimum of 6 months (Dupéré et al., 2018), as compared to those exposed to one or less such difficulty. A dichotomous variable representing exposure to at least two severe chronic difficulties was thus computed.

High school dropout, measured with administrative data. In Quebec, the minimum age to quit school legally is 16 years old, although some students leave illegally at 15 or even 14 (Lecocq, Fortin, & Lessard, 2014). Adolescents were considered to have dropped out when they met one of three conditions. First, they could have filed an official notice of schooling termination before having obtained a diploma. Second, they could simply have stopped attending school, without having filed a notice of termination. Adolescents who did not show up to school for at least one month without justification were counted as early leavers. Third, they could have decided to transfer to the adult sector (GED equivalent). These adolescents were considered early leavers as many end up not attending or not graduating these programs (see Gagnon et al., 2015). Furthermore, GED recipients are more similar to early leavers than to high school graduates on a number of outcomes, including market-related ones, and are typically considered as non-graduates (Heckman, Humphries, & Kautz, 2014).

Analytic Strategy

The analyses were conducted in two broad steps. The first step aimed at confirming that recent exposure to disruptive events of any type was associated with dropout in both rural and urban contexts, after controlling for a wide range of key dropout predictors (Rumberger, 2011). To do so, multiple logistic regression analyses predicting dropout were performed on the entire sample, including leavers and matched at risk students, while incorporating interactions

between recent exposure to severe and moderate disruptive events and rural/urban location. In these regression analyses, the "cluster" command in the SAS PROC SURVEYLOGISTIC command was used to account for the clustered nature of the data (persons within schools).

Then, given that recent stressful events were associated with dropout in both contexts (see "Results"), we examined in a second step whether certain types of events (family-related, school-related, peer-related, legal, and miscellaneous) were more common among rural early leavers than their urban counterparts. This analysis focused on the subset of early leavers who had been exposed to at least one disruptive event in the three months prior to their departure from school. Omnibus Bonferroni-adjusted chi-square tests were performed simultaneously on the five types of events, so as to have sufficient statistical power to detect potential differences despite limited sample size for any individual type of event. Bootstrapped adjustments were made to account for the fact that events were clustered within persons (see Cameron & Miller, 2015).

To make sure that eventual rural/urban differences observed in the chi-square analyses were not simply due to background differences between rural and urban early leavers, logistic regressions were performed, regressing exposure to certain types of events on exposed early leavers urban/rural status, while controlling for key background variables that significantly differentiated rural and urban early leavers that is, immigrant and minority status, appreciation of school and perceptions of grades (see Appendix A). Finally, as part of this second step, a content analysis zeroing in on the events consistently overrepresented among urban or rural early school leavers was conducted, to better understand the context in which these events emerged, as well as their meaning in context.

Results

Table 2 presents the characteristics of the interviewed urban and rural participants, in terms of stressor exposure as measured during the individual interview. Descriptive statistics indicate that rural participants tended to report more acute and chronic stressors than their urban counterparts, although these differences reached statistical significance only for two measures of stressor exposure out of five.

Step 1: Association Between Exposure to Any Recent Disruptive Event and Dropout in Rural and Urban Areas

Initial analyses confirmed that recent exposure to any types of severe and moderate stressful events was associated with dropout in both rural and urban communities. First, preliminary descriptive statistics indicated that recent exposure to severe acute stressors was three to four times higher among early school leavers than among matched at-risk students both in rural (25.6% vs. 8.8%) and urban (14.0% vs. 3.2%) participants. A similar pattern was found for recent moderate events, which were about twice as high among early leavers than matched at-risk students both in rural (33.3% vs. 17.6%) and urban (25.8% vs. 11.8%) contexts. Second, multiple logistic regression analyses, modelled after those presented in a previous article based on the same data (Dupéré et al., 2018), were conducted with an important addition: interaction terms between exposure to recent severe and moderate stressors and rural vs. urban status were incorporated. After accounting for an extensive set of control variables, the results confirmed that the significant (and large, with ORs > 2.0) associations between recent exposure to severe and moderate events and dropout was not moderated by variables representing rural vs. urban status (see Table 3). In fact, the odds ratios for interaction terms between urban status and exposure to severe OR = 0.91 (95% CI = 0.15-5.33) and moderate events OR = 0.95 (95% CI = 0.16-5.81) were close to 1, indicating that the stressors to which the participants had been exposed were associated with dropout in both urban and rural contexts. We next examine the nature of these stressors.

Step 2: Distribution and Detailed Description of Recent Disruptive Events Experienced by Urban and Rural Early School Leavers

A detailed examination of the 126 severe or moderate disruptive events to which these early school leavers were exposed was conducted. A chi-square analysis was performed to examine whether the distribution of the events across the five types varied among rural vs. urban exposed early school leavers. The overall distribution differed significantly, but the differences were specific to certain types of events (see Table 4). Family- and school-related events, as well as miscellaneous events, were equally prominent among exposed rural and urban early school leavers. However, the proportion of peer-related precipitating events was more than 2.5 times higher among rural than urban early leavers (26.3% vs. 10.0%), whereas the proportion of legal events was more than three times higher among urban than rural early school leavers (26.0% vs. 7.9%). We also verified whether these differences remained after controlling for four key background variables that significantly differentiated rural and urban early school leavers (see Appendix A). Specifically, a series of logistic regressions were performed at the event level, to predict the type of recent events to which early school leavers were exposed (peer-related and legal events vs. other types of events) as a function of rural vs. urban status. Family- and school-related control variables were incorporated in separate models because of

Table 3

Multiple Logistic Regression Models Predicting Dropout from Exposure to Any Type of Recent Acute Stressors, including Interactions with Urban/Rural Status (N = 366)

	Model 1		Model 2	
	OR	95% CI	OR	95% CI
Urban location	1.24†	0.96-1.60	1.25	0.75-2.06
Socio-demographics				
Male	1.01	0.78-1.29	1.00	0.75-1.34
Age	1.42**	1.13-1.80	1.42**	1.12-1.80
Immigrant status	1.38	0.72-2.64	1.37	0.69-2.74
Visible minority	0.70	0.35-1.41	0.70	0.35-1.43
Parental education	0.94	0.77-1.15	0.94	0.74-1.19
Maternal employment	1.04	0.76-1.44	1.05	0.77-1.42
Paternal employment	0.66	0.35-1.21	0.66	0.39-1.11
Separated/divorced parents	1.97**	1.27-3.05	1.97**	1.27-3.05
School-related variables				
Special education	0.86	0.56-1.33	0.86	0.55-1.35
Dropout risk index (global)	0.44	0.10-1.93	0.44	0.10-1.91
Dropout risk index (items)				
Retention	1.98	0.39-10.17	1.98	0.39-10.0
Appreciation of school	0.55†	0.28-1.10	0.55†	0.28-1.08
Importance of grades	0.92	0.62-1.35	0.91	0.62-1.36
Academic aspirations	0.76	0.49-1.16	0.76	0.49-1.17
Perceptions of grades	0.77	0.40-1.48	0.77	0.40-1.49
Language-arts grades	0.82	0.54-1.24	0.82	0.55-1.23
Math grades	0.92	0.67-1.26	0.92	0.67-1.23
Exposure to disruptive stressors				
Chronic disruptive difficulties				
≥ 2 severe difficulties	3.42***	1.94-6.05	3.42***	1.92-6.10
Acute disruptive events				
Past exposure				
Nb of severe events	0.93	0.71-1.21	0.93	0.71-1.23
Nb of moderate events	1.00	0.80-1.25	1.00	0.81-1.25
Recent exposure				
≥ 1 severe event	3.65***	2.06-6.45	3.55***	1.78-7.06
≥ 1 moderate event	2.08	0.80-5.42	2.12	0.56-8.10
Recent exposure X urban				
≥ 1 severe event	0.91	0.15-5.33		
≥ 1 moderate event			0.95	0.16-5.81

Note. Nb = number. 95% CI were calculated while taking into account the stratified nature of the sample (participants in schools), with the "cluster" option of the SAS surveylogistic command.
† $p < .10$. *$p < .05$. ** $p < .01$. ***$p < .001$

Table 4

Distribution of Severe or Moderate Disruptive Events (DEs) of Different Types among Rural and Urban Early School Leavers with at Least One such Event (overall χ^2 (4, N = 126) = 11.7, $p < .05$)

	Disruptive Events (%)	
	Rural (n = 76)	Urban (n = 50)
Family-related (n = 33)	27.6	24.0
School-related (n = 26)	22.4	18.0
Peer-related (n = 25)	26.3*	10.0
Legal (n = 19)	7.9	26.0*
Other (n = 23)	15.8	22.0

Note. Chi-2 tests were computed based on bootstrapped standard errors calculated, while taking into account the stratified nature of the sample (events among participants, participants in schools). *p* values were adjusted using the Bonferroni method to account for multiple comparisons.
*$p < .05$.

the limited sample size. For the same reason and because the hypotheses were directional, one-sided confidence intervals were used. The results, presented in Table 5, show that after controlling for socio-demographics and school background differences, rural status remained significantly associated with peer-related events, and urban status with legal events (or at least marginally significantly in the latter case). Effect sizes were moderate to large, with ORs > 2.5.

Finally, content analyses were conducted to further qualify the nature of legal and peer-related events to which early school leavers had been exposed. The analyses were conducted manually, given that the interview data were already reduced based on LEDS codes. In fact, the analyses were based on the relevant portions of the full interview reports, that is, the vignettes describing early school leavers' recent experiences with moderate or severe legal and peer-related events (n = 44 vignettes, 4,566 words). The content of each individual vignette describing legal and peer-related events was reviewed and further codes were applied as described next. The analysis was directed, and focused on theoretically relevant themes (see Hsieh & Shannon, 2005). Moreover, portions of the audio-recorded interviews related to these events were transcribed verbatim to extract illustrative quotes (reported in free translation from French).

Informal social controls and peer-related events. Peer-related events were analyzed by focusing on themes like the relationship between those involved (e.g., former romantic partners, friends, schoolmates), the context (e.g., in person, on line), and the larger social consequences of the event (e.g., exclusion, personal humiliation).

The analyses revealed a pattern characterizing the majority of peer-related events recorded among rural youths. This pattern typically played out in two steps. First, there was a crisis in a romantic relationship, often triggered by infidelity, which led to a breakup. Second, the situation generated turmoil in the targeted adolescents' larger social networks, notably because the partner often cheated with another member of the peer group (a best friend, a co-worker, etc.). Subsequently, peers in shared friendship groups took sides and turned against the participant in favor of the others involved. This rejection led to social exclusion and in some cases to bullying in person or via social media (e.g., former friends or partners revealed intimate secrets and spread rumors). One case illustrates particularly well the entangled social consequences of breakups among rural participants. In this case, following a breakup, a former friend who was also a co-worker took the side of the participant's ex-partner, posted hostile comments online, and spread rumors at work, which lead to the participant being fired:

> At this point, she came to tell me shit to my face regarding my ex that I had just dumped, then you

Table 5

Multiple Logistic Regressions Predicting Types (Peer-Related or Legal) of Moderate or Severe, Recent, Disruptive Events (n = 126), as a Function or Community Type (Urban vs. Rural), While Controlling for Selected Socio-Demographic and School-Related Background Characteristics

	Peer-related disruptive events				Legal disruptive events			
	Model 1		Model 2		Model 3		Model 4	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Rural/urban status								
Rural	2.97*	1.09-8.11	2.67*	1.05-6.79				
Urban					4.36*	1.25-15.23	3.00†	0.97-9.28
Socio-demographics								
Immigrant status	0.54	0.16-1.87			0.40	0.04-4.22		
Visible minority	1.77	0.31-9.96			4.06	0.31-53.12		
School-related variables								
Appreciation of school			0.92	0.57-1.49			1.10	0.63-1.94
Perceptions of grades			0.73	0.45-1.16			1.93*	1.02-3.67

Note. 95% CI (one-sided) were calculated while taking into account the stratified nature of the sample (events among participants, participants in schools), with the "cluster" option of the SAS surveylogistic command.
†$p < .10$. *$p < .05$.

> know there were comments on Facebook, you know Facebook stuff.… That girl, she stirred shit, she told shit to my boss, and I like, lost my job.

Other peer-related events among rural youths not tied to romantic and sexual relationships involved public humiliation (e.g., during an oral presentation, a large social gathering, etc.) or exclusion from a group (e.g., a music band) at the center of one's social life and identity: "I had a band before, and these guys, they were like my brothers, like my second family really, and these guys, I lost them all." In contrast, the few cases of peer conflicts reported by urban early school leavers were less about the reputation of a single individual, but more typically involved insults and physical fights between male groups or gangs.

Formal social controls and legal events. For legal events, the themes that emerged as particularly salient included offense type (e.g., fights, traffic offenses), location (e.g., at school, in a private home, in a public place), relationships between offenders and victims (e.g., strangers, acquaintances), the characteristics of those who reported to formal authorities (e.g., school personnel, community members), and the outcomes (e.g., placement in group homes, provision of social services). To facilitate interpretation, a distinction was made between legal events primarily related to the juvenile justice system (i.e., police investigations and court procedures for crimes involving the participants as offenders or victims) and events primarily related to child welfare services (e.g., involving investigations for parental negligence). Each two subtypes comprised about half of the recorded legal events, and both were at least twice as prevalent among urban than among rural early school leavers.

Among cases primarily related to the juvenile justice system, one set of events involved participants as offenders. Most of these events entailed police interventions following school fights. In these cases, the police were contacted either by school personnel or by other community members:

> School staff, after [breaking the fight], they said, "What do we do with him? Do we suspend him?" … Me, I just wanted to go, and they did not let me go, so I got all worked up. I threw [an object at a member of school staff], and after that they called the police.… I had to go in court…. But you know, I was liked in school [even by teachers], it was just that one fight.

Such instances were recorded only among urban participants: in rural schools, no instances of school fights leading to police intervention were reported. Despite the generally higher prevalence of legal events involving participants as offenders among urban youths, one type of legal event was uniquely observed among rural youths:

arrests, fines, and court appearances related to speeding and dangerous driving. In another set of events primarily involving the juvenile justice system, participants were involved as victims of violence. Not only was victimization more prevalent among urban than rural youths, perpetrators were also different: among rural early school leavers, violence was perpetrated by known figures, for instance an ex-boyfriend, whereas urban cases involved assaults and violence from strangers, in the street or in subway stations: "Close to the metro station, a guy came and punched me in the face and took my iPod, my bus card and my wallet.… I am still ill at ease around that station."

Cases primarily involving child welfare services were more frequent and tended to entail marked consequences more among urban than rural early school leavers. For example, there were instances among both urban and rural early leavers in which the participants' main guardians called child welfare services due to feelings of being overwhelmed. In rural cases, interventions less frequently led to out of home placements; rather, community and social services were typically provided while the adolescent remained with his or her family of origin or was temporarily moved in with another family member. In urban cases, such calls more often lead to placements in state-run group homes. For instance, after a participant's grandmother called the police following a fight at home:

> It's like, the police arrested me and brought me [to the group home].… They came to my home, they told me I didn't look healthy, that they had to bring me there.… I was put there just to prevent me from using [drugs], just so that I put on weight and get some rosy cheeks again.

Discussion

Some disadvantaged rural schools have to deal with dropout rates as high as those found in the most impoverished urban schools (CCL, 2006; CRRF, 2015; DePaoli et al., 2016). However, studies on the consequences of growing up in an area of concentrated disadvantage overwhelmingly focus on inner-city adolescents (Burton et al., 2013; about the lack of studies on rural youth, see also Conger, 2013; Farrugia, 2014). This asymmetry obscures, and may even trivialize, the specific challenges faced by disadvantaged rural youths that, based on our findings, could be even more exposed to dropout-inducing stressful events than their urban counterparts.

Focusing on rural and urban schools with high dropout rates located in one region of Canada, this study's goal was to examine in detail how the circumstances surrounding the decision to drop out differed for rural and urban youths, and more specifically to determine whether some types of precipitating events were more salient for one group than the other. As expected, our findings indicated that recent family and school-related crises were equally frequent in both groups of early school leavers. Importantly, they also showed that rural early school leavers were especially likely to quit following incidents of social exclusion, whereas legal events played a prominent role only among urban early school leavers. Fine-grained follow-up analyses of the accounts provided by rural and urban early school leavers revealed interesting patterns. The discussion highlights the educational implications of these findings.

Breakdowns in Informal Networks and Dropout in Rural Schools

Informal ties between residents tend to be stronger in rural communities than they are in urban communities (e.g., see Kaylen & Pridemore, 2013b). Strong ties may provide informal support and prevent the overuse of formal social controls, but on the downside, they can also be used as powerful tools for exclusion (see Sampson et al., 1999). In addition to reaffirming the special meaning and consequences of social exclusion for rural youths (see also Petrin et al., 2011), our results underscore its educational implications. They suggest that social exclusion in rural contexts may be painful to the point where adolescents take the fateful decision to drop out of school to avoid being confronted by their tormenters (e.g., ex-sexual partners spreading intimate information online).

Recent studies show that in times of intense social stress, adolescents are especially likely to make impulsive decisions that, like dropping out, provide short-term relief, but often have negative long-term consequences (Dahl, Allen, Wilbrecht, & Suleiman, 2018; Steinberg, 2014). Adolescents typically engage in such behaviors because they seek to enhance, or at least to avoid, drops in their social standing among peers. Their great sensitivity in this regard potentially explains why they were prone to make ill-advised educational decisions when their social standing took an abrupt dive, especially when this downfall happened in tight-knit, overlapping networks that made the downfall all the more conspicuous and ineluctable. It is also important to note that many of the peer conflicts described by rural early leavers encroached on their reputation in the sexual arena, a sphere of special vulnerability for adolescents (Shoveller et al., 2007; Steinberg, 2014; Warr & Hillier, 1997). Some staff members in the participating rural schools were aware that peer problems could degenerate rapidly and cause significant harm, and sought ways to better defuse conflicts and mitigate the effects of exclusion. Future research could support their initiatives by developing effective evidence-based programs capable of improving peer culture in rural schools (e.g., see Hamm, Farmer, Lambert, & Gravelle, 2014).

Along these lines, the present study provides findings that could support rural schools' efforts to obtain adequate funding for anti-bullying programs. Anti-bullying statutes

have been adopted by virtually every state and province in the United States and Canada, but these statutes are often implemented ineffectively, in part because schools are allocated few resources for improving social—as opposed to academic—outcomes (Conn, 2012). Based on our findings, rural schools could argue that reducing bullying and other forms of serious peer conflicts would improve their graduation rates, a high-value outcome for stakeholders (CRRF, 2015). Furthermore, our results underscore the point that anti-bullying programs, and dropout prevention initiatives more generally, need to take local conditions into account. In Balfanz and Legter's words (2004), it "will need to be recognized that the same strategy that works [for preventing dropout] in Detroit might not be the most effective in rural South Carolina" (p. 23; see also Wilson, Tanner-Smith, Lipsey, Steinka-Fry, & Morrison, 2011). Notably, our results add to the growing literature suggesting that in rural areas confidentiality issues related to private, intimate matters need to be taken particularly seriously (Damianakis & Woodford, 2012; Garside, Ayres, Owen, Pearson, & Roizen, 2002; Pozzoboni, 2015; Shoveller et al., 2007).

Formal Social Controls and Dropout in Rural Schools

Criminologists have shown that in disadvantaged urban areas, the juvenile justice and child protection systems play an especially important role in controlling youths' behavior and outcomes; in fact, these two systems of formal social control tend to be overused in poor urban environments (e.g., Sampson & Loeffler, 2010). This overreliance on formal controls can be attributed in part to structural features that weaken informal networks, such as residential instability and ethnic heterogeneity (Kaylen & Pridemore, 2013b; Kubrin & Weitzer, 2003; Sampson et al., 1997). In sharp contrast, rural criminologists have found that in rural contexts, many offenses go unreported because rural victims and perpetrators are embedded in common informal networks; even when offenses are reported, local police can be reluctant to investigate, in order to preserve social cohesion (Donnermeyer, 2016; Donnermeyer & DeKeseredy, 2013; Kaylen & Pridemore, 2013a; Weisheit et al., 2005).

Beyond echoing findings reported elsewhere, our own findings underscore the upside of relatively weak formal controls for the educational attainment of rural youths. For these youths, crises involving the criminal justice or child protection systems were the least common type of triggering event, whereas they were the most common for urban youths. This means that improving the fairness and effectiveness of juvenile justice and child protection systems may be critical to boosting graduation rates in disadvantaged urban high schools (see also Kirk & Sampson, 2013), but not as much in disadvantaged rural high schools. One possible exception concerns legal events related to speeding and dangerous driving, a subtype of legal triggering event more frequently observed among rural early school leavers than among urban leavers. The prevention of such events could represent a productive area of collaboration between rural schools and law enforcement agencies (Kmet & Macarthur, 2006; Lambert, Gale, & Hartley, 2008).

Similarities Between Rural and Urban Early School Leavers

Our findings highlight differences in the circumstances preceding dropout in rural and urban schools. Echoing results from previous studies, they also show that some risk factors operate in similar ways, irrespective of the larger environment (Jordan et al., 2012; Peguero et al., 2015). Crises involving school personnel (e.g., conflicts with teachers, failures, suspensions) and family members (e.g., conflicts with a parent) were just as frequent among rural and urban early school leavers, an unsurprising finding given the central importance of the school and family for adolescent development in general and for academic perseverance in particular (Rumberger, 2011). In the same vein, our findings show that, in both rural and urban schools, many adolescents decide to drop out from high school in the midst of a crisis. The difference lies, to some extent, in the types of crisis with which adolescents are confronted. To be optimally effective, dropout prevention programs may require a modular approach that includes both core components to cover universal issues and optional strategies to reflect local needs.

Strengths and Limitations

The strengths of the study derive in large part from its sampling and assessment procedures. To reduce memory bias, early school leavers were contacted immediately after they had left school, as opposed to years later (a common practice in other studies). In addition, a credible comparison group was created by carefully matching each dropout with a similar peer selected from a group of more than 6,700 students screened for this purpose. We also made considerable efforts, during the screening and interview phases of the study, to obtain high participation rates among the generally recalcitrant, disadvantaged adolescents attending low-income schools (Dupéré et al., 2015). In terms of measurement strategy, exposure to disruptive events was measured with the LEDS, an instrument considered a gold standard for this purpose because of its reliability, validity, and comprehensiveness (Harkness & Monroe, 2016).

Moreover, considering the demands of the assessment protocol and matching procedure, a relatively large sample was interviewed. The LEDS is time-consuming and takes on average 16 hours to administer and to code (Harkness

& Monroe, 2016). It is therefore rarely used, and when it is, samples tend to be relatively small, comprising at best a few hundred participants. The sample size of the present study compares well to previous LEDS-based studies, but also to other studies that used matching procedures to select their analytical samples. For instance, in Kirk and Sampson's (2013) study of the impact of arrests on dropout, based on a well-known Chicago-based study of several thousand youths, the final analytical sample included only 194 adolescents (79 of whom had been arrested, and 115 matched cases). Similarly, studies examining the link between another disruptive event; school mobility; and dropout in large, nationally representative samples of several thousand youths (National Longitudinal Study of Adolescent Health, National Longitudinal Survey of Youth) still have less than 330 early school leavers in their final analysis (Gasper, DeLuca, & Estacion, 2012; South, Haynie, & Bose, 2007).

Despite its strengths, our study is not without limitations. Although participants were aware of the general goal of the study, the interview protocol was designed to minimize bias and selective reporting (for a detailed discussion, see Dupéré et al., 2018). Importantly, because of data limitations, rural and semi-rural schools were considered together in the analyses. Future studies should strive to consider the heterogeneity within non-urban (and urban) communities. In addition, the participating public schools were generally quite disadvantaged and from a single region of Canada, thereby potentially limiting generalizability. Disadvantaged communities in Canada cannot be considered as interchangeable with disadvantaged communities in the United States (Oreopoulos, 2008). Notably, whereas rural communities are overwhelmingly White in Canada (CRRF, 2015), a significant portion of rural communities in the United States are home to minority groups (Burton et al., 2013). Despite such differences, it is likely that the results are at least partially relevant beyond the original sample, given that social disorganization principles related to formal and informal social controls have been found to apply widely across international boundaries (Sampson 2012a). Of course, international replications are needed to directly examine the generalizability of the findings.

Relatedly, even though a reasonably high participation rate was obtained for the interview phase of the study, non-participants may have been somewhat different from interviewed youths (there was a weak but significant correlation between male gender and non-participation). It is possible, for instance, that youths most heavily involved in illegal activities systematically declined to be interviewed. Perhaps even more proactive (and expensive) recruitment methods should be tried in future studies.

Conclusion

Dropout clusters exist in disadvantaged schools, partly because local institutions and residents collectively struggle to create the incentive and support structures required for ensuring high graduation rates (Harding, 2011; Lawson & van Veen, 2016). Our findings suggest that local communities can also fail to protect disadvantaged adolescents from crises that could seriously disrupt their educational trajectories. Although rural youths are apparently protected from potential overreliance on formal social controls, they seem particularly sensitive to social exclusion. Policies and practices aimed at reducing dropout among disadvantaged rural youths should capitalize on the strengths of dense and stable social networks while addressing their downsides, perhaps by encouraging youth leaders in rural communities to support positive social norms and peer culture (see Hamm et al., 2014). Adults, particularly in smaller communities, should also be sensitized to the importance of keeping peer conflicts as confined as possible. The results support the wisdom of previous efforts at adapting prevention programs for rural youth by further involving the larger community (Chan, 2016; Limber, Nation, Tracy, Melton, & Flerx, 2004).

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Appendix A

Background Characteristics of Urban and Rural Early School Leavers with at Least one Recent Severe or Moderate Disruptive Event (DE)

	Rural Early Leavers with recent severe or moderate DEs (n = 44)		Urban Early Leavers with recent severe or moderate DEs (n = 29)	
	M/%	*SD*	*M*/%	*SD*
Socio-demographics				
Male	50.0		55.2	
Age	16.3	0.8	16.3	1.0
Immigrant status	13.6*		37.9	
Visible minority	4.6*		24.1	
Parental education	2.6	0.9	2.4	1.0
Maternal employment	72.7		62.1	
Paternal employment	65.9		72.4	
Separated/divorced parents	77.2		75.9	
School-related variables				
Special education	47.7		41.2	
Dropout risk index (global)	1.5†	2.1	0.5	2.9
Dropout risk index (items)				
Retention	2.3	1.0	2.0	1.2
Appreciation of school	2.2*	0.7	2.6	0.8
Importance of grades	2.8	0.8	3.0	0.8
Academic aspirations	4.1	1.3	4.2	1.3
Perceptions of grades	2.5*	0.9	3.0	1.0
Language-arts grades	7.0	2.7	7.7	2.7
Math grades	6.2	3.0	7.1	3.8
Chronic disruptive difficulties				
≥ 2 severe chronic difficulty	38.6		24.1	
Acute disruptive events				
Past exposure				
Nb of severe events	0.4	0.8	0.7	1.1
Nb of moderate events	0.9	1.2	0.9	1.2
Recent exposure				
≥ 1 severe event	52.2		44.8	
≥ 1 moderate event	68.2		82.8	

† $p < .10$. *$p < .05$. ** $p < .01$. ***$p < .001$.