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A sample of 2,291 grade 7 to 9 students from five Calgary junior high schools participated in testing the Youth Resiliency: Assessing Developmental Strengths questionnaire. These authors used a strengths based approach as suggest by the previous literature to conceptualize resiliency as a combination of “(1) intrinsic strengths or personality characteristics or attributes of the individual, e.g., empathy, self-esteem, self-efficacy, and (2) extrinsic strengths or interpersonal settings or environments, e.g., supportive family, positive peer influence, caring school and community environments” (p. 964). This research had the goal of investigating the psychometric properties and predictive validity of this instrument. The instrument consists of 94 items—reflecting 10 factors or 31 specific resiliency subscales. Participants’ summed scores were grouped according to quartile rankings. The 10 factors measured: family, community, peers, work—commitment to learning, school culture, social sensitivity, cultural sensitivity, self-concept, empowerment and self-control. A 10 factor solution accounted for 55% of the variance, while Cronbach’s alpha coefficients ranged from .75 (Empowerment) to .96 (family); demonstrating internal reliability coefficients ranging from moderately strong to strong, respectively. Suggesting this instrument could be used to predict young peoples’ potential engagement in both at-risk and prosocial behaviors. They suggest future research needs to address using the questionnaire with only a sample of individuals scoring low on resiliency strengths and high on at-risk behaviors.

A PSYCHOMETRIC ASSESSMENT OF THE SELF-REPORTED
YOUTH RESILIENCY: ASSESSING DEVELOPMENTAL
STRENGTHS QUESTIONNAIRE^{1,2}

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Summary.—As opposed to the problem-based approach of dealing with specific at-risk behaviors, the objective of the self-reported Youth Resiliency: Assessing Developmental Strengths questionnaire is to provide a statistically sound and research-based approach to understanding the factors that contribute to the development of adolescent resiliency. The study of protective factors, or the more recent attempts at conceptualizing the phenomena of individual resiliency, has been prevalent in the social and health sciences research for decades. In this study, the psychometric characteristics of the Youth Resiliency questionnaire, based on a large urban sample of Grades 7 to 9 adolescents ($N=2,291$), are presented. The findings from this study present a potential framework for understanding the construct and function of resiliency as it pertains to both the extrinsic and intrinsic factors of adolescent development.

There is a perception that adolescence is a tumultuous time of life in human development. This particular view is based largely on the proliferation of problem-specific or treatment intervention studies that focus on small, atypical groups of children and adolescents. In actuality, most adolescents appear to overcome adversity and stress-related conditions, e.g., poverty, family dysfunction, neighbourhood violence, to lead normal and productive lives into adulthood (Werner & Smith, 1982; Werner, 1989). Many of the children and adolescents who face extremely stressful situations demonstrate remarkable resiliency in overcoming these adversarial circumstances (Masten & Garmezy, 1985; Rutter, 1985). In this present study, the psychometric properties of the Youth Resiliency: Assessing Developmental Strengths questionnaire were explored and outline a framework of intrinsic and extrinsic factors that appear to have an influence on adolescences' engagement in both prosocial and at-risk behaviors.

Although there has been considerable research interest in the concept

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of resiliency, ambiguities regarding terminology, definitions, and the variability related to contributing factors and corresponding risk experiences continue to call the utility of the resiliency phenomena as a valid scientific construct into question (Masten, Hubbard, Gest, Tellegen, Garmezy, & Ramirez, 1999; Luthar, Cicchetti, & Becker, 2000; Resnick, 2000). Nevertheless, a history of research into the factors that contribute to an understanding of the maladaptive behaviors of atypical youth generated considerable interest in identifying the influences that would lead to healthy adaptive lifestyles (Rae-Grant, Thomas, Offord, & Boyle, 1989; Radke-Yarrow & Sherman, 1990; Rutter, 1990; Garmezy, 1991). Initiated by Werner's longitudinal studies of low socioeconomic children in Hawaii (Werner & Smith, 1982; Werner, 1989), a systemic search for the prevalent elements of resiliency adaptation has expanded to include research into a multitude of individual characteristics and contextual settings. In particular, personal or intrinsic characteristics of resilient children have been studied to assess the importance of such qualities as self-esteem (Masten & Garmezy, 1985; Rutter, 1987; Dumont & Provost, 1999), self-efficacy (Masten & Coatsworth, 1998), and intellectual functioning (Freitas & Downey, 1998; Masten, *et al.*, 1999). Nevertheless, there was also acknowledgement from researchers that a variety of contextually related extrinsic variables were associated with stress-resilient children and their immediate environment. As such, a major focus has been placed on youth in low socioeconomic conditions (Werner & Smith, 1982; Werner, 1989; Garmezy, 1991), dysfunctional family settings (Rutter, 1987; Beardlee & Podorefsky, 1988; Grossman, Beinashowitz, Anderson, Sakurai, Flaherty, 1992; Ferguson & Lynsky, 1996), and multifaceted constructs such as competency (Masten, Best, & Garmezy, 1990) and coping skills (Dumont & Provost, 1999). In a review of the research into the protective factors of stress-resistant children, Garmezy (1985; Masten & Garmezy, 1985) outlined three main areas of focus in identifying variables of influence: (a) personal attributes, (b) family characteristics, and (c) other external support systems such as peers, school, and the community (Werner & Smith, 1982; Masten, *et al.*, 1990; Luthar, *et al.*, 2000; Donnon, Hammond, & Charles, 2003). As such, in the literature is sufficient support for two broad sets of factors related to a general framework for understanding the development of resiliency: (1) intrinsic strengths or personality characteristics or attributes of the individual, e.g., empathy, self-esteem, self-efficacy, and (2) extrinsic strengths or interpersonal settings or environments, e.g., supportive family, positive peer influence, caring school and community environments.

As researchers strive to identify potential solutions to specific problem-based diagnoses, little effort has been placed on the cumulative effects that protective or resiliency factors may play in allowing youth to lead healthy and productive lifestyles (Scales & Leffert, 1999). As such, there is a con-

cern that young people are not provided with appropriate social support systems that promote personal development and adequate caring and supportive relationships with families, peers, schools, and communities (Atkinson, 1987; Kupersmidt & Coie, 1990; Jessor, Van Den Bos, Vanderryn, Costa, & Turbin, 1995; Wolkow & Ferguson, 2001). Particularly in large urban areas, it has become difficult to establish adequate guidance or positive opportunities for youth to receive constant and consistent nurturing of the values, beliefs, and competencies they need to become independent, contributing members of society (Brooks-Gunn, Duncan, Klebanov, & Sealander, 1993; Jessor, 1993; Yates & Youniss, 1996; Scales & Leffert, 1999). During the past decade, researchers have shown that policies and programs for youth which focus on preventing specific behavior problems of youth, e.g., vandalism, drug abuse, generally do not have long-term benefits (Scales, 1990; Hawkins, Catalano, & Miller, 1992; Windle, 1992; Brown & Horowitz, 1993; Herman-Stahl & Petersen, 1996). With the expectations of enhancing the strengths related to the development of resiliency in youth, various efforts have shifted towards the identification of a resiliency framework and model that would have implications for assessing social and psychological well-being in children and adolescents (Cowen & Work, 1988; Hollister-Wagner, Foshee, & Jackson, 2001; Donnon, *et al.*, 2003). Concurrently, practitioners in social work, education, and psychology have adopted the concept of youth resiliency as relevant to identifying potential services and prevention programs in community (Grizenko & Fisher, 1992; Coie, Watt, West, Hawkins, Asarnow, Ramey, Shure, & Long, 1993; Stoiber & Good, 1998; Cameron & Cadell, 1999; Wolkow & Ferguson, 2001; Bartle, Couchonnal, Canda, & Starker, 2002).

In general, youth resiliency can be defined as the capacity of children and adolescents to adapt successfully in the face of high stress or adversarial conditions. The ability of youth to negotiate risk during stressful situations has shifted the focus of research from the identification of protective factors to an understanding of how resiliency strengths and processes allow some individuals to cope more effectively than others (Rutter, 1990). As variations in resiliency are a function of the individual, the identification of resilient children and adolescents is largely defined by the effectiveness of adaptation outcomes to the severity of risk exposure (Rutter, 1987; Garmezy, 1991; Luthar & Zigler, 1991). As such, efforts in developing a framework for the construct of resiliency may be hampered somewhat by the heterogeneity of resilient functioning across different conditions or settings (Luthar & Zigler, 1991; Kaufman Cook, Amy, Jones, & Pittinsky, 1994).

From an applied research perspective, the focus on a comprehensive framework for understanding the development of youth resiliency has enabled community stakeholders to focus on a strength-based approach to ad-

dressing child and youth developmental issues (Blyth & Leffert, 1995; Scales & Leffert, 1999; Donnon, *et al.*, 2003). Finally, there appears to be a consensus that a framework for understanding must be comprehensive and contextually relevant to the ever-evolving changes that occur in individual and collective developmental progressions (Cowen & Work, 1988; Grossman, *et al.*, 1992; Donnon, *et al.*, 2003). The purpose of this present study was to investigate the psychometric properties and predictive validity of the Youth Resiliency: Assessing Developmental Strengths questionnaire as a viable, self-report tool for measuring adolescents' resiliency in Grades 7 to 9 in relation to corresponding engagement in both at-risk and prosocial behavior patterns. In addition, a theoretical framework for understanding factors which promote the development of youth resiliency is presented in this study to illustrate the potential utility of the survey from a community well-being and health-based perspective.

METHOD

All items developed for use in the Youth Resiliency: Assessing Developmental Strengths questionnaire were primarily drawn and formulated from the literature on resiliency, protective factors, prevention, and child and adolescent development. For example, the major family-related strengths identified as contributing to the development of resiliency were related to having a caring and supportive family, effective family communication, high parental expectations, active involvement in the child's life (particularly related to school), and adult family members as role models. The clarification of these intrinsic and extrinsic strength-based categories led to the design and pilot testing of an initial set of items in two independent administrations of the questionnaire. The questionnaire was designed to allow for flexibility of use in various applied and scientific studies. In particular, the questionnaire has three sections: (1) 94 items measure 10 factors or 31 specific strengths subscales associated with the resiliency framework; (2) several items are used to measure frequencies considered to reflect potentially at-risk, e.g., substance abuse, antisocial behaviour and prosocial, e.g., success in school, values diversity, maintains good health behaviors; and (3) various demographic questions are included to identify independent or extraneous variables, e.g., school or community, sex, age, grade, family setting, language, mothers' and fathers' education. A comprehensive list of demographic and behavior indicator items were derived from a variety of sources. For example, many of the demographic and behavioral items are selected from and compared with the regularly administered National Longitudinal Study of Children and Youth (Statistics Canada, 1996). Manipulation of demographic and behavioral indicators has been attractive to other researchers interested in studying the relationships between resiliency and the specificity of other conditions, e.g., gambling and youth gangs or concepts, e.g., attachment and self-concept.

Procedure

In this present study, 2,291 students from five junior high schools located in the Calgary Board of Education participated voluntarily in the completion of the Youth Resiliency: Assessing Developmental Strengths questionnaire. Working in collaboration with the school district and the administration at each junior high school, parents were provided informed consent forms and classroom teachers administered the questionnaires. The descriptive analysis of the data showed that there was a fairly even distribution between male (1,121, 48.9%) and female (1,170, 51.5%) students, and by grade: Grade 7 (712, 31.3%), Grade 8 (790, 34.5%), and Grade 9 (789, 34.4%). The difference in ages of the junior high school students indicate a consistent yearly increase from Grade 7 ($M=11.9$, $SD=0.4$), Grade 8 ($M=13.0$, $SD=0.5$) through to Grade 9 ($M=13.8$, $SD=0.5$).

For applied purposes, the results on the youths' resiliency factors and developmental strengths are presented as dichotomous variables in comprehensive reports generated for use by the various stakeholders, i.e., school personnel, service sector representatives, and community representatives. In generating a report that would best meet the communication needs of these representatives, the data are presented in anonymous, aggregated percentages that reflect whether the youth "have" or "don't have" the particular strength. Although the comprehensive report appendices provide more detailed information regarding the statistical breakdown of items by mean, median, mode, and standard deviation, use of a dichotomous reporting format in the main text by percentages has allowed easier interpretation by the representatives of the youths' resiliency profiles by sex, grade, and total sample.

RESULTS

Validity and Reliability

As there is a considerable research and literature that supports the factors identified above, the configuration of the resiliency framework is based to some extent on the face and content validity of the items or variables. An exploratory factor analysis on the 94 strength-related items was conducted using the principal components factor analysis with extraction by orthogonal varimax rotation. As selection of the number of factors is a critical phase of the analysis, the following criteria were utilized: eigenvalues greater than 1.00, a scree plot of eigenvalues plotted against factors, review of the residual regression matrix, and the performance of several factor analyses. As the number of factors extracted involves judgment of where the discontinuity in eigenvalues occurs, and the scree plot is not an exact measure, a number of specified factors analyses were performed. Each time a different number of factors was specified, the scree plot was examined, and the residual correla-

TABLE 1
 FACTOR ANALYSIS ITEM LOADINGS AND INTERNAL RELIABILITY COEFFICIENTS FOR THE YOUTH RESILIENCY QUESTIONNAIRE ($N = 2,291$)

Factor (Cronbach α)		Extrinsic Factor					Intrinsic Factor				
		1	2	3	4	5	6	7	8	9	10
1. Parental Support/Expectations ($\alpha = .96$)											
Caring Family	1	.72									
	2	.76									
	3	.81									
	4	.77									
Family Communication	1	.52									
	2	.72									
	3	.75									
	4	.61									
	5	.65									
Adult Family Members as Role Models	1	.43									
	2	.55									
	3	.64									
	4	.74									
Family Support	1	.70									
	2	.58									
	3	.75									
	4	.58									
	5	.57			.34						
	6	.46	.39								
Parental Involvement in Schooling	1	.68									
	2	.61									
	3	.60									
High Expectations	1	.62									
	2	.58									

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TABLE 1 (CONT'D)
 FACTOR ANALYSIS ITEM LOADINGS AND INTERNAL RELIABILITY COEFFICIENTS FOR THE YOUTH RESILIENCY QUESTIONNAIRE (N = 2,291)

Factor (Cronbach α)		Extrinsic Factor					Intrinsic Factor				
		1	2	3	4	5	6	7	8	9	10
2. Peer Relationships ($\alpha = .85$)	Positive Peer Relationships	1	.39								
		2	.75								
		3	.74								
		4	.62								
		5	.54								
	Positive Peer Influences	1	.55								
		2	.49			.34					
		3	.43								
		4	.40			.38					
	3. Community Cohesiveness ($\alpha = .92$)	Caring Neighbourhood	1		.77						
2				.67							
3				.62				.34			
Community Values Youth		1		.57							
		2		.73							
		3		.75							
Adult Relationships		1		.59							
		2		.75							
		3		.71							
Neighbourhood Boundaries		1		.60							
	2		.61								
4. Commitment to Learning ($\alpha = .88$)	Achievement	1			.38						
		2			.44						
		3			.39						

(continued on next page)

Note.—Only factor loadings $> |.32|$ are shown.

TABLE 1 (CONT'D)
 FACTOR ANALYSIS ITEM LOADINGS AND INTERNAL RELIABILITY COEFFICIENTS FOR THE YOUTH RESILIENCY QUESTIONNAIRE (N = 2,291)

Factor (Cronbach α)		Extrinsic Factor					Intrinsic Factor				
		1	2	3	4	5	6	7	8	9	10
School Engagement	1				.65						
	2				.51						
	3				.64						
School Work	1				.59						
	2				.63						
5. School Culture ($\alpha = .86$)											
School Boundaries	1					.63					
	2					.65					
Bonding to School	1					.33					
	2				.36	.45					
Caring School Climate	1					.49					
	2					.47					
High Expectations	1					.69					
	2					.63					
	3					.38					
6. Cultural Sensitivity ($\alpha = .80$)											
Cultural Awareness	1						.55				.33
	2						.53				.39
Acceptance	1						.49				
	2						.48				
Spirituality	1						.70				
	2						.69				
	3						.72				
7. Self-control ($\alpha = .82$)											
Restraint	1							.68			
	2							.76			
	3							.72			

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TABLE 1 (CONT'D)
 FACTOR ANALYSIS ITEM LOADINGS AND INTERNAL RELIABILITY COEFFICIENTS FOR THE YOUTH RESILIENCY QUESTIONNAIRE (N = 2,291)

Factor (Cronbach α)		Extrinsic Factor					Intrinsic Factor				
		1	2	3	4	5	6	7	8	9	10
Resistance Skills	1							.43			
	2							.50			
	3				.37			.42			
8. Empowerment ($\alpha = .75$) Safety	1								.54		
	2					.38			.45		
	3								.56		
	4								.59		
9. Self-concept ($\alpha = .82$) Planning and Decision-making	1									.49	
	2	.36								.51	
	3									.62	
Self-efficacy	1									.63	
	2									.43	
	3									.40	
Self-esteem	1	.35								.49	
	2	.38								.49	
	3									.49	
10. Social Sensitivity ($\alpha = .87$) Empathy	1										.49
	2										.69
	3										.63
Caring	1										.51
	2										.63
	3										.67
Equity and Social Justice	1										.51
	2										.53

Note.—Only factor loadings >|.32| are shown.

tion matrix examined for any large residuals (i.e., $>.10$) that would suggest the presence of another factor. The resulting 10-factor solution accounts for 55% of the variance and the salient loadings for the items assigned to one of the 10 factors ranged from .33 to .81 (cf. Table 1). The internal reliability coefficients (Cronbach alphas) of the 10 resiliency factor subscales are Family, $\alpha = .96$; Community, $\alpha = .92$; Peers, $\alpha = .85$; Work (commitment to learning), $\alpha = .88$; School (culture), $\alpha = .86$; Social Sensitivity, $\alpha = .87$; Cultural Sensitivity, $\alpha = .80$; Self-concept, $\alpha = .82$; Empowerment, $\alpha = .75$; and Self-control, $\alpha = .82$.

Understanding Resiliency Factors in Relation to Prosocial and At-risk Behaviors

As indicated above, the behavioral section of the questionnaire is flexible to accommodate any number of items that would provide specific information concerning the frequency of both prosocial and at-risk behaviors. Most of the indicators used in community-based administration are designed to provide information concerning the frequency of various behaviors during the previous week, month, or year. The association between resiliency factors and behavioural indicators is defined by how often, e.g., weekly, monthly, yearly, and how many times, e.g., never, once, twice, 3–4 times, 5 or more times, youth engage in any particular activity (see Table 2). Using the responses on each of the 94 items (i.e., 1: Strongly agree to 5: Strongly disagree), a summary score for each youth was calculated and used to generate quartile groupings. The youth in the first quartile ($M = 134.3$, $SD = 14.2$) had more positive responses to the items, followed by the second ($M = 169.8$, $SD = 9.0$), third ($M = 201.5$, $SD = 10.0$), and fourth ($M = 260.7$, $SD = 37.8$) quartiles. In an analysis of variance and *post hoc* analysis, all four quartile mean scores were significantly different ($F_{3,2287} = 3611.70$, $p < .001$).

As shown in Table 2, the relations of quartile groupings to the participation in at-risk and prosocial behaviors consistently show statistically significant increases and decreases in activity engagement, respectively. The at-risk behavior patterns indicate that youth with the greatest number of self-reported 'strengths', e.g., caring family, bonding to school, acceptance, etc., are less likely to use alcohol, tobacco, illegal drugs, skip school, gamble, and participate in antisocial behavior (i.e., stealing, vandalism, bullying, and carrying a weapon). For example, 38.2% of the youth in the fourth quartile group indicated that they had consumed enough alcohol to induce intoxication in the last year in comparison with 3.8% of those youth in the first quartile grouping (i.e., a 10-fold difference between groups). In contrast, youth with greater numbers of strengths were almost 1.2 to 4.5 times more likely to engage in prosocial or constructive behavior patterns. In some specific at-risk behaviours differences by sex were noted as, for example, in regards to to-

TABLE 2
ANALYSIS OF VARIANCE OF YOUTHS' MEAN SCORES BY QUARTILE REPORTED ENGAGEMENT IN SPECIFIC AT-RISK AND PROSOCIAL BEHAVIORS (N = 2,291)

Behavior Domain and Definition	Youth Who Engage in Behavior								F
	Q1		Q2		Q3		Q4		
	M	SD	M	SD	M	SD	M	SD	
Alcohol									
Has used alcohol in past month	1.15	.58	1.27	.78	1.40	.91	1.98	1.39	81.42†
Has consumed enough alcohol to get drunk in past year	1.09	.51	1.21	.74	1.33	.89	2.09	1.60	111.82†
Tobacco									
Has used tobacco products in past month	1.07	.48	1.11	.56	1.21	.78	1.74	1.44	69.66†
Illegal Drugs									
Has used illegal drugs at least once in past year	1.04	.36	1.11	.56	1.22	.82	1.77	1.46	77.37†
School Issue									
Has skipped school in past month	1.10	.50	1.12	.49	1.28	.79	1.68	1.22	64.83†
Antisocial Behavior									
Has stolen something from a store at least once during past year	1.12	.49	1.13	.54	1.23	.73	1.76	1.30	77.68†
Has vandalized property at least once during past year	1.08	.41	1.14	.49	1.39	.91	1.93	1.36	109.74†
Has bullied another person at least once in past month	1.22	.67	1.40	.81	1.53	1.01	2.21	1.48	97.62†
Has carried a weapon to protect himself at least once in past year	1.11	.54	1.14	.58	1.28	.87	1.80	1.41	70.31†
Gambling									
Has gambled or played the lottery once during past month	1.11	.53	1.16	.64	1.29	.87	1.63	1.24	41.24†
Volunteers									
Has volunteered in the community at least once in past week	1.81	1.17	1.57	1.05	1.45	.94	1.38	.90	18.99†
Physical Activity									
Does physical activities for the body at least one hour/day	2.99	1.21	2.84	1.15	2.88	1.20	2.76	1.33	3.53*

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Note.—Data were collected in the Fall of 2001 from 5 urban junior high schools in close proximity to each other. Scale is 1: Not at all, 2: Once, 3: Twice, 4: 3 or 4 times, 5: 5 or more times; or 1: Not at all like me, 2: A little like me, 3: Somewhat like me, 4: Quite like me, or 5: Very much like me. * $p < .05$. † $p < .001$.

TABLE 2 (CONT'D)
ANALYSIS OF VARIANCE OF YOUTHS' MEAN SCORES BY QUARTILE REPORTED ENGAGEMENT IN SPECIFIC AT-RISK AND PROSOCIAL BEHAVIORS (N = 2,291)

Behavior Domain and Definition	Youth Who Engage in Behavior								F
	Q1		Q2		Q3		Q4		
	M	SD	M	SD	M	SD	M	SD	
Healthy Diet									
Stays healthy by eating good foods	3.71	1.20	3.27	1.20	3.08	1.21	2.76	1.34	56.66†
Delayed Gratification									
Saves money for something special rather than spending it right away	3.54	1.33	3.22	1.30	2.99	1.33	2.69	1.43	40.70†
Personal Development									
Reads for pleasure at least three times per week	3.47	1.47	3.07	1.54	3.06	1.58	2.47	1.59	40.17†
Social Development									
Knows a lot about people from different cultures	3.25	1.25	3.00	1.29	2.77	1.30	2.44	1.36	40.16†
Persistence									
Does not give up when things become difficult	3.26	1.10	3.07	1.06	2.90	1.13	2.77	1.26	20.12†
Spiritual Activities									
Attends spiritual/religious/faith activities at least once/wk.	2.47	1.53	2.14	1.43	2.06	1.41	1.78	1.32	22.22†
Academic Excellence									
Has completed at least 3 hours of homework in past week	4.03	1.26	3.73	1.32	3.49	1.37	2.85	1.52	76.22†
In comparison with other students, is above average in course subjects	3.84	.82	3.70	.84	3.51	.84	3.19	.98	58.76†

Note.—Data were collected in the Fall of 2001 from 5 urban junior high schools in close proximity to each other. Scale is 1: Not at all, 2: Once, 3: Twice, 4: 3 or 4 times, 5: 5 or more times; or 1: Not at all like me, 2: A little like me, 3: Somewhat like me, 4: Quite like me, or 5: Very much like me. * $p < .05$. † $p < .001$.

bacco use: boys who used it monthly showed a 6-fold (3.0% to 19.2%) and girls a 15-fold (2.2% to 31.1%) increase between the first and fourth quartile groupings, respectively. Although the increasing engagement in at-risk behaviors is fairly consistent between quartile groupings by sex, boys tended to show significantly higher rates of engagement in physically violent behaviors such as "hit or beat up someone" (39.4% vs 22.6% for girls) and "carried a concealed weapon to protect yourself" (20.6% vs 8.4% for girls). When differentiated by grade, Grade 9 students were consistently more susceptible than those in the other two grades to most of the at-risk behaviors and showed a corresponding drop in their prosocial activities. For example, 2.8% of Grade 7, 4.0% of Grade 8, and 5.0% of Grade 9 students in the first quartile group indicated that they had consumed enough alcohol to induce intoxication in the last year in comparison with 25.2%, 31.5%, and 49.8% of their peers, respectively, in the fourth quartile grouping. Although the differentiation of trends between sex and grade are not uniform in every behaviour measured, there is a consistency among quartile groupings that show youth with greater numbers of resiliency strengths tend to participate in more prosocial or constructive activities and are less likely to engage in at-risk behaviors.

DISCUSSION

In this present study, an exploratory factor analysis of the Youth Resiliency: Assessing Developmental Strengths questionnaire showed support for a 10-factor model of youth resiliency based on a framework of both intrinsic and extrinsic factors. The resiliency factors showed moderately strong to strong internal reliability coefficients. From a theoretical perspective, there is support for the use of the identified resiliency factors as a framework to predict youth's potential engagement in both at-risk and prosocial behaviors. From an applied perspective, use of the questionnaire has practical implications for community stakeholders advocating for comprehensive and strength-based approaches to addressing these issues of youth. The inference is that an environment in which resiliency factors are promoted will enhance youths' resiliency profile. In turn, this will lead to a reduction in the engagement of at-risk activities and corresponding increase in more prosocial or constructive behaviors.

Grounded in research on resiliency and protective factors, the questionnaire introduces a multidimensional framework for understanding the function of resiliency in adolescent development. The findings are presented in a comprehensive framework of developmental strengths to assist practitioners in articulating and advocating for conditions that promote the health and well-being of children and youth. This strength-based approach highlighted through the use of the questionnaire reflects a shift from the problem-fo-

cused approach traditionally used to address specific at-risk behavior issues. Recognizing the importance of finding solutions to inappropriate behavior, the emphasis of the framework of resiliency or developmental strengths is placed on resolving more systemic issues in how children and youth are nurtured and interacted with at home, school, and in the community at large.

One of the primary focuses in the development of the Youth Resiliency: Assessing Developmental Strengths questionnaire and resiliency framework has been to find a balance between using the questionnaire in community settings, while maintaining the psychometric integrity through rigorous administrative and testing protocols. Therefore, the authors' intent is to provide a tool that has utility in both practical, e.g., through community generated comprehensive reports, and scientific research applications, respectively. As such, an emphasis has been placed on ensuring that this questionnaire is a valid and reliable measure, while allowing for flexibility in meeting the needs of various public service sector institutions and organizations. While more psychometric work is required, the aggregated resiliency profile summaries generated in the comprehensive reports have been used to identify key areas of need for re-allocation of support and resources. From a developmental perspective, findings suggest low and high risk behaviors, e.g., tobacco use, alcohol consumption, bullying, reflect correspondingly strong and weak adolescent resiliency profiles. Nevertheless, the emphasis on enhancing youths' strengths within schools and communities focuses more on identifying and understanding how the cumulative effect of youths' resiliency strengths and the promotion of resiliency encourage youth to adapt to adversity faced daily.

Further exploratory studies will be required to enhance the measures and ensure that all other factors related to the development of resiliency are adequately represented or considered in research. Correspondingly, understanding of the function of resiliency and the influence it has in human development requires frameworks or models which include all age groups from infancy and well into the later stages of geriatrics. In addition, the use of this questionnaire and the framework has yet to be tested specifically with individuals as a practical tool for addressing low resiliency profile scores, i.e., that group of youth scoring in the lowest quartile of resiliency strengths and engaging in the greatest number of self-reported at-risk behaviors. Current studies explore the use of the questionnaire to generate individual resiliency profiles and corresponding strength-based treatment plans with samples of at-risk adolescents in group home and foster care settings.

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