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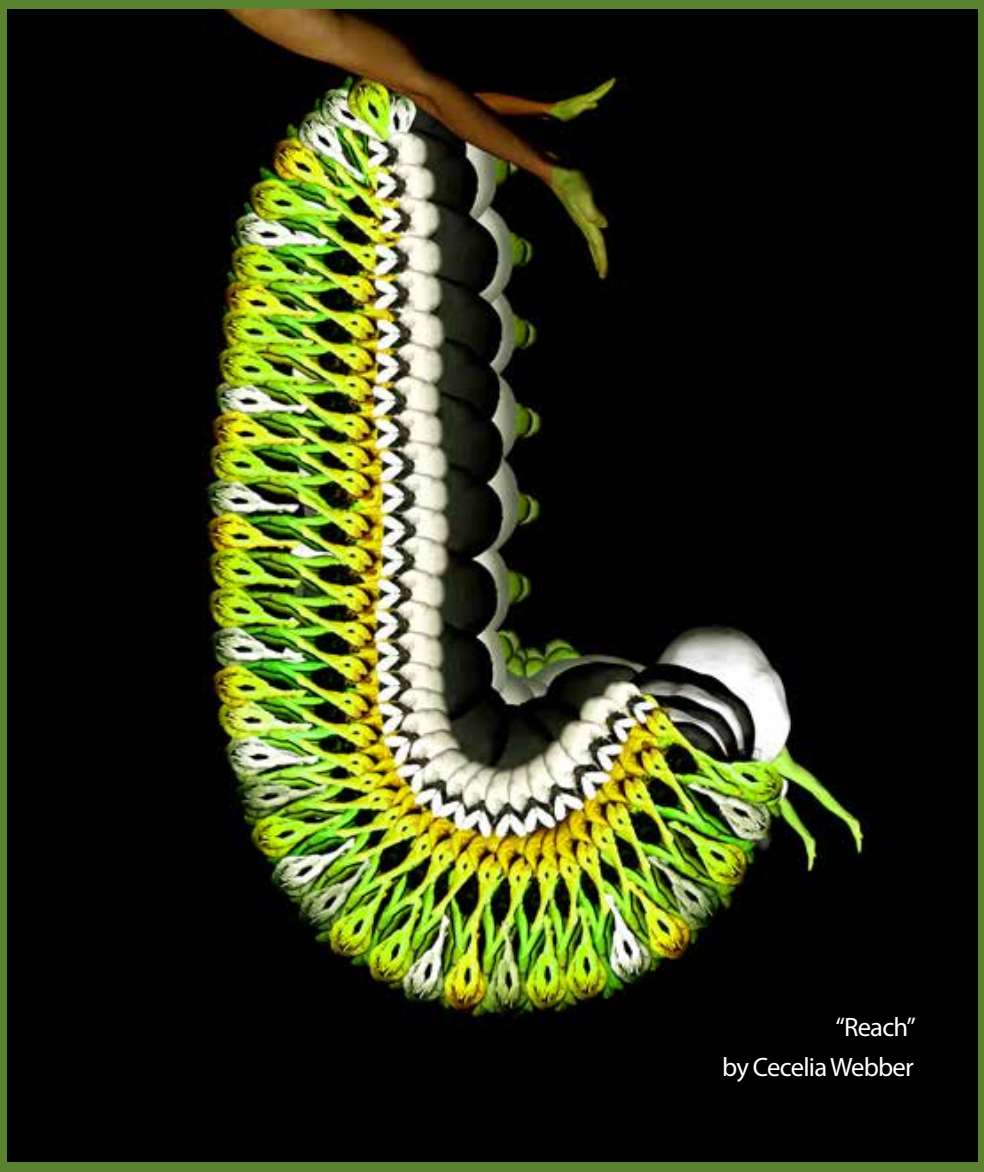

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International Journal of Child and Adolescent Resilience

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International Journal of Child and Adolescent Resilience

Relationships between stressful life events, psychological distress and resilience among Aboriginal and non-Aboriginal adolescents

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Abstract:

Objective(s): In order to shed light on the impacts of various stressful life events and resilience factors during adolescence and across different cultural backgrounds, this study explored a variety of protective and vulnerability factors associated with psychological distress among Aboriginal and non-Aboriginal youth. **Methods:** The participants were 207 adolescents (mean age = 15.8 years, 55% female, 45% Aboriginal) recruited from two secondary schools located in Innu communities of Saguenay-Lac-St-Jean and Côte Nord (Canada). Data were collected on psychological distress, exposure to stressful life events, and resilience. **Results**: Six multiple linear regressions were conducted to predict six dimensions of psychological distress. Sexual abuse, family violence and other stressful life events were all associated with higher levels of psychological symptoms. Individual resilience factors were associated with lower levels of depression, anxiety, dissociation and post-traumatic stress (PTS), whereas relational/familial resilience factors were associated with lower levels of anger and sexual concerns. The relationship with contextual resilience was not significant. **Conclusions and implications:** Overall, these results indicate that stressful life events such as sexual abuse and family violence may have deleterious effects on the mental health of Aboriginal and non-Aboriginal adolescents. However, some individual and relational factors may have positive effects on their mental health. These findings may provide hope for communities under greater stress and support the importance of establishing culturally sensitive intervention strategies that strengthen the key protective factors identified in this study.

Keywords:

Resilience, stressful life events, psychological distress, Aboriginal, adolescent, protective factors, risk factors, child sexual abuse, family violence

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Introduction

Exposure to stressful life events during childhood and adolescence often leads to serious mental health consequences that persist into adulthood (e.g., MacMillan et al., 2001). It is well documented that exposure to family violence during childhood is associated with greater risks of alcohol and drug misuse, internalizing and externalizing behavior problems, and depression and anxiety in adolescence and adulthood (Gilbert et al., 2009). Other stressful life events such as sexual abuse (Gilbert et al.), parental incarceration (Kjellstrand & Eddy, 2011) and parental separation (Cartwright, 2006) also have negative effects on mental health that often carry through into adulthood.

Violence in Aboriginal communities

Some youth are more likely than others to be exposed to these stressful life events. One example is Aboriginal adolescents, of whom a large proportion live in a cultural minority setting generally characterized by poverty, violence and social exclusion. Family violence is a major public health issue among Aboriginal communities. According to the data from the General Social Survey on Victimization conducted in 2009 in Canada (Brennan, 2011), rates of spousal violence (physical and sexual) against Aboriginal women are three times higher than the rates reported for non-Aboriginal women. Compared with the general population, a higher proportion of Aboriginal children and adolescents are placed in foster homes following persistent neglect and abuse in the family (Blackstock, Trocmé, & Bennett, 2004). Aboriginal youth are also more likely to have a family member who is incarcerated, with Aboriginal people representing 18 to 25% of the prison population despite their representing only 3% of the Canadian population (Statistics Canada, 2010). High rates of family violence and crime in Aboriginal communities are amplified by several social factors, including an accumulation of historical traumas (e.g., residential schools, loss of cultural traditions), and the law of silence and corruption within the justice system, which results in a lack of social control and a climate of insecurity (Bopp, Bopp, & Lane, 2003).

Aboriginal youth's resilience

These data suggest that Aboriginal adolescents have to adapt to an adverse environment that could seriously threaten their mental health. Nonetheless, some studies that focused on protective factors in Aboriginal communities, though few, suggest that a large proportion of adolescents (56 to 60% in some studies; Hopkins, Taylor, D'Antoine, & Zubrick, 2012; Lafromboise, Hoyt, Oliver, & Whitbeck, 2006) continue to thrive in the face of exposure to stressful life events and do not necessarily develop psychological problems in adulthood. This maintenance of positive adaptation despite a context of significant adversity refers to resilience (Luthar, Cicchetti, & Becker, 2000). Resilience research is fundamental in Aboriginal communities because it proposes a strengths-based approach that considers youth and their families in terms of capacities and resources rather than in terms of deficits and psychopathologies (Canavan, 2008). This approach promotes the well-being of marginalized populations not only by correcting an image of deficit but also by promoting the development of interventions that foster young people's ability to bounce back despite the presence of major risk factors in their community (Muckle & Dion, 2008).

Notwithstanding the growing interest in resilience research and Aboriginal communities, published literature examining resilience factors in Aboriginal youth is limited. However, a few studies have identified factors associated with resilient functioning among Aboriginal youth. These protective factors included having a prosocial friend (i.e., who did not induce the participants, by either example or

persuasion, to engage in risky behaviour; Andersson & Ledogar, 2008; Hopkins et al., 2012), parental care and support (Andersson & Ledogar, 2008; Filbert & Flynn, 2010; Lafromboise et al., 2006), relationships with prosocial adults (Filbert & Flynn, 2010), knowledge of Aboriginal culture and heritage (Filbert & Flynn, 2010; Hopkins et al., 2012; Lafromboise et al., 2006; Walls, 2007; Zahradnik et al., 2010), spirituality (Graham, 2001), perception of community support (Lafromboise et al., 2006), positive values and social competencies (Filbert & Flynn, 2010).

These studies contribute considerably to our understanding of the individual, relational and cultural factors involved in Aboriginal people's resilience. However, these studies present important limitations that should be addressed in future research. For example, few attempts have been made to include culturally sensitive measures. In studies involving Aboriginal youth, most resilience measures were based on a dominant North American definition of resilience that does not consider the fact that the criteria for good adaptation may differ between Aboriginal people and their non-Aboriginal peers (for exceptions, see Walls, 2007; Zahradnik et al., 2010). Furthermore, many authors conceptualized resilience in terms of behavioral observations and academic success without assessing it in terms of psychological health (e.g., Lafromboise et al., 2006; Filbert & Flynn, 2010; Graham, 2001). Consequently, adolescents who are depressed and anxious because of regular exposure to family violence would be considered resilient and would not necessarily receive appropriate help, simply because they do well in school and do not exhibit externalizing behavior problems. Since being competent in one domain does not necessarily imply resilience, researchers must consider the multi-dimensional nature of resilience in their measures. Finally, methodological biases were also observed in some of the studies described above, including sampling bias (e.g., classification of participants among resilient and maladaptive groups based on a list of students whom the school principal considered resilient; Graham, 2001) and missing information on the psychometric properties of the measures (e.g., Andersson & Ledogar, 2008).

Research to date has highlighted a range of relational, contextual and, to a lesser extent, individual resilience factors among Aboriginal adolescents. Moreover, few attempts have been made to determine the role of these three types of resilience factors in psychological distress among Aboriginal and non-Aboriginal adolescents. Finally, while many studies have focused on the psychological consequences of stressful life events in adolescence, less research has been conducted to compare the value of various stressful life events in predicting psychological distress among adolescents from different cultural backgrounds. This information could be particularly helpful in the development of culturally based interventions among adolescents exposed to various kinds of stressful events.

Given this context, the first aim of the present study was to explore the predictive value of various vulnerability factors, which include traumas related to family violence and other stressful life events, in psychological distress among adolescents from different cultural backgrounds. Since this study focuses on resilience, the second objective was to assess the impact of currently reported resilience on current psychological functioning, after having assessed the effects of these vulnerability factors.

First, we hypothesized that gender, age and ethnicity would be significant predictors of psychological distress. Since previous research findings suggest that girls generally report more stressful events and more internalizing symptoms than boys do (e.g., Jose & Ratcliffe, 2004), girls were expected to report more psychological symptoms. Older adolescents, who generally report higher frequency and intensity of stressful events than younger adolescents (e.g., Jose & Ratcliffe), were also expected to report more psychological symptoms. Because previous research has shown that they are exposed to more negative life events than non-Aboriginal youth (Blackstock et al., 2004; Brennan, 2011; Statistics Canada, 2010), Aboriginal youth were also expected to report more stressful life events and more psychological distress. Based on previous resilience research among adolescents from various cultural backgrounds (e.g., Afifi & MacMillan, 2011; Lafromboise et al., 2006), we hypothesized that individual, relational/familial and

community resilience factors would be predictors of significantly fewer psychological symptoms. Finally, because no comparative study has explored the relative contribution of various stressful life events to psychological distress among Aboriginal youth, no hypothesis was formulated concerning the predictive values of the various types of events.

Methods

Participants and procedure

The sample was drawn from two secondary schools in Saguenay-Lac-St-Jean and Côte-Nord (Quebec province, Canada). The first school was located off reserve in a middle- to high-socioeconomic setting and served both non-Aboriginal and Aboriginal students. Some Aboriginal youth lived off reserve and others, on reserve. The latter lived in an Innu community 6 km from the nearest city (semi-rural area), where this school is located. The main spoken language was French for both Aboriginal and non-Aboriginal students. From grade 1 to secondary 3 (grade 9), the majority of youth attend schools on reserve. Afterwards, they have to move to another secondary school off reserve. The majority of youth attend the school where participants were recruited for this study. The second school was located on reserve and served only Aboriginal students, who lived on reserve, in an Innu community approximately 50 km from the nearest city (semi-rural area). Among these students, the main spoken language was Innu, and the second, French. Reserves were similar in terms of size, Aboriginal affiliation (Innu) and being in rural areas. All participants spoke and wrote French (schooling is generally provided in French). For a fuller discussion on other social and cultural factors characterizing these communities (e.g., health disparities within First Nations communities, impacts on youth of grandparents or parents having been in residential schools), see Sinha et al. (2011) or materials available from the First Nations Child and Family Caring Society's website (http://www.fncaringsociety.com/main).

Data were collected in April 2010 and May 2012. Across the two schools, 207 adolescents (94 Aboriginal, 113 non-Aboriginal) participated in the study. All participants were aged between 14 and 17 years (M = 15.8 years; SD = 0.90), and 55% (N = 113) were female. The majority of parents had a secondary school education or less (57.0% of mothers, 64.2% of fathers). A few parents had a college (19.8% of mothers, 13.3% of fathers) or university degree (16.4% of mothers, 15.0% of fathers). The majority of adolescents lived with their two biological parents (53.0%), whereas 27.6% lived in a single-parent household (the majority with a single mother) or in a joint custody setting, 13.5% lived in a two-parent stepfamily, and 5.9% in an adopted family or with another family member (e.g., grandparent).

Participants were recruited through their teachers after ethical approval was obtained from the school's administration and the Université du Québec à Chicoutimi. Data were collected either in the school library or in the classrooms. A written consent form explained the objectives of the study and assured participants that all personal information was confidential and anonymous. Since Quebec law allows adolescents aged 14 and older to give their own free and informed consent, parents' consent was not required. A research coordinator and research assistants were available to answer individual questions during the data collection. This study was designed in accordance with Canadian principles of OCAP (Ownership, Control, Access and Possession)[1] and the ethical guidelines of the Canadian Tri-Council Policy Statement for research involving Aboriginal peoples[2]. Consequently, Aboriginal culture and traditions were respected throughout the research project. Community members were consulted at every step of the research for decisions regarding which themes would be addressed in the questionnaires, the purpose for which the data would be used and who would have access to the information. The results of this study will address the need expressed by the communities to better understand psychological distress and resilience factors among Aboriginal youth.

1 For a fuller description of Canadian OCaP principles, see http://cahr.uvic.ca/nearbc/documents/2009/FNC-OCAP.pdfv

2 For a fuller description of ethical guidelines of the Canadian Tri-Council Policy Statement for research involving Aboriginal peoples, see http://www.pre.ethics.gc.ca/eng/policy-polique/initaitives/tcps2-eptc2/chapter9-chaptire9

Measures

Stressful life events. Exposure to stressful life events during childhood and adolescence was measured using the Family Problems Inventory (Thériault, Cyr, & Wright, 2003), where participants must indicate whether or not they have experienced the events listed. To test whether family violence and other stressful life events have the same effects on adolescents' psychological distress, the events measured were divided into two groups: 1) number of events related to family violence, which include suffering or witnessing child physical or verbal/emotional abuse, experiencing violence between children and exposure to domestic violence (witnessing spousal physical or verbal/emotional abuse); and 2) number of other stressful life events, which include financial problems within the family, parental separation or divorce, a family member experiencing sexual abuse, parental incarceration, familial alcoholism and, finally, child abandonment by a parent. Exposure to sexual abuse was a third predictor. One question was changed to specifically evaluate the participants' exposure to sexual abuse during childhood and adolescence.

Psychological distress. Psychological distress symptoms were measured using the French version (Wright & Sabourin, 1996) of the Trauma Symptom Checklist for Children (TSC-C; Brière, 1989). The TSC-C is a 54-item self-report measure designed to assess children and adolescent's responses to trauma across a number of symptom areas. The TSC-C includes six clinical scales: 1) anxiety, 2) depression, 3) anger, 4) post-traumatic stress (PTS), 5) dissociation, and 6) sexual concerns. The TSC-C also includes two validity scales that evaluate both the minimization and the exaggeration of psychological symptoms. Answers are recorded on a 4-point Likert-type scale ranging from 0 (never) to 3 (almost all the time). In the study by Thériault and her colleagues (2003), the French version of the TSC-C demonstrated good internal consistency (r = .69 to .89) and good test-retest reliability (r = .75 to .81 after two weeks). Internal consistency was similar (r = .74 to .83) in our sample.

Resilience. Resilience was measured using the validated 27 item French version (Daigneault, Dion, Hébert, McDuff, & Collin-Vézina, 2013) of the Child and Youth Resilience Measure (CYRM; Ungar & Liebenberg, 2005), which examines resilience among children and youth from various cultural backgrounds. The CYRM has been piloted with 1451 youth from 14 different communities (including a Canadian Aboriginal community) that participated actively in the development of the questionnaire. Answers are recorded on a 5-point Likert-type scale, ranging from 1 (not at all) to 5 (a lot), with a high score indicating a high level of resources. To test whether all types of resilience factors have the same effect on adolescents' psychological distress, we examined the predictive value of three different resilience factors: 1) individual, 2) relational/familial and 3) community (which corresponds to the factors identified in Daigneault et al.). When validated in a sample of 589 Quebec adolescents (Daigneault et al.), the CYRM was found to be psychometrically sound, with good internal consistency (Cronbach's alphas = .84, .78 and .64 for individual, relational/familial and contextual scales, respectively) and excellent test-retest reliability after two weeks (r = .73 to .84) and three months (r = .70 to .76). Internal consistency of the three CYRM components was similar in our sample (Cronbach's alphas between .64 and .82).

Data analyses

We first conducted a chi-square analysis to compare the frequencies of various stressful life events among Aboriginal and non-Aboriginal adolescents. Multiple linear regressions were then employed to evaluate the predictive value of nine independent variables (age, gender, ethnicity, family violence, sexual abuse, other stressful life events, individual resilience, relational/familial resilience, and contextual resilience) with regard to anxiety, depression, anger, PTS, dissociation and sexual concerns. Variables were entered in the regressions in temporal order. Because of the retrospective nature of the study, we entered predictors that were stable over time (sociodemographic predictors) and those that had occurred before the study (childhood maltreatment, abuse, and stressful life events) in the first step of the regression model. In the second step, we entered current resilience factors to assess whether this current resilience would help explain current psychological distress in addition to sociodemographic factors and past experiences of maltreatment, abuse and stress.

Table 1: Multiple regression analyses predicting psychological distress from sociodemographic factors, stressful life events and resilience factors

	Depression		Anxiety		Post-traumatic Stress	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
Variable	*B*	*B*	*B*	*B*	*B*	*B*
Gender	0.20***	0.25***	0.37***	0.38***	0.23***	0.26***
Age	-0.04	-0.05	-0.01	-0.02	0.02	0.01
Aboriginal Culture	0.01	0.10	-0.06	-0.07	-0.03	-0.04
Sexual Abuse	0.13*	0.14*	0.15**	0.14*	0.18*	0.18**
Family Violence	0.22***	0.16**	0.10	0.09	0.28***	0.25***
Stressful Life Events	0.19**	0.16**	0.17**	0.17**	0.11	0.09
Indivual Resilience		-0.32***		-0.14*		-0.19**
Ralational Resilience		-0.04		0.08		0.01
Contextual Resilience		0.0		-0.03		-0.01
Adjust R^2	0.21	0.31	0.23	0.24	0.24	0.26

* $p<0.05$ ** $p<0.01$ *** $p<0.001$

	Sexual Concerns		Anger		Dissociation	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
Variable	*B*	*B*	*B*	*B*	*B*	*B*
Gender	-0.30***	-0.27***	-0.09	-0.05	0.09	0.14*
Age	-0.14	0.13*	-0.11	-0.11	0.01	0.01
Aboriginal Culture	-0.23*	-0.22***	-0.14*	-0.15*	-0.02	-0.04
Sexual Abuse	0.22***	0.23***	0.16**	0.18**	0.13*	0.13*
Family Violence	0.10	0.06	0.18**	0.12	0.27***	0.22**
Stressful Life Events	0.10	0.07	0.14*	0.11	0.12	0.09
Individual Resilience		0.02		-0.09		-0.24***
Relational Resilience		-0.19**		-0.17*		-0.03
Contextual Resilience		-0.01		0.02		0.01
Adjusted R2	0.20	0.22	0.11	0.14	0.14	0.19

* $p<0.05$ ** $p<0.01$ *** $p< 0.001$

Results

Sociodemographic factors

A full description of all multiple regression results can be found in Table 1. Gender was significantly associated with all psychological distress symptoms, except anger. Girls showed a significantly greater risk of anxiety (standardized $\beta = .38$, $t = 7.03$, $p < .001$), PTS (standardized $\beta = .26$, $t = 4.89$, $p < .001$), dissociation (standardized $\beta = .14$, $t = 2.46$, $p < .05$) and depression (standardized $\beta = .25$, $t = 4.90$, $p < .001$), whereas boys had a significantly greater risk of sexual concerns (standardized $\beta = -.27$, $t = -5.00$, $p < .001$). Conversely, age was related to sexual concerns only (standardized $\beta = .13$, $t = 2.53$, $p < .05$), which means that older adolescents had more sexual concerns than younger ones.

The results also show some differences between Aboriginal and non-Aboriginal adolescents in anger and sexual concerns. Being non-Aboriginal was associated with a significantly greater risk of sexual

Table 2: Prevalance of stressful life events among Aboriginal and non-Aboriginal adolescents in the sample

	Aboriginal	Non-Aboriginal	Total	X^2
Financial problems	54.3	41.6	47.3	3.30a
Parental separation/divorce	52.7	58.0	55.6	0.59
Child physical abuse	13.8	5.4	9.2	4.38*
Child verbal/emotional abuse	31.9	24.3	27.8	1.46
Violence between children	37.6	37.2	37.4	0.01
Witnessing spousal physical violence	28.7	8.1	17.6	14.94***
Witnessing spousal emotional violence	45.7	29.2	36.7	6.04*
Family member sexual abuse	14.9	7.1	10.6	3.30a
Parental incarceration	19.1	9.7	14.0	3.78a
Familial alcoholism	57.4	31.0	43.0	14.67***
Child abandonment by a parent	17.0	4.4	10.1	8.93**
Child sexual abuse	13.8	16.8	15.5	0.58

* $p<0.05$ ** $p<0.01$ *** $p<0.001$

concerns (standardized β = -.22, t = -3.86, p < .001) and higher levels of anger (standardized β = -.15, t = -2.47, p < 0.05). Data concerning the prevalence of stressful life events among Aboriginal and non-Aboriginal adolescents are presented in Table 2. Overall, Aboriginal youth were more exposed to all kinds of stressful life events, except for parental separation and sexual abuse. Aboriginal youth in our sample experienced significantly more events related to physical abuse ($\chi2 = 4.38$, p < 0.05), family alcoholism ($\chi2 = 14.67$, p < 0.001), child abandonment by a parent ($\chi2 = 8.93$, p < 0.01) and witnessing spousal physical ($\chi2 = 14.94$, p < 0.001) and verbal/emotional ($\chi2 = 6.04$, p < 0.05) violence than non-Aboriginal youth.

Stressful life events

The relationship between various stressful life events and psychological distress were explored. The results show that having been sexually abused directly predicted all psychological symptoms (standardized β = .13 to .23, and t = 2.37 to 4.13, p < .05). A high number of stressful events related to family violence was associated with a significantly greater risk of PTS (standardized β = .25, t = 4.13, p < .001), dissociation (standardized β = .22, t = 3.51, p < .001) and depression (standardized β = .16, t = 2.67, p < .01). A high number of other stressful life events was associated with depressive (standardized β = .16, t = 2.70, p < .01) and anxiety (standardized β = .17, t = 2.72, p < .01) symptoms.

Resilience

The results show that individual, relational/familial and contextual resilience factors have different predictive values in psychological distress. A high level of individual resilience was significantly associated with fewer depressive symptoms (standardized β = -.32, t = -5.05, p < .001), dissociation symptoms (standardized β = -.24, t = -3.56, p < .001), PTS symptoms (standardized β = -.19, t = -2.95, p < .01) and anxiety symptoms (standardized β = -.14, t = -2.20, p < .05). A high level of relational/familial resilience was predictive of less anger (standardized β = -.17, t = -2.40, p < .05), and fewer sexual concerns (standardized β = -.19, t = -2.69, p < .01). Finally, contextual resilience was not related to psychological distress.

Discussion

Sociodemographic factors

The purpose of this study was to explore the association between various risk and resilience factors and psychological distress among Aboriginal and non-Aboriginal adolescents. First, the hypothesis concerning gender differences in psychological distress was partly supported. The results show that gender is significantly associated with all psychological symptoms except anger. Our finding that girls reported significantly higher levels of depression, anxiety, PTS and dissociation than boys is consistent with a large body of research concluding that girls

report more internalizing symptoms than boys do (e.g., Jose & Ratcliffe). Gender-specific cultural beliefs and expectations concerning emotional regulation, and higher perceived stressor intensity and frequency (Jose & Ratcliffe, 2004) among girls are all factors that could explain this finding. It is also possible that boys are more reluctant to express their psychological distress than girls are, which would explain why the girls in our sample seem to experience more distress. The analyses also pointed to higher levels of sexual concerns among boys. Because no study to date has explored gender differences in sexual concerns among adolescents, we cannot conclude whether these results are consistent or not with previous literature. However, this finding may be explained by the fact that the boys in our sample, who were aged between 14 and 17, are in a developmental period characterized by a sexual awakening and major body changes that increase sexual concerns, while girls may have been exposed to these concerns sooner in their development due to earlier sexual and biological maturation (Cloutier, 1996). Another possible explanation lies in the way sexual concerns were conceptualized in the TSC-C. Items in the questionnaire refer mainly to intrusive thoughts, desires considered inappropriate or abnormally high sexual needs (e.g. "Can't stop thinking about sex," "Touching my private parts too much"). It is possible that these items relate more to boys' sexual concerns, while girls may be more concerned about their body image or the relational dimension of sexual intercourse.

The hypothesis concerning age differences was only partly supported. Older adolescents reported significantly higher levels of sexual concerns than younger adolescents. Given that a majority of adolescents are not sexually active before age 16 (Cloutier, 1996), sexual concerns are expected to arise later in adolescence. However, age was not a significant predictor for other psychological symptoms. Some studies suggest that the emergence of internalizing symptoms and disorders in adolescence may be more a function of pubertal status than of chronological age. For example, in their review, Hayward and Sanborn (2002) concluded that pubertal stage was a more powerful predictor of adolescent girls' psychological symptoms (panic attacks, depression and eating disorder symptoms) than chronological age was. This may explain why chronological age was not a significant predictor of psychological distress in our sample (except for sexual concerns). Another possible reason is that chronological age may act more as a moderator of gender differences in psychological distress.

The results of the analyses support the hypothesis that Aboriginal youth report more stressful life events than their non-Aboriginal counterparts. This pattern is consistent with previous research that underscored higher rates of various traumatic events among Aboriginal populations compared with the general population (e.g., Bopp et al., 2003; Brennan, 2011; Statistics Canada, 2010). It was also expected that Aboriginal youth would report more psychological distress than their non-Aboriginal counterparts. This hypothesis was not supported: ethnicity was not a significant predictor in psychological distress except for anger and sexual concerns, which were significantly lower among Aboriginal youth than their non-Aboriginal counterparts. This finding suggests that despite their exposure to more stressful life events than their non-Aboriginal peers, Aboriginal youth do not necessarily develop more psychological symptoms and may be particularly resilient when exposed to adversity. These findings agree with results from earlier resilience research (e.g., Lafromboise et al., 2006; Zahradnik et al., 2010) showing that Aboriginal adolescents can be resilient despite considerable environmental stress. However, it is important to consider the possibility that Aboriginal adolescents may not necessarily express psychological distress the same way as their non-Aboriginal counterparts. Since this nuance is not necessarily considered in the questionnaire used to evaluate psychological distress (TSC-C), Aboriginal youth's distress may have been underestimated.

Stressful life events

Although family violence and the number of other stressful life events were predictive of many psychological symptoms among adolescents, sexual abuse was still the strongest predictor of psychological distress compared with other types of stressful life events. These results are consistent with one longitudinal study which concluded that exposure to sexual abuse during childhood had more long-term

deleterious effects on psychological health than physical violence did (Fergusson, Boden, & Horwood, 2008).

Resilience

Consistent with our hypothesis, individual and relational/familial resilience were significant protective factors in certain psychological symptoms, above and beyond the effect of past risk factors that were retrospectively reported. The most important factor related to depression and dissociation was individual resilience, which includes such characteristics as high self-esteem, empowerment, effective problem-solving strategies and good social skills. Relational/familial resilience, in turn, was associated with lower levels of anger and sexual concerns. The cross-sectional nature of this study does not allow us to determine cause-effect relationships between resilience factors and psychological symptoms reported by adolescents. For example, rather than assuming that the presence of relational/familial resilience factors decreases the likelihood of feeling anger, we must consider the possibility that a calm temperament and low propensity to react aggressively to stressful events may lead adolescents to maintain good relationships with their peers and family. Longitudinal data would be needed to investigate the temporal ordering.

It is interesting to note that when family violence is associated with psychological distress, relational/familial resilience is not, and vice versa. Conversely, individual resilience is significantly related to lower distress when family violence is a significant predictor of distress. This finding suggests that when adolescents experience distress related to family violence, they rely more on individual resilience factors than familial ones to overcome adversity.

Contrary to our hypothesis, contextual resilience (e.g., a sense of belonging to the community or school, importance of religious beliefs and the community's traditions, or national pride) was not a significant protective factor for any psychological symptom. This finding agrees with the results of Daigneault and her colleagues (2013), who found that the Community/Spiritual resilience component of the CYRM had a lower internal consistency than other components when validated among French youth from the province of Quebec, Canada. According to the authors, this may be because a large majority of Quebec youth do not consider religion an important part of their lives. Nonetheless, this finding contrasts with previous resilience research that identified several resilience factors related to spirituality (Graham, 2001), community support (Lafromboise et al., 2006) and cultural traditions (Filbert & Flynn, 2010; Hopkins et al., 2012; Walls, 2007) among Aboriginal youth. Historical traumas (e.g., residential schools, acculturation) and other drastic sociocultural changes experienced by Aboriginal communities over the past years have undermined cultural tradition and its intergenerational transmission. As a result, many Aboriginal youth know very little about cultural traditions and seek their own identity, midway between tradition and modernity. Therefore, it may not be surprising that contextual resilience was not a significant resilience factor in our sample of Quebec Aboriginal and non-Aboriginal adolescents. However, the results may have been different if broader or other contextual resilience factors had been measured. Wekerle (2013), for example, highlights contextual resilience factors that support adolescent resilience in the context of maltreatment, such as access to transition services for the switch from child to adult services, and maltreatment prevention programs targeting pregnant teens in CPS (Child Protective Services). Further studies should be conducted to better understand if and how the community may be a protective factor for psychological distress among Aboriginal and non-Aboriginal adolescents.

Finally, it should be noted that, notwithstanding the link between individual and relational/familial resilience factors and psychological symptoms, the results of this study showed that sexual abuse and family violence had a direct/main effect on psychological symptoms. Results of various other studies indicate that child maltreatment is related to dysregulation and permanent changes in the major biological stress response systems in youth, which may underlie the increased risk of psychopathology (see Heim & Nemeroff, 2002; Watts-English, Fortson, Gibler, Hooper, & De Bellis, 2006). Although not directly investigated in the current study, this may suggest that trauma symptoms are the core impairment underlying other impairments despite the

presence of protective factors.

Implications

As different risk and protective factors may have variable effects on psychological health, this study represents an important advancement in our understanding of adolescents' psychological distress and the role of resilience in the context of stressful life events. Having the ability to predict various consequences of sexual abuse, family violence and other stressful life events on adolescents' psychological health may have important implications for health promotion, risk reduction and treatment. Adolescence is a critical developmental period that constitutes a unique opportunity for clinicians to prevent exposure to negative life events and promote effective coping resources. This study provides further cross-cultural validation for the CYRM as a measure, as well as information about the most relevant resilience factors for Quebec adolescents and the relative importance of each of them in psychological distress. The individual and relational/familial resilience factors identified in the analyses can be influenced and promoted by practitioners and the community. These findings may guide the development of culturally sensitive interventions and strengthen hope in vulnerable populations. This would be beneficial especially in Aboriginal communities, where the constant focus on difficulties and deficits by the media and the general population offers little hope for future generations.

A few limitations must be considered when examining the results of this study. First, even though the TSC-C has been validated in many contextual backgrounds (e.g., Bal & Uvin, 2009; Nilsson, Wadsby, & Svedin, 2008), we must keep in mind that cultural differences in the expression of distress may have influenced the results. To our knowledge, no culturally sensitive measure (e.g. developed in several countries at the same time) of child and youth psychological distress exists at the moment. In this context, the use of a translated, adapted measure of an existing questionnaire remains the most efficient solution. Second, even though we tested the predictive value of ethnicity in psychological distress and compared the frequency of life events among Aboriginal and non-Aboriginal youth, our analysis did not find significant interactions between Aboriginal status, stressful life events and resilience factors. Since Aboriginal youth live in a particularly adverse context (as shown by the high proportion of stressful life events in our sample), it would be interesting to investigate whether the resilience factors having the greatest impact are the same for Aboriginal and non-Aboriginal youth, and whether they would have the same buffering effect on psychological health in both populations. Further studies should thus examine whether the three types of resilience factors explored in the present study have the same effects on the mental health of Aboriginal and non-Aboriginal adolescents. Third, Aboriginal youth' reality can differ considerably from one community to another (Andersson & Ledogar, 2008). Therefore, although the two communities in our study had different characteristics (especially in terms of proximity to major centers), further research in other Aboriginal communities is needed to clarify the extent to which our findings can be generalized to all Aboriginal adolescents.

Despite these limitations, this study had a number of methodological strengths that overcome limitations found in previous research. These strengths include the use of validated screening tools, the recruitment of Aboriginal youth from two different communities, and the assessment of multiple dimensions of resilience with a culturally sensitive measure. Given the lack of existing literature on resilience in Aboriginal youth (especially quantitative studies), the present study constitutes an important contribution to resilience research.

Conclusion

Overall, these results indicate that stressful life events such as sexual abuse and family violence may have deleterious effects on the mental health of Aboriginal and non-Aboriginal adolescents. However, some individual and relational resilience factors that have been associated with significantly lower levels of psychological distress are believed to attenuate the negative effects of these stressors on mental health. These findings may provide hope for communities under greater stress and support the importance of establishing culturally sensitive intervention strategies that strengthen the key protective factors identified in this study. Longitudinal studies are needed to move beyond description and explore the

underlying mechanisms by which protective factors buffer the deleterious effects of stressful life events on psychological health during adolescence.

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Responding to intimate partner violence: Child welfare policies and practices

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Abstract:

Objectives: To examine the child welfare service response to families referred to the child welfare system in Ontario, Canada due to concerns about intimate partner violence (IPV). **Methods:** Bivariate analyses of a representative provincial dataset were conducted examining two types of maltreatment investigations: (i) investigations in which exposure to IPV was the only form of maltreatment; (ii) investigations in which exposure to IPV co-occurred with at least one other form of maltreatment. A stepwise logistical regression approach was used to determine statistically significant predictors of the decision to provide ongoing child welfare services. **Results:** Secondary data analyses of the OIS-2008 revealed that significant predictors of the decision to provide ongoing child welfare services to investigations referred by the police for exposure to IPV included whether the exposure co-occurred with another form of maltreatment, child aggression or depression and several caregiver risk factors including physical health, drug abuse, mental health issues and few social supports. **Conclusions/Implications:** The current approach to responding to cases of IPV is inefficient – families are referred for services multiple times but the cases are not opened for ongoing services indicating that the family's needs are not being met. Suggestions are made for improving the child welfare service response.

Keywords:

Intimate partner violence, child maltreatment, child welfare.

Introduction

The number of substantiated maltreatment investigations that focused on children's exposure to intimate partner violence (IPV) increased dramatically in Canada over the 10 year period between 1998 and 2008 (Trocmé et al., 2010). In 1998, 1.42 investigations per thousand children in Canada were substantiated for exposure to IPV. In 2008, this rate increased to 4.86 investigations per thousand children (Trocmé et al., 2010). Overall, 34% of all substantiated maltreatment investigations conducted in Canada in 2008 focused on exposure to IPV (Trocmé et al., 2010). Police are the most common source of referral for IPV

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investigations yet there are few studies which address the rationale and processes behind the response to children who are exposed to IPV.

The Child and Family Services Act (CFSA) is Ontario's legislation for child welfare. Section 37(2) of the CFSA defines a child in need of protection (CFSA, 2011). Exposure to IPV (IPV) is not listed as a specific reason for investigation. However, Ontario's child welfare screening tool, the Eligibility Spectrum, interprets the CFSA for child protection workers (OACAS, 2006). This screening tool includes exposure to IPV as a reason to investigate families and children. The police may also interpret a child who is exposed to IPV as a reason to refer to a child protection agency.

The impact of police and child protection investigations on children who are exposed to IPV is not well understood in the literature. We examined the child welfare response to IPV investigations referred from the police using data from the 2008 cycle of the Ontario Incidence Study of Reported Child Abuse and Neglect (OIS-2008; Fallon et al., 2010). Based on the findings of these analyses, we then propose service delivery alternatives for the field.

Literature Review

A Profile of Intimate Partner Violence in Canada

Intimate Partner Violence (IPV) is a significant concern in Canada. Family violence accounts for 26% of violent crime in Canada, with 49% attributed to intimate partners (Statistics Canada, 2013a). In general, intimate partner abuse affects 6% of men and women in Canada (Statistics Canada, 2011), though women are four times more likely to be the victim in an abusive relationship compared to men, making up about 80% of all IPV victims (Statistics Canada, 2013a; Sinha, 2012). In 2011, 78,000 domestic incidents against women were investigated by police (Statistics Canada, 2013b).

Women who are between the ages of 25 and 34 are most at risk of being in a violent relationship, followed by those aged 15 to 24 (Statistics Canada, 2011). Women are more likely to be victimized during a current relationship, rather than by a previous partner (Sinha, 2012). Approximately 11% of victims report being pregnant during a domestic assault (Sinha, 2012). IPV incidents are more likely to occur in rural areas, where the IPV rate is 855 per 100 000 women, compared to a rate of 469 per 100 000 in urban areas (Sinha, 2012).

Childhood exposure to IPV may put females at an elevated risk for both IPV in adulthood and sexual assault (Schewe, Riger, Howard, Staggs, & Mason, 2006). Indeed, victims of IPV are more likely than non-victims to have been abused as a child, with 50% reporting physical abuse and 75% reporting sexual abuse during childhood (Sinha, 2012).

Exposure to IPV and Child Maltreatment

According to mothers' self-reports, approximately half of all IPV incidents are witnessed by children, and in 5% of these incidents, the children were physically harmed while attempting to intervene (Sinha, 2012). In general, children who are exposed to IPV are at risk in two ways. First, exposure to IPV can be considered a form of maltreatment due to the emotional impact of witnessing violence or its aftermath, and due to the potential for children to be physically harmed during a dispute. Second, IPV has been found to co-occur with other types of child maltreatment, including physical, sexual, and emotional abuse or neglect (Brown & Hamilton, 1999; Chang, Theodore, Martin, & Runyan, 2008). In 31% of all substantiated maltreatment investigations in Canada in 2008, exposure to IPV was the sole concern, while approximately 10% of substantiated investigations involved exposure to IPV and at least one other type of substantiated maltreatment (Lefebvre, Van Wert, Black, Fallon, & Trocmé, 2013). These numbers have grown since 2003, when 34% of substantiated maltreatment

investigations involved some form of exposure to IPV (Black, Trocmé, Fallon, & MacLaurin, 2008).

Research on the effects of exposure to IPV on children has found that under certain conditions, children can experience short and long term detrimental effects. The negative impact of IPV exposure is mediated by a number of factors (Edleson, 1999; Gewirtz & Edleson, 2007; Osofsky, 2003). For instance, children, especially girls, who are exposed to physical, but not verbal or emotional, IPV are more likely to exhibit bullying behaviors (Baldry, 2003). Furthermore, children, particularly boys, who are harmed during an IPV incident are more likely to have mood disorders than those who only witness the violence or those who become involved in the dispute, but are not injured (Bayarri, Ezpeleta, & Granero, 2011). Graham-Bermann and Perkins (2010) found that the length of exposure has a greater impact on behavioral problems than the age of first exposure. In other words, even if a child is exposed to IPV at a very young age, if the exposure is of short duration behavioral problems are less than for a child exposed for a longer period of time. Research on children who are exposed to IPV in general focuses on physical altercations. Research has yet to explore the impact of exposure to emotional and psychological IPV on children (Watson MacDonell, 2012).

Other research has found that controlling for risk factors impacting the family, such as poverty and community violence, renders the impact of IPV exposure non-significant for children (Moylan et al., 2010). However, for children who are both exposed to IPV and victimized by another form of child abuse, the risk of developing internalizing and externalizing behaviors is significantly higher than for a control group of non-exposed children (Moylan et al., 2010).

Several meta-analyses have been conducted to determine the overall effect of exposure to IPV on children. Evans, Davies, and DiLillo (2008) found a moderate effect size of .48 for internalizing symptoms and .47 for externalizing symptoms for children exposed to IPV (Evans et al., 2008). The comparative effect size by gender for externalizing symptoms indicates a stronger relationship between exposure to IPV and externalizing symptoms for boys than girls. Wolfe, Crooks, Lee, McIntyre-Smith, and Jaffe (2003) found a much smaller effect size of .28 for externalizing and internalizing symptoms of boys and girls, though they did note significant delays in developmental outcomes as a result of exposure to IPV. Another meta-analysis found small to moderate effect sizes, .29 to .48 for internalizing behaviors and .35 to .46 for externalizing behaviors (Fowler & Chanmugam, 2007).

Signs of mental or emotional harm were identified in approximately 12% of substantiated exposure to IPV investigations in Canada in 2003 (Black et al., 2008). In approximately 15% of substantiated exposure to IPV investigations in Canada in 2008, child internalizing problems were identified; in 16% of these investigations, child externalizing problems were identified (Lefebvre et al., 2013). The rate of physical harm is very low in these investigations. In only 1% of substantiated exposure to IPV investigations, physical harm to the child was identified (Lefebvre et al., 2013).

Exposure to IPV Policies and Their Effects on Families

Various policy initiatives have been developed to address the effects of IPV exposure on children and families. These policies include mandatory reporting, failure to protect, and differential response. Though they have been widely implemented in Europe, Australia, and North America, the structure and effects of these policies vary by region (Mathews & Kenny, 2008). For instance, Kentucky and California both have mandatory reporting laws, however, Kentucky offers follow-up support services for victims and their children, and victims of IPV report satisfaction with this policy, while victims in California, who do not receive follow-up support services, tend to oppose mandatory reporting (Antle, Barbee, Yankeelov, & Bledsoe, 2010).

Another consequence of mandatory reporting is the dramatic increase in cases referred to child protection services. For example in 1999, Minnesota passed legislation on mandatory reporting of children exposed to IPV; however, without the financial and programming supports in place the child welfare field was soon flooded with reports, resulting in huge increases in workloads and fewer available services for those who needed them most (Edleson, Gassman-Pines, & Hill, 2006). The legislation was repealed in

less than a year. Jaffe, Crooks, and Wolfe (2003) call for a cessation of mandatory reporting laws until the child welfare field receives adequate training and appropriate funding for responding to the unique needs of these families.

Failure to protect laws charge non-violent parents for failing to prevent children from witnessing intimate partner violence (Kantor & Little, 2003). These laws have been criticized as they result in the re-victimization of women (Kantor & Little, 2003). Edleson (1998) outlined the consequence of failure to protect laws most effectively: "Strategies implemented by these mothers may fail in the face of persistent abuse and communities unwilling to offer realistic safety and economic alternatives, but it is unfair to characterize our collective failure to rein in abusive men as battered mothers' failure to act" (p.295). As a consequence of the fear of persecution, women might become less willing to disclose the abuse (Alaggia, et al., 2007).

An unintended consequence of mandatory reporting and failure to protect legislation is that it can re-victimize mothers by putting the onus on them to stop the violence, instead of on the perpetrator (Antle, et al., 2010). Even when exposure to IPV is not specifically identified in legislation as a form of maltreatment, agencies can still include it in their own risk assessments and reporting practices (Nixon, Tutty, Weaver-Dunlop, & Walsh, 2007). Often, the child's safety and the mother's safety are judged to be independent, wherein a mother might be blamed for not keeping her child safe from the abuser even though she herself is also being abused (Alaggia et al., 2007). Public opinion tends to be biased against mothers and places responsibility on them for failing to stop violence that they did not perpetrate (Weisz & Wiersma, 2011).

One method of removing the need for a full child protection investigation is to offer differential response services. Differential response is an attempt at protecting children and providing services to families that does not necessitate full child protection intervention, but is instead focused on assessment and service delivery (Cross, Mathews, Tonmyr, Scott, & Ouimet, 2012). Though programs vary, the aim of the differential response approach is to provide voluntary services to at-risk families to prevent crises from occurring (Alberta Children's Services, 2003). Several Canadian provinces have turned to differential response programming. Alberta initiated a differential response program in 2002 to stream low risk cases away from more invasive child protection services (Alberta Children's Services, 2003). British Columbia also implemented the family development response (FDR), a differential response program for low risk families, in 2003 (Marshall, Charles, Kendrick, & Pakalniskiene, 2010). Analyses of the effectiveness of these programs are not yet available. Ontario has yet to implement wide-scale differential response programs, however several provincial government commissions over the last 10 years have recommended that these programs be set up (Ministry of Child and Youth Services, 2005). As a result, the policy structure is in place to implement differential response programs, but further information is needed on what cases should be streamed to them in the Ontario context.

Ontario Context

As previously stated, the Child and Family Services Act in Ontario does not specifically list exposure to IPV as a form of maltreatment. However, exposure to IPV is the most frequently investigated primary form of substantiated maltreatment in Ontario, accounting for 39% of investigations (Fallon et al., 2010). Police are the primary referral source for investigations involving exposure to IPV in Ontario (67% of all IPV investigations) (Trocme et al, 2013). At the same time, 75% of IPV cases are closed at the conclusion of the initial investigation period (Fallon et al., 2010). Understanding the clinical and service dispositions associated with the investigation provides a more complete representation of how children and families are served. This will assist the child welfare and policing fields in determining ways of coordinating the needs of families presenting with concerns around IPV.

Methods

The OIS-2008 data were analyzed in order to understand the outcomes for children who are referred to child protective services from the police. The OIS is part of the larger national Canadian Incidence Study of Reported Child Abuse and Neglect. The primary objectives of the OIS/CIS are to determine the rate and

characteristics of reported child maltreatment, and to document the service decisions made during the course of routine child protection investigations (Trocmé et al., 2010). A multi-stage sampling design was used to select 23 child welfare agencies in Ontario, and then to select cases within each agency (Fallon et al., 2010). Data collection took place between October 1, 2008 and December 31, 2008. Investigating workers were asked to complete a data collection form for each child for whom they had a child maltreatment-related concern. The OIS-2008 tracked up to three forms of maltreatment.

The final sample of 7,471 children investigated in 4,415 families was used to estimate the number of child maltreatment related investigations in Ontario in 2008 (Fallon et al., 2010). The sample is weighted by a composite regionalization weight and an annualization weight to obtain annual incidence estimates. Only those cases that involved maltreatment and were referred by police were used in the analyses. The final weighted sample used for this analysis was 14,989 investigations. The type of IPV investigation was then divided into two categories: IPV only (no other maltreatment was investigated as a concern for the child) and co-occurring IPV maltreatment (cases where there was more than one type of suspected maltreatment in addition to IPV). All investigations were included in the analysis regardless of the substantiation decision in order to gain a clearer understanding of what happens to investigations referred by the police.

Chi-square analyses were used to compare IPV-only investigations with co-occurring IPV maltreatment. Sampling weights were used for all chi-square analyses. The sampling weight maintains the influence of the final OIS weight while reducing the actual number of reports to the original sample size. Sampling weights are needed to correct for imperfections in the sample that might lead to bias and other departures between the sample and the child population. This weight is used during statistical analysis to avoid inflating the significance of statistics as a result of the high number of reports.

Comparisons were made based on clinical characteristics of the case, such as the presence of emotional harm; child, parent, and household risk factors; and service decisions (case disposition outcomes). A logistic regression was then used to determine which child/caregiver/case characteristics were predictive of whether the file is opened for ongoing services. All predictors (or independent variables) were entered into the regression as theoretically relevant blocks. The theoretical blocks use an ecological model, which has the child at the centre. For our analyses, child-level variables were entered first, followed by family, household characteristics, then case characteristics. Cut points were determined by the proportions in the overall dataset (the cut-point default is 0.50 in SPSS version 21.0). The cut point for the outcome variable (the decision to provide ongoing child welfare services) was set at 0.30 (likelihood of being transferred to ongoing services for all investigations). During the review of bivariate analyses, we used a conservative p-value for the decision to include variables in the logistic regression (i.e., $p < .01$). Only predictors that were statistically significantly associated with the outcome variable (transfer to ongoing services) at the bivariate level were included in the final regression. We then ran the regression models with all theoretically significant predictors, removed non-significant predictors and re-ran the final model which is presented in the results section.

The OIS-2008 dataset is hierarchical and nested, wherein the variables are measured at four levels: child, family, worker, and agency and there can be multiple children per family, multiple families per worker, and multiple workers per agency. This increases the risk of violating the assumption of independence of observations. However, support from the statistical literature indicates that child and family clusters do not necessarily pose a threat to the independence of observations (Fallon, 2005). The variation in the children and the size of the cluster ($M = 1.66$ children per family) was judged to be acceptable (Fallon, 2005) to continue with the analysis, as we will not include higher level variables such as worker and agency.

Interestingly, although the OIS collects information about physical harm to the child, there were too few investigations which noted physical harm to produce a reliable estimate for this analysis.

Results

Table 1: Variables

Variable Name	Definition
Source of Referral	Workers were asked to indicate all separate and independent contacts with the child welfare agency/ office. Categorical with 19 options including police
Substantiation	Workers were asked to indicate the level of substantiation at approximately the 30-day point in the child maltreatment investigation. A case is considered "Substantiated" if the balance of evidence indicates that abuse or neglect has occurred. Categorical with 3 levels: substantiated, suspected, unfounded
Cases will stay open for ongoing child welfare services	Workers were asked if they planned to keep the case open to provide ongoing child welfare services Dichotomous: yes, no
Type of maltreatment	Workers were asked to indicate up to three (3) forms of maltreatment. Categorical with 32 options that fell under five categories: physical abuse, sexual abuse, neglect, emotional maltreatment, exposure to IPV (direct witness to physical violence; indirect exposure to physical violence; exposure to emotional violence).
Age	Continuous variable
Child functioning (e.g., depression/ anxiety/withdrawal, ADHD)	Workers were asked to rate issues relating to the child's level of functioning (18 child functioning issues listed). Dichotomous: Noted, not noted
Emotional harm	Workers were asked to indicate whether the child was showing signs of mental or emotional harm (e.g., nightmares, bedwetting, or social withdrawal following the maltreatment incident(s)). Dichotomous: yes, no
Caregiver functioning (e.g., alcohol abuse, few social supports, maltreated as a child)	Workers were asked to rate issues relating to caregiver risk factors (9 risk factors listed) for up to 2 caregivers in the home. Dichotomous: Noted, not noted.
Previous case opening	Workers were asked to indicate if the household had a previous opening with child welfare. Categorical with 3 levels: yes, no, unknown
Referral(s) for any family member	Workers were asked to indicate referrals that have been made to programs and services beyond the parameters of "ongoing child welfare services." Dichotomous: Referral made, no referral made.
Placement during investigation	Workers were asked to indicate if there was a placement made during the initial investigation period. Dichotomous: Formal/ informal placement made, no placement made.
Child welfare court	Workers were asked to indicate whether an application was made to court. Dichotomous: Application made, no court considered.
At least one household hazard	Workers were asked to indicate if there were unsafe housing conditions. Dichotomous: Noted, not noted.
Number of moves	Workers were asked to indicate the number of household moves within the past year. Categorical with 4 options: never, once, two or more, or unknown.
Household regularly runs out of money for basic necessities	Workers were asked to indicate if the household regularly runs out of money for necessities (e.g., food, clothing). Dichotomous: Noted, not noted.
Home overcrowded	Workers were asked to indicate if the household was made up of multiple families and/or overcrowded. Categorical with 3 options: Yes, no, unknown.
Housing	Workers were asked to indicate the housing category that best describes the living situation of the household. Categorical with 7 options: own home, public housing, rental band housing, hotel/shelter, unknown, other.

Of the IPV cases referred from the police to a child protection authority in Ontario, 87% or an estimated 13,008 maltreatment investigations involved only IPV, 13% of investigations (1,981) involved IPV co-occurring with another form of maltreatment (Table 2). The two types of IPV investigations are different in several respects. Co-occurring IPV investigations are more likely to note emotional harm (26% of investigations). Children exposed to IPV, but no other types of maltreatment tend to be younger (Table 3). Sixty percent of children exposed to IPV only were under the age of 8. Child aggression and attachment issues were noted more often in co-occurring IPV investigations at 10% (compared to 5%) and 9%

Table 2: Case characteristics of police referred child maltreatment investigations in Ontario in 2008

	Maltreatment Type				
	IPV Only		Co-occurring IPV		Chi-Square
Case previously opened					
Never	5714	43.9%	864	43.6%	NS
Once	2242	17.2%	198	10.0%	
2-3 times	2627	20.2%	406	20.5%	
More than 3 times	2408	18.5%	513	25.9%	
Emotional harm documented	2033	15.7%	489	25.9%	21.08**
Total number of IPV investigations	13008	86.8%	1981	13.2%	

**$p < .01$
Based on a sample of 871 unweighted maltreatment investigations.
Columns are not additive.

Table 3: Child and caregiver risk factors of police referred child maltreatment investigations in Ontario in 2008

	Maltreatment Type				
	IPV Only		Co-occurring IPV		Chi-Square
Age of Victim					
Less than 1 year	1202	9.2%	-	-	11.29*
1-3 years	3221	24.8%	410	20.7%	
4-7 years	3401	26.1%	451	22.8%	
8-11 years	2727	21.0%	648	32.7%	
12-15 years	2456	18.9%	389	19.6%	
Depression	1140	8.76%	236	11.92%	NS
Suicidal thoughts	-	-	-	-	NS
Self-harming behaviour	-	-	-	-	NS
ADD/ADHD	343	2.64%	121	6.11%	NS
Attachment issues	379	2.91%	131	9.49%	4.96*
Aggression	670	5.15%	199	10.05%	4.50*
Running (multiple incidents)	-	-	-	-	NS
Inappropriate sexual behavior	-	-	-	-	13.17**
Youth Criminal Justice Act involvement	-	-	-	-	NS
Intellectual/developmental disability	626	4.8%	-	-	NS
Failure to meet developmental milestones	380	2.92%	-	-	NS
Academic difficulties	949	7.30%	237	11.96%	NS
FAS/FAE	-	-	-	-	NS

*$p < .05$ **$p < .01$
Based on a sample of 871 unweighted maltreatment
Columns are not additive.
- Estimates of less than 100 investigations are not shown as they might be overestimated due to their small un-weighted size, but are included in the total

Table 4: Household characteristics of police referred child maltreatment investigations in Ontario in 2008

	Maltreatment Type				
	IPV Only		Co-occurring IPV		Chi-Square
Housing					
Own home	5357	41.2%	745	37.6%	16.34*
Rental	5229	40.2%	1008	50.9%	
Public housing	1150	8.8%	122	6.2%	
Band housing	261	2.0%	-	-	
Hotel/Shelter	190	1.5%	-	-	
Other	398	3.1%	-	-	
Unknown	423	3.3%	-	-	
Home overcrowded	291	2.2%	122	6.2%	6.45*
Household regularly runs out of money for basic necessities	711	5.5%	203	10.2%	14.93**
Number of moves					
No moves	7370	56.9%	1289	66.8%	32.51**
One move	3067	23.7%	222	11.5%	
Two or more moves	438	3.4%	235	12.2%	
Unknown	2067	16.0%	183	9.5%	
At least one household hazard	403	3.1%	120	6.1%	NS
Total number of IPV investigations	13008	86.8%	1981	13.2%	

* $p < .05$ ** $p < .01$
Based on a sample of 871 maltreatment investigations.
Columns are not additive.
- Estimates of less than 100 investigations are not shown as they might be overestimated due to their small un-weighted size, but are included in the total

(compared to 3%) respectively.

Some of the biggest differences between exposure to IPV and co-occurring IPV investigations rest in the parental risk factors (see Table 3). Primary caregivers in co-occurring IPV investigations are more likely to have alcohol abuse (35%) and drug use (13%) issues compared to IPV only investigations (7% and 5% respectively). As well, caregivers in co-occurring IPV investigations are more likely to have mental health issues at 25% compared to IPV only investigations at 15%.

Both types of cases are likely to have involved household moves in the past year. Approximately 23% of co-occurring IPV investigations and 26% of IPV only investigations noted that the family had moved at least once in the past year (see Table 4). However, homes are more likely to be overcrowded in co-occurring IPV investigations (6%) than IPV only investigations (2%) and homes are more likely to regularly run out of money for basic necessities in co-occurring IPV investigations (10%) compared to IPV only investigations (6%).

Investigations of exposure to IPV are much less likely to be opened for ongoing services than co-occurring IPV investigations (Table 5). Over 77% of exposure to IPV investigations are closed at the conclusion of the initial investigation, compared to about half of co-occurring IPV investigations. Children who are exposed to IPV only are also less likely to be placed in care, with 99% of children remaining at home. Children who experience co-occurring non-IPV maltreatment are much more likely to be placed during the initial investigation

Table 5: Child welfare disposition of police referred child maltreatment investigations in Ontario in 2008

	Maltreatment Type				
	IPV Only		Co-occurring IPV		Chi-Square
Ongoing child welfare services					
Case to be closed	10071	77.4%	987	49.8%	45.19**
Case to stay open	2937	22.6%	994	50.2%	
Referral to outside services					
Referral made	8083	62.1%	1315	66.4%	NS
No referral made	4925	37.9%	666	33.6%	
Out of home placement					
No placement	12903	99.2%	1743	87.9%	70.41**
Formal or informal placement	105	0.8%	239	12.1%	
Child welfare court					
No court considered	12963	99.7%	1801	90.9%	70.40**
Application made	-	-	180	9.1%	
Total number of IPV investigations	13008	86.8%	1981	13.2%	

**p < .01
Based on a sample of 871 unweighted maltreatment investigations.
Columns are not additive.
- Estimates of less than 100 investigations are not shown as they might be overestimated due to their small un-weighted size, but are included in the total

period, with 12% of children placed outside the home.

The block logistic regression model is moderately effective at predicting whether or not a case will stay open for on-going child welfare services. The model was better at predicting whether a case will close (75% accuracy) than whether a case will stay open (64% accuracy). The overall model had a 72% accuracy of predicting the correct outcome. Significant predictors are outlined in Table 6. Significant parent characteristics are drug/solvent abuse, few social supports, physical health issues and mental health issues. Cases with parental drug/solvent abuse were 2.6 times more likely to be opened. Cases with few social supports were 2.2 times more likely to be opened. Similarly, cases with parental physical health issues were 2.5 more likely to be opened for ongoing services. Cases with parental mental health issues were 1.8 times more likely to be opened for ongoing services.

Significant child characteristics are child's age, child aggression and child depression, anxiety or withdrawal. The younger a child is the more likely the case is to be opened, with every year decrease in age increasing the likelihood by a factor of .93. If a child exhibited aggression, the chance of case opening was 4.6 times greater than if the child had no aggression noted. Similarly, if a child exhibited depression, anxiety or withdrawal, the chance of case opening was 2.5 times greater than if the child had no depression, anxiety or withdrawal noted. With regard to clinical characteristics of the case, if the investigation was for co-occurring IPV maltreatment the case was 2.1 times more likely to open for ongoing services. Similarly, if the child had been emotionally harmed the probability of the case opening increased by a factor of 2. Investigations where the home was noted to be overcrowded were 2.4 times more likely to be kept open for ongoing services.

Discussion

The major findings of the study are that most cases referred by police have been referred before, however, they tend not to be opened for ongoing services. This appears to be an inefficient use of resources, with families cycled through the system repeatedly. There are specific risk factors that can be used to differentiate between cases that will be opened for ongoing child protection services and cases that will be closed. These risk factors are caregiver mental and physical health issues, caregiver substance abuse, and a lack of social supports.

Table 6: Logistic regression predicting whether or not a case will proceed to ongoing child welfare services

Predictor	β	SE	Adjusted Odds Ratio		
Block 1					
Child age	-0.068	0.020	0.934**		
Child depression/anxiety/withdrawal (reference: not noted)	0.928	.318	2.530**		
Child aggression (reference: not noted)	1.535	0.376	4.640***		
Block 2					
Co-occurring IPV (reference: IPV only)	0.755	0.234	2.127**		
IPV harm (reference: no harm)	0.682	0.233	1.977**		
Block 3					
Caregiver physical health issues (reference: not noted)	0.934	0.348	2.544**		
Caregiver few social supports (reference: not noted)	0.780	0.187	2.181***		
Caregiver drug/ solvent abuse (reference: not noted)	0.963	0.321	2.619**		
Caregiver mental health issues (reference: not noted)	0.612	0.232	1.844**		
Block 4					
Home overcrowded (reference: not overcrowded)					
Yes	0.856	0.420	2.353*		
Unknown	-0.608	0.960	0.545		
Block 5					
Case previously opened (reference: not opened)					
Once	-0.511	0.275	0.600		
2-3 times	0.055	0.232	1.056		
More than 3 times	-0.031	0.229	0.970		
Unknown	-20.848	28042.550	0.000		
	Block 1	**Block 2**	**Block 3**	**Block 4**	**Block 5**
-2LL(Constant)-2LL Model	956.470	929.057	870.333	864.771	858.344
Model X2	64.444	27.413	58.724	5.562	6.427
Df	3	2	4	2	4
Nagelkerke R2	0.104	0.146	0.231	0.239	0.248
Correct Classification Rate					72%

*p < .05, **p < .01, ***p < .001,
Based on a sample of 871 unweighted maltreatment investigations.

Referrals made by the police to child protective services about children exposed to IPV are predominantly closed at intake (77%). Several policy and practice alternatives should be considered to address this issue. Having a social worker attend IPV calls with police could offer an immediate CPS perspective on whether a child is in danger of maltreatment or not. The social worker could also provide referrals for the adult victim and ensure that the resources necessary for effective parenting are available to that parent. This would cut down on the need to refer low risk cases to CPS and would expedite the current process of determining whether a child is being maltreated or at risk of maltreatment due to exposure to IPV.

This study notes that the majority of cases involving exposure to IPV have been previously opened for investigation. Jones, Gross, and Becker (2002) also found that families who are experiencing IPV are more likely to be re-referred to CPS after case closure than families dealing with other types of maltreatment. This indicates that these families have needs that are remaining unmet and that current services either lack effectiveness or are under-utilized by families. CPSs and police responding to IPV calls are in a unique position to identify cases of IPV and

to refer them to necessary services. If the point-of-contact moment is missed then families are at risk for future violence which might necessitate a more invasive CPS response.

Research from the US finds that there is a continuum of collaboration, from interagency sharing of case information to a secondment of social workers in police units investigating child maltreatment investigations (Cross, Finkelhor, & Ormrod, 2005). Overall, when clear roles are established between agencies and workers, the collaboration between police and CPS can result in increased voluntary community service provision to families (Cross et al., 2005). As well, joint investigations resulted in a better ability to prosecute confirmed allegations against violent perpetrators (Cross et al., 2005).

Furthermore, an implementation of a differential response program would help to support families experiencing IPV and would stop the cycle of referral and case closure that these families are currently experiencing. It has been found in other provinces in Canada that differential response has the ability to steer low-risk cases away from child protection services and decreases the rate of child placement (Alberta Children's Services, 2003; Marshall, Charles, Kendrick, & Pakalniskiene, 2010). While more research is needed into the effectiveness of differential response programing, there is the potential that less intrusive support services can help to decrease the length of exposure to IPV, and thereby decrease the negative outcomes of IPV on child functioning (Graham-Bermann & Perkins, 2010).

Limitations

There are several limitations to the current study. The data used for this analysis are from child maltreatment investigations. As a result, the data only capture information and characteristics of the case known to the investigating worker during the initial investigation period. The initial investigation period is typically the first 30 days after case opening, which may not be enough time for a comprehensive assessment of child functioning to take place. Children involved in investigations of exposure to IPV may not exhibit child functioning issues during the initial investigation, but this does not guarantee that these issues will not emerge in the future (Lefebvre et al, 2013).

Furthermore, the OIS only includes cases that are referred to child protective services. It does not include cases that are not reported, cases that are screened out prior to a full investigation, and new reports on already opened files. It is therefore unknown how many of the referrals by police are screened out without ever receiving a full investigation. Given that the majority of police referred cases are then closed, future research could look into the case differences between police referrals that receive a full investigation and those that do not to help streamline the process.

Lastly, there are also limitations to the weights used in the analysis. The annualization weight factors in seasonal fluctuation in the number of investigations but it does not account for possible seasonal variations in the type of investigations conducted.

Conclusion

We believe a revised screening protocol for investigations referred by police for child exposure to IPV is a possible avenue for better coordinated services to children. Based on this analysis, the child factors significantly predicting ongoing services for exposure to IPV cases are: young children, children with signs of depression, child or youth aggression, or emotional harm to the child. The significant caregiver risk factors that are predictive of ongoing services are: drug/solvent abuse, mental health issues, physical health issues, or few social supports. We are recommending that it is not solely exposure alone that should initiate an investigation. If the child has been exposed to IPV AND the child has the risk factors noted above OR the caregiver has the issues noted above, then these referrals should be eligible for service.

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Dating violence among child welfare-involved youth: Results from the Maltreatment and Adolescent Pathway (MAP) Longitudinal Study

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Abstract:

Objectives: Adolescent dating violence (ADV) is a significant public health issue with associated mental health impairments, such as depression and suicidal ideation. Even though ADV is addressed typically within the education system, it remains under-assessed by clinical service sectors, and not often a direct target of intervention. Little research has tracked dating relationships from adolescence to young adulthood among vulnerable youth. Assessing the level and continuity of relationship violence may be important to systems with protection and well-being mandates. This study examined youth reports of ADV victimization and perpetration among those receiving services from child welfare or Child Protective Services (CPS). **Methods:** The study randomly selected youth currently involved in the child welfare system in Ontario and followed for assessment at 6, 18, and 24 months. We examined the endorsement of ADV victim and perpetration by gender and CPS service status at baseline (n=341), as well as by using longitudinal data (n=110). **Results:** The prevalence and scores for ADV perpetration and victimization were similar across genders. Only among males, youth in CPS services, other than those living in foster care, had increased ADV perpetrator, as well as, victim scores, as compared to males in foster care. Over the two-year follow-up period, 33.6% of dating youth did not ever engage in ADV, while 46.4% of youth reported ADV at two time points or more. A minority of youth (9.1%) reported being in an ADV relationship across all four assessment points. **Conclusions and Implications:** Violence in adolescent relationships is an experience for many youths receiving child welfare services. About a third, though, had dating experiences that were not reported to include verbal, physical, and sexual abuse. Further studies examining ADV risks and relationship resilience features among CPS-involved youth across the adolescent years remains a research need.

Keywords:

Adolescent, youth, child welfare, dating, violence, dating violence, resilience

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Introduction

Although there is no universal definition of adolescent dating violence (ADV), ADV is often referred to as violence within adolescent dating relationships. ADV is a public health concern that reflects emotional and physical abuse, as well as sexual coercion. ADV is harmful as it can significantly impact a youth's mental health (increased depression, substance use and suicidality) and academic performance (low achievement and high drop-outs) (Banyad & Cross, 2008; Children's Safety Network, 2012; Hamby, Finkelhor, & Turner, 2012; United States Centers for Disease Control and Prevention (US CDC), 2014). A longitudinal study in the US also found that ADV is related to adverse health outcomes in young adulthood, including intimate partner violence, controlling for child maltreatment and socioeconomic status (Exner-Cortens, Eckenrode, & Rothman, 2013).

The population prevalence of adolescent ADV victimization has been fairly stable over the past decade, based on analyses of the US CDC Youth Risk Behavior Survey. In 2011, 9.4% of high school students (9.5% males, 9.3% females) reported ADV victimization (i.e., hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend during the prior 12 months), and 8.0% (4.5% males, 11.8% females) reported being forced to have sexual intercourse from any type of perpetrator (US CDC, 2011). The dynamic of ADV within adolescent relationships may be mutual: both males and females who are involved with ADV reported similar rates of perpetration and victimization of ADV (Wekerle & Wolfe, 1999; Haynie et al., 2013).

Adolescence is an important window of opportunity to redirect relationship trajectories. Adolescent dating is a key context within which violence prevention and health promotion can be supported, particularly when youth are receiving services for other issues (mental health, conduct, and substances, protection). For CPS-involved youth, despite receiving caseworker monitoring, dating may not be a consistent feature of case management, and there may be no screening for ADV. Evidence to date suggests that, given a history of victimization and associated trauma, child welfare youth are at-risk for ADV (Wekerle et al., 2009; Jonson-Reid, Scott Jr., McMillen, & Edmond, 2007; Hamby et al., 2012). Jonson-Reid et al. (2007) found a significant association between posttraumatic stress disorder, drug use, child sexual abuse and ADV victimization among CPS-involved youth in a US state (Missouri). However, little work on CPS youth in the area of ADV has occurred, relative to adolescent high school survey of ADV.

It is important from service providers' perspective to understand the ADV trajectory among CPS-involved youth. Maltreatment and Adolescent Pathways (MAP) Longitudinal Study is a study of CPS-involved youth in the Canadian province of Ontario, and provided the unique opportunity to examine the ADV during the two-year study period.

Methods

Sample

The data for this study are from the MAP, a study of randomly selected youth from the active caseload of a large urban child welfare catchment area in Ontario targetting mid-adolescent youth at intake (between 14 and 17 years of age). The overall recruitment rate for the MAP is about 70%. About 60% of the study sample have had parental rights terminated (Crown Ward of the province of Ontario, similar to Ward of the State in the US). Although this status is terminated at age 18, most youth are maintained

on extended care contracts providing, typically, caseworker monitoring and financial support for living in foster or group home, or independent living until age 21. For all youths, a regular caseworker in-person visits (every 90 days), access to CPS service programs, and referral to other services constitutes standard care. The detailed description of MAP youth is found in other publications (Goldstein et al., 2011; Tanaka, Wekerle, Schmuck, Paglia-Boak, & the MAP Research Team, 2011; Wekerle et al., 2009; Weiss, MacMullin, Waechter, Wekerle, & the MAP Research Team, 2011). Of the 561 youths who completed initial data collection, 345 (61.5%) completed the ADV measurement; most of which (n=341) reported having begun dating and reported on current or recent (past 3 months) dating partner. Following the initial data collection, follow-up assessments were conducted at 6, 18, and 24 months. Ethical approval was obtained from CPS agencies and the affiliated university research ethics boards.

Measurement

The Conflicts in Adolescent Dating Relationship Inventory (CADRI; Wolfe, Wekerle, Scott, Straatman, & Grasley, 2004; Wolfe, Scott, Reitzel-Jaffe, Wekerle, Grasley & Straatman, 2001) is a self-report measure that asks about the perpetration and victimization of ADV and contextual information. It asks respondents about a conflict or an argument that they have had with a current partner or an ex-partner in the past 12 months. A dating relationship is defined for respondents as longer than two weeks. The CADRI has strong internal consistency, two-week test–retest reliability, and acceptable partner agreement (Wolfe et al., 2001). A short-form (Wekerle, Wolfe, Hawkins, Pittman, Glickman, & Lovald, 2001) uses 7 items asking about verbal/emotional abuse (1 item), physical abuse (3 items), threat (2 items), and sexual abuse (1 item). Each item consists of a question to respond to as a perpetrator (e.g., "I said things just to make my partner angry") and as a victim (e.g., "My partner said things just to make me angry"). Participants were asked to choose one response for each item from: (0) Never; (1) Seldom (1-2 conflicts); (2) Sometimes (3-5 conflicts); and (3) Often (6 or more conflicts). For the initial time point, the questions spanned the prior 12 months. At 6, 18, and 24 months, the questions queried the prior 6 months (i.e., since the last assessment point). At 18 months, the timeframe was the prior 12 months. The internal consistency in study sample was α=0.56 for both victimization and perpetration.

Total perpetration score is the sum of response options for the 7 ADV perpetration items (ranged 0-21). The same method is also used to create a total victimization score. For each item, we also created a dichotomous classification for presence (=1) or absence (=0) of the specific act by applying the following cut-point on response options (0-3): presence if responses were "sometimes" or "often", and absence if responses were "never" and "seldom". Then we created overall perpetration and victimization indicators: if a respondent had at least one perpetration item coded as present, he/she was defined as experiencing ADV perpetration (=1). Similarly, if a respondent had at least one victimization item coded as present, he/she was defined as experiencing ADV victimization.

As ADV is typically operationalized as a single time point assessment about the past 12 months, we explored an alternate method that takes into account the repeated ADV experience as either perpetrator or victimization across the four of the MAP data points during two years (i.e., initial, 6, 18, and 24 months). We created a count of times ADV was reported, from 0 to 4, across four data points for two years.

Demographics variables that were assessed at initial time self-report are age, gender (1=male, 0=female), and CPS service types (Crown or non-Crown), and length of CPS involvement. Non-Crown status includes Society Ward (parental rights sharing agreement), Community Family/Temporary Care, and Voluntary Care. Ethnicity was assessed for the following categories: White, Black, Native, Multiethnic, and other.

Analyses

We examined the endorsement of each ADV item, overall prevalence and total scores for ADV perpetration and victimization. We tested for group difference (gender, Crown vs. non-Crown) by t-test for continuous variables (ADV scores) and chi-square test for dichotomous variables (% for ADV

endorsement) with a significance level of 5%. We also compared older youth and younger youth within the Crown status to assess the consistency of patterns. Finally, using a longitudinal subsample, we assessed the number of times ADV was reported across four data points. We used chi-square test to examine the group differences by CPS status.

Results

The average age of study sample was 15.8 years (SE: 1.1), 46.0% were male, 29.0% were White, and 26.7% were multiethnic. 60.1% had Crown Ward status, and the average length of being in the CPS services is 5.4 years (SD: 4.1). Sample characteristics by Crown versus non-Crown appear in Table 1. There were significant group differences in assessed variables, except for the % White (Table 1). 341 youth were analyzed for the main analyses, and a subset of 110 youth was used for the preliminary longitudinal analysis.

Table 2 showed the endorsement of ADV items for males and females. The highest endorsement was on Verbal /Emotional abuse item and lowest was on sexual abuse item. There was no significant gender difference in the % ADV perpetration, victimization, as well as total scores.

Table 3 show the endorsement of ADV items for Crown youth versus non-Crown youth for males (Table 3a) and females (Table 3b). The endorsement pattern was similar to Table 2. Among males, while there was no significant difference between CPS status in the % ADV perpetration, % ADV victims was higher for non-Crown youth compared with Crown youth. Total scores for both perpetration and victim were also significantly higher for non-Crown youth compared with Crown youth. There was no significant CPS status difference among females.

Our preliminary analyses of the subset of longitudinal data, where information about ADV were available at all data points (n=110), showed that 33.6% of youth have never been exposed to ADV at initial data collection and throughout the two-year follow-up. There were 20.0%, 21.8%, 15.5%, and 9.1% of youth who reported ADV once, two times, three times, and four times, respectively, during the two-year follow-up. Table 4 provides the breakdown of results by gender and by Crown status. Compared with Crown youth, non-Crown youth had a larger % for youth who reported ADV twice or more; however group difference was not significant for both sexes.

Discussion

Although direct comparison of prevalence of ADV across studies is difficult due to methodological differences, we found the similar prevalence of both ADV perpetration and victimization between MAP males and females, consistent with previous reports (Wekerle & Wolfe, 1999; Haynie et al., 2013). The ADV prevalence was significantly higher among non-Crown male youth than Crown male youth (i.e., foster care), while it was not significant among females.

Youth in Crown and those in non-Crown differ in several ways, which may have influenced the higher ADV endorsement for non-Crown youth versus Crown youth. Crown youth had a significantly longer length of CPS involvement compared with non-Crown youth and they may have been able to obtain longer term placements than non-Crown youth in various types of care. The average age of entering the CPS for MAP Crown youth was 9.4 years old, while that for non-Crown youth is around 12.7 years old. Early intervention and protection of children into continuous care may have been a protective factor for developing abusive dating relationship, providing support prior to the early adolescent years where dating begins most typically (Wekerle et al., 2001).

Among studies of child placement within child welfare systems, a US study reported that a large portion (76%) of foster home placement disruptions occurred due, at least in part, to foster parents' unwillingness to continue fostering, with most common reason being foster parent's inability to tolerate children's behavioral or emotional problems (Zinn, DeCoursey, Goerge, & Courtney, 2006). These children are then likely to be placed to group home settings (Ryan, Marshall, Herz & Hernandez, 2008). Another US study that employed the propensity score matching procedure, which minimizes the selection bias, to compare levels of delinquency between youth in group home and those in foster care settings (n=8226, aged 7-16 years). Authors of this study found that youth with at least one group home

Table 1: Characteristics of sample who began dating at initial (n=341)

	Crown n=205	Non-Crown n=136
Age, Mean (SE)	16.2 (0.1)	15.5 (0.1)***
Male, %	51.7	37.5*
Ethnicity (% White vs. not)	26.8	32.4
(% Multiethnic vs. not)	31.7	19.1*
Length of involvement with CPS, Mean (SE)	6.8 (0.3)	2.8 (0.3)***

*p<.05, **p<.01,***p<.001
CPS= child protection services, SE = standard error

Table 2: Conflict in Adolescent Dating Relationships Questionnaire item endorsement by sex

	Male (n=157)		Female (n=184)	
Items	Perpetrators (%)a	Victims (%)a	Perpetrators (%)a	Victims (%)a
(V/EA) I said things just to make my partner angry	30.6	33.8	23.4	29.9
(PA) I kicked, hit, or punched my partner	8.9	4.5	6.0	6.5
(PA) I slapped my partner or pulled my partner's hair	5.7	5.1	2.2	4.4
(Threat) I threatened to hurt my partner	8.3	6.4	2.7	3.3
(Treat) I threatened to hit or throw something at my partner	8.9	5.1	4.4	3.3
(PA) I pushed, shoved, shook, or pinned down my partner	7.6	8.3	5.4	4.9
(SA) I threatened my partner in an attempt to have sex	0.0	1.3	0.5	2.2
Any (at least one ADV item is present), %b	36.9	28.3	35.7 n.s.	32.6 n.s.
Total scores, 0-21 (SE) and test statisticsc	2.27 (0.26)	2.25 (0.30)	1.80 (0.22) n.s.	1.90 (0.23) n.s.

V/EA= verbal or emotional abuse subscale; PA = physical abuse subscale; Threat = threatening behavior; SA = sexual abuse subscale; SE = standard error
n.s. not significant at 5% level
For victimization item, replace "My partner" with "I" and "me" with "my partner" to reverse the direction
a Percentages are based on the cut-point on the frequency: 0, 1=absence and 2,3=presence
b Chi-square test of gender difference for any perpetration (%) and any victimization (%)
c t-test of gender difference for perpetration score and victim score

Table 3 (a): Conflict in Adolescent Dating Relationships Questionnaire item endorsement by CPS status for males

	Crown (n=106)		Non-Crown (n=51)	
	Perpetrators (%)[a]	Victims (%)[a]	Perpetrators (%)[a]	Victims (%)[a]
(V/EA) I said things just to make my partner angry	26.4	29.3	39.2	43.1
(PA) I kicked, hit, or punched my partner	4.7	3.8	17.7	5.9
(PA) I slapped my partner or pulled my partner's hair	1.6	2.8	15.7	9.8
(Threat) I threatened to hurt my partner	0.9	2.8	17.7	13.7
(Treat) I threatened to hit or throw something at my partner	3.8	2.8	19.6	9.8
(PA) I pushed, shoved, shook, or pinned down my partner	3.8	4.7	15.7	15.7
(SA) I threatened my partner in an attempt to have sex	0.0	0.9	0.0	2.0
Any (at least one ADV item is present), %[b]	33.0	30.2	45.1 n.s.	47.1*
Total scores, 0-21 (SE) and test statistics[c]	1.63(0.21)	1.75 (0.29)	3.59 (0.65)**	3.27 (0.68)*

*p<.05, **p<.001
[n.s.] not significant at 5% level
V/EA= verbal or emotional abuse subscale; PA = physical abuse subscale; Threat = threatening behavior; SA = sexual abuse subscale; SE = standard error
For victimization item, replace "My partner" with "I" and "me" with "my partner" to reverse the direction
[a] Percentages are based on the cut-point on the frequency: 0, 1=absence and 2,3=presence
[b] Chi-square test of group difference (Crown vs. non-Crown) for any perpetration (%) and any victimization (%)
[c] t-test of group difference (Crown vs. non-Crown) for perpetration score and victim score

Table 3 (b): Conflict in Relationships Questionnaire item endorsement by CPS status for females

	Crown (n=99)		Non-Crown (n=85)	
	Perpetrators %[a]	Victims %[a]	Perpetrators %[a]	Non-Crown %[a]
(V/EA) I said things just to make my partner angry	25.3	28.3	21.2	31.8
(PA) I kicked, hit, or punched my partner	4.0	4.0	8.2	9.4
(PA) I slapped my partner or pulled my partner's hair	1.0	4.0	3.5	4.7
(Threat) I threatened to hurt my partner	2.0	3.0	3.5	3.5
(Treat) I threatened to hit or throw something at my partner	4.0	3.0	4.7	3.5
(PA) I pushed, shoved, shook, or pinned down my partner	4.0	4.0	7.1	5.9
(SA) I threatened my partner in an attempt to have sex	0	1.0	1.2	3.5
Any (at least one ADV item is present), %[b]	27.3	31.3	29.4 n.s.	34.1 n.s.
Total scores, 0-21 (SE) and test statistics[c]	1.71(0.29)	1.73 (0.27)	1.91 (0.32) n.s.	2.11 (0.37) n.s.

V/EA= verbal or emotional abuse subscale; PA = physical abuse subscale; Threat = threatening behavior; SA = sexual abuse subscale; SE = standard error

[n.s.] not significant at 5% level

For victimization item, replace "My partner" with "I" and "me" with "my partner" to reverse the direction

[a] Percentages are based on the cut-point on the frequency: 0, 1=absence and 2,3=presence

[b] Chi-square test of group difference (Crown vs. non-Crown) for any perpetration (%) and any victimization (%)

[c] t-test of group difference (Crown vs. non-Crown) for perpetration score and victim score

Table 4: Reporting dating violence across times among longitudinal sample (n=110[a])

Number of times ADV reported	Crown male	Non-Crown male
	N=35, %	N=20, %
No ADV	42.9	20.0
1 time ADV	20.0	20.0
2+ time ADV	37.1	60.0
	Crown female	Non-Crown female
	N=27, %	N=28, %
No ADV	37.0	28.6
1 time ADV	22.0	17.9
2+ time ADV	41.0	53.5

ADV = adolescent dating violence

[a]Longitudinal sub-sample: began dating at initial time and information about dating status is available at all follow-up points

There was no significant difference between Crown and non-Crown in the number of ADV reporting overall and by males and females separately based on Chi-square tests.

placement had 2.5 times higher levels of delinquency compared with matched youth in foster care (Ryan et al., 2008). Furthermore, a Canadian study with child welfare sample (n=1063, aged 10-17 years) used multilevel analyses to examine the contextual effects on youth's externalizing behavior. This study found that while majority (72%) of externalizing behaviors was explained by youth's individual characteristic, 18% were explained by the care types – relative to children in regular foster care, those in group care displayed significantly higher levels of problem behaviors (Cheung, Goodman, Leckie, & Jenkins, 2011). Our findings together with these earlier reports provide insights into possible contextual effects of group care settings that negatively influence youth's relationship skill development. More studies should investigate contextual and process factors within group care settings that may hinder youth's healthy development. Achieving permanency in status (i.e., Crown Wardship) and in residency requires further attention as a potential resilience process, although such mechanisms of action are not yet determined.

Implications

Given the high prevalence of violence in adolescent dating relationships and serious health concerns

and high-risk sexual behaviors associated with ADV, healthcare providers who treat adolescents are expected to familiarize themselves with ADV and available local resources to support those youth being involved with ADV (Cutter-Wilson & Richmond, 2011; Omer, 2004). ADV screening and promoting healthy relationships may also need to be a priority to support youth safety as part of the protection mandate of child welfare. Although CPS's primary focus is to protect youth from harmful parenting, for protecting youth from all types of abusive interpersonal relationships, it is important to include ADV prevention and promotion of healthy relationship while youth are under the CPS care.

The limitations of this study include the difficulty to follow up study youth for a long period, thus our analyses for longitudinal data with reduced sample should be considered preliminary. Despite this, this study added information about possible relationships between CPS service types and adolescent ADV in Canadian child welfare context.

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International Journal of Child and Adolescent Resilience

Academic buoyancy and mattering as resilience factors in Chinese adolescents: An analysis of shame, social anxiety, and psychological distress

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Abstract

Objectives: The current research sought to establish the protective role of factors in the achievement and the interpersonal domains in terms of their associations with reduced feelings of distress, social anxiety, and shame in Chinese adolescents. Specifically, we focused on academic buoyancy that taps daily academic resilience and the mattering construct as described by Rosenberg and colleagues. **Methods**: A sample of 232 adolescents from advanced and non-advanced high schools in China completed the Academic Buoyancy Scale, the General Mattering Scale, and measures of depression, social anxiety, and shame. **Results**: Analyses confirmed that academic buoyancy and a sense of mattering to others are associated with each other and both are linked significantly with reduced levels of depression, social anxiety, and shame. The findings were comparable for students from advanced versus non-advanced high schools. **Conclusions and Implications**: Our findings highlight the protective roles of developing a capacity to resiliently overcome academic setbacks and having an established sense of mattering to other people when coping with feelings of shame, social anxiety, and distress.

Key Words:

Buoyancy, resilience, mattering, coping, depression, anxiety, shame

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Introduction

Chinese children and adolescents face a number of stressors that point to the need to identify protective factors that promote resilience. The academic pressures that students experience are well-documented (see Quach et al., in press) and these pressures can be exacerbated by a sense of family obligations and the interdependence that exists among family members (Triandis, McCusker, & Hui, 1990) as well as the issues related to China's one child policy (Hesketh, Lu, & Xing, 2005). Researchers studying depressive vulnerability have also focused on young people in China because of changing social times that promote a shift from a collectivistic orientation toward a more individualistic orientation (see Auerbach, Eberhart, & Abela, 2010).

Given the extent of this stress and pressure, it is important to identify various protective factors and examine the role of individual differences in levels of resilience among Chinese children and adolescents. Numerous protective factors have been identified thus far, including a sense of life meaning and purpose (Shek, 2013), parental warmth and concern (Chen, Liu, & Lu, 2000; Leung, McBride-Chang, & Lai, 2004; Shek, 2002) and endorsing positive Chinese beliefs about the nature of adversity (Shek, 2004). The current research focuses on the potential protective roles of academic buoyancy and mattering. Each construct is described in more detail below.

Academic buoyancy is a construct that reflects "everyday academic resilience" (Martin & Marsh, 2008a, p. 53). It has been defined as "… students' ability to successfully deal with academic setbacks and challenges that are typical of the ordinary course of school life (e.g., poor grades, competing deadlines, exam pressure, difficult schoolwork)" (Martin & Marsh, 2008a, p. 53). Academic buoyancy has been shown to be a construct that can be measured meaningfully and reliably in past research conducted with Chinese samples (see Martin & Hau, 2010; Martin, Yu, & Hau, in press; Yu & Martin, in press). Recent research by Yu and Martin (in press) linked academic buoyancy with positive mastery achievement goals. Academic buoyancy in Chinese students has also been linked significantly with higher levels of self-efficacy, persistence, and task management and lower levels of self-handicapping, failure avoidance, and anxiety (Martin et al., in press). The current research sought to extend the range of measures of psychological adjustment that should be associated with academic buoyancy by examining its link with depression and with indices of psychosocial adjustment (i.e., social anxiety and shame). Our working premise is that at the root of academic buoyancy is a sense of a positive, efficacious self, as indicated by past research (Martin, Colmar, Davey, & Marsh, 2010; Martin & Marsh, 2006), and as such, academic buoyancy should be linked negatively with outcome variables such as shame and social anxiety that reflect a negative self-view. The general role of a positive sense of self-efficacy in resilience is well-documented (see Rutter, 1987).

Mattering is another protective factor linked with positive self-views and self-efficacy that has not been extensively discussed in the context of a factor that promotes resilience. What is mattering? And how and why does mattering matter? Mattering is related to but distinguishable from self-esteem (see Rosenberg, 1979). Rosenberg and McCullough (1981) defined mattering as "the feeling that others depend on us, are interested in us, are concerned with our fate, or experience us as an ego-extension." (as cited in Taylor & Turner, 2001, p.311). This sense of being significant and important to one or more people should be instrumental as a key protective resource that buffers life stressors and setbacks. According to Taylor and Turner (2001), the four sources of feeling that one matters are described as (1) dependence (i.e., obligations arising from social bonds and the perception that one's actions and affection toward others will have an effect on them); (2) importance (i.e., the perception that we are of interest and concern to others); (3) attention (i.e., perceiving one's actions as being noticed and acknowledged by important others); and (4) ego-extension (i.e. the perception that one could bring about joy or disappointment with one's own personal successes or failures, or that one would be missed if they were gone).

Mattering has not been discussed extensively or evaluated empirically as a resilience factor despite countless case reports of how one or more caring individuals have instilled a sense of mattering in

a child or adolescent and it is this sense of being a significant person in the eyes of someone else that has helped this young person to not only withstand challenges but actually thrive. The primary exception is a study that treated mattering as a coping resource and found that mattering acted as a buffer of the link between psychosocial stress and depression (Turner, Taylor, & Van Gundy, 2004). As might be expected, several researchers have found generally that among adolescents and adults, a stronger perceived sense of mattering predicts less depression, less suicide ideation, and greater self-esteem (e.g., Elliott, Colangelo, & Gelles, 2005; Elliott, Kao, & Grant, 2004; Marshall, 2001; Schieman & Taylor, 2001; Taylor & Turner, 2001). These studies reflect the premise that well-being is related fundamentally to rewarding social relationships (Taylor & Turner, 2001). One concern that might arise is that mattering is seen as simply another measure of self-esteem, but this is not the case. Indeed, mattering and self-esteem are distinguishable, both at the empirical and conceptual levels. In fact, in their classic paper, Rosenberg and McCullough (1981) showed that mattering to parents predicted a number of important outcomes independent of levels of self-esteem. The sense that emerges from this work when it is viewed from a resilience building perspective is that mattering promotes a lasting positive sense of self and identity that is an essential resource in "times of trouble."

To our knowledge, individual differences in mattering have not been evaluated thus far in participants in China, and in general, there is little cross-cultural work on the nature and correlates of mattering. However, there is evidence of the protective role of caring relationships with peers and family members as buffers of depression among Chinese adolescents (see Zhang, Li, Gong, & Ungar, 2013) and these caring relationships likely operate by promoting a sense of mattering. The need to matter to other people is a key factor in well-being that is likely a universal need, but it is our sense that it should be particularly salient and predictive in collective societies that emphasize a personality structure that is highly influenced by themes reflecting the self in relation to others.

Goals and Hypotheses of the Current Study

The initial goal of the current study was to examine the association between academic buoyancy and perceived mattering. A positive association was expected in light of the general role of positive psychosocial factors in promoting psychological resilience even though we regard buoyancy and mattering as unique predictors.

The second goal of this study was to re-examine individual differences in academic buoyancy among Chinese adolescents. Our particular interest was in establishing that a sense of resiliency in the academic domain relates not only to academic outcomes, it also relates to psychosocial adjustment measures.

Finally, our primary goal was to evaluate the hypothesis that there are meaningful individual differences in perceived mattering among Chinese adolescents, and these differences have an important protective role. Accordingly, it was expected that greater perceived mattering would be associated with lower levels of shame, social anxiety, and depressive symptoms.

Note that our focus on these outcome measures was guided by two considerations. First, there is a paucity of data on how academic buoyancy relates to psychosocial outcomes, so we sought to address this void in the literature. Second, we included a focus on social anxiety and shame in light of some data suggesting that shame and social anxiety are particularly salient among young Chinese people (Zhong et al., 2008). The same measures used by Zhong et al. (2008) were used in the current study.

It should also be noted that a unique aspect of this study is that our sample included an approximately equal number of participants from an advanced high school versus a non-advanced high school. High schools in every city in mainland China are divided into two types-- advanced high schools or regular high schools. Admission to an advanced or regular high school depends on the student's scores on tests for the main school subjects (e.g., math, literature, English, physics, chemistry, biology, politics) in one city. Students in the advanced high school have typically done very well in terms of their demonstrated

learning of these various subjects. We felt that it was important to evaluate possible differences according to school type because of the different challenges facing students in these schools. Students in advanced high schools face more competition and presumably, more social comparison pressure, and in general, more academically rigorous programs are associated with higher stress (Suldo & Shaunessy-Dedrick, 2013).v They may also face greater family and societal expectations, and there is evidence indicating that they do indeed experience comparatively more stress-related symptoms (Ju, Zhang, Su, Fang, & Zhu, 2002; Li & Zheng, 2007. However, the students placed in regular high schools are not as successful as their peers in the advanced high school, and may have suffered a loss of face, so this sense of relative failure is a stressor that also requires a resilient approach. We included this distinction despite not being able to formulate clear hypotheses due to the lack of systematic comparative research examining school type in the existing literature.

Method

Participants

Our sample consisted of 242 participants. Overall, there were 111 adolescent participants from an advanced high school in mainland China (52 boys, 59 girls) and 131 adolescents from a non-advanced high school (68 boys, 63 girls). Participants were recruited in different high schools in Anshan city in the north-east of China. Our participants had a mean age of 17.98 years. In each high school, participants were recruited from Grade 9 and Grade 11, with an equal number of girls and boys recruited from each grade. All participants were born in mainland China.

All participants were volunteers and no one indicated that they did not wish to participate and no interested participant was excluded. Informed consent from each student was obtained. All the participants were recruited initially via class announcements by the class teachers in two types of high schools. The data collection took place during the month of May in 2011. Once consent was obtained, the questionnaires were administered by a team consisting of the second, third, and fourth authors. Note that the third author was also on hand in the role of mental health coordinator for the schools. Once participants completed the survey, each participant was given a written debriefing form in Mandarin and an small monetary gift (approximately $5 Canadian) for taking part in this study.

Measures

The various measures used in the current study are described below. Participants were tested in class groups. Note that all measures were translated into simplified Mandarin from the original English version by the second author, who is qualified as a professional translator, and then, in accordance with established procedures, the accuracy of the translations was assessed by having the measures back translated by another bilingual Mandarin-English speaker. The following measures were administered after a demographics questionnaire asking for birth, gender, and grade level in high school was completed:

The Academic Buoyancy Measure (ABS; Martin & Marsh, 2008a, 2008b). The ABS is a 4-item scale with items such as "I am good at dealing with setbacks at school – e.g., negative feedback on my work, poor result." Participants rate each item on a seven-point scale with "1" indicating strongly disagree and "7" indicating strongly agree. Elevated scores on the ABS are associated with numerous positive outcome variables (Martin & Marsh, 2008a, 2008b). Academic buoyancy is correlated strongly with more standard measures of academic resiliency, and is associated with lower levels of general anxiety and academic disengagement (Martin, 2013).

The Rosenberg Mattering Scale (RMS; Rosenberg & McCullough , 1981). The RMS is a five-item measure of how much one perceives they matter to others. The five questions are: (1) How important are you to others? ; (2) How much do other people pay attention to you?; (3) How much would you be missed if you went away?; (4) How interested are others in what you have to say?; and (5) How much do other people depend upon you? This measure has shown good internal consistency with an alpha coefficient of .85 (Taylor & Turner, 2001). Factor analysis confirmed this measure is unidimensional (Taylor & Turner, 2001).

The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). The CES-D scale is a 20-item measure of the level of depressive symptoms within the past week. The CES-D has shown adequate test-retest reliability and construct validity in both clinical and nonclinical samples (Radloff, 1977).

Social Interaction Anxiety Scale (SIAS) and Social Phobia Scale (SPS) (Mattick & Clarke, 1998). This set of companion scales is commonly used self-report instruments for social anxiety. They assess the main fears of interaction with others and the fears of being observed while doing routine activities, and avoidance of social phobia, focusing respectively on interaction fears and more specific performance-based fears. Statements are rated on a 5-point Likert scale. Each scale consists of 20 items based on a Likert-type scale ranging from 0 (not at all) to 4 (extremely). Reliability is good for both the SIAS and SPS in various samples, with Cronbach's alphas ranging from 0.88 to 0.94 for both scales. Also, both scales have demonstrated high test–retest reliabilities.

The Experience of Shame Scale (ESS) (Andrews, Qian, & Valentine, 2002). The ESS measures three areas of shame: characterological shame, behavioral shame, and bodily shame. However, only characterological shame was assessed in the current study. This decision reflected our efforts to minimize the questionnaire length and the amount of reading involved, but we also wanted to reflect classic definitions of shame as a self-conscious emotion that reflects a potentially permanent aspect of the self. Behavioural shame may be more akin to guilt than to shame because researchers who focus on self-conscious emotions define guilt as the negative emotion that arises from behavioural misdeeds and mistakes (see Tangney, 2002). Higher scores on the ESS indicate higher levels of shame proneness. The ESS has been shown to have high levels of internal consistency, test-retest reliability, as well as concurrent validity in terms of its association with other shame measures (Andrews et al., 2002).

Results

Descriptive Information

Initially, descriptive statistics were computed to examine the psychometric properties of the various measures. All of the measures had acceptable levels of internal consistency. Cronbach alphas were as follows: academic buoyancy (.79), mattering (.77), depression (.77), social anxiety (.84), social phobia (.91), and shame (.89).

A multivariate analysis of variance and subsequent ANOVAs explored possible group differences in mean scores for students according to type of high school and for boys versus girls. These analyses were conducted to primarily explore the issue of possible differences related to type of school. Few significant differences were detected. The primary exception was a group difference by school type on mattering with students from the advanced high school having lower levels of reported mattering than students in the non-advanced high school. The respective means were 13.08 (SD = 2.69) and 13.31 (SD = 3.02) for students from advanced versus non-advanced high schools. There was no group difference involving school type on academic buoyancy. The respective means were 3.93 (SD = 0.79 and 3.59 (SD = 0.80) for students from advanced versus non-advanced high schools, suggesting low to moderate overall levels of academic buoyancy.

The zero-order correlations among the measures were then computed to establish the associations involving academic buoyancy and mattering. First, however, the degree of overlap among the adjustment measures was evaluated, in part due to our use of an abbreviated shame measure. As expected, the measures of psychological maladjustment were substantially intercorrelated, but not to the extent that they were redundant with each others. For instance, shame was correlated significantly with social anxiety ($r = .66$, $p < .01$), social phobia, ($r = .66$, $p < .01$), and depression ($r = .59$, $p < .01$).

The correlations for the total sample are shown in Table 1 for the key measures of academic buoyancy and mattering. Note that there was a significant positive association between these two measures in the overall sample ($r = .25$). There were some indications that these measures had a stronger link in the sample from the advanced high school sample ($r = .36$) than in the participants from the non-advanced high school ($r = .20$).

Table 1: Correlations with Academic Buoyancy and Mattering Measures

Maladjustment Measures	Buoyancy	Mattering
Total Sample		
Depression	-.38**	-.36**
Social Anxiety	-.32**	-.36**
Social Phobia	-.27**	-.20**
Shame	-.26**	-.25**
Students: Non-Advanced High School		
Depression	-.36**	-.38**
Social Anxiety	-.24**	-.38**
Social Phobia	-.27**	-.23**
Shame	-.27**	-.27**
Students: Advanced High School		
Depression	-.41**	-.41**
Social Anxiety	-.46**	-.34**
Social Phobia	-.32**	-.17**
Shame	-.31**	-.24**

Note: * $p < .05$, ** $p < .01$. Based on the responses of 242 participants.

It can be seen in Table 1 that academic buoyancy was associated with significantly lower scores on all of the adjustment measures in the overall. The strongest links were found between academic buoyancy and depression (r = - .38) and between academic buoyancy and social anxiety (r = - .32). This same pattern of associations was apparent for the students in the advanced and the non-advanced high school.

Similarly, mattering was also associated significantly with lower scores on all of the adjustment measures. It was found once again that the strongest links were v vwith depression (r = - .36) and with social anxiety (r = - .36). Here again it was found that a comparable pattern of associations was apparent for the students in the advanced and the non-advanced high school.

Discussion

The results of the current study confirmed the protective roles of academic buoyancy and mattering in psychological adjustment among Chinese adolescents. As expected, buoyancy and mattering were associated with each other, and both factors were linked with higher levels of depression and lower levels of shame, social anxiety, and social phobia. A unique feature of this study was that it involved students from high schools varying in levels of status based on the tendency for students in China to be placed in schools based on past performance. This distinction made surprisingly little difference in the current study both in terms of overall mean levels on the key variables as well as in terms of the pattern of correlations.

One of our goals in conducting this study was to highlight the need to consider resilience not only in terms of general emotional resilience, but also in terms of developing a sense of academic resilience that would operate in challenging achievement situations and in terms of developing a sense of interpersonal resilience that would operate in problematic interpersonal situations. We interpret the apparent protective effects of academic buoyancy and mattering found in the present study as clear indications of the need to consider specific resilience domains, with the caveat that at the root of resilience in terms of emotional, academic, and interpersonal functioning is a positive sense of the self as capable, efficacious, and likely to contribute to a positive personal future.

Specific findings in the current study merit additional comment. First, while academic buoyancy has been associated with reduced neuroticism and emotional instability in general (Martin et al., 2013), to our knowledge, the negative association between academic buoyancy and depression in adolescents has not been previously reported. Our results suggest that students experiencing learning challenges will be protected from depression and ruminative brooding to some degree if they have developed a sense of everyday academic resilience as reflected by the academic buoyancy construct. These data fit with the impact that academic failures can have in terms of undermining the well-being of students who have not developed resilience and a sense of grit.

Second, the finding that academic buoyancy is associated with lower levels of shame, social anxiety, and social phobia is an illustration of how academic resilience can have crossover effects in terms of contributing to psychosocial adjustment. The current

findings are in keeping with our suggestion that the positive sense of self-efficacy that underscores academic buoyancy can have a pervasive influence in also boosting self-confidence in social situations and inhibiting feelings of shame and the sense the personal inadequacies are on public display.

Third, because feelings of shame and humiliation can have profound impacts on well-being, it is important to identify the factors that enable some people to respond in a resilient manner when these feelings are experienced. The challenges facing the ashamed person are quite significant. One grounded theory analysis suggested that shame is nothing short of an attack on the self and this adversity requires a process of self-reconstruction in order to overcome it (Van Vliet, 2008). Other analyses suggest that people can become disabled by shame and resilience comes from learning to reposition oneself with respect to other people (see Leeming & Boyle, 2013). Our current findings suggest that academic buoyancy and a sense of mattering can help to overcome shame, but these factors account for a modest proportion of the variance in levels of shame. Clearly, other protective factors need to be identified and there is room for much more research on the factors that promote resilient coping when feeling ashamed and humiliated.

Finally, a particularly unique aspect of the current study was our focus on mattering as a protective factor and boosting the sense of mattering in order to promote resilience. As noted earlier, to our knowledge, mattering has not been studied in a sample of Chinese adolescents. The need for a focus on this construct was clearly evident; mattering in the current study was linked with lower depression, thus replicating past findings (Flett, Galfi-Pechenkov, Molnar, Hewitt, & Goldstein, 2012; Raque-Bogdan, Ericson, Jackson, Martin, & Bryan, 2011), and it was also linked with lower levels of shame and social anxiety. The role of mattering in buffering feelings of shame and social anxiety has not been previously documented, and the association with shame in the current study is particularly noteworthy given the relevance of the face construct and "facework" in Chinese society and how loss of face is linked with a sense of shame (see Karn & Bond, 2008).

More generally, when mattering is viewed from a resilience perspective, the benefits of feeling significant and positively regarded by others seem quite apparent, yet systematic research on the role of mattering in resilience promotion is still needed. The young person with a sense of mattering will not only have a positive self-identity to fall back on during times of stress and trauma, they will also have a positive orientation toward other people that should promote help-seeking and a tendency to keep in close proximity to supportive mentors. Mattering is also beneficial through its link with other protective factors and personality tendencies, such as a secure attachment style (see Raque-Bogdan et al., 2011). Unfortunately, the extensive work that has been conducted on self-esteem and resilience has seemingly obscured the fact that a distinct component of self-esteem, the need to matter to other people, can play a fundamental role in developing a sense of personal resilience.

Limitations of the Current Study and Directions for Future Research

While the current study yielded some unique findings, certain limitations should be noted. First, the current study was cross-sectional in nature, so no causal assumptions are warranted. Future research must explore these issues in a longitudinal design. The need for such an approach is suggested by longitudinal data suggesting the presence of reciprocal relationships between academic buoyancy and measures of academic and psychological risk (Martin, Ginns, Brackett, Malmberg, & Hall, 2013).

Second, the current study was based solely on self-report measures, so there are possible self-report response style biases. It is important in future research to re-examine these issues with informant ratings. It would also be informative to examine these constructs in their actual daily contexts by utilizing an experience sampling approach.

Third, it is important not to over-generalize our findings. While it is more than conceivable that these findings are replicable in other cultures and contexts, this is a question for future research.

Fourth, our study focused on a general measure of mattering and there is merit in studying mattering as a broader context. Mattering can be evaluated in

terms of mattering to peers and friends, mattering to parents, and mattering to the community, so it is conceivable that the protective role of mattering as a resilience factor has been underestimated in the current study.

Finally, we limited our focus to mattering as a protective factor from the social domain and there are several other related factors that also deserve consideration in future research. Most notably, research is needed to directly show that individual differences in mattering are linked empirically with standard resilience measures. However, in this regard, we reiterate that the current results did suggest a positive association between buoyancy and mattering.

In summary, the current study examined predictors of depression and psychosocial adjustment in a sample of Chinese adolescents and we confirmed that both academic buoyancy and mattering are associated with lower levels of depression, social anxiety, social phobia, and shame. Our findings suggest that adolescents would benefit from preventive efforts in school and family settings that are focused on boosting levels of academic buoyancy and the sense of mattering to other people. Such efforts should benefit children and adolescents in general, but especially those young people who are exposed to and must withstand significant pressures and challenges.

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Factors associated with resilience in preschoolers reporting sexual abuse: A typological analysis

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Abstract:

Objectives: The objectives of this study were to explore the diversity of profiles in sexually abused preschoolers and identify possible protective factors associated with individual differences in outcomes. **Methods:** A sample of 68 sexually abused children (ages 3½ – 6 ½ years old) and a comparison group of 78 children participated in the study. Parents evaluated children's level of internalizing and externalizing behavior problems with the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2000; 2001). They also reported on within-child protective factors by completing the Devereux Early Childhood Assessment (DECA; LeBuffe & Naglieri, 1999), their resilience capacity (CD-RISC 10; Campbell-Sills & Stein, 2007) and coping strategies (WOC; Folkman & Lazarus, 1988). A two-step cluster analysis was used to identify relevant subgroups of children. **Results:** A three-cluster solution identified: a) High symptomatology subgroup whose members had clinically elevated scores on internalizing and externalizing behavior problems scales; b) moderate symptomatology group displaying significant externalizing behavior problems when compared to non-abused children, and c) resilient group of children displaying few behavior problems and benefiting from a host of protective factors. **Conclusions and Implications:** Results underscore the relevance of incorporating screenings for protective factors in addition to behavioral concerns in the assessments of sexually abused preschool-age children. Such an approach is likely to optimize the implementation of interventions for this vulnerable population.

Keywords:

Child sexual abuse, preschoolers, resilience

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Introduction

Child sexual abuse (SA) has been associated with deleterious consequences in adulthood (Trickett, Noll, & Putnam, 2011) and is now recognized as a significant risk factor for depression, suicidal ideations, post-traumatic stress symptoms and risky sexual behaviors in adult survivors (Maniglio, 2009). While scholarly reports have documented the long-term outcomes associated with SA, few empirical studies have explored its impact on preschool-agechildren despite the fact that almost 30% of minors that experienced SA in 2012, in the United States, were aged 7 and under (U.S. Department of Health and Human Services, 2013).

While little is known about the outcomes of SA in preschoolers, studies conducted up to now have underscored the diversity of possible outcomes in older children, without being able to definitively conclude as to the factors and processes involved (Hébert, 2011). Person-oriented approaches, in contrast to variable-oriented approaches, have provided some insights into the differential profiles of sexually abused children. Person-oriented approaches focus on individuals or homogeneous subgroups of individuals and highlight inter-individual differences and characteristics rather than sample means of specific variables (Bergman & Magnusson, 1997; von Eye, Bogat, & Rhodes, 2006). Cluster analysis is one of the methods that can be used to uncover these patterns of individual distinctive features (Mun, Bates, & Vaschillo, 2010). Trickett, Noll, Reiffman and Putnam (2001) performed such an analysis with a sample of SA girls aged 6 to 16. Three subgroups were identified with the following variables discriminating between clusters: presence of physical violence and of more than one assailant (Cluster 1), presence of a single assailant that is not the biological father (Cluster 2) and victims of chronic abuse perpetrated by the biological father (Cluster 3). Victims of prolonged SA involving a biological father were found to display more antisocial and aggressive behaviors, while victims abused for a shorter period of time showed more depressive symptoms. Victims of physical violence or of chronic abuse by a biological father were more likely to manifest important dissociation symptoms. These results identified characteristics of the abuse as linked to the diversity of outcomes found among sexually abused girls.

Hébert, Parent, Daignault and Tourigny (2006) also conducted a typological analysis with a sample of both boys and girls aged 6 to 12 who were victims of intra-familial or extra-familial SA and contrasted them to a comparison group. Four subgroups of sexually abused children were identified: victims of less severe abuse (as defined by the absence of penetration or attempted penetration), children displaying mainly internalizing symptoms and two other clusters at the opposite ends of a spectrum. At one end, a subgroup of children was described as highly symptomatic by their caregivers: achieving very high scores of behavior problems on all subscales of the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001) and more likely to have experienced penetration or attempted penetration. At the other end of the spectrum, a subgroup of resilient children was identified. These children did not present clinically significant behavior problems despite the fact that the abuse was of comparable severity, indicating that characteristics of the SA did not account for the differential outcomes. Resilient children were found to benefit from a series of protective factors, such as a harmonious family environment, reliance on approach coping strategies and a higher level of self-esteem. The differences observed between the highly distressed and the resilient group indicate that, even after experiencing a similar adverse life event, children's trajectories can vary considerably and such a typological approach offer cues as to the factors leading to these opposite trajectories. Thus, personal and environmental factors can lead to a resilient trajectory, even after having experienced a devastating trauma such as SA. Studies involving maltreated children have highlighted this possibility (Afifi & MacMillan, 2011) and argue for the relevance of investigating factors related to resilience in at-risk populations.

Resilience has been defined in multiple ways but two elements appear essential in all definitions: the presence of a threat to a healthy development and of a subsequent positive adaptation (Zolkoski & Bullock, 2012). Cicchetti's (2013) definition appears particularly relevant to the population of interest in the present analysis: "a dynamic developmental

process encompassing the attainment of positive adaptation despite exposure to significant threat, severe adversity, or trauma that typically constitute major assaults on the processes underlying biological and psychological development" (p. 404). Resilience is not a fixed characteristic that can be seen as present or absent in a person, but rather a process. Resilience can also be modulated or influenced by developmental changes in biology, psychology and environmental demands (Afifi & MacMillan, 2011; Cicchetti, 2013).

Studies on protective factors linked to resilience in children show that these factors include individual features, such as personality and temperament characteristics, or that they can be family- or community-related. Zolkoski and Bullock's review (2012) indicates that, at the individual level, an easy temperament, high autonomy and sociability, optimism, good coping skills, intelligence, self-perception and self-regulation are associated with resilience. Regarding family characteristics, a close relationship to a stable and supportive caregiver, authoritative parenting style, family cohesion, a stimulating environment and a stable and adequate source of income are the main variables linked to resilience in children. Finally, at the community level a number of factors are correlated with resilience: presence of role models outside of the family, early intervention and prevention programs, safe neighborhood, accessibility to health and support services and presence of recreational facilities (Zolkoski & Bullock, 2012).

One of the most important threats to a child's healthy development is maltreatment. A host of negative outcomes across lifespan is associated with maltreatment experienced in childhood. Nevertheless, some children and adults survivors appear to adapt well despite the trauma (Houshyar, Gold, & DeVries, 2013). This observation has paved the way for studies that investigate the pathways leading to positive adaptation in the hope of identifying factors associated with resilience in maltreated children. Identifying such personal, family or community-related factors could offer precious information for the design of interventions (Houshyar et al., 2013). Yet the child maltreatment field has only begun to focus on positive adaptation following trauma (Walsh, Dawson, & Mattingly, 2010). In their review, Walsh et al. (2010) note that the main criteria used as evidence of resilience in most child maltreatment studies is exhibiting competence – that is performing within the normal range – across domains of functioning (behavioral, emotional, social and academic).

Studies to date have shown that one of the most important protective factors, capable of consistently distinguishing between maltreated children with a positive development and those exhibiting a negative developmental trajectory, is the presence of a supportive and stable non-offending caregiver (Afifi & MacMillan, 2011; Cicchetti, 2013; Houshyar et al., 2013). Interestingly, Kim and Cicchetti (2003) found that relationship factors were more important in predicting resilience in non-maltreated children than in maltreated children, and that conversely, personality characteristics and self-system processes were more critical to maltreated children than they were for children in the comparison group. As reported by Cicchetti (2013), ego-resilience and self-esteem are highly associated with adaptive functioning in maltreated children. Low neuroticism, being a girl, coping strategies, ability to trust others and easy temperament are individual characteristics also found to be associated to resilience in maltreated children (Afifi & MacMillan, 2011).

Yet, preschoolers tend to evolve in a more restrained social setting and, therefore, may be limited to their parental figures as sources of support in situations of distress (Wood, Emmerson, & Cowan, 2004). Given preschoolers' greater dependency on their caregivers as well as their limited development in terms of coping strategies and problem-solving skills when compared to older children and teenagers, relational and familial factors may be particularly critical to their capacity in overcoming trauma. Studies have shown that familial factors, including maternal history of child SA and symptomatology following disclosure, can impact on sexually abused children's behavioral problems (Berthelot, Langevin, & Hébert, 2012). Furthermore, mothers' ability to cope with adverse life events may influence their capacity to support their children's recovery following SA (Cyr, McDuff, & Hébert, 2013). Levels of behavior problems were found to be lower for children of mothers

described as resilient (i.e. mothers presenting low levels of traumatic symptoms, anger and neuroticism) and children whose mothers relied extensively on avoidant coping strategies (Cyr et al., 2013). These findings underline the relevance of considering caregivers' own level of resiliency and capacity to cope with adverse life events to better understand individual differences in outcomes in preschoolers.

Few studies have investigated protective factors associated with resilience in victims of specific subtypes of maltreatment, despite their potential differential effects (Afifi & MacMillan, 2011). Sexual abuse may be one of the most distinctive forms of maltreatment since it can be perpetrated not only by a caregiver, but also by a member of the extended family, family acquaintances, siblings, or strangers, which is usually not the case for other forms of maltreatment. In a longitudinal study of women survivors of childhood SA, Hyman and Williams (2001) found resilience to be associated with a stable family environment and less severe SA. Banyard and Williams (2007) identified social connection, life satisfaction and adaptive coping as correlates of resilience in adulthood in adult survivors of SA. Ability to form a secure attachment in childhood and to maintain it through adulthood also appeared to be a predictor of positive adaptation in women survivors of child SA (Leifer, Kilbane, & Kalick, 2004). Only a handful of empirical studies have investigated the short-term correlates of resilience in children victims of maltreatment (Walsh et al., 2010) and, to our knowledge, none has specifically explored these correlates in sexually abused preschoolers. Studies of older children victims of SA underlined the presence of a considerable diversity in the profiles of these children, beyond the simple dichotomy of resilience versus high-symptomatology.

In this context, the present study aims to explore the diversity of outcomes in preschoolers victims of SA by means of a typological analysis. It is expected that a subgroup of highly symptomatic children and a subgroup of children displaying moderate levels of symptoms will be identified. It is further hypothesized that severity of the SA will be associated with higher internalizing and externalizing behavior problems and will characterize highly symptomatic children. We also expect to identify a group of resilient asymptomatic children and predict that within-child protective factors as well as protective factors related to the non-offending parent (resiliency and coping strategies) will distinguish resilient children from those displaying high symptomatology.

Method

Participants

A sample of 68 sexually abused preschoolers (ages 3 ½ – 6 ½ years old) and their non-offending caregiver (92% maternal figure) were recruited at initial evaluation from two specialized intervention settings in Montreal, Quebec, Canada. A sample of 78 non-abused children recruited from daycare centers served as a comparison group. Sexually abused children were found to be comparable to non-abused children on socio-demographic variables, except for family structure, maternal level of education and family income (see Table 1).

Measures

Child Behavior Checklist. Parents completed the CBCL (Achenbach & Rescorla, 2000; 2001) evaluating the presence internalizing (anxiety, depression, somatization, etc.) and externalizing (e.g., aggressivity) behavior problems. Items are rated on a three-point Likert scale that indicates the frequency of the behavior displayed by the child within the past two months (0 = Not true, 1 = Somewhat or sometimes true, 2 = Very or often true). T scores are calculated for each subscale and a higher score is indicative of higher behavior problems. Internal consistencies of internalizing and externalizing subscales are adequate (α = 0.89 and 0.92) and studies support their validity (Achenbach & Rescorla, 2000; 2001).

Devereux Early Childhood Assessment. Children's protective factors were assessed using the DECA (LeBuffe & Naglieri, 1999). In the original validation study, the DECA showed adequate psychometric properties (LeBuffe & Naglieri, 1999). The DECA was also found to be reliable with at-risk populations such as Head Start children and children exposed to intimate partner violence (Howell, Graham-Bermann, Czyz, & Lilly, 2010; Lien & Carlson, 2009). Parents answered items referring to three subscales: Initiative

Table 1: Socio-demographic Variables of the Sample and Group Differences

Variables	SA group (n = 68)	Comparison group (n = 78)	Statistical test
Average age of children (in months)	58.1 (11.55)	56.10 (8.65)	t(144) = -1.21 ns
Gender of children			χ2 (1, N= 146) = .58 ns
Girls	80.9%	75.6%	
Boys	19.1%	24.4%	
Family structure			χ2 (1, N= 143) = 22.31, p < .001
Single-parent family	43.1%	9.0%	
Intact or step-family	56.9%	91.0%	
Maternal level of education			χ2 (4, N= 143) = 66.02, p < .001
Elementary school	6.2%	0.0%	
High school	43.1%	2.6%	
College level	30.8%	12.8%	
Undergraduate level	15.4%	46.2%	
Graduate level	4.6%	38.5%	
Annual family income			χ2 (1, N=135) = 47.94, p < .001
< 40 000$	68.3%	10.7%	
> 40 000$	31.7%	89.3%	

(11 items), Self-control (8 items) and Attachment (8 items) and each item is assessed on a 4-point frequency scale. Higher scores reflect a higher level of protective factors. The Initiative subscale refers to child's use of independent thought and actions to meet his or her needs; the Self-control subscale assesses the child's ability to experience a range of feelings and express them appropriately, while the Attachment subscale is designed to measure whether the child has developed mutual and solid relationships with other children and adults (Naglieri, LeBuffe, & Ross, 2013). In the present study, all subscales of the DECA present an adequate internal consistency coefficient (α = .78 to .88). A total protective factor scale is also provided where T-scores above 60 are described as strengths, score between 41 and 59 are considered typical while T-scores below 40 are labeled as concerns.

Connor-Davidson Resilience Scale. Parents completed the 10-item CD-RISC (CD-RISC 10; Campbell-Sills & Stein, 2007), a short version of the original 25-item version (Connor & Davidson, 2003). Questions measuring parent's resilience were rated on a scale from 0 (not true at all) to 4 (true nearly all the time). A total score is obtained by summing the scores for each item; a higher score reflects a better resilience. CD-RISC 10 has demonstrated good internal consistency (α = .85) and when compared to the original 25-item version, scores were highly correlated (r =.92), (Campbell-Sills & Stein, 2007). Data supports the unidimensional structure of the French Canadian version of the CD-RISC 10 (Hébert, Parent, Simard, & Laverdière, submitted). In the present study, the internal consistency coefficient is high (α = .83).

Ways of Coping Questionnaire. Parents completed The Ways of Coping Questionnaire (WCQ; Folkman & Lazarus, 1988), a self-report questionnaire designed to evaluate coping strategies on a four-point Likert scale (0 = Never, 1 = Sometimes, 2 = Often, 3 = Almost always) indicating how often each strategy was used. A brief version was used in this study, assessing three dimensions of coping strategies: Distancing (3 items; α = .61), Problem-solving (4 items; α = .68) and Seeking Social Support (4 items; α = .76) (Folkman & Lazarus, 1988). Parents of sexually abused children were invited to complete the scale in reference to the strategies used following disclosure while parents of the comparison group were asked to refer to an adverse life event experienced by their child. In the

Table 2: Adjusted Mean Scores (SEs; Adjusted residuals) Based on Cluster Membership

	Cluster 1	Cluster 2	Cluster 3	Comparison group	$\chi 2$/F
DECA (T scores)					
Initiative	42.5 (2.0)[a]	39.2 (2.7)[a]	56.7 (1.8)[b]	54.0 (1.8)[b]	16.77***
Self-control	46.2 (1.7)[a]	36.2 (2.3)[b]	61.1 (1.5)[c]	59.1 (1.0)[c]	39.43***
Attachment	39.0 (2.3)[a]	45.1 (3.1)[a]	56.0 (2.0)[b]	53.8 (1.3)[b]	13.44***
DECA (% concern)					
Total score	52.2% (4.7) †	76.9% (5.8) †	3.8% (-2.1) †	2.6% (-5.3) †	65.30***
CBCL (T scores)					
Internalizing	54.7 (2.5)[a]	70.7 (3.4)[b]	47.8 (2.2)[c]	49.8 (1.5)[a,c]	12.34***
Externalizing	54.9 (1.9)[a]	73.5 (2.6)[b]	50.0 (1.7)[c]	47.8 (1.1)[c]	25.75***
CBCL (% clinical)					
Internalizing	17% (-0.3)	92% (7.0) †	12% (-1.1)	10% (-3.0) †	49.67***
Externalizing	17% (0.6)	92% (8.7) †	8% (-1.0)	1% (-4.8) †	79.80***
CD-RISC	25.5 (1.2)[a]	23.0 (1.6)[a]	29.6 (1.1)[b]	30.5 (0,7)[b]	7.29***

Notes. DECA = Devereux Early Childhood Assessment; CBCL = Child Behavior Checklist; CD-RISC = Connor-Davidson Resilience Scale. Scores with the same subscript are not significantly different from each other but are significantly different from those with different subscripts ($p < .05$). † indicate values > 1.96 that flag observed values significantly different than expected.
***p< .001.

present study, internal consistencies of the three subscales are similar to those found with the original version (Distancing α = .61; Problem-Solving α = .67; Seeking Social Support α = .76).

Procedure

Parents of sexually abused children completed questionnaires with assistance, if needed, in the intervention settings. The same procedure was used for parents in the comparison group except that they completed the questionnaires at home. Written informed consent was obtained from parents after explaining the implications of their participation in the study. This study received the approbation of both the Human Research Review Committee of Université du Québec à Montréal and the Ethics Committee of Ste-Justine Hospital.

Results

In order to explore possible clusters within the data, a two-step cluster analysis was performed using the data from children in the SA group. Variables used to derive the clusters included internalizing and externalizing behavior problem scores (CBCL), within-child protective factors (initiative, control and attachment subscales: DECA-I, DECA-C and DECA-A) and mothers' individual features of resilience (CD-RISC). To identify the most significant cluster solution, comparison of solutions was based on practical judgment and conceptual issues as suggested by Hair, Black, Babin and Anderson (2009). Thus, the classification of sexually abused children into two clusters was examined and then interpretation of a three- versus two-cluster solution was attempted. The three-cluster solution provided the most clinically meaningful description and was selected for further analyses.

The comparison group was not included to derive the clusters but was used to allow for a better description of the clusters and the identification of distinctive features regarding severity of behavioral problems and personal and family protective factors characteristics of each cluster. Thus, to further interpret cluster profiles, identify the unique characteristics of each cluster, as well as to contrast each cluster group with children in the comparison group, a series of analyses were conducted and results are presented in Table 2. To control for significant differences regarding socio-demographic variables between the sexually abused children and comparison group children, ANCOVAs were used. Given the high correlations between family structure, maternal level of education and family income (0.52 to 0.65, $p<0.001$), maternal level of education was retained as the control variable. ANCOVAs were followed by

Table 3: Adjusted Mean Scores (SEs; Adjusted residuals) Based on Cluster Membership

	Cluster 1	Cluster 2	Cluster 3	Comparison group	χ2/F
Family structure					
Single-parent	57% (3.9) †	46% (1.9)	31% (0.9)	9% (-4.7) †	26.92***
Gender					
% of boys	22% (0.4)	31% (1.2)	12% (-1.3)	27% (1.0)	2.99 (ns)
Age					
Mean age (months)	61.0a	57.5a	56.9a	56.1a	1.44 (ns)
Type of abuse					
Intra-familial	73% (0.0)	58% (-1.3)	80% (1.1)	NA	
Extra-familial	27% (0.0)	42% (1.3)	20% (-1.1)		1.93 (ns)
Severity of the abuse					
Clothed or unclothed touching	35% (-1.9)	70% (1.3)	58% (0,9)	NA	
Penetration or attempted	65% (1.9)	30% (-1.3)	42% (-0.9)		4.00 (ns)
Length of the abuse					
One or few episodes	72% (-0.2)	63% (-0.8)	78% (0.7)	NA	
Chronic	28% (0.2)	38% (0.8)	22% (-0.7)		0.78 (ns)
Maternal history of sexual abuse	39% (1.5)	69% (3.7) †	40% (1.7)	10% (-4.7) †	26.51***
Coping strategies (WCQ)					
Social support	7.0 (0.7)a	8.1 (1.0)^{a,b}	9.4 (0.7)^{b}	8.7 (0.4)^{b}	2.66 p = .051
Problem-solving	7.7 (0.6)a	7.6 (0.9)^{a}	8.8 (0.6)^{a}	8.1 (0.4)^{a}	0.83 (ns)
Distancing	4.6 (0.6)a	4.4 (0.9)^{a}	3.6 (0.6)^{a,b}	2.7 (0.4)^{b}	2.11 (ns)

Notes. WCQ = Ways of Coping Questionnaire; NA = not applicable. Scores with the same subscript are not significantly different from each other but are significantly different from those with different subscripts ($p < .05$). † indicate values > 1.96 that flag observed values significantly different than expected.
*$p < .05$ *** $p < .001$.

pairwise comparisons using Fisher's Least Significant Difference (LSD) test to analyze the pattern of difference between means (see Table 2).

To further explore the cluster solution, clusters were compared with other variables that were not used in the initial cluster analysis, as proposed by Hair et al. (2009). These variables included socio-demographic characteristics (single-parent families, age and sex of the child), abuse-related characteristics (identity of the perpetrator, severity of the acts involved, length of the abuse), mothers' history of SA and coping strategies. The results of these analyses are provided in Table 3. For categorical variables, chi-square analyses were performed and adjusted standardized residuals are presented (values greater than +/- 1.96 flag observed values significantly different than expected) (see Table 3).

Description of clusters

Standardized adjusted mean scores for each cluster are plotted in Figure 1 (following page). Inspection of the three clusters revealed the following profiles of SA children.

Cluster 1 comprised 37.1% of the sample and included children showing a moderate level of symptomatology. Children in this subgroup differed from those in the comparison group since they displayed higher levels of externalizing behavior problems. Yet, they were not found to display more internalizing difficulties than their non-abused peers of the comparison group. In regards to protective factors, children in Cluster 1 scored significantly lower than children in the comparison group for within-child protective factors (initiative, self-control and attachment) as well as maternal resilience. Results concerning coping strategies indicated a marginal effect (p=0.051) suggesting mothers are less likely to rely on social support than mothers in the comparison group. As well, while the omnibus ANCOVA failed to reach significance level, pairwise comparisons revealed mothers of this cluster tended to use distancing as a coping strategy more frequently.

A second cluster was subsequently named High Symptomatology and regrouped 21.0% of the sample. This cluster consisted of children that displayed the

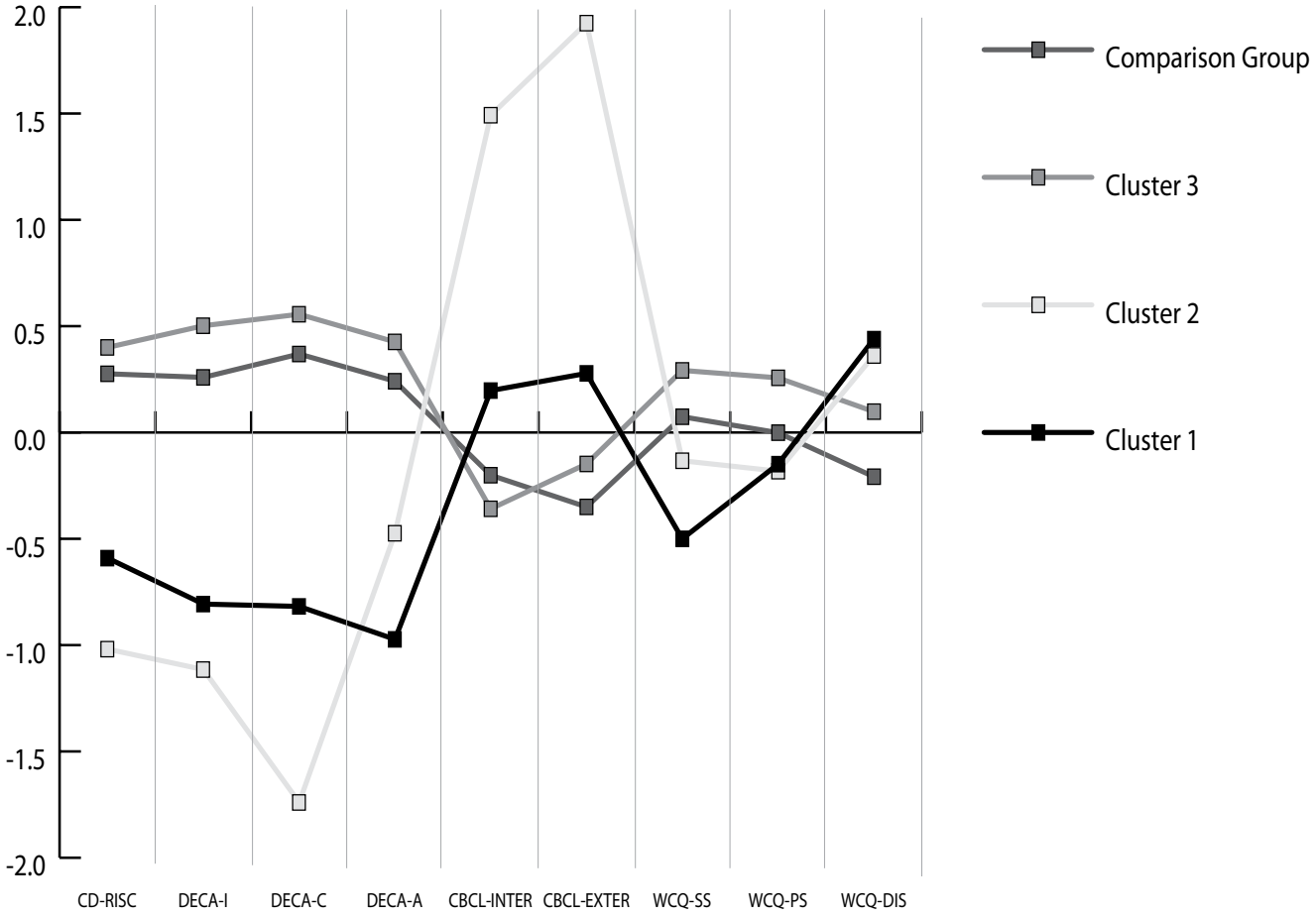

Figure 1: Standardized Adjusted Means of Study Variables x Cluster Group Membership

Notes. CD-RISC = Connor-Davidson Resilience Scale; DECA-I = Devereux Early Childhood Assessment - Initiative subscale; DECA-C = Devereux Early Childhood Assessment - Self-Control subscale; DECA-A = Devereux Early Childhood Assessment - Attachment subscale; CBCL-Inter = Child Behavior Checklist – Internalizing subscale; CBCL-Exter = Child Behavior Checklist – Externalizing subscale; WCQ-SS = Ways of Coping Questionnaire – Social Support Seeking subscale; WCQ-PS = Ways of Coping Questionnaire – Problem-Solving subscale; WCQ-DIS = Ways of Coping – Distancing subscale.

highest scores for internalizing and externalizing behavior problems; problems rated as significantly higher than those of children in all other clusters and from those of children in the comparison group. Another indication of the severity of behavioral problems in this group is that the vast majority of cases (92%) reached clinical levels for both internalizing and externalizing symptoms. Children in the High Symptomatology group showed lower levels of protective factors, as evaluated by the DECA, in relation to their non-abused peers. Furthermore, parents of highly symptomatic children scored lower on resiliency and pairwise comparisons suggest they tended to rely more on distancing coping. Children in Cluster 2 were also rated as displaying lower self-control compared to children in the Moderate Symptomatology group.

Finally, 41.9% of sexually abused children were classified in Cluster 3. In contrast to sexually abused children in Cluster 1 and 2, they are found to display less internalizing and externalizing symptoms. Children in this group can be characterized as resilient, as parents reported that they function within-norms. Indeed, when contrasted to children from the comparison group, no significant differences were apparent in regards to internalizing and externalizing behavior problems as well as all protective factors considered. Analyses performed on additional variables also indicated that coping strategies of mothers from the Resilient Group were

comparable to that of mothers of non-abused children. Children in Cluster 3 further distinguished themselves by presenting significantly higher levels of within-child protective factors than both sexually abused children in Cluster 1 and children in Cluster 2. Thus, children in Cluster 3 are described as presenting high levels of self-control and high capacity for initiative and independence. They are also identified as children having developed strong relationships with other children and adults. Finally, non-offending parents of children in Cluster 3 appear to present higher resiliency than parents of children in both the High and Moderate Symptomatology groups. In addition, pairwise comparisons suggest they are more likely to seek social support to cope with the aftermaths of the child's disclosure than parents of children in the Moderate Symptomatology group.

Additional analyses were performed on socio-demographic variables to explore whether these factors were related to clusters. No significant differences were found on demographic variables except that children in Cluster 1 were more likely to live in single-parent families than children in other clusters. While the percentage of boys appears lower in the resilient children Cluster (12% vs. 22% in Cluster 1 and 31% in Cluster 2), the chi-square analysis did not identify a significant difference regarding the distribution of gender across clusters. Similarly, mean age (in months) of children did not differ across clusters. Characteristics of the SA experienced by the child (identity of the perpetrator, severity of the acts involved and duration of the abuse) failed to be significantly related to clusters. Finally, differences in the prevalence of maternal history of childhood SA were found, with mothers of highly symptomatic children reporting the highest prevalence (69%) and mothers of children in the comparison group the lowest prevalence (10%).

Discussion

Limited research has explored the role of protective factors among at-risk preschoolers (Brinkman, Wigent, Tomac, Pham, & Carlson, 2007). Preschool-aged children confronted with family violence and sexual abuse clearly represents a population at risk for a variety of social and behavioral impairments. Prior studies have brought to light the diversity of profiles in older children and adults confronted with SA and highlighted the possible existence of a subgroup of resilient survivors adapting without significant distress despite the trauma experienced. Against this backdrop, the main objective of this study was to explore the diversity of profiles in preschoolers victims of SA using a person-oriented approach, namely cluster analysis.

Three clusters were derived that show the diversity of symptoms in sexually abused preschoolers. In the present sample, 42% of children were found to score within norms for internalizing and externalizing symptoms. These children, described as resilient, were in fact undistinguishable from the non-abused children of the comparison group. While the SA they experienced was found to be as severe as that of children in the Moderate Symptomatology and High Symptomatology groups, they were rated as displaying lower levels of symptoms by their parents. Indeed, 80% of children in this subgroup reported intra-familial abuse and close to half (42%) penetration or attempted penetration. Children in the Resilient group appeared to benefit from both within-child protective factors, being rated as high in regulation capacities and attachment skills, as well as parent-related protective factors in terms of maternal resiliency and efficient coping skills (seeking social support). The presence of such protective factors may have prevented the development of any symptoms before initial assessment.

Walsh et al. (2010) report that few studies have provided data regarding the percentage of maltreated children who show competence on behavioral or emotional indicators. Studies providing such estimates suggest that between 43% and 66% of children demonstrate competence on any one measure. In their analysis of the National Survey of Child and Adolescent Well-Being data with children ages 8 to 10, Walsh et al. (2010) concluded that 83% achieved non-clinical score for internalizing and 63% for externalizing symptoms. Yet, children demonstrating competence across domains decreased as the number of indicators considered increased, such that only 27% were evaluated as displaying competence in all 3 domains (behavioral, emotional and educational) and were considered resilient.

Unfortunately, 21% of sexually abused children in this study were at the opposite pole of the spectrum, in the highly symptomatic group. This proportion is similar to that found in prior typological analyses of older children victims of SA (26% in both Hébert et al., 2006 and Trickett et al., 2001). Hence, children in this subgroup tend to display higher levels of both internalizing and externalizing symptoms than other children, sexually abused or not, and lower levels of within-child protective factors than children in the resilient or comparison group. Mothers in this cluster also show less resilience capacity and appear to rely on avoidance-type coping to deal with the aftermath of children's disclosure. As 69% of mothers in this group reported a history of childhood SA, it is likely that the child's disclosure may provoke reminiscence of past symptoms. The use of less effective coping strategies, such as distancing may have an impact on the ability to support the child's recovery. These results further validate the importance of both within-child and parent-related protective factors – factors amenable to treatment - in influencing outcomes in young children confronted with SA.

A third cluster characterized 37% of our sample as displaying moderate levels of symptoms, as they scored higher on externalizing symptoms than children in the comparison group, but lower than severely symptomatic children. Yet, they were not found to differ from non-abused children on internalizing symptoms. Interestingly, the only subscale of the DECA that discriminates between these children and highly symptomatic children is self-control as they were rated with having higher self-regulation skills. Therefore, the lower levels of externalizing behavior problems in these children may be associated with their greater self-control skills, which is coherent with literature regarding the close link between self-regulation and behavior problems, especially externalized behavior problems (Eisenberg et al., 2001). Children in this group are nevertheless vulnerable as they presented lower scores on all subscales of the DECA relative to children in the resilient and comparison groups. In fact, with respect to the total protective factor scale, 52% achieved scores considered to be in the Concern range (T-score < 40), which is more than double the rate (23%) found in at-risk Head Start samples (Brinkman et al., 2007), and raises some concerns about the evolution of their symptoms. Children in this subgroup may come to develop more severe and pervasive behavior problems over time if no intervention is provided. This is of concern, as mothers of moderately symptomatic children appear to be less likely than mothers of resilient children to seek social support in order to cope with the aftermath of the child's disclosure.

Contrary to our hypothesis, characteristics of the sexual abuse failed to discriminate between clusters. Therefore, factors such as whether the abuse involved an intra- or extra-familial perpetrator, was chronic or not, or involved penetration or not, did not explain the differential outcomes of SA in our sample of preschool children. Past studies have revealed quite inconsistent results as to the predictive value of abuse-related variables (Hébert, 2011). Obtaining reliable information regarding the duration of the abuse or the specific acts involved may represent a significant challenge when preschoolers are considered given their still developing verbal skills. In addition, the full details of the abuse may not be provided at initial intake, but rather gradually over the course of treatment once a rapport is established.

Limitations

This study presents certain limitations. Sample size, while comparable to other published studies with this population, is small. The low number of sexually abused boys (n = 13) included may have overshadowed possible gender specificities in symptom profiles. Another limitation of this study is linked to the cross-sectional design, which prevents from drawing conclusions regarding the sequencing of studied variables. In addition, resilience is clearly a multidimensional construct and, unfortunately, the different features related to resilience were not integrated in the present analysis. Few standardized assessment measures that evaluate protective factors in preschoolers are currently available (Brinkman et al., 2007; Reddy, 2007). The DECA is one of the rare strength-based assessments designed for preschoolers. Yet, the DECA is clearly focused on within-child protective factors and other relevant features associated with resilience were not assessed, namely extra-familial factors. Furthermore, socio-demographics characteristics of children in the

comparison group, including characteristics that have previously been associated with resilience, differed from that of children in the SA group. While analyses controlled for this disparity, future studies may need to consider pairing samples more closely on socio-demographic variables. Moreover, in the current study both protective factors and child's behavioral problems were evaluated by parental reports and as such, issues related to shared method variance are to be considered. Future studies may gain by relying on daycare workers' evaluation to document the presence or absence of protective factors.

Evidently, future studies are needed to validate the identified clusters. In addition, variables not considered in the present study will need to be included in future investigations, in particular other types of experienced maltreatment and indicators of children's functioning across different domains. Finally, future studies adopting a longitudinal design will better document the trajectories of preschoolers reporting child SA over time and the predictive value of initial protective factors on the recovery process. Notwithstanding these limits, this study has a number of strengths. Reliance on a person-oriented approach that accounts for the diversity of symptoms in such a vulnerable population offers an initial exploration of child- and parent-related factors that may influence outcomes. The inclusion of a comparison group also allows us to draw stronger conclusions regarding the profiles of preschoolers victims of SA, a population that is clearly understudied.

Practical implications

Our results illustrate the diversity of outcomes in preschoolers reporting SA, a diversity that appears to be associated with a host of protective factors. Our data highlight some important practical implications for the evaluation of sexually abused youngsters. A focus on abuse-related variables (for example, whether the child is victim of intra- or extra-familial abuse) may not be sufficient to orient or prioritize services for vulnerable youth, as these variables did not discriminate between children most in need of treatment in our study. Furthermore, a thorough and detailed evaluation, not only of possible behavior problems or trauma symptoms following disclosure of SA, but also of potential protective factors, is clearly required to orient treatment services. Indeed, evaluating children's possible assets or lack thereof - including environmental and interpersonal protective factors that may buffer against negative outcomes - may offer a better indication of which children are most in need of services following disclosure.

For highly symptomatic children, intervention aimed at attenuating behavior problems is evidently required, as well as a focus on the enhancement of protective factors. For children identified in the Moderate symptomatology group, an intervention targeting externalizing behavior problems may be warranted. Moreover, given that half (52%) of the children in this subgroup scored in the Concern range, strengthening the protective factors (self-regulation capacity, problem-solving skills and attachment) in a dyadic context may be relevant in order to avoid a negative course of development or a worsening of symptoms over time. For asymptomatic children at initial intake, periodic reevaluation to explore for possible latent effects that could emerge when children are confronted to new developmental tasks or other possible adverse life events may be well-advised. Children may also benefit from briefer psychoeducation aimed at prevention strategies to reduce the risk of revictimization.

A modular approach to treatment may be a relevant strategy to consider. A component-based approach allowing for flexibility and sequencing using a guiding clinical algorithm has been designed and found to be quite efficient in treating children with anxiety, depression or conduct problems (Chorpita et al., 2013). Such an approach could be implemented for children experiencing SA. Following a detailed assessment of the specific needs of each child and family, different evidence-based practices could be considered and/or combined. Trauma Focused-Cognitive Behavioral Therapy (TF-CBT; Cohen, Mannarino, & Deblinger, 2006) is such an evidence-based treatment that has been found efficient in reducing symptoms in youth confronted with sexual abuse, including preschool-agechildren. This treatment could be used in combination with an attachment-based intervention module for children found to lack a secure relationship with their primary caregiver. In cases where the non-offending parent

is struggling with reminiscence of past trauma experiences impeding on their coping capacities to deal with the child's disclosure, the TF-CBT approach might be combined with a parent-centered therapy module addressing these specific challenges.

In conclusion, the findings of this study underscore the diversity of profiles in preschoolers disclosing SA. While the results of the study await replication, they nevertheless offer some insights as to the individual and familial factors related to this diversity. Hopefully, these insights will pave the way for the creation of services optimizing the development of youngsters confronted with sexual abuse.

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Integrating mindfulness skills training into a brief outpatient treatment for substance abusing youth

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Abstract

Mindfulness training has increasingly been implemented in substance abuse treatment regimes with the goal of relapse prevention. Among the available treatments, Motivational Interviewing (MI) is reported to be the most effective form of treatment for transitional-age youths. However, there is a paucity of research investigating the effects of mindfulness skills training on sobriety maintenance in this population. **Objectives:** The goal of the current study was to assess the effects of MI with the addition of mindfulness skills training on substance use behaviours and clinical outcomes in outpatient youths between the ages of 16 and 24. **Methods:** Sixty-six eligible participants were randomly assigned to a Treatment-as-usual (TAU) group or a TAU plus mindfulness training (TAU+M) group. Substance use days, impulse/addictive behaviors, confidence to resist urges, emotion regulation, psychiatric symptom severity, and mindfulness was assessed at baseline, post-treatment and at 3-month follow-up. **Results:** Days of substance-use did not change across group; however, both treatment groups reported decreased severity of psychiatric symptoms at 3-month follow-up. Participants in the TAU+M group further displayed decreased impulsive/addictive behaviors and increased confidence to resist urges at follow-up compared to the TAU group. Interestingly, the TAU group displayed greater changes in mindfulness than the TAU+M group. **Conclusions and Implications:** Overall, adding mindfulness to MI seems to provide benefits in the treatment of substance abusing youths.

Keywords:

Mindfulness, transition-age youth, substance abuse

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Introduction

Brief intervention methods for substance-abusing youth are valuable and cost-effective (Barnett, Colby, Monti, Neighbors, & Rohsenow, 2010; Breslin, Li, Sdao-Jarvie, Tupker, & Ittig-Deland, 2002; Mason & Posner, 2009). In particular, motivational interviewing (MI) has proven to be a relatively effective approach in treating substance abusing transition-age youth (Mason & Posner, 2009). Transition-age youth are defined as youth between 16 and 24 years of age, characterized as an age group at heightened risk for the development of addiction and mental health problems (Beitchman et al., 2001). MI is a person-centered counselling method that guides the client in addressing their ambivalence towards change. In the field of addictions, MI is goal-directed and is specifically designed to guide clients in strengthening their motivation and willingness to reduce or abstain from substance use.

The integration of mindfulness-based training into clinical treatment has yielded positive outcomes for a wide range of clinical conditions including depression, anxiety, chronic pain, and stress-related health problems (Kabat-Zinn, 1990; Segal, Williams, & Teasdale, 2002). Mindfulness is a "moment-to-moment awareness" that is cultivated by purposefully becoming aware of one's thoughts and feelings in the present moment without judgment, regardless of whether those thoughts and feeling are positive or negative (Kabat-Zinn, 1990). Mindfulness-Based Relapse Prevention teaches patients to become aware of thoughts and cravings that lead to substance abuse, and to observe those experiences rather than react to them or ignore them (Bowen et al., 2006; Bowen et al., 2009; Witkiewitz, Bowen, Douglas, & Hsu, 2013; Zgierska et al., 2009). As drug abuse is commonly associated with thought suppression or avoidance and reactivity to negative life events, mindfulness training may provide a valuable tool as it enhances one's tolerance to unwanted negative thoughts and emotions and diminishes stress reactivity to unpleasant events (Brewer et al., 2009). Indeed, researchers using the mindfulness paradigm have proposed that one of the key beneficial mechanisms produced by mindfulness is emotion regulation (Linehan, 1993). In assessing mindfulness training for smoking cessation, Davis, Fleming, Bonus & Baker (2007) found that active engagement in meditation was associated with a significant decrease in affective distress, with 56% of the group reporting abstinence from smoking within seven days of beginning the program.

Given the developmental patterns of impulsivity and emotion dysregulation that frequently characterize transitioning youth, the integration of mindfulness into a youth substance abuse treatment program would be expected to yield beneficial effects above that found for usual treatment (Dakwarm Mariani, & Levine, 2011; Winters, Latimer, Stunchfield & Henly, 2000). By increasing mindfulness, and thereby improving emotion regulation, transition-age youth undergoing mindfulness-based training would be expected to experience an enhanced capacity to resist impulses and substance-use urges (Breslin et al., 2002). Thus, when integrated into treatment as usual, mindfulness training would be expected to have positive, incremental effects on clients' abilities to reduce their level of substance use over the course of treatment.

Efforts to integrate mindfulness-based training into brief addiction treatments have yielded positive results in adults (Appel & Kim-Appel, 2009; Bowen et al., 2009; Dimeff, Rizvi, Brown & Linehan, 2000; Singh et al., 2003). Although researchers recommend that mindfulness-based training be implemented as an adjunctive treatment for addictions (Breslin, et al., 2002; Marcus et al., 2009; Vidrine et al., 2009), only one study to date (de Dios et al., 2012) has explored the relative benefits of incorporating mindfulness-based training into the treatment of problematic substance use among transition-age youth (Beitchman et al., 2001). de Dios and colleagues (2012) randomized 34 female marijuana users to a 2-day MI plus mindfulness meditation group or an assessment-only control group and prospectively analyzed outcomes at one, two and three months following baseline assessment. Although marijuana abstinence was not achieved in either group, participants randomized to the experimental group reported lower daily use of marijuana at all follow-up testing sessions compared with control participants. The authors concluded that the integration of mindfulness training provides young substance abusing women with an alternative to cope with anxiety (de

Dios et al., 2012). While these preliminary findings suggest a beneficial effect of integrating mindfulness into standard treatment, this study was limited to young females and did not include an active control group to control for non-specific effects associated with the experimental condition.

To this end, the goal of the current study was to evaluate the effects of integrating mindfulness-based skills training into a brief standardized substance abuse treatment as usual (TAU) for youth between the ages of 16 and 24 years. The TAU employed in the present study was MI as this has been found to be an effective short-term treatment for transition-aged youth (Mason & Posner 2009). Compared to TAU, it was hypothesized that the integration of mindfulness training into TAU would: (1) Improve substance use behaviours as evidenced by lower number of substance use days, increased confidence to resist urges to use, and decreased addictive/impulsive behaviours; (2) Increase mindfulness skills as evidenced by increased reports of total mindfulness, ability to act with awareness, acceptance without judgement, and the ability to describe and observe; and (3) Improve psychological wellbeing, evidenced by improvement on the psychiatric symptom scale and improved emotion regulation. Further, secondary analyses explored the extent to which change in mindfulness is associated with change in clinical functioning and the directionality of this association.

Method

Participants

Participants were referred to the study by the Centre of Addiction and Mental Health in Toronto, Ontario. Inclusion criteria for eligibility included transition-age youth between the ages of 16 and 24 years reporting subjective distress or impairment related to problematic substance use, as assessed by the Drug Abuse Screening Test (DAST) (Skinner, 1982) and the Alcohol Use Disorder Identification Test (AUDIT) (Santis, Garmendia, Acuña, Alvarado, & Arteaga, 2009).

Potential participants were excluded from the study if they were: 1) Not fluent in English, 2) Currently suffering from a chronic or serious physical health problem that may require hospitalization within the next 6 months (e.g., cancer), 3) Received a current diagnosis of active schizophrenia and/or bipolar disorder, 4) Display suicidal thinking or self-harm behaviors, 5) Unconcerned about use or overuse of alcohol or drugs, 6) Unwilling to participate in the study or be randomized to treatment group. If the individual did not meet exclusionary criteria for any of the areas mentioned, then he/she was able to participate in the study.

Among the 81 identified eligible participants between 16 and 24 years of age who reported abusing 2-3 problem substances, 66 agreed to be randomized to treatment group. Results are based on the 66 participants who were randomized to one of two treatment groups.

Measures

Mindfulness was assessed using the Kentucky Inventory of Mindfulness Skills (KIMS) questionnaire. This 39-item questionnaire assesses an individual's ability to observe, describe, act with awareness and accept without judgement (Baer, Smith & Allen, 2004). The KIMS asks questions related to awareness and attention to determine level of mastery. Items such as "I criticize myself for having irrational or inappropriate emotions" can clearly be linked to non-judgemental acceptance, a key mindfulness-related skill that fosters emotion regulation in adolescent drug addicts. The KIMS has been reported to have high internal consistency, with alpha coefficients ranging between .76 and .91, and is sensitive to change in participants taking part in mindfulness-training (Baum et al., 2010).

Severity of psychiatric symptoms was assessed by the Brief Symptom Inventory (BSI), a 53-item self-report scale that measures the presence of psychiatric symptoms on nine primary dimensions and three global indices of stress in the last 7 days (Derogatis & Melisaratos, 1983). The General Severity Index (GSI) was used in the present study to indicate the degree of overall distress of the individual. The BSI has been widely validated and is a reliable measure, with an alpha coefficient between .90 and .97 (Pereda, Forns, & Pero, 2007).

Emotion regulation was assessed using the Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). This

self-report measure utilizing a 5-point Likert scale (1-5) to assess six dimensions of emotion dyregulation: non-acceptance of emotional responses (e.g., "When I'm upset, I feel guilty for feeling that way"), difficulties engaging in goal-directed behavior (e.g., "When I'm upset, I have difficulty focusing on other things"), impulse control difficulties (e.g., "When I'm upset, I lose control over my behaviors"), lack of emotional awareness (e.g., "I pay attention to how I feel"), limited access to emotion regulation strategies (e.g. "When I'm upset, I believe that I will remain that way for a long time"), and lack of emotional clarity (e.g. "I am confused about how I feel"). This is a reliable scale with high internal consistency (.93) and test-retest reliability (.88) (Gratz & Roemer, 2004).

Impulsive/addictive behaviour was measured using the Behavior and Symptom Identification Scale (BASIS-32; Eisen, Dill, & Grob, 1994). This 32-item scale likert-type scale assesses mental health status from the patient's perspective over the last seven days. For the purpose of the present study, only the Impulsive/Addictive Behavior subscale was used, which reportedly has satisfactory internal consistency (.73) and test-retest reliability (.65).

Confidence to resist substance urges was measured using the Drug-Taking Confidence Questionnaire-8 (DTCQ; Sklar, Annis, & Turner, 1997). The DTCQ consisted of 8 items pertaining to risk situations for drug users. Respondents are asked to report how confident they are to resist a primary substance at that very moment from 0 (Not at all confident) to 100% (very confident). Higher scores reflect higher self-efficacy and greater likelihood to avoid substance and other substance-related consequences.

Substance use days were assessed using the Timeline Follow-Back (TLFB) method, a validated and reliable retrospective procedure (Lewis-Esquerre et al., 2005) that requires participants to provide best-recall estimates of their drinking habits over the past 30 days. Using a blank calendar, the client is asked to recall information on the major features of drinking: amount, frequency, pattern, and degree of variability (Sobell & Sobell, 1995). Assessors can also provide memory aids to help the clients recall their drinking habits. Clients can mark days on the calendar for idiosyncratic events, such as a birthday, and generic events, such as sports events. Times when the participant abstained from drinking, drank in a particular pattern, or drank heavily can also be memory aids for the participant (Sobell & Sobell, 1995).

Procedures

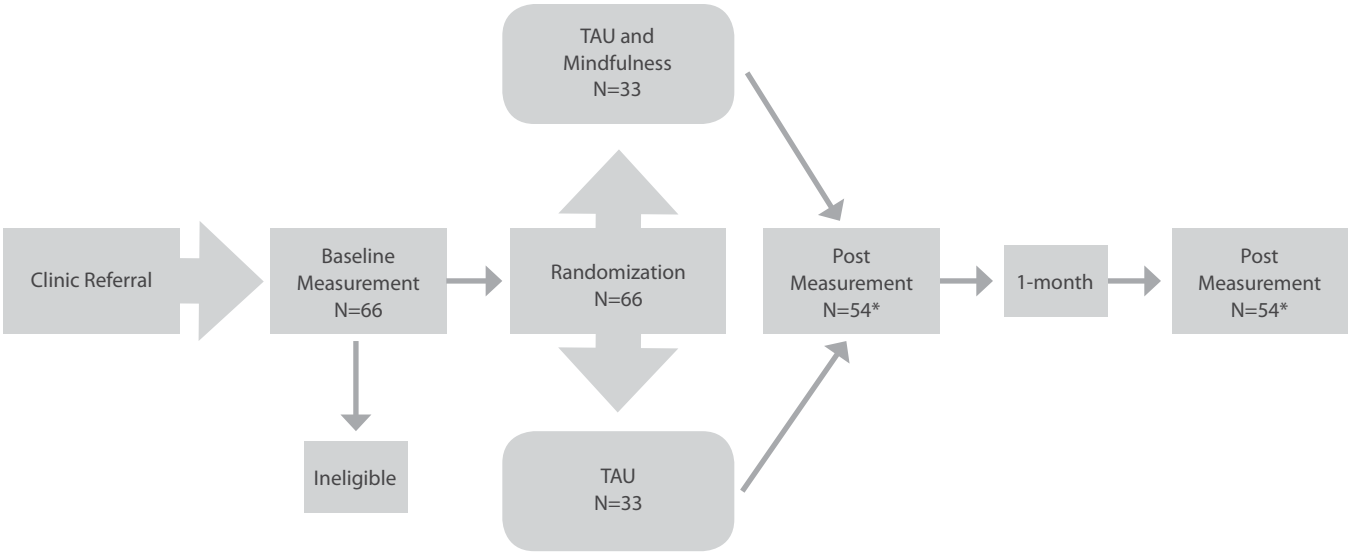
Sixty-six youths attending an outpatient treatment program were randomly assigned to either a Treatment as Usual (TAU) group (N=33) or a TAU plus Mindfulness (TAU+M) group (N=33). Participants in the TAU group attended four standardized 1.5 hour-long MI sessions over three weeks (Breslin et al., 2002). Each session focussed on discussing the following topics: 1) Pros and cons of substance use, 2) The Antecedents/ Behaviour/ Consequence (ABC) Model, and alternatives, 3) Values, and 4) Stages of change. Participants in the TAU+M group attended four 1.5 hour-long MI with integrated mindfulness sessions over three weeks. In addition to the standard treatment above, the first three sessions also included modules on: 1) Path to a wise/clear mind, 2) Non-judgemental acceptance, and 3) Urge-surfing. The mindfulness skills training component was based primarily on the mindfulness module described by Linehan (1993), and recent adaptations of these skills for substance use problems and youth populations (Miller, Rathus, DuBose, Dexter-Mazza, & Goldklang, 2007). Both TAU and TAU+M sessions were lead by three trained facilitators, thus minimizing therapist effects on outcome.

At the end of the three-week TAU and TAU+M program, 54 participants completed the KIMS, BASIS, BSI, DERS, DTCQ, and TLFB questionnaire at post-treatment and 37 participants completed the three-month follow-up (see Figure 1).

Statistical Analysis

Post-treatment data was imputed for 12 participants on KIMS, and for 10 participants on all other measures using the Last Observation Carried Forward (LOCF) procedure. Three-month follow-up data was imputed for 17 additional participants who did not attend the follow-up assessment. Change scores were computed for pre- to post-treatment values and for pre-treatment to 3-month follow-up

Figure 1: Study procedure



values on mindfulness, substance use behaviours, and psychological well-being.

Analyses of variance (ANOVA) and Chi-Square analyses were conducted to determine whether treatment groups significantly differed on baseline and demographic factors. Bivariate correlations were conducted to determine the association between baseline mindfulness and clinical functioning, as well as the association between change in mindfulness and clinical functioning through treatment period. To assess change in mindfulness, substance use behaviours and psychological well-being following treatment, change scores were created from baseline (pre-treatment) to post-treatment and from baseline (pre-treatment) to 3-month follow-up. Paired-sample t-tests were conducted to determine the effects of TAU and TAU+M on change in mindfulness and clinical functioning. Finally, to assess/reveal directionality of change, correlations were first conducted between change in mindfulness from pre-to post-treatment and subsequent changes in clinical functioning at 3-month follow-up; a second set of correlations were then conducted between changes in clinical functioning from pre- to post-treatment and subsequent changes in mindfulness at 3-month follow-up.

Results

Participant Characteristics

The majority of participants were Caucasian (73%) and over half of the sample was male (65%). Thirty percent of the sample was on parole or awaiting a trial/sentence. In terms of seeking treatment, 31% were self-referred, 21% were referred by family or friends, and 17% were mandated to seek treatment.

At baseline, participants reported an average of 20.64 (SD =10.25) substance use days over the past 30 days. Mean reported addictive and impulsive severity on the BASIS was 1.24 (SD = 9.0) and mean confidence to resist urges as measured by the DTCQ was 44.69 (SD = 25.14). Mean score on the BASI was 48.57 (SD = 10.33) for overall psychological symptoms severity, 46.53 (SD = 9.39) for depression and 43.17 (SD = 8.77) for anxiety. Mean score on the DERS for emotion dysregulation was 96.78 (SD = 20.98).

Participants assigned to the TAU and TAU+M program did not significantly differ on demographic or baseline characteristics. Over the course of the study, 12% of participants were lost to follow-up for the post-treatment testing session (n=29) and a total of 39% were lost to follow-up by the 3-month

Table 1: Mean (standard deviation) baseline demographics and pre-treatment levels of mindfulness and clinical functioning

Variable	Overall (N=66)	TAU (N=33)	TAU+M (N=33)	*p*
Demographics				
Age	19.50(2.32)	19.18(2.17)	19.67(2.51)	.40
Male	66%	66%	66%	.89
Caucasian	73%	72%	74%	.50
Mindfulness	117.17(15.40)	115.42(13.40)	118.91(17.19)	.36
Act	27.38 (5.15)	26.75 (5.45)	28.00 (4.82)	.33
Accept	29.86 (8.36)	30.09 (8.60)	29.63 (8.24)	.83
Describe	26.48 (6.59)	26.30 (6.78)	26.66 (6.490)	.82
Observe	33.42 (9.72)	32.24 (9.58)	34.61 (9.85)	.33
Impulse/Addictive Behaviour	1.22 (.85)	1.27(.89)	1.18 (.81)	.65
Global Psychiatric Severity Index	48.45 (10.83)	47.03 (9.73)	49.88 (10.57)	.26
Depression	46.70 (9.36)	44.69 (8.54)	48.70 (9.83)	.08
Anxiety	43.09 (8.70)	41.67 (7.86)	44.51 (9.37)	.19
Substance Days	20.18 (10.23)	20.76 (10.18)	19.60 (10.41)	.63
Resist Urges	44.10 (23.13)	43.37 (25.656)	44.81 (20.77)	.88
Emotion Regulation	97.14 (19.96)	96.63 (20.19)	97.64 (20.09)	.84

Table 2: Correlations among pre-treatment mindfulness and clinical functioning

Clinical Function	Mindfulness Total and Subscales				
	Total	Act	Accept	Describe	Observe
Impulsive/Addictive Behaviours	-.33**	-.31**	-.51***	-.21*	.22*
Severity of Psychiatric Symptom	-.40***	-.43***	-.71***	-.29**	.39***
Substance Days	-.08	-.04	.14	-.09	-.16
Confidence to Resist	.24*	.25*	.37**	.11	-.14
Emotion Regulation	-.50***	-.35**	-.56***	-.31**	.09

Note. ***p <.001, **p <.01, *p <.05.

testing session (n=20) in the TAU+M group. In the TAU group, 24% were lost to follow-up by the second testing session (n=25) and 48% were lost to follow-up by the 3-month testing session (n=17). Overall, drop-out rates were 18% and 44% respectively. Participants who dropped out of the study at follow-up reported significantly more days of substance use at baseline compared with participants who remained in the study at follow-up; mean number of days 26.25 (SD = 5.51) versus 18.83(SD = 10.58), respectively (p=.002). No other differences were found between those who dropped out and completers at follow-up or at the 3-month testing session.

Association Between Pre-treatment Mindfulness and Clinical Functioning

Bivariate correlation analyses in 66 randomized youth showed that greater self-report mindfulness was significantly associated with fewer psychiatric symptoms (r = -.33, p<.01), lower addictive severity (r

= -0.40, p<.001), difficulties with emotion regulation (r = -.50, p<.001), and increased confidence to resist urges (r =.24, p<0.05). However, mindfulness was not associated with number of substance days (r = -0.08, p>.05). Individual subcomponent of mindfulness, including Act, Acceptance without judgement and Describe were similarly correlated with clinical features. In contrast, Observe was significantly and positively associated with pre-treatment psychiatric symptoms (r =.39, p<.001) and addictive severity (r =.22, p<.05) (see Table 2). This correlation may reflect observing with judgement (see Table 2).

The Effects of Integrating Mindfulness Skills Training on Substance use Behaviours at Post-treatment and 3-month Follow-up

Paired-sample t-test showed that neither TAU nor TAU+M resulted in decreased number of substance use days at post-treatment or at 3-month follow-up. However, compared to TAU, TAU+M resulted in increased confidence to resist urges, both at post-treatment, t(32) = -2.78, p<0.01, and 3-month follow-up, t(32) =-2.39, p<.05, and further reported decreased impulsive/addictive behaviours at 3-month follow-up, t(32)= 2.73, p<.05 (see Table 3). Thus, incorporating

Table 3: Changes in Mindfulness and Clinical Functioning at Post-Treatment and 3-month Follow-Up

	TAU Group (Pre, Post, F/U)				
	Pre Mean (SD)	Post Mean (SD)	F/U Mean (SD)	Pre vs Post t(df =32)	Pre vs. F/U t(df =32)
Mindfulness	115.42 (13.40)	116.52 (13.38)	117.48 (13.43)	-0.52	-0.98
Act	26.76 (5.45)	28.88 (5.53)	29.39 (5.78)	-2.30*	-2.92*
Accept	30.09 (8.60)	32.18 (8.18)	33.09 (8.73)	-1.51	-2.65*
Describe	26.30 (6.78)	25.55 (6.87)	25.79 (7.24)	0.88	0.48
Observe	32.24 (9.59)	29.94 (8.80)	29.36 (10.01)	1.80	2.14*
Impulsive/Addictive Behaviors	1.27 (.89)	1.45 (.96)	1.16 (0.86)	-1.43	0.75
Severity of Psychiatric Symptoms	47.03 (9.73)	47.06 (10.82)	44.55 (9.48)	-0.02	2.07*
Substance Days	20.76 (10.18)	21.82 (9.68)	19.82 (11.20)	-0.73	0.57
Confidence to Resist	43.37 (25.65)	44.14 (26.66)	48.93 (29.32)	-0.24	1.28
Emotion Regulation	96.64 (20.19)	98.18 (24.28)	94.15 (19.25)	-0.56	0.93
	TAU+M Group (Pre, Post, F/U)				
	Pre Mean (SD)	Post Mean (SD)	F/U Mean (SD)	Pre vs Post t (df = 32)	Pre vs F/U t (df = 32)
Mindfulness	118.91 (17.19)	117.39 (14.43)	121.27 (17.86)	0.65	-0.61
Act	28.00 (4.83)	28.42 (5.20)	28.88 (5.64)	-0.44	-0.77
Accept	29.64 (8.25)	30.33 (6.82)	32.12 (7.24)	-0.63	-2.30*
Describe	26.67 (6.49)	25.94 (6.09)	26.97 (5.62)	0.93	-0.27
Observe	34.61 (9.85)	32.70 (10.37)	33.30 (12.17)	1.42	0.81
Impulsive/Addictive Behaviors	1.18 (0.81)	1.26 (.88)	0.81 (0.80)	-0.64	2.73*
Severity of Psychiatric Symptoms	49.88 (10.57)	48.15 (11.83)	42.97 (13.24)	1.34	3.86***
Substance Days	19.61 (10.41)	18.24 (10.86)	17.12 (10.44)	1.16	1.48
Confidence to Resist	44.81 (20.77)	54.31 (25.59)	54.79 (27.07)	-2.78**	-2.39*
Emotion Regulation	97.64 (20.02)	100.24 (21.12)	90.09 (22.03)	-1.08	1.79

Note: ***p <.001, **p <.01, *p <.05. Post-treatment data was imputed for 12 participants on Mindfulness scale, and for 10 participants on all other measures using the Last Observation Carried Forward (LOCF) procedure. Three-month follow-up data was imputed for 17 additional participants who did not attend the follow-up assessment.

Table 4: Association between change in mindfulness and change in clinical change pre-treatment to 3-month follow-up

Across Both Treatment Groups (N=37) a					
Change Scores	Mindfulness	Act	Accept	Describe	Observe
Impulsive/Addictive Behaviors	-.36*	-.48***	-.29*	-.29*	-0.05
Severity of Psychiatric Symptoms	-.59***	-.59***	-.57***	-.30*	-.30*
Substance Days	-.22	-.14	-.07	-.27	-.15
Confidence to Resist	.22	.04	.21	.10	.15
Emotion Regulation	-.58***	-.36*	-.47**	-.40***	-.44***
Within the TAU Group (N=17)					
Change Scores	Mindfulness	Act	Accept	Describe	Observe
Impulsive/Addictive Behaviors	-.40	-.54*	-.23	-.26	.12
Severity of Psychiatric Symptom	-.18	-.54*	-.43*	-.03	.46*
Substance Day	.31	.19	.24	.12	.10
Confidence to Resist	.17	.03	.20	-.09	.20
Emotion Regulation	-.10	.09	-.45*	-.01	.12
Within the TAU+M group (N=20)					
Change Scores	Mindfulness	Act	Accept	Describe	Observe
Impulsive/Addictive Behaviors	-.38*	-.49*	-.36	-.32	-.17
Psychiatric Symptom Severity	-.73***	-.75***	-.74***	-.43*	-.54**
Substance Days	.13	-.29	.13	.07	.28
Confidence to Resist	-.49*	-.40*	-.42*	-.44*	-.37
Emotion Regulation	-.74***	-.64**	-.53**	-.61**	-.64**

Note: [a] Sample completing 3-month follow-up. ***p <.001, **p <.01, *p <.05,

Table 5: Correlations Among Change Scores: Examining Directionality (N = 37)a

5a. Mindfulness Change (Pre to Post)b Correlated With Later Clinical Change at Follow-Upc

Change Scores	Mindfulness	Act	Accept	Describe	Observe
Psychiatric Symptoms	-.39*	-.31*	-.24	-.18	-.06
Psychiatric Symptom Severity	-.45**	-.28	-.14	-.17	-.28*
Substance Days	-.31	.19	.04	-.38*	-.42**
Confidence to Resist	.12	-.05	.43**	.07	-.23
Emotion Regulation	-.39**	-.25	-.04	-.20	-.28*

Note: [a]Sample completing 3-month follow-up. [b]Pre-treatment to post-treatment. [c]Pre-treatment to follow-up. ***p <.001, **p <.01, *p <.05.

5.b. Clinical Change (Pre to Post) Correlated With Later Mindfulness Change at Follow-Up

Change Scores	Mindfulness	Act	Accept	Describe	Observe
Psychiatric Symptoms	.06	-.12	-.15	.15	.20
Psychiatric Symptom Severity	.08	-.08	-.39**	.25	.32
Substance Days	-.15	-.03	-.22	-.09	-.10
Confidence to Resist	.08	-.20	.22	.04	.08
Emotion Regulation	-.02	-.07	-.18	.12	.04

Note: [a]Sample completing 3-month follow-up. [b]Pre-treatment to post-treatment. [c]Pre-treatment to follow-up. ***p <.001, **p <.01, *p <.05.

mindfulness skills into TAU had more positive effects on substance use behaviours.

The Effects of Integrating Mindfulness Skills Training on Trait Mindfulness at Post-treatment and 3-month Follow-up

Paired-sample t-test showed that neither TAU nor TAU+M resulted in change in overall trait mindfulness. With respect to mindfulness subscales, Acceptance without Judgement did not increase at post-treatment, but did significantly increase at 3-month follow-up for both the TAU, $t(32)=-2.65$, $p<.05$, and TAU+M group, $t(32)=-2.30$, $p<.05$. Increase in Act with Awareness was significant at post-treatment, $t(32)=-2.30$, $p<.05$, and 3-month follow-up, $t(3)=-2.92$, $p<.05$, and reductions on the Observe scale were found at 3-month follow-up, $t(32)=2.14$, $p<.05$; however, these changes were only found for the TAU group (see Table 3).

The Effects of Integrating Mindfulness Skills Training on Psychological Wellbeing at Post-treatment and 3-month Follow-up

Paired-sample t-test showed that both TAU and TAU+M resulted in improved psychiatric function at 3-month follow-up, $t(32)=2.07$, $p<.05$ and $t(32)=3.86$, $p<.001$, respectively. However, emotion regulation did not change for either treatment group (see Table 3).

Exploring the Association Between Change in Mindfulness and Change in Clinical Functioning Following Treatment

Change in mindfulness was not correlated with change in outcomes measures in the TAU group; however, change in total mindfulness was significantly associated with impulse and addictive behavior, $r=-.38$, $p<.05$; psychiatric symptom severity, $r= -.73$, $p<0.001$; confidence to resist urges, $r=-.79$, $p<.05$; and emotion regulation, $r=-.74$, $p<.001$ (See Table 4).

In exploring directionality of the association between change in mindfulness and change in clinical scores, analyses showed that changes in mindfulness from pre- to post-treatment significantly correlated more often with later clinical changes at follow-up rather than the reverse. Specifically, an increase in overall trait mindfulness from pre- to post-treatment correlated with greater reductions in impulsive/addictive behaviors, $r=-.39$, $p<.05$; severity of psychiatric symptoms, $r=-.45$, $p<0.01$; and emotion regulation difficulties form pre-test to post-test, $r=-.39$, $p<.01$. Analyzing individual mindfulness subscales, change in Act with Awareness was inversely correlated with change in impulsive/addictive behaviors, $r=-.31$, $p<.05$; change in Accept without Judgment was inversely associated with confidence to resist urges, $r=.43$, $p<.01$; and change in Describe and Observe was inversely associated with number of substance use days, $r=-.38$, $p<.05$ and $r=-.42$, $p<.01$, respectively. Only one finding emerged in support of the opposing hypothesis, suggesting that increasing reductions on impulsive/addictive behaviors from pre- to post-treatment were correlated with increasing positive change on the Accept without Judgment subscale, $r=-.39$, $p<.01$ (see Table 5).

Discussion

Over the last decade, mindfulness-based training has gained considerable attention as a potential technique in the treatment of substance-related abuse and relapse prevention. Mindfulness is described as the ability to direct one's attention to the present moment, attending to thoughts and sensations in an accepting and non-judgemental way. It is proposed that mindfulness-training may attenuate substance abuse and future relapse by encouraging clients to acknowledge the experience of unpleasant thoughts and "triggers" as they arise and to detach from these thoughts, rather than turning to automatic avoidance behaviours, namely substance use (Bowen et al., 2009). The development of these mindfulness skills are important in the context of substance abusing youth, who are generally characterized as poor emotion regulators.

While MI is reportedly the most efficient treatment for this population, it is proposed that the integration of mindfulness skills may enhance efficacy of treatment and long-term sobriety. The goal of the present study was to determine whether integrating mindfulness skills training into MI leads to greater improvements in clinical functioning compared to MI alone at post-treatment assessment and 3-month follow-up.

In the current study, similar significant gains were found for both standard MI and MI with mindfulness

training for psychiatric symptom severity at 3-month follow-up. Not only do these findings support MI as an effective treatment for decreasing psychological symptoms in youth, but further speak to the issue of the timeline for healing and the importance of follow-up assessments. Further, these findings are in line with previous research on the effects of mindfulness training on psychological health. Although baseline symptoms of global psychological heath, depression and anxiety were not statistically different, the integrated mindfulness group tended to score higher on psychological distress (and a trend was found for greater report of depressive symptoms). Thus, it may be suggested that greater gains were experienced through the integration of mindfulness. However, this is completely speculative.

In line with the study hypothesis, integrating mindfulness skills training into a standard MI treatment program significantly improved participants' addictive/impulsive behaviours and confidence to resist urges to use. Despite improvements in substance-use behaviours within the integrated mindfulness group, number of substance use days did not change following treatment or at 3-month follow-up. Notably, neither treatment group resulted in a decrease in reported substance use days, which was surprising given that MI is reportedly an effective treatment approach for substance abusing transition-age youth (Mason & Posner, 2009). It is also unclear as to why the effects of mindfulness training were not extended to daily substance use. One potential explanation may be length of follow-up assessment; perhaps more than three months is required for diminished substance abuse behaviours, such as addictive and impulsive behaviours, to culminate in decreased daily substance use and sobriety. Overall, the present findings align with previous research that has examined the impact of integrating mindfulness training in the treatment for substance abuse and further aligns with the de Dois and colleagues study, who assessed the impact of mindfulness training in age transition-youth (2012).

While the addition of a mindfulness module showed beneficial results above and beyond treatment-as-usual on various outcomes, it is important to note that reports of mindfulness did not significantly change in this group. Further, changes on the mindfulness subscales were found more frequently in the standard MI group than the MI plus mindfulness training group. While the MI group reported a significant increase in ability to act with awareness and accept without judgement, the mindfulness group only reported a significant increase in acceptance without judgement. Thus, one may question the true underlying mechanism of adding mindfulness training to MI; is it an increase in trait mindfulness that leads to better treatment results, or is it the act of physically engaging in mindfulness meditation and non-judgemental awareness that drives treatment outcomes. It may simply be that learning and practicing mindfulness skills help produce positive outcomes. Further, one may also question the face validity of the mindfulness scale and whether it truly reflects what is learned and experienced through mindfulness practice. Nonetheless, self-reported trait mindfulness did associate with psychological outcomes in the present study. At baseline, total trait mindfulness and mindfulness subscales consistently associated with psychiatric symptom severity, emotion regulation, and impulsive/addictive behaviours. Further, changes in mindfulness were consistently associated with improvements in psychiatric symptom severity, emotion regulation, and impulsive/addictive behaviours. It is also important to mention that these associations were greater and more consistent among the integrated mindfulness-training group compared with the standard MI group. Additional research is needed to explore these questions further and to better understand the mechanisms that underlie the effectiveness of mindfulness-based training in substance abuse treatments for transition-age youth.

Although the present findings are novel and important, the study is not without limitations. Apart from a relatively small sample size, the largest limitation was length of treatment, which entailed 4 sessions over the course of 3 weeks. Given the nature and severity of substance abuse among transition-age youth, one may regard the treatment protocol as minimal. Further, due to time restrictions, only three mindfulness modules were selected: path to clear/wise mind, non-judgmental acceptance and urge surfing. It is possible that different modules and/or additional training skills could have been more beneficial. For

example, greater cultivation of "describing" which entails labelling a present emotion without getting involved with that emotion (i.e. describing rather than reacting) may be more effective in improving emotion regulation in this population.

To address these limitations, future studies should assess a similar treatment protocol over a longer time period in a larger sample of substance abusing youth. Further, research should explore whether other mindfulness skills can produce similar or superior results. Although preliminary, these results suggest that incorporating mindfulness skills training into a standard treatment protocol for substance abusing youth may support clinical well-being and short-term relapse prevention.

Conclusion

This study provides preliminary evidence for the benefits of integrating mindfulness training into standard treatment for substance abuse among transition-age youths. In addition to enhancing psychological well-being, mindfulness skills training can improve behaviours associated with substance abuse, including impulsive/additive behaviours and the urge to use. Continued assessment and modification of standard treatment programs that integrate mindfulness skills training may enhance treatment efficacy and relapse prevention in substance abusing youth.

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BRIEF REPORT

Child welfare investigations involving exposure to intimate partner violence: Case and worker characteristics

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Abstract

Objectives: This paper explores child welfare investigations involving three forms of children's exposure to intimate partner violence (IPV): direct witness to physical violence, indirect exposure to physical violence, and exposure to emotional violence, and the characteristics associated with these subtypes. These data allow the exposure to IPV typology to be more precisely examined as the subtypes define the specific event(s) investigated. **Methods:** Using a large representative dataset of an estimated 22,373 investigations, clinical and case characteristics are examined. Bivariate analyses are conducted in order to assess differences for the three forms of IPV. **Results**: Investigations involving children's direct witnessing of physical violence was most frequently substantiated and kept open for ongoing child welfare services compared to other forms of exposure. Caregiver risk factors differed significantly between the three subtypes of exposure to IPV. Some worker characteristics were also significantly different (e.g., social work degree, and domestic violence training) depending on the type of exposure IPV being investigated. **Conclusions and Implications:** These results have important policy and practice implications in that they show that a differential systems response is needed for exposure to IPV, depending on the type of exposure and the child, family, and household risk factors present. The results also suggest that some workers may require additional domestic violence training.

Key words:

child welfare, intimate partner violence, child maltreatment

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Introduction

The Ontario Incidence Study of Reported Child Abuse and Neglect (OIS) collects information about children and families investigated by the child welfare system in Ontario, with some similarities to incidence studies conducted in the United States including the National Incidence Study (NIS) and NCANDS (National Child Abuse and Neglect Data Systems). There have been four cycles of data collection: OIS-1993, OIS-1998, OIS-2003, and OIS-2008 (the fifth cycle, OIS-2013, is expected to be published in 2015). In 1993, there was no documented form of exposure to IPV on the OIS data collection form. In 1998, this type of investigation was captured under emotional maltreatment. Child welfare investigations involving alleged child maltreatment in Ontario doubled between 1998 and 2003 (an estimated 64,658 investigations to 128,108); from a rate of 27.43 per 1,000 children in 1998 to 53.49 in 2003 (Fallon et al., 2010). In 2008, the rate of investigations steadied (with an estimated 128,748 investigations; a rate of 54.05 per 1,000 children). In 2003, the OIS had a separate category for investigations involving domestic violence. The rates soared, increasing 300% between 1998 and 2003.

Black and colleagues (2008) analyzed the 2003 Canadian Incidence Study of Reported Child Abuse and Neglect (CIS-2003) data with respect to cases involving IPV. The CIS is a national study involving all provinces and territories in Canada and is the parent study of the OIS. The authors found that investigations involving IPV were substantiated at a very high rate but were subsequently closed. If exposure to intimate partner violence occurred with another form of substantiated maltreatment this resulted in higher rates of placement. Secondary data analyses of the CIS-2008 data (Nikolova et al., this issue) and qualitative interviews (Nikolova, unpublished) shed some light on these findings. Nikolova (unpublished) found that police were referring the case; therefore, workers were substantiating. Workers were substantiating, not that the child(ren) were maltreated or even exposed to IPV, but that the IPV incident happened.

Holden (2003) proposes nine different types of exposure for children: exposed prenatally, intervened, victimized, participated, eye witnessed, overheard, observed the initial effect, experienced the aftermath, or heard about it. Taking the empirical literature into consideration, the OIS-2008 included three subtypes of exposure to IPV: direct witness to physical violence, indirect exposure to physical violence, and exposure to emotional violence. The present study will explore subtypes of IPV investigations in the OIS-2008, their characteristics, as well as worker characteristics who are assigned investigations involving exposure to IPV.

Methods

Sample: The sample for the present study was taken from the OIS-2008 dataset. Child welfare agencies in Ontario were randomly selected to participate in the study. Data collection took place between October 1 and December 31, 2008. Workers could note up to three forms of alleged maltreatment (e.g, primary, secondary and tertiary forms of alleged maltreatment). Investigations were filtered for investigations involving exposure to intimate partner violence as the primary form of maltreatment. Investigations with exposure to IPV as the secondary or tertiary form of maltreatment were excluded. This sample was then weighted using annualization and regionalization weights to produce provincial estimates. This resulted in an estimated 22,373 investigations in Ontario in 2008.

Measurement: The data was collected with a standardized tool completed by child protection workers. Workers also completed a Worker Information form. All identifying information was removed before the form left the agency. Workers were asked about their age, caseload size, education, years of experience, and training.

Analyses: All data analyses were conducted using SPSS version 22. Bivariate analyses were used to determine the differences between the subtypes of investigations involving exposure to IPV. All bivariate analyses were tested using Pearson chi-squares. To avoid inflation, the sampling weight applied to the sample.

Results

For the first time, the OIS has collected information about subtypes of exposure to IPV. Of the estimated 22,373 investigations involving exposure to IPV as the primary form of maltreatment: 45% (an estimated

Table 1: Investigations involving intimate partner violence as the primary form of alleged maltreatment in Ontario in 2008

Type of exposure to intimate partner violence	Frequency	Percentage
Direct witness to physical violence	7,215	32%
Indirect exposure to physical violence	5,124	23%
Exposure to emotional violence	10,034	45%
Total	22,373	100%

Table 2: Characteristics of investigations reported for exposure to IPV in Ontario in 2008

	Direct witness to physical violence n(%)	Indirect exposure to physical violence n(%)	Exposure to emotional violence n(%)	Total n(%)	
Source of Referal					
Police referral***	4656(65)	3595(70)	5703(57)	13954(62)	X_2=18.48
Custodial parent Referral***	224(3)	-	865(9)	1116(5)	X_2=37.38
School referral	422(6)	258(5)	843(8)	1523(7)	NS
Primary Caregiver Characteristics					
Full time employment**	3876(54)	2937(57)	6395(64)	13208(59)	X_2=25.81,p=.001
Caregiver cooperative*	6827(95)	5011(98)	9422(94)	21260(95)	X_2=10.43, p=.-34
Primary caregiver mental health**	2291(32)	1434(28)	2200(22)	5925(27)	X_2=9.45, p.=.009
Primary caregiver alcohol abuse	638(9)	512(10)	670(7)	1820(8)	NS
Primary caregiver drug abuse	611(9)	357(7)	487(5)	1455(7)	X_2=6.06, p=.048
Primary caregiver few social supports**	2668(33)	1665(30)	2281(21)	6614(27)	X_2=14.68, p=.001
Family/Household Characteristics					
Own home***	2461(34)	1863(36)	4511(45)	8835(39)	X_2=50.53, p<.000
Home overcrowded*	387(5)	113(2)	231(2)	731(3)	X_2=9.65, p=.047
2 or more moves	545(8)	298(6)	480(5)	1323(6)	NS
Runs out of money	528(7)	308(6)	665(7)	1501(7)	NS
Case Chacteristics					
Case previously opened >3 (family)**	1725(24)	779(15)	1584(16)	4088(18)	X_2=21.72,p=.005
Charges laid by police***	4402(61)	3329(65)	2147(21)	9878(44)	X_2=273.33
Child age (mean(sd))	6.14(4.35)	6.67(4.69)	6.45(4.55)	6.41(4.52)	NS

*p<.05, **p<.01, ***p<.001

10,034 investigations) involved exposure to emotional violence, 32% (7,215 investigations) involved direct exposure to physical violence, and 23% (5,124 investigations) involved indirect exposure to physical violence (see Table 1).

Case characteristics by subtype of exposure to IPV can be found in Table 2. The IPV involving physical violence were reported by the police differently than other subtypes: police refer 70% of investigations involving indirect exposure to IPV, 65% of direct witness to physical violence, and 57% of emotional violence investigations. Nine percent of investigations involving exposure to emotional violence are reported by the custodial parent compared to 3% for investigations involving direct witness to physical violence.

The primary caregiver has full-time employment for the majority of investigations involving exposure

Table 3: Decisions for investigations involving intimate partner violence as the primary form of reported maltreatment in Ontario in 2008

			Director witness to physical violence	Indirect exposure to physical violence	Exposure to emotional violence	total	
Ongoing child welfare services**	Stay open	#	2,325	1,376	2,281	5,982	
		%	32%	27%	23%	27%	
	Closed	#	4,890	3,747	7,728	16,365	X_2=12.87
		%	68%	73%	77%	73%	
	Total	#	7,215	5,123	10,009	22,347	
		%	100%	100%	100%	100%	
Substantiation***	Unfounded	#	1,094	914	2,941	4,949	
		%	15%	18%	29%	22%	
	Suspected	#	493	693	1,151	2,337	
		%	7%	14%	11%	10%	
	Substantiated	#	5,627	3,517	5,943	15,087	X_2=54.71
		%	78%	69%	59%	67%	
	Total	#	7,214	5,124	10,035	22,373	
		%	100%	100%	100%	100%	
Placement	No placement	#	7.080	3,957	9,801	21,838	
		%	98%	97%	98%	98%	
	Informal placement	#	126		155	281	
		%	2%	1%	2%	1%	
	Foster or kindship placement	#	-	-	-	-	NS
		%	-	2%	1%	0%	
	Total	#	7,214	5,124	10,034	22,372	
		%	162%	164%	143%	100%	
Referral	Shelter Services**	#	404	492	552	1,448	
		%	9%	17%	9%	11%	X_2=9.39, p=.009
	Domestic Violence	#	2,874	1,894	2,551	7,319	X_2=35.39
		%	62%	64	43%	43%	

to emotional violence (64%) compared to 57% for indirect exposure to physical violence, and 54% for direct witness of physical violence. Caregivers own their own home in cases of exposure to emotional violence (45%) compared to the other forms of exposure (36% for indirect exposure to physical violence, and 34% for direct witness to physical violence).

When compared to the other subtypes of exposure (e.g., indirect exposure to physical violence, and emotional violence), investigations for exposure to IPV involving direct witness to physical violence noted homes that are overcrowded (5%), and cases that were previously opened (24%). These investigations also involve more frequently noted risk factors for the caregivers: 32% of investigations with a primary

caregiver with mental health issues, 9% with drug abuse, and 33% with few social supports (see Table 2). The majority of these investigations resulted in police charges for the domestic dispute (61%) compared to 65% for indirect exposure to physical violence, and only 21% of investigations involving exposure to emotional violence.

Workers make decisions at the end of an investigation. Some of these decisions include substantiation (i.e., whether maltreatment has occurred), whether to keep the case open for further child welfare services, and whether to place a child outside the family home (see Table 3). Very few investigations involving any subtype of exposure to IPV result in a placement (~2%). Investigations involving exposure to emotional violence were least frequently noted as substantiated (59%), and least likely to stay open (23%).

The characteristics of workers investigating exposure to IPV can be found in Table 4. The majority of workers investigating direct exposure to physical violence had a social work degree (66%) compared to 57% for emotional violence. But they were the least likely to have domestic violence training (57%) compared to 72% for investigations involving exposure emotional violence.

Discussion

One of the limitations noted in the empirical literature is the inability to know the nature of the exposure to IPV. Holden (2003) recommended nine forms of exposure to IPV. For the first time, the OIS has collected information about the subtypes of exposure to IPV including direct and indirect exposure to physical violence as well as exposure to emotional violence. From a descriptive analysis, there are differences between the subtypes. For example, the most frequently noted form of exposure to IPV is exposure to emotional violence (45%); however, these cases are the most likely to be closed (77%).

The majority of investigations involving IPV are substantiated (68%). This is similar to the finding of Black and colleagues when analyzing the CIS-2003 (2008). However, the findings in this report suggest that there is a different response of the Ontario child welfare system depending on the type of exposure to IPV. It appears that the findings of Black and colleagues holds true for investigations involving direct exposure to physical violence, but the response is different for investigations involving exposure to emotional violence. For example, 78% of investigations involving direct exposure to physical violence are substantiated while 60% of emotional violence cases are substantiated. However, this present study did not account for investigations involving multiple forms of exposure.

Child protection agencies appear to be assigning the cases involving direct exposure to physical violence to those with a social work degree (66%); however, almost half of the investigations have workers who have not had training about domestic violence (57% compared to 72% for investigations involving emotional violence). Given the differential response to cases involving exposure to emotional violence compared to exposure to physical violence, there is a need for re-assessment of the type of involvement from the child welfare sector as well as the nature of and consistency of training in IPV. Button and Payne (2009), who surveyed 187 child welfare workers on IPV training, describe the key needs for training for workers as related to historical disconnect, misunderstandings about IPV, worker safety, and "breaking the cycle of violence" (p.365). The World Health Organization (WHO) makes specific evidence-based recommendations for clinicians to receive training on IPV (Feder, MacMillan & Wathen, 2013); however, there does not appear to be clear evidence-based approaches to training child welfare workers. Another point raised by Renner (2011) is that training for child welfare workers should occur throughout their careers and not only as a "one-time occurrence" (p.394).

Implications

A multivariate analysis is needed to verify that the hypothesis that investigations involving exposure to emotional violence are closed more often than other forms of exposure to IPV when controlling for all clinical factors of the case. However, it is evident from the bivariate analyses that Ontario's child welfare system is responding differently to reports of IPV depending on the type of violence and type of exposure.

Investigations involving exposure to emotional violence are being closed at a high rate. This finding suggests that perhaps the child welfare sector is not the optimal choice for children exposed to emotional violence. A screening procedure may need to be assessed. Future research efforts should evaluate screening to assess the trajectory of the different forms of exposure to IPV. The long-term outcomes of children and families receiving services from child welfare services needs to be assessed in order to improve the well-being of those involved in Ontario's child welfare system.

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BOOK REVIEW

A review of *Lost lives: The pandemic violence against children* Helander, E. (2011). Stockholm, Sweden: Academic Press Lund, Sweden. Pages: 275 IBSN: 978-91-979208-0-3 (Hard Cover) Price: $20.00

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Abstract

The book, *Lost Lives: The Pandemic Violence Against Children* by Einar A. Helander, makes use of international research evidence, historical and contemporary anecdotes, and policy statements in order to provide a summary of child abuse and neglect around the world. Lost Lives is presented in a systematic manner with well-organized chapter divisions. Information is disseminated in an easy-to-follow format, and is well-cited with concise summaries. The author provides useful comparisons between countries and addresses the multi-factorial nature of childhood maltreatment. The reviewers summarize the book's sections: (1) The evidence of the pandemic child abuse, (2) evidence of the pandemic child neglect and deprivation, (3) then and now [historical context], (4) causes and contributions to violent behaviour and its prevention, and (5) challenges. In conclusion, barring a few minor suggestions, this book is an excellent introduction to the challenging topic of childhood neglect and violence.

Keywords:

violence, children, child abuse

Introduction

"The global pollution by violence has destroyed many of our basic human values, resulting in a dangerous, unequal and chaotic world. To bring change[...] is the most important challenge of our times."(p.231)

Lost Lives: The Pandemic Violence Against Children is authored by Einar Helander, M.D., Ph.D., a professor of International Health and Social Policies at the Instituto Superior de Psicologia Aplicada (ISPA) in Lisbon, Portugal. In the past, he has worked at the World Health Organization (WHO), the United Nations Development Programme, the World Bank and the All-India Institute of Medical Science. Dr. Helander uses his extensive knowledge, clinical expertise and experience in the field of child maltreatment to enrich, evaluate and provide context to the evidence that he presents in his book that maltreatment, globally, is labelled as a pandemic.

Lost Lives aims to provide an account of global violence against children using historical accounts, research findings, statistical summaries and personal observations by the author. It highlights the causes and effects of child abuse and discusses preventive measures. The contents of this book might appeal to health care providers who work with a pediatric population, government policy-makers, and those with a keen interest in global health. The clear and direct language used by the author makes this book accessible to readers from various educational and professional backgrounds, especially those with a responsibility for reporting child maltreatment. This book is a significant addition to the field of pediatric and developmental research, since there is a lack of guidelines surrounding childhood abuse in terms of screening and assessment standards (Fang, Brown, Florence & Mercy, 2012; Gilbert et al., 2009). It provides readers with a summary and evaluation of local, global, historical and contemporary evidence regarding the nature, causes, presentations, effects, treatments and prevention of child maltreatment.

Summary

The book includes 18 chapters organized in five sections: (1) The Evidence of Pandemic Child Abuse, (2) Evidence of Pandemic Child Neglect and Deprivation, (3) Then and Now, (4) Causes and Contributions to Violent Behaviour and Its Prevention, and (5) Challenges. The organization of this book is clear and logical. The systematic division of chapters allows the reader to easily access information on a specific area of child maltreatment. These divisions also enable the author to make cross-national and cross-temporal comparisons regarding the different types of child abuse and neglect.

Chapter 1 discusses childhood sexual, physical and emotional abuse. It also comments on the abuse faced by children in residential institutions, orphans, child labour and trafficking, as well as other socially disenfranchised pediatric populations. The long-term health and social consequences of childhood violence and child human rights abuse are also examined. Chapter 2 highlights the issue of child neglect and differentiates neglect from child abuse. Chapter 3 draws a comparison between forms of child maltreatment throughout history and in more recent times. The author concludes that, although attitudes and behaviour towards children have changed, childhood violence remains a 'pandemic' that will require interventions in the form of public education and government policies. The public health approach to child maltreatment has gained traction over the past decade in the United States, Canada and internationally (e.g., Jack, 2010; Walsh, Jones & Cross, 2003; WHO, 2007). Chapter 4 explores various factors that contribute to violent behavior including maternal stress during pregnancy, genetic factors, social factors and alcoholism. It also notes the prevalence, etiology, treatment and prognosis for different child behavior disorders. Chapter 5 presents insight on various neurobiological pathways that underlie moral sense and moral behaviour. The developmental implications of maltreatment on normative moral and motivational processes are areas deserving further attention. Interpersonal and collective violence towards children is discussed at multiple ecological levels - starting with the family and community and then proceeding towards national and international scales.

Each chapter includes a list of relevant definitions, as well as extensive compilations of tables and summaries of pertinent research. The author also includes international data on each topic, offering comparisons of published evidence specific to

individual countries. Every chapter concludes with a concise summary of its contents, along with suggestions for interventions and avenues for future research.

Commendable Features

Lost Lives provides readers with definitions and guidelines developed by the WHO in addition to alternative definitions derived from local perspectives. This is beneficial when comparing and analyzing research from a variety of sources. The author also discusses the impact of the definitions used on the results and outcomes, and provides a critique on the appropriateness of definitions adopted by different organizations. The author includes data from a large collection of qualitative as well as quantitative sources. These sources are appropriately cited within the body of the text, making it very easy for readers to locate the original articles. Data presented in each chapter are divided into evidence related to developing countries and developed countries, while also providing global estimates of child abuse and neglect. The author recognizes and explains common cultural norms and practices that could potentially influence the type of abuse predominantly observed in different countries. Similarly, the inclusion of photographs, summary charts and medical imaging, when necessary, adds visual appeal and clarity to the topics of discussion. Another commendable feature of this book is that the author critically appraises the evidence presented. For example, the book takes into account the influence of confounding factors and external variables when considering if a change in the reported prevalence of child abuse is factual. Lost Lives presents an overview of the social determinants of child development, including poverty, access to equitable health care, education, nutrition, emotional and parental support, safe living conditions and opportunities for self-actualization. The book explores psychobiological pathways and causal mechanisms in order to explain observable patterns in human behaviour, thereby amalgamating biological and social schools of thought.

Opportunities for Enhancement

This book provides a good overview of global child maltreatment. There are few suggestions that could further enhance the quality and applicability of Lost Lives. (1) While the author's personal views and anecdotes provide an interesting perspective on issues discussed in the book, the extensive inclusion of personal opinions may have occasionally detracted readers from forming their own views on the topics at hand. (2) The author provides complete comparisons between countries around the world when presenting topical data. It may also be useful to consider making comparisons at a more national and local level within countries. This would have allowed for a demonstration of the effects of socioeconomic status on the prevalence of abuse, when geography, culture and law are kept constant. (3) The book can be further enhanced by providing clinical guidelines or recommendations for health care workers who deal with a pediatric population. Such recommendations can aid health care workers with easily translating the knowledge gained from this book into their clinical practice.

A Note on Resilience

Lost Lives defines resilient people as "highly committed to what they do, have a strong need to control the events around them, and a willingness to accept challenges" (p. 107), which serve as protective factors against the negative effects of child abuse. Other factors cited by the book that may contribute to resilience include social support from others, optimism, humour and positive illusion, all of which have been corroborated in recent literature (Afifi & MacMillan, 2011; Hermann et al., 2011). However, the author draws attention to the possibility of trauma, even within a resilient child as it is important to note that resilience does not equate to invulnerability. Additional work on resilience underscores the critical role of resources, both internal to and external (e.g., community, extended family, job opportunities) for resilience (e.g., Ungar, 2005).

Key Recommendations and Conclusion

The book concludes with a few key recommendations for readers. The author urges health care providers to diagnose health disorders linked with violent behaviors early in life. He also recommends that schools should focus on teaching emotional skills, parenting and empathy in addition to the traditional curriculum. This is consistent with the

empirical literature showing the association between social and emotional learning (SEL) and better academic outcomes (e.g., Zins, Weissberg, Wang & Walberg, 2004). Helander believes that primary prevention and early intervention, along with frequent reporting, are key for the cessation of violence against children. This proposal has been endorsed by recent literature (Wekerle, 2013).

Overall, Lost Lives: The Pandemic Violence Against Children by Einar A. Helander provides a good summary and evaluation of local, global, historical and contemporary evidence on child maltreatment. The book extensively discusses both socioeconomic and psychobiological contributors to child maltreatment. The author includes data from a large collection of qualitative and quantitative sources and presents it in a clear manner. Lost Lives also critically appraises the sources used, and presents social as well as cultural context when necessary. Using a more neutral tone when summarizing evidence may have helped readers form their own views on the content presented. Although the author makes clear his view that maltreatment is an infraction to children and a key human rights violation, he does well in transforming his passion to action. In conclusion, the book provides an analysis of relevant research data on child maltreatment and appeals to readers from all backgrounds, specifically those involved with pediatric populations and global health.

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