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Exploring Depression and Anxiety as a Result of Childhood Maltreatment and the Models of Social Support

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Support

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By

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Abstract

Social support has been a significant area of interest in terms of protective factors for children and youth who have experienced maltreatment. The present study examines whether social support exhibits a main effect or a buffering effect on anxiety and depression symptoms in children and youth using the interRAI ChYMH. Family and peer support in particular was explored in an attempt to evaluate a more specified view of social support. The sample consists of 615 participants from various children and youth mental health facilities across Canada. Results indicate no support for the buffering model of social support, while statistical significance was found for the main effect of family support in relation to lower anxiety scores. Females, in particular, were found to report significantly less anxiety symptoms when family support was present, yet higher anxiety scores when peer support was present. Discussion investigates the clinical prevention and intervention possibilities that the findings yielded.

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Introduction

Depression and anxiety have been well documented for children who have experienced some form of maltreatment (Banyard, Williams, Siegel, 2001; Manly, Kim, Rogosch, Cicchetti, 2001;Lansford et al., 2002; Cohen, Mannarino, Knudsen, 2004; Springer, Sheridan, Kuo, Carnes, 2007; Teicher & Samson, 2013). Yet there is also a robust literature documenting children who reveal significant adaptive strengths despite having experienced maltreatment (Heller, Larrieu, D'Imperio, Boris, 1999; Williams & Nelson-Gardel, 2012), and there has been significant interest in examining factors that set such children apart from those who seem not to express such adaptive ability. The factors that these resilient children possess are referred to as protective factors. The present study investigated social support in particular as a potential protective factor for children who have been maltreated.

The review will first introduce the literature addressing the relationship between childhood maltreatment and depression and anxiety. It will then address the two models of social support and the evidence supporting both models in regards to childhood maltreatment. Social support as a construct will then be examined in its different dimensions, emphasizing family and peer support and their relationship to childhood maltreatment and depression and anxiety. In particular, this review will be exploring studies that examine the effects of age and gender and the importance of each type of social support. The last section will explain the hypotheses for the study and the methodology.

Literature Review

Child Maltreatment and the Link to Depression and Anxiety

According to the Canadian Incidence Study of Reported Child Abuse and Neglect (Public Health Agency of Canada, 2010), rates of substantiated child maltreatment have increased from

21.47 per 1000 children, to 39.16 per 1000 children (Public Health Agency of Canada, 2010). Unfortunately these statistics are only the tip of the iceberg. The CIS is only able to measure those cases that are reported and investigated, with an appreciation that a significant degree of childhood maltreatment often goes unreported. According to the World Health Organization, 31,000 deaths of children under the age of 15 resulting from maltreatment were estimated in the year 2002 globally and they speculate that this is an under estimation (WHO, 2006). As the rate of child maltreatment increases in the country and around the world and because the consequences of maltreatment are vast and wide ranging, research on the effects of childhood maltreatment becomes worthwhile and significant.

Child maltreatment is separated into five types: physical abuse, psychological abuse, neglect, sexual abuse, and those children who experience multiple forms of abuse. The definitions for each type of child abuse are as follows and are drawn from the work of Gilbert et al (2009). Physical abuse is the intentional use of physical force against a child; this can include hitting, kicking, shaking, shoving, and burning. Psychological abuse entails the intentional behaviour that denotes that the child is unloved, and unworthy; this can include degrading, intimidating, terrorizing, isolating, and blaming. Perpetrating family violence in the child's presence can also be categorized as psychological abuse. Sexual abuse can constitute any attempted or completed sexual act, sexual contact or non-contact sexual interaction; this can include penetration, sexual touching, and exposure to sexual activity, filming, or prostitution. Neglect is the failure to meet a child's basic physical, emotional, medical, safety, or educational needs. Mixed abuse is a combination of any of the above. In developing countries, it is estimated that 4-16% of children are physically abused and 10% of children are neglected or psychologically abused. Around 5-10% of girls and 5% of boy are exposed to penetrative sexual

abuse, and up to three times this number for other types of sexual abuse (Gilbert et al., 2009). Globally, it is estimated that around 20% of women and 5-10% of men have experienced some form of sexual abuse (WHO, 2006).

A twelve year longitudinal study on childhood maltreatment found that children who have been maltreated are twice as likely to experience emotional disorders including anxiety and depression than those who have not been maltreated (Lansford et al., 2002). In a study by DuMont, Widom, and Czaja (2007), it was found that children who have been maltreated have an elevated risk of experiencing depression in their adult lives, and one third of the maltreated population will meet the criteria for major depression by their late 20s. A study by Teicher and Samson (2013) found that individuals who have experienced childhood maltreatment while experiencing the consequent depression and anxiety disorders have an earlier onset, greater symptom variability, greater risk for suicide, and poorer treatment response than individuals with the same diagnoses but who have not experienced childhood maltreatment. From these studies, it is apparent that not only does childhood maltreatment increase the risk for depression and anxiety, but also influences the severity and experience of depression and anxiety.

Though it is evident from these studies that a large portion of the children who have been maltreated display maladaptive adjustment, there are still the remainder of children whose adjustment does not reflect the onset of either depression or an anxiety disorder, or who experience symptoms to a milder degree than what would be expected. In the past two decades, a significant amount of research has been conducted on these children that are able to remain resilient albeit after experiencing maltreatment (Heller, Larrieu, D'Imperio, & Boris, 1999; Spacarelli, 1994). In the research of resilient individuals, it has been found that they often possess internal characteristics and/ or experience external factors that protect them against

maladaptive adjustment and behaviours. The present study examined social support in particular as a protective factor against depression and anxiety in children who have been maltreated.

Two Models of Social Support

The relationship between social support and mental health well-being has been well documented (Kawachi & Berkman, 2001). The present study investigated the two models that illustrate the relationship between social support and mental health: the main effect model and the buffering model. It is important to note that either models of social support are not mutually exclusive.

Main Effect Model of Resiliency. The main effect model postulates that social support has a generalized constructive effect on individuals regardless of their experience of stressful events. In the evolutionary theory, cooperative and supportive behaviours between kin and non-kin members are selected due to their benefits for survival (Trivers, 1971). It is posited that regularized positive social interactions are related to mental health well-being by eliciting positive affect, predictability and stability in one's life, along with positive self-worth (Cohen & Wills, 1985). Integration into a supportive social network also decreases the likelihood of being exposed to stressful events to begin with (Cohen & Wills, 1985).

Bufferring Effect of Resliency. The buffering hypothesis of social support posits that social support is not only generally constructive towards mental health, but acts as a protective factor against the negative outcomes of stressful events. According to the stress buffering model of social support (Cohen & Wills, 1985), one responds to stress through the stress appraisal model. The stress appraisal model states that an individual will experience stress when they evaluate a situation to be threatening or demanding and do not have an appropriate coping response (Lazarus & Launier, 1978). The stress buffering model posits that social support

mitigates the stress appraisal response in two ways (Cohen & Wills, 1985). First is the perception of the presence of social support that can increase the perception of resources available to deal with the impending stressful event and therefore decrease the level of stressed appraised. Second, the actual support received can intervene and provide solutions to the stressful event being experienced and therefore decreasing the level of stress.

Within the literature examining social support, there has been minimal consensus on the validity of either of the two models. In Henderson's (1992) meta-analyses of social support and depression, 35 studies were reviewed that showed varying degrees of support for both the main effect model and the buffering model. Though most of the studies in this meta-analysis supported the buffering model of social support, four studies did not find such evidence. Several of the studies also found that regardless of the presence of stress, high levels of social support was related to lower levels of depression therefore providing support for the main effect model.

Runtz and Schallow (1997) investigated social support and coping strategies as mediators on adult adjustment following childhood sexual and physical abuse using structural equation modelling. Self-report measures were drawn from a student sample at a Canadian university, yielding results that indicated social support acts as a mediator, protecting against maladaptive psychological adjustment in adult life therefore supporting the buffering model of social support. Sperry and Widom (2013) found similar results when they examined the effects of social support in the relationship between childhood maltreatment and anxiety, depression, and illicit drug use using a prospective cohort design. Their results indicated that social support was a significant mediator in reducing the effects of childhood maltreatment on depression and anxiety.

Crouch, Milner and Caliso (1995) however found a significant main effect for social support in predicting depression and anxiety, independent of any history of childhood trauma.

Their findings support the notion that social support is an important variable related to depression and anxiety, but does not support the evidence that social support acts as a buffer to the effects of childhood trauma regarding adjustment. Bradley, Schwartz, and Kaslow's (2005) study also looked at the mediating role of social support in their investigation of self-esteem, social support, and religious coping as mediators between childhood maltreatment and intimate partner violence and the symptoms of PTSD in African America women. Their results indicated that social support was not a significant factor in mediating PTSD symptoms when self-esteem and religious coping was taken into account. This finding suggests that social support may interact with either or both self-esteem and religious coping.

In an attempt to examine the contrasting evidence for and against the buffering hypothesis, Cohen and Wills' (1985) conducted a meta-analysis reviewing literature supporting both the main effects and the buffering model. They concluded that there is evidence supporting both models under different conditions, and that specific aspects of social support may operate under different models. The two models are not mutually exclusive. When the perceived availability of social support is consistent with the needs elicited by the stress, a buffering effect is found. A main affect for social support and psychological well-being was found when measuring the degree of functional support. They suggest that the reason for the contradicting evidence is manifold. First, the construct of social support is often operationalized differently and "poorly". Moreover, due to the multi-faceted nature of social support, they concluded that different types of stressful events often call for the needs of specific types of social support and if the two are not congruent then there will be no buffering effect. To refine the construct of social support, the next section will be discussing the identified types and classes of social support found across literature.

Social Support

Social support is described as a multidimensional construct (Cultrona & Russell, 1987). Lepore (1992) characterized social support as "the actual receipt or perceived availability of emotional, practical, or material aid from another individual or a group of individuals." Cohen (1992) identified three main classes in social support. These include: social networks, supportive behaviours, and perceived social support. Social networks refer to the structure, existence, quantity, and type of interpersonal relationship. Supportive behaviours refer to the receipt of behaviours from the social networks that are intended to be helpful in a stressful event. Perceived social support refers to the perception by the individual that they have social networks and that the social networks will provide supportive behaviours.

Social support has also been examined in terms of structural and functional support. Structural social support examines the systematic types of social interactions that are involved with an individual. This would refer to Cohen's (1992) identified class of social networks. Features of structural social support would include the networks of people who are involved (e.g. family, schools, friends.) and the interconnectedness of these networks. Several studies have found that different types of structural support may differ in its effective contribution in personal adjustment and mental health. There is little consensus however, regarding which systems of social support are more or less effective. Functional support is separated into four general typologies (Cohen & Wills, 1985): esteemed support, informational support, diffuse support, and instrumental support. Esteemed support is described as the support that indicates the individual is valued for their worth and accepted for their experiences. It is often referred to as emotional support. Informational support is the receiving of advice and help in the appraisal of stressful events. Diffuse support is the social interaction with others that reduces stress through the

distraction and facilitating positive moods. Instrumental support is the provision of required aid to the problematic event and can be material or financial.

The present study investigated family and peer support, in particular, as compared with structural social support.

Family and Peer Support

The relationship between an adult family member and a child is characterized as *vertical* due to a greater parental sense of social power and knowledge and their position of nurturance and control (Hartup, 1989). Peer support on the other hand, is described as being *horizontal*, as peers have an equal sense of social power and knowledge as well as reciprocity in exchanges. Vertical attachments are the first connections that are formed in a child's life, and they provide functional support through the means of nurturing, security and protection (Hartup, 1989). Horizontal attachments do not usually emerge until later in life (i.e. school age), and provide functional support through the means of companionship, social acceptance, and reciprocal social exchanges (Hartup, 1989). Familial support has been robustly found to be instrumental to children's adjustment regardless of traumatic history (Vernberg et al., 1996), while peer support appears to be much more variable (Kerr, Preuss, & King, 2005).

Ezzell, Swenson, and Brodino's (2000) used self-report in their study investigating the structural social supports of children between the ages of 6-14 years who had been physically abused . Results indicated that family support was rated to be the most important source of support and significantly, negatively related to child-reported depression. Higher levels of peer support were found to be related to lower levels of both child-reported and parent-reported depression and anxiety. In Spaccarelli and Fuch's (1997) study of variability in symptomology of girls who have been sexually abused, they also found that parental support was related to fewer

reported symptoms of depression and anxiety as well as higher levels of social competency. Feiring, Taska, and Lewis (1998) also found similar results that indicated parental support is related to fewer symptoms of depression. In particular, they postulated that it was because parental support provided a buffer against self-blame and low self-esteem which is prevalent in victims of sexual abuse. Folgers and Wright (2013) also found that higher levels of family and peer support were related to fewer symptoms of depression and anxiety following experiences of child maltreatment. Their results also indicated that although family and peer support acted as a buffer against maladjustment following childhood maltreatment, this was only true when the maltreatment severity was low. However, they also found an exception to this when looking at the male sample that had been severely maltreated and found that higher levels of peer support were related to lower levels of depression and anxiety. Yet in Evans, Steel, and Dilillo's (2013) study of trauma symptoms of individuals who have experienced childhood maltreatment, they found that higher levels of family and peer support predicted lower levels of trauma symptoms in males across all levels of maltreatment severity. Interestingly, they also found that peer support, and not family support, predicted lower levels of trauma symptoms with females. Powers, Ressler, and Bradley's (2009) study of childhood maltreatment found that peer support was related to lower levels of depression symptoms in females only as well.

Kerr et al.'s (2006) study of suicidal adolescent youth and social support found discrepancies in the protective effects of family and peer support regarding gender. Their results indicated that lower levels of family support were related to increased symptoms of depression in females, but no significant relationship was found between variations in family support and depression symptomology in males. Moreover, their results found that higher levels of peer support was related to greater levels of depression symptomology in males and no relationship to

female depressive symptoms. The exacerbation of depressive symptoms in the presence of higher levels of peer support have also been found in other studies, suggesting that the peers of such individuals may also have depressive tendencies and therefore would actually elevate depressive symptoms through social learning and reinforcement of negative affect (Fergusson, Wanner, Vitaro, Horwood, & Swain-Campbell, 2003; Heller & Tanaka-Matsumi, 1999; Hogue & Steinberg, 1995).

Present Study

There is only modest support in the current literature regarding the role of social support and mental health. The present study addressed this area through exploring the role of family and peer support in children who have experienced maltreatment. The outcomes investigated the nature and degree of potential symptoms associated with depression and anxiety. Although depression and anxiety are highly correlated and comorbid constructs, they were examined as separate variables because the clinical applications for each respective construct are different.

The present study focused on children who have experienced some form of maltreatment and the potential protective effects of social support on depression and anxiety symptomology in the context of the two protective models of social support in providing clarity on either hypotheses. The present study also examined the interaction of gender variables on family and peer support. As the present literature regarding gender and family and peer support are varied and relatively inconclusive, no directional hypotheses were made. Rather, this portion of the investigation was intended as exploratory in nature.

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Method

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Participants

Data was collected from 615 participants from various community-based (outpatient) and residential (inpatient) children's mental health facilities across the province of Ontario. Of the sample collected, 408 were male and 207 were female. Their age ranged from 4 to 18 (*M*=11.11, *SD*=3.39).

Within this sample, 215 children and youth reported experiencing some form of maltreatment; 138 children / youth experienced multiple forms of maltreatment. Of those who reported experiencing maltreatment, 84 were for physical abuse; 56 were for sexual abuse; 161 were for emotional abuse; and 106 were for neglect. Table 1 outlines the male and female distribution for each type of maltreatment.

Table 1

Males and Females Distribution for Each Type of Maltreatment (N=215)

Maltreatment Type	Male	Female
Physical Abuse	61	23
Sexual Abuse	25	31
Emotional Abuse	108	53
Neglect	69	37

Materials

The current study used the interRAI Child and Youth Mental Health (ChYMH) assessment (Stewart, et al., in press). The interRAI is an international collaborative dedicated to improving the care for vulnerable persons using a comprehensive assessment system that is contributed to by expert researchers and clinicians across 35 countries (Stewart, Currie, Arbeau,

Leschied, & Kerry, In Press). The ChYMH is the official child and youth instrument within the interRAI suite. It is a multidisciplinary mental health assessment system for children ages 4-18 (Stewart et al., In Press). The interRAI ChYMH is designed in a modular format comprised of a core assessment consisting of 99 items. It is currently being piloted at multiple child and adolescent mental health facilities, including one tertiary care centre, across the province of Ontario.

The data collected through the interRAI ChYMH is used for assessment, treatment, research, and education (Stewart et al., In Press). All data collected are secondary in nature and is stored on the interRAI Canada secure server at the University of Western Ontario in a password encrypted standalone computer. Each participant is assigned a randomly generated study-specific participant number, so that no identifiable information is stored on this server. De-identified data is provided to the lead interRAI developer on a quarterly basis. The data used for this thesis was collected from November, 2012 to October, 2014.

The independent variables taken from the ChYMH includes gender, maltreatment, and social support. The maltreatment variable was taken from section M ("Stress and Trauma"), item 1("Life Events"), items i) ("Sexual assault or abuse"), j) ("Physical assault or abuse"), and k) ("Emotional abuse"), and section B ("Intake and Initial History"), item 9 ("History of Care Includes Severe Failure to Provide for Basic Needs"), items a) ("Emotional neglect"), b) ("Physical needs neglected"), c) ("Safety needs neglected"). Social support variables were taken from section G ("Strength and Resilience"), item 1 ("Strengths"), items f) ("Strong and supportive relationship with family") and g) ("Strong and supportive relationship with peers").

Various subscales were created from the ChYMH variables list to measure the dependent variables.

Child and Youth Depressive Severity Index (CY-DSI). (See appendix A) The CY-DSI measured depressive symptoms. It is comprised of 9 items taken from various sections of the ChYMH that are indicators of depression. For example, one of the items being "sad, pained, or worried facial expressions" from section C ("Mental State Indicators") under "Mood Disturbances". The scale scores range from 0 to 36, with higher scores indicating a greater severity of depressive symptoms. Participants can score 0-4 on each item, with 0 being "not present", 1 being "present but not exhibited in the last 3 days", 2 being "exhibited on 1-2 of the last 3 days", 3 being "exhibited daily in the last 3 days, 1-2 episodes", and 4 being "exhibited daily in the last 3 days, 3 or more episodes or continuously".

CY-Anxiety Scale. (See appendix B) The CY-Anxiety Scale measured anxiety symptoms. It is comprised of 7 items from the ChYMH that are indicators of anxiety, an example being "unrealistic fears" from section C under "Mood Disturbances". Scores range from 0-32, where higher scores indicated more anxiety symptoms. It is scored the same way as the CY-DSI.

Procedures

The data for the present study was collected by intake workers at the various interRAI pilot sites across Ontario through a semi-structured interview format as part of the intake process for the respective community agency or residential centre. The child, the child's family/guardians, and people outside the child's family were interviewed when possible to ensure convergence reliability.

For the purpose of this study, the maltreatment variable was solely measured by the presence of maltreatment but not the severity or chronicity. Similarly, reports of the presence of family and social support in Section G of the interRAI were used to measure social support variables.

Analysis of the data consisted of chi-square tests of independence to determine the relationships between; maltreatment and social support, and maltreatment and gender. A series of independent samples t-tests were then used to compare means of the CY-DSI and CY- Anxiety scale and the independent variables to test the various hypotheses that were detailed in the Introduction and that will be repeated in the Results section.

Results

A series of analyses explored the complex relationship between childhood maltreatment, social support, gender, depression and anxiety. It was hypothesized that children who had experienced one or more forms of abuse would score higher on depression and anxiety measures than children who had not experienced maltreatment. Moreover, both the main effect model and buffering model of social support were evaluated through a series of t-tests. Gender differences were also explored.

Relationship of Maltreatment on Depression and Anxiety

To evaluate the proposed hypotheses regarding the relationship between maltreatment with depression and anxiety, independent samples t-tests were conducted. The children and youth who had experienced some form of maltreatment scored significantly higher on the CY-Anxiety Scale ($M = 8.84$, $SD = 5.62$) than those who had not experienced maltreatment ($M = 6.81$, $SD = 5.55$; $t(613) = 4.30$, $p < 0.001$) reflecting that maltreatment is highly significant in its relation to the anxiety symptoms displayed within this sample. It was also found that children and youth who had experienced any form of maltreatment scored higher on the CY-DSI ($M = 13.86$, $SD = 7.57$) than those who had not experienced maltreatment ($M = 11.41$, $SD = 7.27$), $t(613) = 3.93$, $p < 0.001$). This finding suggests that children and youth who had been maltreated experience significantly more depressive symptoms than those who had not.

A significant difference was identified when examining gender differences in the experience of depression and anxiety within the maltreatment sample ($N = 215$). On the CY-DSI, females scored significantly higher ($M = 15.82$, $SD = 7.47$) than males ($M = 12.87$, $SD = 7.46$), $t(213) = -2.73$, $p < 0.01$) reflecting that females who had experienced maltreatment reported more depressive symptoms than males. No significant differences were found between females ($M = 8.29$, $SD = 5.13$) and males ($M = 9.12$, $SD = 5.85$), $t(231) = 1.02$, NS) on the CY- Anxiety Scale scores, suggesting that there is no variation in the way males and females presented anxiety symptoms in the maltreatment sample.

Chi Square Analysis of Gender and Maltreatment

A chi-square test of independence was conducted to examine the relationship between gender and the presence of maltreatment. No significant difference was found (X^2 (1) = 0.004, $N = 615$, $p = >0.05$). Results denoted that both males and females experience maltreatment equally within this sample.

When subgroup analyses of each type of maltreatment was conducted however, differential results were found. These results are summarized in Table 2. A significant difference was found in the reports of maltreatment between males and females for sexual abuse ($X^2 = 0.000$, $N = 615$, $p < 0.001$) indicating, consistent with the hypothesis, that females were more likely to report sexual abuse than males.

Table 2

Cross tabulation of Type of Abuse and Gender

Type of Maltreatment	Gender		x^2	p
	Male	Female		
Physical Abuse	72.6%	27.4%	1.717	0.190
Sexual Abuse	44.6%	55.4%	12.991	0.000*
Emotional Abuse	67.1%	32.9%	0.053	0.817
Neglect	65.1%	34.9%	0.089	0.765

* Significance p<.001

The Impact of Multiple Forms of Maltreatment

Further analyses using independent samples t-tests were conducted to assess whether children and youth who had experienced multiple forms of maltreatment experience more symptoms of depression and anxiety than those who experienced a singular form of maltreatment. Results determined that the children and youth who experienced multiple forms of abuse did not score higher on the CY-DSI ($M = 13.82$, $SD = 7.89$), than those who experienced only a single form of abuse ($M = 13.94$, $SD = 7.03$), $t(213) = -0.11$, *NS).* This indicates that children and youth who had experienced multiple forms of maltreatment did not display more depressive symptoms than those who experienced only a single form of abuse. Similarly, no significance was found between the CY-Anxiety Scale scores of children and youth who had experienced multiple forms of abuse ($M = 9.01$, $SD = 5.53$) and those who only experienced a single form of abuse ($M = 8.55$, $SD = 5.82$), $t(213) = 0.577$, *NS*. This denotes that there are no

significant differences in amount of anxiety symptoms experienced by the children and youth in both samples.

Social Support Hypotheses

To assess the two models of social support, a series of independent samples t-tests were performed on the interRAI sample and the maltreatment subsample. The results are summarized in Tables 3-12.

Buffering hypothesis of social support. The buffering effect of social support was evaluated by comparing the means of the scores of the CY-DSI and CY-Anxiety scale using independent samples t-tests using the maltreatment sample. Gender differences were also evaluated. Results are summarized in Tables 3-6.

The results of the independent samples t-tests executed for the CY-Anxiety Scale listed in Table 3 indicate that there were no significant differences found in the scores for: any social support (family and peer combined); family support; peer support; or no support within the maltreatment sample. Data summarized in Table 3 summarizes that there were no differences in the CY-Anxiety Scales scores of children who have different types of social support relative to no support in the maltreatment sample, providing an absence of support for the buffering hypothesis in relation to anxiety symptoms. One notable value to draw attention to however, is the *p*-value for the scores of children who had been maltreated who had family support. Though the results were not statistically significant, an examination of means reflects that the results were approaching significance with the means in the predicted direction.

Table 4 summarizes the results of the independent samples t-tests conducted to compare the scores of the CY-DSI for children who had been maltreated and the social support that they have received. As summarized in Table 4, no significant differences were found in the mean

scores of the CY-DSI in each support condition. This indicates that no statistical support was

found for the buffering hypothesis related to depressive symptoms.

Table 3

Results of t-test and Descriptive Statistics for the CY-Anxiety Scale within the Maltreatment

Sample for Each Type of Support

	Support present			Support not present					
	M	*SD*	*N*	*M*	*SD*	*N*	*t*	*df*	*P*-value
Peer Support	9.07	5.75	98	8.65	5.53	117	0.54	213	0.585
Family Support	8.72	5.62	185	9.57	5.69	30	-0.76	213	0.069

Table 4

Results of t-test and Descriptive Statistics for the CY-DSI within the Maltreatment Sample for

Each Type of Support

	Support present			Support not present					
	M	*SD*	*N*	*M*	*SD*	*N*	*t*	*df*	*P*-value
Peer Support	14.19	7.79	98	13.58	7.42	117	0.59	213	0.556
Family Support	13.77	7.52	185	14.43	8.05	30	-0.45	213	0.656

Main effect model of social support. The main effect hypotheses of social support was evaluated by comparing the means of the scores of the CY-DSI and CY-Anxiety scale using independent samples t-tests in the interRAI sample. Gender differences were also evaluated. Results are summarized in Table 5-10.

Table 5 summarizes the results of the independent samples t-tests conducted for the mean scores of the CY-DSI in each type of support versus no support conditions in the interRAI sample. No significant differences were found in the scores for any of the support versus no support conditions, suggesting that having any kind of support does not affect the degree of depressive symptoms reported. These results reject the main effect hypotheses. Although it is worthwhile to note that the *p*-value for family support approaches significance and the means were in the predicted direction.

Table 6 outlines the results of the independent samples t-tests executed for the mean scores of the CY-Anxiety Scale in each type of support conditions. It was found that the CY-Anxiety Scale scores were significantly higher when there was no social support reported than when some form of social support was reported, with statistical significance at the $p < 0.05$ level. This finding provides evidence for supporting the main effect hypothesis. Further analyses on the different types of social support found significance for family support, but not for peer support. There were no differences in the CY-Anxiety scale scores for children and youth who reported having peer support and those who did not report peer support. This finding does not support the main effect hypothesis. On the other hand, it was found that there were significant differences on the mean scores of the CY-Anxiety Scale for those who reported to have family support as opposed to those who did not, significant at the $p < 0.05$ level. These findings suggest that while

family support is related to less anxiety symptoms experienced by children and youth, peer support is not.

Additional subgroup analyses were conducted for each gender to explore the main effect hypotheses as outlined in Tables 7-10.

Table 5

Results of t-tests and Descriptive Statistics for the CY-DSI within the InterRAI Sample for Each Type of Support

| | Support present | | | Support not present | | | | | |
	M	*SD*	*N*	*M*	*SD*	*N*	*t*	*df*	*P*-value
Any social support	12.13	7.45	551	13.41	7.55	64	-1.29	613	0.197
Peer Support	12.35	7.56	269	12.20	7.40	346	0.26	613	0.797
Family Support	12.05	7.41	535	13.70	7.71	80	-1.85	613	0.065

Table 6

Results of t-tests and Descriptive Statistics for the CY-Anxiety Scale within the InterRAI Sample

for Each Type of Support

	Support present			Support not present					
	M	*SD*	*N*	*M*	*SD*	*N*	*t*	*df*	*P*-value
Any social support	7.34	5.63	551	9.05	5.69	64	-2.29	613	0.023*
Peer Support	7.56	5.56	269	7.49	5.49	346	0.14	613	0.890
Family Support	7.32	5.66	535	8.89	5.44	80	-2.32	613	0.020*

* Significance p<.03

Table 7

Males' results of t-tests and Descriptive Statistics for the CY-DSI Scale within the InterRAI

Sample for Each Type of Support

	Support present			Support not present					
	M	*SD*	*N*	*M*	*SD*	*N*	*t*	*df*	*P*-value
Any Support	11.66	7.36	361	13.64	7.64	47	-1.72	406	0.085
Peer Support	11.56	7.61	173	12.13	7.26	235	-0.77	406	0.442
Family Support	11.67	7.34	354	13.33	7.75	54	-1.54	406	0.124

Table 8

Males' results of t-tests and Descriptive Statistics for the CY-Anxiety Scale within the InterRAI

Sample for Each Type of Support

	Support present			Support not present					
	M	*SD*	*N*	*M*	*SD*	*N*	*t*	*df*	*P*-value
Any social support	7.53	5.75	361	8.94	5.67	8.94	-1.57	406	0.116
Peer Support	7.16	6.01	173	8.09	5.53	235	-1.61	406	0.108
Family Support	7.56	5.78	354	8.61	5.56	54	-1.25	406	0.210

Table 9

Females' results of t-tests and Descriptive Statistics for the CY- Anxiety Scale within the

InterRAI Sample for Each Type of Support

	Support present			Support not present					
	M	*SD*	*N*	*M*	*SD*	*N*	*t*	*df*	*P*-value
Peer Support	8.27	5.82	96	6.23	4.95	111	2.04	205	0.007**
Family Support	6.85	5.41	181	9.46	5.24	26	-2.31	205	0.022*

*p<.02; **p<.007

Table 10

Females' results of t-tests and Descriptive Statistics for the CY-DSI within the InterRAI Sample

for Each Type of Support

	Support present			Support not present					
	M	*SD*	*N*	*M*	*SD*	*N*	*t*	*df*	*P*-value
Peer Support	13.78	7.27	96	12.33	7.73	111	1.38	205	0.169
Family Support	12.80	7.50	181	14.46	7.74	26	-1.05	205	0.293

Tables 7 and 8 details the results of the comparison of means for the CY-DSI and CY-Anxiety Scales conducted for males. No statistical significance was found within this sample for any of the support conditions. While similar results were found for females regarding the CY-DSI scores, significant differences were found in comparing the mean scores of the CY-Anxiety Scale. Table 11 indicate that females with no reported family support (*M* = 9.46, *SD* = 5.24) scored significantly higher than females with family support (*M* = 6.85, *SD* = 5.41), *t*(205) = -2.31, *p* < 0.05). This supports the main effect hypothesis for family support. Contrarily, it was also found that females reporting peer support scored higher on anxiety (*M* = 8.27, *SD* = 5.82) than females who did not report having peer support (*M* = 6.23, *SD* = 4.95), *t*(205) = 2.04, *p* < 0.01). This finding suggests that females who have peer support are likely to experience more anxiety symptoms than those who do not.

Summary

In summary, several statistically significant results were found within this study. While it was found that males and females experience maltreatment as a whole equally within this sample, it was found that females were significantly more likely to report sexual abuse than males. As hypothesized moreover, results indicated that children and youth who had experienced some form of maltreatment reflect significantly more depressive and anxiety symptoms than

those who had not experienced maltreatment. In particular, it was found that females who have experienced at least one form of maltreatment experience more depressive symptomology than males within the maltreatment sample, while no differences were found for anxiety symptomology.

While no statistically significant evidence was found for the buffering model of social support, some significant findings emerged for the main effect model of social support. No significant results were found in regards to reports of depressive symptoms for the main effect model, although findings for family support in particular approached significance and were in the predicted direction. Statistical support for the main effect model of social support was found for the expression of anxiety symptoms, suggesting that social support is related to less anxiety symptoms experienced. Further analyses also revealed that family support seems to be related to less anxiety symptoms in this sample, while no significance was found for peer support.

No significant findings for the main effect model were identified when looking at the male sample in particular. Yet significant differences were found in the female sample. In particular, females who reported to have family support displayed significantly less anxiety symptoms than females who did not. Moreover, it was also found that females who reported to have peer support scored significantly higher on the anxiety scale than those who do not.

Discussion

The present study explored the association of maltreatment and social support with depression and anxiety in children and youth who are involved in the mental health system. The interRAI ChYMH assessment was used to collect information on maltreatment and social support statuses of the children and youth, and the CY-DSI and CY-Anxiety Scale developed from the ChYMH was used to measure depression and anxiety symptomology. With robust support from previous research, it was hypothesized that children and youth who have

experienced maltreatment would report higher levels of depression and anxiety than those who have not. Moreover, the present study also examined children and youth who reported higher resiliency despite the maltreatment that they have experienced. In particular, the role of social support and the degree to which it may be linked as a protective factor with depression and anxiety was explored.

There are two models of social support that were evaluated in the present study. These included the buffering model and the main effect model (Cohen & Wills, 1985). As there has yet to be any consensus regarding the cogency of either model due to a number of factors mentioned in Cohen and Wills' meta-analyses (1985), the present study examined family and peer support independently in an attempt to provide evidence in regards to either model of social support. In addition, as gender has also been identified as a critical variable in furthering understanding with respect to social support, it too was included in the analysis.

As it is evident that maltreatment is one of the most pervasive indicators to depression and anxiety (Teicher & Samson, 2013; WHO, 2006), the current study hopes that the present findings will contribute to a growing body of resiliency-based literature in order to initiate more prevention and intervention efforts within the children and youth mental health community.

Relevance of Results to Previous Research

No gender differences were found differentiating the presence of maltreatment in general. It was found however that gender did differentiate the nature of maltreatment, with females more likely to have experienced sexual abuse than males which is similar to findings in previous literature (Gilbert et at., 2009). Leeb, Lewis and Zolotar (2011) however suggest that this trend in regards to gender differentiation with respect to sexual maltreatment may be due to the reluctance of males to report sexual abuse. In the context of the data being collected through

interview format, males may be even more reluctant to disclose sexual maltreatment and this should be taken into consideration when interpreting these results.

Depression Anxiety and Maltreatment. Confirmatory findings in regards to the hypotheses was found with respect to children and youth who had been maltreated reported significantly higher levels of depression and anxiety symptomology than those who have not. It is important in this regard to identify that the sample under study were drawn from a child / youth mental health sample who reported higher levels of depression and anxiety overall. This finding is congruent with previous literature (Banyard, Williams, Siegel, 2001; Manly, Kim, Rogosch, Cicchetti, 2001;Lansford et al., 2002; Cohen, Mannarino, Knudsen, 2004; Springer, Sheridan, Kuo, Carnes, 2007; Teicher & Samson, 2013).

Contrary to previous findings (Turner, Finkelhor, & Ormrod, 2006; Hazen, Connelly, Roesch, Hough, & Landsverk, 2009; Vranceanu et al., 2007), the present study did not find differences in the degree of depression and anxiety symptoms reported by children and youth who had experienced multiple forms of maltreatment compared to those who experienced a single form of abuse. It is speculated that because this sample of children and youth had already been involved with the mental health care system, their depression and anxiety symptomology may already have been at a level that would not be differentiated by the forms of maltreatment experienced.

The relationship between maltreatment and mental health disorders is complex (Gilbert et al., 2009), and several proposed theoretical orientations have attempted to explain this relationship. Neurobiological studies have shown that children and youth who have experienced maltreatment have a reduced size of their corpus callosum (Vythilingam et al., 2002) and increased amygdala reactivity (Van Harmelen et al., 2013), and both have been shown to be

related to higher scores of depression and anxiety symptoms. Teicher and Samson (2013) report that childhood maltreatment may be a trigger for the phenotypic expression of psychiatric disorders such as depression and anxiety for individuals who have the genetic vulnerability for such disorders, as it is found that children with parents experiencing psychiatric disorders are found to report higher rates of maltreatment (Gilbert, 2009). Sundermann and DePrince (2015) observed robust links between perceived difficulties in emotional regulation and mental health symptoms in adolescents who have experienced maltreatment. Their findings suggest that emotion regulation may play a noteworthy role in this relationship. Cantón-Cortés, Cortés, and Cantón's (2014) study suggest that childhood maltreatment is related to anxious attachment styles which can influence the expression of depression symptomology. As the relationship between maltreatment and depression and anxiety has shown itself to be comprised of a complex set of associations, future research will want to focus further in examining this relationship.

Gender. In regards to gender differences identified in this maltreated sample of children and youth, results indicated that females who experienced any form of maltreatment reported higher scores on the measure of depression compared to males. This finding is relevant as there is only modest literature reporting on the gender differences related to the experience of depression in children and youth who have been affected by maltreatment. The majority of the current research regarding depression and maltreatment has been conducted on female only samples to the exclusion of males (Leeb et al., 2011; Gilbert et al., 2009). Recent studies have shown that males and females who had experienced maltreatment report higher rates of depression to an equal degree across both genders. (Leeb et al., 2011; Arnow, Blasey, Hunkeler, Lee, & Hayward, 2011). Reasons for the findings from the current study may be attributable to the fact that females may be more generally predisposed to report experiencing depression to a

greater degree than males (Cyranowski, Frank,Young, & Shear, 2000; Batten, Aslan, Maciejewski, &Mazure, 2004) even within the non-maltreated population. However, Pompili et al. (2014) suggest that this may be due to the fact that the symptoms that males experience with depression may be uniquely relative to females and therefore "male depression" may be discounted when looking at depressive symptomology in individuals who have been maltreated. "Male depression" may uniquely manifest itself as an externalizing behaviour, represented in aggression, irritability, substance abuse, impulsivity, and/or psychopathic behaviours (Rutz, 1995, 1999). Of such characteristics, only "irritability" was accounted for using the CY-DSI of the ChYMH which may also explain the current findings. Future research will need to contribute to differentiating gender uniqueness in male and female symptomology when looking at depression.

No gender differences were found regarding the experiences of anxiety in the maltreated population, supporting previous research (Leeb et al., 2011).

Social Support. This study examined the two models for social support. Findings revealed support for the main effect model but not the buffering model. This finding provides some evidence that social support can be effective in contributing to mental health resiliency regardless of the existing levels of stress or trauma, (Barnett & Gotlib, 1988; Kawachi & Berkman, 2001). In particular, main effects for social support were found for anxiety levels experienced but not for depression. This is somewhat surprising, as the two constructs, depression and anxiety, are highly correlated. Previous research regarding the protective effects of social support has not identified a differential result for depression and anxiety. It is speculated that the results from the present study may be due to the fact that the current sample were involved in the mental health system unlike previous research in this area that drew from

non-clinical populations. There is the possibility that the presentation of elevated symptoms may be unique in a clinical in contrast to the general population. Moreover, Cohen and Wills (1985) suggested that for a main effect of social support to be identified, there may be a threshold of social contacts or connections that need to be achieved. This will be a relevant aspect of the future development of the ChYMH, as in its current format, it does not measure the degree of social support received, but rather records this information as a binary unit of measure related to the presence and type, family or peer. Due to the fact that depression is characterized by internalizing behaviours such as through social isolation, flat affect, suicidal ideation, it is possible that the children and youth who report depression in this population may need a greater degree of social support that is not detected by the current ChYMH than those who experience anxiety. However, it is important to note that the main effect for family support in particular did approach significance for depression while not achieving statistical significance. This will remain a relevant question for future research.

Taking Cohen and Will's (1985) suggestion in looking at the different facets of social support, the present study examined the separation contribution of family and peer support. Again, no evidence was found for the buffering effect hypothesis. Main effect for social support was found for family support related to anxiety, but not for peer support. As similar findings were yielded for depression, it is hypothesized that family support may play a larger role in this study's sample given that the ages were predominantly under 12 years where the relevance of family remains a more primary influence than peers. Vernberg et al., (1996) has spoken to this fact having shown that family support is influential to children's mental health well-being regardless of maltreatment history.

The current study identified that females in particular reported lower anxiety symptoms when they reported to have family support irrespective of having a maltreatment history. No statistically significant differences in anxiety symptoms were found for males in any of the support conditions. These findings would appear to be supported by previous research that suggests that males generally do not benefit as much from social support when compared to females, with males less likely to seek out supports even in times of stress when supports are available (Kaltiala-Heino, Rimpela, Rantanen, & Laippala, 2001; Olstad, Sexton, & Søgaard, 2001; Landman-Peeters et al., 2005). Unexpectedly, it was also found that females who reported to have peer support experienced significantly more anxiety than those who did not. Kawachi and Berkman (2001) have suggested that since females are more likely to seek out social support, they are also more likely to be affected by the stress that may be communicated in their interactions with their peers. Girls within the present sample have already been involved with the mental health care system and it may be more likely that they will seek out peer support from those who have similar mental health challenges such as with anxiety and therefore worsen each other's symptoms, which has been referred to in the literature as the 'contagion effect' of mental health symptoms (Dishion and Tipsford, 2011). Though this effect was not found for depressive symptoms, the means for the CY-DSI in the peer support versus no peer support groups do support this speculation. Previous studies have also observed stressful components separate from constructive components of social support in women experiencing depression (Belle, 1982).

Implications for Counselling

Results in the current study add to the growing body of literature regarding childhood maltreatment, social support, and depression and anxiety. This trend in the literature to focus on social support and maltreatment is meaningful for clinicians working with children and adults as

well, since childhood maltreatment is the most consistent antecedent of psychopathology (Teicher and Samson, 2013). Research in this area is imperative in implementing preventative and intervention efforts focused on the impact of childhood maltreatment. For prevention, family or parental counselling will want to focus on psychoeducation efforts related to the impact of abuse and neglect. Moreover, as the current study identified that family support is significantly related to mental health resiliency, programs related to family counselling will want to focus on facilitating familial communication between children and caregivers such as represented in Functional Family Therapy for example (Sexton & Turner, 2010). Landman-Peeters et al. (2005) found that the quality of parent-offspring communication can influence the potential benefits received from social support. Since family support was found to be generally important for mental health resiliency, it will be relevant for clinicians to explore other means of support for their clients when family support may not be necessarily available.

Clinicians should also be mindful of the findings related to gender and the protective potential of family and peer support identified in the present study. Differential intervention with males and females should be explored with the consideration of such findings. In addition, when planning and executing peer support groups for females who present with mood and anxiety disorders, clinicians should exercise caution in informing the participants of the possible negative effects and/or re-evaluate the degree to which peer support programs are a best practice in treatment for this population.

Limitations

When considering the results of this study, it is important to consider several limitations. The data for the present study was collected from a clinical sample of participants who had already been involved with the mental health system in various capacities. Therefore the

generalizability of the results will relate specifically to children and youth who have participated in a mental health programs. When operationalizing family and peer support, this study did not account for the fact that some children and youth may have experienced both types of social support rather than just exclusively one or the other. Future research will want to explore the potential compounding effects on individuals who have both family and peer support.

For the purposes of this study, severity and chronicity of maltreatment was not accounted for in the design. As reflected in previous studies (Sundermann & DePrince, 2015; Folgers and Wright, 2013), chronicity and severity of maltreatment can influence the efficacy of the buffering effect which may be one of the reasons for the lack of support for this hypothesis in the current study. This fact was identified as a shortcoming of the interRAI ChYMH and future research should account for frequency and severity as a factor in exploring the relationship between maltreatment and the buffering hypothesis.

As interRAI is only piloting their assessment program at several children's mental health facilities at the moment, the sample sizes are relatively small. This may have impacted the rate of type two errors, particularly when looking at gender differences, and differences between each type of maltreatment. As data continues to accumulate using the interRAI, larger sample sizes will allow for more exploration of these individual differences. Furthermore, for the same reason, reliability and validity data is not yet available for the CY-DSI and the CY-Anxiety scale

Summary

Despite the above stated limitations of the present study, the current findings do contribute to a growing body of research regarding childhood maltreatment and have important implications for clinicians.

The current study explored the relationship between childhood maltreatment and mental health outcomes, identifying that children and youth who have experienced maltreatment report significantly more depressive and anxiety symptoms than those who have not. This finding is supported by a considerable body of previous research (Banyard, Williams, Siegel, 2001; Manly, Kim, Rogosch, Cicchetti, 2001;Lansford et al., 2002; Cohen, Mannarino, Knudsen, 2004; Springer, Sheridan, Kuo, Carnes, 2007; Teicher & Samson, 2013). The current findings provide clarity that, within a clinical sample, this relationship remains constant.

Additionally, the present study explored the main effect and buffering models of social support. Evidence supporting the main effect hypothesis was found with respect to anxiety symptomology. Specifically, family support was found to be significant in its protective effects in relation to anxiety symptoms while no statistically significant results were found for peer support. This finding is supported by previous research (Vernberg et al., 1996) identifying that familial support is critical to a child's well-being regardless of whether there is a history of maltreatment. Differences were identified within the female sample regarding anxiety symptoms experienced and the presence of family support but not for males. This suggests that there are important gender differences within the main effect model of social support. Unexpectedly, it was also found that females who reported a greater degree of peer support reported higher levels of anxiety compared to those who did not. This was found to be consistent with previous literature (Kawachi & Berkman, 2001), such that females' support-seeking behaviours can also exacerbate mental health symptomology through the "contagion of stress" (Sexton & Turner, 2010).

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Appendix A: CY-Depressive Severity Index

Each item rated from 0-4, scores range from 0-36

Higher scores indicate more depressive symptoms

0. Not present
1. Present but not exhibited 1-2 in last 3 days
2. Exhibited on 1-2 of last 3 days
3. Exhibited daily in the last 3 days, 1-2 episodes
4. Exhibited daily in the last 3 days, 3 or more episodes or continuously

Items included:

Sad, pained, or worried facial expressions
Crying, tearfulness
Made negative statements
Self-deprecation
Expressions of guilt or shame
Expressions of hopelessness
Irritability
Lack of motivation

Appendix B: CY-Anxiety Scale

Each item rated from 0-4, scores range from 0-32

Higher scores indicate more anxiety symptoms

0. Not present
1. Present but not exhibited 1-2 in last 3 days
2. Exhibited on 1-2 of last 3 days
3. Exhibited daily in the last 3 days, 1-2 episodes
4. Exhibited daily in the last 3 days, 3 or more episodes or continuously

Items included:

Unrealistic fears
Obsessive thoughts
Compulsive behaviour
Intrusive thoughts or flashbacks
Episodes of panic
Nightmares
Hypervigilance

Curriculum Vitae

CELIA HIU KAN WONG

EDUCATIONAL EXPERIENCE

- **University of Western Ontario** (Present)

Faculty of Education, Masters of Arts in Counselling Psychology

- **ISIS Canada** (2012-2013)

Expressive Arts Therapy, Diploma Program

- **Alumni; University of Western Ontario** (2008-2012)

Faculty of Social Science, Bachelor of Arts in Psychology, Minor in Music

WORK EXPERIENCE

Canadian Operatic Arts Academy (2012)

Assistant Stage Manager

- Assist stage manager in any administrative duties
- Responsible for organization of props and singers backstage

Mother Reach London and Middlesex County (2011)

Child-minder/Program Assistant

- Assist the Mother Reach Regional Coordinator with organization of drop-in group therapy sessions for mothers with perinatal mood and anxiety disorders
- Responsible for taking care of the children of the mothers while they are participating in the drop-in program

Psychology Research Labs (2011)

Research Assistant

- Coding videos on a coding scheme recorded at the lab for analysis purposes
- Entering coded information into SPSS
- Communicating with other research assistants and the researcher to ensure efficiency of coding and analysis

The Artlab Gallery (2009-2011)

Receptionist/ Attendant

- Independently responsible for setting up exhibits prior to opening, then closing down and locking doors
- Provide information to visitors about the exhibits and answer phone calls throughout shift
- Assist the Artlab Director in administrative tasks

VOLUNTEER EXPERIENCE

Fanshawe College (Present)

Counselling Intern
- Provide short-term and/or long-term personal, academic, and career counselling for students
- Administer psychological assessments and develop individualized treatment plans accordingly while evaluating client history if needed, providing referrals when necessary
- Collaborate and consult with other counsellors in case management

Wellspring London (2014-Present)

Volunteer
- Assist art therapist in facilitating an art therapy group for people dealing with cancer, cancer survivors, and caregivers

Dearness Home (2014-Present)

Volunteer
- Co-facilitate art therapy group for the day program of adults with disabilities and special needs

London Waitlist Clinic (2014)

Volunteer
- Provide therapeutic support for clients who are on the waiting list of the Canadian Mental Health Association (CMHA)

Access Alliance Multicultural Health and Community Services (2013)

Expressive Arts Therapy Group Facilitator
- Assist the development of therapeutic framework
- Independently plan and lead warm-up activities for participants and their children
- Facilitate therapy sessions

Mount Hope Centre for Long Term Care (2011-2012)

Art/ Music Therapy Volunteer
- Assist the music and art therapists preparation of programs
- Participate and facilitate in group therapy sessions

London Chinese Catholic Community (2009-2012)

Vice President, Events and Communication
- Promoting, organizing and executing events and operations of the club
- Communicating news throughout the community
- Support the president in other administrative duties

Bayview Secondary School (2007-2008)

Teaching Assistant
- Independently lead class activities and maintain order of a grade 9 music (vocal) class
- Responsible for marking and grading tests and assignments, creating and organizing class worksheets and exercises, contacting students and parents for informative

purposes, and occasionally provided one on one tutoring for students that had difficulty

Mon Sheong Richmond Hill Long Term Care Centre (2005-2006)
Volunteer
- Teach arts and crafts to seniors, and individuals with disabilities
- Develop suitable lessons plans with consideration of residents' capabilities
- Cooperate with other volunteers and care givers

Certification

Contemporary Counselling Skills – Level 1 (2013)
- *Hincks-Dellcrest Centre for Children's Mental Health*

Applied Suicide Intervention Skills Training (2014)

Professional Development Workshops Attended

Record Keeping and Note Taking:
For Professionals in Health & Social Services (2014)
- *Fanshawe College*

Motivational Interviewing: Dancing vs Wrestling (2014)
- *Volunteer Organization of CPRI*

Immigration and Settlement in Toronto: An Overview (2013)
- *Access Alliance Multicultural Health and Community Services*

Introduction to Community Health Centres and Health Promotion (2013)
- *Access Alliance Multicultural Health and Community Services*

Introduction to Community-Based Participatory Research (2013)
- *Access Alliance Multicultural Health and Community Services*

Refugees and Mental Health (2013)
- *Access Alliance Multicultural Health and Community Services*