Running head: RELATIONSHIP BETWEEN COPING AND ADJUSTMENT

The Relationship Between Coping Strategies
and Psychological
Adjustment in an Adolescent Clinical Sample

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Abstract

The relationship between stress, coping, and adjustment is not widely understood in youth with mental health issues. This study consisted of 40 adolescents, aged 12 -17 years who presented to the Children's Hospital of Eastern Ontario's Emergency Department for an assessment of a mental health emergency. Participants completed five measures that assessed life stress, symptom acuity, coping strategy use, and psychological adjustment. Results demonstrated significant differences with regard to depressed mood and externalizing behaviors, with the high symptom acuity group reporting significantly higher levels of these behavioral indices. Analyses indicated that engagement coping functioned as a protective factor, whereas disengagement coping functioned as a risk factor for psychological disturbance. The implications, limitations, and future directions of these findings are discussed.

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The Relationship Between Coping Strategies and Psychological Adjustment in an Adolescent Clinical Sample

Adolescence marks a crucial developmental transition, moving from the dependency of childhood to the independency of adulthood (Chapman & Mullis, 1999). It represents a period of major changes, including shifts in family, peer, and school structures (Peterson & Hamburg, 1986). Such significant changes can lead to elevated stress levels. The ability to cope with high levels of stress in an effective manner is a competence that differentiates adolescents at low and high risk for maladjustment (McWhirter, J., McWhirter, B., McWhirter, A., & McWhirter, E., 1994). Thus, the development of effective coping strategies is imperative in dealing with the varying number of stressors that plague adolescents (Chapman & Mullis, 1999).

The relationship between psychological stress and negative psychological outcomes has been well documented over the past two decades largely within an adult population (Sapolsky, 1994). Psychophysiological symptoms in response to chronic or high levels of stress have been identified (Walker & Greene, 1987). Consequently, it has been suggested that social stress, either actual or perceived, may act as a precursor to psychological distress, which in turn has a strong direct effect on physical and mental health (Siddique & D'Arcy, 1984). Although less is known regarding this relationship in adolescents, correlations between high levels of stress and various psychological problems, including low self-esteem, delinquent conduct, poor school performance, and depressive symptoms have been found in adolescents (Adams, Overholser, & Spirito, 1994; Compas, 1987a; Compas, Orosan, & Grant, 1993).

Adult studies identify a relationship between ineffective coping strategies and poor psychological outcomes (Blake & Vandiver, 1988; Holahan & Moos, 1985; Kobasa, 1982). Coping can be defined as the behavioral and cognitive efforts used to manage stressful situations that are perceived as taxing one's personal resources (Lazarus & Folkman, 1984). Coping has been conceptualized along a variety of dimensions in order to study the mechanisms associated with coping. One widely supported conceptualization examines coping along the dimensions of approach and avoidance. Approach coping refers to those strategies that are used when directly confronting a stressful situation, or when actively trying to resolve a stressor. Avoidant coping refers to those strategies that are oriented to avoid the stressor, or reduce the emotional tension associated with the stressor. Other models have conceptualized coping along the dimensions of problem-focused versus emotion-focused (Lazarus & Folkman, 1984), and engagement versus disengagement coping (Compas, Connor, Osowiecki, & Welch, 1997). Coping is generally categorized as either dealing directly with the problem or stressor at hand (e.g. active problem solving) or by avoiding the problem or becoming preoccupied with the distress elicited by the stressor (e.g. denial). Other less commonly used dimensions include using self-focused versus externally focused coping, and active versus passive coping (Compas, Connor, Saltzman, Thomsen, & Wadsworth, 1999; Rudolph, Dennig, & Weisz, 1995).

The main focus of this study was to examine the relationship between stress, coping, and psychological adjustment in a clinical sample of adolescents. More specifically, the aim of the study was to investigate how the use of maladaptive coping strategies (e.g. avoidance of the stressor) may act as a risk factor for psychological

maladjustment in this sample of adolescents, and how adaptive coping strategy use (e.g. direct, action-oriented responses) may play a more protective role. Exploring such relationships may contribute to clinical practice by suggesting constructive coping strategies that clinicians may focus on teaching to adolescents in order to reduce psychopathology.

In the pages that follow, I will review the literature on stress and coping in adolescents. A detailed discussion of the critical period of adolescence, adult and adolescent models of stress and coping, and categories of coping will be presented. Finally, the relationship between stress, coping mechanisms and psychological symptoms in an adolescent clinical population will be discussed.

Adolescence

Adolescence represents a crucial developmental stage in the life of an individual (Copeland & Hess, 1995). It encompasses a period of rapid cognitive, social, emotional, and physical change, which undoubtedly leads to varying amounts of stress (Compas, 1987a; Hauser & Bowlds, 1990; Patterson & McCubbin, 1987). Adolescence is associated with physiological changes associated with puberty, as well as increasing pressure for social conformity, and increasing independence from parents and family (Swearingen & Cohen, 1985). Garmezy (1981) further posits that an adolescent is also confronted by a number of crucial developmental tasks. One must manage the integration of increased cognitive capacities, the development of appropriate social roles with same and opposite sex peers, the completion of academic requirements, and the choosing and planning for an occupation. Due to the overtaxing number of stressors that

an adolescent may encounter, it is a prime period in which an adolescent must learn effective coping strategies.

Overwhelming numbers of novel demands faced by an adolescent, coupled with immature coping strategies and an underdeveloped repertoire of coping strategies, places an adolescent at a critical phase in life (Patterson & McCubbin, 1987). Evidence suggests that several factors including psychological, physical, and cognitive development, temperament, and age all influence how an adolescent learns to cope with stress (Copeland & Hess, 1995).

The acquisition of coping strategies stem from at least four different sources: a) previous personal experience, b) vicariously through others (i.e. family members), c) perceptions of one's own physiology and inferences made about one's vulnerability, and d) social persuasion (i.e. parents, peers, significant others) (Patterson & McCubbin, 1987). Some support has been found suggesting that coping mechanisms which emerge during this critical period, shapes the types of coping strategies that are adopted in adulthood (Newcomb, Huba, & Bentler, 1986; Valliant, 1977). Therefore, understanding and improving coping strategies in adolescents might improve psychological adjustment during adolescence and beyond.

Models of Stress and Coping

Adult models of coping are numerous and well-researched, but coping theories in adolescent populations are still underdeveloped (Compas, 1987a; Printz, Shermis, & Webb, 1999). Theorists frequently draw on definitions from models of adult coping in order to better understand coping in adolescents. Several theoretical frameworks have been suggested in order to explain adolescent models of coping.

To date, the most widely accepted definition of coping stems from Lazarus and Folkman's (1984) adult model of stress, cognitive appraisal, and coping. They define coping as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p.141). They further expand their definition to delineate that coping is an ongoing dynamic process where differing coping mechanisms are used in response to certain stressors (Lazarus & Folkman, 1984).

Lazarus and Folkman (1984) incorporate two broad types of coping responses. The first, problem-focused coping, are those coping strategies that are enabled when an individual tries to directly reduce the tension related to a stressful event. Coping mechanisms that are used to problem solve or alter the source of the stressor, such as active coping and planning, fall into this category of coping. The second type of coping identified by Lazarus and Folkman (1984) is emotion-focused coping. This type of coping is enabled when one tries to regulate the emotional distress that is associated with, or resulting from the stressor, such as seeking of emotional social support and avoidance of the stressor (Lazarus & Folkman, 1984). Although these two categories are distinguishable, evidence shows that they typically co-occur (Carver & Scheier, 1994).

The second theoretical framework of coping is more focused on the engaging or disengaging nature of one's coping style. Compas et al. (1997) developed a model that is better suited for children and adolescents. They define coping as "conscious volitional efforts to regulate emotion, cognition, behavior, physiology and the environment in response to stressful events or circumstances." Underlying the engagement-disengagement model of coping is the assumption that cognitive and behavioral

responses are directed either toward or away from the sources of stress. This in turn affects the impact of a stressor on the individual (Compas et al., 1997). Furthermore, the theorists suggest that these coping mechanisms are constrained by the development of an individual. Applying this rationale, an individual's developmental level therefore dictates which type of coping responses are available to an individual (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001).

The theorists subdivide coping into two categories, which they describe as engagement and disengagement coping. These subtypes have received considerable attention in research with adults as well as with youth (Ebata & Moos, 1991; Tobin, Holroyd, Reynolds, & Wigal, 1989). They define engagement coping as those mechanisms that are oriented *towards* the sources of stress or one's emotions, such as problem solving or seeking of social support. In contrast, disengagement coping involves those strategies that are oriented *away* from the stressor or one's emotions, such as withdrawal or denial (Compas et al., 2001).

Another relevant issue pertaining to models of stress and coping has been highlighted. Folkman and Lazarus (1980) have emphasized that coping mechanisms can change across a variety of different events. A distinction between coping styles and situational coping responses has received considerable attention in the literature (Carver Scheier, Weintraub, 1989). Coping styles or dispositional coping responses describe the preferred types of coping mechanisms that an individual employs when coping with stressful events. Nevertheless, situational coping responses describe a specific type of coping mechanism used for a particular stressor. An individuals' dispositional coping style, in other words, is the tendency to employ those coping strategies when a stressor

presents, but does not dictate that those types of mechanisms must be used with every stressful event. For example, an individual may develop a problem-focused coping style, but employ disengagement coping strategies in order to deal with the shock of a death in the family. Furthermore, the distinction between dispositional coping styles and situational coping responses emphasizes that although one's coping style may be adaptive, one's situational coping response to a stressor may be maladaptive. That is, while active problem-focused coping responses are typically considered adaptive, in specific situations (e.g. uncontrollable stress) a more passive or avoidant coping response may be more adaptive.

It is useful to study situational coping responses when examining how individuals cope with specific stressful events (e.g. coping with peer hassles; coping with a school failure) (Carver et al., 1989; Folkman & Lazarus, 1980). Although this type of coping can be heavily influenced by situational variations and chance, it may best represent a predictor of short-term adaptation to stress (Vollrath, Alnaes, & Torgersen, 1996).

In order to examine the effect of coping on psychological adjustment (a more long-term outcome) however, it may be more pertinent to study dispositional coping styles in order to ascertain how various responses to stress may influence future adjustment. Empirical evidence indicates that coping strategy use is quite stable over time and context, especially with respect to avoidance type coping (Billingsley, Waehler, & Hardin, 1993; Filipp, Klauer, Freudenberg, & Ferring, 1990; Swindle, Cronkite, & Moos, 1989). To date, only a few studies have investigated coping styles and their impact on psychological symptomatology in a sample of adolescents with mental health

issues. Therefore, in order to explore various psychological outcomes of coping, there is strong evidence that dispositional coping should be investigated.

Although adolescent theories of coping have only recently emerged, various frameworks have been suggested. In the present study, Compas et al.'s (1997) engagement-disengagement coping paradigm will be employed in order to operationalize coping.

Coping Strategies and Psychological Adjustment

An overwhelming amount of evidence suggests that stress is associated with adjustment problems and unhealthy outcomes in adolescents (Compas, 1987b; Dubow & Tisak, 1989; Jackson & Warren, 2000; Spirito, Overholser, & Vinnick, 1995; Wills, Vaccaro, & Benson, 1995). The use of varying coping styles in response to stress can affect the level of distress that is experienced. More specifically, approach-type coping styles that aim to actively resolve a stressful event have been associated with less distress (Pearlin & Schooler, 1978) and illness (Blake & Vandiver, 1988; Olff, Brosschot, & Godaert, 1993), whereas avoidant-type coping styles (which avoid the stressor) have been associated with more distress (Pearlin & Schooler, 1978) and illness (Blake & Vandiver, 1988; Holahan & Moos, 1985; Kobasa, 1982).

Findings regarding the effectiveness of different types of coping styles and their relationship to psychological adjustment have been reported. Several general relationships have been elucidated, and will be examined based on specific coping strategy use.

Problem-focused and Engagement Coping

Problem focused and engagement coping represent similar genres of coping strategies that are defined as those mechanisms that directly deal, or are oriented towards, the stressor at hand. Problem-focused coping strategies are typically associated with better psychological adjustment in studies of community samples of child and adolescent populations. In a study that examined 733 male and female seventeen year olds, the use of problem-focused coping strategies was significantly related to fewer internalizing symptoms, fewer externalizing symptoms, and better social and academic competence (Windle & Windle, 1996). In another correlational study of 10-14 year olds, similar results were reported, where both internalizing and externalizing symptoms showed a modest but significant negative correlation ($r = -.23$) with problem-focused coping strategies (Compas, et al., 1988). Garber & Little (1999) examined the use of problem-focused coping strategies and its effect on social and academic performance, and showed that an increase in problem-focused coping strategies resulted in increased social and academic performance. Taken together, these studies suggest that use of problem-focused coping strategies in response to stress, may ameliorate psychological adjustment in youth.

The relationship between engagement coping and psychological adjustment in adolescents has also been examined (Compas et al., 2001). This type of coping, which has similar properties to that of problem-focused coping, has been associated with fewer internalizing symptoms in adolescents (Ayers, Sandler, West & Roosa, 1990; Ebata & Moos, 1991; Langrock, Compas, Keller, & Merchant, 2000). Similarly, the same type of association was found with externalizing behaviors in youth, where use of engagement

coping was associated with less aggressive behavior (Langrock, et al., 2000; Wadsworth & Compas, 2000), and fewer conduct problems (Lengua & Sandler, 1996; Lengua, Sandler, West, Wolchik, & Curran, 1999). Moreover, a strong positive relationship between use of engagement coping mechanisms and social and academic competence in adolescents has been established (Dumont & Provost, 1999; Ebata & Moos, 1991; Lengua et al., 1999). Overall, studies evaluating the effects of engagement coping, have demonstrated a positive relationship between psychological adjustment and engagement coping.

Emotion-focused and Disengagement Coping

Emotion-focused and disengagement coping strategies also represent congruent types of coping styles, which are defined as those coping strategies that are directed or oriented away from a stressor. Studies evaluating emotion-focused coping and its relationship to psychological adjustment have reported that use of this type of style is related to increased maladjustment in children and youth. Plancherel and Bolognini (1995) demonstrated this effect in Swiss adolescents, with mean age of 13 years, who were administered a French version of an adolescent coping measure and correlated it with internalizing symptoms. This study found a positive relationship between internalizing symptoms and emotion-focused coping, in both male and female youth. Similar findings regarding this relationship have been established in preadolescents, as well as older adolescents (Compas et al., 1988; Compas, Worsham, Ey, & Howell, 1996; Hoffman, Levy-Shiff, Sohlberg, Zarizki, 1991; Windle & Windle, 1996). Reliance on emotion-focused coping is also related to elevated levels of externalizing symptoms (Compas et al., 1988; Windle & Windle, 1996). For example, in a study of African

American preadolescents aged 6-11 years, the researchers concluded that emotion-focused coping predicted more behavior problems in both parent and child reports (Steele, Forehand, Armistead, Morse, Simon, & Clark, 1999). All of the studies reported, consistently reported an increase in psychological maladjustment when youth employed more emotion-focused coping.

Finally, disengagement coping is similar to emotion-focused coping and also shows an association with poorer adjustment in youth. Disengagement coping is associated with more internalizing behaviors (Chaffin, Wherry, & Dykman, 1997; Chan, 1995; O'Brien, Bahadur, Gee, Balto, & Erber, 1997; Sandler, Tein, & West, 1994; Walker, Smith, Garger, & Van Slyke, 1997), more externalizing behaviors (Ayers et al., 1990; Chaffin et al., 1997; O'Brien, et al., 1997), and less social and academic competence (Dumont & Provost, 1999; Smith & Brodzinsky, 1994; Stern & Alvarez, 1992). For example, Frank, Blount, and Brown (1997) performed a regression study on the relation between disengagement coping and depression and anxiety in pediatric cancer patients aged 7-18 years, and found that disengagement coping was related to higher symptoms of depression ($\beta = .47$) and higher symptoms of anxiety ($\beta = .29$). Thus ample support demonstrates that use of disengagement coping may be associated with greater psychological maladjustment.

The use of problem-focused and engagement coping may represent a protective factor in the development of psychological adjustment difficulties, while emotion-focused and disengagement coping strategies appear to have a more negative effect on adjustment. In a unique longitudinal study Herman-Stahl, Stemmler, & Petersen, (1995) compared coping style and depressive symptoms in an adolescent sample over a 1-year

period. They found that problem-focused and engagement copers reported lower depressive symptoms, whereas emotion-focused and disengagement copers reported higher depressive symptoms. They further found that those adolescents who changed from approach coping to avoidant coping styles during the 1-year span showed a significant increase in depressive symptoms. In Seiffge-Krenke and Klessinger's (2000) study, which followed 194 nonclinical early adolescents ($M = 13.9$) for a period of 4 years, they found that adolescents who reported using approach coping exhibited fewer depressive symptoms than did those youth who reported using avoidant coping. There were no gender differences and this finding was consistent over time. Both studies also showed that all forms of avoidant coping were linked to higher levels of depression in mid- and late adolescence.

Much research has evaluated the relationship between use of different types of coping styles and psychological outcomes. Evidence suggests that use of problem-focused and engagement coping styles may lead to better psychological outcomes, whereas use of emotion-focused and disengagement coping styles may lead to more negative psychological outcomes.

Stressful Life Events

While coping strategies are conceptualized as dispositional styles or traits, individuals' coping strategies and concurrent psychological adjustment may be influenced by environmental factors, notably life stress (Compas, Orosan, & Grant, 1993; Hammen, Burge, & Adrian, 1991; Stanger, McConaughy, & Achenbach, 1992). As is well known, stressful life events have a substantial impact on the coping process. As noted above, adolescence represents a particularly stressful period due to the numerous

developmental transitions that are experienced. The impact of stressful life events (their acuity, intensity, and frequency) on psychological adjustment may be particularly relevant to examine when exploring coping strategy use in a clinical sample of adolescents. In a study evaluating the effects of stressful life events and coping styles in adolescence, Kardum and Krapic (2001) found that the perceived intensity and frequency of stressful life events directly contributes to the use of avoidance coping. Other research has observed that critical life events such as parental divorce (Armistead et al., 1990), early motherhood (Codega, Pasley, Kreutzer, 1990), imprisonment (Zamble and Porporine, 1988), or a suicide attempt (Spirito, Brown, Overholser, & Fritz, 1989) were all related to avoidant coping in adolescents. Thus, stressful life events have a significant impact on the type of coping strategies that are employed.

Clinical Population of Adolescents

Adolescents with adjustment difficulties may not only report greater life stressors (Heikkinen et al., 1997; Horesh, Seerm & Apter, 2003; Votta & Manion, 2003), but may also report employing less adaptive coping strategies. For example, findings suggest consistently that avoidant coping is associated with depression and depressive symptoms in adolescents (Gomez, 1998; Seiffge-Krenke & Stemmler, 2002). Other studies have explored this relationship further and report that depressed adolescents use significantly less approach coping, and thus rely more on avoidant-type coping (Sandler, et al., 1994). For example, Ebata and Moos (1991) studied a sample of adolescents suffering from depression or conduct disorders and found that they relied more heavily on avoidant coping strategies. Seiffge-Krenke (1993) found that clinic-referred depressed adolescents reported using more avoidant coping strategies than non-referred adolescents, regardless

of the stressor involved. In related research, Chan (1995) found that avoidant coping varied according to depressive symptom level. That is, adolescents diagnosed with higher levels of depressive symptoms reported more frequent use of avoidant coping strategies when compared to adolescents with lower levels of depressive symptoms.

Other studies involving samples of at-risk youth have established relationships between coping and psychopathology. Votta and Manion (2003) examined the relationship between coping and adjustment in male homeless youths aged 16-19 years. They found that this at-risk sample reported greater use of disengagement coping, as well as higher levels of depressive symptoms and internalizing and externalizing symptoms when compared to nonhomeless youth. In another control study, which compared coping strategies of psychiatrically hospitalized suicidal children (aged 8-13 years) to nonsuicidal children, researchers found that the clinical sample reported fewer problem-focused and engagement coping strategies when compared to the nonclinical sample (Asarnow, Carlson, & Guthrie, 1987). Very few longitudinal studies that investigate the structural relationship between depression, stress and coping in high-risk adolescents have been performed (Galaif, Sussman, Chou & Wills, 2003). More research investigating the relationship between coping, stress, and psychological adjustment in clinical adolescents is needed, in order to grasp how this particularly vulnerable population may initiate the use of more effective coping strategies when dealing with life stressors.

Interestingly, troubled adolescents who present with a mental health emergency are an understudied population. Studies involving these adolescents have typically been based on retrospective chart reviews. Some studies have reported on the demographic

and diagnostic characteristics of this population (Sills & Bland, 2002), whereas other studies have looked at the risk factors associated with suicide in this unique population (Stewart, Manion, & Davidson, 2002). Conducting current cross-sectional studies with adolescents presenting with mental health emergencies will provide further insight into the literature on adolescent coping and adjustment, as well as contribute to the understanding of this unique population of adolescents. Moreover, such research will contribute to the development of treatment protocol interventions with this population.

Clinical Relevance

There is an overwhelming amount of evidence demonstrating the negative effects of stress, and maladaptive coping styles, on psychological adjustment and negative health outcomes. Understanding adolescent coping styles in a clinical population can be relevant and helpful for clinicians (Chapman, & Mullis, 1999) by placing them in a better position to design effective prevention and treatment approaches (Broderick & Korteland, 2002). Existing research suggests that clinicians may foster youths' mental health by engaging in prevention efforts that increase youths' ability to deal with stressors in more effective ways, while decreasing the use of disengagement coping (Galaif, et al., 2003). Some suggestions have been postulated, and include teaching calming strategies, facilitating awareness of negative appraisal styles, and teaching cognitive restructuring styles (Lengua & Long, 2002). Compas et al. (2001) point out that there is a critical need to link adolescent coping needs with intervention research because psychosocial stress is a significant and pervasive risk factor for psychopathology in adolescence (Grant, Compas, Thurm, McMahon, & Ey, 2000). Moreover, even though a wide range of psychological interventions exist that place emphasis on the learning of adaptive

coping skills in youth to prevent and treat psychopathology (e.g. Clarke et al., 1995; Kendall et al., 1997), coping research may provide valuable data on the malleability of coping and the facilitation of social contexts for effective coping in youth (Compas et al., 2001). Therefore, interventions that aim to improve adolescents coping strategies in order to better prepare them to deal with everyday stressors, may reduce negative health outcomes in youth (Printz et al., 1999).

Crisis Intervention

It has been estimated that 1 in 10 children suffer from a mental illness, yet only 20% receive needed psychiatric care (U.S. Department of Health and Human Services, 1999). This has contributed to a rise in pediatric psychiatric emergencies that are seen in children's hospitals (Breslow, Erickson, & Cavanaugh, 2000; Page, 2000). Hillard (1994) defines a psychiatric emergency as "any behavior that cannot be dealt with as rapidly as needed by the ordinary mental health, social service, or criminal justice system in a community" (p. 541). Crisis intervention programs provide a rapid psychiatric response from a mental health professional providing an assessment of a mental health emergency (Greenfield, Hechtman, & Tremblay, 1995). Crisis intervention services are novel programs that provide essential services to youth in crisis, but to date are still fairly understudied as a mental health service (Edelsohn, Braitman, Rabinovich, Sheves, & Melendez, 2003). The majority of studies in this area have investigated utilization, demographics, and diagnosis, and have been mostly retrospective in nature.

One of the few Canadian studies took place in Montreal, and estimated that approximately 500 children and youth present to pediatric emergency mental health services for evaluation of a psychological crisis each year (Greenfield et al., 1995).

Common presenting complaints include: adjustment disorder, anxiety disorders, dysthymia, major affective disorders, conduct disorder, brief reactive psychosis, schizophreniform disorder, and schizophrenia. Of those who presented with a psychiatric emergency, it is estimated that approximately 30% resulted in hospitalization (Greenfield et al., 1995).

Acuity of Symptoms

The acuity of symptoms experienced by a youth at presentation to an Emergency Department with a mental health crisis may predict the course and outcome of the visit. Many studies have examined various brief instruments that assess either acuity or severity of symptoms at presentation, in order to determine whether such measures can aid in predicting clinical decisions and psychiatric hospitalizations (He, Lyons, & Heineman, 2004; Leon, et al., 2000). Of note, there is a paucity of research that examines how differing levels of symptom acuity may be related to psychological adjustment. Therefore, it is necessary to examine how acuity of symptoms at presentation to an Emergency Department affects various psychological domains in adolescents who present with a mental health crisis.

Overview of Present Study

Examining the relationship between coping styles and adjustment will contribute greatly to our understanding of youth who present with mental health emergencies. Adolescents who report with mental health emergencies to a large urban area children's hospital (CHEO) for help with psychological crises were the focus of this study. Although we would presume that youth who present to mental health crisis services rely more heavily on avoidant coping styles, to date, no studies have examined this

relationship. The main purpose is to evaluate the relationship between coping, stress, and psychological functioning in this population.

Objectives

Participants completed a series of questionnaires assessing current life stress, coping strategy use and psychological adjustment, while clinicians completed reports of presenting problem and symptom acuity for each participant. Coping was categorized broadly along two dimensions: Engagement coping and Disengagement coping, whereas psychological adjustment was represented by indices of both internalizing and externalizing symptomatology. Due to the clinical nature of this sample, it was expected that a higher frequency of disengagement coping strategy use would be reported when compared to engagement coping strategy use. It was also expected that this would be particularly true for those individuals who present with higher levels of symptom acuity. It was further expected that both stress and coping strategy use would predict psychological adjustment, with greater stress and more disengagement coping predicting greater internalizing and externalizing symptomatology. Similarly, it was expected that engagement coping would play a more protective role, being negatively related to internalizing and externalizing symptomatology. Finally, evidence suggests that coping may act as a moderator between stress and psychological adjustment (Connor-Smith & Compas, 2004). It was expected that coping strategy would moderate the relationship between stress and psychological adjustment, with coping being most strongly related to adjustment at higher levels of stress.

Method

Sample Size and Characteristics

Participants in this study consisted of 40 adolescents, aged 12 to 17 years, presenting to the Children's Hospital of Eastern Ontario's (CHEO) Emergency Department for assessment of a mental health emergency. Adolescents were triaged to the Crisis Intervention Program by the attending triage nurse and were subsequently included in this study. Youth were excluded from participation if they were under the age of 12 years, were not sufficiently fluent in English to be able to comprehend the study questionnaires (which are only available in English), were unable to comprehend the study procedures, or who lacked sufficient time to fill out the study measures.

Program Characteristics

The Crisis Intervention Program (CI) is one of the services subsumed under the Regional Psychiatric Emergency Services for Children and Youth (RPESCY). It provides emergency mental health services to patients presenting to the Emergency Department for assessment of a mental health crisis. The Crisis Intervention Service is staffed primarily with Crisis Intervention Workers (CIWs) and Psychiatric Residents. Adolescents seen by the CIWs will be included in this study. Patients are directed to CI after presenting to the Emergency Department and being triaged to the program by a nurse. The CIWs are contacted by phone or pager by the triage nurse, and provide services depending on availability.

In general, the Crisis Intervention Program provides services to all youth who present to the Emergency Department with a mental health related concern. Of note, those youth who arrive at the Emergency Department requiring medical services due to a

mental health crisis (i.e. drug overdose) will be subsequently referred to CI after being medically cleared by an Emergency Room Physician. Various mental health crises are seen in CI, for example; anxiety, depression, suicidal ideation, conduct problems, drug ingestions, and situational crises.

Test Procedures

Overview:

The current study ran simultaneously with an ongoing research project being conducted by Dr. Allison Kennedy, Dr. Clare Gray, and Paula Cloutier at CHEO. This study examines the clinical characteristics of children and adolescents who present to pediatric emergency mental health services. It involves incorporating data derived from patients' clinical assessments into a database, with the purpose of better understanding this adolescent population. The current study overlaps significantly with this program evaluation endeavor by including some of the clinical measures to be used for the larger project with the addition of two extra measures for the present study. Specifically, self-report measures of coping and life events were added to the battery.

Specific Procedures:

Once a youth was triaged to CI, he/she was directed to Patient Registration where basic information (e.g. name, date of birth, address, etc.) was obtained. The Patient Registration Clerk verbally requested permission from the youth and his/her parents for them to be approached by a researcher based on a script (see Appendix C). Once they agreed, the Registration Clerk paged the researcher in order to make them aware of a possible participant for the study. The researcher then met with the youth and his/her family/guardian and escorted them to a vacant room where she introduced herself and the

study. The participant and family were then given a full explanation of the current research project and its criteria. Only once the researcher was confident that the participant and their guardians understood the study procedures and the criteria, did the procedures regarding obtaining informed consent commenced. If the patient and their guardians agreed to participate in the study, informed consent was obtained from the participant, as well as the parent where appropriate, in accordance with Provincial Health Information and Privacy Act, hospital policy, and CPA ethical standards. Patients were given a copy of the consent form and the option of obtaining a summary of the results at the conclusion of the study.

The researcher then administered the questionnaire package, which took on average 25 minutes to complete. The questionnaires were administered in a specific order, where the clinical questionnaires were always administered first. In order to distinguish the experimental questionnaires, they were printed on separate distinct coloured paper. Prior to the administration of the questionnaires, the researcher emphasized which measures were clinical versus experimental, but explained to the participant and their guardians that the experimental questionnaires were also being used in a clinical capacity. The questionnaires were given to the CIW's for use in their clinical assessments, and were subsequently returned to the researcher to be entered into the research database for analysis. Completed questionnaires are stored in a locked cabinet in Dr. Kennedy's office.

Measures

Measures completed by the youth already in use for clinical assessment:

The Children's Depression Inventory (CDI). The CDI (Kovacs, 1992) was used to evaluate symptoms of depression in children and adolescents, aged 7-17 years. This measure is comprised of 27 items, each containing three statements. Within each item, the youth chooses the statement that best describes their feelings within the last 2 weeks. This measure is sensitive to changes in depression over time and is acceptable as an index of the severity of depressive disorder (Kramer & Conoley, 1992). The CDI demonstrates excellent internal consistency (.71 - .87) across various populations and treatment settings, and test-retest reliabilities are adequate at .75 to .87 (Kovacs, 1992; Kramer & Conoley, 1992).

Multidimensional Anxiety Scale for Children: 10 item (MASC-10). The MASC (March, 1997) was used to assess the major dimensions of anxiety in youth aged 8-19 years. The MASC-10 is a unidimensional measure that is designed for repeated testing, and is comprised of 10 items. It combines the four basic anxiety scales offered in the MASC. The MASC-10 takes about 5 minutes to administer and score. The correlation between the MASC and the MASC-10 has been found to be high at .90. As well, the test-retest reliability for the MASC-10 total score was .83.

Connors-Wells' Adolescent Self-Report Scale – Short Form (CASS:S). The CASS:S (Connors & Wells, 1997) is a self-report measure that evaluates problem behaviors in young persons aged 12 to 17 years. It consists of 27 items with the following four subscales: Conduct Problems (6 items); Cognitive Problems/Inattention (6 items); Hyperactive/Impulsive (6 items); ADHD Index (12 items). The items are rated on

a four-point Likert scale and are estimated to take 5-10 minutes for administration. Test-retest reliability for the subscales ranges from .72 to .87 (Steer, Kumar, & Beck, 2001). In the present study, the four subscales were summed in order to create a total score that was conceptualized as externalizing symptoms.

Measure to be completed by the clinician already in use for clinical assessment:

Childhood Acuity of Psychiatric Illness (CAPI). The CAPI (Lyons, 1998) was designed as an outcome measure for children and adolescents between the ages of 5 and 15 years. It was designed to monitor change resulting from services and can be used repeatedly over brief intervals. CAPI ratings for acute services (e.g., crisis) are based on the preceding 24-hour period. This 20-item measure yields a Total score and four subscale scores (i.e., risk factors, symptoms, functioning, and systems support). Clinicians assign a rating ranging from 1 to 4 for each item. A rating of 1 reflects the absence of symptoms in a particular individual, whereas a rating of 4 indicates that symptoms are present and acute and require immediate intervention. Both inter-rater reliability (.78 to .85) and internal consistency for the total scale score (.87) have been demonstrated (Lyons, 1998). All of the Crisis Intervention Workers who assisted in this study obtained initial training for this measure from Dr. John Lyons and subsequent training from Dr. Allison Kennedy. All of the Crisis Intervention Workers demonstrated reliable coding on various vignettes. Concurrent validity was established through correlations between the total CAPI and the total CBCL (.73) and the Global Assessment of Functioning (-.28) (Lyons, 1998). In the current study, the Total score was used for all analyses. This variable represented one measure of life stress; more specifically it was conceptualized as symptom acuity.

Additional measures for this study:

Coping Orientations to Problems Experienced Scale (COPE). The COPE Inventory (Carver, et al., 1989) is a 60-item multidimensional scale that measures a broad range of cognitive and behavioral coping strategies that individuals typically use in stressful life situations. Fifteen coping subscales each consist of four related items. For this theoretically based measure, coping is conceptualized as a stable disposition rather than situational specific. Respondents rate the frequency in which the coping strategy is used based on a 4-point scale that ranges from 1 (I usually don't do this at all) to 4 (I usually do this a lot). Alpha reliabilities for this measure are moderate, and test-retest correlations over 6 weeks ranged from 0.56 to 0.89 (Carver et al., 1989).

In order to explore the engagement-disengagement coping dimensions in this study, the 15 subscales of the COPE were combined into 2 dimensions, similar to a previous study, which investigated the coping mechanisms of a sample of male homeless youths (Votta & Manion, 2003). While the COPE has typically been sub-divided into problem vs emotion-focused coping strategies (ref), these authors chose to focus on the engagement/disengagement dimensions because they felt that these dimensions better represented an individual's coping style. Knowing whether an individual's coping style is either engagement or disengagement can allow one to better identify and make inferences about the nature and effectiveness of that individual's coping strategies. Although, those who incorporate this model do not discount the clinical implications of knowing whether an individual exhibits either problem-focused or emotion-focused coping, rather they suggest that understanding one's vulnerability to stress may be better understood if we first examined their overall coping style (Compas, 1995). Although the population used

in the previous study is not perfectly congruent with the current sample, both samples do represent adolescents who are in some stage of crisis. Each dimension contains specific subscales, where the average of the subscales was calculated in order to create a total score. *Engagement coping* comprised of the average score of the following subscales: active coping, focus and venting of emotions, planning, positive reinterpretation, religious coping, restraint coping, use of emotional support, and use of instrumental support. *Disengagement coping* comprised of the average score of the following subscales: substance use, acceptance, denial, suppression of competing activities, humour, mental disengagement, and behavioral disengagement.

The Life Events Checklist (LEC). The LEC (Johnson & McCutcheon, 1980) measures youth's positive and negative life stressors. It consists of a listing of 46 life events suitable for use with older children and adolescents, with spaces for respondents to report events not specifically listed. Respondents are asked to relay whether the event was assessed as "good" or "bad", and to then rate the effect of the event on one's life. The LEC yields two values: a positive life change score and a negative life change score. The test-retest reliability for positive and negative life change scores range from .69 to .72 respectively (Brand & Johnson, 1982). In the present study, only the negative life change score was used, with higher scores indicating greater life stress.

Summary of Measures

Stress level was assessed by two variables:

1. Negative life change score of the LEC
2. Total score on CAPI (symptom acuity)

Coping was assessed by the two score on the COPE:

1. Engagement coping
2. Disengagement coping

Adjustment was assessed using three variables:

1. Total score of the CDI = Internalizing symptoms
2. Total score of the MASC = Internalizing symptoms
3. Total score of the CASS:S = Externalizing symptoms

Results

Overview of Study

The purpose of this study was to examine the relationships between coping and mental health in a unique clinical sample of adolescents. More specifically, this study explored the relationships amongst stress, coping, and adjustment, and the interplay between these constructs. In this study, participants completed five standardized measures related to externalizing and internalizing symptoms, methods of coping, and negative life stress. In addition to the self-report measures that were completed, one clinician-rated measure of symptom acuity was included to assess current level of distress. I will begin by providing a detailed description of the demographic characteristics of this sample, followed by a description of their presenting conditions. A brief look at the inter-relationships amongst negative life events, coping and internalizing

and externalizing behaviors will be discussed. Finally, a description of the possible moderating role of coping in the stress-health relationship will be investigated.

Missing Data

Due to the clinical nature of this sample, several measures were either not completed, or were completed invalidly by several youth. Three participants in this study were triaged to the Crisis Intervention Program, but due to varying reasons (i.e. Crisis Worker was not available) were not seen by one of the Crisis Intervention Workers, and hence were eliminated from all demographic characteristics and subsequent analyses involving the CAPI (Symptom Acuity). In addition, two participants were withdrawn from all analyses due to incomplete questionnaires.

Demographic Characteristics

The sample in this study consisted of 37 patients who presented to the CHEO Emergency Department with a mental health crisis. Ten males (25%) and 30 females (75%) between the ages of 12 and 17 years were participants in this study. The mean age of the sample was 14.85 years ($SD=1.42$) and most patients with the exception of two (5.3%) presented to the hospital voluntarily. Based on information gained by the Crisis Intervention Workers during the clinical interview, approximately half (42.1%) of the sample had biological families still intact, whereas 27% reported single family living situations and 18.9% reported living in a blended family. At the time of enrollment into this study, 27.0% of the participants reported being under the care of a psychiatrist, 8.1% were under the care of a psychologist, and 16.2% were being treated by a counselor. Over half of the sample (54.1%) reported having received a previous psychiatric diagnosis and 13.5% had been previously hospitalized for a psychiatric related illness. A

large proportion of the participants had divulged that they had previous suicidal behaviors, consisting of either suicidal ideation/plan (56.8%), and/or suicidal attempts (24.3%). In addition, 48.6% of the sample reported engaging in self-mutilating behaviors (i.e. cutting). A more detailed description of the sample can be found in Table 1.

Presenting Condition of the Sample

This study provides an in depth look at adolescents with mental health issues during an acute state of crisis. Through clinical interview with a Crisis Intervention Worker, several valuable pieces of information regarding the participants were obtained. Table 2 describes the presenting conditions for this sample by gender in order to provide a comprehensive look at this unique population. It provides a complete description of 1) the presenting complaint at presentation to the Emergency Department, 2) the participants' main stressor, 3) whether the participant was actively suicidal at the time of presentation to the Emergency Department, and 4) whether the youth was admitted to the hospital due to the acuity of their presenting crisis. A moderate proportion of the adolescents (47.4%) presented to the hospital with a presenting complaint of mood (flat affect, depression), followed by 26.3% presenting with a situational crisis, and 7.9 % with anxiety issues. Similarly, 77.8% of the adolescents reported scores on the CDI that fell into the clinical range for depressed mood ($t\text{-score} \geq 65$), whereas 31.6% of youth reported anxiety symptoms that fell into the clinical range ($t\text{-score} \geq 65$) (see Table 3). According to details obtained during the clinical interview, 10 participants reported having active suicidal ideation or had constructed a plan, and 7 youth were admitted to the psychiatric inpatient unit due to the acuity of their current crisis.

Table 1
Demographic Characteristics of Sample

Characteristics	N		Frequency	Percentage (%)
Gender	40	Females	30	75.0
		Males	10	25.0
Living Situation	38	Both parents	16	42.1
		Mother	11	28.9
		Father	3	7.9
		CAS	5	13.2
		Street	1	2.6
Biological Family	37	Intact	16	43.2
		Single	10	27.0
		Joint	1	2.7
		Blended	7	18.9
CAS Involved	37	In care	5	13.5
		Involved	4	40.8
		Not involved	28	75.7
School Attendance	37	Full-time	32	86.5
		Part-time	1	2.7
		Out of school	4	10.8
Receiving Counseling	37	Psychiatrist	10	27.0
		Psychologist	3	8.1
		Counselor	6	16.2
		None	18	48.6
Current meds	37	Stimulants	5	13.5
		Anti-depressants	8	21.6
		Other Psychiatric	1	2.7
		None	20	54.1
Previous psychiatric admission	37	Yes	5	13.5
		No	32	86.5

Previous psychiatric diagnosis	37	Yes	20	54.1
		No	17	45.9
Previous suicidal behaviors	37	Ideation/plan	21	56.8
		Attempts	9	24.3
		None	7	18.9
History of Abuse	37	Sexual	6	16.2
		Physical	2	5.4
		Both	2	5.4
		None	27	73.0
Substance abuse	37	Alcohol	1	2.7
		Drug	5	13.5
		Both	4	10.8
Bullying victim	37	Yes	2	5.4
		No	35	94.6
Self-mutilation	37	Yes	18	48.6
		No	19	51.4

Table 2

Presenting Characteristics of the Sample

		Females (n=28)		Males (n=9)	
Characteristic		Frequency	(%)	Frequency	(%)
Presenting Complaint	Mood	13	46.4	4	44.4
	Anxiety	2	7.1	1	11.1
	Family Conflicts	1	3.6	0	0.0
	Psychosis	1	3.6	0	0.0
	Substance Abuse	1	3.6	0	0.0
	Attention	0	0.0	1	11.1
	Adjustment	1	3.6	0	0.0
	Behavior	2	7.1	0	0.0
	Situational Crisis	7	25	3	33.3
Main Stressor	Family	13	46.4	2	22.2
	School	2	7.1	0	0.0
	Friends/social set	5	17.9	3	33.3
	Other	8	28.6	4	44.4
Actively suicidal	Ideation/threats	10	35.7	0	0.0
	Attempt	0	0.0	1	11.1
Psychiatric Admission	Yes	6	21.4	1	11.1
	No	22	78.6	8	88.9

Table 3

Frequencies and Percentages of Depressed Mood and Anxiety scores that are in the clinical range^a

Measure	Acuity Level	Frequency	Percentage (%)
Depressed Mood (n=36)	Clinical range	28	77.8
	Not in clinical range	8	22.2
Anxiety (n=38)	Clinical range	12	31.6
	Not in clinical range	26	68.4

^a clinical range = t-scores ≥ 65

Operationalization of Outcome Variables

Symptom Acuity: As a measure of current symptomatology and an indication of current life stress in this sample, the Total Acuity Score of the Childhood Acuity of Psychiatric Illness (CAPI) was used. The Crisis Intervention Workers completed this measure after their assessment with the participants. Based on the responses of the participant, the Crisis Workers evaluated the acuity of the current crisis. This measure yields a Total Score along with 4 subscale scores including: Risk Factors, Symptoms, Functioning, and Systems Support subscales. Higher ratings on the Total score of this measure reflect greater severity of symptoms at the current time of administration. It was expected that youth who presented to the Emergency Department with higher Symptom Acuity would display increased clinical symptoms. *Stress:* In order to measure and evaluate general life stress, the negative life change score of the LEC was employed. This score was computed by summing the impact rating (0 to 3) of those events rated as negative by the participant. Life stress, therefore, equals the intensity of the number of negative life events that have occurred in the past 12 months. This variable will be reported consistently throughout this study as Life Stress. The mean and standard deviations of this variable is presented in Table 4.

Internalizing Behaviors: In order to evaluate internalizing symptoms, reports from two measures, the CDI and the MASC-10, were employed. The CDI measures depressed mood in adolescents, yielding scores for 5 subscales and a Total score. The Total score of the CDI was used as one measure of internalizing symptoms throughout this study, specifically of Depressed Mood. Secondly, internalizing symptoms were also evaluated using the Total score of the MASC-10, a measure of anxiety in adolescents. In order to

Table 4

Means, Standard Deviations, and Ranges for Internalizing, Externalizing, Stress, and Coping Variables

Variable	N	Mean	SD	Range
Internalizing – Depressed Mood	36	27.06	8.74	0 – 54
Internalizing – Anxiety	38	15.76	5.47	0 – 30
Externalizing	38	44.11	14.64	0 – 81
Stress	35	14.74	10.23	0-53
Engagement Coping	34	2.09	0.51	0 – 4
Disengagement Coping	34	2.10	0.44	0 – 4

investigate the varying relationships examined in this study, internalizing symptoms were measured by these two variables: Depressed Mood and Anxiety (see Table 4).

Externalizing Behaviors: Externalizing behavior was measured using the CASS:S, where higher scores reflect greater externalizing symptoms. This measure yields totals for 4 subscales: Conduct Problems, Cognitive Problems/Inattention, Hyperactivity/Impulsivity, and an ADHD Index. With the present study, scores on these four subscales were highly intercorrelated. In order to operationalize externalizing symptoms, a Total score was computed using the sum of the 4 subscales (see Table 4). Throughout this study, Externalizing symptoms will be expressed using the computed Total score of this measure.

Coping: Responses to the coping measure, the COPE, yield totals for 15 varying subscales. The means and standard deviations of the 15 subscales are presented in Table 5. However, due to the small sample size in this study, the COPE was subsequently divided into two broad coping styles based on findings from a previous study (Votta & Manion, 2003). Engagement coping is defined as those mechanisms that are oriented towards the sources of stress or one's emotions, and consist of 8 of the 15 subscales of the COPE: active coping, focus on and venting of emotions, planning, positive reinterpretation and growth, religious coping, restraint coping, use of emotional support, and use of instrumental support. Disengagement coping, defined as those strategies that are oriented away from the stressor or one's emotions, was evaluated using the following 7 COPE subscales: substance use, acceptance, denial, suppression of competing activities, humour, behavioral disengagement, and mental disengagement. In order to create a total score for these two coping styles, the mean scores of the pertinent subscales

Table 5

Means and Standard Deviations of the 15 subscales of the COPE

Name of COPE Subscale	Mean	Standard Deviation
Engagement Coping		
Active Coping	2.15	.72
Focus on and Venting of Emotions	2.69	.94
Planning	2.02	.81
Positive Reinterpretation and Growth	1.99	.67
Religious Coping	1.49	.74
Restraint Coping	1.96	.62
Use of Emotional Support	2.29	.90
Use of Instrumental Support	2.12	.75
Disengagement Coping		
Substance Use	2.26	1.30
Acceptance	2.44	.92
Denial	1.92	.74
Suppression of Competing Activities	2.04	.70
Humour	1.53	.80
Behavioural Disengagement	2.32	.76
Mental Disengagement	2.22	.75
Range = 0 - 4		

were used. The means, standard deviations, and ranges of the 2 coping factors are presented in Table 4.

Correlational Analyses

A series of correlational analyses were conducted in order to examine the strength of the inter-relationships amongst the Life Stress, Coping, and adjustment variables in this clinical adolescent population. The findings are presented in Table 6. Negative Life Stress was expected to be negatively correlated with adjustment and Symptom Acuity. It was also expected that greater negative Life Stress might be positively related to the use of less adaptive coping strategies (e.g. Disengagement coping). In contrast to these expectations, Stress (defined as negative life change score) was only significantly related to Anxiety, with greater Stress being related to heightened levels of Anxiety.

Symptom Acuity was expected to be significantly correlated with adjustment, and similarly related to coping strategy use (i.e. positively related to less adaptive coping). Symptom Acuity was positively related to Internalizing and Externalizing measures, and was also negatively related to Engagement coping.

Finally, coping strategy use and adjustment indices were examined. As expected, Engagement coping was negatively related to Internalizing and Externalizing symptoms, while Disengagement coping was positively related to these indices. Although these predicted relationships were found, the correlation between Internalizing behaviors and Disengagement coping was not statistically significant.

Table 6

Intercorrelations Between all Relevant Variables in the Stress-Coping-Adjustment Model

Outcome	1	2	3	4	5	6	7
1. Internalizing –Depressed Mood	-	.31*	.44***	.25	-.49***	.25	.66***
2. Internalizing - Anxiety		-	.28*	.30*	-.03	.02	.12
3. Externalizing			-	.03	-.46***	.38**	.33**
4. Stress				-	.16	-.22	.16
5. Engagement Coping					-	.02	-.41**
6. Disengagement Coping						-	.25
7. Symptom Acuity							-

*p<.10(two-tailed), **p<.05 (two-tailed), ***p<.01 (two-tailed)

Regression Analyses

While the correlational analyses revealed significant relationships between Coping and adjustment, it was possible that this relationship varied as a function of Life Stress or Symptom Acuity. That is, Disengagement coping for example, may be more strongly predictive of adjustment difficulties at high levels of Life Stress.

To investigate this possible moderating role of coping strategy use, two sets of regression analyses were conducted: 1) Stress and Coping as predictors of adjustment, and 2) Symptom Acuity and Coping as predictors of adjustment. For the first set of analyses, Stress was entered on Step 1, Coping (either Engagement or Disengagement) was entered on Step 2, and the interaction between Stress and Coping was entered on Step 3. There were three types of dependent variables: Depressed Mood, Anxiety and Externalizing symptoms. In the second set of analyses the same procedure was repeated, with Symptom Acuity replacing the Stress variable. Therefore, Symptom Acuity was entered on Step 1, Coping was entered on Step 2, and the interaction term was entered on Step 3.

1) Stress and Coping as predictors of Adjustment

Predicting Depressed Mood from Stress and Engagement Coping.

For the first regression analysis predicting Depressed Mood, Stress (negative life change score) was entered on Step 1 of the analysis, and was shown to account for no significant variance in this variable (see Table 7). On Step 2, Engagement Coping was entered and was shown to account for significant variation in the outcome variable ($\beta = -.603, p=.000$). That is, greater Engagement coping was associated with lower Depressed

Mood scores. The interaction variable, StressXEngagement Coping, did not account for any variance in Depressed Mood.

Table 7

Predicting Depressed Mood from Stress and Engagement Coping

Variable	Cumulative R ²	R ² Change	Beta
Step 1			
Stress	.04	.04	.20
Step 2			
Engagement Coping	.40***	.36***	-.60***
Step 3			
StressXEngagement Coping	.42	.02	.83

***p<.001

Predicting Depressed Mood from Stress and Disengagement Coping. The next regression analysis explored whether Stress, Disengagement coping, and StressXDisengagement coping predicted Internalizing-Depressed Mood in this clinical sample. None of the variables accounted for a significant amount of variance in the outcome variable.

Predicting Anxiety from Stress and Engagement Coping. In this regression analysis, Stress was placed on Step 1, Engagement Coping was placed on Step 2, and the interaction term StressXEngagement Coping was placed on Step 3 in order to investigate whether these indices predicted Anxiety in this sample. None of the variables accounted for a significant amount of variance in Anxiety symptoms.

Predicting Anxiety from Stress and Disengagement Coping. In order to explore whether Stress and Disengagement Coping and the interaction term StressXDisengagement Coping predicted any significant variation in Anxiety symptoms, a regression analyses was performed. The results of these analysis demonstrate that no significant amount of variance was predicted from either Stress, Disengagement Coping or the interaction term.

Predicting Externalizing behaviors from Stress and Engagement Coping.

In this regression analysis, Stress was entered on Step 1 of the analysis but did not account for any of the variance in the Externalizing variable (see Table 8). On Step 2, Engagement coping was entered and significantly predicted Externalizing symptoms ($\beta = -.475, p=.007$). That is, greater Engagement coping was negatively associated with lower Depressed Mood scores. On Step 3, the interaction was entered but did not show any significant variance in the outcome variable.

Table 8

Predicting Externalizing Symptoms from Stress and Engagement Coping

Variable	Cumulative R^2	R^2 Change	Beta
Step 1			
Stress	.01	.01	.09
Step 2			
Engagement Coping	.23**	.22**	-.47**
Step 3			
StressXEngagement Coping	.27	.04	-.93

** $p<.05$

Predicting Externalizing Symptoms from Stress and Disengagement Coping.

A second regression analysis was conducted using Disengagement coping predicting Externalizing symptoms, and similar results were found (see Table 9). On Step 1, Stress was entered and did not account for any significant variability. On Step 2, Disengagement coping was entered and significantly predicted Externalizing behaviors ($\beta = .439, p=.016$) but in the opposite direction. That is, greater use of Disengagement coping was predictive of greater Externalizing scores. The interaction term failed to account for any significant variance in Externalizing symptom scores.

Table 9

Predicting Externalizing symptoms from Stress and Disengagement Coping

Variable	Cumulative R ²	R ² Change	Beta
Step 1			
Stress	.01	.01	.09
Step 2			
Disengagement Coping	.19**	.18**	.44**
Step 3			
StressXDisengagement Coping	.20	.01	-.46

**p<.05

2) Symptom Acuity and Coping as Predictors of Adjustment

Predicting Depressed Mood from Symptom Acuity and Engagement Coping. In the second set of regression analyses that were conducted, the predictive relationships of Symptom Acuity and Coping style on adjustment were examined (see Table 10). For the first analysis, Symptom Acuity was entered on Step 1 and was shown to predict significant variance in Depressed Mood scores ($\beta = .431, p=.017$). That is, greater Symptom Acuity predicted greater Depressed Mood scores. Engagement coping was entered on Step 2 of the analysis, and also significantly predicted Depressed Mood ($\beta = -.449, p=.011$). That is, greater used of Engagement coping was negatively related to Depressed Mood. Again, the interaction term was computed for this analysis using AcuityXCoping, and was entered on Step 3 of the model. No significant effects were found for this step.

Table 10

Predicting Depressed Mood from Symptom Acuity and Engagement coping Scores.

Variable	Cumulative R^2	R^2 Change	Beta
Step 1			
Symptom Acuity	.19**	.19**	.43**
Step 2			
Engagement Coping	.36**	.18**	-.45**
Step 3			
AcuityXEngagement Coping	.38	.02	.62

** $p < .05$

Predicting Depressed Mood from Symptom Acuity and Disengagement Coping Style. In this second regression analysis predicting Depressed Mood, Symptom Acuity was again entered on Step 1 and proved to account for significant variation in the outcome variable ($\beta = .431, p=.017$) (see Table 11). Disengagement coping was entered on Step 2 of the analysis, and failed to account for any significant variance in Depressed Mood. The interaction term AcuityXDisengagement coping was entered on Step 3, and was not a significant predictor.

Table 11

Predicting Depressed Mood from Symptom Acuity and Disengagement Coping variables.

Variable	Cumulative R ²	R ² Change	Beta
Step 1			
Symptom Acuity	.19**	.19**	.43**
Step 2			
Disengagement Coping	.21	.03	.16
Step 3			
AcuityXDisengagement Coping	.22	.01	.44

**p<.05

Predicting Anxiety from Symptom Acuity and Engagement Coping. To examine this relationship, Symptom Acuity was placed on Step 1, Engagement Coping was placed on Step 2, and the interaction term Symptom AcuityXEngagement Coping was placed on Step 3. It was evident from the results of this analyses that neither Symptom Acuity, Engagement Coping or the interaction term accounted for any significant variation in Anxiety symptoms.

Predicting Anxiety from Symptom Acuity and Disengagement Coping. To explore the relationship between Symptom Acuity and Disengagement Coping and their effects on Anxiety symptoms, a regression analysis was performed. The results of this analyses demonstrate that none of these variables accounted for any significant variance in Anxiety.

Predicting Externalizing Symptoms from Symptom Acuity and Engagement Coping. In order to examine this relationship, a regression analysis was performed. On Step 1, Symptom Acuity was entered and was shown to control for significant variance in Externalizing Symptoms ($\beta = .35$, $p=.047$) (see Table 12). Engagement coping was entered on Step 2 of the analysis, and also accounted for significant variance in the dependent variable ($\beta = -.43$, $p=.012$). That is, greater Engagement coping predicted lower Externalizing symptom scores. Lastly, the interaction term was entered on Step 3, and did not account for any significant variance in Externalizing symptoms.

Table 12

Predicting Externalizing symptoms from Symptom Acuity and Engagement Coping scores.

Variable	Cumulative R ²	R ² Change	Beta
Step 1			
Symptom Acuity	.12**	.12**	.35**
Step 2			
Engagement Coping	.30**	.17**	-.43**
Step 3			
AcuityXEngagement Coping	.31	.01	-.53

**p<.05

Predicting Externalizing Symptoms from Symptom Acuity and Disengagement Coping. In this model, Symptom Acuity was entered on Step 1 of the equation and proved to also account for significant variance in Externalizing symptoms ($\beta = .35$, $p=.047$) (see Table 13). On Step 2, Disengagement coping was entered and proved to significantly predict Externalizing symptoms ($\beta = .334$, $p=.050$). That is, greater Disengagement coping predicted greater Externalizing symptom scores. On Step 3, the interaction between Symptom Acuity and Disengagement coping was entered, and did not account for any significant variance in the dependent variable.

Table 13

Predicting Externalizing symptoms from Symptom Acuity and Disengagement Coping scores.

Variable	Cumulative R ²	R ² Change	Beta
Step 1			
Symptom Acuity	.12**	.12**	.35**
Step 2			
Disengagement Coping	.23**	.11**	.33**
Step 3			
AcuityXDisengagement Coping	.23	.00	-.15

**p≤.05

In summary, Stress or negative life stress did not account for any variability in the adjustment indices, either as a main effect or in interaction with Coping. Engagement coping appeared to function as a “protective” factor, being negatively related to both Internalizing and Externalizing scores. This did not vary as a function Stress level or Symptom Acuity. In contrast, Disengagement coping functioned as more of a “risk” factor, being positively related to Externalizing symptoms, regardless of Stress or Symptom Acuity. Thus, the use of varying coping techniques was equally predictive of outcome, regardless of the negative Life Stress or Symptom Acuity.

Discussion

In the present study, the main purpose was to evaluate the relationship between stress, coping, and adjustment in a sample of adolescents presenting with mental health crises. Moreover, this study provides an in-depth look at the clinical characteristics of a unique and understudied population of youth who present to Crisis Intervention Programs. Such research is imperative due to the increasing number of Crisis Intervention Programs that are being introduced into Emergency Departments (Robinson, 1994; Sills & Bland, 2002), and due the increasing number of adolescents who are accessing such services (Feiguine, Ross-Dolen, & Havens, 2000; Horowitz et al., 2001; Page, 2000). Clinically, as demonstrated in the current research, youth who access such services are indeed a specialized population at high risk for maladjustment and psychopathology. Studying these youth may provide clinicians with valuable information regarding how they cope with stress.

Results of this research expand our knowledge of the types of maladaptive relationships that may exist for this sample of clinical youth as they attempt to cope with stress. Previous studies have been limited to retrospective accounts of clinical characteristics, demographics, and frequency of admission in similar adolescent populations (Sills & Bland, 2002). Past research has also examined risk factors for pediatric psychiatric emergencies and risk factors for hospitalization (Hillard, Slomowitz, & Deddens, 1988; Peterson, Zhang, Lucia, King, & Lewis, 1996). This research may be the first of its kind that focuses on exploring the complex relationships between stress, coping and maladjustment in a sample of adolescents presenting to Crisis Intervention Services.

Preliminary evidence from this research suggests that maladaptive coping may play a significant role in predicting behavioral maladjustment in youth who present to Crisis Intervention Programs. Additionally, the findings of this study suggest that Engagement coping was negatively associated with maladjustment in this sample. This discussion will focus on three main points: 1) the importance of symptom acuity in predicting adjustment indices, 2) the relationship between coping and adjustment with consideration of measurement issues, and 3) the inter-relations between the stress and coping variables. Furthermore, this section will also include comments regarding limitations of this study, and future considerations and directions with this type of research.

Symptom Acuity

Adolescents' level of distress (acuity of symptoms) was assessed using the Childhood Acuity of Psychiatric Illness (CAPI). The CAPI provides an outcome measure of psychiatric symptoms based on the preceding 24-hour period. It was utilized in this study to capture the acuity of the presenting crisis in those youth who presented to the Emergency Department with a mental health crisis. It was expected that higher levels of symptom acuity would be related to higher levels of maladjustment. Similarly, it was also predicted that higher levels of symptom acuity group would be related to greater use of disengagement coping, whereas lower levels of symptom acuity would be related to lower use of engagement coping. In addition, it was also expected that higher levels of symptom acuity group would be related to a greater number of reported negative life events.

Results of the analyses revealed that higher symptom acuity was related to higher levels of reported depressed mood and externalizing behaviors, as well as to lower levels of reported use of engagement coping. Although there is a paucity of research with this particular type of sample (Edelsohn et al., 2003), it is not surprising that those adolescents who present in an elevated state of mental health distress would display higher levels of depressed mood and externalizing behaviors. Moreover, a number of studies suggest that adolescents with mental health difficulties report using more maladaptive coping strategies (Ebata & Moos, 1991; Sandler et al., 1994; Seiffge-Krenke, 1993), as was found in this study.

Due to the cross-sectional design of this study, the results do not permit one to conclude that higher symptom acuity causes or predicts higher levels of depressed mood or externalizing behaviors. Alternatively, the results suggest that adolescents who present in a higher state of distress may demonstrate different characteristics than less distressed adolescents. Interestingly, where the analyses failed to find a significant difference was with regard to anxiety symptoms, negative life stressors, and disengagement coping. Several different interpretations are suggested regarding these findings.

Anxiety Symptoms: Previous studies have consistently demonstrated that stress has a direct impact on anxiety symptoms (Monroe & Simons, 1991). Moreover, symptoms of anxiety are usually prevalent when examining a sample of adolescents with psychiatric issues. Although the analyses in this study failed to find any significant relationship between symptom acuity and anxiety symptoms, almost half of the sample reported anxiety levels that fell into the clinical range. One explanation for the lack of a

significant relationship between these two indices may be because symptoms of anxiety are overshadowed by symptoms of depressed mood and externalizing behaviors. That is, symptoms of depressed mood and externalizing behaviors may be reported more prominently in this situation than symptoms of anxiety.

Another explanation for these results may be that the youth in this sample are presenting with other types of anxiety than are captured in the anxiety measure administered in this study. One possibility is that at presentation to the Emergency Department, the youth may be experiencing anxiety related to their visit (anxiety symptoms that are not captured in the anxiety inventory) and therefore report no symptoms of generalized anxiety (symptoms which would be captured in this measure). As well, due to the lack of a comparison group, it is difficult to interpret whether these adolescents are experiencing increased levels of anxiety compared to youth who do not present with mental health crises.

Negative Life Stress: While examining the relationship between symptom acuity and negative life stress, it was apparent that no relationship existed. The finding is inconsistent with the countless studies that have established this relationship (Barrera, 1981; Compas, Davis, Forsythe, & Wagner, 1987; Compas, Howell, Phares, Williams, & Guinta, 1989). One interesting explanation for this result may be due to the homogeneity of this sample. As found in the current study, adolescents who present to Crisis Intervention Programs report relatively high levels of negative life events, regardless of the acuity of their symptoms. Therefore, negative life stress may be uniquely elevated for all youth who access such services. This theory may help explain why no significant

differences with regard to negative life stressors emerged between the high and low symptom acuity group.

Another theory that has received some attention in the literature is the controversy between stress being defined as major life events versus daily hassles. Adolescent adjustment may be more influenced by discrete daily events rather than by chronic stressors (Compas, 1987b; Printz et al., 1999; Wagner, Compas, & Howell, 1988). For example, in a study examining the stress-coping relationship in adolescents, Printz and colleagues (1999) found a stronger relationship between maladjustment and daily hassles ($r=.46$) than between major life stressors and maladjustment ($r=.33$). Applying this rationale to the current study, more significant findings may have been found between stress and symptom acuity if the construct of daily hassles was used as the measure of stress.

Disengagement coping: It was expected that symptom acuity would be positively related to greater use of disengagement coping, which would be consistent with previous studies. Although this expectation did not emerge from the analyses performed in this study, this may be partly due to the type of sample that was evaluated. The subjects in this study represented a very unique population of adolescents who are all in some level of distress. It is possible that no significant differences were found because the adolescents in this sample did not differ in the extent to which they relied on disengagement coping when dealing with stressors.

Similarly, these findings may have been due to the involvement of some extraneous confounding variable. For example, current mood at the time of the study may have led participants to over-report symptoms, hence leading the clinician to

interpret a higher state of crisis. Simultaneously, the sample may be under-reporting the use of maladaptive coping strategies, in order to compensate for feelings of despair and inferior control over the situation. Hence, inaccurate reports of both symptomatology and coping strategy use may have lead to non-significant findings.

Measurement Issues: Another issue that may have contributed to the non-significant results obtained in regards to anxiety and stress, may have been due in part to the efficacy and sensitivity of both the Multi-Dimensional Anxiety Scale for Children-10 and Life Events Checklist. Throughout the results, these measures consistently demonstrated lack of significance in various types of analyses. Due to the overwhelming amount of evidence that suggests a strong relationship exists between anxiety symptoms and youth with mental health issues (Sills & Bland, 2002; Sullivan & Rivera, 2000), it is surprising that less than half of the sample (31.6%) reported anxiety symptoms that fell into the clinical range. A longer more detailed measure of anxiety may have been better able to capture anxiety symptoms within this sample. As well, only two adolescents reported anxiety as their major complaint, suggesting that youth who access Crisis Intervention services are simply not an anxious sample.

Similarly, the LEC did not effectively capture ‘stress’ in this population. This may be due to the lengthy, somewhat confusing instructions that must be interpreted by a youth in crisis. In order to complete this measure, the respondent must first identify which negative events have occurred in the previous 12 months, state whether it was a good or bad event, then indicate the level of impact it had on their life. Although the instructions on this questionnaire may be easily interpreted by a youth not in crisis; five adolescents in this sample inaccurately completed this measure, which suggests that it

may not be easily understood by the youth in this sample. The efficacy and sensitivity of this measure to establish stress in youth with mental health crises was not perceptible throughout this study, and may have lead to non-significant results.

In summary, symptom acuity was a construct that provided this study with numerous results and findings. Although this construct is not generalizable to other youth, it provides an adequate view of mental health symptom acuity in similar types of populations.

Relationships of Coping with Consideration of Measurement Issues

In order to evaluate coping in this study, the Coping Orientations for Problem Experiences (COPE) was administered to all participants. This inventory consists of 60 items that measure 15 various types of coping mechanisms. Due to the small sample size obtained in this study, the subscales were further divided into 2 broad categories of coping, namely, engagement and disengagement coping. This subdivision was validated in a previous study (Votta & Manion, 2003), where investigators were evaluating coping strategies in an adolescent homeless population. Due to several similar characteristics that exist between the two samples, the use of the similar subdivisions of coping was justified. Therefore various relationships involving these two major coping factors were evaluated in this study.

While examining the relationship between coping and adjustment in this sample several results emerged. Primarily, it was expected that disengagement coping would be associated with all levels of psychological malfunction, whereas engagement coping would be inversely related to psychopathological symptoms. The trends found within the current research support some of these relationships but not all. First, as expected

depressed mood and externalizing behaviors were negatively correlated with Engagement coping. These main effects suggest that Engagement coping may function as a “protective” factor, in that it is associated with positive adjustment indices in this sample. Moreover, a positive correlation between externalizing symptoms and disengagement coping emerged from the analyses, which suggests that disengagement coping may perhaps function as a “risk” factor for maladjustment in a clinical sample of adolescents. While examining the results of the regression analyses, it was also evident that these trends existed regardless of the level of life stress or present symptom acuity. The lack of significant findings with these two constructs placed into the analyses, suggest that the protective and risk factor roles that coping may play in various relationship may also extend to youth without mental health issues.

Contrary to expectations, there was an absence of any relationship between disengagement coping and internalizing (depressed mood and anxiety) symptoms. A myriad of evidence has pointed towards a strong link between these two constructs in adolescent populations (Chaffin et al., 1997; Chan, 1995), nonetheless no significant relationship emerged within the sample in this study. This may suggest that adolescents with a mental health crisis who depend on disengagement coping strategies when dealing with stress do not necessarily display internalizing problems. Additionally, neither engagement nor disengagement coping was associated with stress (negative life change score). Although several other limitations of this study may have led to such results (e.g., lack of power), it may also lend further evidence that daily hassles versus life events represents a stronger relationship between coping and stress.

A major argument that resonates throughout the coping literature surrounds the debate regarding situational versus dispositional coping. This issue is extremely relevant when investigating various relationships involving coping. Dispositional coping reflects an individual's preferred type of coping when dealing with a stressor. Situational coping, on the other hand, describes the type of coping behavior that is enabled in response to a particular stressor. This distinction between more permanent coping styles versus temporary situation-specific coping responses has received some attention in previous studies (Ayers, Sandler, West, Roosa, 1996; Carver, et al., 1989). Furthermore, Folkman and Lazarus (1980) emphasized that coping mechanisms change across a variety of different events.

A pertinent issue when assessing coping in any type of population is the measurement of either situational or dispositional types of coping. How can one ensure that a participant's responses are describing either situation-specific or generalized coping methods? Although various coping measurements, including the coping inventory used in the present study, explicitly ask the participant to respond to the items while evaluating generally how one copes with stress, it is very difficult to assess either one of these constructs. This issue of being unable to tease apart the different types of coping raises a serious concern when trying to deduce various relationships and associations within the coping paradigm. In the present study, the COPE was utilized as the coping inventory for this population. Previous evidence has stated that it is unclear whether respondents are capable of aggregating responses across diverse situations to accurately report an individual's dispositional coping style (Compas et al., 2001). This issue with regard to situational or dispositional coping may have influenced some of the

findings in the present study, by the youths under-reporting the use of disengagement coping due to the fear of being judged as unable to appropriately cope with stress.

Self-report of engagement coping was expected to relate to lower levels of self-reported stress, and self-report of disengagement coping was expected to relate to higher levels of self-reported stress. Contrary to expectations, both these relationships were non-significant, which may have been due to the lack of sensitivity of the LEC to measure stress. Another interpretation for this finding may be that the adolescents were accurately reporting various negative life events that had occurred in the previous 12 months, but were reporting situational coping mechanisms in response to their current crisis. The inaccurate reporting of this type of coping may have affected the strength of these relationships. Indeed, it may not be possible to accurately measure dispositional coping while the youth is in a state of crisis.

Another factor that may have influenced the results found with regard to the relationship between coping and adjustment is the self-reporting of coping techniques. One line of research has suggested that individuals who are coping with extreme stressors are highly distressed and thus likely to use multiple coping strategies (Compas et al., 2001). Applying this theory to the current sample, the adolescents may have reported employing a multitude of coping strategies, hence distributing their responses into various coping techniques belonging to both engagement and disengagement factors.

Furthermore, the division of the 15 subscales into two broad categories of coping may have also skewed the results. More specifically, engagement coping refers to coping strategies that confront the stressor with the goal of reducing the stress associated with an event, whereas disengagement coping refers to strategies that involve avoiding

the stressor. This coping paradigm collapses a broad range of coping techniques into two large categories. For example, disengagement coping failed to relate to anxiety and depression in the present study, although both adult and adolescent literatures have established many clear pathological relationships between this type of coping and maladjustment (Chaffin et al., 1997; Chan, 1995; O'Brien et al., 1997; Walker et al., 1997). The large spectrum of coping subtypes that play into the broad definition of disengagement coping may have influenced the results of this analysis, where perhaps specific disengagement coping strategies (e.g. substance use, denial) had a stronger relationship with negative adjustment indices than others (e.g. humour, acceptance).

As well, these coping paradigms have not been widely validated with adolescents with mental health issues. Although previous research has found significant relationships between engagement and disengagement coping and various psychological constructs in non-clinical youth (Chan, 1995; Plancherel & Bologni, 1995) these findings may not be generalizeable to this specific population.

Coping as a Moderator Variable

In order to obtain a better understanding of this unique sample of adolescents and to delve into the predictive patterns that may exist amongst stress, methods of coping, and adjustment, the role of coping as a moderator of the relationship between stress and adjustment was explored. This study may be the first of its kind that tries to establish such relationships in this vulnerable youth population. Furthermore, understanding such relationships is critical in youth with mental health crises due to their increased risk for psychopathology and maladjustment.

It was hypothesized that the relationship between coping and adjustment might have varied as a function of stress or symptom acuity. Two sets of regression analyses were performed; the first examining stress and coping as predictors of adjustment, and the second examining symptom acuity and coping as predictors of adjustment. Results of the analyses demonstrated that stress failed to account for any variability in maladjustment, although symptom acuity was predictive of depressed mood and externalizing behaviors. Coping emerged as a strong predictor of maladjustment. Primarily, engagement coping appeared to function as a protective factor; that is, youth who employ engagement coping may be at a reduced risk of maladjustment. Secondly, disengagement coping functioned more as a risk factor; that is, the use of disengagement coping may lead to a higher risk of maladjustment in youth. These results are consistent with previous findings and provide further evidence of the relationship between coping and maladjustment. No evidence was found that suggested that method of coping acted as a moderator variable between stress or symptom acuity and maladjustment. Several interpretations are suggested that may aid in explaining these results.

The cross-sectional design of this study has some limitations. Specifically, the causal direction between coping and symptoms of maladjustment cannot be established. For example, although method of coping successfully predicted depressed mood and externalizing symptoms in this sample, the direction may be the reverse; depressed mood and externalizing symptoms may predict the use of maladaptive coping strategies. Coping may have been acting as a moderator between stress and maladjustment, but due to the single simultaneous collection of data, it is difficult to conclude; whether a moderator variable was involved in this relationship, whether coping played a different

role within these constructs, or whether some confounding variable had an influence. In summary, future studies that invest in a longitudinal design, which examines the relationship between stress, coping and maladjustment, may yield greater clarity with respect to the causal interplay amongst these constructs.

Another explanation that may have contributed to this non-significant finding could be due to the mediating effect that coping may play. Research has shown that a significant relationship exists between negative life stressors and avoidant type coping (Armistead, et al., 1990; Kardic & Krapic, 2001). A multitude of studies have also reported a relationship between avoidant coping and physical and psychological adjustment. Placing these two relationships together, it is obvious that method of coping may act as a mediator between stress and maladjustment. Due to the small sample size, and the lack of correlational relationships found amongst stress, coping, and maladjustment, this theory was not tested. Future studies with larger samples should test for the mediating effects of coping in this relationship.

Limitations

Although this study provided some innovative preliminary evidence regarding the relationships between stress, coping, and maladjustment in a unique sample of psychiatric adolescents, several limitations exist. Most importantly, due to the small sample size, there was limited statistical power which may account for some of the non-significant results. Only 40 participants were included in this sample and a significant minority either did not complete the measures in their entirety, or invalidly completed them. Ultimately, complete data was obtained for only 30 participants. Issues with validly completing the measures may be partially due to the clinical characteristics of this

sample, or due to the setting in which the data was collected. Moreover, the small sample size also limits the generalizability of the results to other adolescent psychiatric populations.

Previous research involving youth presenting with mental health crises has been mostly retrospective and has been limited to examining clinical characteristics, diagnoses, and psychiatric admission rates in such populations. The lack of prospective studies is likely a result of the many challenges associated with studying this group of youth. Primarily, collecting self-report data while a youth is in a state of crisis, along with the added stress of the setting in which the data is collected may lead to invalid and inaccurate accounts of both coping and mental health symptomatology. In order to effectively capture methods of coping and symptoms of maladjustment in this unique sample of adolescents, future studies should incorporate shorter, more parsimonious measures that would be better tolerated by this sample.

As well, the lack of a control group in this study, made it difficult to examine this sample in relation to normal healthy adolescents. Although several relationships did emerge that give us a general understanding of this sample, the use of a control sample would have allowed a greater understanding of this unique characteristics of this sample.

Another important issue with the current research is the type of data that was collected. Specifically, the results of this study were based solely on self-report measures (with the exception of one clinician-rated measure). Corroboration of symptoms and behaviors of the participant was not collected for the present study. This presents a biased report of levels of maladjustment, stress, and methods of coping, and may have limited the number of significant results found. The sole use of self-report measures,

especially with this type of adolescent population, introduces biases. This may be either due to the participant responding in accordance to what they believe is correct, or due to the participant responding invalidly in order to avoid further intervening by a mental health practitioner. More specifically, it may be that they respond in order to reduce the appearance of the magnitude of their current state of crisis. The use of multiple informants would corroborate the reports of stress, coping and maladjustment in this sample and may strengthen the relationships explored in this study.

The environment in which the data was collected, may pose as another limitation of this study. Primarily, the measures used in this research were collected in the Emergency Department. At the time of administration, the participant is asked to complete the questionnaires almost immediately after they arrive. This may represent the most heightened period of their current crisis, as they are experiencing a myriad of emotions coupled with a novel environment and health care practitioners. Although this may not present a large bias, the youth may be responding to the self-report measures while they are adjusting themselves to the novelty of the situation. Moreover, the setting of an Emergency Department alone may challenge the accuracy of an adolescent's responses to certain questions due to the overwhelming number of stimuli and distraction that is faced when in an Emergency Department. Importantly, due to ethical and safety reasons, an adolescent is not left alone while in the care of the Emergency Department and the parent/guardian is asked to accompany the youth at all times. This reality may affect the honesty and accuracy of the youth's responses. Therefore, the validity and accuracy of the measures may be jeopardized.

The length of the questionnaires may have also served as a limitation in this research. The current study requires the completion of the 5 standardized measures, which may have led to some of the missing data due to the length of the questionnaires themselves. It was noted that many of the questionnaires were either incomplete or invalidly completed, which may have been partially due to the length of the questionnaires. As well, due to ethical considerations, the study measures were presented to the youth in a specific order; that is, with the clinical measures administered first, followed by the research measures. Although, it is estimated that each individual measure would take on average five minutes to complete, it may have represented a long period of time in which the patient needed to concentrate, which during a mental health crisis may have been difficult. The length of the questionnaire may have, in part, contributed to the low power and hence non-significant results in this study.

Another important issue, which may have led to some of the limitations in this study, is the set of actions that occur prior to the patient arriving at the Emergency Department. That is, the events that preceded the arrival of the patient to the Crisis Intervention Service may be of great importance. In most cases, the parents/guardians of the youth were the person escorting the patient to the Emergency Department for help. The behaviors that may have occurred (i.e. cutting) before the parent/guardian decided that it was time to seek medical help may have influenced some of the results of the study. Primarily, an increase in externalizing behaviors prior to their Emergency visit may have been reflected in the psychological measures reported by the youth. This may have limited the reporting of other mental health issues due to the responding to the immediate obvious issues.

Future Directions

This study provided some valuable evidence describing varying relationships in a unique sample of adolescents who present to an Emergency Department with a mental health crisis. Specifically, the results of this study provide some evidence that engagement coping may act as a protective factor for maladjustment, whereas disengagement coping may act as a risk factor for maladjustment. Although many relationships were established in this study, several limitations did exist. In order to further understand this unique population of youth, a variety of improvements to the current study may lead to more significant findings. Primarily, a larger sample size may greatly contribute to future studies exploring adolescents who present to an Emergency Department for a mental health crisis. This alone may allow for some valuable relationships to be found. The use of a larger sample size may also allow researchers to investigate risk factors associated with mental health crises, due to being able to establish more concrete relationships.

Also, the use of a control sample may also greatly contribute to this line of research. Most importantly, the use of a control sample would allow for greater comparison; whereas one could compare coping strategy use, stress, and maladjustment between a clinical and non-clinical sample. Moreover, future studies that incorporate various sources of information (i.e. parents, peers) may further validate results found in this study. Furthermore, although it was the investigator's intention to explore gender differences within this sample, the small sample size obtained in this study did not allow for such analyses. Future studies should investigate gender differences due to previous evidence that suggests that coping strategies may follow gender-specific trends. Finally,

in order to further understand this clinical sample of adolescents, longitudinal studies exploring such relationships would greatly contribute to this research domain.

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Appendix A: Informed Consent Forms

THE RELATIONSHIP BETWEEN COPING STRATEGIES AND PSYCHOLOGICAL ADJUSTMENT IN AN ADOLESCENT CLINICAL SAMPLE

Parental Consent for Participation in the Study

As part of your child's assessment in the Crisis Intervention Service, you and your child will be asked to fill out some questionnaires that measure your child's present levels of emotional and behavioral symptoms. We use these forms to understand your child's difficulties and to make suggestions for follow-up. The clinician meeting you and your child will also fill out a form based on her assessment.

In addition to the standard questionnaires, we are requesting that your child completes two additional forms assessing coping and stressful life events. The information we gather will give us a better understanding of how coping relates to adjustment. It may help to initiate more effective treatment plans for your child, and help us to plan treatment programs for youth in crisis. We are asking your permission to allow us to use the information we gather from the standard questionnaires in this research study. As well, we are seeking your permission to share the results of the two additional forms with the clinical staff that will be assessing your child. This will be beneficial to your child because it will give the clinician a more thorough understanding of your child's methods of coping and stressful life events. The completion of all of these questionnaires takes approximately 25 minutes.

We plan to present the results at professional conferences and to publish the results in scientific journals. Your family's personal information will be kept completely confidential, in compliance with CHEO policy. The information will be seen only by the researcher, the clinical staff, and their research assistants. All your information will be kept in a secure area, and only group results will be presented. Your name or any identifying information about you or your child will never appear in presentations or publications.

We will give you a copy of the consent form to take home. You are free to withdraw from the project at any time and there will be no penalty to you or your child. If there are any questions that your child is uncomfortable with they are free to skip those questions. Your decision to take part or not in this study will not affect the level of care you receive at CHEO.

If you have any questions or wish to remove your information from the study, please contact Dr. Allison Kennedy at 737-7600 ext. 2492 or Dr. Clare Gray at 737-7600 ext. 2714. You may contact the Chair of the Research Ethics Board for information regarding patient's rights in research projects at 737-7600 ext. 2128, although this person cannot provide any health-related information about the study.

- I have read or been informed of the above information and my questions have been addressed. By signing this consent form, I agree to the conditions described above.

Parent/Guardian: _____ Signature: _____

Witness: _____ Signature: _____

Date: _____

- I would like to obtain a summary of the results once the study is complete.

Signature: _____

THE RELATIONSHIP BETWEEN COPING STRATEGIES AND PSYCHOLOGICAL ADJUSTMENT IN AN ADOLESCENT CLINICAL SAMPLE

Participant Consent for Participation in the Study

As part of your appointment today, we are asking you and your parent/guardian to fill out forms about your feelings and behavior. We want to use this information to understand and help you better. The crisis worker meeting you today will also fill out forms based on her interview with you. It will probably only take you 25 minutes to complete all of the questionnaires

We are asking you to fill out two more forms that look at coping and stressful life events. We are also asking for your permission to add the information you give us to the information we get from other youth. We will use your information to look at different ways youth cope and how it affects them. We also want to ask your permission to use the first set of questionnaires in this research study. As well, we want to share the answers from the second set of questionnaires with the team of specialists who are going to see you today. This will help the crisis worker to get a better understanding of you, specifically how you cope and the type of events you have experienced.

We would like to present the results of our project with other people who work with children and youth. We will make sure that you are never identified when we present our research outside of the hospital.

We are giving you a copy of this form to take home. You can decide not to participate at any time, even after you get home. As well, if you are uncomfortable with a certain question, you can choose to skip that question and go on to the next. You will get our help whether or not you choose to participate in these projects. If you have any questions or decide to have your information removed from the study, please call Dr. Allison Kennedy at 737-7600 ext. 2492 or Dr. Clare Gray at 737-7600 ext. 2714. You can contact the Chair of the Research Ethics Board for information about patient's rights in research projects at 737-7600 ext. 2128. This person cannot give you any medical information.

I have read the above information and my questions have been answered. By signing this consent form, I understand and agree to participate in the projects described on this sheet.

Participant: _____ **Signature:** _____

Witness: _____ **Signature:** _____

Date: _____

- **I would like to obtain a summary of the results once the study is complete.**

Signature: _____

Appendix B: Scripts

Script to be used by Registration Clerk to request participation

_____ Name _____ will be seeing one of the CIWs. Part of the assessment involves filling out some forms. However, there is currently a research project taking place that uses these forms and a couple more brief forms. _____ Name _____ would be able to complete these forms while you are waiting to see the CIW. Would you agree to being approached by Nicole Obeid, the researcher, regarding participating in this study?

Debriefing Script

Before you start completing your questionnaire, I would like to take the opportunity to explain to you a little more about the study. This study is being completed so that we can better understand the way you cope with stressful situations and how it affects your psychological well-being. I am looking specifically to find out whether there is a relationship between negative ways of coping and worse well-being, and with positive coping strategies and better well-being. You were asked to participate in this study because you meet criteria to see a special service in the Emergency Department. Not a lot of research has been done on this unique bunch of adolescents that use this service, so I am trying to understand youth like you a little better, so that in the future, we can know how to better help them. Now I just want to remind that if you no longer want to take part in this study, or even if you go home and decide that you don't want to participate, you can always call and get your data removed from the databank at any point. As well, if at any point you have any questions about the questionnaires, feel free to ask me. If you find that the questionnaires are making you uncomfortable please feel free to discuss that with me.

Do you have any questions or concerns about the questionnaire and the study that you would like to discuss before we begin?

Appendix C: Study Measures

The Children's Depression Inventory

Kids sometimes have different feeling and ideas. This form lists the feelings and ideas in groups. From each group of three sentences, pick one sentence that describes you **best** for the past two weeks. After you pick a sentence from the first group, go on to the next group.

There is no right or wrong answer. Just pick the sentence that best describes the way you have been recently. Put a mark like ☒ this next to you answer. Put the mark in the box next to the sentence that you pick.

Item 1

- ☐ I am sad once in a while
- ☐ I am sad many times
- ☐ I am sad all the time

Item 7

- ☐ I hate myself
- ☐ I do not like myself
- ☐ I like myself

Item 2

- ☐ Nothing will ever work out for me
- ☐ I am not sure if things will work out for me
- ☐ Things will work out for me O.K.

Item 8

- ☐ All bad things are my fault
- ☐ Many bad things are my fault
- ☐ Bad things are not usually my fault

Item 3

- ☐ I do most things O.K.
- ☐ I do many things wrong
- ☐ I do everything wrong

Item 9

- ☐ I do not think about killing myself
- ☐ I think about killing myself but I would not do it
- ☐ I want to kill myself

Item 4

- ☐ I have fun in many things
- ☐ I have fun in some things
- ☐ Nothing is fun at all

Item 10

- ☐ I feel like crying every day
- ☐ I feel like crying many days
- ☐ I feel like crying once in a while

Item 5

- ☐ I am bad all the time
- ☐ I am bad many times
- ☐ I am bad once in a while

Item 11

- ☐ Things bother me all the time
- ☐ Things bother me many times
- ☐ Things bother me once in a while

Item 6

- ☐ I think about bad things happening to me once in a while
- ☐ I worry that bad things will happen to me
- ☐ I am sure that terrible things will happen to me

Item 12

- ☐ I like being with people
- ☐ I do not like being with people many times
- ☐ I do not want to be with people at all

Item 13

- ☐ I cannot make up my mind about things
- ☐ It is hard to make up my mind about things
- ☐ I make up my mind about things easily

Item 14

- ☐ I look O.K.
- ☐ There are some bad things about my looks
- ☐ I look ugly

Item 15

- ☐ I have to push myself all the time to do my schoolwork
- ☐ I have to push myself many times to do my schoolwork
- ☐ Doing schoolwork is not a big problem

Item 16

- ☐ I have trouble sleeping every night
- ☐ I have trouble sleeping many nights
- ☐ I sleep pretty well

Item 17

- ☐ I am tired once in a while
- ☐ I am tired many days
- ☐ I am tired all the time

Item 18

- ☐ Most days I do not feel like eating
- ☐ Many days I do not feel like eating
- ☐ I eat pretty well

Item 19

- ☐ I do not worry about aches and pains
- ☐ I worry about aches and pains many times
- ☐ I worry about aches and pains all the time

Item 20

- ☐ I do not feel alone
- ☐ I feel alone many times
- ☐ I feel alone all the time

Item 21

- ☐ I never have fun at school
- ☐ I have fun at school only once in a while
- ☐ I have fun at school many times

Item 22

- ☐ I have plenty of friends
- ☐ I have some friends but I wish I had more
- ☐ I do not have any friends

Item 23

- ☐ My schoolwork is alright
- ☐ My schoolwork is not as good as before
- ☐ I do very badly in subjects I used to be good in

Item 24

- ☐ I can never be as good as other kids
- ☐ I can be as good as other kids if I want to
- ☐ I am just as good as other kids

Item 25

- ☐ Nobody really loves me
- ☐ I am not sure if anybody loves me
- ☐ I am sure that somebody loves me

Item 26

- ☐ I usually do what I am told
- ☐ I do not do what I am told most times
- ☐ I never do what I am told

Item 27

- ☐ I get along with people
- ☐ I get into fights many times
- ☐ I get into fights all the time

Multidimensional Anxiety Scale for Children-10 Item

The questionnaire asks you how you have been thinking, feeling, or acting recently. For each item, please circle the number that shows how often the statement is true for you. If a sentence is true about you a lot of the time, circle 3. If it is true about you some of the time, circle 2. If it is true about you once in a while, circle 1. If a sentence is hardly ever true about you, circle 0. Remember, there are no right or wrong answers, just answer how you have been feeling recently.

		Never true about me	Rarely true about me	Some times true about me	Often true about me
1.	The idea of going away to camp scares me	0	1	2	3
2.	I'm afraid that other kids will make fun of me	0	1	2	3
3.	I try to stay near my mom or dad	0	1	2	3
4.	I get dizzy or faint feelings	0	1	2	3
5.	I feel restless and on edge	0	1	2	3
6.	I feel sick to my stomach	0	1	2	3
7.	I get nervous if I have to perform in public	0	1	2	3
8.	Bad weather, the dark, heights, animals, or bugs scare me	0	1	2	3
9.	I check to make sure things are safe	0	1	2	3
10.	I feel shy	0	1	2	3

Connors-Wells' Adolescent Self-Report Scale – Short Form

Instructions: For the items below, circle the number that indicates whether the item is Not At All, Just a Little, Pretty Much, Or Very True for you. “Not at all” means that the item is *seldom* or *never* a problem. “Very Much” means that the item is *very often a problem* or *occurs very frequently*. “Just a Little” and “Pretty Much” are in between. Please respond to all the items.

	NOT TRUE AT ALL	JUST A LITTLE TRUE	PRETTY MUCH TRUE	VERY MUCH TRUE
1. My parents only notice my bad behavior	0	1	2	3
2. I bend the rules whenever I can	0	1	2	3
3. I tend to learn more slowly than I would like	0	1	2	3
4. I am touchy or easily annoyed	0	1	2	3
5. I cannot sit still for very long	0	1	2	3
6. I feel like crying	0	1	2	3
7. I get into trouble with the police	0	1	2	3
8. I have trouble organizing my schoolwork	0	1	2	3
9. My parents expect too much from me	0	1	2	3
10. I have too much energy to sit still for long	0	1	2	3
11. Noises tend to put me off track when I am studying	0	1	2	3
12. I break rules	0	1	2	3
13. I forget things that I have learned	0	1	2	3
14. I tend to squirm and fidget	0	1	2	3
15. I do not have good judgment about a lot of things	0	1	2	3
16. I like to hurt some people	0	1	2	3
17. Sticking with things for more than a few minutes is difficult	0	1	2	3
18. I feel restless inside even if I am sitting still	0	1	2	3
19. My handwriting is poor	0	1	2	3
20. I have urges to do really bad things	0	1	2	3
21. I have trouble concentrating on one thing at a time	0	1	2	3
22. I have to get up and move around during homework	0	1	2	3
23. I am behind in my studies	0	1	2	3
24. I destroy property that belongs to others	0	1	2	3
25. I lose my place when I am reading	0	1	2	3
26. I have trouble sitting still through a meal	0	1	2	3
27. My parents do not reward or notice my good behavior	0	1	2	3

COPE Inventory

We are interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel, when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress.

Then respond to each of the following items by placing a number in the blank beside each item, using the response choices listed below. Please try to respond to each item separately in your mind from each other item. Choose your items thoughtfully, and make your answers as true FOR YOU as you can. Please answer every item. There are no “right” or “wrong” answers, so choose the most accurate answer for YOU – not what you think “most people” would say or do. Indicate what YOU usually do when YOU experience a stressful event.

		I usually don't do this at all	I usually do this a little bit	I usually do this a medium amount	I usually do this a lot
1	I try to grow as a person as a result of the experience	1	2	3	4
2	I turn to work or other substitute activities to take my mind off things	1	2	3	4
3	I get upset and let my emotions out	1	2	3	4
4	I try to get advice from someone about what to do	1	2	3	4
5	I concentrate my efforts on doing something about it	1	2	3	4
6	I say to myself “this isn’t real”	1	2	3	4
7	I put my trust in God	1	2	3	4
8	I laugh about the situation	1	2	3	4
9	I admit to myself that I can’t deal with it, and quit trying	1	2	3	4
10	I stop myself from doing anything too quickly	1	2	3	4
11	I discuss my feelings with someone	1	2	3	4
12	I use alcohol or drugs to make myself feel better	1	2	3	4
13	I get used to the idea that it happened	1	2	3	4
14	I talk to someone to find out more about the situation	1	2	3	4
15	I keep myself from getting distracted by other thoughts or activities	1	2	3	4
16	I daydream about things other than this	1	2	3	4
17	I get upset, and am really aware of it	1	2	3	4
18	I seek God’s help	1	2	3	4
19	I make a plan of action	1	2	3	4
20	I make jokes about it	1	2	3	4
21	I accept that this has happened and that it can’t be changed	1	2	3	4
22	I hold off doing anything about it right away	1	2	3	4
23	I try to get emotional support from friends or relatives	1	2	3	4
24	I just give up trying to reach my goal	1	2	3	4

		I usually don't do this at all	I usually do this a little bit	I usually do this a medium amount	I usually do this a lot
25	I do more to try to get rid of the problem	1	2	3	4
26	I try to lose myself for a while by drinking alcohol or taking drugs	1	2	3	4
27	I refuse to believe that it has happened	1	2	3	4
28	I let my feelings out	1	2	3	4
29	I try to see it in a different light, to make it seem more positive	1	2	3	4
30	I talk to someone who could do something concrete about the problem	1	2	3	4
31	I sleep more than usual	1	2	3	4
32	I try to come up with a strategy about what to do	1	2	3	4
33	I focus on dealing with this problem, and if necessary let other things slide a little	1	2	3	4
34	I get sympathy and understanding from someone	1	2	3	4
35	I drink alcohol or take drugs, in order to think about it less	1	2	3	4
36	I kid around about it	1	2	3	4
37	I give up the attempt to get what I want	1	2	3	4
38	I look for something good in what is happening	1	2	3	4
39	I think about how I might best handle the problem	1	2	3	4
40	I pretend that it hasn't really happened	1	2	3	4
41	I make sure not to make matters worse by acting too soon	1	2	3	4
42	I try hard to prevent other things from interfering with my efforts at dealing with this	1	2	3	4
43	I go to movies or watch TV, to think about it less	1	2	3	4
44	I accept the fact that the situation happened	1	2	3	4
45	I ask people who have had similar experiences what they did	1	2	3	4
46	I feel a lot of emotional distress and I find myself expressing those feelings a lot	1	2	3	4
47	I take direct action to get around the problem	1	2	3	4
48	I try to find comfort in my religion	1	2	3	4
49	I force myself to wait for the right time to do something	1	2	3	4
50	I make fun of the situation	1	2	3	4
51	I reduce the amount of effort I'm putting into solving the problem	1	2	3	4
52	I talk to someone about how I feel	1	2	3	4
53	I use alcohol or drugs to help me get through it	1	2	3	4
54	I learn to live with it	1	2	3	4
55	I put aside other activities in order to concentrate on this	1	2	3	4
56	I think hard about what steps to take	1	2	3	4
57	I act as though it hasn't even happened	1	2	3	4
58	I do what has to be done, one step at a time	1	2	3	4
59	I learn something from the experience	1	2	3	4
60	I pray more than usual	1	2	3	4

The Life Events Checklist

Below is a list of things that sometimes happen to people. Put an X in the space by each of the events you have experienced during the past year (12 months). For each of the events you check, also indicate whether you would rate the event as a **Good** event or a **Bad** event. Finally, indicate how much you feel the event has changed or has had an impact or effect on your life by placing a circle around the appropriate statement (no effect – some effect – moderate effect – great effect). Remember, for each event you have experienced during the past year, (1) place an “X” in the space to indicate you have experienced the event, (2) indicate whether you viewed the event as a good or bad event, and (3) indicate how much effect the event has had on you life.

Event	X	Type of Event		Impact of Effect of Event on your life (circle one)			
		Good	Bad	no effect	some effect	moderate effect	great effect
1. Moving to a new home							
2. New brother or sister							
3. Changing to a new school							
4. Serious illness or injury of family member							
5. Parents divorced							
6. Increased number of arguments between parents							
7. Mother or father lost job							
8. Death of a family member							
9. Parent's separated							
10. Death of a close friend							
11. Increased absence of parent from the home							
12. Brother or sister leaving home							
13. Serious illness or injury of close friend							
14. Parent getting into trouble with law							
15. Parent getting a new job							
16. New stepmother or stepfather							
17. Parent going to jail							
18. Change in parents' financial situation							
19. Trouble with brother or sister							
20. Special recognition for good grades							
21. Join a new club							
22. Losing a close friend							
23. Decrease in number of arguments with parents							
24. Male: girlfriend getting pregnant							
25. Female: getting pregnant							
26. Losing a job							
27. Making the honour role							
28. Getting your own car							
29. New boyfriend/girlfriend							
30. Failing a grade							
31. Increase in number of arguments with							

parents							
32. Getting a job of your own		Good	Bad	no effect	some effect	moderate effect	great effect
33. Getting into trouble with police		Good	Bad	no effect	some effect	moderate effect	great effect
34. Major personal illness or injury		Good	Bad	no effect	some effect	moderate effect	great effect
35. Breaking up with boyfriend/girlfriend		Good	Bad	no effect	some effect	moderate effect	great effect
36. Making up with boyfriend/girlfriend		Good	Bad	no effect	some effect	moderate effect	great effect
37. Trouble with teacher		Good	Bad	no effect	some effect	moderate effect	great effect
38. Male: girlfriend having abortion		Good	Bad	no effect	some effect	moderate effect	great effect
39. Female: having abortion		Good	Bad	no effect	some effect	moderate effect	great effect
40. Failing to make an athletic team		Good	Bad	no effect	some effect	moderate effect	great effect
41. Being suspended from school		Good	Bad	no effect	some effect	moderate effect	great effect
42. Making failing grades on report card		Good	Bad	no effect	some effect	moderate effect	great effect
43. Making an athletic team		Good	Bad	no effect	some effect	moderate effect	great effect
44. Trouble with classmates		Good	Bad	no effect	some effect	moderate effect	great effect
45. Special recognition for athletic performance		Good	Bad	no effect	some effect	moderate effect	great effect
46. Getting put in jail		Good	Bad	no effect	some effect	moderate effect	great effect
Other events which have had an impact on your life: List and rate		Good	Bad	no effect	some effect	moderate effect	great effect
47. _____		Good	Bad	no effect	some effect	moderate effect	great effect
48. _____		Good	Bad	no effect	some effect	moderate effect	great effect
49. _____		Good	Bad	no effect	some effect	moderate effect	great effect
50. _____		Good	Bad	no effect	some effect	moderate effect	great effect

Acuity of Psychiatric Illness Scale – Child and Adolescent Version

Patient Name: _____ Patient ID: _____ Patient Age: _____
 Rater Name: _____ Date of Rating: _____

SYMPTOM	0	1	2	3	U
Suicidal Ideation or Gesture	No ideation	Mild ideation	Moderate ideation	Severe ideation	Information is unavailable
Self-Mutilation Behavior	No mutilation	Some mutilation	Repeated Mutilation	Significant mutilation	Information is unavailable
Aggressive Behavior Toward People	No aggression	Mild aggression	Moderate aggression	Severe aggression	Information is unavailable
Aggressive Behavior Toward Object	No aggression	Mild aggression	Moderate aggression	Severe aggression	Information is unavailable
Impulsivity	Not impulsive	Mildly impulsive	Moderately impulsive	Severely impulsive	Information is unavailable
Reality Assessment	No impairment	Mild impairment	Moderate impairment	Severe impairment	Information is unavailable
Noncompliance	No disobedience	Moderate disobedience	Significant disobedience	Profound disobedience	Information is unavailable
Depression	No depression	Mild depression	Moderate depression	Severe depression	Information is unavailable
Anxiety	No anxiety	Mild anxiety	Moderate anxiety	Severe anxiety	Information is unavailable
Sleep Disruption	No sleep disruption	Mild sleep disruption	Moderate sleep disruption	Severe sleep disruption	Information is unavailable
Activity Level	Generally appropriate	Occasionally inappropriate	Frequently inappropriate	Persistently inappropriate	Information is unavailable
Sexualized Behavior/Activity	None	Occasional	Frequent	Consistent	Information is unavailable
Educational Functioning	No impairment	Mild impairment	Moderate impairment	Severe impairment	Information is unavailable
Family Functioning	No disruption	Mild disruption	Moderate disruption	Severe disruption	Information is unavailable
Peer Functioning	No impairment	Mild impairment	Moderate impairment	Severe impairment	Information is unavailable
Self-Care Functioning	No impairment	Mild impairment	Moderate impairment	Severe impairment	Information is unavailable
Nutritional Status	No disruption	Mild disruption	Moderate disruption	Severe disruption	Information is unavailable
Parental Supervision and Monitoring	No impairment	Mild impairment	Moderate impairment	Severe impairment	Information is unavailable
Safety	No risk	Mild risk	Moderate risk	Significant risk	Information is unavailable
Organization of Services	No difficulties	Mild difficulties	Moderate difficulties	Severe difficulties	Information is unavailable