Children of alcoholics: A study of prevalence and an investigation of coping resources.

Paul Andrew. McGary

University of Windsor

Follow this and additional works at: https://scholar.uwindsor.ca/etd

Recommended Citation
https://scholar.uwindsor.ca/etd/1421

This online database contains the full-text of PhD dissertations and Masters' theses of University of Windsor students from 1954 forward. These documents are made available for personal study and research purposes only, in accordance with the Canadian Copyright Act and the Creative Commons license—CC BY-NC-ND (Attribution, Non-Commercial, No Derivative Works). Under this license, works must always be attributed to the copyright holder (original author), cannot be used for any commercial purposes, and may not be altered. Any other use would require the permission of the copyright holder. Students may inquire about withdrawing their dissertation and/or thesis from this database. For additional inquiries, please contact the repository administrator via email (scholarship@uwindsor.ca) or by telephone at 519-253-3000ext. 3208.
NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

Canada
CHILDREN OF ALCOHOLICS: A STUDY OF PREVALENCE
AND AN INVESTIGATION OF COPING RESOURCES

by

Paul Andrew McGary

A Thesis
Submitted to the Faculty of Graduate Studies and Research
through the School of Social Work in
Partial Fulfillment of the Requirements for the
Degree of Master of Social Work at the
University of Windsor

Windsor, Ontario, Canada
1992
The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L’auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

L’auteur conserve la propriété du droit d’auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-315-78883-6
ABSTRACT

Children of Alcoholics: A Study of Prevalence and an Investigation of Coping Resources

by

Paul Andrew McGary

The purpose of this study was to assess the prevalence of children of alcoholics (COAs) and to investigate whether coping resources differed between COAs and non-COAs.

The literature well documents that COAs comprise a substantial proportion of all child populations. Review of the family systemic literature evidenced that COAs are vulnerable, and at-risk for experiencing later psychological and substance abuse problems. Past research has also indicated that some COAs cope effectively with their environment, and appear more resilient to stressors.

The sample population included 94 grade 9 and 10 secondary school students. The Children of Alcoholics Screening Test (Jones, 1983), identified 29.8% (n = 28) of participants as COAs. Although equal proportions of males
and females appeared in the COA group, t-test analysis provided significant evidence that females were more expressive in regard to experiences with parental alcoholism.

The Coping Resources Inventory (Hammer and Marting, 1988) measures coping resources in five domains: cognitive, social, emotional, spiritual/philosophical, and physical. Chi-square analysis revealed significant differences between COAs and non-COAs in each coping domain. Mean scores were similar, but COAs exhibited disproportionately higher and lower levels of resources, which added support to theories of resilience and vulnerability among COAs.

Although inconclusive, children of alcoholic mothers appeared as most ill-affected and daughters of alcoholics revealed very high social and emotional resources.

COAs who answered yes to three family conflict CAST items (n = 8) were compared to remaining COAs. On the basis of means, COAs exposed to conflict scored higher in each domain, with substantial differences in the emotional and social domains.

Recommendations from this study provide direction for future researchers and specify the need for school and community-based services for COAs and their families.
For my parents,

Who have given so much of themselves. Your support and encouragement were catalysts in the completion of this project.

With love, Paul
ACKNOWLEDGEMENTS

This project would not have been possible without the permission of the school board (who must remain anonymous). Special thanks are extended to the chairperson and members of the research review committee who supported this study. Also, I wish to thank the principal and vice-principals for their "final okay", and the head of guidance for helping me to operationalize this study. Most importantly, a big "thanks" to the students who volunteered, and made this project successful.

I wish to thank my Thesis Committee, who shared their knowledge and experience for the benefit of this project. I am particularly indebted to my chairperson, Professor Robert G. Chandler, for his advice, encouragement, and support throughout all stages of this study. As committee members, Dr. Donna Hardina and Professor Don Stewart were instrumental in providing recommendations. I am very grateful to these faculty members for their time, cooperation and commitment.

I also wish to thank my colleagues, Lee Piche, Hilary Cook, and Tony Paton for assisting in the critical phases of
this study in the secondary school. Very special thanks are also extended to Diane Stevenson, for her assistance in editing these chapters, and more importantly, for her unconditional support, encouragement and understanding, from start to finish in this project.

Deepest thanks are extended to my parents, my brother and sister, and my grandmother, for their undying love and support through the ups and downs of this endeavour.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Purpose</td>
<td>1</td>
</tr>
<tr>
<td>Relevance to Social Work</td>
<td>2</td>
</tr>
<tr>
<td>Recency of Attention</td>
<td>4</td>
</tr>
<tr>
<td>Rationale for Conducting this Study</td>
<td>6</td>
</tr>
<tr>
<td>Format of this Project</td>
<td>7</td>
</tr>
<tr>
<td>II. LITERATURE REVIEW</td>
<td>9</td>
</tr>
<tr>
<td>Prevalence</td>
<td>9</td>
</tr>
<tr>
<td>A Population At Risk</td>
<td>11</td>
</tr>
<tr>
<td>Familial Structure in an Alcoholic Home</td>
<td>15</td>
</tr>
<tr>
<td>Boundaries</td>
<td>18</td>
</tr>
<tr>
<td>Family Rules</td>
<td>22</td>
</tr>
<tr>
<td>Communication Patterns</td>
<td>28</td>
</tr>
<tr>
<td>Adapted Roles: Wegsheider</td>
<td>31</td>
</tr>
<tr>
<td>Systemic Adaptation: Alcoholism as Functional</td>
<td>38</td>
</tr>
<tr>
<td>Research on Alcoholism and Systemic Abuse</td>
<td>40</td>
</tr>
<tr>
<td>Gender Issues</td>
<td>41</td>
</tr>
<tr>
<td>Responding to Stress: Coping Processes</td>
<td>43</td>
</tr>
<tr>
<td>Past Studies Using The CAST and The CRI</td>
<td>47</td>
</tr>
<tr>
<td>Summary</td>
<td>48</td>
</tr>
<tr>
<td>III. RESEARCH DESIGN AND METHODOLOGY</td>
<td>49</td>
</tr>
<tr>
<td>Problem Formulation</td>
<td>50</td>
</tr>
<tr>
<td>Research Questions</td>
<td>52</td>
</tr>
<tr>
<td>Operational Definitions</td>
<td>53</td>
</tr>
<tr>
<td>Design Classification</td>
<td>54</td>
</tr>
<tr>
<td>Research Setting and Sampling Procedures</td>
<td>55</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>58</td>
</tr>
<tr>
<td>Children of Alcoholics Screening Test</td>
<td>56</td>
</tr>
<tr>
<td>Coping Resources Inventory</td>
<td>58</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>60</td>
</tr>
<tr>
<td>Study Limitations</td>
<td>62</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Frequency Distribution of Age</td>
<td>69</td>
</tr>
<tr>
<td>2. Frequency Distribution of Gender</td>
<td>70</td>
</tr>
<tr>
<td>3. Prevalence of Children of Alcoholics</td>
<td>71</td>
</tr>
<tr>
<td>4. Frequency of CAST Items Among COAs</td>
<td>74-75</td>
</tr>
<tr>
<td>5. Comparison of CAST Groups According to Gender</td>
<td>76</td>
</tr>
<tr>
<td>6. Gender Differences in Frequency of CAST Responses</td>
<td>78</td>
</tr>
<tr>
<td>7. Raw CAST Scores According to Gender of the Child and Gender of the Alcoholic Parent</td>
<td>81</td>
</tr>
<tr>
<td>8. Standard Deviation in Total CRI Scores Between CAST Groups</td>
<td>86</td>
</tr>
<tr>
<td>9. Standard Deviation in Cognitive Scores Between CAST Groups</td>
<td>92</td>
</tr>
<tr>
<td>10. Standard Deviation in Social Scores Between CAST Groups</td>
<td>95</td>
</tr>
<tr>
<td>11. Standard Deviation in Emotional Scores Between CAST Groups</td>
<td>97</td>
</tr>
<tr>
<td>12. Standard Deviation in Spiritual/Philosophical Scores Between CAST Groups</td>
<td>100</td>
</tr>
<tr>
<td>13. Standard Deviation in Physical Scores Between CAST Groups</td>
<td>104</td>
</tr>
<tr>
<td>14. CRI Scores Among COAs According to Gender of the Child and Gender of the Alcoholic Parent</td>
<td>109</td>
</tr>
<tr>
<td>15. Cognitive Resources Among COAs According to Gender of the Child and Gender of the Alcoholic Parent</td>
<td>112</td>
</tr>
<tr>
<td>16. Social Resources Among COAs According to Gender of the Child and Gender of the Alcoholic Parent</td>
<td>114</td>
</tr>
<tr>
<td>17. Emotional Resources Among COAs According to Gender of the Child and Gender of the Alcoholic Parent</td>
<td>115</td>
</tr>
<tr>
<td>18. Spiritual/Philosophical Resources Among COAs According to Gender of the Child and Gender of the Alcoholic Parent</td>
<td>117</td>
</tr>
<tr>
<td>19. Physical Resources Among COAs According to the Gender of the Child and Gender of the Alcoholic Parent</td>
<td>119</td>
</tr>
<tr>
<td>20. CRI Domain and Total Scores Between Children of Alcoholics Exposed to Conflict and the Remainder of the Children of Alcoholics Group</td>
<td>125</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Box Plot of CAST Score Distributions Between</td>
<td>79</td>
</tr>
<tr>
<td>COA Gender Groups</td>
<td></td>
</tr>
<tr>
<td>2. Box Plot of CRI Score Distributions Between</td>
<td>87</td>
</tr>
<tr>
<td>CAST Groups</td>
<td></td>
</tr>
<tr>
<td>3. Box Plot of Cognitive Domain Score Distributions Between CAST Groups</td>
<td>93</td>
</tr>
<tr>
<td>4. Box Plot of Social Domain Score Distributions Between CAST Groups</td>
<td>95</td>
</tr>
<tr>
<td>5. Box Plot of Emotional Domain Score Distributions Between CAST Groups</td>
<td>99</td>
</tr>
<tr>
<td>6. Box Plot of Spiritual/Philosophical Score Distributions Between CAST Groups</td>
<td>101</td>
</tr>
<tr>
<td>7. Box Plot of Physical Domain Score Distributions Between CAST Groups</td>
<td>105</td>
</tr>
</tbody>
</table>
CHAPTER I
INTRODUCTION

Children from alcoholic families (hereafter referred to as COAs) are unique by nature. Their familial experiences are different than those of children from non-alcoholic homes. The problems associated with this role are evident in childhood, and commonly carried into adulthood, where the cycle is often perpetuated. As individuals who are dependent upon the family for satisfying their needs and fostering healthy development, COAs are in a vulnerable position.

PURPOSE

The intent of this research study is twofold. First, to ascertain the prevalence of COAs within a selected population, and secondly, to assess whether coping resources among COAs differ from those of non-COAs.

To complement the information which will result from these primary purposes, this researcher has developed secondary goals for investigation:

a) To find the ratio of female COAs to male COAs.

b) To assess the existence of differences between males and females in regard to coping resources and CAST
scores, and to investigate whether the gender of the alcoholic parent is associated with such scores.

c) To identify prevailing issues among COAs.
d) To examine how COAs have responded within the family to parental alcohol use, in behavioral terms.
e) To explore the affective and cognitive experiences accompanying the role of COA.
f) To investigate how they perceive family functioning from within the alcoholic environment.
g) To evaluate coping resources among those COAs who have indicated exposure to family conflict.

To obtain data which is relevant to the foci of this study, two instruments will be employed. The Children of Alcoholics Screening Test (CAST; Jones, 1983) distinguishes between COAs and non-COAs. Comprised of thirty items, the CAST elicits information regarding the child’s experience with parental alcohol use. The Coping Resources Inventory (CRI; Hammer and Marting, 1988) contains sixty items which collectively measure how people rely upon internal and external resources in their process of coping with stressors.

**RELEVANCE TO SOCIAL WORK**

Historically, social work has been active in increasing the social functioning of those individuals, families, larger groups and communities who were in relatively powerless situations. While the profession has gradually assumed responsibility in assisting others aside from the
oppressed, the initial intent remains dominant to this day. Since children of alcoholics are vulnerable members of society, they should be responded to with immediacy.

Comparatively, these children are much like foot soldiers lacking the attire and equipment which would enable them to defend themselves against external influences. Upon birth, no child is provided with a book entitled, "What to do when your parent is an alcoholic".

Theoretically, the profession is prepared and well-suited to serve the needs of COAs. Based on the knowledge that alcoholism is frequently associated with problems in family functioning, and further, that alcoholism is a systemic dysfunction, the problem solving and systemic frameworks are crucial. While the former aids in identifying the existence of a problem, the latter is useful in assessing how the problem is maintained by the family. Only through such information can social workers punctuate the circular causality of alcoholism, and assist the family to recognize and utilize its internal resources to resolve the problem.

The systemic nature of familial alcoholism will be repeatedly stressed throughout this study. The fact that alcoholism disrupts relationships (Berlin, Davis, and Orenstein, 1988), and family functioning (Preli, Protinsky, and Cross, 1990) has gained more recognition with time.
Social workers have been at the forefront of this movement.

To the extent that "ALL CHILDREN RAISED IN ALCOHOLIC HOMES....ARE AFFECTED" (Black, 1987, p.27, capitals in original), and also that, "early identification and treatment of children of alcoholics is a step toward primary prevention of alcoholism and other related problems" (Pilat and Jones, 1984, p.33), any attempts to understand and render assistance to this population are deemed relevant.

This study is germane to social work with the child and family because it is concerned with the issues and difficulties encountered by the child who lives within an alcoholic environment.

REGENCY OF ATTENTION

Agreement among mental health professionals that children from alcoholic families were in need of substantial attention is a recent phenomenon. Although practitioners and researchers have suggested for decades that treatment should extend beyond the alcoholic, this idea failed to generate more than minimal support.

Steinglass, Weiner, Mendelson, and Chase (1971, p.401) state that in 1937 and 1938, Knight and Chassell, respectively, "stressed the importance of examining the family constellation of the alcoholic as a means of understanding the causation of the condition." Shortly thereafter, Holdin (1945) observed that 25% of the children
at a child guidance clinic for juvenile delinquents came from families where at least one parent was an alcoholic (McElligatt, 1986).

As information was slowly gathered, and knowledge was generated, the affects of alcoholism began to be understood at a primitive level. Acknowledging these implications, Alcoholics Anonymous introduced Al-Anon (established in 1951 for spouses) and Alateen (established in 1956 for COAs) "to address the psychosocial needs of families of alcoholics" (Burk & Sher, 1988, p.286).

Throughout the 1960s intervention and research focused upon the alcoholic, while the spouse and children were not considered. This avoidance was addressed by Cork (1989, p.19), in a pioneering Canadian study which referred to these children as "the forgotten children", due to the unintentional neglect from professionals.

Ackerman (1987) discusses how the 1970s witnessed an entire generation of adult children of alcoholics (ACAs) appearing simultaneously for assistance. Since programs and services were non-existent during their childhood, these adults responded immediately to the collective movement. Their courage to come forth following a lifetime of secrecy supported further program and service development, and also, introduced professionals to the sizeable population and needs of adult survivors.
In the 1980s, information concerning the ACA movement was shared with society through the media. Individuals appeared on television; radio talk shows; were featured in magazines; and, self-help material became available from publishers and fellow ACAs (Burk & Sher, 1988, p.286). The common theme found throughout this new information was that professionals should intervene with COAs upon identification, in an effort to prevent later maladjustment (Black, 1981; Burk and Sher, 1988).

Weddle and Wishon (1986) confirm that COAs were ignored, and suggest three factors which contributed to this occurrence. First, professionals had focused their efforts specifically toward the person identified as the alcoholic. Second, society at large had failed to understand the broad impact of parental alcoholism upon other family members. Lastly, the authors state that because children are normally loyal in retaining the secrecy of their residence in an alcoholic home, they act to maintain the problem within the closed boundaries of the family. This closure places the child at-risk for remaining isolated in their sufferance.

**RATIONALE FOR CONDUCTING THIS STUDY**

As stated, this researcher will assess the prevalence of COAs in a selected child population, and explore the degree to which coping resources among COAs differ from non-
COAs. This knowledge is valuable for professionals from all disciplines who have any contact with children.

COAs constitute a sizeable proportion of all child populations across all social levels. Their problems and experiences are unique, and therefore deserving of special attention.

This researcher will gather information on one of the most fundamental aspects of the human condition, namely, how the environment influences an individual's capacity to cope. But in order to understand the characteristic influences upon the individual, information will be collected from many children who, indirectly, experience similar environments. This process will enable trends to surface in the data, from which conclusions can be formulated. Such conclusions are the foundation for developing effective services for specific needs, that can be operationalized in disparate contexts.

**FORMAT OF THIS PROJECT**

Much of this researcher's concern for the welfare of COAs will become apparent in chapter two, which consists of a literature review. Following that discussion of theoretical underpinnings and past research, chapter three presents the methodology to orchestrate how this study will be operationalized. Resulting from administration of the
two research instruments, the fourth chapter entails a statistical analysis and evaluation of the data. The final chapter will discuss the findings, integrate pertinent literature, state conclusions, and provide recommendations.
CHAPTER II
LITERATURE REVIEW

Relative to the purpose of this project, the present chapter affords the researcher an opportunity to discuss the experiences and issues associated with children from alcoholic families. Although inherently structured to discuss such children, sufficient reference will be made to the dynamics and characteristics of the alcoholic family. A family-systemic perspective of this phenomenon is deemed as imperative, since the child does not exist in isolation.

PREVALENCE

Numerous studies have evidenced that the proportion of children of alcoholics within any given child population is significant. Roosa, Gehring, Beals, and Cappo (1988), cite two studies concerning the representation of this population. The first, found that one out of eight children lived in an alcoholic home. The second, comprised of adolescents, reported findings of one in six children living with at least one alcoholic parent.
Prevalence, meaning "the total number of cases in a population in a certain period" (Helfer and Kempe, 1988, p.64), has been assessed in additional studies. McElligatt (1986) conveys findings from one study that concluded between four and six children in the average classroom was exposed to parental alcoholism. Jones, developed and administered the Children of Alcoholics Screening Test and found that "27 percent of the sample indicated parental alcoholism" (Pilat and Jones, 1984, p.30). The frightening reality accompanying Jones' findings was that the school social worker, employed in the research setting, had no previous contact with any of the self-identified COAs (1984, p.30). This fact, that COAS are largely unrecognized, will be discussed in further detail in this review.

The literature consistently reveals that between 12.5% and 25% of classrooms are comprised of COAs. While some researchers suggest higher statistics, only a few have claimed lower. This representation is startling in the sense that society has only acknowledged this population, as such, within the past fifteen years and is presently confronted with the substantial proportion of this group within the larger community.
A POPULATION AT RISK

Implied in the statement, "children of alcoholics are children at risk" (Hecht, 1973, pp.1764-65), is the notion that alcoholic environments predispose children to be more susceptible to particular problems, than those children from non-alcoholic homes. The term "at-risk" further implies that the environment is a source of suffering, to some degree. For children of alcoholic parents, this suffering has the potential to persist throughout the life cycle.

Recognizing that COAs are at-risk presupposes that they are vulnerable. The nature of family relations, interactions, behaviours and "happenings" is objectively different in a dysfunctional way. As such, they are more likely to encounter a range of problems.

Commencing at the point of conception, the fetus of an alcoholic mother is jeopardized. Among children throughout the world, maternal drinking has been causally related to a condition known as fetal alcohol syndrome, which is the third largest cause of mental retardation (Weddle and Wishon, 1986). Mothers are more likely to experience stillbirths and miscarriages (Burk and Sher, 1988), and there is a higher rate of infant mortality among these children (Weddle and Wishon, 1986). Other anomalies include growth retardation and central nervous system damage
(McElligatt, 1986), physical deformities and behaviour problems (Burk and Sher, 1988). Recently, a newspaper columnist described that "they share low IQs, an inability to learn, stalled mental and social development, volatile, hyperactive behaviour, poor judgement and an inability to make a connection between cause and effect" (Henderson, 1992, pp. J1, J11).

While the topic of fetal alcohol syndrome deserves attention in its own respect, the purpose of including it was to indicate that risk factors begin very early for these children.

To exemplify the degree to which COAs are at-risk for encountering difficulties, the following is a mere sampling of issues associated with the role.

The National Institute of Alcohol Abuse and Alcoholism (NIAAA; 1984, p.3) has found that "impaired self esteem...acting out behaviours...and running away from home", are displayed in disproportionate numbers among COAs. Aronson and Gilbert (1963, p.239), provide some evidence that sons of alcoholics, "resemble the chronic alcoholic in personality attributes", in regard to a "passive-aggressive" personality type. McElligatt (1986, p.56), concluded that COAs appear in large numbers "among those who perform poorly in school, attend irregularly, and drop-out" altogether.
When speaking of psychosomatic problems, Stark (1987) claims that headaches, stomach pains, and depression appears among the COA population with greater proportion.

A few of the outcomes mentioned by Burk and Sher (1990), include: delinquency, hyperactivity, academic and interpersonal problems, and depression. Glenn and Parsons (1989, pp. 118-119), acknowledge that both the "unstable environment" and "explosive relationships" that often characterize alcoholic families are associated with "stress...tension...and social alienation", and that these children may "vicariously learn poor communication methods". Lastly, while the NIAAA (1984) states that child abuse is associated to some suspected, yet unproven, degree with alcohol use, Gravitz and Bowden (1984, pp. 25-26) and that the child is confronted with psychological survival issues such as "coping...parentification...and mistrust."

Children of alcoholics are often "invisible to the professional" (Pilat and Jones, 1984, p. 30). They do not commonly disclose such issues from their family (McElligatt, 1986), and their diverse coping strategies are usually effective in protecting the family from "outsider awareness". Remaining isolated, while burdened with secrecy and emotional distress, places the child at-risk for suffering future problems.
Extending this discussion to long term implications, the most prominent research conclusion indicates that COAs are at risk for developing a problem with alcohol themselves (Aronson & Gilbert, 1963; National Institute on Alcohol Abuse and Alcoholism [NIAAA], 1984; Knowles & Schroeder, 1990; McElligatt, 1986; Roosa et al., 1988; Cotton, 1979).

Subsequent authors have statistically estimated the magnitude of this risk. Burk and Sher (1990) claim that COAs have three to five times greater chance of developing a problem with alcohol, and another source suggests that the risk may approach eight times greater than normal (Glenn & Parsons, 1989). Following a review of past research, Aronson and Gilbert (1963) concluded that 33% to 55% of "alcoholic patients" indicated parental alcoholism in their family of origin.

Concerning the theory that an alcoholic personality exists and is genetically transmitted - intergenerationally, Stark (1987), claims that sons are four times more likely than non-COAs of becoming alcoholic. Cadoret, Cain and Grove (1980) add support to this collective body. Although genetic studies have focused almost entirely upon sons of alcoholics, Stark (1987) claims that daughters are less likely to become alcoholics, but they are more likely to marry alcoholic men.

Regardless of how one conceptualizes the magnitude of risk, the notable point is that risk exists. It is not the
purpose of this project to identify or eliminate the possible causes of alcoholism, since one would have to be trained in social work, psychology, psychiatry, and neurophysiology to competently consider the schools of thought. The stance of this researcher is that childhood experiences are a significant contributor to the development of later substance abuse and other psychosocial problems.

FAMILIAR STRUCTURE IN AN ALCOHOLIC HOME

According to Black (1987, p.13), and countless subsequent authors, the words "inconsistency and unpredictability" accurately describe life within the alcoholic environment. Braun (1982, pp.38-39), adds to this list by stating that impulsive behaviour, confusion, and chaos are common when there are alcoholic issues. Perhaps a few examples would illustrate how these patterns are evident in daily routines of the family.

"'My father mostly starts on Thursday and drinks until he gets sick', says Jerome. 'Then I have to look after him. I bring him a glass of milk and clean things up when he's been sick all over the living room'" (Cork, 1969, p.1).

"'At school one day, Richard was drinking grape juice with his classmates. He commented that the grape juice was like the wine his mother drank'" (Braun, 1982, p.38).
"'Mom is drinking again. Dad didn't come home last night. Dad was drunk at the ball game. I had to walk home from school because Mom had passed out at home and forgot to come and get me'" (Black, 1987, p.33).

"An eleven-year-old girl comes home from school each day, leads her drunken mother to bed and prepares dinner for her younger brothers and sisters" (Stark, 1987, p.59).

"'If mom forgets your birthday, even if she's been great to you all year, you won't forget that'" (Stark, 1987, p.61).

Implicit in these examples is the tendency of the alcoholic to remain pre-occupied with self-centred, drinking-related behaviours. Children interpret their second class status differently. Some blame themselves, some assume responsibility and "take care", and others distance themselves emotionally and physically from the problem. Each choice is means of coping with feelings and perceptions that are a source of pain.

The child who witnesses a parent repeatedly shift from sobriety into inebriation recognizes that this process is paralleled by behaviour changes. From his experience in treating alcoholic families, Braun (1982, p.39), has noticed
that "even children younger than three years old can understand the relationship between alcohol and behaviour." Through observation the child learns what type of beverages contain alcohol, and how these drinks are associated with differences in parental behaviour (Braun, 1982, p. 39). Consequently, COAs exercise caution when approaching the parent, as they lack certainty in assessing how the alcoholic will respond in each circumstance. Bogdaniak and Piercy (1987, p. 573) have noted, from their experiences in treating COAs, that "they are confused and upset about the unpredictable and inconsistent behaviour of alcoholic parents."

Unlike the child from a non-alcoholic home, the COA suffers from the "discrepancy between what they are told is happening and what is actually going on" (Seixas and Youcha, 1985, p. 9). In effect, the child comprehends that their perceptions of family interaction can not be used as predictors for future situations, since that which is seen, heard, and ultimately felt, lacks continuity and validation.

Feelings of failure are common among children who are repeatedly unsuccessful in attempting to restore order within the chaotic system. Confused because their perceptions are inconsistent, and discouraged since attempts to promote change have proven relentless, they begin to lack
trust in their parent(s), and when these feelings are internalized the child soon feels as lack of trust in their own experiences (Seixas and Youcha, 1985). The child's response, then, is to deny that such experiences exist, and in the process, validate the alcoholic (Seixas and Youcha, 1985). McElligatt (1986, p.60) maintains that denial is "the hallmark of most alcoholic families".

Boundaries

Preli, Protinsky and Cross (1990, p.1) researched cohesion and adaptability among alcoholic families, and concluded that such systems are characterized by "disturbed interactional boundaries". They state that internal boundaries were found to exist as "extremes" (1990, p.3), implying that either a disengaged or enmeshed style of cohesion was common. Some description of these terms would facilitate understanding.

Minuchin (1969, p.358), as conveyed by Hoffman (1981, p.72), found that enmeshed families were distinguished by a "tight interlocking" between members. Furthermore, he stated that "their quality of connectedness is such that attempts on the part of one member to change elicit fast complementary resistance on the part of others." COAs who are enmeshed are trapped within the parental subsystem and are over-involved in functions that are normally parental by
nature. Any attempts to differentiate themselves would be immediately confronted, perhaps through an alcohol-related episode that would draw the child "inside" and strengthen the restricting boundaries surrounding the parents and child.

Hoffman (1981) describes that within disengaged families "there seemed to be a relative absence of strong connections, and relationship ties between family members were weak or non-existent." Research has indicated that alcoholic families have difficulty with emotional bonding and individual autonomy (Preli et al., 1990). Both enmeshment and disengagement are substantiated in the literature as dysfunctional (Olson, Sprenkle, & Russell, 1979).

The concept of subsystems is utilized by theorists and practitioners when referring to individuals and groups (i.e. children, parents) within the family system (Grunebaum & Chasin, 1982 p.406). Each subsystem plays a role that contributes to the how the family functions as a family. Within healthy families, roles and duties for each subsystem are different. While healthy families permit individuals from one subsystem to periodically enter the other to perform a function (i.e. child helping with household task), alcoholic families are characterized by members who have assumed permanent, functional roles within the opposing
subsystem, for which they are either over qualified or under qualified. The child who leads a drunken parent to bed is under-qualified for parental-type behaviours, and the parent who receives such care is overqualified.

Ackerman (1987, p.5) supplements this discussion of boundary dysfunction by stating that, "it is the inability of the alcoholic parent to fulfil his or her various parental roles successfully that becomes detrimental to these children around the alcoholic". Neglecting parental responsibilities implies immaturity within the role, which is described by Friesen (1983, p.79) as "infantilization". Complementing this terminology, Hecht (1973, p.1766) contributes that the eldest child is commonly parentified, and "is made responsible for younger children or for part of the household chores". He continues, by revealing that this process is more damaging to the child where the mother is the alcoholic, since the child, often a daughter, must "mother her mother" (1973, p.1766). Furthermore, in families wherein the father is alcoholic, the child is commonly co-opted as the "confidante of the mother" (1973, p.1767), which again reflects unhealthy parent-child boundary relations.

The young adult or older adolescent encounters internal strife when separating from the dysfunctional family.
Prominent concerns may include feelings of guilt for "escaping", and thereby leaving others to deal with the problem; and, perhaps a fear for the safety of siblings and non-alcoholic parent. They may also be longing for the emotional nurturing which was never received during childhood and adolescence (Bogdaniak and Piercy, 1987).

Despite the trauma, emotional suffering, anger and frustration the children experience in connection to alcoholic issues, they characteristically remain very loyal to their families. This phenomenon, in which the child cannot separate from the family, is one fallout of the intense enmeshment, discussed above. As described by Berlin, Davis and Orenstein (1988, p.578), "they go through a protracted and agonizing separation process, torn by their ambivalent feelings and sometimes punctuated by dramatic episodes such as running away." Years of surrendering to unhealthy relations inhibit the child from developing a separate identity, and coping with change as an individual.

The alcoholic system is distinguished by rigid boundaries which isolate it from open interaction with other systems. Common terminology refers to this family condition as "closed" (Berlin et al, 1988, p.578). The alcoholic perceives individuals from outside the family as potentially hazardous, since private information from inside may become exposed, and new information from outside can threaten the
silence concealing the problem.

Wegscheider (1981, p.83) claims that the principal rule which maintains the closed nature of the family system is mutually understood by members as: "no one may discuss what is really going on in the family, either with one another or with outsiders." Consequently, the family becomes increasingly secluded, since the alcoholic experiences more difficulty in disguising the problem, and they may feel somewhat "paranoid" (Bratter & Forrest, 1985, p.318), that others will become suspicious. Eventually, social relationships are severed, and "friends include them less and less" (Christopher, 1968, p.119).

Family Rules

Although the system is characterized by impulsive behaviour and inconsistency (Braun, 1982), instability (Glenn & Parsons, 1989), and tension (Stark, 1987), there is a complex set of well-defined, yet often unstated rules governing all dimensions.

Family rules maintain roles, boundaries, and patterns and topics of communication, and they ensure that members function within the desired range of each of these qualities. The alcoholic system, however, is contaminated by rules that serve the self-centred needs of the alcoholic (Schaef, 1987; Richards, 1989). These parents are not innately egocentric, but instead, reacting to protect those
aspects of the system that have thus far supported their addictive behaviour. The alcoholic as principal rule-maker fears separation from the substance, emotional pain from substance abuse, and losing effective defenses (Wegsneider, 1981), and decides that maintaining control, through rules, lessens threats to the overt realization that a problem exists.

Black (1987) states that children of alcoholics are governed by three main rules: don’t talk; don’t trust; and, don’t feel. Collectively, these internal regulators prohibit the child from acknowledging any aspect of the problem. Individually, they demand that the child remain silent, that they do not depend upon the parent(s), and most damagingly, that they deny all emotions. Wegsneider (1981), explains that some rules are not recognized consciously, and many are in place before the child is even born.

The implications of these rules upon coping processes are tremendous. To begin, they assume an external locus of control (Prewett, Spence & Chaknis, 1981), meaning that they feel helpless in relation to the environment, since family rules and injunctions have extracted control over thoughts, feelings, and behaviours. Sworn to secrecy, there is no opportunity for "ventilation", which has been documented as "essential and universal" (Bogdaniak & Piercy, 1987) to healthy coping. Since perceptions and emotions remain
invalidated, they are internalized and the children increasingly alienated from their experiences. Berlin et al. (1988) have noted that COAs separate parental alcohol abuse from their affective experiences, and construe that their suffering results from personal deficiencies. Consequently, emotional disturbances are found disproportionately among COAs (Moos and Billings, 1982; Burk and Sher, 1990)

Focusing momentarily upon the issue of trust, which was stated within the rule "don't trust", Ackerman (1983) paralleled the COA experience alongside Erikson's (1963) developmental model. To review, in Childhood and Society, Erikson exemplified the necessity of infant trust establishment in caregivers and the environment as critical to their capacity to resolve subsequent psychosocial stages. Ackerman (1983) concluded that the emotional instability that accompanies alcoholism affects the quality of parent-child interactions, which hinders the degree to which the child will experience their social world as responsive, nurturing, and ultimately, trusting. Trust is considered by both theorists as the keystone to healthy relations, interaction and coping with the social environment.

Bogdaniak and Piercy (1987) supplement this by claiming that the "uncertain degree of emotional involvement" contributes to the child's hesitancy in trusting affections,
actions and reactions in later relationships. Furthermore, another source explains trust as an "all or none" issue among COAs, claiming that "trust is either present or absent and, if present maintained to an unrealistic degree. Similarly, if there is a lack of trust, it is total" (Gravitz and Bowden, 1984, p.28). As such, COAs and ACAs fear and have difficulty with intimate relations (Woititz, 1984), which could be a source of support.

This family rule, therefore, has the potential to inhibit the child's desires and attempts to interact socially and intimately in various levels of relations.

Obviously, rules in alcoholic families differ in origin and purpose than those in families without such issues. The rules themselves are established within a dysfunctional system, for dysfunctional purposes, and are dysfunctional in their manifestation. Endeavours to understand the nature of this process are facilitated by considering the beliefs of two renowned theorists. First, Schaef (1987), claims that addictions are inherently progressive by nature, and will eventually lead to death if permitted to continue without interference. Second, Wegsneider (1981, p.81) contends that, "as the alcoholic gradually loses power over his own life and behaviour, he wields more and more power over those of the people close to him."

Therefore, in accepting that alcoholism only worsens
unless resolved, and further, that the alcoholic reacts to loss of control by exerting control, one can conclude that these families are marked by increasing rigidity and confinement through rule establishing. Simply stated, there is a positive relationship between the duration of the problem and rigidity.

To exemplify, further, the damage incurred by the restrictive nature of the system, this researcher has connected five rules of one author with the therapeutic issues discussed by a second author.

Rule 1: "The dependent's use of alcohol is the most important thing in the family's life" (Wegsheider, 1981, pp.81-82).

Implications: COAs have difficulty putting themselves first in relationships, and commonly feel unloved and unwanted (Bogdaniak and Piercy, 1987, p.573).

Rule 2: "Alcohol is not the cause of the family's problem" (Wegsheider, 1981, p.82).

Implications: since problems are not acknowledged or resolved, the children also experience difficulty in problem resolution (Bogdaniak and Piercy, 1987). The children may also turn to alcohol for "answers" as they age.
Rule 3: "Someone or something else caused the alcoholic's dependency; he is not responsible" (Wegsheider, 1981, p.82).

Implications: COAs deduce that if nobody else claims responsibility, then they must be the cause (Bogdaniak and Piercy, 1987). Children are easy targets for receiving projected blame.

Rule 4: "The status quo must be maintained at all cost" (Wegsheider, 1981, p.82).

Implication: an inability to express feelings of discontent, especially anger (Bogdaniak and Piercy, 1987).

Rule 5: "Everyone in the family must be an enabler" (1981, pp.82-83). The process of enabling entails responding altruistically to take care of the alcoholic whenever care is needed.

Implications: confusion about unpredictable parental behaviour (Bogdaniak and Piercy, 1987); self-sacrificial efforts to support alcoholism.

Manifested predominantly as covert expectations, rules in this environment suppress the child's human attributes. These attributes, such as expressing emotions, trusting relationships, and knowing and expressing personal needs, are central to effective coping, as will be discussed.
Communication Patterns

One of the fundamental principles developed by the Palo Alto group of Haley, Satir, and others regarding human communication is that, "one cannot not communicate" (Nelson, 1986, p.223). This declaration infers that humans, simply by their shared space, automatically communicate on various levels and through different methods. Communication exists on both verbal and non-verbal levels, with each containing its' own range of clarity concerning the message delivered.

Communication within the alcoholic family is characterized by masked messages. Seixas and Youcha, confirm this style of communication by noting that there is a "discrepancy" (1985, p.9) between what is verbalized to the child, and reality. Messages which are received by the child on auditory, visual, and behavioral levels are markedly incongruent. Feelings of uncertainty and confusion promote mistrust. In addition, Trad and Greenblatt (1990, p.28) comment that "the ongoing stress a child experiences in dealing with an impaired parent may be expressed in low self-esteem, depression, or anxiety disorders, as well as in accident-proneness or a decline in physical health."

As the alcoholism progresses in severity, the blurring, numbing effects of substance abuse are manifested in the declining number and quality of verbal messages.
Subsequently, the child must decipher a heightened number of nonverbal injunctions.

Through communication, children also learn that messages are consistently unpredictable. Stark (1987), states that the child may be commended one day, and receive a negative response for identical behaviour the following day -- so some children learn that producing no response, by not acting, is the most effective survival technique.

Glenn and Parsons, speculate that childhood exposure to the unstable characteristics of the alcoholic environment promotes "vicarious learning" (1989, p.119), which implies that observation encourages the child to adopt similar patterns. They further hypothesize that this learning is inclusive of the "poor communication and interpersonal skills" (1989, p.119) to which they are subjected. Carried into adulthood, these traits would perpetuate the confusion in the adult child of an alcoholic's (ACA's) family of procreation.

Discussing the nature of spousal interaction in an alcoholic relationship, Gorad (1971, p.476) promotes the idea that "multiple incongruent messages" are common. He also conveys previous findings that "interaction of the alcoholic and his wife is marked by a high degree of
conflict" (1971, p.478). Empirically, Gorad tested these ideas and found that mixed, in-direct methods of communication were functional in allowing the alcoholic to displace responsibility for his actions upon the environment. He concludes by stating that the style of communication frequently resembled the "escalation of symmetry" (1971, p.487), meaning that the both spouses were frequently observed to be vying for the "one up" position.

Gorad, McCourt and Cobb (1971) emphasize that communication is a cardinal component in relational problem maintenance. The authors claim the alcoholic is advantageously positioned within the system, since they have "permission" to send messages and then deny them later, by blaming the content of messages on the context (i.e. blame what was said upon affects of alcohol). Resulting from the incongruence in message sending, "he [the alcoholic] is able to deliver them [messages] in such a way that the other person becomes ensnared" (1971, p.658).

Hecht (1973, p.1765) states that, "communication frequently is in half-truths and white lies because the non-alcoholic parent needs to protect the children from the truth about the drinking parent." The repercussions of this form of spousal enabling behaviour is that children lack faith in communication, and become "believers" only in those things that actually happen.
Once again, this researcher refers to Wegsneider, and her theory of family rules. The first of which was previously discussed: "no one may discuss what is really going on in this family, either with one another or with outsiders" (1981, p.83). The alcoholic ceases open exchanges of information, regardless of the person with whom the exchange is performed.

The second rule is also purposeful in suppressing communication, and it states that, "no one is to say what he is really feeling" (Wegsneider, 1981, p.83). She claims that alcoholics are too emotionally troubled from their daily struggles with the addiction, to cope with "feedback" from the children that problem are evident. While alcohol provides an escape from the guilt, helplessness, and low self-worth (1981, p.83), hearing the expressed, painful feelings from the child would conjure dissonance in the alcoholic's belief system, that contends "no problem exists".

Adapted Roles: Wegsneider

Sharon Wegsneider, developed a comprehensive theory about the impact of alcoholism upon the family. She addresses the issue systemically, and maintains that it is a family disease. Wegsneider's description of childhood adaptive role behaviour is considered particularly relevant to the development of this literature review.
Perhaps one of the most discussed aspects of the influence of alcoholism on child development concerns the child's behavioral re-positioning within the family system. In an effort to restore homeostatic functioning, which has been disrupted by the behaviour of the alcoholic, children adapt. Wegsheider describes this process by stating that they perceive themselves as trapped in a highly disordered system wherein they choose the same defenses as the alcoholic: "they hide their true feelings behind an artificial behaviour pattern, a supporting role in the alcoholic drama, which seems to promise some kind of reward in a system that offers few" (1981, p.84).

Childhood roles, then, are not assigned but actively assumed by the child for specific results. Adapted role behaviour provides the child with immediate payoff, and furthermore, benefits the family system. Discussing each of the four roles individually will elucidate these notions.

The Hero

The eldest sibling often assumes the role of the "hero". This child enters an environment that assigns performance expectations, and accepts responsibility for functions that are parental by nature. Experiencing life "as a child" is therefore placed aside, and the hero becomes closely intertwined with the parental subsystem. The child reacts to the disruptions promoted by the alcoholism and
find that an effective means of restoring familial balance is through providing elements which are perceived as "missing" (1981, pp.104-105).

Since the family is contaminated with unpredictability, and conflict, the hero withholds negative feelings and solely expresses the positives, in both behaviours and words. This behaviour is adaptational in the sense that the child pleases others by providing whatever they want, maintains the rule of secrecy, and remains quiet about the alcoholic's behaviour (1981, p.106). These children cope by suppressing their true feelings of resentment, confusion, and fear by overextending themselves into the family. Efforts to "please", however, are generalized to the outside environment, and such aspirations become well practised with time. Heros avoid taking care of themselves and respond by sacrificing personal needs, in an effort to care for others (1981, pp.108-9, & p.114).

If "heroic" behaviours did not serve the family system purposefully, the child would not participate through such methods. For the reason that heroes are high achievers, they display normalcy to the world and incur intra-familial feelings of "self-worth" (1981, p.86). This enables attention to be detracted from the issue of alcoholism. For the hero, Wegsheider claims that the positive attention from within the family and from outsiders is sufficient to support and maintain the behaviour.
As a child, the hero is at risk because the patterns are extremely difficult to identify. As an adult, the individual is at risk for compulsive helping, perhaps through employment in the helping professions, which can inevitably result in burnout (1981, p. 115).

The Scapegoat

The well-known scapegoat role is characterized by the type of attempts utilized by the child to divert attention from the problem and uncomfortable feelings. Unable to gain acceptance by pleasing, the scapegoat is self-removed from the triangulated relationship of the parents and the hero, and thereby attempts to attract attention from the outside of that relationship. Other members, the spouse and the hero, remain over-involved with the alcoholic.

The scapegoat is amenable to risking all sense of self in order to bring the family to the payoff of focusing away from the alcoholic. Often these attempts are illegal, self-destructive and overtly unacceptable (1981, p. 86). Since this symptomatic behaviour is more easily detected by professionals such as teachers, social workers, and law enforcement officials the scapegoat is more likely to gain access to professional services following a dramatic "episode". It is this researcher's belief that the professional community often neglects the reason and purpose for the child's acting-out, by focusing too readily upon the
symptomatic behaviour itself, which is labelled as "the problem", as opposed to considering familial circumstances such as alcoholism that are critical to effective intervention.

As stated by Wegsneider, the child's payoff for scapegoat behaviour is negative attention (1981, p.86). Naturally, any child would prefer to receive negative responses from parents who otherwise fail to acknowledge that the child even exists. Unfortunately, the consequences of such attempts for this maladapted child can be extensive, and range from physiological damage (i.e. drug and alcohol abuse), to deep-seated emotional scars from the pain and hurt of childhood rejection (1981, p.122).

The Lost Child

With one child pleasing and a second disrupting, the third is confused with the complexity of existing dynamics. Unable to understand the plot to the story, or scripts within the family, this child assumes the role known as the "lost child", who commonly withdraws, and pleases others through "absence". Confused by role structure in the family, the lost child lacks a sense of belonging, and may feel "at fault" or responsible for the problem (1981, p. 128).

Social isolation results in many unmet emotional needs, which these children may attempt to fulfil for themselves,
perhaps through imaginary friends in a world of fantasy (1981, p.128). Consequently, these children are often alienated, deficient in developing social skills, and they discover that friendships are difficult to establish (1981, pp. 128-29). In adulthood, symptoms are manifested similarly, and the ACA remains socially isolated (1981, p.86). Similar to the hero, the lost child is difficult to identify, due to a deficiency of overt negative symptoms.

Lost children provide the family with a payoff of "relief" (1981, p.86). Their unobtrusiveness into daily functions affords the family an opportunity to operate without them, and therefore not have to expend energy in praise or discipline. Since performance expectations upon lost children are minimal, they also expects little of themselves. The child's payoff is feelings of escape from an environment that causes pain (1981, p.86).

The Mascot

Lastly, the mascot role is often assumed by the youngest sibling. Similar to the hero, this child seeks positive attention, but unlike the hero, who pleases, this member develops adapts by using uncomfortable situations to "clown" (1981, p.140). Humorous antics prove to divert attention from the problem and normally produce laughter and tension release for the others, which is welcomed. Although some forms of mascot behaviour may reap negative attention,
the child's intentions are consistently to divert the family from self-awareness, and gain control over the family by capturing the interest of all (1981, p.140).

With age, this role became more difficult to practise, and most mascots enter adulthood with serious coping deficiencies, since clowning was found to be the only effective technique in childhood. Wegsheider concludes that, at the extreme, the mascot is at risk for developing schizophrenia, a drug dependency, or attempting suicide (1981, p.147). That which began as an effort to stimulate the family through laughter and fun, results in problematic adult stage ramifications that are based in a fear of reality.

Wegsheider's knowledge and descriptions of COA roles is very pertinent to this study, since her assignation of such roles is based upon the belief that children cope with their environment in distinct patterns. She makes evident that coping styles range drastically from the child who is socially well-integrated and achievement oriented, to the withdrawn child who prefers not to be noticed.

This framework for understanding the family is probably the most frequently referred to piece of literature concerning this topic. Children from alcoholic homes cope differently: some appear as resilient "model children", 
whilst others display detectable symptoms.

Conceivably, some children in this study who identify themselves as COAs could report high coping resource scores (ie. heros), whilst others may indicate scores that deviate below the average (ie. lost child).

**SYSTEMIC ADAPTATION: ALCOHOLISM AS FUNCTIONAL**

Viewing the family through systemic lenses provides one with a unique perception of how things happen. As opposed to the "pathological" perception of individualist models, or the "disease -- personal weakness" orientation of the medical model, systems theory professes that relationships support reality. Complementarily, "problem drinking persists because it has homeostatic systems benefits, thus being constantly (and perhaps unwittingly) reinforced in the family system" (Jacob, Favorini, Meisel, & Anderson, 1978, p.1243).

The literature suggests that "the abuse of alcohol has adaptational consequences"...that are..."sufficiently reinforcing to serve as the primary factors maintaining the habit of drinking..." (Davis, Berenson, Steinglass, & Davis, 1974, p.210). As such, alcohol is credited with changing the structure and organization of the family, and then assuming a functional position so as to ensure that its existence is deemed as necessary by members, which therefore act to protect its survival. Berlin, Davis, and Orenstein
(1988, p. 577) provide the term "centricity of alcoholism" to describe how the problem affects all levels of organization within the family.

Introducing a new element to the family provokes some degree of struggle. Such is the case when an infant is born, when a member dies, or when an individual's role changes (i.e. adolescence), to list few examples. While alcoholism does not present as a "physical" embodiment, its introduction to the system prompts a similar type of change. The paradoxical reality is that once the family has adapted, it fears having to change again, since change conjures feelings of insecurity and disorganization. Minuchin and Fishman, state "systems have inertia that resist change" (1981, p.123). Resultingly, the family becomes organized around maintaining the alcoholic symptoms, since the symptoms are serving the family in a balancing, homeostatic manner.

A case illustration, provided by Jay Haley, describes both the purpose and the manifestation of an alcoholic symptom. He states:

A patient with an alcoholic wife once said that he was a man who liked to have his own way but his wife always won by getting drunk. His wife, who was present in the therapy session, became indignant, and said she won nothing but unhappiness from her involuntary drinking. Yet obviously she did win something by it. In this case she won almost complete control of her relationship with her husband. He could not go where he wanted
because she might drink; he could not antagonize her or upset her because she might drink; he could not leave her alone (unless he could encourage her to pass out) because of what she might do when drunk; and he could not make any plans but let her initiate whatever happened. In other words, she could bring him to heel simply by picking up a glass.

(Haley, 1963, p.15)

RESEARCH ON ALCOHOLISM AND SYSTEMIC ABUSE

Several authors and researchers have contributed to the hypothesis that alcohol use and abuse is associated with child maltreatment and abuse (Burk & Sher, 1988, p.288; McEligigatt, 1986, pp.59-60; NIAAA, 1984, p.4 and p.7; Columbia University, 1984, pp.106-107; Behling, 1979; Birrell and Birrell, 1968). Despite alarming evidence from some studies, authors have exercised caution in suggesting that this relationship is causal. Burk and Sher (1988) attribute this lack of proof as being the result of poorly designed research methodologies.

McEligigatt (1986, pp.58-59), conveys findings from three studies. The first entailed a comparison of personality characteristics among alcoholics and child abusers, and found many similarities. The second stated that in a 1976 study, 49% of incest perpetrators were alcoholic. In the third study, 52% of pedophiles were alcoholic. Interestingly, a review of studies conducted by Columbia University found that, “drinking fathers tend to be abusive rather than neglectful, whereas drinking mothers are
more likely to be neglectful rather than physically abusive" (1984, p.107).

Lastly, it is reported that studies investigating spousal abuse have ranged in findings from 45% to 60% in the association between incidence, and alcoholism (Columbia University, 1984, p.107).

**GENDER ISSUES**

This section addresses how the affects of the problem upon the child vary according to the sex of the parent and the child.

On the island of Kauii, Hawaii, Werner (1986) conducted an eighteen-year longitudinal study of CCAs and control group children. From the data, she identified a group of "resilient" children -- ones who "worked well, played well, loved well, and expected well" (1986, p.36). Apparently, these children were not suffering from the characteristic problems. She concluded that 72.4% of the resilient group was comprised of females, while 70% of the group that did develop problems were males. Only one child within the resilient group was the child of an alcoholic mother. Werner concluded, therefore, that males and the children of alcoholic mothers were more vulnerable than females and the children of alcoholic fathers.

Moreover, Werner claims that children of alcoholic fathers were evenly distributed among those who exhibited
coping problems and those who did not, but more significantly, she noted that "most of the offspring of alcoholic mothers had developed serious psychosocial problems by age 18" (1986, p.36).

Werner, a psychologist affiliated with the University of California, suggests two reasons why children of alcoholic mothers appeared as most vulnerable. First, a proportion of the "problem-group" were children affected by fetal alcohol syndrome, a condition innately associated with myriad difficulties. Secondly, it is believed with firm conviction that alcoholic mothers who were primary caretakers were not "accessible" to the same extent as non-alcoholic mothers. Sons of alcoholic mothers fared worst out of the four possible categories (1986, p.37).

Hecht (1973, p.1765), speaks of gender differences from the standpoint of role playing and role attainment. Through identification, he comments, male children may learn dysfunctional attributes from the characteristically passive and uninvolved father, who may also be impulsive and violent. Daughters seeking to identify with mother experience first-hand the changes in mother’s moods, and the disorganization that parallels her bouts with drinking. A number of authors have commented on the quality of role modelling that is available for these children (Gravitz and Bowden, 1984; Miller and Jang, 1977; Orford, 1976).
RESPONDING TO STRESS: COPING PROCESSES

"Beginning in infancy, individuals are confronted with a stream of potentially threatening and challenging situations that require action and adaptation" (Compas, 1987, p. 393). The reason for such response is that stress-related feelings accompany what is happening in the environment, and people usually have a desire to reduce those feelings.

Baum and Singer (1982, p. 309), define stress as, "that process by which environmental events, or stressors, threaten an organism's existence and well-being and by which the organism responds to this threat." Explicit in this definition, is that people react to the external influence, or stressor, in an attempt to protect themselves from the perceived damage the stressor will incur if their relationship with the stressor remains unchanged.

"Stressors can be considered to be any environmental event or psychological representation of such an event that may be perceived as threatening" (Baum & Singer, 1982, p. 312). A few examples of stressors include: conflict between oneself and another; observing conflict between others; physical danger; being confronted with unrealistic expectations; and the feelings connected predicted or expected event. The alcoholic environment is saturated with circumstances that reflect these examples. It is not surprising therefore, that the literature consistently
supports the fact that children from alcoholic families encounter higher levels of stress than other children (Roosa et al., 1988; Ackerman, 1987; Glenn & Parsons, 1989).

As stated, most people attempt to respond to a demanding or frightening situation in a manner which will alleviate the impact of the stressor upon them. While there are myriad means of reacting, the process itself is referred to as coping, which Compas (1987, p.393) defines as, "any and all responses made by an individual who encounters a potentially harmful outcome". Lazarus and Folkman (1984, p.141) add clarification to this definition, and state that when people are, "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", they are coping. People respond to stressors, then, in a manner characterized as being effortful and intentional.

The coping process is comprised of stages. The individual must first identify of the affect (eg. anxiety; challenge; fear) of the stressor. Secondly, the source of the anxiety, which is the stressor, must be identified. This is followed by self-evaluation, which the person performs to assess internal resources which might be effective changing the nature of the stressor. Finally, strategic action is taken, if that is the chosen behaviour.
Coping is an overt reflection of an individual's internal system of coping resources. Since this researcher is investigating coping resources, some description of this concept is necessary at this point.

Coping resources are "those aspects of the self and the social environment that facilitate or make possible successful adaptation to stress" (Compas, 1987, p. 394, italics added). Hammer and Marting (1988, p. 3) clarify the functional aspect of resources when they state that "coping resources are those resources inherent in individuals that enable them to handle stressors more effectively, to experience fewer or less intense symptoms upon exposure to a stressor, or to recover faster from exposure."

Wheaton (1983, p. 3), denotes that one must differentiate between the terms "resources" and "strategies", since the two have been used synonymously by some authors and researchers. Wheaton elucidates that "resources act as precursors of behaviour, while strategies refer to actual emphases and choices in behaviour" (Wheaton, 1983, p. 222).

The question which prevails at this point is: how are coping resources an indication of psychological health? The simplest response would consider that resources are quantifiable (Hammer and Marting, 1988), and also, that higher quantities and usage of resources are believed to be
associated with more adept coping (Hammer and Marting, 1988). Additional authors have indicated support for this notion. Kessler and Essex (1982, p.491), for instance, state that "there is good theoretical reason to believe that these resources help ameliorate the emotional damage that can result from stressful experiences", when discussing two such resources. Kessler (1979) asserted that fewer resources are indicative of heightened susceptibility. Several authors have made reference to the apparent resilience to stress and strain that is displayed by individuals with high levels of resources (Kessler and Essex, 1982; Compas, 1987; Hammer and Marting, 1988).

The previous paragraph illustrated that coping resources vary depending upon the individual, and also, that resources are things which are objective, quantifiable, and therefore, amenable to measurement.

There are certain "precautions" which warrant consideration whereupon resources are actually going to be measured. The most significant of which is based upon earlier mention that children do not exist in a vacuum, but within a relational environment. Leiderman (1983), makes explicit that the child’s social context must be considered alongside any attempts to understand coping resources. Compas (1987, p.394) reinforces this statement, and adds that "adaptive coping cannot be characterized by a description of the individual’s skills or resources alone,
but instead lies in the relation between the child and the environment", and further, that "research investigating coping during childhood must account for the environmental context in which the stressful episode occurs".

**OVERVIEW OF PAST RESEARCH USING THE CAST AND THE CRI**

**Prior Studies Using the CAST**

The CAST Test Manual (Jones, 1991) lists 77 studies in which the CAST has been administered.

Pilat and Jones (1984) administered the CAST to 174 students in grades 10 through 12. They concluded that 27% of the sample were COAs.

Dinning and Berk (1989), studied grade 11 students (n = 494) in five Nova Scotian secondary schools. While they did not assess the actual prevalence of COAs, they did conclude that females scored higher on the CAST than males. They also found that the mean number of yes responses on the CAST was 3.7. Comparatively, the CAST manual states that the mean from one adolescent control group was 3.6 (Jones, 1991).

Roosa, Sandler, Beals, and Short (1988) conducted a study among 208 grade 9 and grade 12 students. These researchers used more stringent criteria for identifying COAs than is suggested in the CAST manual (they required each COA to state that they have perceived either their father or mother as being alcoholic). They identified 18%
of the sample population as children from alcoholic families.

Prior Studies Using the CRI

Zeidner and Hammer (1990), studied 108 junior high school students, and found that females scored significantly ($p < .001$) higher than males on the CRI. Gender differences were most evident in the emotional and social domains.

In a second study, high school peer counsellors were compared to other students. It was found that the counsellors had higher resource scores on the cognitive ($p < .01$), social ($p < .001$), emotional ($p < .01$), spiritual/philosophical ($p < .01$) and total resource scales ($p < .01$) (Hammer and Marting, 1988).

**SUMMARY**

This review has introduced the alcoholic environment, described the child's interaction with the family, and summarized significant concepts related to coping and coping resources. In the next chapter, entitled Methodology, the researcher will present the problem formulation that evolved from this review of the literature, and discuss the structural aspects of the study to be conducted.
CHAPTER III
RESEARCH DESIGN AND METHODOLOGY

This chapter will address the structural and theoretical dimensions pertaining to the data collection aspect of this project. Beginning with the problem formulation, the researcher will proceed by discussing research questions which will guide this study. Subsequent sections will consider the research design classification, sampling techniques, and the participant population. Operational definitions will supplement these sections.

Particular attention will be devoted to discussing the instrumentation. Both questionnaires will be delineated in relation to their purpose, history of implementation, validity and reliability, among other issues. Next, data analysis techniques will be introduced, and the limitations of this study will be made explicit.

The researcher will conclude this chapter by recounting the stages in the data collection process, and stating how this study was deemed valuable to the school system.
PROBLEM FORMULATION

Investigating the prevalence of COAs within a specific child population is considered central in this project. Although previous research has studied this aspect, local statistics are unavailable. Beyond the attainment of this percentage, identifying a specific group of COAs will enable comparative analyses to be performed with groups of non-COAs and children of problem drinkers.

The characteristic symptoms displayed by children from alcoholic families are well-documented. Such symptoms reflect the dysfunctional structure of the family, and the child's struggles to cope. Since coping resources are understood as playing a mediating role between environmental stress and the actual coping responses in the coping process, it is imperative that their presence, absence and variation be recognized. Compas (1987), states that research investigating coping during childhood must account for the environmental context in which the stressful episode occurs (including both the nature of the stressor and the availability of resources for coping), the individual's developmental level, the personal resources the individual brings to the situation, the prior history and preferred ways of coping, and the actual coping responses (p.384).

This project seeks to comply with these recommendations by: a) selecting a group on the basis of its unique environment, b) collecting information about the environment,
c) respecting the developmental level of the participants,

d) measuring the existence of coping resources,

e) gathering information about past responses to the environment.

The Children of Alcoholics Screening Test (Jones, 1983) has not previously been administered in conjunction with the Coping Resources Inventory (Hammer and Marting, 1988), according to Michael Lavelli, President of Camelot Unlimited, the publisher of the CAST (personal conversation, December 20, 1991). Unable to locate any study that had focused or partially focused upon coping resources among COAs, the researcher concluded that this topic deserved attention.

This study seeks to understand the alcoholic environment. The literature has revealed many issues that characterize these families. This study will solicit descriptive information about these families through the children, and quantify the extent of such happenings. Succinctly, this researcher seeks to discover the prevailing issues among children of alcoholic parents.

Conclusions from past research that examined gender differences were instrumental in this researcher's decision
to pursue similar investigations. There is evidence to believe that males and females are affected differently, and thereby respond in dissimilar ways to their circumstances. Moreover, some authors suggest that the gender of the alcoholic is a factor when considering the affects upon the child. In the area of coping resources, Hammer and Marting (1988) found evidence that females exhibit a higher quantity of coping resources. The present study will consider each of these relationships, and combinations thereof, which are detailed in the next section.

Options for analyzing data of this type are limitless. To ensure that this study progresses in a focused and intentional manner, a number of research questions have been developed. The most effective means of understanding the direction of this study is through consideration of these questions.

**RESEARCH QUESTIONS**

**Primary Questions**

The following questions were developed out of the literature review, and are considered the most significant questions guiding this study:

1) What is the prevalence of children of alcoholics within one secondary school population?

2) To what extent do coping resources among COAs differ from non-COAs, and in what respects do they differ?
Secondary Questions

The composition of both instruments enabled this researcher to formulate secondary research questions. Specifically, these additional areas for investigation include:

3)  a) What is the ratio of males to females in the COA group?
    b) Do gender groups differ in their raw CAST scores and CRI scores?

4)  a) Is there a relationship between the gender of the alcoholic parent and CAST scores, and secondarily, CRI scores?

5)  What is the frequency of response to each CAST item among COAs?

6)  Additional questions directly related to the CAST:
    a) How have they responded, in behavioural terms?
    b) What are the emotional implications of the alcoholic environment?
    c) What are the social implications of this environment?
    d) How do they perceive their family, in cognitive terms?

7)  To what extent is conflict and violence present in alcoholic families, and how is it associated with CRI scores?

OPERATIONAL DEFINITIONS

For the purpose of this study, the child of an alcoholic is defined as: an individual aged seventeen or younger who is living, or has lived, with at least one alcoholic parent, as identified by the CAST.
Coping resources are defined as "those resources inherent in individuals that enable them to handle stressors more effectively, to experience fewer or less intense symptoms upon exposure to a stressor, or to recover faster from exposure", as measured by the CRI (Hammer and Marting, 1988, p.3).

**DESIGN CLASSIFICATION**

Inherently, efforts to classify research designs are dependent upon the purpose(s) of the study. As indicated by the research questions, this study was developed to obtain quantitative data which would enable descriptive statements to be formulated about children of alcoholics. This study is quantitative-descriptive. Tripodi, Fellin and Meyer (1983, p.31), however, provide three criteria for such studies:

a) that the study may not be classified "experimental"

b) that the study investigates variables which are measurable; and,

c) that in regard to seeking knowledge, it either tests hypotheses, or as in the case of the present study, it accurately describes quantitative relationships among variables.

This study conforms to these criteria. Of the several sub-types identified by Tripodi et al. (1983), the
population description sub-type most characterizes this study. The authors state that such studies frequently use survey methods in investigating the "quantitative characteristics of selected populations, organizations, or other collectives" (1983, p.34).

RESEARCH SETTING AND SAMPLING PROCEDURES

Several authors have indicated that schools provide an excellent means of identifying children of alcoholics (McElligott, 1986; Stark, 1987; NIADA, 1984 & 1986; Pilat & Jones, 1984). Therefore, grade nine and ten students from one inner-city secondary school were selected for this project. This choice was based upon the fact that a school is a specific population, and hence, would enable a precise figure concerning the prevalence within that population. The two grade levels were selected as cross-sectional representatives of the larger school population.

Since efforts were not made to compose a random sample, nonprobability sampling procedures were employed. Reid and Smith (1989) comment that this method is popular because it can be conveniently performed, and is financially economical.

More specifically, this researcher used purposive nonprobability sampling techniques. Rubin and Babbie (1999) state that this sub-classification is appropriate when the study has included a subset of a large population, and that
the subset provided an easy means of identifying targeted individuals. Such is the case for the present study, since the school was the population, grade nine and ten classes served as the subset, and COAs were identified from within that subset.

**INSTRUMENTATION**

The Children of Alcoholics Screening Test (CAST)

Developed by John Jones (1983), the CAST is comprised of thirty, "yes or no" style items "that measure children's attitudes, feelings, perceptions, and experiences related to their parents' drinking behaviour" (Jones, 1991, p.5). Children aged nine or older can complete the CAST in under ten minutes.

Repeated studies have proven that if a child answers "yes" to six or more items, then he or she is very likely to be the child of an alcoholic. Participants who respond similarly to between two and five items are perceived as living with a problem drinker, while those answering "yes" to only one (or zero) questions are classified as children of non-alcoholics (Pilat & Jones, 1984, p.30).

Since published, the CAST has accumulated an impressive history of administrations to population groups of diverse age, status and occupation.
Authorized permission to copy, administer, and score the CAST was obtained from Camelot Unlimited, a Chicago based organization. Camelot Unlimited also allowed this researcher to include a copy of the CAST, found in Appendix B.

Reliability

The CAST Test Manual (Jones, 1991) discusses three instances when reliability has been tested. In each situation, a co-efficient of .98 was computed as a result of the Spearman-Brown split-half method. This statistical technique, which separates the odd and even items and then correlates the two scores (Jaeger, 1990), was performed on data from samples of latency aged, adolescent, and adult participants.

Validity

An instrument claimed to have high validity is one that measures what it purports to measure (Jaeger, 1990, p.384). In two studies, Jones (1991, p.10) used the method of contrasted groups, and chi-square analysis, and was able to conclude that the CAST "significantly discriminated children of alcoholics from the control group". Moreover, he computed scores from two COA groups and achieved a validity co-efficient of .78 (p < .0001).
The Coping Resources Inventory (CRI)

Comprised of sixty items, the CRI measures an individual's coping resources in five domains: cognitive; social; spiritual/philosophical; emotional; and, physical.

Specific examples (Hammer and Marting, 1988) of CRI items for each category include:

a) cognitive - "I feel as worthwhile as anyone else."

b) social - "I initiate contact with people."

c) emotional - "I say what I need or want without making excuses or dropping hints."

d) spiritual/philosophical - "I can make sense out of my world."

e) physical - "I exercise vigorously 3-4 times a week."

Participants are asked to respond in a manner that indicates how frequently they use a particular resource in their lifestyle. The frequency continuum is a four-point scale ranging from "never or rarely" to "always or almost always."

The developers state that high CRI scores are indicative of higher resources, which are believed to be associated with more adept coping.

Reliability

The CRI manual states that three techniques have been applied to data for testing reliability. First, item-to-
scale correlations produced a mean median of .43, and a
total instrument correlation of .39, indicating moderate
homogeneity. Second, in regard to internal consistency
Cronbach's alpha was found to range from .89 to .94.
Finally, test-retest data from one study conducted in six
week intervals, among high school students, attained a
correlation of .73, indicating "reasonable consistency"
(Hammer and Marting, 1988, p.13).

Validity
Since the essence of coping-type instrumentation is in
its capacity to "predict symptoms of stress over time"
(Hammer and Marting, 1988, p.15), the developers state that
"individual coping resources accounted for a significant
amount of incremental variance" in two studies (eg., 46% and
30%), and furthermore, that the cognitive and physical
scales had the strongest univariate predictions.
Statistics describing convergent validity (a process
where actual scores are compared to self-rated scores),
indicate a lower coefficient of .81 for
spiritual/philosophical, and an upper coefficient of .80 for
physical resources.

Permission to administer and score the CRI has been
obtained from Consulting Psychologists Press, of Palo Alto,
California. Unfortunately, such permission does not entitle
the researcher to include a copy of this instrument in the Appendix.

**DATA ANALYSIS**

Initial efforts to examine the data will consist of univariate analysis. Descriptive statistics, such as frequency distribution, central tendency, and dispersion will predominate. Concerning the CAST, particular attention will be paid to identifying the most common responses.

Prior to bivariate analysis the researcher will formulate new variables from the data, since both instruments become functional only when some type of total score is computed from raw scores. For the CAST, each individual will be placed into one of three mutually exclusive groups:

a) child of an alcoholic (6 or greater "yes" responses/30),
b) child of a problem drinker (2-5 "yes" responses/30),
c) non-child of an alcoholic (0-1 "yes" responses/30).

Responses from the CRI will be manipulated somewhat differently. In accordance with the developers' instructions, a score will be produced for each coping domain. The following is a list of the domains, accompanied by the number of items each domain occupies within the total
instrument (note: total CRI items = 60): cognitive (9),
social (13), emotional (16), spiritual/philosophical (11),
physical (11). Total CRI scores are obtained by summing the
five domain scores. Six items will be reverse scored, as
per instructions.

Bivariate analyses will be performed in accordance with
the ordinal nature of the dependent variables -- the CRI
scores. Nonparametric tests to be employed include the chi-
square test and the median test. To a lesser extent, the
Kolmogorov-Smirnov test, and the Wald-Wolfowitz runs test
will also be used. The purpose and applicability of these
test will be discussed at the point of their initial usage
in the Data Analysis chapter.

The Coping Resources Inventory manual makes explicit
that parametric tests are effective in examining data which
is obtained by the instrument. Specifically, means and
standard deviations can yield an understanding of the data
in relation to a continual numeric scale. The developers of
the instrument rely upon the t-test as an inferential method
for analysis.

The "box and whisker plot" will be utilized to
complement findings. The unique nature of this graph will
be described upon its initial use, in the Data Analysis
chapter.

Statistical relationships will be judged for
significance on a confidence level of .05 (p = .05). Findings which exhibit a probability value of less than .05 will be deemed statistically significant, while those greater than .05 will be deemed not significant.

**STUDY LIMITATIONS**

Researchers utilizing nonprobability sampling techniques do not obtain a sample population which is statistically representative of a larger population. This researcher selected one, urban secondary school from which to obtain data. Grinnell (1988, p.215) refers to this threat to external validity as the "differential selection of subjects". Caution must therefore be exercised when generalizing the research findings beyond the study conditions (Rubin and Babbie, 1989).

The researcher ensured that all students who were approached for participation were aware of their voluntary status. Those who were interested needed to obtain parental consent. Therefore, some students did not participate in this study due to their own preferences, and others, because of parental decisions.

Participants were not informed about the specific nature of this study until they were presented with the questionnaires. This was due to the researcher's desire to elicit immediate responses, as opposed to preconceived, and
perhaps less accurate responses. It was also believed that students of alcoholic parents would likely be hesitant in presenting the parent with an explicit letter. Moreover, it was believed that alcoholic parents might deny their child an opportunity for such participation. Therefore, some adolescents may have declined the opportunity to participate due to the ambiguity of this researcher's initial request.

In isolation each questionnaire appears to be valid and reliable, but they have no prior history of parallel administration. Since all instruments evoke some degree of affective response in participants, the order of every second "instrument package" was reversed. Participants were instructed to complete whichever questionnaire was "on top", first. This measure compensates for serial affects (eg., depression following many "yes" responses to the CAST) in questionnaire completion.

RESEARCH PLAN AND DATA COLLECTION

Conducting research within the school system necessitated planning and organization. The initial phase in this process involved submitting and presenting a proposal to the research review committee of the school board for approval. The purpose of the said committee is to ensure such studies are ethical and of benefit to the educational system.
Accompanied by two assistants, this researcher entered nineteen grade nine and grade ten classrooms to introduce the study, discuss the purpose, and, distribute parental information and consent letters (see Appendix A). English Second Language (ESL) classrooms were not included, since the CRI contains philosophical-type questions that demand at least grade 9 proficiency.

In nineteen classrooms, 356 parental consent and information letters were distributed. Six additional students, absent from these classes, obtained such letters from staff in the guidance office. The collective population of 19 classrooms was 380 at the time of the study.

Of 362, there were 106 students who returned signed parental consent letters. In this phase, therefore, 29% of the students indicated their intent to participate through returned letters.

The date of administration was one week post-classroom introduction to the study. Students were afforded four school days to return letters, and the study was conducted on the following Monday. On this date, 99 student's completed questionnaires in one of two administration sessions. It was assumed that the remaining seven students, who did not attend but had permission, were either absent or no longer interested.
On the date of the study, each teacher was provided with a list of those students who had returned signed parental consent forms, to the guidance office. In addition, teachers provided students with individualized "pink slips" to gain access into the research environment: the cafeteria. This procedure was used to regulate entrants who had not obtained parental consent, and also, to monitor attendance, since the school is responsible for each student and must be aware of absences. Four students presented signed consents at the time of the study, and were admitted.

Questionnaires were completed in two sessions: grade nine students during period one; grade ten students during period two. Participants were afforded ample space in the cafeteria, which was considered necessary to encourage accurate responses, as opposed to peer-approving responses. Anonymity all participants was respected: students were instructed not to indicate their name on any data collection instrument.

Prior to each session, this researcher gave brief verbal instructions. To minimize the affect of researcher influence upon participant responses, students were asked to complete each question as they interpreted it. The researcher and his two assistants were available for "general" questions, since the answer sheet to the Coping
Resources Inventory can be misleading, despite instructions.

Participants were allotted approximately twenty minutes to complete both instruments, at which time a brief "de-briefing" was provided. De-briefing served to normalize the depressing affect which such questionnaires can have upon participants. Information about relevant community resources complemented this phase. Upon departure, participants received a one page description of "what happened", for their parents. A copy of this letter is provided in Appendix A.

Following the data collection, teachers were contacted about an additional follow-up session. For those six teachers who expressed interest, this researcher re-entered classrooms to address a more detailed purpose of the study, issues associated with familial alcoholism, coping, self-awareness, and community resources.

**BENEFITS OF RESEARCH FOR THE EDUCATIONAL SYSTEM**

This researcher believes that the findings of the present study will be useful to the school system, by providing:

a) an empirical basis for future program development.

b) demographic statistics of the student body.
c) increased understanding of a significant social problem affecting the student body.

d) information which could be used in life skills education.

Aside from assisting the larger system, the research process contributed to the welfare of participants. Since completing questionnaires of this nature is a form of therapeutic intervention, and further, because the researcher provided follow-up educational sessions, students were believed to benefit in the following ways:

a) increased self-awareness concerning a significant social issue.

b) education regarding how to use their own resources to help a peer.

c) information regarding community services and resources.

d) comforting messages to COAs that they are not alone, or "abnormal".

e) opportunity to participate in a unique experience.

**SUMMARY**

This chapter has presented the theoretical and structural framework for the study. The following chapter, entitled "Data Analysis", will present the findings of the study.
CHAPTER IV
DATA ANALYSIS

This chapter presents findings from the data collected through the Children of Alcoholics Screening Test (CAST; Jones, 1983), and the Coping Resources Inventory (CRI; Hammer and Marting, 1988). As introduced in the Methodology, several techniques for examining the data will be utilized, and are presented in the sections to follow.

DEMOGRAPHIC CHARACTERISTICS

Ninety-nine students participated in this study. However, since five students were beyond age 17, their questionnaires were not included in the analysis. The final population sample included 94 grade 9 and grade 10 classroom students.

Grade

Fifty-three participants were from grade 9 classrooms. As the population of grade 9 classes selected for this study was 192, the grade 9 sample was a 27.6% representation.

There were 41 grade 10 participants who volunteered for the study. They formed a group which was a 21.8% sample of
the 188 students in grade 10 classes selected for this study.

**Age**

Participants ranged in age from 13 \((n = 2)\) to 17 \((n = 5)\). As shown in Table 1, the modal age was 15 \((n = 40)\). Similarly, the mean and median age was also found to be 15. Since these three measures of central tendency identified the same age interval, it can be said that age was normally distributed.

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>2</td>
<td>2.1</td>
</tr>
<tr>
<td>14</td>
<td>25</td>
<td>26.6</td>
</tr>
<tr>
<td>15</td>
<td>40</td>
<td>42.6</td>
</tr>
<tr>
<td>16</td>
<td>22</td>
<td>23.4</td>
</tr>
<tr>
<td>17</td>
<td>5</td>
<td>5.3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>N = 94</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Gender**

A relatively equal number of males \((n = 48)\) and females \((n = 46)\) participated in the study, as they comprised 51.1% and 48.9% of the sample population, respectively. Table 2 summarizes this information.

Of the grade 9 and 10 classes involved, the proportion
of males and females was 55.6% and 44.4%, respectively. School personnel reported that the school itself was 43.9% female and 56.1% male. Precisely, there were 437 females and 558 males within the 995 member school.

Table 2: Frequency Distribution According to Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>48</td>
<td>51.1</td>
</tr>
<tr>
<td>Female</td>
<td>46</td>
<td>48.9</td>
</tr>
<tr>
<td>TOTAL</td>
<td>N = 94</td>
<td>100.0</td>
</tr>
</tbody>
</table>

THE CHILDREN OF ALCOHOLICS SCREENING TEST

The CAST asked participants to respond to thirty "yes" or "no" style items about parental alcohol use in their home.

Prevalence of Children of Alcoholics

This section addresses research question 1, which asked, "what is the prevalence of children of alcoholics within one secondary school population?"

In accordance with CAST criteria (Jones, 1991), 29.8% (n = 28) of the sample were identified as children from alcoholic families, and an additional 3.8% (n = 13) were identified as children of problem drinkers. Combined, these figures demonstrate that almost half (43.6%) of the children
are exposed to family conditions where alcohol use is a problem. The remaining 56.4% (n = 53) of sample were classified as non-COAs. Table 3, below, summarizes these results.

Table 3: Prevalence of Children of Alcoholics

<table>
<thead>
<tr>
<th>CAST Group</th>
<th>CASI Score</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children of Non-Alcoholics</td>
<td>0 - 1</td>
<td>53</td>
<td>56.4</td>
</tr>
<tr>
<td>Children of Problem Drinkers</td>
<td>2 - 5</td>
<td>13</td>
<td>13.8</td>
</tr>
<tr>
<td>Children of Alcoholics</td>
<td>≥ 6</td>
<td>28</td>
<td>29.8</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>N = 94</strong></td>
<td></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Understanding the experiences of COAs necessitates reference to the CAST. The next portion of this analysis consists of examining the most common issues defined by self-identified COAs.

**Frequency of Issues Disclosed by COAs**

This section responds to the research question 5, which queried about the frequency of COA responses to each of the CAST items. The percentages discussed in this section refer to the proportion of COAs (n = 28) that answered "yes" to each question.
One item obtained a yes response from 93% \((n = 28)\) of COAs. The question asked whether participants ever wished that a parent would stop drinking. This response rate is indicative of the COA experience: they disfavour the presence of alcohol.

Two CAST items shared the rank as second most frequent in occurrence. The first of which, asked whether the participant ever thought a parent had a drinking problem, and the second, asked if the child had ever heard parents fight when one was drunk. Both items received a yes from 82% \((n = 23)\) of the COA group.

The item which asked about paternal alcohol usage was also prominent among COAs. Twenty \((71.4\%)\) of the 28 self-identified COAs indicated that they thought that their father might be an alcoholic.

The fourth most common item measured resentment. Nineteen members of the group \((67.9\%)\) claimed that they have experienced such feelings about parental drinking.

Some intriguing information evolved from the four CAST items which tied as fifth in frequency. According to 64.2% \((n = 18)\) of the COA group, they have: encouraged a parent to stop drinking, argued or fought with a parent who was
drinking, protected another family member from a parent who was drinking, and worried about a parent's health because of their drinking. These items reflect cognitive, affective and behavioural dimensions of the experience.

Two further items also tied in frequency of response. The first, asked members if they had ever lost sleep due to a parent's alcohol use. The second, found that the drinking parent has yelled at, or hit family members when under the influence of alcohol. Sixteen (57.14%) indicated that such events have happened.

Table 4 summarizes how COAs responded to the CAST. Items are grouped, ranked, and listed in declining frequency.
Table 4: Frequency of CAST Items Among COAs

<table>
<thead>
<tr>
<th>Question (Summarized)</th>
<th>Rank</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wishes parent would stop drinking</td>
<td>1</td>
<td>26</td>
<td>92.9</td>
</tr>
<tr>
<td>Has thought one parent has drinking problem</td>
<td>2</td>
<td>23</td>
<td>82.1</td>
</tr>
<tr>
<td>Heard parents fight when one was drunk</td>
<td>2</td>
<td>23</td>
<td>82.1</td>
</tr>
<tr>
<td>Perceives father as an alcoholic</td>
<td>3</td>
<td>20</td>
<td>71.4</td>
</tr>
<tr>
<td>Has resented parent’s drinking</td>
<td>4</td>
<td>19</td>
<td>67.9</td>
</tr>
<tr>
<td>Has encouraged parent to quit drinking</td>
<td>5</td>
<td>18</td>
<td>64.3</td>
</tr>
<tr>
<td>Has argued or fought with drinking parent</td>
<td>5</td>
<td>18</td>
<td>64.3</td>
</tr>
<tr>
<td>Has protected a family member from parent</td>
<td>5</td>
<td>18</td>
<td>64.3</td>
</tr>
<tr>
<td>Worried about parent’s health re: drinking</td>
<td>5</td>
<td>18</td>
<td>64.3</td>
</tr>
<tr>
<td>Has lost sleep due to parental drinking</td>
<td>6</td>
<td>16</td>
<td>57.1</td>
</tr>
<tr>
<td>Parent has yelled/hit members when drinking</td>
<td>6</td>
<td>16</td>
<td>57.1</td>
</tr>
<tr>
<td>Has felt like hiding/emptying parent’s liquor</td>
<td>7</td>
<td>15</td>
<td>53.8</td>
</tr>
<tr>
<td>Parent has broken promises, due to drinking</td>
<td>8</td>
<td>13</td>
<td>48.4</td>
</tr>
<tr>
<td>Has felt alone, scared, frustrated etc, because parent could not stop drinking</td>
<td>9</td>
<td>12</td>
<td>42.9</td>
</tr>
<tr>
<td>Has felt caught in middle of fight between drinking parent and other parent.</td>
<td>9</td>
<td>12</td>
<td>42.9</td>
</tr>
<tr>
<td>Has delayed coming home due to drinking</td>
<td>9</td>
<td>12</td>
<td>42.9</td>
</tr>
<tr>
<td>Has felt sick, cried, had knot in stomach, because of worrying about parent’s drinking</td>
<td>9</td>
<td>12</td>
<td>42.9</td>
</tr>
<tr>
<td>Has feared parental divorce due to drinking</td>
<td>10</td>
<td>10</td>
<td>35.7</td>
</tr>
<tr>
<td>Has wished their home would be like friend’s</td>
<td>10</td>
<td>10</td>
<td>35.7</td>
</tr>
<tr>
<td>Has performed parental duties</td>
<td>10</td>
<td>10</td>
<td>35.7</td>
</tr>
</tbody>
</table>

Note: Percentages refer to proportion of COA within-group responses.
Table 4 (con't): Frequency of CAST Items Among COAs

<table>
<thead>
<tr>
<th>Question (Summarized)</th>
<th>Rank</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has felt lack of love from drinking parent</td>
<td>11</td>
<td>9</td>
<td>32.1</td>
</tr>
<tr>
<td>Has wished to talk to someone/seek help</td>
<td>11</td>
<td>9</td>
<td>32.1</td>
</tr>
<tr>
<td>Social avoidance because of embarrassment/shame</td>
<td>12</td>
<td>8</td>
<td>26.6</td>
</tr>
<tr>
<td>from parent’s drinking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognitively pre-occupied with parent’s drinking</td>
<td>13</td>
<td>8</td>
<td>21.4</td>
</tr>
<tr>
<td>Has fought with siblings re: parent’s drinking</td>
<td>13</td>
<td>6</td>
<td>21.4</td>
</tr>
<tr>
<td>Has threatened to run-away due to drinking</td>
<td>14</td>
<td>5</td>
<td>17.9</td>
</tr>
<tr>
<td>Perceives mother as being alcoholic</td>
<td>14</td>
<td>5</td>
<td>17.9</td>
</tr>
<tr>
<td>Has been blamed for parental drinking</td>
<td>14</td>
<td>5</td>
<td>17.9</td>
</tr>
<tr>
<td>Child feels they have made parent drink</td>
<td>15</td>
<td>4</td>
<td>14.3</td>
</tr>
<tr>
<td>Has felt responsible/guilty for the drinking</td>
<td>16</td>
<td>2</td>
<td>7.1</td>
</tr>
</tbody>
</table>

Note: Percentages refer to proportion of COA within-group responses.

Of further interest, are the two CAST items that received the lowest frequency of response from COAs. One asked children if they ever felt that they were the cause of parental drinking (n = 4), while the other asked if they have ever felt responsible and guilty about parental drinking (n = 2). These issues are closely intertwined, and both received minimal attention.

Self-Identification According to Gender

This section addresses research question 3a, which asked about the ratio of males to females in the COA group.
There were 14 males and an identical number of females who identified themselves as COAs. In consideration of the relatively equal number of male (n = 48) and female (n = 48) participants, this study identified a paralleling proportion of COAs according to gender. An almost equal distribution was also found in the children of problem drinkers group, and the non-COA group. Table 5 summarizes the distribution of males and females according to CAST groupings.

Table 5: Comparison of CAST Groups According to Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>COA</th>
<th>Non-COA</th>
<th>Problem Drinker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>14</td>
<td>27</td>
<td>7</td>
</tr>
<tr>
<td>Female</td>
<td>14</td>
<td>27</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>n = 28</td>
<td>n = 54</td>
<td>n = 13</td>
</tr>
</tbody>
</table>

Gender of the Child and Alcoholic Parent as Factors in Raw CAST Scores

This section addresses the CAST component of research question 3b, which asked if gender groups would differ in their raw CAST scores, and 4b, which asked if the gender of the parent would be associated with CAST scores.

Grouping participants according to "yes" responses on the CAST was effective to an extent, in that 28 COAs were
identified. This process, however, did not account for any variation in raw CAST scores once an individual had been classified in the COA category.

When raw scores for the COA group were examined according to gender, clear differences emerged. Fourteen females provided a total of 225 "yes" answers to CAST items, while 14 males responded similarly to only 155 items. To examine this phenomenon more accurately, a t-test was performed, and the results indicate that $t(26) = -2.38, p = .025$. As the probability in this association is less than .05, this finding is statistically significant. Table 6 elucidates this information.

This finding permitted the researcher to retain the original hypothesis, that gender would be associated with raw CAST scores. Moreover, since the level of significance from the t-test was found to be .025, it can be said that female COAs scored significantly higher than males COAs on the CAST. Directional conclusions, such as this one, are permissible when the significance level ($p$) is less than or equal to one half of the confidence level, which in this study is .05.
Table 6: Gender Differences in Frequency of CAST Responses

<table>
<thead>
<tr>
<th>Sex</th>
<th>n</th>
<th>( \Sigma ) CAST &quot;yes&quot;</th>
<th>Means</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>14</td>
<td>225</td>
<td>16.07</td>
<td>6.12</td>
</tr>
<tr>
<td>Males</td>
<td>14</td>
<td>155</td>
<td>11.07</td>
<td>4.92</td>
</tr>
</tbody>
</table>

Note. \( \Sigma = \text{sum of...} \)

Also of interest, is the differences that appear between standard deviations. Aside from the fact that this measure of variance is 1.198 higher for females than males, one should also note that the entirety of this variance is found within the upper extent of the score range, since both groups were formed on the basis of their minimum score of six on the CAST. This evidences that females scored higher, and they scored higher more frequently. To aid in the conceptualization of this occurrence, a box plot is provided in Figure 1.
This graph displays the distribution of values within one variable. The SPSS/PC+ manual (Norusis, 1990, pp. 143-146) indicates that this type of graph summarizes information, by displaying the highs, lows, medians (*), and ranges of scores.

Norusis (1990), states that each box contains the interquartile range of scores, which are those scores between the 25th and 75th percentiles. Whiskers extending beneath the box display the lower 25th percentile, and the whisker above the box shows scores between the 75th and 100th percentiles.

When appropriate, the graph displays scores that are distantly outside of the box. Scores which are between 1.5 and 3 box lengths from the box are displayed as "(O)", which means "outlier". Scores further than 3 box lengths away are indicated with an "E", meaning "extreme". Since SPSS specifies the case number of each outlier and extreme, this researcher was able to check the computer data and questionnaires to ensure accurate coding and the possibility of an inappropriately completed instrument (i.e., fake good or bad). One questionnaire was discarded prior to data entry -- an individual 18 years of age who answered yes to every CAST question, and "1" to every CRI item.
When examined "from a distance", there is minimal difference in the means of CAST scores between children of alcoholic mothers (n = 5) and alcoholic fathers (n = 20). (Note: Only 25 CAST questionnaires were used for this analysis because 3 COAs did not indicate the gender of the alcoholic). Children of alcoholic fathers had a mean score of 15.05, while children of alcoholic mothers had a mean score of 16.00. Standard deviations between groups varied slightly, by 0.294, and an analysis of means showed that $t(23) = -0.32$, $p = .75$.

Advancing the analysis to consider the gender of parents and children, the two males living with an alcoholic mother had a mean of 13.5, while the eight males of alcoholic fathers produced a mean of 11.38. Female scores remained relatively stable under maternal and paternal alcoholism, but standard deviations diverged markedly. Table 7 displays detailed information. Unfortunately, small sample sizes inhibited this researcher from investigating statistical associations between each of the four groups in Table 7.
Table 7: Raw Cast Scores According to Gender of Participants and Gender of Alcoholic Parents

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Means</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With father</td>
<td>8</td>
<td>11.38</td>
<td>5.10</td>
</tr>
<tr>
<td>*With mother</td>
<td>2</td>
<td>13.50</td>
<td>2.12</td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With father</td>
<td>12</td>
<td>17.50</td>
<td>5.32</td>
</tr>
<tr>
<td>*With mother</td>
<td>3</td>
<td>17.67</td>
<td>8.08</td>
</tr>
</tbody>
</table>

Note. Children of two alcoholic parents are not identified as such.

*Extreme caution should be exercised when comparing, due to small sample size.

Examining COA Experiences

This portion of the analysis corresponds to research questions 6a to 6d, concerning the emotional, behavioural, social, and perceptual aspects of the COA role. All 28 COA questionnaires were used in this analysis.

Emotional Issues

The majority of COAs in this study (n = 19, 67.9%) indicated that they have resented their parent's drinking. These feelings indicate annoyance and bitterness. It is also interesting to note that 64.3% have worried about the
parent’s health due to the alcoholism. Closely following both of these issues, 57.1% (n = 16) have lost sleep for some reason associated with the alcoholic environment.

Fifteen (53.1%) COAs stated that they have felt like hiding or emptying their parent’s liquor bottle. Unfortunately, this figure does not indicate the number who have actually behaved in such a manner. A further 42.9% (n = 12) claim that they have felt alone, scared, nervous, angry, and frustrated because the parent was unable to quit drinking.

While 12 COAs revealed that they have felt caught amidst an argument or fight between a drinking parent and the other parent, there were an equal number who have felt sick, cried, or had a knot in their stomach because of worrying about a parent’s drinking. These individuals comprised 42.9% of the COA group.

This study identified other affective implications of this role, such as a fear of parental divorce (35.7%), and a sense that the alcoholic parent does not really love them (32.1%).

Nine participants (32.1%) expressed that they have wished to have someone to talk to, who would understand what
they are experiencing, and provide assistance to their family.

Lastly, there were 4 individuals who have felt that the parent drinks because of them, and 2 who have actually accepted blame and responsibility for the drinking.

**Behavioural Issues**

The CAST measured a small number of child behaviours, as related to the alcoholic environment. To begin, the two most common responses were not only tied in frequency but are also innately related. Eighteen children (64.3%), stated that they have argued or fought with a parent who had been drinking. An identical proportion claim that they have protected a family member, in some way, from a parent who had been drinking.

A substantial percentage of COAs (42.9%) have, on occasion, delayed coming home to avoid the alcoholic parent, or the other parent’s interaction with the alcoholic. In addition, 35.7% (n = 10) have performed parental duties due to the parent’s drinking. It would be interesting to investigate how often COAs avoid home, how often parental duties are performed, and the circumstances connected with these occurrences.
Six children claimed that parental drinking has been the source of conflict between themselves and their siblings. Five (17.9%) children have reached a point of such dissatisfaction with their environment that they have threatened to run-away from home.

Social Issue

The frequency of response from one item indicated that the shame and embarrassment of having an alcoholic parent has prompted 28.6% of these children to \((n = 8)\) to withdraw or avoid social opportunities and peer oriented activities. This avoidance is a further reflection of behavioural issues.

Cognitive Issues

Twenty of 28 COAs (71.4%) declared that they have thought of their father as being an alcoholic. This figure is considerably larger than the five (17.9%) who have experienced similar thoughts about their mother.

According to 21.4% of the group, it is not uncommon for these children to remain cognitively pre-occupied with thoughts about parental drinking. There were six individuals who replied in this manner.
COPING RESOURCES AMONG CHILDREN OF ALCOHOLICS

High CRI scores are believed to be associated with resistance to the debilitating effects of stressors, and promote faster recovery from stressors. The total Coping Resources Inventory score is comprised of the five domains.

An examination of mean CRI scores and standard deviations of COAs and non-COAs is found in Table 8. These statistics compare favourably with a previous high school study discussed by Hammer and Marting (1988), which found a mean of 164.87 (N = 232), compared to a mean of 164.99 for this study. The standard deviation from the previous study was 20.43, compared to that of this study, of 22.52.

According to Hammer and Marting (1988), females commonly score higher than males on the CRI. They report findings from one high school study wherein females had a mean of 169.31 (SD = 21.42), compared to a mean of 159.94 (SD = 16.88) for males. Results from the present study indicate that males had a higher mean score, of 166.94 (SD = 24.41), compared to the female group which was 162.9565 (SD = 20.43).

The following six sections answer research question 2, which asked, "to what extent do coping resources among COAs differ from non-COAs, and in what respects do they differ?"
These analyses were performed between those 28 children identified as COAs, and those who were identified as non-COAs (n = 53).

**Total Resource Scores**

Total resource scores are the summation of the five coping domains.

Initial examination of the data was conducted to determine whether the mean scores of the two groups differed. The t-test, which is a member of the parametric statistical family is employed by Hammer and Marting (1988) in their attempts to measure associations between groups. This researcher used the t-test for "consistency purposes", and in this case it provided information that t(79) = .43, p = .67. Compared to the .05 confidence level selected for this project, this finding is not significant. The mean scores which produced this finding are presented in Table 8.

**Table 8: Standard Deviation of Total CRI Scores**

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Means</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>COAs</td>
<td>28</td>
<td>162.89</td>
<td>26.52</td>
</tr>
<tr>
<td>Non-COAs</td>
<td>53</td>
<td>165.21</td>
<td>20.66</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>n = 81</td>
<td>M = 164.99</td>
<td>M = 22.52</td>
</tr>
</tbody>
</table>

**Note:** Highest score possible is 240; lowest is 60.
On the basis of means, COAs and non-COAs appeared to be very similar. However, reference to the standard deviation (SD) proved to elicit critical information. As an aside, standard deviation is a measure that assesses how the scores are distributed in relation to the mean. Larger standard deviations indicate that scores are more distant from the mean. As displayed in Table 8, scores among COAs produced a standard deviation of 26.52, whereas non-COA scores were less varying, producing a standard deviation of 20.67. A box plot of score distribution is provided in Figure 2 to illustrate this phenomenon.

![Box Plot](image)

**Figure 2: Box Plot of CRI Score Distributions Between CAST Groups**

Figure 2 illustrates that scores within the COA group reached higher and lower limits than non-COA scores. This
phenomenon may explain why the t-test failed to procure more meaningful findings: extreme high and low COA scores cancelled each other out, and resulted in a "normal" mean.

The median is the case observation at the 50th percentile, and is a measure of central tendency. The median within the COA score distribution was 163.0 (COAs), while the non-COA median was found to be 166.0. In recognition of this discrepancy, and also, because COA scores exhibited a negative skewness of -.12, as opposed to the COA value of -.02, the median test was performed. Because this test will also appear repeatedly throughout this analysis, introductory information concerning its use is deemed imperative.

Siegal and Castellan (1988) state that the median test is appropriate for ordinal level data. Weinbach and Grinnell (1987) describe that it is calculated through the following steps: 1) combining and then ranking all scores; 2) establishing a grand median for the combined scores; 3) tabulating the number of scores above and below the grand median for both groups, and then placing these frequencies into a contingency table; and 4) administering a chi-square when samples are larger than 40 cases.

With this information in mind, the data indicate that the $\chi^2(n = 81, \text{Mdn.} = 166.0) = 0.0886, p = .77$, implying that significant differences were not found. Interestingly, a
disproportionate 57% (n = 16) of COAs scored below the grand median, while scores among the non-COAs were evenly
distributed, since 49% scored below.

According to Weinbach and Grinnell (1987, p.185), the
Kolmogorov-Smirnov (K-S) test compares "cumulative
frequencies in the intervals in the ordinal-level variable". Siegal and Castellan (1988, p.151), claim that, "when
compared with the t-test, the Kolmogorov-Smirnov Test has
high power efficiency (about 95 percent) for small samples.
As the sample size increases the power efficiency decreases
slightly." This statistic is based upon how the data is
distributed. In this investigation, it was found that
K-S z = .534, n = 81, p = .94.

The chi-square test of independence is a nonparametric
measure which is applicable to ordinal data. It is a
comprehensive test, as it will identify whether two
independent groups differ in their frequency distribution.
Prior to using the chi-square test (in all situations
discussed in this chapter) the data was recoded, since the
contingency table which is formed in the chi-square needs to
obtain an expected frequency of five cases per cell in no
less than 20% of the cells. Recoding consisted of
collapsing four continuous domain "points" into one category
(i.e. 14 to 17 = 1; 18 to 21 = 2). In the emotional domain,
it was necessary to use more than four points in one of the collapsed groups, since the score range (16 to 64) was not evenly divisible by four. However, since the "leftover point" was 64 itself, and since nobody scored 64 in this domain, this process did not influence the findings. Also, to recode proportionately, the total CRI score was collapsed in a 20:1 manner, since each of the five domains had been collapsed in a ratio of 4:1.

In this respect, the data indicate that $\chi^2(9, \ n = 81) = 132.457$, $p < .0005$, which is statistically significant. Thus, it may be said that total CRI scores were statistically dependent upon group membership. Based on these findings, the researcher rejected the null hypothesis that total CRI scores were independent of CAST groups. The original hypothesis, that there was an association between total CRI scores and existence of parental alcoholism, was retained. Succinctly, the dispersion in the COA distribution was associated with the group itself, and was very unlikely to be the product of chance.

In the sections to follow, the researcher will not discuss all findings in detail. Only those which provide statistical insight will be discussed.

Examining each of the five coping resource domains will facilitate a discrete understanding of the differences and similarities in the data.
Cognitive Resources

Nine CRI items measured "the extent to which individuals maintain a positive sense of self-worth, a positive outlook toward others, and optimism about life in general" (Hammer and Marting, 1988, p.3). The minimum score on the cognitive domain is 9, and the maximum is 36.

Fifty-three non-COAs produced a mean domain score of 26.98, while COAs almost matched that, with 26.85. Considering that a t-test probability of 1.0 would signify perfect similarity between groups, it is logical that these means produce a probability value of .92.

Considerable differences appeared when comparing standard deviations between groups. While the deviation among non-COA scores was found to be 4.61, the value produced by COAs was a heightened 6.04. Such variation demonstrated that COAs contributed a greater number of scores reaching the more distant extent of its own score range. Table 9 provides the standard deviations (SD) and means (M) of the cognitive domain.
Table 9: Standard Deviation in Cognitive Scores Between CAST Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Means</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>COAs</td>
<td>28</td>
<td>26.86</td>
<td>6.04</td>
</tr>
<tr>
<td>Non-COAs</td>
<td>53</td>
<td>26.98</td>
<td>4.61</td>
</tr>
</tbody>
</table>

TOTAL  
\[ n = 81 \quad \bar{M} = 26.94 \quad \bar{M} = 5.11 \]

Since standard deviations manifested differences between groups in score distribution, the chi-square test was applied. Resulting from these efforts was that \[ \chi^2(6, \ n = 81) = 54.77, \ p < .0005. \] This finding indicates that there was a significant difference in cognitive domain scores, and that such differences were associated with group membership. Succinctly, it can be said that there was a pattern in the COA scores, and that this pattern (of high dispersion) was directly associated with the group itself, and was not very likely the result of chance. Thus, the null hypothesis, that cognitive scores and group membership were independent variables, was rejected since significant evidence was found that these variables are dependent.

As displayed in the box plot graph, Figure 3, the median scores were very similar in their location within the cognitive domain. In fact, both medians were found to be 28.0.
Figure 3: Box Plot of Cognitive Domain Score Distributions Between Cast Groups

Observable in Figure 3 is that COA and non-COA reached approximately the same upper limit, but that COA scores were disproportionately more prominent within the lower region of the scale.

The position of the median within the COA box is of particular interest. A normally distributed score range would exhibit a median that is central to both sides of the box, while among COA, there is some degree of bunching between the 50th and 75th percentile. The lengthiness of the box, which contains the interquartile range, indicates dispersed scores.

Outliers (O) at the foot of the non-COA whisker, in Figure 3, are interesting in the sense that they are still within the range of the COA distribution. Although these
scores appear isolated in comparison within their own group, they would be within the normal distribution if transferred to the COA group. It should be noted that an outlier appears whenever a score is between 1.5 and 3.0 box lengths from the nearest end of the box (Norusis, 1990). The researcher returned to the original data and confirmed that it had been coded correctly, and that the questionnaire was not completed inappropriately (i.e. faked bad responses). The precise score of these individuals was 16 and 17, within a possible range from 9 to 36.

Additional parametric and nonparametric test were applied, but did not produce significant findings. Examples of these methods are described in the previous section.

**Social Resources**

The social resource domain measured "the degree to which individuals are embedded in social networks that are able to provide support in times of stress" (Hammer and Marting, 1988, p.3). There are thirteen items comprising this domain.

Children of alcoholics provided social domain mean of 38.43, which was slightly higher than their non-COA counterparts ($M = 37.28$). Table 10 provides group means ($M$) and standard deviations ($SD$).
Table 10: Standard Deviation in Social Scores Between CAST Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Means</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-COAs</td>
<td>53</td>
<td>37.28</td>
<td>6.33</td>
</tr>
<tr>
<td>COAs</td>
<td>28</td>
<td>38.43</td>
<td>5.56</td>
</tr>
</tbody>
</table>

TOTAL n = 81 \( \bar{X} = 37.68 \quad M = 5.87 \)

The standard deviation (SD) of non-COA scores was somewhat higher than that of COAs. These figures are listed in Table 10 as 6.33 among non-COAs and 5.56 among COAs. Below, Figure 4 provides a box plot of score ranges, which assists in understanding how scores were comparatively distributed.

![Box Plot of Social Domain Score Distributions Between CAST Groups](image_url)

Figure 4: Box Plot of Social Domain Score Distributions Between CAST Groups
One outlier was identified among social scores, and it occurred within the non-COA group. This individual attained a social resource score of 20, which is seven points higher than the lowest possible, of 13.

Analysis through the chi-square test indicated that $\chi^2(6, n = 81) = 58.50, p < .0005$, which provides evidence of statistical significance. A chi-square value of this magnitude indicates that scores were not independent of the groups, and that differences in score distribution were dependent upon the individuals comprising the groups. Therefore, the null hypothesis was rejected following this test, and the original hypothesis, that cognitive domain scores would differ between COAs and non-COAs, was retained.

Efforts to analyze the data through additional parametric and nonparametric tests were not fruitful. Such tests are described under "Total Coping Resources".

**Emotional Resources**

The Coping Resources Inventory contains 16 items which measure "the degree to which individuals are able to accept and express a range of affect, based on the premise that a range of emotional response aids in ameliorating long-term negative consequences of stress" (Hammer and Marting, 1988, p.3). This is the largest of five domains, as it occupies
27% of the instrument.

Individual COAs (n = 28) scores produced a mean domain score of 43.07, while non-COAs (n = 53) closely followed, with a mean of 42.47.

As detailed in Table 11, substantial differences in standard deviations appeared. The greatest deviation in emotional scores was found among COAs (SD = 8.89), while the figure for the non-COA group was found to be 6.56.

**Table 11: Standard Deviation in Emotional Scores Between CAST Groups**

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Means</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>COAs</td>
<td>28</td>
<td>43.07</td>
<td>8.89</td>
</tr>
<tr>
<td>Non-COAs</td>
<td>53</td>
<td>42.47</td>
<td>6.56</td>
</tr>
<tr>
<td>TOTAL</td>
<td>81</td>
<td>42.68</td>
<td>7.40</td>
</tr>
</tbody>
</table>

In respect of the marked discrepancy in deviations, it is imperative to understand the source of this measure of dispersion. Standard deviation is the square root of the variance -- and variance is the mean of squared deviations of the raw scores from their mean (Horvath, 1985). The variance in COA scores was found to be 79.11, while non-COAs
produced as variance of 43.02. COA scores exhibited much greater variation than their comparison group.

Figure 5 presents a box plot of domain scores for COAs and non-COAs. As shown, the non-COA box appears to reflect a normal distribution, due to box size, symmetrical extension of the whiskers, and the central location of the median within the box. In regard to the COA box, three elements should be noted.

First, the range separating the highest from the lowest scores was greater in the COA group. In fact, this range extended 34 points, which exceeded the non-COA range of 26 points.

Second, the length of the box is particularly peculiar. Considering that the box contains the interquartile range (25th to 75th percentiles), the researcher discovered that the COA box extended for 15.75 points, while the non-COA box was a modest 7.5 points in length.

Lastly, the location of the median indicates that the distribution was somewhat skewed, meaning that it was nonsymmetrical. More precisely, the distribution was negatively skewed (-.3820), which is indicative of some degree of score "bunching" toward the higher values (Horvath, 1985).
Figure 5: Box Plot of Emotional Domain Score Distributions Between CAST Groups

Medians varied slightly between groups. The 50th percentile for COAs (Mdn. = 43.5) was slightly higher than that among non-COAs (Mdn. = 42.0).

The relationship between CAST groups and emotional domain scores was further addressed, nonparametrically. Through chi-square analysis it was found that scores were not distributed as would be expected under normal conditions, since $\chi^2(11, n = 81) = 85.96$, $p < .0005$. Therefore, the original hypothesis, that CAST group membership is associated with emotional domain scores, was retained.
Analyses through other parametric (i.e., t-test) and nonparametric tests (i.e., median test, Kolmogorov-Smirnov, Wald-Wolfowitz runs test) did not produce significant findings.

**Spiritual/Philosophical Resources**

Eleven CRI items questioned participants about the extent to which their behaviours are "guided by stable and consistent values derived from religious, familial, or cultural tradition or from personal philosophy" (Hammer and Marting, 1988, p.3). Such questions comprised the spiritual/philosophical domain of the instrument.

The mean of COA scores was found to be 26.46, while non-COAs produced a mean of 28.13. T-test analysis did not yield significant findings. Table 12 displays group means with their respective standard deviations.

**Table 12: Standard Deviation in Spiritual/Philosophical Scores Between CAST Groups**

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Means</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>COAs</td>
<td>28</td>
<td>26.46</td>
<td>6.19</td>
</tr>
<tr>
<td>Non-COAs</td>
<td>53</td>
<td>28.13</td>
<td>5.16</td>
</tr>
<tr>
<td>TOTAL</td>
<td>81</td>
<td>27.56</td>
<td>5.55</td>
</tr>
</tbody>
</table>
Standard deviations in the immediate table, reveal heightened dispersion among COA scores (SD = 6.19), compared with non-COA scores (SD = 5.16). Continuing, COA scores exhibited a range of 26 points (interquartile range of 9.5), whereas the comparison group ranged 23 points, with an interquartile range spanning 8.0 points. Figure 6 provides a box plot of this information.

![Box Plot](image)

**Figure 6:** Box Plot of Spiritual/Philosophical Domain Score Distributions Between CAST Groups

As displayed above, the medians varied. Although the location of such within the boxes gives the appearance that considerable differences occurred, the precise figures were 27.0 within the COA group, and 28.0 within the non-COA group.
Of further interest is the positioning of the medians within their interquartile ranges. Concerning the COA distribution, the median is found toward the upper region, and the data was positively skewed (0.1697), whereas the non-COA median appears at the lower end of the box, and the distribution was found to be negatively skewed (-0.1245). The implications of this occurrence is that non-COA scores were more frequently concentrated in lower score values (therefore having a longer "tail" at higher values), while COA distribution had a longer, lower-score "tail" and were somewhat bunched in higher score values.

Through chi-square analysis, it was found that \( \chi^2(5, n = 81) = 29.33, p < .0005 \). Once again, this test was effective in detecting significant differences between groups in the frequency distribution of scores. Evidence of a dependent relationship between domain scores and groups enabled the researcher to reject the null hypothesis, and retain the original hypothesis. Therefore, it can be said that there was an association between CAST groups and responses to the spiritual/philosophical domain.

Additional parametric and nonparametric tests were performed on the data; significant results were not found.
Physical Resources

Items included within the physical domain of the CRI investigated "the degree to which individuals enact health-promoting behaviours believed to contribute to increased physical well-being" (Hammer and Marting, 1988, p.3). Eleven items comprised this domain.

Group means in the physical domain exhibited differences which were more distinct than any previous domain. COAs produced a mean score of 28.07, which was considerably lower than that of the COA group (M = 30.34). Although the t-test did not produce significant findings, as $t(79) = 1.67, p = .098$, such findings were closer to a level of significance ($p = .05$) than any of the other domains.

In consideration of t-test findings additional analyses were performed upon each item in the physical domain. Item-by-item analysis necessitated the use of the Mann-Whitney test, as it is appropriate for ordinal level data. For the item, "I have plenty of energy", the data indicate that $U = 536.5, z = -2.197, p = .028$. This findings is significant, and it indicates that COAs feel less energetic than their non-COA peers.

For the item, "I eat junk food", the data signify that $U = 508.0, z = -2.44, p = .012$. Since this item was one of six which were reverse scored on the CRI, this finding
showed that COAs were consuming less healthy foods, more frequently.

Interestingly, one additional item closely approached a level of significance, and it is also related to the notion of "food consumption". For the item, "I snack between meals", the data indicate that \( U = 569.5, z = -1.81, p = .069 \). This item was reverse scored, and although the results were not significant, they provided further insight into the use of food and eating behaviours in the coping process among COAs.

Standard deviations provided additional indication of distinct differences. COA scores were more dispersely distributed (SD = 6.68) than non-COA scores (SD = 5.29). This information is listed in Table 13.

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Means</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>COAs</td>
<td>28</td>
<td>28.07</td>
<td>6.68</td>
</tr>
<tr>
<td>Non-COAs</td>
<td>53</td>
<td>30.34</td>
<td>5.29</td>
</tr>
<tr>
<td>TOTAL</td>
<td>81</td>
<td>29.56</td>
<td>5.87</td>
</tr>
</tbody>
</table>

The box plot, once again, is an effective method of visualizing how domain scores were distributed between
groups. This graph is presented in Figure 7, and further discussion will follow.

![Box Plot of Physical Domain Score Distributions Between CAST Groups](image)

**Figure 7:** Box Plot of Physical Domain Score Distributions Between CAST Groups

As displayed in Figure 7, median scores in physical resources differed. The median was found to be 31.0 among non-COA scores, and 29.5 among COA scores.

According to the median test the data indicate that $\chi^2(1, n = 81, \text{Mdn.} = 30.0) = 4.05, p = .044$, which is a significant finding. It was found that only eight (28.6%) COAs reported scores which were higher than the grand median (Mdn.) which is established in the median test. On the other hand, 29 (54.7%) of the non-COAs achieved such scores.
The chi-square test detected differences in frequency distributions between COAs and non-COAs. In the present investigation it was found that \( \chi^2(5, n = 81) = 34.23, p < .0005 \), which indicated a significant association existed between CAST groups and physical domain scores. These findings enabled the null hypothesis, that the variables were independent of one another, to be rejected, and the original hypothesis, that COAs and non-COAs would score differently in this domain, to be retained.

**Gender of the Child and Alcoholic in Coping Resources**

This section address the remaining portions of research questions 3b and 4a. The questions asked about the association between the gender of the alcoholic parent and CRI scores, and the gender of the child and CRI scores.

Analyses at this stage in the process will include 25 of the 28 COAs, since 3 members did not answer "yes" to either of the CAST items which asked about the gender of the alcoholic parent.

Due to the small number of cases in some of the groups discussed in this section, tests were not performed. Increased caution should be exercised when considering the significance of any findings, herein, as the number of group members declines from ten.
The chi-square test could not be performed on coping scores with the gender of the alcoholic as the independent variable, since the sample size inhibited the formation of a contingency table in which 80% of cells had an expected frequency of at least five. Recoding, as was previously done to address this issue, was not effective under present conditions. Fisher’s exact test, which is appropriate for small, nominal level independent groups, was not used because all coping scores would have to be collapsed into two categories, and this would not have shown dispersion.

**Total Coping Resource Scores**

Male (n = 10) and female (n = 15) COA groups provided near identical mean scores. Males averaged 159.0 (SD = 31.08) and females averaged 160.93 (SD = 26.41). In comparison with non-COA groups, however, distinct gender differences appear.

First, in consideration that 27 male non-COAs achieved a mean of 167.41, male COAs scored considerably lower, at 159.0, and exhibited much higher standard deviations (SD = 31.08) in comparison with non-COA males (SD = 21.40). It was discovered that COA scores ranged from 111-207 (IQR = 47.75) while non-COA scores ranged 127-212 (IQR = 30). Despite lower scores among COA males, the distribution was negatively skewed (.3366), which acted to normalize the distribution on the basis of means. Calculations from a t-
test found that $t(35) = -.94$, $p = .356$.

Secondly, the mean of female non-COAs ($M = 162.92$, $SD = 20.04$) was somewhat higher than the female COAs ($M = 160.93$, $SD = 26.41$). Differences also appeared in standard deviations. Parametrically, this relationship was interpreted as $t(39) = -.27$, $p = .79$, which made explicit that means were similar.

Three female children of alcoholic mothers produced an average score of 153.00, which was the lowest of the four gender by gender groups. Contrarily, females residing with alcoholic fathers ($n = 12$) scored an average of 162.00, which was the highest score. Table 14 provides gender by gender distributions.
Table 14: Comparison of Total CRI Scores Among COAs According to Gender of the Child and Gender of the Alcoholic Parent

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Means</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With father</td>
<td>8</td>
<td>160.00</td>
<td>33.67</td>
<td>11.90</td>
</tr>
<tr>
<td>With mother</td>
<td>2</td>
<td>155.00</td>
<td>26.87</td>
<td>19.00</td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With father</td>
<td>12</td>
<td>162.92</td>
<td>25.94</td>
<td>7.49</td>
</tr>
<tr>
<td>With mother</td>
<td>3</td>
<td>153.00</td>
<td>32.60</td>
<td>18.82</td>
</tr>
</tbody>
</table>

Note. Maximum score = 240; minimum = 60.

*Mean non-COA male score (n = 27) = 167.41
*Mean non-COA female score (n = 26) = 162.92
*Caution should be exercised when comparing, due to small sample size.

The final comparison was performed between children of alcoholic fathers (n = 20) and children of alcoholic mothers (n = 5). It was found that children of maternal alcoholics scored lower, averaging 153.8 ($SD = 26.71$), whereas those who reported paternal alcoholism averaged 161.75 ($SD = 28.45$).

Application of several parametric and nonparametric tests did not reveal significant differences.

**Cognitive Resources**

Concerning scores for the cognitive domain, the data revealed that daughters of alcoholic mothers (n = 3) had the
lowest mean score (M = 25.33). In addition, they also exhibited the largest standard deviation (SD = 9.61), in comparison with the other groups.

It was detected that males living with alcoholic fathers (n = 8) had developed the highest level of cognitive resources (M = 28.25), as they produced a mean which was almost three points higher than the females of alcoholic fathers. In recognition of this disparity, a two-tailed t-test was employed, and it was found that t(18) = 1.07, p = .297, which indicates that the difference between these male and female COA groups was not statistically significant.

Table 15 indicates that male and female children of alcoholic fathers attained higher scores than males and females of alcoholic mothers. In assessing the relationship between the gender of the parent and cognitive scores, it was found that t(23) = .87, p = .39. Despite the fact that this relationship was not significant, it should be noted that the mean of children of alcoholic mothers was 23.2 (SD = 7.26), which is quite higher than that of children of alcoholic fathers (M = 26.5, SD = 5.98).

The mean of 15 female COAs was compared to the 26 non-COA females, and the data indicate that t(39) = -.-60, p = .55. Findings from the median test showed that χ²(1, n =
41, Mdn. = 27.0) = .2809, p = .5961. The group means producing such findings were: 24.93 (SD = 6.681) among COAs, and 26.04 (SD = 5.00) among non-COAs. As stated, the standard deviation of the COA group was considerably higher, indicating more variation in scores among female COAs.

Although cognitive scores of male COAs were quite similar to non-COAs (M = 27.5, and M = 27.89 respectively), standard deviations varied considerably. Deviation was found to be 5.32 among COA males, and 4.1 among non-COAs.

Tests were performed on male COA and non-COA data, and the results were again not significant. Regardless, it is important that they be stated. The median test found that $\chi^2(1, n = 37, \text{Mdn.} = 28.0) = .0172, p = .8956$. In support, the $t$-test signified that $t(35) = -.24, p = .81$.

For the reason that group size was minimal the researcher did not analyze data specifically in regard to children of alcoholic mothers.
Table 15: Comparison of Cognitive Resources Among COAs According to Gender of the Child and Gender of the Alcoholic Parent

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Means</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With father</td>
<td>8</td>
<td>28.25</td>
<td>5.45</td>
<td>1.92</td>
</tr>
<tr>
<td>With mother</td>
<td>2</td>
<td>24.50</td>
<td>4.95</td>
<td>3.50</td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With father</td>
<td>12</td>
<td>25.33</td>
<td>6.23</td>
<td>1.81</td>
</tr>
<tr>
<td>With mother</td>
<td>3</td>
<td>23.33</td>
<td>9.61</td>
<td>5.55</td>
</tr>
</tbody>
</table>

Note. Maximum score = 36; minimum = 9.

*Mean non-COA male score (n = 27) = 27.89
*Mean non-COA female score (n = 26) = 26.04
*Caution should be exercised when comparing, due to small sample size.

Social Resources

Participants identifying themselves as sons of alcoholics (n = 10) produced a mean of 36.10 (SD = 6.01), which was slightly lower than that of sons of non-alcoholics (n = 27, M = 36.48, SD = 5.58). Means and standard deviations in this association were found to be relatively equal.

Daughters of alcoholics produced a mean of 39.33, which was higher than the non-COA female group (M = 38.12). Standard deviations of 4.93 (COAs) and 7.04 (non-COAs)
indicate that scores exhibited more variation among the non-COA group.

As presented in Table 16, children of alcoholic mothers reported lower scores than those of alcoholic fathers. Groups were formed on the basis of these differences, and it was found that $t(23) = .54, p = .59$. Further analysis through the median test, however, revealed that $p = .32$, at (1, $n = 25$, Mdn. = 37.0). It was calculated that one of five children of alcoholic mothers scored higher than the grand median (Mdn.), while 11 of 20 children of alcoholic fathers surpassed this figure. Scores in a normal distribution would be approximately half-above, and half-below the median.

Of the four groups listed in Table 16, the lowest scores were found among males of alcoholic mothers ($n = 2$). Interestingly, the standard deviation within this dyad was .71, which indicates homogeneity in the scores which were reported. Highest domain scores were provided by the 12 daughters of male alcoholics ($M = 39.33$).
Table 16: Comparison of Social Resources Among COAs According to Gender of the Child and Gender of the Alcoholic Parent

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Means</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With father</td>
<td>8</td>
<td>36.25</td>
<td>6.80</td>
<td>2.40</td>
</tr>
<tr>
<td>With mother</td>
<td>2</td>
<td>35.50</td>
<td>0.71</td>
<td>0.50</td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With father</td>
<td>12</td>
<td>39.33</td>
<td>4.96</td>
<td>1.43</td>
</tr>
<tr>
<td>With mother</td>
<td>3</td>
<td>37.33</td>
<td>5.51</td>
<td>3.18</td>
</tr>
</tbody>
</table>

Note. Maximum score = 52; minimum = 13.

*Mean male non-COA score (n = 27) = 36.48
*Mean female non-COA score (n = 26) = 38.12
*Caution should be exercised when comparing, due to small sample size.

Emotional Resources

While the mean score for all male non-COA participants was 41.70 (n = 27), the data evidenced that males of alcoholic fathers had a mean of 38.88 (n = 8), and males of alcoholic mothers had a mean of 39.50 (n = 2). When combined, the means of these males (n = 10) were correlated with the non-COA males the results showed that $t(35) = -.91$, $p = .369$. Standard deviations between COA and non-COA males differed considerably, as the former exhibited $SD = 9.56$, and the latter, $SD = 7.42$. 
Female COAs differed from their non-COA peers in the area of emotional resources. Fifteen daughters of alcoholic parents averaged 46.20 (SD = 7.41), which is markedly higher than non-COA females, who provided a mean of 43.27 (SD = 5.56). An investigation of this relationship indicated that \( t(39) = 1.44, p = .16 \).

Additional analyses were performed on daughters of male alcoholics (n = 12). This group had scored a mean of 3.49 higher than females of non-alcoholics, and the data indicate that \( t(36) = 1.60, p = .118 \).

**Table 17:** Comparison of Emotional Resources Among COAs According to Gender of the Child and Gender of the Alcoholic Parent

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Means</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With father</td>
<td>8</td>
<td>38.88</td>
<td>10.67</td>
<td>3.77</td>
</tr>
<tr>
<td>With mother</td>
<td>2</td>
<td>39.50</td>
<td>4.95</td>
<td>3.50</td>
</tr>
<tr>
<td><strong>Females</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With father</td>
<td>12</td>
<td>46.75</td>
<td>7.53</td>
<td>2.17</td>
</tr>
<tr>
<td>With mother</td>
<td>3</td>
<td>44.00</td>
<td>8.00</td>
<td>4.62</td>
</tr>
</tbody>
</table>

**Note.** Maximum score = 64; minimum = 16.

*Mean male non-COA (n = 27) = 41.70
*Mean female non-COA score (n = 28) = 43.27
*Caution should be exercised when comparing, due to small sample size.
Efforts were made to compare scores of children of alcoholic mothers, with those of alcoholic fathers. In this respect, the results were not significant, as \( t(23) = .31, p = .76 \). The mean of children of alcoholic mothers was 42.2 (SD = 6.65), whereas males had a mean of 43.6 (SD = 9.51). Further, the median test produced a probability value of 1.00, which signifies that scores from both groups were evenly distributed when correlated.

**Spiritual/Philosophical Resources**

Spiritual/philosophical domain scores of sons of alcoholics (\( M = 25.6 \)) averaged 3.51 points lower than sons of non-alcoholics (\( M = 29.1 \)). Of further interest, is the fact that the standard deviation among these COAs was 6.59, while their comparison group produced a deviation of 5.32. When correlated, the results showed that \( t(35) = -1.67, p = .103 \).

Daughters of alcoholics also reported domain scores (\( n = 15, M = 25.4 \)) which were lower than females not living in an alcoholic environment (\( n = 26, M = 27.12 \)). In addition, scores of the former group exhibited more variation in their occurrence, as their standard deviation equalled 6.64, as compared to non-COA deviation of 4.88. This association between domain scores and residency in an alcoholic home is explained by the t-test, which found that
\( t(39) = -0.95, p = 0.35. \)

To narrow the focus of the previous association, females of paternal alcoholics were assessed in conjunction with non-COA female scores. In this respect, the data indicate that \( t(36) = -0.93, p = 0.36. \)

Table 18: Comparison of Spiritual/Philosophical Resources Among COAs According to Gender of the Child and Gender of the Alcoholic Parent

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Means</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With father</td>
<td>8</td>
<td>26.25</td>
<td>7.23</td>
<td>7.23</td>
</tr>
<tr>
<td>With mother</td>
<td>2</td>
<td>23.00</td>
<td>2.83</td>
<td>2.00</td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With father</td>
<td>12</td>
<td>25.33</td>
<td>6.65</td>
<td>1.92</td>
</tr>
<tr>
<td>With mother</td>
<td>3</td>
<td>25.67</td>
<td>8.08</td>
<td>4.67</td>
</tr>
</tbody>
</table>

Note. Maximum score = 44; minimum = 11.

* Mean male non-COA score (n = 27) = 29.11
* Mean female non-COA score (n = 26) = 27.11
* Caution should be exercised when comparing, due to small sample size.

The researcher compared scores of COAs according to the gender of the alcoholic parent, and found that the difference was minimal. Five sons and daughters of maternal alcoholics provided a mean of 24.6 (SD = 6.07), while it was found to be 25.7 among children of alcoholic fathers (SD = 6.71).
Physical Resources

Sons of alcoholics (n = 10) achieved physical domain scores which were lower than sons of non-alcoholics (n = 27) and more dispersed on the domain scale. The standard deviation of this COA group was 8.39 (M = 30.8), while scores of male non-COAs produced a deviation of 5.17 (M = 32.22). Analysis on the basis of means provided that t(35) = -.62, p = .54.

Daughters of alcoholics (n = 15) exhibited lower and more diverse scores than non-COA females (n = 26). The data revealed that the mean of COA females was 25.47 (SD = 6.64), while their comparison group achieved a mean of 28.38 (SD = 4.76). When the relationship between low female scores and residency in the alcoholic environment was tested, the results indicated that t(39) = -1.63, p = .110.
Table 19: Comparison of Physical Resources Among COAs According to Gender of the Child and Gender of the Alcoholic Parent

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With father</td>
<td>8</td>
<td>30.38</td>
<td>7.98</td>
<td>2.82</td>
</tr>
<tr>
<td>With mother</td>
<td>2</td>
<td>32.50</td>
<td>13.44</td>
<td>9.50</td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With father</td>
<td>12</td>
<td>26.17</td>
<td>6.74</td>
<td>1.95</td>
</tr>
<tr>
<td>With mother</td>
<td>3</td>
<td>22.67</td>
<td>6.66</td>
<td>3.84</td>
</tr>
</tbody>
</table>

Note. Maximum score = 44; minimum = 11.

*Mean score of non-COA males (n = 27) = 32.22
*Mean score of non-COA females (n = 26) = 28.33
*Caution should be exercised when comparing, due to small sample size.

As detailed in Table 19, the mean score of males with alcoholic fathers was 30.38, whereas non-COA males produced a mean of 32.22. Standard deviation of the COA group (SD = 7.98) was 2.81 points higher than the non-COA group (SD = 5.17). A comparison of these groups revealed that t(33) = - .78, p = .44.

Table 19 informs that the mean of females of alcoholic fathers was 26.17, whereas the their same-sexed peers of non-alcoholic parents had a mean of 28.38. Accompanying this divergence in scores, were standard deviations, found
to be 6.74 and 4.76, respectively. Attempts to assess the existence of a relationship did not yield significant results, as $t(36) = -1.17$, $p = .25$.

A final examination considered the gender of the alcoholic parent in conjunction with physical resources. Children of alcoholic fathers ($n = 20$) produced a mean ($M = 27.85$), which was somewhat higher than those of maternal alcoholics ($M = 26.6$).

**Coping Resources Among COAS Exposed to Conflict**

This section addresses research question 7, concerning coping resources among children of alcoholics who are exposed to family conflict or violence.

Completed instruments from eight COAs were selected to compose a separate group for comparison to the remainder of the COAs. They were selected on the basis of their "yes" responses to three CAST items which focused upon issues of conflict and violence in the home. Participants answered accordingly to all three items. The following CAST items were selected by the researcher to form this group:

a) Did you ever argue or fight with a parent when he or she was drinking?

b) Has a parent ever yelled at or hit you or other family members when drinking?
c) Did you ever protect another family member from a parent who was drinking?

One CAST item, related to these issues, was not used in forming this group. The item asked, "Did you ever feel caught in the middle of an argument or fight between a problem drinking parent and your other parent?" The researcher excluded this item since it was related to parental conflict in general, and not specific to drinking-related parental behaviour, as are the other three items. Secondly, this item asks if children felt caught in an argument, as opposed to questioning them about actual incidents, as do the other three items.

The present analysis will compare COAs exposed to conflict (COAEcs; n = 8) with COAs who did not meet the criteria detailed above (COAs; n = 20), in regard to coping resources.

Table 20 summarizes scores for each domain between groups. This table is found following the discussion of Physical resources.

**Total Coping Resource Scores**

COAEcs exhibited higher CRI scores than the remainder of the COA group. The achieved as mean of 170.25, while other COAs averaged 160.00. Interestingly, standard deviations were practically identical between groups, as they were separated by only 0.28.
An attempt to analyze the difference in CRI means between these groups did not yield a significant finding, as \( t(26) = .91, p = .371 \).

**Cognitive Resources**

Children exposed to conflict reported higher levels of cognitive resources than the comparison group. COAECs provided a mean of 28.25, whereas the remaining COAs averaged 26.30. Parametric analysis signified that \( t(26) = .77, p = .45. \)

Standard deviations were found to be slightly higher among COA scores. In that group, the deviation was 6.20, while in the COAEC group, it was 5.75.

**Social Resources**

In examining data for the social domain, the researcher found that COAECs averaged higher scores. Table 20 makes apparent this discrepancy, by stating that COAs averaged 37.5, whereas COAECs averaged 40.75. Of further interest, is the fact that scores of the COAEC group exhibited less variation (\( SD = 4.83 \)) than those of the COA group (\( SD = 5.67 \)).

Parametrically, the \( t \)-test interpreted this information as \( t(26) = 1.42, p = .166 \). The median test indicated that only 5 of 20 COAs surpassed the grand median, whereas 5 of 8 COAECs not only surpassed, but achieved higher scores. The
median test provided that $p = .09$, at $(1, n = 28, \text{Mdn.} = 39.0)$.

**Emotional Resources**

The trend of higher domain scores among COAECS continued in the emotional domain, wherein they produced a mean which was 3.75 points higher than COAs. Means for COAECS and the remaining 20 members of the COA group were 45.75 and 42.00, respectively.

It is worth noting that standard errors (SEM) were more similar in this domain, than in any of the others. Depending upon sample size, standard error usually lessens as sample size increases. Table 20 lists these statistics as 2.33 for the COAECS and 2.15 for the COAs.

Bi-variate analysis of means led to the finding that $t(26) = 1.01, p = .323$, which is not statistically significant.

**Spiritual/Philosophical Resources**

The similarity between groups in the measurement of spiritual/philosophical domain scores was such that, $t(26) = .02, p = .985$. The COAEC group ($M = 26.50$) exhibited a mean that was a mere .05 higher than the other COAs.

Standard deviations were more diverse than the means. The distribution of COA scores produced a deviation of 5.72, while the second group's scores deviated by 7.67.
Physical Resources

The mean score of COAEs ($M = 28.88$) in the physical domain was slightly higher than that of non-COA\$s ($M = 27.75$). Producing a standard deviation of $7.88$, COA scores exhibited more dispersion than non-COA scores ($SD = 6.34$).

When assessed through the $t$-test, the data indicate that $t(26) = .40$, $p = .695$. Through the median test it was recognized that distributions were identical, as $p = 1.00$.

On the following page, Table 20 summarizes domain scores.
Table 20: CRI Domain and Total Scores Between Children of Alcoholics Exposed to Conflict and the Remainder of the Children of Alcoholics Group

<table>
<thead>
<tr>
<th>Domain / Group</th>
<th>Means</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COAEC</td>
<td>28.25</td>
<td>5.75</td>
<td>2.03</td>
</tr>
<tr>
<td>COA</td>
<td>26.30</td>
<td>6.20</td>
<td>1.39</td>
</tr>
<tr>
<td>Social</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COAEC</td>
<td>40.75</td>
<td>4.83</td>
<td>1.71</td>
</tr>
<tr>
<td>COA</td>
<td>37.50</td>
<td>5.67</td>
<td>1.27</td>
</tr>
<tr>
<td>Emotional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COAEC</td>
<td>45.75</td>
<td>6.59</td>
<td>2.33</td>
</tr>
<tr>
<td>COA</td>
<td>42.00</td>
<td>9.60</td>
<td>2.15</td>
</tr>
<tr>
<td>Spiritual/Philosophical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COAEC</td>
<td>26.50</td>
<td>7.67</td>
<td>2.71</td>
</tr>
<tr>
<td>COA</td>
<td>26.45</td>
<td>5.72</td>
<td>1.28</td>
</tr>
<tr>
<td>Physical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COAEC</td>
<td>28.88</td>
<td>7.88</td>
<td>2.79</td>
</tr>
<tr>
<td>COA</td>
<td>27.75</td>
<td>6.34</td>
<td>1.42</td>
</tr>
<tr>
<td>TOTAL CRI SCORE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COAEC</td>
<td>170.12</td>
<td>26.40</td>
<td>9.34</td>
</tr>
<tr>
<td>COA</td>
<td>160.00</td>
<td>26.68</td>
<td>5.97</td>
</tr>
</tbody>
</table>

**Note.** COAEC group is constant at n = 8. COA group is constant at n = 20.
SUMMARY

This chapter has presented the findings from this study. These findings were discussed in a manner that was detailed, and specific in addressing the research questions. The following chapter will summarize these findings, provide conclusions, and offer recommendations for practice, future research and social policy.
CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The previous chapter provided detailed findings from the analysis of data collected in this study. The present chapter will summarize the predominant findings, offer interpretations from the literature as to what these findings mean, and provide conclusions from the study. This chapter will close with a discussion of therapeutic implications and several recommendations for future research, service development, and social policy.

DEMOGRAPHIC CHARACTERISTICS

Grade

Grade 9 students (n = 53) constituted 56.38% of the sample. The remaining 41 participants were grade 10s, and they constituted 43.62% of the sample.

Voluntarism for this study was higher among grade 9 students, since 27.6% of those who were asked (N = 192) to participate, agreed. The proportion of grade 10s that volunteered was 21.8% (N = 188).
Age

Participants ranged in age from 13 to 17 years old. The mode, median, and mean age was found to be 15. There were 40 students who reported to be 15 years old. Identical measures of central tendency indicate that ages were normally distributed in this sample.

Gender

Males and females comprised near equal proportions of the sample: 51.1% (n = 48) and 48.9% (n = 46), respectively. When appraising that the total grade 9 and 10 population was 55.58% male and 44.42% female, it became apparent that genders were disproportionately represented, albeit mildly. This suggests that females were more willing to volunteer for this study. Similarly, in a study of undergraduate students, Range, Turzo and Ellis (1989) found that males were more difficult to recruit for research.

THE CHILDREN OF ALCOHOLICS SCREENING TEST

Prevalence

Of the 94 participants, 28 were identified through the CAST as children of alcoholics (COAs). This group, whose mean age was 15.1 years, constituted 29.8% of the sample. This percentage is somewhat high when compared with two previous CAST studies among adolescents. Roosa et al.
(1988) administered the CAST and found that 25% of their sample were COAs; Pilat and Jones (1984), concluded that 27% of the adolescents in their study were children from alcoholic homes.

The CAST identified 13.8% \( (n = 13) \) of the sample as children of problem drinkers. Pilat and Jones (1984), discerned that 17% of their participants were from problem drinking families.

Non-COAs in this study \( (n = 53) \) occupied 56.4% of the sample. Pilat and Jones (1984) found that 53% of their sample were classified as such.

In comparison with past CAST studies of similar methodologies among adolescents, this study obtained a reasonably high figure of prevalence. This finding was further exemplified when the raw CAST scores of all participants \( (N = 94) \) were averaged. In this study, the mean score was 4.4, out of 30. Dinning and Berk (1989) found that their adolescent population had a mean of 3.7. Moreover, the CAST manual Jones (1991) states that a mean of 3.6 was obtained from control group adolescents. Thus, based upon quantitative data, it was concluded that children in the present study had substantially more experience with parental alcohol use and misuse than children in other studies.
Frequency of Issues Disclosed by COAs

Of the 30 CAST items, the most frequent among COAs asked if they ever wished their parent would stop drinking. Ninety-three percent claimed to have experienced such feelings. This near consensual response makes explicit that conditions within the family are disturbed by alcoholism, and that adolescents believe conditions would improve if this problem was resolved. Similarly, Jones (1991) reports that 94% of his COA group responded positively to this item, and that this item received the highest response.

Three items within the "top ten" addressed family conflict and violence in direct association with alcohol use. These items and their percentages are:

a) Have you ever heard your parents fight when one of them was drunk? (82.1%)

b) Did you ever argue or fight with a parent who was drinking? (64.3%)

c) Did you ever protect another family member from a parent who was drinking? (64.3%)

This researcher perceives these findings as consistent with the literature, as several authors have documented that alcoholic homes are characterized by conflict (Bogdaniak and Piercy, 1987), violence, and abuse (NIAAA, 1984; McElligatt, 1988).

As an aside, concerning the "protection" issue (c), it
would be interesting to know how such behaviour was manifested, since there is substantial difference between verbal and physical protecting. Moreover, knowing which family member the child had protected (ie. non-alcoholic parent or sibling), would reveal much information about family structure, roles, power, and organization.

Stark (1987), comments that COAs are often burdened by guilt and self-blame, due to their inability to resolve the drinking problem or from feeling that they contributed to the problem. Seixas and Youcha (1985, p.29) state that, "the child is blamed as the easiest target". Among the COAs in this study, only two (7.1%) claimed that they have felt responsible and guilty for the parent's drinking. This researcher speculates that as COAs mature, and approach the stage of becoming ACAs, their process of differentiating from the family enables them to separate, to some degree, from such projected blame. Therefore, this particular finding is perceived as positive.

Of further interest, is the proportion of "yes" responses for paternal alcoholism as compared to maternal alcoholism. In this study, there were 20 such responses for fathers, and 5 for mothers. Jones (1991), lists findings from a 1982 study, wherein 14 of 15 self-reported COAs claimed that their father abused alcohol and 1 claimed that
it was the mother. It would be interesting to examine whether these percentages change with time.

This section highlighted a few of the interesting findings from the CAST. Detailed findings are provided in the Data Analysis chapter. Other CAST items are discussed in the section "Examining COA Experiences".

Self-Identification According to Gender

Research question 3a asked, "what is the ratio of males to females in the COA group?"

The CAST enabled this researcher to conclude that the ratio of male to female COAs was 1:1. There were 14 COAs from each gender group, and the sample gender-ratio was male to female 48:46, or 1: 0.9583. Almost equal proportions of children also appeared in the children of problem drinkers group (7:6), and the non-COA group (1:1). Other researchers did not comment on prevalence as it pertained to gender.

Gender of the Child and Alcoholic Parent as Factors in Raw CAST Scores

A significant difference was found when comparing the number of times female COAs said yes to CAST items (225) with the quantity provided by male COAs (155). This finding was reported as \( t(26) = -2.38, p = .025 \).

Dinning and Berk (1989) noted a similar phenomenon in
their study of 494 Nova Scotian children, and they concluded that \( t(492) = 3.18, p < .002 \).

As the CAST manual does not comment on this issue, this researcher agrees with Dinning and Berk's statement that gender specific cut-off points may be a future consideration for the publisher of the CAST, if such findings appear consistent.

Although the female experience with parental alcoholism has been documented as different than that of males (Werner, 1986; Hecht, 1973), it would be illogical to speculate that females are exposed to more parental alcoholism than males. Thus, the finding that females revealed having significantly more experiences with parental alcoholism is compatible with the research and literature pertaining to "female expressiveness" (Burke and Weir, 1978; Gilligan, 1982).

Sample size restricted extensive analyses on the basis of child and parental gender. Interested readers may refer to Table 7 for an examination of the findings.

**Examining COA Experiences**

Research questions 6a to 6d asked about the emotional, behavioural, social, and cognitive aspects of the COA role. Data was obtained through the CAST.
Emotional Issues

The most common emotional experience revealed by COAs was resentment toward the parent for their drinking (67.9%). Bogdaniak and Piercy (1987) claim that the issue of resentment is one of the most prominent within adolescent COA therapy groups. Resentment, which indicates bitterness and anger, reflects years of disappointments, hurt feelings, chaos, and disparaged hopes for sobriety.

Almost two-thirds claimed that they have worried about the alcoholic parent’s health, due to the drinking (64.3%). Ackerman (1987), acknowledges that this issue is especially common among adolescents. Bogdaniak and Piercy (1987), claim that adolescents of alcoholic parents often worry about the health and safety of everyone.

Over half of COAs have lost sleep due to alcohol related circumstances (57.1%). This could be connected with parental conflict, emotional pain, worry, or any number of factors associated with the environment.

Desires to hide parental liquor are not uncommon, as 53.1% of this sample confirmed. An effort to sabotage the alcoholic’s supply would not likely be made before the child had exhausted other methods, such as pleading. Therefore, this group was likely comprised of children who could
conceive of no alternative but to take the most direct action toward resolving the problem.

Related to the previous issue, it was found that almost half (42.9%) have felt alone, scared, nervous, angry, and frustrated because the parent was unable to stop drinking.

Many have cried, felt sick, or experienced a knot in the stomach from worrying about parental drinking (42.9%). Fear of parental divorce, due to drinking, is reality for one-third of COAs surveyed (35.7%). The latter finding is likely indicative of parental friction, disharmony and conflict, which is symptomatic of substance abuse.

Almost one-third reported that they have felt a lack of love from the drinking parent (32.1%). The literature supports this, in saying that COAs experience a lot of disappointment from broken promises and by feeling unloved (Ackerman, 1987, in reference to Morehouse, 1982).

A similar proportion (32.1%) expressed the desire to receive help from someone who would understand, and provide assistance to their family. As the stresses of adolescence make this age stage one of the most vulnerable for suicide attempts (Millstein, 1989), this finding is perceived as a "red flag".
Fourteen percent of COAs claimed that they are the source of the drinking problem. Related to this issue, a further 7.1% have felt responsible and guilty about parental drinking. These issues were discussed above.

**Behavioural Issues**

A substantial proportion of COAs indicated that they have argued or fought with a parent who had been drinking (64.3%). As this CAST item reflected conflict within the family, it was interesting that an identical proportion had previously protected a family member (64.3%) from a parent who was drinking.

Almost half of the COA group revealed that they have delayed coming home because of the alcoholic parent or the non-alcoholic parental's reaction to the drinking parent (42.9%). Aside from the percentage, the most critical information in this finding is that these children avoided home due to the alcoholism.

Parental duties have been assumed to some extent by (35.7%) of children of alcoholics. Hecht (1973) comments on this phenomenon in saying that female children are most vulnerable for assuming parental duties. Indeed, of the 10 COAs in this study who claimed that they had performed parental duties, 6 were females.
Parental drinking has been the source of sibling conflict among 21.4%, and a further 17.9% have threatened to run away from home.

Social Issue

Just over one quarter (28.6%) of COAs disclosed that they have refrained from social and peer activities due to embarrassment from parental drinking. This finding is consistent with the observations of Bogdaniak and Piercy (1987, p.579), who state, "as the child of an alcoholic becomes an adolescent, embarrassment over the alcoholic parent's behaviour increases." They continue, by saying that adolescents avoid parent-child activities where problems may become overt. Stark (1987, p.59), adds that "children are often afraid to bring friends home".

Cognitive Issues

Almost one quarter of COAs reported that many of their thoughts are focused upon the problem drinking parent or issues that arise because of the drinking (21.4%). This finding reflects how experiences in the family remain influential as the child attempts to function in everyday life. Their concerns, worries, and anxieties hinder their ability to remain cognitively focused.
Of the 28, 71.4% have come to perceive their father as being alcoholic, while only 17.9% have developed such thoughts concerning their mother.

In summary, the prevalence of children of alcoholics from this study cannot be denied. They comprised a substantial portion of the sample.

The role of COA is clearly characterized by specific issues. Thoughts, behaviours, and feelings are undoubtedly influenced by the environment as revealed by first-hand witnesses, environment conditions in alcoholic families are less than optimal.

Childhood experiences remain influential throughout the life cycle. For this reason, COAs are vulnerable because they cannot escape their environment, without running away, and they are at-risk because "their issues" have been well documented as leading to later substance abuse and psychological problems.

Familial interaction teaches children how to participate in relationships. The COAs in this study revealed information about the influence of alcohol upon relations in their family (i.e., that relationships can cause pain; that trusting can lead to disappointment; that conflict is integral to family functioning). These issues
are different for COAs, than other children, since alcoholism is the associated factor. Unquestionably, these children could benefit from therapeutic intervention, which is discussed at the end of this chapter.

**Coping Resources Among Children of Alcoholics**

This section addresses research question 2, which asked, "to what extent do coping resources among COAs differ from non-COAs, and in what respects do they differ?"

Findings from this study will be compared to a previous study of 232 adolescents, as conducted by Hammer and Marting (1988).

**Total Resource Scores**

COAs produced a mean CRI score ($M = 162.89$) which was slightly lower than that of the non-COA group ($M = 165.21$). These figures are similar to the mean of 164.87 provided by Hammer and Marting (1988).

An examination of the standard deviations provided insight that groups were not as similar in distributions as the mean scores had displayed. Deviation in COA scores was substantially higher ($SD = 26.52$) than the deviation in the non-COA score distribution ($SD = 20.66$). The non-COA deviation was remarkably close to that of Hammer and Marting.
(SD = 20.43).

From highest to lowest, the COA score distribution ranged 105 points, as compared to 95 points of the non-COAs. Two COAs scored higher than the highest non-COA, and one COA scored below the lowest non-COA score.

COA scores exhibited mild negative skewness (−.1210), which indicated that a nonsymmetrical proportion had achieved high scores within their own group's distribution.

The association between CAST groups and total coping resources was significant, as \( \chi^2(9, n = 81) = 132.457, p < .0005 \). The information above details how this phenomenon occurred.

The fact that COA scores were disproportionately higher and lower than non-COA scores adds support to theories that COAs cope in diverse ways, and also, that some children develop resources and strategies for coping with the environment, out of their experiences with the environment, that enable them to be more resilient to the effects of stressors. Research pertaining to resilience and vulnerability is in its infancy, and there is a need for longitudinal studies which can assess whether childhood resilience has negative consequences in adulthood, as is detailed by Black (1981) and Wegscheider (1981).
Since the total CRI score is the sum of five coping domains, patterns in the data are best understood through an examination of each domain.

**Cognitive Resources**

Almost perfect similarity in mean scores was found between the two groups. COAs averaged 26.86 in the cognitive domain, and non-COAs averaged 26.98. Hammer and Marting (1988) provide a mean of 25.56 from their study.

Standard deviations signified that COA scores (SD = 6.04) were more disperse in distribution. Children of non-alcoholics produced a deviation of 4.61, which was close to that of Hammer and Marting (SD = 4.44).

Chi-square analysis provided evidence that group membership was associated with cognitive scores, as $\chi^2(6, n = 81) = 54.77, p < .0005$. The null hypothesis, that cognitive scores would not differ, was rejected.

It is important to recognize that the COA score distribution exhibited considerable negative skewness (-.4065). There were a disproportionate number who exhibited scores within a relatively small area of the higher score range. Thus, scores were "bunched" in the upper level of the distribution. In contrast, those COAs
who scored lower, were disproportionately "more distant" from the mean, and the median. This helps to explain why some tests (i.e., t-test) were not effective in detecting the true differences that existed in score distributions, as was the chi-square test.

Cognitive domain items measured resources in areas such as self-concept and positive outlook. In comparison with non-COAs, COA scores were more prevalent in the lower realm of the resource scale. In assuming that COAs are more dissatisfied with their home conditions than non-COAs, due to alcoholism, this finding may be reflecting a lack of hope that conditions will improve, or perhaps damage to the self-concept and sense of self that the adolescent COA is struggling to develop. Considering that Werner (1986) found that a positive self-concept and an internal locus of control was associated with resilience, these COAs may be particularly vulnerable in their attempts to cope with their environment.

Social Resources

An interesting phenomenon occurred in the realm of social resources: COAs averaged slightly higher scores, and produced a slightly lower standard deviation.

The COA mean was 38.43, which was 1.15 points higher than their non-COA peers. The non-COA mean (M = 37.28) was
precisely close to the figure listed by Hammer and Marting (1988) from their high school sample ($M = 37.20$).

Non-COAs exhibited a standard deviation ($SD = 6.33$) which was higher than that of COAs ($SD = 5.56$), by 0.77. Incidentally, the figure provided by Hammer and Marting, is roughly mid-way between those of this study.

Significant differences between the frequency distribution of COA scores and non-COA scores was detected through the chi-square test, which indicated $\chi^2 (6, n = 81) = 58.50, p < .0005$. This finding enabled the null hypothesis, that there would be no difference in domain scores between CAST groups, to be rejected.

It is interesting that COAs obtained higher and more homogeneous social resources. A few connected factors could contribute to this. In considering the age stage of the participants ($M = 15.1$ years), it is common and healthy for adolescents to distance themselves from their families of origin. Perhaps, those individuals who are dissatisfied with their home conditions distance themselves more than others. One article states, "unlike the reactive distancer, when the adaptive distancer pulls free from the orbit of parental alcoholism, he or she flees toward activities and relationships that allow breathing room for reparative work"
(Berlin et al., 1988, p.579).

Weddle and Wishon (1986, p.11) contend that "sublimation" is a typical defense employed by COAs. In focusing energy and attention upon sanctioned activities, the child can temporarily avoid the alcoholic environment.

**Emotional Resources**

In the emotional domain, COAs displayed slightly higher resources, however, these resources were statistically more dispersed.

COAs produced a mean of 43.07, which was 0.6 of a point higher than that of non-COAs (M = 42.47). The CRI manual provides a mean of 44.10 for this domain (Hammer and Marting, 1988).

Standard deviations were separated by 2.33 points, with COAs having the higher of the two, at 8.89. It was found that the range in COA scores (highest to lowest) was 34 points, while only 26 points separated extremities in the non-COA distribution. Two COAs scored lower than the lowest non-COA, and one COA scored higher than the highest of non-COAs.

Negative skewness in the COA distribution (−.3820) revealed that many of these children had developed unusually high levels of emotional resources, while there were fewer
who were "bunched" at lower resource quantities.

An application of the chi-square test revealed that the relationship between group membership and emotional scores was statistically significant, since \( \chi^2(11, n = 81) = 85.96, p < .0005 \). Thus, the factors discussed above (dispersion, skewness, and mean) did not likely occur by chance (less than 5/10000). The null hypothesis, that social domain scores would not differ between groups, was rejected.

Perhaps those COAs with overly high resources are ones that the literature refers to as resilient (Stark, 1987, Werner, 1986). Compas (1987), refers to research that identified a group of children from disadvantaged environments who did not suffer emotionally or psychologically. There are several factors which probably contribute to resiliency (i.e. gender; gender of alcoholic; number of siblings; parental conflict; birth order, and the severity of the alcoholic's drinking are other possibilities).

Some of the literature which may help explain disproportionately lower emotional resources among COAs includes: dysfunctional parent-child boundaries (Freisen, 1983), inconsistent and confusing interactions (Burk and
Sher, 1988), rules of secrecy (Black, 1981) which prohibit expressiveness, and the emotional items measured by the CAST.

**Spiritual/Philosophical Resources**

This domain measured the degree to which behaviours are guided by consistent values from the church, family, culture or personal philosophy (Hammer and Marting, 1988).

There was considerable difference between the mean score of non-COAs ($M = 28.13$) and COAs ($M = 26.46$). Group differences were also reflected in standard deviations. Less dispersion was manifested in the non-COA distribution ($SD = 5.16$), than in the COA distribution ($SD = 6.19$). Hammer and Marting (1988) concluded from their study ($N = 232$) that the mean was 29.31 ($SD = 5.39$).

The chi-square test evidenced that spiritual/philosophical resources were dependent upon CAST groups for their frequency distribution, as $\chi^2(5, n = 81) = 29.33$, $p < .0005$. Succinctly, things that appeared in the COA distribution can be associated directly with the group itself. This finding was sufficient to enable rejection of the null hypothesis, that groups were similar in regard to this domain.
Wegsneider (1981) comments that the value systems of the alcoholic families are often characterized by high expectations -- especially for first-born children.

It is interesting to consider what the literature says about family rituals. Rituals are passages, celebrations, traditions, and the like, that help the family to define itself (i.e., shared values). Past research has found that when family rituals are disrupted or discontinued due to alcohol or abuse, there is a higher incidence of future alcohol problems among the children (NIAAA, 1984; Stark, 1987; Roosa et al., 1988).

**Physical Resources**

Hammer and Zeidner (1990), concluded that physical resources were one of best predictors of various forms of symptoms, in adolescents.

On the basis of means, the relationship between physical resources and having an alcoholic parent was the closest of the five domains in approaching a level of significance, since \( t(79) = 1.67, p = .098 \). There was a 2.27 point disparity between the mean of COAs (\( M = 28.07 \)), and that of non-COAs (\( M = 30.34 \)). This finding indicated that COAs were utilizing fewer resources in the area of physical health. For comparison, Hammer and Marting (1988) provide a mean of 29.17.
Standard deviations evidenced that COA resources were used less consistently. They produced a deviation of 6.68, while non-COA scores produced a deviation of 5.29. Group deviations were higher than the comparison figure of 4.70, provided by Hammer and Martin (1988).

Significant findings were obtained through two tests. According to the median test, $\chi^2(1, n = 81, \text{Mdn.} = 30.0) = 4.05, p = .044$; and according to the chi-square test $\chi^2(5, n = 81) = 34.23, p < .0005$. These results permitted rejection of the null hypothesis, that the association between groups and their scores was independent.

The physical domain measured resources pertaining to health maintenance, and health promotion. Analyses on the basis of items revealed significant differences between COAs and non-COAs in two such items: that COAs feel less energetic, and that COAs consume more junk food. A near association was found in a third item, that COAs snack more often between meals.

Food is a recognized addictive substance, and it is readily available to young people. When eating becomes a preferred and practised coping strategy, health problems may eventuate from overeating, especially if the food group of choice is "junk food".

These particular findings are consistent with the
literature. In two prior studies (Claydon, 1987; Clair and Genest, 1987), the researchers concluded that COAs commonly use avoidant coping behaviours (eg., eating, smoking, and drinking).

Coping resources and strategies developed in childhood and adolescence are carried into adulthood. This factor, combined with the fact that substance abusers commonly shift their dependency from one substance to another, makes evident that COAs are at-risk for future substance abuse. For example, food may be substituted for cigarettes, alcohol or drugs in adulthood. Moreover, since substance abusers are often cross-addicted, COAs may use any combination of addictive substances (ie., food, alcohol, drugs, relationships, sex, gambling) to avoid, deny and repress painful feelings from childhood.

The finding that COAs feel less energetic is compatible with the literature pertaining to depression (Roosa et al., 1990; Glenn and Parsons, 1989; Stark, 1987; Hecht, 1973).

In reference to physical resources in general, several authors and researchers have commented on physical symptoms among COAs, such as burnout and physical damage from substance abuse (Wegscheider, 1981). The findings make explicit that resources related to health-maintenance are in particular need of intervention. Fortunately, the nature of
physical-type resources (i.e., diet; exercise) makes them "easier" than the other domains to be addressed in a setting such as the school.

Brown and Siegal (1988) concluded that the negative impact of stress upon health, in adolescents, diminished as the levels of exercise were increased. Others share similar views about the value of fitness and physical resources in stress resiliency (Roth, Wiebe, & Shay, 1989; Zeidner and Hammer, 1990; Hammer and Marting, 1988).

In summary, investigating coping resources among COAs was central in this project. In each domain, chi-square analysis indicated significant differences between coping resources of COAs and non-COAs.

On the basis of mean scores, both groups were quite similar. The most pronounced difference, however, was manifested in the physical domain, where COAs were found to be eating less healthy foods, snacking more often, and feeling less energetic. These findings evidenced that both health maintenance and promotion are key issues.

In four of the five coping domains, the COA score distribution exhibited higher dispersion, meaning that scores were more distantly scattered in relation to the mean. Analyses demonstrated that there were disproportional
numbers of COAs obtaining higher and lower coping resource scores, which adds support to theories of resilience and vulnerability among COAs (Werner, 1986; Black, 1987; Wegscheider, 1981). Interestingly, the most prominent example of this dispersion occurred in the emotional domain.

Resources are a product of the individual's relations with the environment. Some, have adapted actively and are using higher quantities of resources, which is believed to be associated with adept coping (Hammer and Marting, 1988). A disproportional number also appear to be vulnerable and at-risk on the basis of fewer resources.

Several factors, which were not measured in this study, must be considered in future research endeavours. They are discussed in the Recommendations.

GENDER OF THE CHILD AND ALCOHOLIC IN COPING RESOURCES

The CAST components of research questions 3b and 4a asked if differences would be found in COA coping resources on the basis of child and parental gender.

Since there is a deficiency in precise gender by gender research and literature, most of the interpretations and considerations of literature will be provided at the end of this section.

Two of the five (40%) COAs in the "maternal" group were males. The proportion remained the same in the "paternal"
group, as there were 8 males (40%) and 12 females.

**Total Resource Scores**

Both male and female COA groups scored lower than their same-sexed non-COA peer groups. This discrepancy was most dramatic in the male COA group, who averaged 8.41 points lower than male non-COAs. Female COAs differed from their respective group by 1.99.

Those children (n = 5) revealing that they have perceived their mother as being alcoholic averaged 153.8, whereas those who have made similar observations of father (n = 20) averaged 161.75.

**Cognitive Resources**

Five offspring of alcoholic mothers averaged 23.8, whereas twenty children of alcoholic fathers averaged 26.5. A difference of 2.7 points was found.

Same-sexed comparisons provided additional information. Female COAs produced a mean of 24.93, which was 1.11 points lower than female non-COAs (M = 26.04). The difference separating sons of alcoholics from those of non-alcoholics was only 0.35, with the COAs scoring lowest of the two groups.
Social Resources

Hammer and Marting (1988) have concluded that females usually score higher than males in the social domain. They are accompanied by others (Gilligan, 1982; Berkowitz and Perkins, 1988) who believe, and have found evidence that females are more interested in interpersonal relationships.

Interestingly, the mean of daughters of alcoholics ($M = 39.33$) was 1.21 points higher than daughters of non-alcoholics ($M = 38.12$).

Sons of alcoholics produced a mean ($M = 36.10$) which was mildly below sons of non-alcoholics ($M = 36.48$).

In the social domain, children of alcoholic fathers reported higher levels of resources ($M = 38.10$) than those of alcoholic mothers ($M = 36.60$). Means were separated by 1.5 points.

Emotional Resources

The CRI manual states that distinct differences usually appear in the emotional domain, and that females normally score higher.

As in the social domain, female COAs produced a mean emotional score which was substantially higher than female
non-COAs. These means were 46.20 and 43.27, respectively. Daughters of alcoholics exhibited heightened emotional resources, surpassing same-sexed peers by 2.93 points. Moreover, in considering only females of paternal alcoholics (n = 12), the difference in same-sexed means separated further, from 2.93 to 3.94. Analysis of these group means indicated that \( t(36) = 1.60, p = .118 \).

In contrast, the male COA mean (\( M = 39.0 \)) was 2.7 points lower than that of the male non-COAs.

Findings in accordance with the gender of the alcoholic parent showed that children of alcoholic mothers had revealed lower levels of resources (\( M = 42.2 \)) than children of alcoholic fathers (\( M = 43.6 \)).

**Spiritual/Philosophical Resources**

In the spiritual/philosophical domain, the group mean of sons of alcoholics (\( M = 25.6 \)) was most intriguing, as it was 3.51 points lower than sons of non-alcoholics (\( M = 29.1 \)). Analysis on the basis of means provided indicated that \( t(35) = -1.67, p = .103 \).

Female COAs also reported resources that were lower than their same-sexed non-COA peers. The former averaged 25.4, a mean which was 1.72 points inferior.
Slight differences were found between means of children of alcoholic mothers ($M = 24.6$) and alcoholic fathers ($M = 25.7$).

**Physical Resources**

Females usually obtain lower mean scores in the physical domain, than males (Hammer and Marting, 1988).

Fifteen daughters of alcoholics produced a mean domain score of 25.47, which was 2.91 lower than the mean of female non-alcoholics ($M = 28.38$). This difference was not statistically significant, as $t(39) = -1.63, p = .110$. There was less of a difference between male COAs ($M = 30.8$) and male non-COAs ($M = 32.22$).

Concerning the gender of the parent, it was found that children of alcoholic mothers ($M = 26.6$) averaged 1.25 lower than those of alcoholic fathers ($M = 27.85$).

In summary, children raised in an environment with an alcoholic mother ($n = 5$) consistently reported lower levels of resources than children of alcoholic fathers ($n = 20$). This finding is consistent with the literature (Werner, 1986; Hecht, 1973). Werner (1986), found that most children of alcoholic mothers had serious psychosocial problems by
age 18, and she theorizes that alcoholic mothers are not as emotionally available to their children, as non-alcoholic mothers.

In comparison with same sexed non-COA groups, female COAs produced means which were more distantly higher and lower than the means of sons of alcoholics and their respective group.

Females scored almost 3.66 points higher than non-COA females in the emotional and social domains. This provides critical insight into the discussions of standard deviations from the COA/Non-COA comparisons -- it was this group who was most prevalent in the upper scores of the domain. As females are generally more expressive about their emotions (Gilligan, 1982; Burk and Weir, 1978), it is quite interesting that these skills were heightened as they developed under the demands of the alcoholic environment.

The literature documents that females place higher value upon social activities and interpersonal relationships (Lowenthal et al., 1975). While one can generalize from this finding that females have responded "outwardly" and that expansive social resources are helping them to cope with their home environment, it is important to remain cognizant that female COAs are also at-risk for entering intimate relationships and marriages with male alcoholics and substance abusers (Stark, 1987).
Sons of alcoholics scored lower than sons of non-alcoholics in each domain, with the largest discrepancy (3.51) occurring in spiritual/philosophical resources. Respecting that this domain measured resources pertaining to "value bases", and the consistency with such values are applied in everyday life, the writings of Hecht (1973) are particularly relevant. He states that male COAs experience great struggle in their efforts to identify with their fathers. Alcoholic fathers could sabotage these efforts through their inconsistent behaviours. Thus, these males could be guessing at "what is normal", due to inconsistent role-modelling. This notion is supported by Woititz (1984), who claims that COAs experience lifelong struggle in their quest for gaining a sense of normalcy that was not possible during childhood.

Male COAs scored substantially lower than male non-COAs in the area of emotional resources. This is consistent with the writings of Gilligan (1982), who states that males retain their emotions. In addition, Werner (1986) concluded that males were more vulnerable to the effects of parental alcoholism than females.
COPING RESOURCES AMONG COAS EXPOSED TO CONFLICT

This section summarizes findings pertaining to research question 7, which asked if coping resources differed between children of alcoholics exposed to conflict, and COAs who were not exposed to such an environment. Categorization of these children was outlined in the previous chapter.

Five males and three females were included in the COAEC (COAs exposed to conflict) group.

A trend in the scores between COAs and COAECs was found. In each domain, children exposed to conflict had developed higher resources, according to means.

The social and emotional domains presented the most notable differences. In the emotional domain, COAECs averaged 3.75 higher than the remainder of the group. The difference was almost as great in the social domain, where they had a mean which was 3.25 points higher.

When differences in domain means were summed, there was a 10.12 point discrepancy. Children of alcoholics living in the conflictuous environment averaged 170.12, while their COA peers averaged 160.00.

The literature provides some indication concerning factors which may have contributed to differences in central tendency. Jenkins, Smith, and Graham (1989, p.187)
concluded from their study of 139 families that "the majority of children took some action to stop their parents' quarrelling or went to comfort them after the quarrel was over." Furthermore, some children acted protectively in sibling relationships. These qualities reflect the emotional and social components of the human personality, which if practised under stress in the alcoholic environment, would be understandably transferable to other environments and relationships.

As a group, COAECs are survivors. They have responded to the things they cannot change, and have adapted to the environment. Chaos, conflict, and alcoholism have presented threatening demands, which have encouraged the development of coping resources and skills for survival.

One critical piece of information not obtained in this study was the ordinal position of each child in the family constellation. Countless authors have referred to eldest children as the rescuers, pleasers, and maintainers of the family balance, and have provided them with names such as "heros" (Wegsneider, 1981) and "responsible ones" (Black, 1987). This researcher believes that a disproportional number of the COAECs may have been the eldest of siblings.
THERAPEUTIC IMPLICATIONS

The literature emphasizes two approaches as extremely effective with COAs. First, since alcoholism itself is a symptom of systemic dysfunction, the entire family is in need of assistance. While one individual carries the alcoholic symptom, it is the spouse and children who have adapted to accommodate for the symptom and act to maintain it. Systemic intervention would enable healthy boundaries to be formed, maladaptive roles to be abandoned, feelings to be validated, and communication channels to be opened, among other issues. Interested readers would benefit from reading Kaufman and Pattison (1981).

Service providers operating from a systems framework maintain that small groups are an ideal environment for working with COAs. This modality affords COAs an opportunity to: be comforted in knowing that they are not alone, be educated about the "facts" of alcoholism, and have feelings validated. Groups assist COAs in learning to associate thoughts and feelings with environmental experiences, and to gain a sense of confidence in themselves. With time, maladaptive behaviours and patterns would be deserted by the COA, and feelings of resentment, guilt, and anger would find relief in their expression. Group process would also offer an excellent opportunity for problem-solving, skill development, and value clarification.
Groups would lessen feelings of alienation through peer-networking, and provide social support. As discussed, life skills education in the area of health maintenance and promotion would be valuable components in the format of a COA meeting group.

Specific therapeutic issues for males may involve learning to acknowledge and express feelings, as well as gain a sense of self concerning their values, the origins of such values, and how values are tools for everyday functioning.

Females are at risk for being parentified. Helping behaviours learned in childhood are often carried into adulthood. For example, one unpublished study listed in the CAST manual identified 35% (n = 217) of student nurses as COAs (Jones, 1991). Therefore, this group may be particularly in need of intervention to heighten self-awareness concerning the level of care they are providing to themselves, and whether such care may be vulnerable to sacrifice in efforts to care for others.
RECOMMENDATIONS

1. Research pertaining to coping among COAs is multi-faceted. As evidenced in this project, there are many aspects to be considered. Each coping resource domain, for example, is a specific area of study. It is imperative that researchers continue to address the influences of the alcoholic environment upon the child. Moreover, it is recommended that longitudinal designs be employed for the purpose of formulating a developmental, empirically-based model which would facilitate an understanding of COAs as they progress through the life cycle.

2. Although sample size inhibited extensive analysis on the bases of COA gender and parental gender, the data provided some indication that differences existed. As research in this area is in its infancy, it is recommended that future studies consider if parental alcoholism effects sons differently than daughters, and if an alcoholic mother exerts different influences than an alcoholic father, and the "combinations" available from these variables. Secondly, future researchers may wish to investigate whether the birth order of COAs is a factor in the dependent variable being investigated.
3. The need for further research into the effects of family conflict and violence upon children was supported in this project. It is of paramount importance that the short term and long term implications of this social problem be addressed.

4. It is recommended that future researchers obtain a sample size of at least 300 participants. This will permit higher quantities of variables to be considered, and yield more precision in findings.

5. It is recommended that Camelot Unlimited, publisher of the Children of Alcoholics Screening Test (Jones, 1983), be notified of findings derived from administration of the instrument. In particular, to inform that significant gender differences appeared among COAs, and that such differences were also found in past research by Dinning and Berk (1989).

6. In recognition of the findings from this study and the literature reviewed, it is recommended that the school system evaluate the extent to which familial alcoholism is currently being addressed in its curriculum. Students of primary and secondary schools would benefit from classroom inservice programs. The ideal setting would enable COAs, identified through self-disclosure
or by professionals, to obtain group counselling services. Similar groups have proven effective in addressing issues such as divorce and social skill enhancement.

7. Social policies must accommodate for COAs and their needs. Federal and provincial governments must continue to support the conduct of research and the establishment of services through direct financial provisions. Recently, the Ontario Government distributed in excess of 4.5 million dollars to addiction-related services and programs for children and their families. It is recommended that all small and large scale efforts to address this social problem be supported.

The NIAAA publication, *Alcohol Health and Research World* (1984, pp.30-36), includes recommendations that: a) budgets in organizations serving children be "alcoholized" to ensure staff education and skill development (Cermak), b) that COAs be permitted to receive services regardless of the family's or alcoholic's commitment to therapy (Brown) and, c) that educational policies reflect the need for "alcohol programming", and make specific reference to services for COAs (Yurman).
8) Symptoms of alcoholism bring such families into contact with social service agencies. As alcoholism itself is a symptom of dysfunction, it is essential that helping professionals assess for the existence of alcohol and substance abuse in their practice with children and families.

**Summary**

In this chapter, study findings were complemented by relevant literature. This process evidenced the intrinsic value of such findings, and moreover, facilitated an understanding of the connectedness between findings.

While the statistics themselves cannot be generalized to other environments (i.e., prevalence), the interpretations and information accompanying these statistics has high utility for service providers, administrators, and policy makers alike.
APPENDIX A

PARENTAL INFORMATION LETTER
PARENTAL CONSENT LETTER
POST-STUDY FOLLOW-UP LETTER
PARENTAL INFORMATION LETTER

Dear Parents and Guardians,

Recently, Mr. Paul McGary has been granted permission by the Research Review Committee, of the XXXXXXXXXXXXXX School Board, to conduct a study among grades 9 and 10 students at XXXXXXXXXXX Secondary School. Mr. McGary is a Masters of Social Work Candidate, at the University of Windsor.

Mr. McGary's study is closely monitored, throughout, by Mr. Robert Chandler, an Associate Professor in the University's School of Social Work.

The study consists of two steps. First, students are asked to complete two questionnaires. Second, students are provided with an educational follow-up, after step one.

While the purpose of this study is specific in examining contemporary social issues among adolescents and their responses to such issues, the precise focus will not be disclosed at this point, since this information can influence the results. Mr. McGary is obligated and willing to distribute a description of the study to all students at the time of the study. A summary description of the research and its findings can be requested, and will be available in June. Lastly, complete copies of the study will be made available at the XXXXXXXXXXX Board of Education in late June.

No student is asked to reveal their identity on any form, or on any portion of the questionnaires. Each student has the option at the time of the study not to participate. Completing the questionnaires will take about twenty minutes.

Individual questionnaires will not be separated from the remainder of the group. Each student's answers will be analyzed in "group numerical" form only.

In order to participate, each student is required, by XXXXXXXXXXXX XXXXXXXXXXX Board policy, to return the attached Consent Form. Students must return the Consent by March 27, 1992, to a "deposit box" in the Guidance Office. Consent Forms will be kept separate from completed questionnaires at all times.

If you are hesitant about granting your son or daughter permission to participate, or would simply like further details concerning any of the information discussed above, please feel free to contact Mr. Paul McGary directly. He can be reached through the week from 5:00 to 7:00pm, at 253-0039.

The researcher wishes to express his sincere appreciation to all parents and guardians who took the time to consider this request.
PARENTAL / GUARDIAN CONSENT TO PARTICIPATE IN RESEARCH

I, ______________________ (clearly print name of parent/guardian), hereby provide my written consent for ______________________ (print clearly, full name of student) to participate in the study being conducted by Mr. P. McGary during the month of March, 1992.

Currently, my son/daughter is in grade 9 / 10 (circle one).

If grade nine, his/her first period teacher's name: ____________.
If grade ten, his/her second period teacher's name: ____________.

I understand that the names of participants will be kept confidential at all times, and that the data collected will be used for group numerical purposes only, and not for individual analysis.

My signature on this form indicates my approval in allowing my son/daughter to participate, however, I understand that my son/daughter has the option, at the time of the study, not to participate.

This form is to be returned by March 27, 1992, to a designated box in the Guidance Office.

<table>
<thead>
<tr>
<th>Signature of Parent/Guardian</th>
<th>Date of Signature</th>
</tr>
</thead>
</table>

If you wish to receive a description and results from the study, please complete information, below.

Send to:

Name: ______________
Address: ______________
Postal: ______

Respectfully yours,

Paul A. McGary
March 30, 1992

Research Follow-Up for Parents and Students

The student body who participated in today's research study was comprised of those who had returned Consent Forms signed by parents, and further, appeared voluntarily in the research setting.

Students were asked to respond, in writing, to 90 questions. Students answered each question by selecting from amongst the answers provided. Each question could be answered in one of two ways: with either "yes or no"; or, in other questions by answering according to a frequency continuum that ranged from "never" to "always".

The study sought to discover how students respond to their environment. More specifically, the 2 questionnaires asked about: their social interaction; physical activity; value and belief systems; social attitudes; emotional expression; self-awareness; and perceptions about alcohol use in the community.

As was stated in the Parental Information Letter, sent last week, all of the information gathered in this study will be utilized in a manner that protects confidentiality. The name of the school will be treated with similar respect.

This study would not have been possible without the co-operation of parents and students. The researcher is thankful, and indebted to all individuals at XXXXXXXXX Secondary School who made this study possible.

Respectfully,

Paul A. McGary
MSW Student
APPENDIX B

THE CHILDREN OF ALCOHOLICS SCREENING TEST (Jones, 1983)
C. A. S. T.

Please check the answers below that best describe your feelings, behavior, and experiences related to a parent's alcohol use. Take your time and be as accurate as possible. Answer all 30 questions by checking either "Yes" or "No".

Gender: Male _____ Female _____ Age: _____

Yes No Questions

1. Have you ever thought that one of your parents had a drinking problem?

2. Have you ever lost sleep because of a parent's drinking?

3. Did you ever encourage one of your parents to quit drinking?

4. Did you ever feel alone, scared, nervous, angry or frustrated because a parent was not able to stop drinking?

5. Did you ever argue or fight with a parent when he or she was drinking?

6. Did you ever threaten to run away from home because of a parent's drinking?

7. Has a parent ever yelled at or hit you or other family members when drinking?

8. Have you ever heard your parents fight when one of them was drunk?

9. Did you ever protect another family member from a parent who was drinking?

10. Did you ever feel like hiding or emptying a parent's bottle of liquor?

11. Do many of your thoughts revolve around a problem drinking parent or difficulties that arise because of his or her drinking?

12. Did you ever wish your parent would stop drinking?

13. Did you ever feel responsible for and guilty about a parent's drinking?

14. Did you ever fear that your parents would get divorced due to alcohol misuse?

15. Have you ever avoided outside activities and friends because of embarrassment and shame over a parent's drinking problem?

16. Did you ever feel caught in the middle of an argument or fight between a problem drinking parent and your other parent?

17. Did you ever feel that you made a parent drink alcohol?

18. Have you ever felt that a problem drinking parent did not really love you?

19. Did you ever resent a parent's drinking?

20. Have you ever worried about a parent's health because of his or her alcohol use?

21. Have you ever been blamed for a parent's drinking?

22. Did you ever think your father was an alcoholic?

23. Did you ever wish your home could be more like the homes of your friends who did not have a parent with a drinking problem?

24. Did a parent ever make promises to you that he or she did not keep because of drinking?

25. Did you ever think your mother was an alcoholic?

26. Did you ever wish you could talk to someone who could understand and help the alcohol related problems in your family?

27. Did you every fight with your brothers and sisters about a parent's drinking?

28. Did you ever stay away from home to avoid the drinking parent or your other parent's reaction to the drinking?

29. Have you ever felt sick, cried, or had a "knot" in your stomach after worrying about a parent's drinking?

30. Did you ever take over any chores and duties at home that were usually done by a parent before he or she developed a drinking problem?

____ TOTAL NUMBER OF "Yes" ANSWERS
SELECTED BIBLIOGRAPHY


Helping children from alcoholic families: Approaches and caregivers. (1986). Adapted from Chapter 2 in, A growing concern: How to provide services for children from alcoholic families, published by the NIAAA. *Children Today*, 15, 13-16.


VITA AUCTORIS

Paul Andrew McGary was born November 11, 1968, in Oshawa, Ontario. He received his elementary and secondary education in Whitby, the town of his residence for nineteen years prior to his move to Windsor, in 1987, for post-secondary education.

In 1991, Mr. McGary graduated from the University of Windsor with a Bachelor's Degree in Social Work. Concurrently, he was accepted into the Masters of Social Work program where he concentrated in intervention, child and family services.

Mr. McGary has accepted a position with Pinewood Centre, of Oshawa General Hospital. He will graduate and receive an M.S.W. at the Fall Convocation, 1992.