INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

ProQuest Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
800-521-0600

Running Head: Coping with epidemic in HSG males

COPING WITH THE HIV AND AIDS EPIDEMIC IN HIV SERONEGATIVE GAY MALES IN MONTREAL

Scott C. A. Watson

Department of Educational and Counselling Psychology

McGill University, Montreal

Thesis submitted in partial fulfillment of the requirements for the degree of Ph.D. in Counselling Psychology

Abstract

One hundred nine HIV seronegative gay (HSG) males from the Montreal gay community, drawn from downtown health clinics, advertisements in gay friendly newspapers, and referrals from colleagues, were examined with respect to how they were coping with the HIV and AIDS epidemic (July 3, 1981 to August, 1998). Participants were asked to complete both a detailed demographic questionnaire and the Ways of Coping Questionnaire. Coping theory and coping research relevant to the research at hand are discussed in detail. Results indicate that HSG males in Montreal are coping most frequently with the HIV and AIDS epidemic through the "escape/avoidance" coping strategy, and least frequently through "confrontive coping." In addition it was found that the only significant results, by age group, relate to the "accepting responsibility" and "escape/avoidance" coping strategies.

Research limitations, suggestions for future research, and clinical implications are discussed.

Résumé

Cent neuf individus mâles séronégatifs de la communauté homosexuelle de Montréal , contactés par l'intermédiaire des cliniques du centre-ville, d'annonces dans les journaux lus par la communauté gay, ou référés par des collègues, ont été interrogés sur leur manière de faire face à l'épidémie du SIDA (du 3 juillet 1981 à aujourd'hui).

Les répondants devaient remplir un questionnaire démographique détaillé et un questionnaire sur leur manière de faire face au virus (*Ways of Coping Questionnaire*). La théorie et la recherche liées au *coping* ont été discutées en détail lorsqu'elles étaient pertinentes à la présente étude. Les résultats indiquent que les homosexuels mâles séronégatifs de Montréal font face à l'épidémie du SIDA le plus souvent par une stratégie de fuite/refus, et le moins souvent par une stratégie de confrontation. En outre, on a trouvé que les seuls resultats significatifs liés au groupe d'âge concernaient les stratégies d'acceptation de la responsabilité et de fuite/refus.

Les limitations de la recherche, des suggestions pour des études futures, ainsi que des implications cliniques sont discutées.

Acknowledgments

I would like to thank my parents, Delores and Allan for their unending support and guidance throughout my life. For my special relationship with my sister Barbara and her family, my brother James and his family, and my brother Bruce and his family I am thankful. I would also like to thank my Ph.D. thesis supervisor, Professor William Talley for his countless hours of work on my behalf, and for his support, guidance, and expertise in the completion of this thesis. Thanks also to Professor Michael Hoover for his ability to decipher the indecipherable and for his invaluable direction. I applaud Dr. Tina Goodin for recommending Professor Talley as a wonderful thesis director "who gets students through the rough times to completion". To Dr. Rene Tirol, Dr. Claude Belanger, Dr. Orin Rosengren, Mrs. Gloria Illianian and Ms. Laura M. Mosca whose assistance made this work possible. Further, this work would not have been possible without the assistance, support and friendship of Barbara A. Hartley (Sasha & Nemesis), John L.K Lau, Gordon R. Dionne, Mikhail M. Brodsky, Lissa M. Lincoln, David N. Rabouin, Fabrice Cadillion, Henry Debiolles, Stephan DeFago, and last but not least Mrs. Evelyn Grubbe-Mickie (Montreux & Edmond). Finally, thanks go out to the participants of this study who gave of their time to advance knowledge in the area of coping in HIV seronegative gay males.

Preface

The following research is an original and greatly needed contribution to the already existing and vast coping literature. What made this research important and necessary is that it examined coping with a very specific population, HIV seronegative gay males, with respect to a very specific threat which requires coping, the HIV and AIDS epidemic. Folkman and Lazarus (1988), two of the foremost authorities in coping research, argue that it is how individuals cope with stress, not stress per se, that influences their psychological well being, social functioning, and somatic health. Thus, the goal of this research was to examine how HSG males in Montreal were coping with the HIV and AIDS epidemic.

Dedication

This work is dedicated to all of the HIV seronegative gay men whom I have treated in both my hospital and private practice in Montreal. These gay men have confided in me that because they are HIV seronegative they feel they have been neglected during the emergency response to the HIV and AIDS epidemic. One particular patient describes it poignantly. He claims that he "feels like a gay male tree within a gay male forest that used to be full and lush. However, as time and disease have progressed during the last decade and a half, [he feels he sways] alone more and more where [his] peers once stood with no professional attention to [his] needs because [he is] not as of yet, diseased."

Comments such as this by patients that I have had the pleasure of treating, greatly motivated me to conduct the following research so that HIV seronegative gay males no longer need to feel neglected, and thus are aided in coping more effectively with the epidemic.

Table of Contents

CHAPTER 1

INTRODUCTION:
BACKGROUND INFORMATION AND RATIONALE
OF THE RESEARCH

BACKGROUND INFORMATION

History of the HIV and AIDS Epidemic

In the early 1980s, media around the world began reporting on a growing number of young men dying of a variety of otherwise rare conditions. The illness was first described in the United States on July 3, 1981 when the front page of the New York Times' read "Rare Cancer Seen in 41 Homosexuals." The article described cases of unexplained pneumocystis carinii pneumonia (PCP) and Kaposi's sarcoma (KS) that were being reported among previously healthy young gay men in New York City and San Francisco. It soon became apparent this was an infectious disease, a virus that crippled the body's immune system, leaving people defenseless against a variety of common microbes.

The presenting constellation of immunosuppression, viral infections, and demyelinating disorders was initially called Gay Related Immune Disease (GRID) due to it's exclusive appearance among homosexual and bisexual men. Subsequently the disease presented in both homosexual and heterosexual populations and across all socioeconomic status groups. Consequently, the definition was changed to Acquired Immunodeficiency Syndrome (AIDS) by the Center for Disease Control (CDC) in Atlanta (Landau-Stanton & Clements, 1993).

The virus believed to be the etiological agent of AIDS is the Human Immunodeficiency Virus (HIV), which attacks and seriously damages the body's immune system. As a consequence, people with AIDS suffer from fatal opportunistic infections and cancers, unless they engage in powerful drug combination therapies. Since March 1985 HIV antibody testing has been available and as a result gay communities have been divided into HIV negative and HIV

positive groups. Unfortunately, research and clinical manpower have focused almost exclusively on HIV positive gay males. As a result the psychological needs of HIV seronegative gay (HSG) males have been largely neglected in the face of the grueling demands of the emergency response to the epidemic (Johnston, 1995).

The Impact of HIV and AIDS

Statistics indicate that AIDS was the major cause of death by illness among young men aged 25 to 45 in Canada and the United States until less than 36 months ago, when the new drug combination therapies were introduced (Morbidity & Mortality Weekly, 1997). Canada has the second highest rate of HIV infection in the developed world, exceeded only by the United States. The epidemic has spread exponentially, and it is estimated that 50,000 Canadians are now infected with HIV. To date, 6,931 Canadians have died of the disease. More than 890,000 US citizens have been diagnosed with AIDS, and more than 250,000 have died. Worldwide, it is estimated that there are 38.5 million people who are infected with HIV and by the end of the decade it is estimated that 40 million people will be HIV seropositive. Today 13.9 million have already died of AIDS (Statistical Source: Department of Health and Welfare, The Federal Center for AIDS, Telephone Communication, Statistics Published June 1999).

In just over a decade the AIDS epidemic has moved from a rare condition to a pan-epidemic; the first truly worldwide, fatal (for now manageable) chronic illness crisis. However, these statistics do not depict the devastating impact the epidemic has had on millions of HSG males, in Montreal, in Quebec, in Canada and around the globe. The specifics of how HSG males are coping will be outlined

in the following chapter, which focuses on the literature review. First, however, we will discuss the rationale of the research.

RATIONALE OF THE RESEARCH

Goal of the Research

The goal of the research was to examine coping with the HIV and AIDS epidemic in HIV seronegative gay (HSG) Males in Montreal. For the purpose of this research coping was defined as the complex combination of cognitive and behavioural efforts individuals use to manage (reduce, minimize, master and tolerate) the internal and external demands of the person-environment transaction that is appraised as taxing or stressful.

This research had two distinct yet overlapping goals. The first was to establish what mechanisms of coping HSG males in Montreal report that they use in negotiating the personal issues they have experienced relative to the HIV and AIDS epidemic. The second was to determine if there is a relationship between the age of HSG males over the historical continuum of HIV and AIDS (July 3, 1981 to present) and their different ways of coping with the epidemic.

Why is this Research Important

To date there is a serious paucity of research studying health issues with respect to HSG males. This research is important because it presents a portrait of a part of the Montreal gay community that has been largely neglected in the face of the demands of the emergency response to the epidemic. Often affected by repeated loss and fear of infection, many HSG males find themselves "survivors" of an on-going disaster that has only recently been downgraded from a terminal

illness to a more manageable chronic one, thanks to the advent of combination drug therapies (Johnston, 1995).

Given the seriousness of the current situation and the dire future predictions, it is crucial that mental health care professionals, both researchers and clinicians, redouble their efforts to aid HSG males in coping with the epidemic that surrounds them, thus helping prevent the spread of HIV.

Psychologists and other mental health professionals play a crucial role in the prevention of HIV and AIDS through developing programs for intervention and social change. Currently, psychological intervention plays a key role in HIV prevention. Since there is no vaccine to prevent infection, adaptive coping, or more specifically, high-risk behaviour change constitutes the only means of avoiding it (Kelly & Murphy, 1992).

Risk reduction intervention which focuses on adaptive coping strategies plays an important and very necessary role in aiding HSG males to cope with the unique psychosocial sequela surrounding them as a consequence of the HIV and AIDS epidemic. As a result, many HSG males require therapeutic intervention in order to cope with their presenting issues. If HSG males can be aided in dealing with the "trauma" that surrounds them and encouraged to deal with the "mass architecture of denial that professes they are coping adaptively with the epidemic" (Johnston, 1995, p. vii), then maybe they can avoid succumbing to self-destructive behaviours as a way of coping with the epidemic and not sero-convert. Research concerning the coping of HSG males is crucial in order to understand and aid them in dealing adaptively with the epidemic, and thus avoiding high-risk behaviours and HIV infection.

The first step in this process is to describe the different ways in which HSG males in Montreal are coping with the epidemic. The clinical implication of this research is that the adaptive coping strategies that are discovered can be taught to HSG males who are not coping as well with the epidemic. The assumption is that they will cope more adaptively and therefore be less likely to engage in behaviours which are HIV high risk.

What follows is a discussion of the relevant literature, beginning with coping theory and following with those aspects of the coping research that are pertinent.

CHAPTER 2

LITERATURE REVIEW:
COPING THEORY, COPING RESEARCH, AND CRITIQUE OF RESEARCH

COPING THEORY

Historical Overview: Defense Mechanisms to Coping

The study of people's responses to stressful and upsetting situations has generated a vast literature on a variety of overlapping concepts. Much of this work has a relatively long history, which makes the process of disentangling notable developments all the more difficult. Research on the concept of "defense", for example, extends back to the 19th century and reflects events surrounding the origins of psychoanalysis. The work that has examined the way people cope with stressful situations, on the other hand, has a history spanning only a few decades. The category of "coping" was not included in Psychological Abstracts until 1967 (Popplestone & McPherson, 1988). Since the late 1960s, several related categories have been added (e.g., coping styles, coping resources), in response to the avalanche of research that has appeared on coping-related topics.

One of Freud's earliest contributions to the study of psychopathology centered on the observation that unpleasant or disturbing thoughts are sometimes made unavailable to consciousness. A great deal of Freud's early psychoanalytic writings focused on outlining the various psychological maneuvers used by individuals to fend off, distort, or disguise unacceptable ideas or feelings. Hence came the notion of Freud's mechanisms of defense or, in other words, the ways that individuals cope. As Freud's theories evolved, the concept of defense mechanisms came to play an increasingly important role (Lazarus, 1993).

Coping Construct

In the 1960s, a new line of research, initially related to work being conducted on defense mechanisms, began to coalesce under the "coping" label (Lazarus, 1965). Before this period, the word coping had been used informally in the medical and social science literature (Lazarus, 1993). For a number of researchers in the 1960s and early 1970s, the initial work on adaptive defenses led to an independent interest in the study of the conscious strategies used by individuals encountering stressful or upsetting situations. Conscious strategies for reacting to stressful or upsetting situations were conceptualized in this new literature as coping responses. Very quickly, this type of coping research became a large and self-contained research area distinct from the older literature on defense mechanisms (Carpenter, 1996, Folkman, 1992, Lazarus, 1993).

From early coping research two coping dimensions, which have continued to attract much attention, were identified by researchers, emotion-focused coping and problem-focused coping. To summarize a sizable, and not always consistent literature, the problem-focused coping dimension involves strategies that attempt to solve, reconceptualize, or minimize the effects of a stressful situation. The emotion-focused coping dimension, on the other hand, includes strategies that involve self-preoccupation, fantasy, or other conscious activities related to affect regulation. Almost all coping measures developed in the past few decades include scales that assess these two coping dimensions (Lazarus & Folkman, 1984).

Avoidance-oriented coping, another basic dimension identified by the first generation of coping researchers, has continued to generate considerable research attention. Depending on the theorist, the avoidance coping dimension has been

conceptualized as involving person-oriented and/or task-oriented responses. An individual can react to a stressful situation by seeking out other people (social diversion) or can engage in a substitute task (distraction). Along with assessing problem-focused and emotion-focused dimensions, most of the coping measures that have been developed include scales that assess avoidance coping responses (Lazarus, 1993).

In the late 1970s a major new development in coping theory and research occurred in which the hierarchical view of coping, with its traits or style of coping emphasis was abandoned in favor of a contrasting approach, which viewed coping as a process. From a coping process perspective, coping changes over time and in accordance with the situational contexts in which it occurs (Lazarus, 1993).

Over the years, both psychological and environmental factors have attracted research attention in the study of the coping resources. Psychological factors might include variables like self-esteem or self-efficacy, whereas environmental factors might include social support networks, financial resources, or education.

During the 1980s and 1990s, trait research has flourished again in the personality area. Not surprisingly, there has been a renewed interest in personality variables by some coping researchers, although it needs to be emphasized that many researchers in the coping area continue to downplay the importance of personality variables (Folkman, 1992; Lazarus, 1993). Carpenter (1992), for example, has noted that "historically, efforts to understand coping as personality attributes, or even styles, have not been very successful"(p.4). The distinction between those coping researchers who emphasize the importance of predisposition

variables (traits) and those researchers who emphasize situational factors (coping as a process) has sometimes been referred to in the coping literature as the distinction between an interindividual and an intraindividual approach to coping. The interindividual approach to coping attempts to identify basic coping styles: habitual coping strategies used by particular individuals across different types of stressful situations. The intraindividual approach to coping, on the other hand, attempts to identify basic coping behaviours or strategies used by individuals in particular types of stressful or upsetting situations. This approach assumes that individuals have a repertoire of coping options available to them from which they can build what they believe to be the most effective strategy, depending on the nature of the situation. Although almost an unlimited number of potential coping strategies and reactions are available to a person in a particular situation, there is an assumption that these activities can be classified into a small number of basic coping dimensions.

In recent years conviction has grown, however, that it is how individuals cope with stress, not stress per se, that influences their psychological well-being, social functioning, and somatic health (Folkman & Lazarus, 1988). As the environment in which individuals operate continues to become more complex, and therefore stressful, the importance of coping adaptively with stress increases. For example, technological advances, particularly those related to information access and communication, mean that, increasingly, individuals are less able to avoid stress and thus, necessarily, must learn to cope with it.

Definition of Coping

There are multiple, often overlapping definitions of coping. For the purpose of this research coping is defined as the complex combination of cognitive and behavioural efforts individuals use to manage (reduce, minimize, master and tolerate) the internal and external demands of the person-environment transaction that is appraised as taxing or stressful. Stressful situations include a variety of events which produce various levels of discomfort (e.g., school exams, job stress, life change, loss of a loved one, threat of HIV infection, serious illnesses) (Coelho, Hamburg, & Adams, 1974; Folkman, Lazarus, Gruen & DeLongis, 1986; Murphy, 1974; White, 1974).

Coping requires the individual to assess the situation, to evaluate its relationship to his or her well-being, and to appraise whether or not anything can be done with the situation, such as accepting it or seeking more information (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). According to Folkman et al (1986), the four main variables in coping are:

1.) Cognitive Appraisal - refers to an individual's assessment of whether or not they will benefit from or be at risk in a particular situation (Folkman, Lazarus, Dunkel-Schetter, Delongis, & Gruen, 1986). Coping strategies are applied when a routine or automatic response is not available. Thus, cognitive appraisal is necessary when "environmental demands must be met with new behavioural solutions or old ones must be adapted to meet the current stress" (Monat & Lazarus, 1985, p.5).

2.) Evaluating Outcomes - refers to the individual's assessment of whether or not a situation will have a positive or negative outcome and whether or not that

outcome is contingent upon his or her taking some kind of action (Folkman, Lazarus, Dunkel-Schetter et al., 1986; Monat & Lazarus, 1985; White, 1974).

3.) Behavioral Effort - refers to an individual's attempts to manage the demands of the person-environment interaction based on cognitive appraisal and the relevance of that situation to his or her well-being (Folkman, Lazarus, Dunkel-Schetter et al., 1986; Monat & Lazarus, 1985; White, 1974).

4.) Person-environment Transactions - these refer to the internal and external environmental demands placed on the individual in a particular situation. Person-environment transactions are determined by cognitive appraisal and behavioral efforts (Folkman, Lazarus, Gruen & Delongis, 1986; Folkman, Lazarus, Dunkel-Schetter et al., 1986; Monat & Lazarus, 1985).

Lazarus (1966) and Folkman and Lazarus (1980) hypothesized a taxonomy of coping which emphasizes two major categories: problem focused and emotional focused coping. Problem focused coping is defined as the individual's instrumental attempts to change the problematic situation by information seeking, holding back from impulsive or premature actions, or by confronting the person or persons responsible for the difficulty. Emotional focused (palliative) coping, on the other hand, is defined as a way of coping that makes people feel better without actually changing the situation (Folkman & Lazarus, 1980; Lazarus, 1966).

Coping Assessment

Literature on the assessment of various coping constructs far outweighs the theoretical literature on coping. Over the past few decades, a vast body of literature has developed on coping assessment. Whereas researchers have utilized a variety of methods with coping theory, most researchers in the coping area

(whether they advocate an interindividual or intraindividual approach) have used self-report measures to assess coping reactions and responses.

There are a number of coping assessment tools from which to choose, but for this research The Ways of Coping Questionnaire (WCQ) (Folkman & Lazarus, 1988), which is cited frequently and is associated with successful research results in the coping literature, was employed. The WCQ has as its antecedent the Ways of Coping Checklist (WCC), which was developed by Lazarus in the 1970's. This original checklist was adapted in subsequent years to better reflect the richness and complexity of the coping process. This was done through work with several data sets over the years, which were put through various factor analyses; the current questionnaire is the end result of these analyses. One of the advantages of the WCQ is that it is designed to be answered with reference to an actual, personal stressful situation. This helps by ensuring that the respondent has a stressful situation in mind, however that is defined by the individual, rather than responding to a pre-determined situation which may or may not be perceived as stressful, depending on the individual. Another benefit of the WCQ is that the intercorrelations among the scales are low, indicating that they are truly distinctive.

With respect to reliability, Folkman and Lazarus (1988) state that the alpha coefficients of the eight coping scales of the WCQ are higher than the same measures for most other tools used to assess the coping process. Also, Folkman and Lazarus (1988) indicated evidence of construct validity in the fact that the results yield their theoretical predictions. Specifically, 1) coping consists of both problem focused and emotion focused strategies and 2) coping is a process.

With coping theory in mind, the following is an examination of the coping research literature, which addresses how people cope with epidemics.

COPING RESEARCH

The coping literature can be divided into eight subareas. The first subarea of coping research could be referred to as coping with daily problems or annoyances. For example, within this area the research discusses coping with university exams (Folkman & Lazarus, 1985; Abella & Heslin, 1989; Edwards & Trimble, 1992; & Cooley & Klinger, 1989), family discord (Sabourin, Laporte, & Wright, 1990; Luepnitz, 1979; Rossman & Rosenberg, 1992; & Grych & Fincham, 1993), noise (Topf, 1985; & Hallberg, Erlandsson, & Carlsson, 1992), traffic (Novaco, Stokols, and Milanesi (1990); & Evans & Carrere, 1991), and crowding (Stokols, 1976; Brehm, 1966, & Stokols, Rall, Pinner, & Schopler, 1973) to mention but a few. The second subarea discusses coping in occupational settings. For example, this area of research examines stress and coping at work (Cox, 1978; Aldwin & Revenson, 1987; & Dewe, Cox, Ferguson, 1993), sources of workplace stress (Cooper & Marshall, 1978; Cooper & Sadri, 1991, & Schwartz & Stone, 1993), individual response to workplace stress (Callan, 1993; & Cartwright & Cooper, 1993), and organizational initiatives to aid coping (DeFrank & Cooper, 1987 & Murphy, 1988).

The third coping subarea is coping with chronic pain. This area focuses on coping and pain (Lazarus & Folkman, 1984) adaptive and maladaptive strategies for coping with pain (Perrez & Reicherts, 1992), social support (Cohen & Lazarus,

1983), and the situational aspects of coping with chronic pain (Felton & Revenson, 1984).

The fourth subarea is coping and substance abuse. This area discusses theoretical approaches (Lazarus & Folkman, 1984), coping and substance use initiation (Robins & Przybeck, 1985 & Wills, Vaccaro, & McNamara, 1992), coping and ongoing substance abuse (Cohen & Williamson, 1988 & McKirnan & Peterson, 1988), coping and relapse (Perkins & Grobe, 1992 & Shiffman, 1985), and primary and secondary prevention (Foreman, 1993 & Hester & Miller, 1989).

The fifth subarea concerns coping with unusual stressors, primarily criminal victimization. For example, this area discusses reactions to traumatic victimization (Leymann, 1985 & Krupnik, 1980), explaining the reactions of trauma victims (Janoff-Bulman, 1992 & Bryant, 1989), coping with traumatic victimization (Thompson & Spacapan, 1991), and therapeutic implications (Allison & Wrightsman, 1993).

The sixth subarea is coping in reaction to extreme stress. This area considers the role of resource loss and resource availability (Baum, Solomon, & Ursano, 1987; Raphael, Lundin, & Weisaeth, 1989), immediate response to crises and disaster (Freedy, Resnick, Kilpatrick, & Saunders, 1993), long-term reactions to disaster (Murphy, 1984; Shore, Tatum, & Vollmer, 1986), and mediators of extreme stress responses (Golec, 1983; Steinglass & Gerrity, 1990).

The seventh subarea in coping research relates to coping with multiple stressors in the environment, such as the effects of multiple stressors on adjustment, and coping with multiple stressor effects (Holmes & Rahe, 1967; Myrtek & Spital, 1986).

The eighth and final area of coping research deals with coping with chronic diseases. Considered here is, for example, coping with asthma (Maes & Schlosser, 1987; Bauman, 1993), cancer (de Ridder & Schreurs, 1994; Dunkel-Schetter, Feinstein, Taylor, and Falke, 1992), coronary heart disease (Gentry, Foster, & Haney, 1972; Levenson, Kay, Monteferrante, & Herman, 1984), diabetes (Band, 1990; Frenzel, McCaul, Glasgow, & Schafer, 1988), and rheumatoid arthritis (Zautra & Manne, 1992). Nowhere in the literature, however, does it discuss HIV seronegative gay males and how they cope with the epidemic in their community and peer group. Therefore the goal of this research is to discuss how this particular population is coping with the HIV and AIDS epidemic.

For the purpose of this research, the focus has been on:

Male Coping with Threat/Anticipation of HIV Infection

There is very little research that has examined how HSG males are coping with the epidemic. Thus, while the limited literature on coping amongst HSG males will be reviewed, extrapolations will also be made from related areas such as fear of cancer, in order to gain some insight into how HSG males could be coping with the epidemic.

Literature Regarding HIV Seronegative Gay Males

No one can underestimate the catastrophic experience of being sick with AIDS. The bio-psycho-social impact of this disease is enormous and taxing. In addition to those who are HIV seropositive, a much larger group such as health care workers, friends, and family, are experiencing severe psychosocial stressors associated with the epidemic. The population group most affected by the epidemic, however, has been HSG males.

Johnson (1995) suggests that gay men who assume a "gay identity" are more likely to live in large cities and are more likely to reside in communities with a high concentration of other gay men than are those who do not self identify as being gay. If they share their home, it is most likely to be with another gay man, either a lover or friend. Their physicians, barbers, and therapists are frequently gay, and they often patronize shops and restaurants that are owned and run by gay people. Many have selected work in environments where their co-workers are also gay. Since a large proportion of gay men have moved long distances away from their biological families and communities of origin, they frequently spend holidays, plan vacations, and mark their rites of passage with other gay people.

It is this type of man, a man who is integrated into a gay community, who is most likely to have experienced the first ravages of the epidemic. It is also this type of man who is likely to be currently experiencing a sense of both personal and collective psychosocial trauma as the losses and potential losses mount within his community.

There is no doubt that in the early years of the epidemic, money and resources were allocated to treating HIV positive patients and those with AIDS. As well, in the early years of the epidemic it seemed possible that the epidemic would be brought under control medically, which would have both limited the psychosocial impact to HSG males and allowed the issues of psychosocial impact on them to be dealt with after the fact. But the epidemic has not evolved this way; AIDS has continued into its second decade. Hence seronegative and seropositive gay men continue to coexist.

HSGM Neglect

Odets (1994) believes that HSG males live with increased probability of seroconverting because of years of unaddressed psychosocial distress. In addition, he believes that HSG males cannot wait until the epidemic is over to have their issues and needs addressed and treated; too much psychosocial damage will have already been done.

In general, there is a denial of the psychosocial impact the epidemic has had on the gay community. There is also denial about the complexity of feelings surrounding unsafe and safer sex, and of the likelihood that the epidemic may take an irreparable psychological toll on many survivors, especially those with multiple losses. Many in the mental health field continue to refer to a sub-population of HSG males with psychosocial issues related to the HIV and AIDS epidemic as "the worried well" (Landau-Stanton and Clements, 1993). In gay epicenters HSG males are often found to be the survivors of multiple losses and may be thought of as fortunate to have survived. Yet HIV-negative gay men with comparable losses to holocaust survivors have been neglected in the face of such devastation and trauma. In both the HIV and AIDS epidemic, and the holocaust, marginalized populations were affected, suffering significant losses in terms of their numbers. In neither case should the survivors simply be considered fortunate, given the losses that they nonetheless experienced. These people must cope with significant loss and trauma, but have been given very little support or attention.

General Impact on HSG Males

In a study of gay men in New York City, Dilley and Boccellari (1989) initiated structured interviews of 236 AIDS patients using 139 HSG males as

control subjects. They discovered that 39% of this "healthy" control group qualified for a DSM-III-R Axis I diagnosis of adjustment disorder with depressed or anxious features. In addition, Dilley and Boccellari (1989) suggest that HSG males feel stress of great magnitude due to the epidemic and show high levels of psychological distress and physical illness. Among the results of this are demoralization, a sense of helplessness, sleep disorders, irritability, increased use of tranquilizers and sleeping medication, and reliance on mental health and medical care.

Literature Regarding Survivor Guilt Among HSG Males

Friedman (1985) describes survivor guilt not only as guilt about having survived, but also as feelings that one could have helped, but failed. The greater the discrepancy between one's own fate and the fate of the loved one, the greater the empathic distress and the more poignant one's guilt.

Often the idea of survivor guilt is denied on the premise that it does not make sense. "What would I have to be guilty about?" is the most common retort heard from gay men surviving the epidemic. However Odets (1994) is convinced that survivor guilt is one of the clinical cornerstones of a psychological epidemic that is sweeping the surviving seronegative gay male community. Survivor guilt is destructive for many reasons, but particularly because it erects barriers to the survivor recognizing, acknowledging, and communicating his psychological distress. Odets (1994) feels that survivor guilt is an important element in the development of depression and anxiety. Such guilt is largely unconscious, is generally denied or rationalized, and is virtually never an explicit part of the presenting complaint.

Literature Regarding the Development of HSG Males

Johnston (1995) states that HIV infection has profoundly touched the lives of gay men, particularly those residing in large metropolitan areas, and has had significant effect on their development and mental health. He feels that serological status affects perceptions of time remaining in life. Hopcke (1992) describes an "AIDS-induced mid-life" for some gay men in which a confrontation with mortality provides an opening to a classic mid-life psychological transformation. The HIV epidemic may have moved a generation of gay men concerned with consolidating personal identity into a period of heightened generativity as reflected in widespread care-partnering and increased community involvement.

Many HSG males report that the HIV epidemic has altered their sense of growing older; some gay men no longer take for granted a normal life expectancy (Johnston, 1995).

Literature Regarding Bereavement Among HSG Males

Martin (1988) has identified a "second epidemic of AIDS-related bereavement" (p. 856) especially among gay men who have sustained multiple, repetitive losses of lovers and friends. Grief reactions experienced by gay men losing lovers or close friends to AIDS are similar to those of bereaved spouses and parents (Lennon, Martin, & Dean, 1990). Thus, Kelly and Murphy (1992) suggest that the stress associated with losing a loved one appears to be compounded with the stress of knowing that one is personally at an elevated level of risk. Traumatic stress symptoms increased from 1985 to 1988 among gay men in New York City. AIDS-related bereavement and positive HIV serostatus were directly related to this increase (Martin, Dean, Garcia, & Hall, 1989).

In Martin's (1988) study of 745 New York gay men he found there was "a direct dose-response relationship between bereavement episodes and the experience of traumatic stress response symptoms, demoralization symptoms, and sleep disturbances" (p.860). In addition, Martin found that recreational drug use and sedative use also increased proportionately to bereavement episodes, and that men with one or more bereavements were four to five times more likely to seek mental health assistance in connection with concerns and anxiety about their own health than were men who experienced no bereavements.

Martin and Dean (1993) found that bereavement of a close friend or lover who dies of AIDS results in significant psychological distress involving one or more of the following types of symptoms: depression, traumatic stress, sedative use, and suicidal ideation. Martin and Dean's findings replicate an earlier retrospective analysis by Martin (1988) of bereavement that occurred between 1980 and 1984 and showed significant psychological distress in groups of men who experienced AIDS-related deaths of close friends and lovers from 1985 through 1991. These results show a historical effect in which the psychological impact of loss is diminishing among gay men who survived the first decade of the epidemic. This suggests that both the occurrence and duration of bereavement effects are diminishing with time in this cohort.

When trying to understand the diminishing impact of AIDS-related bereavement, it is plausible that concern over one's own health status is replacing AIDS losses as the primary determinant of psychological distress among gay men. Johnston (1995) suggests that for gay men today death is less an event than an

environment. This is not to say that bereavement is a nonevent for gay men but that it is often experienced as a common occurrence in gay communities.

Martin and Dean (1993) found that bereavement had a different and stronger effect on the distress levels of AIDS-HIV-positive gay men compared with HSG males. Specifically, they found that bereavement for the former group was more salient and thus more distressing because it reminded them of their impending fate.

In addition, Martin and Dean (1993) feel that AIDS-related bereavement is a key determinant of mental health in gay men. Although all ages of gay men have been affected by HIV, those in mid-life have perhaps experienced the greatest number of cumulative AIDS deaths because of the time at which AIDS developed - that is, during the peak of their sexuality. With the decimation of friendship networks, many gay men feel a diminished sense of family and a heightened apprehension about loneliness in the future.

Clinical and research reports describe problems of anxiety, depression, and "survival guilt" in some HSG males, particularly those with higher numbers of past partners who have died (Odets, 1992; Wayment et al., 1990).

Literature Regarding HSG Males Fear of Infection

Joseph (1990) feels that some HSG males manifest psychological symptoms from the stress of potentially becoming HIV infected. Unfortunately these men have been described as the "worried well" (Faulstich, 1987 & Morn et al., 1984). Their psychological distress may take the form of generalized or AIDS-specific anxieties, panic attacks, hypochondria, or obsessive-compulsive disorders. In addition, HSG males at risk of infection may be experiencing the illness or death

of friends and lovers, which in turn may cause depression both directly and through loss of their significant social supports or the threat of their own premature mortality (Holland & Troops, 1985; Nicholas, 1985).

Adaptive Functioning in HSG Males

Johnson (1995) defines high-risk behaviours as any activity that puts an individual at risk of contracting HIV. Specifically, he discusses unprotected oral or anal sex, and intravenous drug use. Johnson (1995) also suggests that adaptive functioning among HIV seronegative gay males precludes engaging in any of these behaviours.

Perkins, Davidson, Leserman and Liao (1993) found that high-risk sexual behaviour was negatively associated with self-esteem, gay-acceptance, emotional control, and planned coping. It was also found that high-risk behaviour was positively associated with anger, depression, a sense of invulnerability, denial coping, and social conflict. Leserman , Perkins and Evans. (1992) found that better psychological health in gay men is related to gay self-acceptance, participating in gay organizations and groups, socializing with other gay men, and parental disclosure and acceptance of being gay. Specifically, they found that among the HIV-positive subjects, participating in gay organizations and groups and having parents who accepted their sexual orientation were important correlates of psychological adaptation. Among the HSG male subjects, gay self-acceptance and disclosure of their sexual orientation to parents were associated with better psychological adjustment.

Related Literature

Cancer Literature

While there is a substantial body of literature on stress and coping with cancer patients, it is too diverse to be able to connect in any meaningful way with the specific nature of this research. Nonetheless, some connection with the literature on cancer can be made. Both diseases have traditionally been seen as terminal. In addition, both AIDS and cancer can leave their victims displaying obvious physical signs of their presence, evidenced by physical deterioration, which can have a demoralizing effect on the individual. Both diseases also have, or have had, a negative social stigma.

Yehud, Kahana, Schmeidler and Southwick (1995) report the clinical findings of a sibling group program used in an exploratory study designed to provide information about the unmet psychosocial needs of siblings of cancer patients. The multisession group's goal was to enable siblings to identify, express, and master their feelings of anxiety and isolation in a supportive atmosphere. The major sources of anxiety and isolation were found to be perceptions of parental deprivation and injustice, anger, fear of death and vulnerability. Extrapolating from this research it is reasonable to suggest that HSG males probably feel anger, fear and vulnerability about becoming infected, as well as feeling deprived of mental health attention during the epidemic.

Positive Illusions in HIV Seronegative Gay Men

Taylor's (1983) theory of cognitive adaptation describes how people adjust and cope with threatening events. Specifically, Taylor states that the adjustment process during stressful events centers around three themes. The first is a search

for meaning in the experience, the second is an attempt to regain mastery over the event in particular and over one's life more generally, and the third is an effort to restore self-esteem through self-enhancing evaluations. Taylor states that successful adjustment depends, in large part, on the ability to sustain and modify illusions that buffer not only against present threats but also against possible future setbacks.

Taylor's work has been discussed with respect to breast cancer patients almost exclusively, however it is reasonable to extrapolate this theory of cognitive adaptation and adjustment to threatening events to HSG males. Taylor, Kemeny, Aspinwall, Schneider, Rogriduez and Herbert (1992) examined the role of positive illusions, or more specifically optimism, in aiding gay men responding to the threat of HIV and AIDS. It was concluded that optimism is psychologically adaptive without necessarily compromising health behaviour. Therefore, it is very likely that HSG males cope with the psychosocial trauma within their communities and the threat and fear of infection by constructing positive illusions. However to date only one published study, Taylor et al., 1992, has examined the use of positive illusions as a way for gay males to cope with the HIV and AIDS epidemic.

In summary, the literature concerning HSG males and other related topics suggests that to date very little research has been conducted which examines how HSG males are coping with AIDS. What literature there is suggests that HSG males live with increased probability of seroconverting because of years of unaddressed psychosocial distress (Odets, 1994). Research suggests that 39% of seronegative gay males qualify for a diagnosis of adjustment disorder with depressed and/or anxious features (Dilley & Boccellari, 1989). As a result of this,

HSG males often present with sleep disorders, substance abuse, and suicidal thoughts. Research is also suggesting that survivor guilt is an important element in the development of anxiety and depression. Such guilt is largely unconscious, is generally denied or rationalized, and is virtually never an explicit part of the presenting complaint (Odets, 1994 & Freidman, 1995).

The HSG male bereavement literature suggests that the death from AIDS of a close friend or lover results in significant psychological distress involving one or more of the following types of symptoms: depression, traumatic stress, sedative use, and suicidal ideation (Martin, 1988), (Lennon, Martin & Dean, 1990, and Kelley & Murphy, 1992). It was also found that there was a direct dose-response relationship between bereavement episodes and the experience of presenting symptoms (Martin, 1988).

Research has also indicated that high-risk sexual behaviour is negatively associated with self-esteem, gay acceptance (participating in gay organizations, socializing with other gay men, and parental disclosures), emotional control, and planned coping (Perkins et al, 1993).

The related research suggests that extrapolations from the cancer literature, which examined the psychosocial impact on siblings of cancer patients, can be made. From this cancer literature, it is reasonable to suggest that HSG males probably feel deprived of mental health attention, in addition to feeling anger, fear and vulnerability about becoming infected (Yehud, 1995).

Finally, research examining the role of positive illusions as a way of aiding gay men in coping with the threat of HIV and AIDS suggests that optimism is psychologically adaptive without necessarily compromising health behaviour

(Taylor, 1983). Therefore, it is likely that HSG males cope with the trauma in their communities by constructing their own positive illusions. Further, research needs to be conducted to examine this.

Critique of the Relevant Literature

The major criticism of the relevant literature is the serious paucity of research studying health issues, specifically coping, with respect to HSG males. There were only a handful of studies regarding HSG males, and no known studies regarding HIV negative females. Given the specificity of the population, extrapolation from other related research was also difficult due to the specific nature of the epidemic. The HIV and AIDS epidemic is the first truly worldwide epidemic and its initial impact was felt by a very particular and limited population, namely gay men living in large urban centres.

Of the relevant literature that exists there are very few controlled studies assessing how HSG males are coping with the HIV and AIDS epidemic. Specifically, in the controlled studies that have been undertaken, sample sizes have been questionably small, limiting their generalizability. In addition, samples of convenience, rather than random or representative samples have been used, again limiting generalizability to a broader population.

Much of the qualitative research that has been conducted has been anecdotal in that it has been based on non-empirical case studies. In fact several papers discuss the impact of the epidemic on a single HSG male from the subjective perspective of the researcher.

Finally, many researchers make assumptions about the HSG male population without examining the validity of these assumptions empirically. For

example, researchers like Odets (1994) and Freidman (1985) assume that HSG males suffer from survivor guilt. However, no empirical research has been undertaken to support this hypothesis.

In terms of the utility of the various literature that was considered, specifically as related to the research questions, the area of coping theory was the most useful. While the research on coping was interesting, it had limited utility because very little of it was related directly to the population being considered, namely HSG males. This was a problem with much of the other related literature as well. For example, there was no literature with respect to HIV negative females. Even if this literature had been present however, because of the specific nature of the population being considered, it would have been limited in its usefulness. The same can be said of the literature related to HIV positive gay males. While there was a good deal of research related to this population, the connection, or generalizability of this research to the specific population being considered in this study, HSG males, was very limited.

The research questions and the methodology of the research are discussed next.

CHAPTER 3

RESEARCH QUESTIONS AND METHODOLOGY

Research Questions

For the purpose of this research two research questions were developed, both of which focus on how HSG males are coping with the HIV and AIDS epidemic in Montreal. These two research questions are:

1.) What are the mechanisms of coping that HSG males in Montreal report they use in negotiating the personal issues they have experienced relative to the HIV and AIDS epidemic as measured by the Ways of Coping Questionnaire?

2.) Is there a relationship between the age of HSG males and the ways in which they report that they differentially cope with this epidemic?

Research Methodology

What follows is a detailed outline of the methodology used to collect the research data. Specifically, the participants that were used in the research will be described, as will the materials and procedure that were used to collect the data and the statistical procedures used to analyze the data.

Participants

One hundred nine HSG males of the Montreal gay community participated in the research. Participants were a sample of convenience drawn from downtown health clinics, advertisement in a gay friendly newspaper, and referrals from colleagues. Participants were considered appropriate for this study if they met the inclusion criteria (see Appendix A). In total, 148 questionnaires were distributed.

Of those 148 participants, 7 indicated that they did not meet the inclusion criteria and 32 returned incomplete questionnaires. The resulting sample size was 109 respondents.

Participants completed inclusion/exclusion criteria questions (Appendix A), consent and cheque mailing forms (see Appendix C), demographic questions (Appendix D), HIV and AIDS knowledge questions, and the Ways of Coping Questionnaire (Folkman & Lazarus, 1988) (see Appendix D). Participants ranged in age from 17 to 81 years old (see figure 1). For the frequency distribution of participants personal income please see figure 2; household income please see figure 3, level of education please see figure 4; number of partners please see figure 5; and year of first loss please see figure 6.

One hundred participants was a statistically appropriate target sample size for this type of research considering the number of research questions being asked (2), and the number of dependent measures of the Ways of Coping Questionnaire (Folkman & Lazarus, 1988) being assessed (8). This number would yield a minimum of 11 subjects per variable required in order to perform regression analyses.

Materials and Research Instruments

The following materials were required to conduct the research:

Participant questionnaires which consisted of the following:

1.) Participant Inclusion/Exclusion Criteria

A series of questions was developed (see section below and Appendix A) which determined whether the participants were appropriate to continue in the research. Specifically, the researcher asked participants if they had used

recreational drugs or alcohol within the past 8 hours; if they had experienced a trauma within 48 hours of their arrival; if they were feeling physical or psychological distress; or if there was anything else that would prevent them from paying close attention to the instructions and completing the questionnaire honestly and accurately. Those participants answering yes to any of these pre-screening questions were excused from the study.

2.) Participant Instructions

The participant instructions (see Appendix B) outlined the purpose of the research and the nature of the participants' involvement in the research.

3.) Participant Consent Form

The participant consent form (see Appendix C) informed participants that they were under no obligation to participate in the research, that they could withdraw at anytime, and that their results were confidential and belonged to them at all times. If they agreed to participate they were asked to formalize their participation in the research by signing a consent form which outlined the parameters of their involvement in the research.

4.) Participant Cheque Mailing Form

Completion of the cheque mailing form (see Appendix C) facilitated the mailing of a cheque in the amount of $20.00 CND for participation in the research.

5.) Demographic Questionnaire

The demographic questionnaire (see Appendix D) consists of a series of questions that were developed to solicit information from the participants regarding their:

a.) Age
b.) Income (Individual & Household)
c.) Education History
d.) Career History
e.) Legal Domestic Status
f.) Relationship Status
g.) Level and Type of Social Support
h.) Counselling and Psychotherapy History
i.) Sexual History
j.) HIV Serostatus Testing History
k.) HIV and AIDS Information
l.) Diet, Exercise and Fitness Habits

The demographic questionnaire data were important to the research to assess the representativeness of the sample relative to the HSG male population in Montreal and to present an informative profile of the participants as a group.

6.) Ways of Coping Questionnaire(WCQ)

Structure of the Ways of Coping Checklist (WCC) and WCQ

In the 1970s, the stress and coping research group of Lazarus developed the Ways of Coping Checklist (WCC) in line with the transactional phenomenological stress theory that suggests two main functions of coping: problem solving and emotion regulation (Lazarus, 1991). From a pool of 68 items with a yes-no response format, 40 items formed the problem-solving subscale, and 24 the emotion-focused subscale (Folkman & Lazarus, 1980). Because this classification did not reflect the complexity and richness of coping processes, a series of factor analyses with different data sets were carried out, generating over time the current version of the instrument now called the Ways of Coping

Questionnaire (WCQ). The WCQ (see Appendix E) consists of 50 items (plus 16 fill items) within eight empirically derived scales (Folkman & Lazarus, 1988).

The response format of the scales was changed to the 4-point Likert rating scale. Responses are made with reference to a real-life stress situation experienced personally by the respondent (i.e., HIV and AIDS epidemic in Montreal gay community and having to do with an HIV/AIDS related situation). In the event that the respondent had not personally experienced a stressful AIDS-related situation, he was asked to imagine one. Following are the eight scales with sample items:

1. Confrontive Coping (6 items)--describes aggressive efforts to alter the situation and suggests some degree of hostility and risk-taking - for example - "Stood my ground and fought for what I wanted."
2. Distancing (6 items)--describes cognitive efforts to detach oneself and to minimize the significance of the situation - for example - "Went on as if nothing had happened."
3. Self-Controlling (7 items)--describes efforts to regulate one's feelings and actions - for example - "I tried to keep my feelings to myself."
4. Seeking Social Support (6 items)--describes efforts to seek informational support, tangible support, and emotional support - for example - "Talked to someone to find out more about the situation."
5. Accepting Responsibility (4 items)--acknowledges one's own role in the problem with a concomitant theme of trying to put things right - for example - "Criticized or lectured myself."

6. Escape-Avoidance (8 items)--describes wishful thinking and behavioral efforts to escape or avoid the problem. Items on this scale contrast with those on the distancing scale, which suggests detachment - for example - "Hoped a miracle would happen."
7. Planful Problem Solving (6 items)--describes deliberate problem-focused efforts to alter the situation, coupled with an analytic approach to solving the problem - for example - "I made a plan of action and followed it."
8. Positive Reappraisal (7 items)-- describes efforts to create positive meaning by focusing on personal growth. It also has a religious / spiritual dimension - for example - "Changed or grew as a person in a good way."

WCQ Psychometric Properties Critique

An exhaustive review of all coping instruments was conducted. As a result of this review, the Ways of Coping Questionnaire (Folkman & Lazarus, 1988) was chosen for several reasons. Firstly, the WCQ had the best profile of psychometric properties of the instruments available. Secondly the WCQ lent itself well to the research questions in that it allowed participants to focus on a specific stressful situation and describe how they coped with it, vis-à-vis the eight coping scales. This is important because it allowed participants to focus specifically on an HIV/AIDS related stressful situation. Other instruments did not allow for this type of flexibility and hence did not fit with the goal of the research as well. Further, the intercorrelations among the eight coping scales are rather low, confirming their desired distinctiveness (Folkman & Lazarus, 1988).

Internal consistencies are not always satisfactory, and test-retest reliabilities are not reported. According to theory, a high stability is not desired because individuals are expected to adjust their actual coping responses to the requirements of each specific situation. A problem with this measure, as well as with all measures that are based on many factors, is that theoretical cross-linked relationships between scales are not considered. For example, mobilizing social support is seen here as a distinct strategy, but actually it can serve a number of purposes, such as solving a problem, obtaining information, calming down or distracting oneself. Carver, Scheier, and Weintraub (1989) have accounted for this problem by establishing separate social support factors for problem-focus and emotion-focus. Parker and Endler (1992) argue that social support should not be conceived as a distinct coping dimension but as social resources that may be available for a number of different coping strategies.

Another difficulty with a high number of extracted factors is that they do not appear to be all the same weight or of the same theoretical level. Some may be closer to a higher-order factor or to a general factor, accounting for a larger amount of variance, whereas others may be rather peripheral. It remains undetermined in what way the eight factors are embedded into the initial dimension of problem-focused and emotion-focused functions. There seems to be no empirical evidence for testing such a hierarchy with confirmatory factor analysis.

Procedure

Individuals interested in participating in the research were instructed either by advertisement or by a referring professional to contact the researcher by telephone at his office. At that point, interested individuals were told by the

researcher or the research assistant the purpose of the research, the nature of their involvement in the research, the inclusion criteria, and how much they would be compensated if they participated to completion in the research study. If the interested individuals decided they wanted to participate they were recruited to the researcher's office at an agreed upon time. At that point, recruited participants were asked inclusion/exclusion criteria questions (see Appendix A). If the recruited participants met the inclusion criteria they were given a research package to complete containing participant instructions (see Appendix B), a consent and cheque mailing form (see Appendix C), demographic questions (see Appendix D) and the Ways of Coping Questionnaire (Appendix D).

The inclusion/exclusion criteria questions (see Appendix A) determined whether the participants were appropriate to continue in the research study. Specifically, participants were asked if they had used recreational drugs or alcohol within the past 8 hours; if they had experienced a trauma shortly before their arrival; if they were feeling physical or psychological distress; or if there was anything that would prevent them from paying attention to the instructions and completing the questionnaire honestly and accurately. As indicated, seven participants were excluded because they did not fulfill the inclusion criteria

The instructions (see Appendix B), consent and cheque mailing form (see Appendix C) outlined the purpose of the study and the nature of participants' involvement in the research, and facilitated the mailing of a $20.00 CDN cheque for the accurate and honest completion and return of the questionnaire to the researcher. Specifically, participants were informed they were under no obligation to participate in the study, they could withdraw at anytime, and that their results

were confidential and belonged to them at all times. If they agreed to participate they were asked to formalize their participation in the research by signing a consent form outlining the above parameters. Once the consent form was completed participants were instructed to complete their demographic questions, and the Ways of Coping Questionnaire (see Appendix D). To avoid attrition, after all documents were completed participants were asked to place and seal them in the envelope provided and return them to the researcher before leaving. Participants were asked if they had any questions regarding the research. Questions were answered to the best of the researcher's or research assistant's ability. Finally, participants were thanked for their participation before they left the researcher's office.

Of all questionnaires returned (n=148), only 109 were used. Seven of the participants did not fit the inclusion criteria, and 32 returned incomplete questionnaires.

Statistical Analysis

All data were analyzed using SYSTAT (1992) for the IBM personal computer. The level of significance for all statistical procedures was set at $p = .05$. Data for the outliers were included because there were very few outliers and, overall, their mean would not significantly alter the results (Tabachnick & Fidell, 1989).

The statistical analysis involved the following steps of data manipulation:

1.) For each respondent the raw scores, average scores, and relative scores for each of the eight scales were calculated as outlined in the Ways of Coping

Questionnaire Scoring Key (Folkman & Lazarus, 1988). These data became the basis for the subsequent analysis.

2.) For each variable (i.e., question) the mean, standard deviation, and skew across all observations (participants) were calculated. Seventeen of the variables were found to be skewed and 91 were found not to be skewed.

3.) The data were then transformed. All the continuous data having a skewness coefficient >1 underwent a log transformation (variable 2, 3, 22, 29, 31, 33, 48, 58, 66, 73, 75, 77, 81, 85, 87, 88); data having a skewness coefficient <-1 underwent a mean transformation (variable 23).

4.) A Pearson correlation matrix was then created for the continuous variables [age, personal income (post log transformation), household income (post log transformation), years of education, number of partners (post log transformation), and year of first loss (post log transformation)].

5.) Examination of the trend lines from the correlations revealed that there was not a monotonic trend among the variables, but that there were step-functions (plateaus) that would be masked through linear description of the data (regression). A regression analysis was therefore not the chosen statistical treatment. The subjects were then grouped by age-cohort in order to best capture the stepwise nature of the data. The age grouping was also designed to mirror the differences observed clinically in the way patients of different age cohorts cope with HIV and AIDS. Those participants in the youngest age group would have grown up entirely in a world in which AIDS existed. In 1981, when an infectious disease (later to be known as AIDS) was first reported, these participants would have been 14 years old or younger. Participants in the second

age group would have just begun to explore sexuality as AIDS emerged. These people would have been 15-18 years old in 1981. Those in the middle age groups (19 to 32 in 1981) would have learned about HIV and AIDS as they were developing and exploring their sexuality, and those in the oldest age group would have had no exposure to HIV and AIDS during their sexually formative years (being more than 33 years old in 1981),

6.) Using the data from the condensed summary tables (raw scores for the eight coping strategies), one-way repeated measures ANOVAs were performed. The independent variables for the ANOVAs were the demographic variables, which include: personal income, household income, number of partners, years of education, age, and year of first loss. The dependent variables were the coping strategies, namely, confrontive coping, distancing, self-controlling, seeking social support, accepting responsibility, escape-avoidance, planful problem solving and positive reappraisal.

7.) This being done, one-way ANOVAs were run using the 6 independent variables (e.g., demographics) against the 8 dependent variables (e.g., coping strategies). A series of post-hoc tukey tests was performed during this step.

8.) The last step was to remove age as a variable to see what effect this would have on the data. ANCOVAs were performed for the continuous variables (age, personal income, household income, years of education, number of partners, and year of first loss – all of which were transformed using a post log transformation) with age (not age group) as a covariate. This analysis also included post-hoc tukey tests.

A detailed discussion of the results of the statistical manipulations, outlined above, follows.

CHAPTER 4

RESEARCH RESULTS

The purpose of this chapter is to discuss the research results. The results will be discussed with respect to the two guiding research questions. The first research question was "What are the mechanisms of coping that HSG males use in negotiating personal issues they have experienced relative to the HIV/AIDS epidemic?" Before doing this however, a brief review the demographic profile of the respondent pool is presented.

Demographic Variables

The sample selected for this research had a minimum age of 17 years and a maximum age of 81 years, meaning that the range in terms of age for the sample is 64 years. The mean age was 40.6 years, with a standard deviation of 13.9. The median age of the sample was 36 years. The individual income represented a range of $197,500, from a low of $2,500 to a high of $200,000. The mean income was $40,912 with a standard deviation of $31,462. The median personal income was $34,000. The household income represented a range of $194,000, from a low of $6,000 to a high of $200,000. The mean household income was $54,816 with a standard deviation of $38,301. The median personal income was $45,000. The range in terms of years of post secondary education was 15 years, ranging from 0 to 15 years. The mean was 5 years of post-secondary education, with a standard deviation of 2.8 years and a median of 5 years.

Looking at the relationship status of the respondents, the majority of respondents fall into two categories. Forty respondents, or 36.7% of the sample, were not in a relationship, but were seeking one. Thirty respondents or 27.5% of the sample pool were currently in a long term, monogamous relationship. Fifty-six respondents (51.3% of the respondent pool) have never been married. Forty

respondents (36.7% of the respondent pool) claimed to be either married or living in common law relationships. However, ninety-four respondents (86.2% of the respondent pool) live alone.

In terms of social support, only 22.3% of respondents claimed any level of dissatisfaction with the levels of social support they had in their lives. Almost half of the respondents (49.5%) have participated in individual therapy, but only one respondent has participated in group therapy.

The mean number of sexual partners respondents had during the past twelve months was 9.8, with the median number of partners being 4. In terms of the percent of sex in which participants were involved in during the past twelve months that was safe sex, the mean was 85% safe sex, with a standard deviation of 28.28.

Seventy eight percent of respondents are aware of the new combination drug therapies. Seventy seven percent of respondents have lost a friend or friends to AIDS.

Only 28.4% of respondents reported feeling guilty that they were HIV negative while others around them were HIV positive (survivor guilt). Seventy-one and six-tenths percent (71.6%) of respondents reported that they had feelings of anxiety that were related to their experiences with HIV and AIDS, while only 42.2% of respondents reported feelings of depression related to their experiences with HIV and AIDS.

Mechanisms of Copings

To answer the first research question, the mean values across all respondents for raw scores per scale in The Ways of Coping Questionnaire (1988)

were analyzed. The objective of this analysis was to see which coping mechanisms overall emerged as most used to cope versus least used to cope (see Table 2).

Insert Table 2 About Here

As can be seen from the table, Escape/Avoidance (mean raw score = 9.202, standard deviation = 5.151) was used most frequently by respondents as a means of coping. This was followed by Self-controlling (mean raw score = 8.798, standard deviation = 3.929), Positive Reappraisal (mean raw score = 8.514, standard deviation = 4.783), Seeking Social Support (mean raw score = 7.780, standard deviation = 4.483), Distancing (mean raw score = 6.853, standard deviation = 3.709), Planful Problem Solving (mean raw score = 6.147, standard deviation = 3.666), Accepting Responsibility (mean raw score = 4.303, standard deviation = 3.117), and finally Confrontive Coping (mean raw score = 3.908, standard deviation = 2.859).

The mean ratings for the various coping strategies suggests a clustering of strategies into three groups (see Figure 7) based on level of use.

Insert Figure 7 About Here

Group one is comprised of "Escape/Avoidance", "Self-controlling", "Positive Reappraisal", and "Seeking Social Support" and represents that group of coping strategies that is used most. Group two is comprised of "Distancing" and "Planful Problem Solving" and group three is comprised of "Accepting

Responsibility" and " Confrontive Coping." Group three includes the coping strategies which are least used.

The coping styles also vary in the way in which they are used. Two of the scales in particular show distributions that are not normal. Table 7 shows the skew associated with each of the styles.

Insert Table 7 About Here

Confrontive Coping is the least used of all the coping styles. It also has a strong positive skew, indicating that most people do use this style, although not to a high degree. A similar phenomenon exists for Planful Problem Solving.

Relationship with Age

The second research question was "Is there a relationship between the age of HSG males and the ways in which they cope?" After performing ANOVAs on all the data, including a series of post-hoc tukey tests, the only significant results by age group relate to the "Accepting Responsibility" ($p=0.006$, $df=3, 105$, F-ratio = 4.372) and "Escape-Avoidance" ($p=0.020$, $df=3, 105$, F-ratio=3.426) coping strategies. The remaining six coping strategies showed no significant relationship with the independent variable "age", as can be seen by looking at the results in Table 3.

Insert Table 3 About Here

Specifically regarding the significant results, accepting responsibility is inversely related to age. That is, the older the HSG male, the less he uses "Accepting Responsibility" to cope. This fits with the "Escape-Avoidance" strategy, which works in the opposite direction; the older the HSG male, the more likely he would use "Escape/Avoidance" as a coping strategy (see Table 4)

Insert Table 4 About Here

There is not a linear relationship however between age and these variables. The responses for those in the 17-31 and 32-35 year old age groups are quite similar to each other. There is a gap however between these groups and the 36-49 year olds; and then again between the 36-49 year olds and the 50 and older group (see figures 8 and 9).

Insert Figures 8 & 9 About Here

This difference (<35 vs. >35) may be as a result of the magnitude of the range of the 36-49 year old age group (13 years) versus that of the 32-35 year old group (3 years). This does not negate the fact that generally, younger respondents use these strategies in ways that differ from older respondents.

The following also emerged from the data as being significant relationships when ANCOVAs were performed treating age as a covariate;

- number of partners and seeking social support ($p=0.028$, $df=3, 105$, F-ratio=3.144)

- year of first loss and self-controlling (p=0.038, df=3, 105, F-ratio=2.916)
- personal income and confrontive coping (p=0.015, df=3, 105, F-ratio=3.642)
- household income and seeking social support (p=0.030, df=3, 105, F-ratio=3.100)

These results are shown in Table 5.

Insert Table 5 About Here

Looking at number of partners and seeking social support, it is clear that those men having the greatest number of partners are also those who use social support most as a coping mechanism (see figure 10).

Insert Figure 10 About Here

The data suggest a correlation between the number of partners and "social" coping mechanisms.

Another significant relationship in the data exists between the Self-Controlling coping strategy and year of first loss. The data suggest that those who have experienced no loss and those whose first loss occurred in the late 1980s tend to use self controlling as a coping strategy more than do others (see Figure 11).

Insert Figure 11 About Here

Personal income and the use of confrontive coping as a strategy also exhibit a significant relationship. Those having the lowest personal income tend to use confrontive coping as a strategy more than do others (see figure 12).

Insert Figure 12 About Here

In terms of the relationship between household income and the use of the various coping strategies, the upper middle income group is the only group which differs from the others in its use of social support as a coping mechanism (see figure 13).

Insert Figure 13 About Here

CHAPTER 5

RESEARCH DISCUSSION: FINDINGS, LIMITATIONS, FUTURE RESEARCH, AND CLINICAL IMPLICATIONS

The purpose of this chapter is to discuss the research findings, their limitations, suggestions for future research, and the clinical implications.

Research Findings:

The respondent pool covered a broad spectrum in terms of the demographic variables selected. Looking at age, the sample represented a range of 64 years. From the perspective of income (both personal and household) the range was close to $200,000 ($197,500 and $194,000 respectively). The respondent pool also covered a broad spectrum from an educational perspective, ranging from a low of no post-secondary education to a high of 15 years of post-secondary education.

When relationship status was examined, the range was less broad and respondents really fell into a bimodal structure with the largest groups being those in long term monogamous relationships (27.5%), and those currently not in a relationship but seeking one (36.7%). This being said, it is interesting that nearly all the respondents currently live alone (86.2%).

A large percentage of respondents have participated in therapy at some point in their lives (49.5%), but virtually no one (1 respondent) had participated in group therapy. Even so, only 22.3% of respondents claimed any level of dissatisfaction with the levels of social support they had in their lives.

It is interesting that, given the apparent awareness of the AIDS issue with this group (78% were aware of the new combination drug therapies and 77% had lost friends to AIDS), they did not practice safe sex more often. The mean in terms of the percentage of sex in which they had engaged safely during the 12 months prior to the administration of the questionnaire was only 85%, with a standard

deviation of 28.3%. The mean number of sex partners in the last 12 months was 9.8.

It is also interesting that more respondents reported feelings of anxiety (71.6%) than of depression (42.2%) as related to HIV and AIDS.

With respect to the first research question which asked "What are the mechanisms of coping used by HSG males?", the research results indicate that "Escape/Avoidance" is the most commonly used coping strategy and "Confrontive Coping" as defined by the Ways of Coping Scale is the least used coping strategy by the sample as a whole. This makes intuitive sense given that "Escape/Avoidance" coping strategies are the antithesis of "Confrontive" coping strategies.

It is interesting that the "Distancing" strategy is not used more as a way of coping given that "Escape/Avoidance" is used the most and they are similar strategies. This probably relates to the way the attributes were assessed.

The dispersion of the mean ratings for the various coping strategies suggests a clustering of strategies into three groups (see Figure 7) based on level of use.

Insert Figure 7 About Here

Group one is comprised of "Escape/Avoidance", "Self-controlling", "Positive Reappraisal", and "Seeking Social Support" and represents that group of coping strategies that is used most. Group two is comprised of "Distancing" and "Planful Problem Solving" and group three is comprised of "Accepting Responsibility" and

" Confrontive Coping." Group three includes the coping strategies which are least used. Within each of the three groupings suggested above, there appears to be a balance between what could be seen as positive (or adaptive) strategies and negative (or maladaptive) strategies (see Table 6). For example, in group one the positive strategies (seeking social support, positive reappraisal) are balanced by the negative strategies (escape/avoidance, self-controlling). In group two, the positive (planful problem solving) counters the negative (distancing) as in group three, where accepting responsibility (positive) is balanced by confrontive coping (negative).

Insert Table 6 About Here

The data indicate that those coping strategies belonging to Group one are the most frequently used. One could hypothesize that the coping strategies divide into groups as they do based on the level of comfort or familiarity the individual has with the use of each strategy. For example, it may be much more comfortable for an individual to use the coping strategies in Group one, either positive or negative, than to use those in Group three because they have more experience with, for example, Seeking Social Support than with Accepting Responsibility.

Further examination of the scores for each coping style indicates that, in addition to some styles being used more frequently than others, the styles also vary in the way in which they are used. Two of the scales in particular show

distributions that are not normal. Table 7 shows the skew associated with each of the styles (see Table 7).

Insert Table 7 About Here

Confrontive Coping has a strong positive skew. This indicates that most people use this style, but they use it very little (as evidenced by the low mean raw score – see Table 2). A similar phenomenon exists for Planful Problem Solving.

With respect to question two, which asks "Is there a relationship between the age of HSG males and the ways in which they cope?", this research suggests that the only significant results by age group relate to the "Accepting Responsibility" (P=0.006, df=3, 105, F-ratio=4.372) and "Escape/Avoidance" (p=0.020, df=3, 105, F-ratio=0.020) coping strategies. As indicated earlier, this relationship makes intuitive sense given that they are opposites of one another.

Accepting Responsibility is inversely related to age. That is, the older the HSG male, the less he uses accepting responsibility to cope. This fits with the Escape/Avoidance strategy, which works in the opposite fashion; the older the HSG male, the more likely he will use escape/avoidance as a coping strategy.

There is not a smooth relationship however between age and these variables. The responses for those in the 17-31 and 32-35 year old age groups are quite similar one to the other. There is a large gap however between these groups

and the 36-49 year olds; and then again between the 36-49 year olds and the 50+ group. (see Figures 8 and 9).

Insert Figures 8 & 9 About Here

This difference (<35 vs. >35) may be as a result of the age range of the 36-49 year old age group (13 years) versus the concentration of the 32-35 year old group (3 years). The fact that there is not an even distribution of respondents by age may play into the markedness of the differences between the < 35 year olds and the > 35 year olds. This does not negate the fact that generally, younger respondents use these strategies in ways that differ from older respondents.

One could postulate that older males are more likely to use escape/ avoidance as a coping mechanism because they were socialized at a time when little was known about the disease and it was a very hidden / covert issue. That is to say that the older males would have spent more of their (sexual) lives living in a world in which it was easier to ignore AIDS because there were fewer HIV/AIDS awareness campaigns.

For younger males, almost their entire sexual lives would have been spent in a world in which AIDS was, if not openly discussed, at least publicly recognized. These people would have developed in an environment in which accepting responsibility was (and is) highly lauded behaviour. For example, what speaks more to "accepting responsibility" than the "safe sex" campaigns and messages of the past ten years?

While the above answers to the second research question (is there a relationship between the age of HSG males and the ways in which they cope), the data do provide significant insight into other relationships between HSG males and the ways in which they cope.

In addition to the significant results related to age, which have already been discussed, the following emerged from the data as being significant relationships when the effect of age is removed by treating age as a covariate; (See Table 5)

- number of partners and seeking social support ($p=0.028$, $df=3, 105$, F-ratio=3.144)
- year of first loss and self-controlling ($p=0.038$, $df=3, 105$, F-ratio=2.916)
- personal income and confrontive coping ($p=0.015$, $df=3, 105$, F-ratio=3.642)
- household income and seeking social support ($p=0.030$, $df=3, 105$, F-ratio=3.100)

Insert Table 5 About Here

Looking at the first of these relationships (number of partners and seeking social support), it is clear that those men having the greatest number of partners are also those who use social support most as a coping mechanism (see Figure 10).

Insert Figure 10 About Here

Since having many sexual partners suggests a strong social element, the heavy use of social support fits intuitively as a coping mechanism. The data suggest a correlation between the number of partners and "social" coping mechanisms. Given this, it is curious that those having 0-1 partners over the course of a year are not at the lowest end of the scale on this measure. It could be that because these people do not have multiple relationships, they find adequate support from the relationship that they are in, or they seek support/interaction from elsewhere (i.e., other than sexual relationships) to compensate.

Another significant relationship in the data exists between the Self Controlling coping strategy and year of first loss. The data suggest that those who have experienced no loss and those whose first loss occurred in the late 1980s tend to use self controlling as a coping strategy more than do others (see Figure 11).

Insert Figure 11 About Here

Those experiencing no loss could find this strategy effective because they have yet to face the issues associated with loss. That is, this may be a relatively easy strategy to adopt simply because they have less need to control; they have not yet been faced with the situation vis-à-vis loss to AIDS in which they were not in control.

Those whose first loss occurred in the late 1980s may have been "forced" into self control as a coping strategy because of the stigma still attached to AIDS during that period. The acceptability of loss to AIDS and the emotions and reactions associated with such a loss would likely, at that time, have still been very

unfamiliar to people and very uncomfortable for them to deal with openly. Hence, self control emerged as a prevalent coping strategy. This would suggest that as AIDS became less stigmatized, the need for self control around the disease diminished. This is supported when looking at the 1991-1997 results.

A significant relationship also emerges between personal income and the use of confrontive coping as a strategy. Those having the lowest personal income tend to use confrontive coping as a strategy more than do others (see Figure 12).

Insert Figure 12 About Here

This may relate to the fact that age and income correlate strongly, hence the lowest income group would also be a younger group. In addition, this demographic may just be more used to dealing with issues in a very straightforward or confrontive way than other groups. In general it may be more socially acceptable to be confrontive today, to stand up for oneself. It may also be that these younger people have less "sophisticated" ways of dealing with stress, and confrontive coping is the strategy that is the least sophisticated to use. More work to investigate these and other hypotheses is required.

Interestingly, the upper middle income group is the only group which differs from the others in its use of social support as a coping mechanism (see Figure 13). It may be that this group is the "busiest" group, allowing less time to seek out and make use of social support.

Insert Figure 13 About Here

Research Limitations:

The major limitations of this study relate to the fact that it is not a truly representative sample, hence may be limited in its generalizability. This is most significant when looking at the demographic composition of the sample, which is not distributed normally with respect to age (see Figure 1).

Insert Figure 1 About Here

As shown, there is a very high concentration of respondents in the 29 – 34 year old age category. Below this age, the representation is reasonable, however for those over the age of 35 years, the data are not normally distributed. The range for this group (35 – 80 years) is very large and the majority of respondents are concentrated between 35 and 50 years of age. Between the ages of 50 and 80, there are very few respondents. Given the magnitude of this age range, it would be difficult to reasonably apply any conclusions drawn from the data that relate to this group to a broader population. In other words, the value in terms of being able to generalize from the data for older participants is limited.

Another major limitation of this research is that it is only correlational, rather than showing cause and effect relationships. That is, the data indicate which strategy participants use more often to cope with HIV and AIDS, and which they use less often. Links can also be made, or relationships drawn, between the type of strategy used more/less often and some key demographic variables such as age, income, and number of partners. What the research does not allow us to do

however is evaluate the effectiveness of one strategy over another in terms of adaptive (or maladaptive) coping. This would be a critical piece of learning if the development of clinical (intervention) strategies to deal effectively with HIV and AIDS is desired. Further anecdotal material, such as that which would be collected through personal interviews with participants, could have enriched the demographic material, perhaps making it more useful. While the demographic material alone was useful in that it allowed us to determine where significant relationships existed with respect to the various coping strategies, combining this data with the rich data that could be gathered through personal interviews would have allowed us to explore those relationships with the participants themselves in a more robust fashion. This would have provided the ability to begin exploring the effectiveness of the various coping strategies from the participants' perspective, as an example. The ability to evaluate the effectiveness of one strategy over another in term of coping will be examined further when the clinical implications of the research are discussed.

There are two other elements which may have an effect (albeit small) on the research. First, given that this questionnaire was administered on paper, and in English, there is a basic literacy requirement. This would preclude involvement of participants who are unable to read English and would result in a slight upward bias in terms of education (and likely income) levels, and in exclusion of anyone not able to read English. In addition, the participants were self-qualified, meaning that they reported on their own HIV status, rather than being selected from a pool of potential candidates who were qualified based on clinical tests validating their HIV status. As a result, there is the potential for inclusion of respondents who

falsely qualify as HIV negative. The impact of this on the results would likely be minimal however.

Finally, there is always the possibility that a Type I error has been made. That is, there is the possibility that the relationships identified as significant, at a 95% confidence level, through this research were, in fact, not significant. For example, the research suggests that there is a significant relationship between participant age and 2 particular coping strategies – Escape/Avoidance and Accepting Responsibility. A Type I error would be said to occur if these relationships were not significant. Alternatively, a Type II error, suggesting that there were not significant relationships between the various coping strategies and the demographic indicators when, in fact significant relationships did exist, could also have occurred. An example of a Type II error would be if coping strategies other than Escape/Avoidance and Accepting Responsibility actually exhibited significant relationships with age, even though the data have been interpreted such that this is not the case.

Future Research:

Future research into the subject of HIV/AIDS and coping can take two possible directions as a result of the findings of this study. The first direction would be, from a purely technical standpoint, to replicate the research, making adjustments to sample size in terms of age representation and sero-status (clinical qualification). This type of research would provide validation that the results observed from this study are indeed generalizable to a broader population, but would provide little else in the way of added value.

The second direction would be to suggest future research that would bring these results closer to practical clinical application. As mentioned in the research limitations, this study was purely correlational in nature, there was no link in terms of either outcome (how do the different coping styles contribute to "successful" coping) or cause and effect (why are certain coping styles used more than others and by different groups). The logical next step in terms of research would be to explore these two avenues.

Regarding "outcome", it would be useful to have a measure of successful coping that could then be related to the use of various coping strategies. If this relationship could be established, the likely success of an individual in coping with HIV/AIDS, based on the strategies employed most frequently by him, could be determined. In addition, reinforcement of the use of healthier or more successful coping strategies would be the goal in any clinical intervention. For example, one could hypothesize that the environment in which one "comes of age" sexually would influence the types of coping strategies used. Looking at these data for example, one could suggest that older males cope more through escape/avoidance strategies because they were highly influenced from a developmental perspective by the early days of HIV/AIDS when the experience with the disease was very covert. Younger males on the other hand favour accepting responsibility as a strategy; they grew up in an era of "safe sex" in which responsible behaviour was highly lauded. Having research that links the use of a particular strategy to an overall "effectiveness" measure would guide clinicians in both encouraging the use of more effective coping strategies and in the development of an environment conducive to the use of those strategies.

Turning to the issue of cause and effect, it would be very interesting to have future research undertaken that explores why particular coping styles are used more than others, or to a greater degree than others (more intensity); what are the motivators or drivers of these types of behaviours. Again, looking at the existing data for an example in which this kind of information would be useful, a relationship exists between seeking social support as a coping strategy and the number of partners an individual has had. As shown in Figure 10, the use of seeking social support increases with the number of partners (see figure 10). Understanding causation would help the clinician to understand if participants are engaged with more sexual partners as a means of finding social support or if they are naturally more social and as a result of this simply end up having more partners. Understanding the reasons why the various coping styles are used or not used more frequently should, again, facilitate more effective intervention.

Clinical Implications:

With respect to the clinical implications of the research, the first research question asked, "what are the mechanisms of coping that HSG males in Montreal use." The research suggests that HSG males in Montreal use escape/avoidance coping the most (see table 2). From a clinical perspective, escape/avoidance coping is not an adaptive strategy at this point in the HIV/AIDS epidemic. It might have proved useful at the onset of the epidemic, when little or nothing was understood about infection and prevention, and the community was in crisis. Today, infection and prevention are very well understood, hence escape and avoidance may actually facilitate infection. Consequently, this prevalent type of maladaptive coping should be brought to the attention of HSG males, when in the clinical setting, and

replaced with a more adaptive coping strategy. The only caveat to this would be in light of Shelley Taylor's (1992) work on positive illusions, which suggests that positive illusions creating optimism may be adaptive, without compromising healthful behaviour. From a clinical perspective then, limiting the use of escape and avoidance, while supporting the creation of positive illusions where appropriate, would be the best strategy. The critical factor in the support of the use of positive illusions would be that these illusions continue to support healthy behaviours, that is, behaviours that do not increase the risk of infection.

The second research question asked if there was a relationship between the age of HSG males and the ways they cope with the epidemic. The research suggests that older HSG males use escape/avoidance coping the most and accepting responsibility the least. The converse is true of younger HSG males (see table 4 & figures 8 & 9). When working clinically with older HSG males, it is therefore likely that they will use escape/avoidance coping frequently, both in the session and in their daily lives. Thus the goal in psychotherapy would be to help them gain insight into this behaviour and to enable them to replace it with a more adaptive coping strategy when appropriate. In addition, with the mature HSG male the goal of therapy would be to develop their use of accepting responsibility as a coping strategy. A benefit of this would be encouraging them to accept responsibility and practice safe sex.

With respect to the clinical implications of the other significant data found through the research, the suggestion is that there was a significant relationship between the number of sexual partners and the use of seeking social support as a coping strategy. Specifically, the research indicated that HSG males who were

more social also had more sexual partners. Thus, a discussion about safe sex practices is important for all HSG Males but maybe even more so for very social people. These would be the people most likely to be at higher risk because of the number of sexual partners with whom they are involved.

Year of first loss was found to be significant in relation to the self-controlling coping strategy (see figure 11). Knowing the year in which an individual experienced his first loss may help explain the behaviour of the individual in a clinical setting. For example, someone having experienced his first loss in the late 1980's may be very controlled in the therapeutic interaction. This would be a natural response for him, so the focus of the clinical intervention would be to make him aware of this and then to help him explore his thoughts and feelings.

The research indicates that people having lower personal income levels (<$21,000) are more inclined to use confrontive coping as a coping strategy than those having higher incomes (see figure 12). Depending on the situation, confrontive coping may or may not be an adaptive strategy. Knowing the income level of the individual can provide insight into how likely he is to use this as a coping strategy. This gives the clinician insight into how the individual will respond to the suggestion that confrontive coping either is or is not the appropriate strategy for a given situation. For example, someone with a high-income level may be reticent to employ this strategy, even if it is appropriate for the situation. The focus for the clinician in this instance would be to encourage the use of confrontive coping.

Finally, the research indicates that individuals who live in household with a middle income level ($43-70,000) are the least likely to seek social support as a way of coping (see figure 13). The implication is that the clinician may need to be especially vigilant with those individuals coming from middle income household in terms of assessing whether they have adequate social support systems. In those cases where social support is not adequate, the focus would be on helping the individual build more social support.

REFERENCES

Abella, R. & Heslin, R. (1989). Appraisal processes, coping, and the regulation of stress-related emotions in a college examination. Basic and Applied Social Psychology, 10, 311-327.

Aldwin, C.M., & Revenson, T.A. (1987). Does coping help? A re-examination of the relationship between coping and mental health. Journal of Personality and Social Psychology, 53, 337-348.

Allison, J.A., & Wrightsman, L.S. (1993). Rape: The misunderstood crime. Newbury Park, CA: Sage.

Band, E.B. (1990). Children's coping with diabetes: Understanding the role of cognitive development. Journal of Pediatric Psychology, 1, 27-41.

Baum, A., Soloman, S., & Ursano, R. (1987). Emergency/disaster research issues: A guide to the preparation and evaluation of grant applications dealing with traumatic stress. Proceedings of the Workshop on Research Issues: Emergency, Disaster, and Post-Traumatic Stress. Bethesda, MD: Uniformed Services University of the Health Sciences.

Bauman, A. (1993). Effects of asthma patient education upon psychological and behavioural outcomes. In S. Maes, H Leventhal, & M Johnston (Eds.), International Review of Health Psychology (Vol. 2, pp. 199-212). Chichester: Wiley

Bendor, S. J. (1990). Anxiety and isolation in siblings of pediatric cancer patients: the need for prevention. Social Work in Health Care, 14(3), 17-35.

Brehm, J.W. (1966). A theory of psychological reactance. New York: Academic Press. Journal of Personality, 57, 773-797.

Bryant, F.B. (1989). A four-factor model of perceived control: Avoiding, coping, obtaining, and savouring.

Callan, V. J. (1993). Coping with organizational change. Work and Stress, 7(1), 63-75.

Carpenter, B. N. (1992). Issues and advances in coping research. In B.N. Carpenter (Ed.), Personal coping: Theory, research and application (pp. 113). Westport, CT: Praeger.

Cartwright, S. & Cooper, C.L. (1993). The psychological impact of merger and acquisition on the individual: A study of building society managers. Human Relations, 46(3), 327-347.

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. Journal of Personality and Social Psychology, 56, 267-283.

Coelho, Hamburg, & Adams (1974). Coping and adaptation, New York: Basic Books.

Cohen, F., & Lazarus, R. (1993). Coping and adaptation in health and illness. I D. Mechanic (Ed.), Handbook of health, illness and social adaptation (pp. 607-635). New York: Free Press.

Cohen, S., & Williamson, G.M. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), The social psychology of health, (pp. 31-67). Newbury Park, CA: Sage.

Cooley, E.J. & Klinger, C.R. (1989). Academic attributions and coping with tests. Journal of Social and Clinical Psychology, 8, 359-367.

Cooper, C.L. & Marshall, J. (1978). Understanding executive stress. London: Macmillan.

Cooper, C.L. & Sadri, G. (1991). The impact of stress counselling at work. Journal of Social Behaviour and Personality, 6(7), 411-423.

Cox, T. (1978). Stress. London: Macmillan.

DeFrank, R.S., & Cooper, C.L. (1987). Worksite stress management interventions: Their effectiveness and conceptualization. Journal of Managerial Psychology, 2, 4-10.

Department of Health and Welfare Canada, The Federal Center for AIDS, Telephone Communication, Statistics Published June, 1999).

DeRidder, D.T.D., & Schreurs, K.M.G. (1994). Coping and social support in patients with chronic diseases. Report for the Dutch Commission for Chronic Diseases: Utrecht: Section of Clinical and Health Psycholog

Dewe, P., Cox, T., & Ferguson, E. (1993). Individual strategies for coping with stress at work: A review. Work and Stress, 7(1), 5-15.

Dilley, J.W. & Boccellari (1989). Neuropsychiatric complications of HIV infection, in Face to Face: A Guide to AIDS Counseling. Edited by Dilley, J., Pies, C., Helquist, M. San Francisco, CA, AIDS Health Project, University of California at San Francisco. 138-152.

Dilley, J.W., Ochitill, H.N., Perl, M., & Volberding, P.A. (1985). Findings in psychiatric consultations with patients with acquired immune deficiency syndrome. American Journal of Psychiatry, 142, 82-85.

Dunkel-Schetter, C., Feinstein, L., Taylor, S.E., & Falke, R. (1992). Patterns of coping with cancer and their correlates. Health Psychology, 11, 79-87.

Edwards, J.M. & Trimble, K. (1992). Anxiety, coping and academic performance. Anxiety, Stress and Coping, 5, 337-350.

Evans, G.W. & Carrere, S. (1991). Traffic congestion, perceived control, and psychological stress among urban bus drivers. Journal of Applied Psychology, 76, 658-663.

Faulstich, M. E., (1987). Psychiatric aspects of AIDS. American Journal of Psychiatry, 144(5): 551-556.

Felton, B. J., & Revenson, T.A. (1984). Coping with chronic illness: A study of illness controllability and the influence of coping strategies on psychological adjustment. Journal of Consulting and Clinical Psychology, 52, 343-353.

Folkman (1992). Making the case for coping. In B.N. Carpenter (Ed.), Personal coping : Theory, research, and application (pp. 31-46). Westport, CT: Praeger.

Folkman, S., Lazarus, R. S., Gruen, R. J., & DeLongis, A. (1986). Appraisal, coping, health status, and psychological symptoms. Journal of Personality ad Social Psychology, 50 (3). 571-579.

Folkman, S. and Lazarus, R. S., (1980). An analysis of coping in a middle aged community sample. Journal of Health and Social Behaviour, 21. 219-239.

Folkman, S. and Lazarus, R. S., (1985). If it changes it must be a process: study of emotion and coping during three stages of a college examination. Journal of Personality and Social Psychology, 48. 150-170.

Folkman, S. and Lazarus, R. S., (1988). Ways of Coping Questionnaire Permissions Set. Manual, Test Booklet, Scoring Key. Palo Alto, Ca.

Folkman, S., Lazarus, R. S., Durkel-Schetter, C., DeLongis, A., & Gruen, R. J., (1986). Dynamics of a stressful encounter: Cognitive appraisal, coping and encounter outcomes. Journal of Personality and Social Psychology, 50, 992-1003.

Foreman, S.G. (1993). Coping skills interventions for children and adolescents. San Francisco: Jossey-Bass.

Freedy, J.R., Resnick, H.S., Kilpatrick, D.G., & Saunders, B.E. (1993). Adult psychological functioning after earthquakes. Final report for National Institute of Mental Health (NIMH) grant no. R03 MH 49485. Submitted to NIMH Violence and Traumatic Stress Research Branch, Washington, D.C.

Frenzel, M.P., McCaul, K.D., Glasgow, R.E., & Schafer, L.C. (1988). The relationship of stress and coping to regimen adherece and glycemic control fo diabetes. Journal of Social and Clinical Psychology, 6, 77-87.

Friedman, M. (1985). Toward a reconceptualization of guilt. Contemporary Psychoanalysis, 21, 501-547.

Gentry, W.D., Foster, S., & Haney, T. (1972). Denial as a determinant of anxiety and perceived health status in the Coronary Care Unit. Psychosomatic Medicine, 34, 39-44.

Golec, J.A. (1983). A contextual approach to the social psychological study of disaster recovery. International Journal of Mass Emergencies and Disasters, 1(2), 255-276.

Grych, J.H. & Fincham, F.D. (1993). Children's appraisals of marital conflict: initial ivestigations of the cognitive-contextual framework. Child Development, 64, 215-230.

Hallberg, L.R.-M. , Erlandsson, S.I., & Carlsson, S.G. (1992). Coping strategies used by middle-aged males with noise-induced hearing loss with and without tinnitus. Psychology and Health, 7, 273-288.

Hester, R.K. & Miller, W.R. (1989). Self-control training. In R.K. Hester & W.R. Miller (Eds.), Handbook of alcoholism treatment approaches (pp. 141-149). Elmsford, NY: Pergamon.

Holland, J. C., & Tross, S., (1985). Psychosocial considerations in the therapy of epidemic Kaposi's sarcoma. Seminal Oncology 14(2 Supplement 3): 48-53.

Holmes, T., & Rahe, R. (1967). The social readjustment rating scale. Journal of Psychosomatic Research, 11, 213-218.

Hopcke R.H. (1992). Mid-life, gay men, and the AIDS epidemic. Quadrant, 35 (1), 101-109.

Janoff-Bulman, R. (1992). Shattered assumptions. New York: Free Press.

Johnston, W.I. (1995). HIV-negative: How the uninfected are affected by AIDS. New York: Insight Books.

Joseph J., Caumartin S., Tal M., (1990). Psychological functioning in a cohort of gay men at risk for AIDS. Journal of Nervous Mental Disorders, 178, 607-615.

Kelly, J.A., & Murphy, D.A. (1992). Psychological interventions with AIDS and HIV: Prevention and treatment. Journal of Consulting and Clinical Psychology, 60, 576-585.

Krupnick, J. (1980). Brief psychotherapy with victims of violent crime. Victimology: An International Journal, 10, 376-396.

Landau-Stanton, J.& Clements, C.D. (1993). AIDS health and mental health: A primary sourcebook. New York: Brunner/Mazel Publishers.

Lazarus, R.S. (1966). Psychological stress and the coping process. New York: McGraw-Hill.

Lazarus, R.S. (1991). Emotion and Adaptation. London: Oxford University Press.

Lazarus, R.S. (1993). Coping theory and research: Past, Present and Future. Psychosomatic Medicine, 55, 234-247.

Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. New York: Springer.

Lazarus, R. S. & Folkman, S. (1988). The relationship between coping and emotion: Implications for theory and research. Special Issue: Stress and coping in relation to health and disease. Social Science and Medicine, 26 (3), 309-317.

Lennon, M.C., Martin, J. L., & Dean, L. (1990). The influence of social support on AIDS-related grief reaction among gay men. Social Science and Medicine, 31, 477-484.

Leserman, J., Perkins, D.O., and Evans, D.L., (1992). Coping with the threat of AIDS: the role of social support. American Journal of Psychiatry, 149 (11). 1514-20.

Levenson, J.L., Kay, R., Monteferrante, J. & Herman, M.V. (1984). Denial predicts favourable outcome in unstable angina pectoris. Psychosomatic medicine, 46, 25-32.

Leyman, H. (1985). Somatic and psychological symptoms after the experience of life threatening events: A profile analysis. Victimology: An International Journal, 10, 512-538.

Luepnitz, D. (1979). Which aspects of divorce affect children? Family Coordinator, 28, 79-85.

Maes, S. & Schlosser, M. (1987). The role of cognition and coping in health behaviour outcomes of asthma patients. Current Psychological Research and Reviews, 6, 79-90.

McKirnan, D.J. & Peterson, P.L. (1988). Stress, expectancies, and vulnerability to substance abuse. Journal of Abnormal Psychology, 97, 461-466.

Morin, S.F., Charles, K.A., & Malyon, A.K. (1984). The psychological impact of AIDS on gay men. American Psychologist, 39(11), 122-126.

Martin, J.L. (1988). Psychological consequences of AIDS-related bereavement among gay men. Journal of Consulting and Clinical Psychology, 56, 856-862.

Martin, J.L. & Dean, L. (1993). Effects of AIDS-related bereavement and HIV-related illness on psychological distress among gay men: A 7-year longitudinal study, 1985-1991. Journal of Consulting and Clinical Psychology, 61, 94-103.

Martin, J.L., Dean, L., Garcia, M., & Hall, W. (1989). The impact of AIDS on a gay community: Changes in sexual behaviour, substance use, and mental health. American Journal of Community Psychology, 17, 269-293.

Monat, A. & Lazarus, R. S., (1985). Stress and coping an anthology. New York: Columbia University Press.

Morbidity and Mortality Weekly. (1996, January 25). Mortality attributable to HIV infection in the United States, 1981-1996. Washington, DC: U.S. Department of Health and Human Sciences, Public Health Service.

McKusick, L. (1988). The impact of AIDS on practitioner and client. American Psychologist, 43(11), 935-940.

Murphy, L. B., (1974). Coping, vulnerability and resilience in childhood. In Coelho, Hamburg & Adams (Eds.), Coping and adaptation, New York: Basic Books.

Murphy, L.B., (1998). Workplace interventions for stress reduction and prevention. In C.L. Cooper & R. Payne (eds.), Causes, coping and consequences of stress at work. Chichester, England: Wiley.

Murphy, S. (1984). Stress levels and health status of victims of a natural disaster. Research in nursing and health, 7, 205-215.

Myrtek, M, & Spital, S. (1986). Psychopsyiological response patterns to single, double and triple stressors. Psychophysiology, 23, 663-671.

Nicholas, S. E., (1985). Psychosocial reactions of persons with the acquired immunodeficiency syndrome. Annals of Internal Medicine 103(5): 765-767.

Novaco, R.W., Stokols, D., & Milanesi, L. (1990). Objective and subjective dimensions of travel impedance as determinants of commuting stress. American Journal of Community Psychology, 18, 231-257.

Odets, W. (1992). In The Shadow of the Epidemic: Being HIV-negative in the Age of AIDS. In Johnston, HIV-Negative; how the uninfected are affected by AIDS. New York: Plenum.

Odets, W. (1994). Survivor Guilt in seronegative gay men. In Cadwell, Burnham, & Forstein, Therapists on the front line. Washington: American Psychiatric Press.

Parker, J.D. A., & Endler, N. S. (1992). Coping with assessment: A critical review. European Journal of Psychology, 6, 321-344.

Perkins, D.O., Davidson, E. J., Leserman, J. and Liao, D. (1993). Personality disorder in patients infected with HIV: A controlled study with implications for clinical care. American Journal of Psychiatry, 150 (2). 309-315.

Perkins, K.A., & Grobe, J.E. (1992). Increases desire to smoke during acute stress. British Journal of Addiction, 87, 231-234.

Perrez, M., & Reicherts, M. (1992). Stress, coping and health. Seattle, Washington: Hogrefe & Huber.

Perry, S.W., Jacobsberg, L., & Fishman, B. (1990). Suicidal ideation and HIV testing. Journal of the American Medical Association, 263, 697-682.

Popplestone, J. A. & McPherson, M. W. (1988). Dictionary of concepts in general psychology. New York: Greenwood Press.

Raphael, B., Lundin, T., & Weisaeth, L. (1989). A research method for the study of psychological and psychiatric aspects of disaster. Acta Psychiatrica Scandinavia, 80(353), 1-75.

Robins, L.N., & Przybeck, T.R. (1985). Age of onset of drug use as a factor in drug and other disorders. In C.L. Jones & R.J. Battjes (Eds.) Etiology of drug abuse (DHHS Publication No. ADM 87-1335, pp. 178-192). Rockville, MD: National Institute on Drug Abuse.

Robinson, S., Rapaport, J., Durst, R., & Rapaport, M. (1990). The late effects of Nazi persecution among elderly Holocaust survivors. Acta Psychiatrica Scandinavica, Vol 82(4), 311-315, Oct.

Rossman, B.B.R. & Rosenberg, M.S. (1992). Family stress and functioning in children: The moderating effects of children's beliefs about their control over paretal conflict. Journal of Child Psychology and Psychiatry and Allied Disciplines, 33, 699-715.

Sabourin, S., Laporte, L. & Wright, J. (1990). Problem-solving self-appraisal and coping efforts in distressed and nondistressed couples. Journal of Marital and Family Therapy, 16, 89-97.

Schwartz, J.E. & Stone, A.A. (1993). Coping with daily work problems. Contributions of problem content, appraisals and person factors. Work and Stress, 7(1), 47-62.

Shiffman, S. (1985). Coping with temptations to smoke. In S. Shiffman & T.A. Wills (Eds.), Coping and substance use (pp. 223-242). Orlando, FL: Academic Press.

Shore, J., Tatum, E., & Vollmer, W. (1986). Psychiatric reactions to disaster: The Mount St. Helens experience. American Journal of Psychiatry, 143, 590-595.

Steinglass, P., & Gerrity, E. (1990). Natural disasters and post-traumatic stress disorder: Short-term versus long-term recovery in two disaster-affected communities. Journal of Applied Social Psychology, 20, 1746-1765.

Stokols, D. (1976). The experience of crowding in primary and secondary environments. Environment and Behaviour, 8, 49-86.

Stokols, D., Rall, M., Pinner, P., & Schopler, J. (1973). Physical, social, and personal determinants of the perception of crowding. Environment and Behaviour, 5, 87-115.

Tabachnick B. G. & Fidell, L. (1989). Using Multivariate Statistics. New York: Harper Collins Publishers, Inc.

Taylor, S.E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. American Psychologist, 38, 1161-1173.

Taylor, S.E. (1989). Positive illusions: Creative self-deception and the healthy mind. New York: Basic Books.

Taylor, S.E., Kemeny, M.E., Aspinwall, L.G., Schneider, S.G., Rodriguez, R., & Herbert, M. (1992). Optimism, coping, psychological distress, and high-risk sexual behaviour among men at risk for acquired immunodeficiency syndrome(AIDS). Journal of Personality and Social Psychology, 63, 460-473.

Thompson, S.C., & Spacapan, S. (1991). Perceptions of control in vulnerable populations. Journal of Social Issues, 47(4), 1-21.

Topf, M. (1985). Noise-induced stress in hospital patients: Coping and non-auditory health outcomes. Journal of Human Stress, 11, 125-134.

Wayment, H. A., Kenemy, M.E., Silver, R.C. (1990). Survivor Syndrome in the gay community. International Conference on AIDS 6(3). 316.

White, R. W. (1974). Strategies of adaptation: An attempt at systematic description. In G. V. Coelho, D. A. Hamburg, & J.E. Adams (Eds.), Coping and adaptation (pp. 47-68). New York: Basic Books.

Wills, T.A., Vaccaro, D., & McNamara, G. (1992). The role of life events, family support, and competence in adolescent substance abuse: A test of vulnerability and protective factors. American Journal of Community Psychology, 20, 349-374.

Yehud, R., Kahana, B., Schmeidler, J., Southwick, S. (1995). Impact of cumulative lifetime trauma and recent stress on current posttraumatic stress disorder symptoms in Holocaust survivors. American Journal of Psychiatry, 152 (12). 1815-1818.

Zautra, A. & Manne, S.L. (1992). Coping with rheumatoid arthritis: A review of a decade of research. Annals of Behavioural Medicine, 14(1), 31-39.

GLOSSARY

ACCEPTING RESPONSIBILITY COPING SCALE - acknowledges one's own role in the problem with a concomitant theme of trying to put things right - for example - "Criticized or lectured myself."

AIDS - The acronym for Acquired Immunodeficiency Syndrome. AIDS affects the immune system and makes one susceptible to a wide range of opportunistic infections. The disease is believed to be caused by HIV, the human immunodeficiency virus.

CONFRONTIVE COPING SCALE - describes aggressive efforts to alter the situation and suggests some degree of hostility and risk-taking - for example - "Stood my ground and fought for what I wanted."

COPING - there are multiple, often overlapping definitions of coping. For the purpose of this research coping is defined as the complex combination of cognitive and behavioural efforts individuals use to manage (reduce, minimize, master and tolerate) the internal and external demands of the person-environment transaction that is appraised as taxing or stressful. Stressful situations include a variety of events that produce various levels of discomfort (e.g.,: school exams, job stress, life change, loss of a loved one, threat of HIV infection, serious illnesses). Coping requires the individual to assess the situation, to evaluate its relationship to his or her well being, and to appraise whether or not anything can be done.

DISTANCING COPING SCALE - describes cognitive efforts to detach oneself and to minimize the significance of the situation - for example - "Went on as if nothing had happened."

ESCAPE-AVOIDANCE COPING SCALE - describes wishful thinking and behavioral efforts to escape or avoid the problem. Items on this scale contrast with

those on the distancing scale, which suggests detachment - for example - "Hoped a miracle would happen."

GAY - The term applied to a person (usually a man) who is emotionally and sexually attracted to members of the same sex. The most specific definition reserves this term for those who are attracted to men, identify themselves as gay, and see themselves as members of the gay community.

HIV - acronym for Human Immunodeficiency Virus. HIV is believed to be the etiological agent of AIDS. HIV attacks and seriously damages the body's immune system.

HSG - acronym for HIV seronegative gay male(s).

PLANFUL PROBLEM SOLVING COPING SCALE - describes deliberate problem-focused efforts to alter the situation, coupled with an analytic approach to solving the problem - for example - "I made a plan of action and followed it."

POSITIVE REAPPRASIAL COPING SCALE - describes efforts to create positive meaning by focusing on personal growth. It also has a spiritual dimension - for example - "Changed or grew as a person in a good way."

SELF-CONTROLING COPING SCALE - describes efforts to regulate one's feelings and actions - for example - "I tried to keep my feelings to myself."

SEEKING SOCIAL SUPPORT COPING SCALE - describes efforts to seek informational support, tangible support, and emotional support - for example - "Talked to someone to find out more about the situation."

SEROCONVERSION – "Seroconversion" refers not to HIV infection but to a biological event made evident by two HIV tests: the movement from the absence to the presence of HIV antibodies in the bloodstream. In popular usage,

"seroconversion" often refers to the psychological event of learning one is HIV-positive after learning one was HIV-negative. (Johnston, p.318)

WORRIED WELL – the sub-population of HSG males who have developed an acute fear of HIV infection and may present with psychosomatic issues.

Appendix A

Participant Inclusion/Exclusion Criteria

Participant Inclusion/ Exclusion Criteria

Note: To be asked orally by the researcher to the recruited participants before they begin answering the research questionnaire. If yes is answered to any of the following questions the participant is asked to withdraw from the study.

1.) Have you ever tested seropositive for HIV?

_____Yes

_____No

2.) Have you consumed alcohol within the past 8 hours?

_____Yes

_____No

3.) Have you used recreational drugs within the past 12 hours?

_____Yes

_____No

4.) Have you experienced a trauma within the past 48 hours?

_____Yes

_____No

5.) Are you presently feeling physically ill?

_____Yes

_____No

6.) Is there anything of an emotional or psychological nature that is affecting you at the present ?

_____Yes

_____No

7.) Are you aware of anything that would prevent you from paying close attention to the instructions and focusing on completing honestly and accurately the following research questions?

_____Yes

_____No

Appendix B

Participant's Instructions

PARTICIPANT'S INSTRUCTIONS

Dear Participant,

Thank-you for taking the time to complete this questionnaire. It is part of our attempt at McGill University in Counselling Psychology to understand more about how HIV negative gay males are coping with the HIV and AIDS epidemic.

In order to ensure confidentiality and to receive payment for your participation in this research study please complete the attached consent and cheque mailing forms. Then complete the attached questionnaire. Once you have completed the consent and cheque mailing forms and the questionnaire place them in the envelope provided, seal it, and return it to the researcher. Once again thank you for your participation.

Scott C. A. Watson
Doctoral Student
Counselling Psychology
McGill University

Appendix C

Participant's Consent and Cheque Mailing Form

PARTICIPANT'S CONSENT AND CHEQUE MAILING FORM

I understand that my participation in this study is voluntary, and that I am free to withdraw from participation at any time. I have been informed that the procedure will involve approximately one hour of my time and will require the completion of a one hour questionnaire. I am aware that after I have completed the attached questionnaire I will receive by mail a cheque for my participation in the amount of $20.00 CND. I am also aware that the data from my questionnaire are completely confidential and anonymous. The researchers and research assistants are the only persons who have access to my questionnaire data. As a participant, I have ultimate control over the questionnaires I complete and may withdraw and destroy them at will. I understand the above consent and I agree to participate in the following research study.

Participant's Signature_____**Date**_____

Researcher's Signature_____**Date**_____

Note: **PLEASE COMPLETE INFORMATION BELOW TO RECEIVE PAYMENT VIA A CHEQUE IN THE MAIL FOR YOUR PARTICIPATION.**

Participant's Given Name_____

Participant's Middle Name(s)_____

Participant's Family Name_____

Participant's Mailing Address_____

_____

_____

_____

Participant's Phone Number (in case we need to follow-up)_____

Another Telephone Number were you can be reached_____

Appendix D

Participant's Questionnaire

PARTICIPANT'S QUESTIONNAIRE

Dear Participant,

The following is a questionnaire designed to help us at McGill University in Counselling Psychology to understand how HIV negative gay males - individuals like yourself - are coping with the HIV and AIDS epidemic.

The questionnaire will begin by gathering your demographic data and your lifestyle history. The bulk and remainder of the questionnaire will ask you questions that will help us assess how you are coping with the epidemic.

Your cooperation is appreciated and your contribution is essential for the success of this study which will help in the future psychological treatment of HIV seronegative gay males. Once again, please be assured that all materials collected in the course of this study will be regarded as **STRICTLY CONFIDENTIAL. Do not write your name anywhere on this questionnaire.** We ask for your complete honesty and sincerity in responding truthfully to each of the study questions. For purposes of completeness and scientific validity, **please answer all questions** to the best of your ability.

Scott C. A. Watson
Doctoral Student
Counselling Psychology
McGill University

I. DEMOGRAPHIC QUESTIONNAIRE:

Please place an "X" in front of the appropriate response and/or fill in the blank with the appropriate response.

A.) Age:

1.) How old are you (in years)? _____

B.) Individual and Household Income:

2.) What was your total **Individual** income from all sources during 1997 before taxes in Canadian Dollars(please round off to the nearest thousand):

$_____,000.00

3.) What was your total **Household** income from all sources during 1997 before taxes in Canadian Dollars (please round off to the nearest thousand):

$_____,000.00

C.) Education History:

4.) How many years of **full time** study have you completed since you graduated from high school (please provide a number)?

_____FULL TIME YEARS OF STUDY

D.) Career History:

5.)What is your Career History?

Present Occupation: _____

Current Position Held:_____

Occupational Setting: _____

Employment Dates: From_____To_____

Previous Occupation(s)(if present occupation held less than 10 years)_____

Previous Occupation: _____

Previous Position Held:_____

Occupational Setting: _____

Employment Dates: From_____To_____

Previous Occupation: _____

Previous Position Held:_____

Occupational Setting: _____

Employment Dates: From_____To_____

E.) Relationship Status:

6.) What is your RELATIONSHIP Status ?

_____Never had a Relationship

_____No relationship at present

_____More than one relationship at present

_____No relationship but seeking one

_____No relationship and not seeking one

_____Monogamous long-term relationship

_____ Other (Please Specify/Describe) _____

7.) What is your LEGAL Domestic Status ?

_____Never Married

_____Currently Married

_____Common Law Marriage

_____Divorced

_____Separated

_____Widowed

_____ Other (Please Specify/Describe) _____

8.) With whom do you currently live?

_____Alone

_____Only with my primary male life partner/lover/boyfriend

_____With roommate(s)

_____With my family of origin(parents)

_____With my wife

_____With my children

_____Other, please specify _____

F.) Level and Type of Social Support:

Social support involves more that the mere presence of others. It provides relationships in which emotional support, feedback, tangible assistance, and shared values are exchanged between people (Cobb, 1976).

9.) With this definition in mind do you feel you are satisfied with the social support in your life?

_____Absolutely Satisfied

_____Satisfied

_____Somewhat Satisfied

_____Not Sure

_____Somewhat Dissatisfied

_____Dissatisfied

_____Absolutely Dissatisfied

10.) What are your top three(1st, 2nd, & 3rd) sources of your social support?

_____Life partner/lover/boyfriend

_____ Friends

_____Family

_____ Professionals (counselor/psychotherapist/social worker)

_____ Community organizations

_____ Formal support group (AA/Group therapy/etc.)

_____ Other (please specify) _____

11.)From which of the following you would like more support? Please indicate your 1st, 2nd, and 3rd choice.

_____Life partner/lover/boyfriend

_____ Friends

_____Family

_____ Professionals (counselor/psychotherapist/social worker)

_____ Community organizations

_____ Formal support group (AA/Group therapy/etc.)

_____ Other (please specify) _____

G.) Counseling and Psychotherapy History:

12.) Have you participated in individual counselling or psychotherapy?

_____ Yes

_____ No

13.) If you answered yes to question 12, when was the last time you participated in individual counselling or psychotherapy?

_____ Currently participate

_____ Participated within the last 12 months, but not currently

_____ Participated 1 to 3 years ago

_____ Participated between 3 and 5 years ago

_____ Participated longer than 5 years ago

14.) If you answered yes to question 12, for how long did you participate in counselling or psychotherapy?

_____ Less than 3 months

_____ 3-12 months

_____ 1-3 years

_____ 3-5 years

_____ More than 5 years

15.) If you answered yes to question 12, how effective did you feel counselling or psychotherapy was?

_____ Very effective

_____ Somewhat effective

_____ Neither effective nor ineffective

_____ Somewhat ineffective

_____ Very ineffective

16.) Have you ever participated in group counselling or psychotherapy?

_____ Yes

_____ No

17.) If you answered yes to question 16, when was the last time you participated in group counselling or psychotherapy?

_____ Currently participate

_____ Participated within the last 12 months, but not currently

_____ Participated 1 to 3 years ago

_____ Participated between 3 and 5 years ago

_____ Participated longer than 5 years ago

18.) If you answered yes to question 16, for how long did you participate in group couselling or psychotherapy?

_____ Less than 3 months

_____ 3-12 months

_____ 1-3 years

_____ 3-5 years

_____ More than 5 years

19.) If you answered yes to question 16, how effective did you feel group counselling or psychotherapy was?

_____ Very effective

_____ Somewhat effective

_____ Neither effective nor ineffective

_____ Somewhat ineffective

_____ Very ineffective

H.) Sexual History:

20.) How would you describe your current sexual orientation ?

_____ Homosexual/Gay/Queer

_____ Bisexual

_____Heterosexual/Straight

_____Other - Please describe_____

21.) Has the importance of sex in your life changed recently?

_____No

_____Yes (Please Describe)_____

_____

22.) Over the past 12 Months how many different sex partners have you had ?

_____Please provide a number.

23.)Over the past 12 Months about what percentage of sex that you have engaged in has been "safe sex"?

_____% Please indicate about percentage of "safe sex" during past 12 months.

24.) Would you like more sexual activity in your lifestyle?

_____More sexual activity

_____Somewhat more sexual activity

_____Satisfied

_____Somewhat less sexual activity

_____Less sexual activity

I.) HIV Serostatus Testing History:

25.) HIV Serostatus Testing History:

_____I have tested HIV sero**positive**

_____I have tested HIV sero**negative** Approximate Date of Last HIV Test____

_____I have **never been tested** and have no idea of my serostatus

_____I have **never been tested** but **believe** I am HIV sero**positive**

_____I have **never been tested** but **believe** I am HIV sero**negative**

J.) HIV and AIDS Information:

26.) Are you knowledgeable about the New HIV/AIDS Combination Drug Therapies/Triple Therapies/ Protease Inhibitors/Drug Cocktails?

_____Yes

_____No

27.) If yes, do you think and feel they are a significant advancement in the fight against HIV and AIDS?

_____Yes

_____No

_____Do not know

28.) Have you lost a friend(s) to AIDS?

_____Yes

_____No

29.) If Yes, how many? (please provide a number)

_____

30.) Have you lost a partner/lover/boyfriend to AIDS?

_____Yes

_____No

31.) If Yes, how many (please provide a number)?

_____

32.) Have you lost a family member to AIDS?

_____Yes

_____No

33.) If Yes, how many (please provide a number)?

_____

34.) If you have experienced AIDS-related death, in what year did the first death occur?

19_ _

35.) Do you ever feel guilty that you are HIV negative when others around you are HIV positive?

_____ Yes

_____ No

36.) Do you have feelings of ANXIETY that are related to your experience of the HIV and AIDS epidemic?

_____Yes

_____ No

37.) Do you have feelings of DEPRESSION that are related to your experience of the HIV and AIDS epidemic?

_____Yes

_____ No

K.) Diet, Exercise and Fitness:

38.) Is your diet important to you?

_____Very Important

_____Somewhat Important

_____Neither Important or Unimportant

_____Somewhat Unimportant

_____Not Important

39.) If you pay attention to your diet, please rank (1st, 2nd, & 3rd) what it is about your diet that is important to you?

_____calorie intake in your diet

_____amount of fat in your diet

_____amount of carbohydrates in your diet

_____amount of fruits and vegetables in your diet

_____the balance of your diet

_____the nutrition in your diet

_____other, please describe_____

_____

40.) How important are fitness and exercise as a part of your lifestyle?

_____Very Important

_____Somewhat Important

_____Neither Important or Unimportant

_____Somewhat unimportant

_____Not important

41.) If fitness and exercise is important to you, please rank (1st, 2nd, & 3rd) the following types of exercise in order of importance.

_____Strength training (e.g., free weights/nautilus)

_____Aerobic Training - indoor (e.g., aerobics/treadmill/stairmaster)

_____Aerobic Training - outdoor (e.g., running/cycling/cross country skiing)

_____Individual Sports (e.g., skiing/tennis/golf)

_____Team sports (e.g., hockey/basketball/volleyball)

_____Swimming

_____other, please describe_____

_____

YOU HAVE FINISHED THE <u>FIRST</u> SECTION OF THE QUESTIONNAIRE.

PLEASE TURN TO THE NEXT PAGE TO BEGIN THE <u>SECOND</u> AND <u>FINAL</u> SECTION OF THE QUESTIONNAIRE.

II. WAYS OF COPING QUESTIONNAIRE

To respond to the following questions you must have a **specific** stressful situation in mind. We would like you to take a few minutes to think about the **most** stressful situation that you have experienced in the past **with respect to the HIV and AIDS epidemic.** It is very important that you focus on a specific stressful situation with respect to the HIV and AIDS epidemic - not just the epidemic itself. By "stressful" we mean a situation that was difficult or troubling for you, either because you felt distressed about what happened, or because you had to use a considerable effort to deal with the situation. For example:

Example 1:

On the street you have run into a very close gay male friend of yours who had just found out that he has tested positive for HIV, and you sensed he needed you and you decided to spend some time with him.

Example 2:

During a sexual activity your condom broke and you became concerned with becoming HIV infected from your partner.

Example 3:

You have become ill or noticed some unusual changes with your body which caused you to question whether you were living with HIV/AIDS.

Example 4:

You have read or watched something with respect to the HIV/AIDS epidemic which caused you to feel stressed, because it touched on some of your own fears and anxieties with respect to the HIV and AIDS epidemic.

Example 5:

You are planning to or have had an HIV test and you are waiting for the test results and many scary thoughts are running through your mind.

In order to answer the following 66 questions you must choose a **single, specific, stressful** situation that you have experienced in the past **with respect to the HIV and AIDS epidemic**. If you **can not recall** a specific stressful situation you experienced with respect to the HIV and AIDS epidemic, then focus and imagine yourself in **one** of the examples given above.

In one or two sentences below, please describe your **specific** stressful situation that you experienced with respect to the HIV and AIDS epidemic, even if you must use one of the examples outlined above.

_____

_____

_____

_____

As you respond to each of the following 66 statements, please keep this **specific** situation in mind. **Read each statement carefully and indicate, by circling 0, 1, 2 or 3, to what extent you used it in the specific situation.**

KEY:

0=Does not apply or not used **2=Used quite a bit**

3=Used a great deal **1=Used somewhat,**

PLEASE TRY TO RESPOND TO EVERY QUESTION

0=Does not apply or not used

1=Used somewhat,

2=Used quite a bit

3=Used a great deal

1. I just concentrated on what I had to do next - the next step

0 1 2 3

2. I tried to analyze the problem in order to understand it better

0 1 2 3

3. I turned to work or another activity to take my mind off things

0 1 2 3

4. I felt that time would have made a difference - the only thing was to wait

0 1 2 3

5. I bargained or compromised to get something positive from the situation

0 1 2 3

6. I did something that I didn't think would work, but at least I was doing something

0 1 2 3

7. I tried to get the person responsible to change his or her mind

0 1 2 3

8. I talked to someone to find out more about the situation

0 1 2 3

0=Does not apply or not used

1=Used somewhat,

2=Used quite a bit

3=Used a great deal

9. I criticized or lectured myself

0 1 2 3

10. I tried not to burn my bridges, but leave things open somewhat

0 1 2 3

11. I hoped for a miracle

0 1 2 3

12. I went along with fate; sometimes I just have bad luck

0 1 2 3

13. I went on as if nothing had happened

0 1 2 3

14. I tried to keep my feelings to myself

0 1 2 3

15. I looked for the silver lining, so to speak; I tried to look on the bright side of things

0 1 2 3

0=Does not apply or not used

1=Used somewhat,

2=Used quite a bit

3=Used a great deal

16. I slept more than usual

0 1 2 3

17. I expressed anger to the person(s) who caused the problem

0 1 2 3

18. I accept sympathy and understanding from someone

0 1 2 3

19. I told myself things that helped me feel better

0 1 2 3

20. I was inspired to do something creative about the problem

0 1 2 3

21. I tried to forget the whole thing

0 1 2 3

22. I got professional help

0 1 2 3

0=Does not apply or not used

1=Used somewhat,

2=Used quite a bit

3=Used a great deal

23. I changed or grew as a person

0 1 2 3

24. I waited to see what would happen before doing anything

0 1 2 3

25. I apologized or did something to make up

0 1 2 3

26. I made a plan of action and followed it

0 1 2 3

27. I accepted the next best thing to what I wanted

0 1 2 3

28. I let my feelings out somehow

0 1 2 3

29. I realized that I had brought the problem on myself

0 1 2 3

0=Does not apply or not used

1=Used somewhat,

2=Used quite a bit

3=Used a great deal

30. I came out of the experience better than when I went in

0 1 2 3

31. I talked to someone who could do something concrete about the problem

0 1 2 3

32. I tried to get away from it for a while by resting or taking a vacation

0 1 2 3

33. I tried to make myself feel better by eating, drinking, smoking, using drugs, or medications, etc.

0 1 2 3

34. I took a big chance or did something very risky to solve the problem

0 1 2 3

35. I tried not to act too hastily or follow my first hunch

0 1 2 3

36. I found new faith

0 1 2 3

0=Does not apply or not used

1=Used somewhat,

2=Used quite a bit

3=Used a great deal

37. I maintained my pride and kept a stiff upper lip

0 1 2 3

38. I rediscovered what is important in life

0 1 2 3

39. I changed something so things would turn out all right

0 1 2 3

40. I generally avoided being with people

0 1 2 3

41. I didn't let it get to me; I refused to think too much about it

0 1 2 3

42. I asked advice from a relative or friend I respected

0 1 2 3

43. I kept others from knowing how bad things were

0 1 2 3

44. I made light of the situation; I refused to get too serious about it

0 1 2 3

0=Does not apply or not used

1=Used somewhat,

2=Used quite a bit

3=Used a great deal

45. I talked to someone about how I was feeling

0 1 2 3

46. I stood my ground and fought for what I wanted

0 1 2 3

47. I took it out on other people

0 1 2 3

48. I drew on my past experiences; I was in a similar situation before

0 1 2 3

49. I knew what had to be done, so I doubled my efforts to make things work

0 1 2 3

50. I refused to believe that it had happened

0 1 2 3

51. I promised myself that things would be different next time

0 1 2 3

0=Does not apply or not used

1=Used somewhat,

2=Used quite a bit

3=Used a great deal

52. I came up with a couple of different solutions to the problem

0 1 2 3

53. I accepted the situation, since nothing could be done

0 1 2 3

54. I tried to keep my feeling about the problem from interfering with other things

0 1 2 3

55. I wished that I could change what had happened or how I felt

0 1 2 3

56. I changed something about myself

0 1 2 3

57. I daydreamed or imagined a better time or place than the one I was in

0 1 2 3

58. I wished that the situation would go away or somehow be over with

0 1 2 3

0=Does not apply or not used

1=Used somewhat,

2=Used quite a bit

3=Used a great deal

59. I had fantasies or wishes about how things might turn out

0 1 2 3

60. I prayed

0 1 2 3

61. I prepared myself for the worst

0 1 2 3

62. I went over in my mind what I would say or do

0 1 2 3

63. I thought about how a person I admire would handle this situation and used that as a model

0 1 2 3

64. I tried to see things from the other person's point of view

0 1 2 3

65. I reminded myself how much worse things could be

0 1 2 3

66. I jogged or exercised

0 1 2 3

You have finished the research questionnaire !!!!!

Thank you

Please place all completed documents in the envelope provided, seal the envelope, and return it to the researcher.

Thank you again for your participation in this research. If you have any questions or concerns regarding this research please contact the researcher.

Scott C. A. Watson
989-7973
Doctoral Student
Counselling Psychology
McGill University

Appendix E

Research Data Tables

Table 1: Mean Scores and Standard Deviation by Demographic Variable

Demographic Variable	Mean Value	Standard Deviation
Respondent Age (years)	40.62	13.85
Personal Income ($)	40,918	31,318
Household Income ($)	54,817	38,125
Education (years post-secondary)	5.06	2.86
Number of Partners	9.83	15.6
% Safe Sex (last year)	85.01	28.15
# Friends Lost to AIDS	5.10	8.00
Year of First Loss	87 (mode)	89 (median)

Table 2: Raw Scores and Standard Deviation for each Coping Style

Coping Style	Mean of Raw Scores per Scale (all respondents)	Standard Deviation
Escape /Avoidance	9.202	5.151
Self Controlling	8.798	3.929
Positive Reappraisal	8.514	4.783
Seeking Social Support	7.780	4.483
Distancing	6.853	3.709
Planful Problem Solving	6.147	3.666
Accepting Responsibility	4.303	3.117
Confrontive Coping	3.908	2.859

Table 3: Results of ANOVAs with AGE as dependent variable (including post-hoc tukey tests)

Coping Style	P Values	F-Ratios
Escape /Avoidance	0.020*	3.426
Self Controlling	0.689	0.491
Positive Reappraisal	0.268	1.332
Seeking Social Support	0.182	1.653
Distancing	0.715	0.454
Planful Problem Solving	0.075	2.366
Accepting Responsibility	0.006*	4.372
Confrontive Coping	0.228	1.466

* = Significant ($p<.05$)

Table 4: Mean Scores Per Coping Style by Age Group

Respondent Age Group	Confrontive Coping	Distancing	Self-controlling	Seeking Social support	Accepting Respons - ibility	Escape/ Avoidance	Planful Problem Solving	Positive Re-appraisal
Age 17-31 (group1)	4.667	7.000	8.750	9.500	5.167	8.000	6.875	7.792
Age 32-35 (group 2)	3.533	6.600	9.500	6.933	5.333	7.433	6.900	9.867
Age 36-49 (group 3)	4.321	6.393	8.571	7.607	3.929	10.393	6.179	7.607
Age 50+ (group 4)	3.222	7.481	8.296	7.370	2.778	11.000	4.630	8.593

Table 5: P-Values and F-ratios for ANCOVAs including post-hoc tukey tests (age as covariate)

	Personal Income	Household Income	Number of Partners	Years of Education	Year of First Loss
Confrontive Coping	P=0.015 * F=3.642	P=0.830 F=0.294	P=0.772 F=0.374	P=0.278 F=1.302	P=0.839 F=0.281
Distancing	P=0.523 F=0.753	P=0.146 F=1.830	P=0.621 F=0.593	P=0.237 F=1.435	P=0.189 F=1.622
Self Controlling	P=0.384 F=1.027	P=0.125 F=1.957	P=0.080 F=2.318	P=0.579 F=0.659	P=0.038 * F=2.916
Seeking Social Support	P=0.480 F=0.831	P=0.030 * F=3.100	P=0.028 * F=3.144	P=0.217 F=1.506	P=0.831 F=0.292
Accepting Responsibility	P=0.753 F=0.400	P=0.669 F=0.521	P=0.372 F=1.055	P=0.066 F=2.470	P=0.119 F=1.999
Escape Avoidance	P=0.314 F=1.198	P=0.592 F=0.639	P=0.730 F=0.432	P=0.675 F=0.513	P=0.252 F=1.384
Planful Problem Solving	P=0.479 F=0.832	P=0.137 F=1.883	P=0.348 F=1.112	P=0.615 F=0.602	P=0.340 F=1.130
Positive Reappraisal	P=0.339 F=1.135	P=0.152 F=1.799	P=0.916 F=0.170	P=0.259 F=1.360	P=0.705 F=0.468

* = Significant ($p<.05$)

Table 6: Coping styles by group

	Positive Strategies	Negative Strategies
Group One	Positive Reappraisal Seeking Social Support	Escape/Avoidance Self Controlling
Group Two	Planful Problem Solving	Distancing
Group Three	Accepting Responsibility	Confrontive Coping

Table 7: Skew for each Coping Style

Coping Style	Skew
Seeking Social Support	0.027
Self Controlling	0.092
Escape/Avoidance	0.136
Accepting Responsibility	0.184
Positive Reappraisal	0.301
Distancing	0.314
Confrontive Coping	0.665
Planful Problem Solving	0.775

Appendix F

Research Data Figures

Figure 1: Frequency Distribution – Age of Respondents

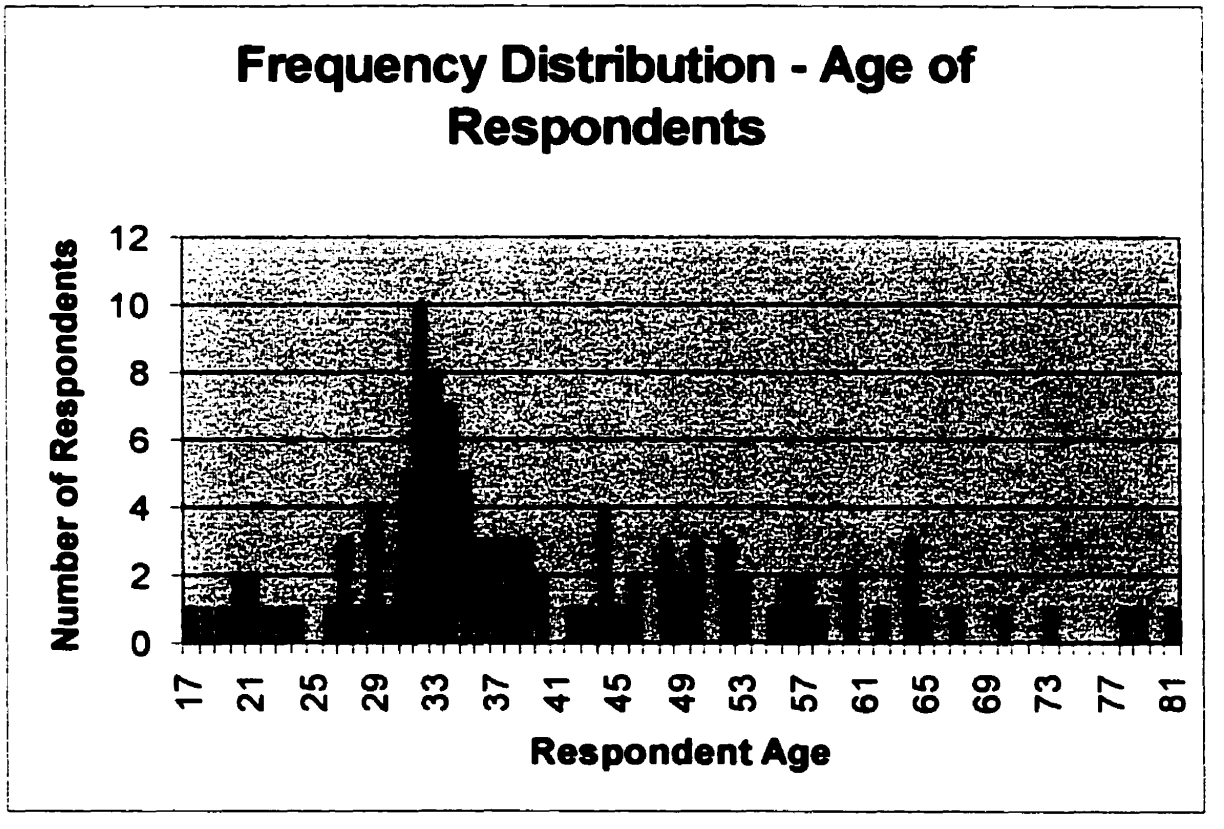

Figure 2: Frequency Distribution – Personal Income of Respondents

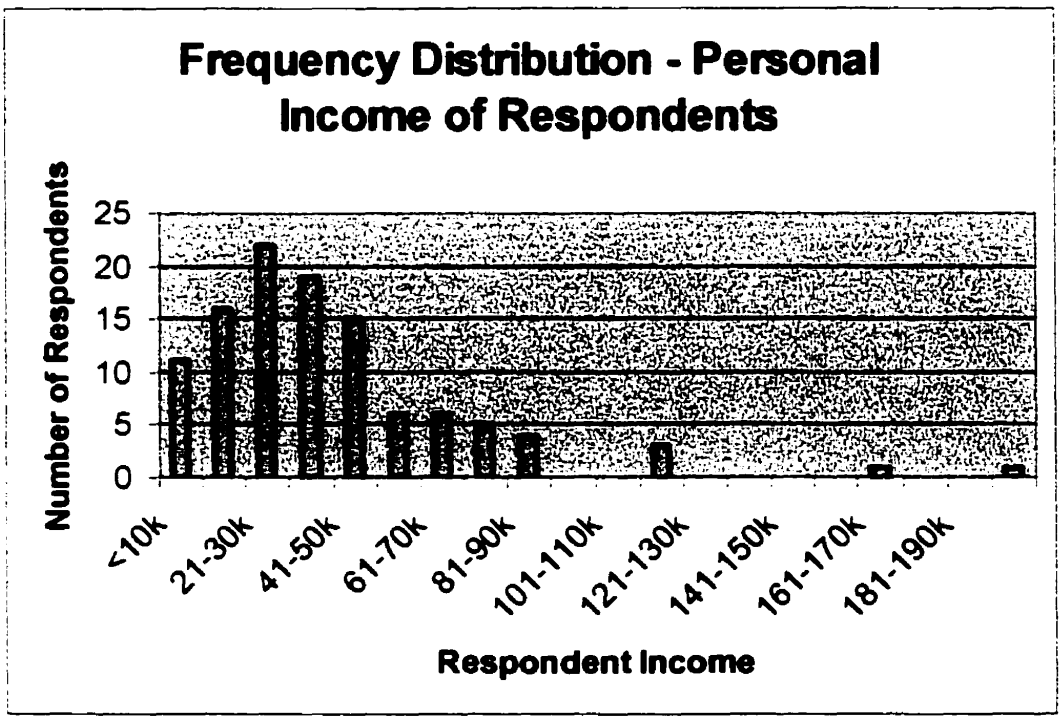

Figure 3: Frequency Distribution – Household Income of Respondents

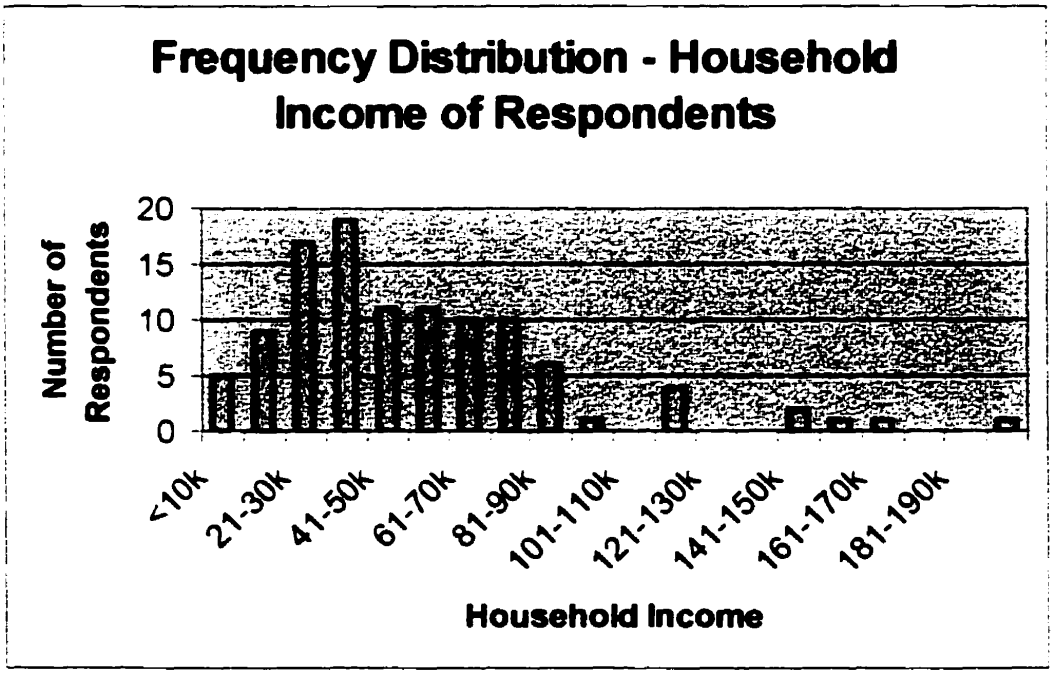

Figure 4: Frequency Distribution – Education Level of Respondents

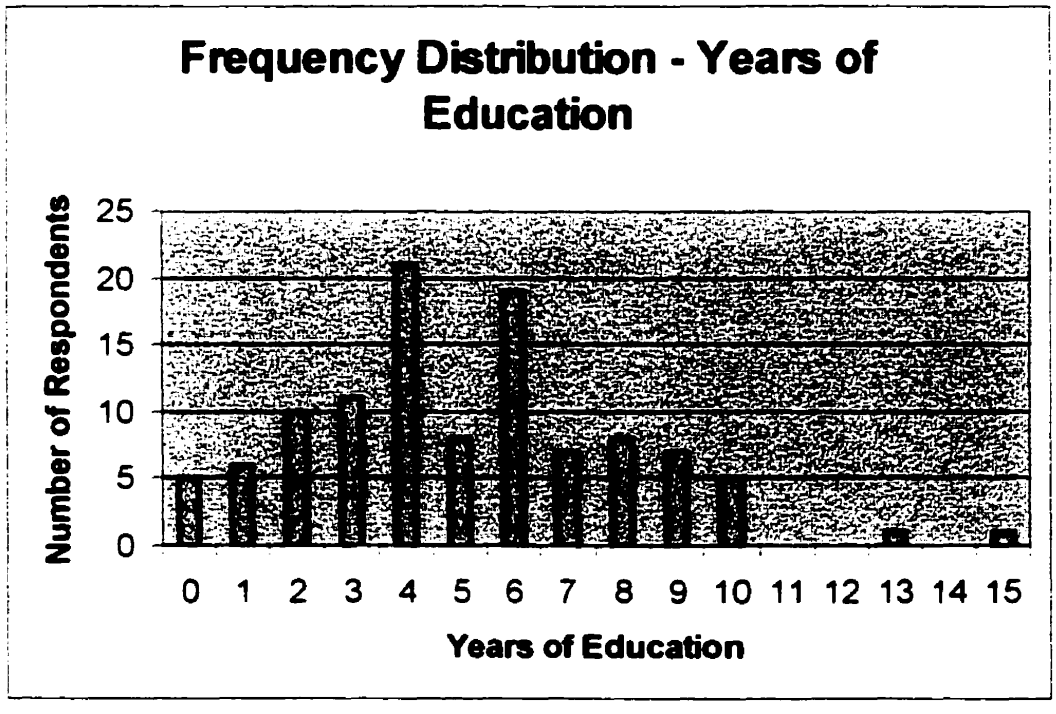

Figure 5: Frequency Distribution – Number of Partners of Respondents

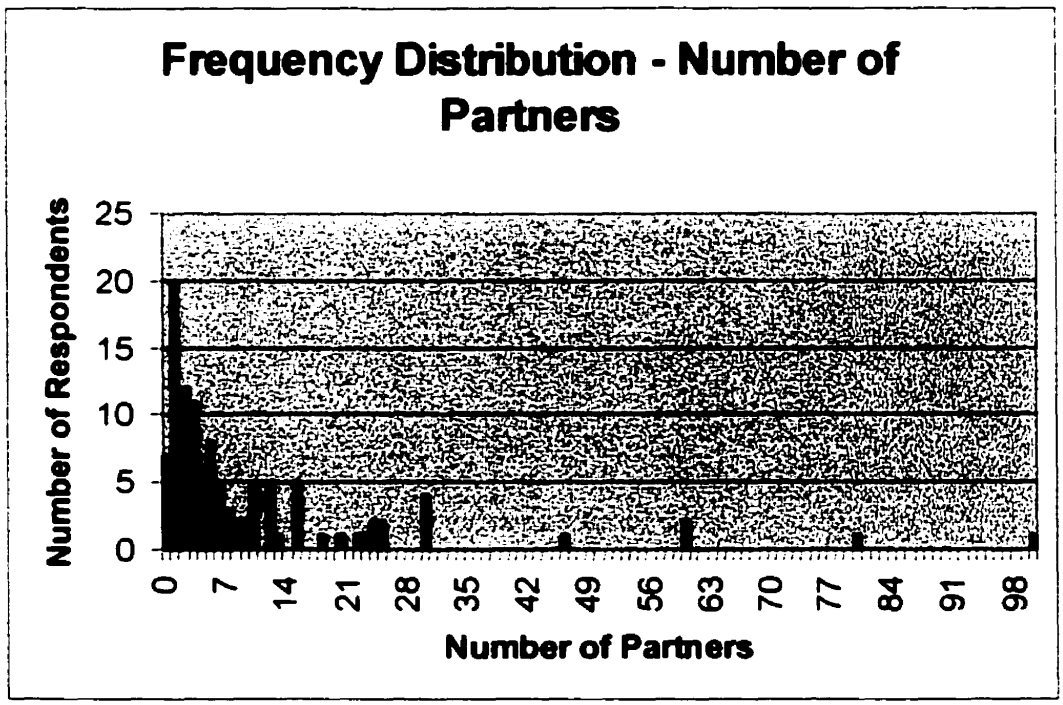

Figure 6: Frequency Distribution – Year of First Loss of Respondents

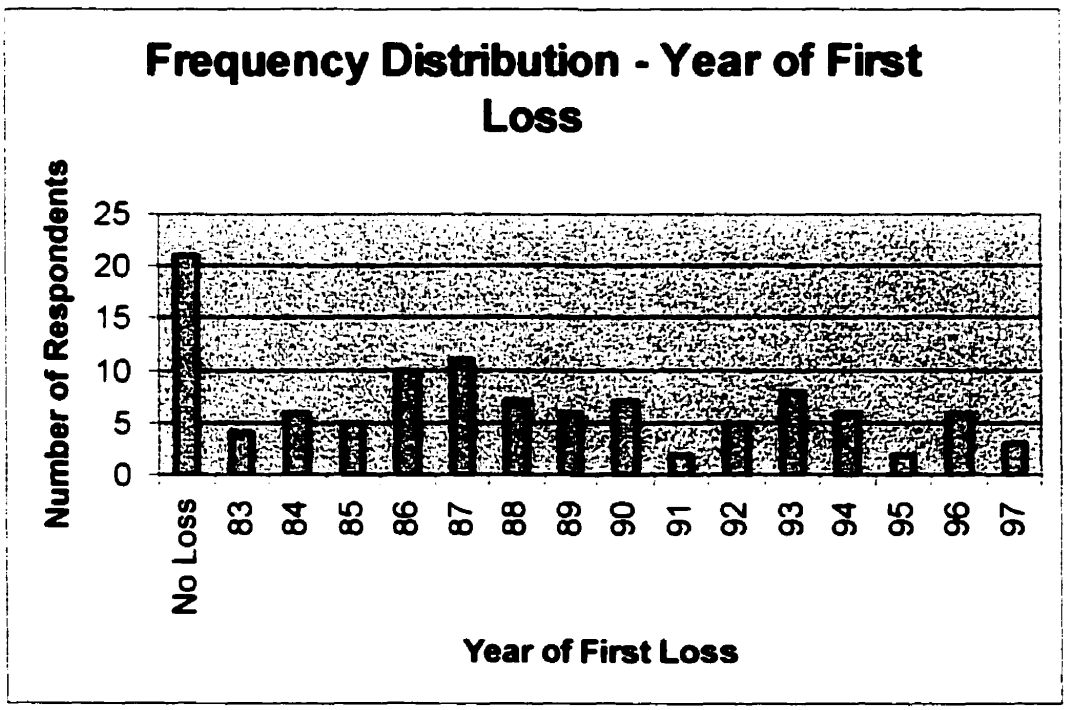

Figure 7: Grouping of Mean Ratings

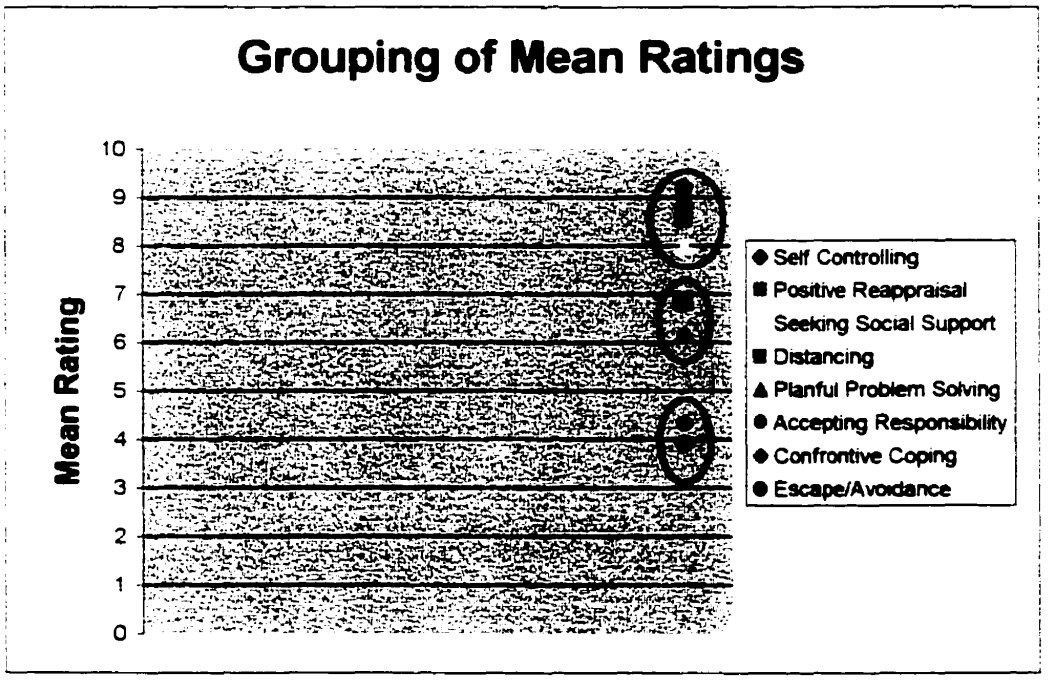

Figure 8: Mean Raw Score by Age Group – Accepting Responsibility

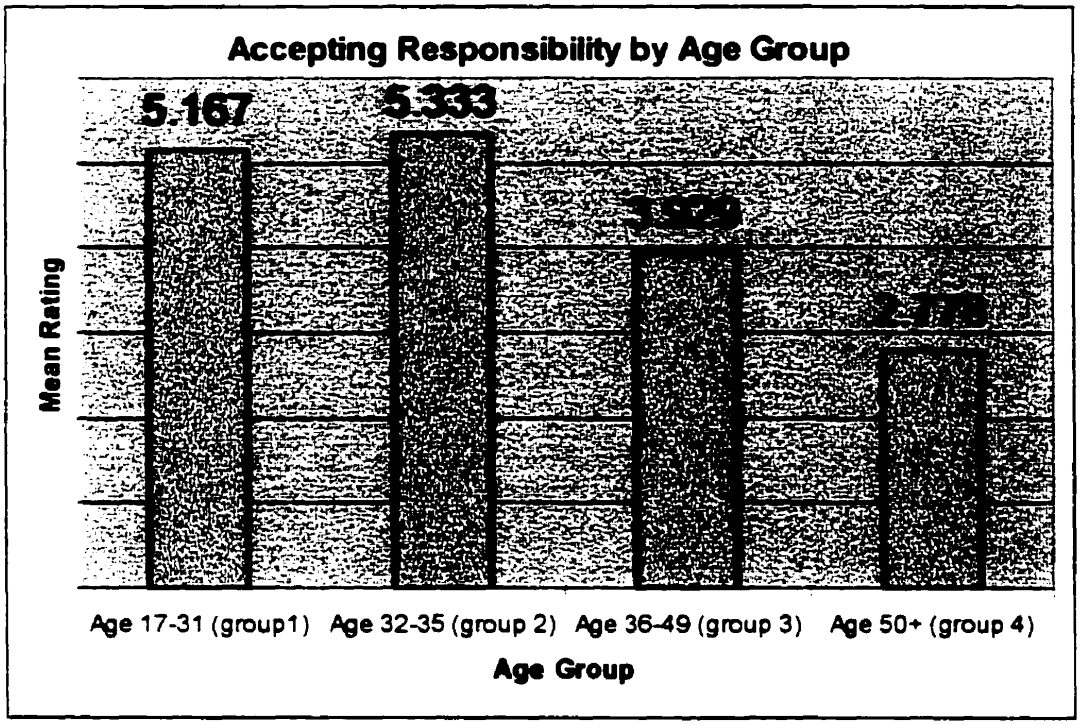

Figure 9: Mean Raw Score by Age Group – Escape /Avoidance

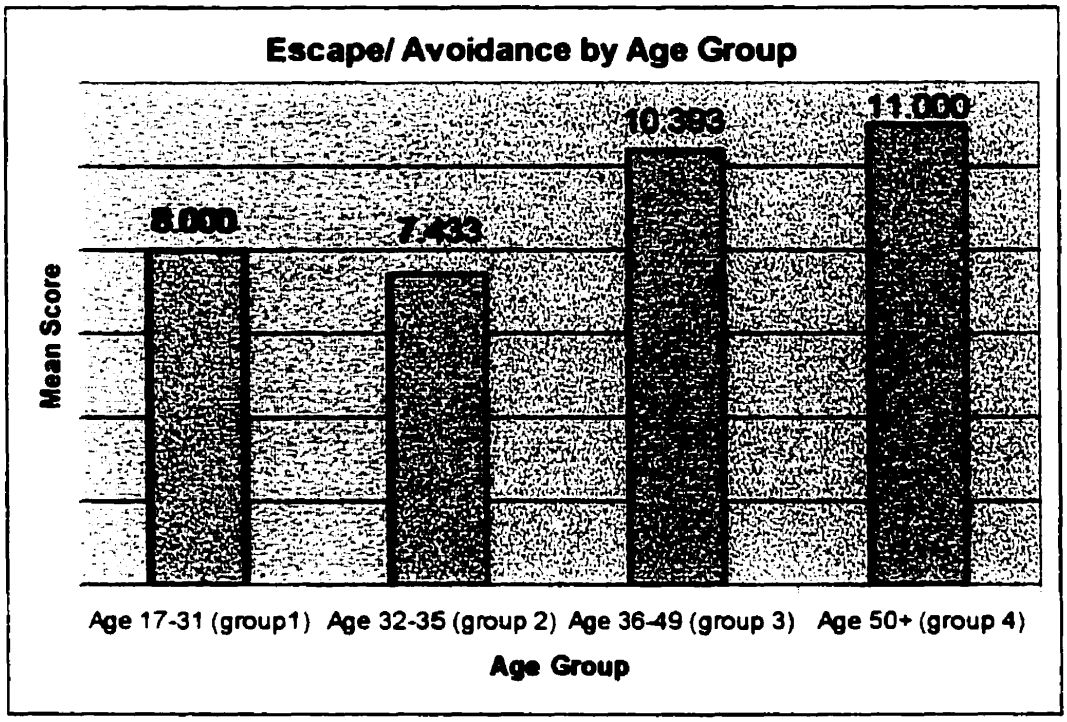

Figure 10: Mean Raw Score by Number of Partners – Seeking Social Support

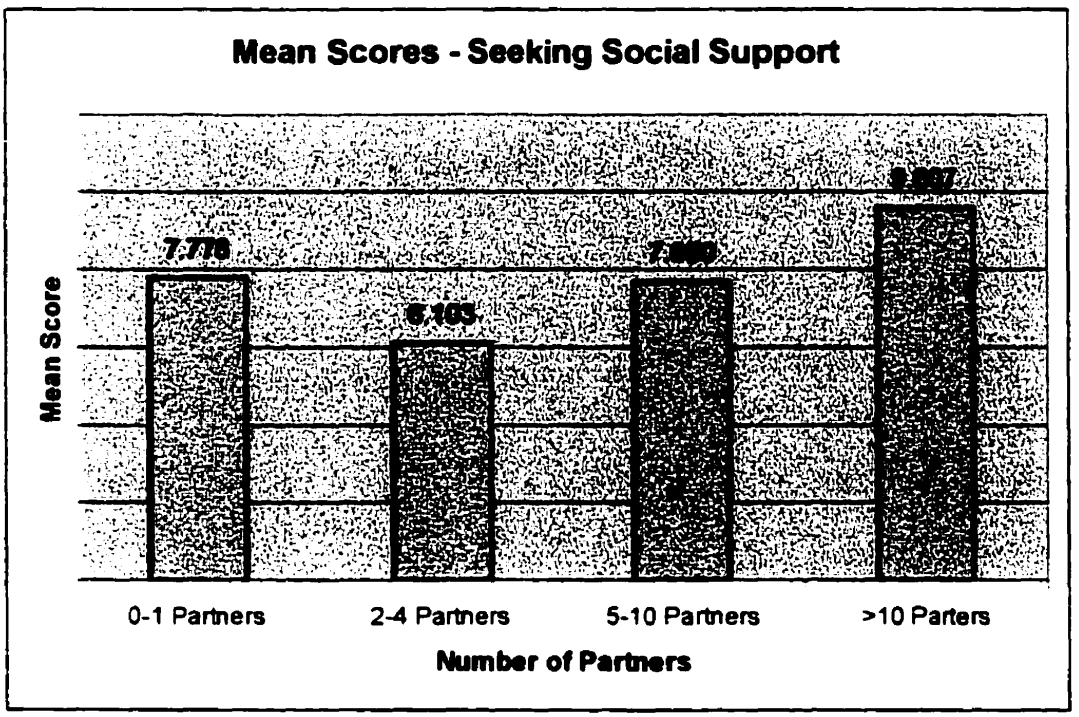

Figure 11: Mean Raw Score by Year of First Loss – Self-Controlling

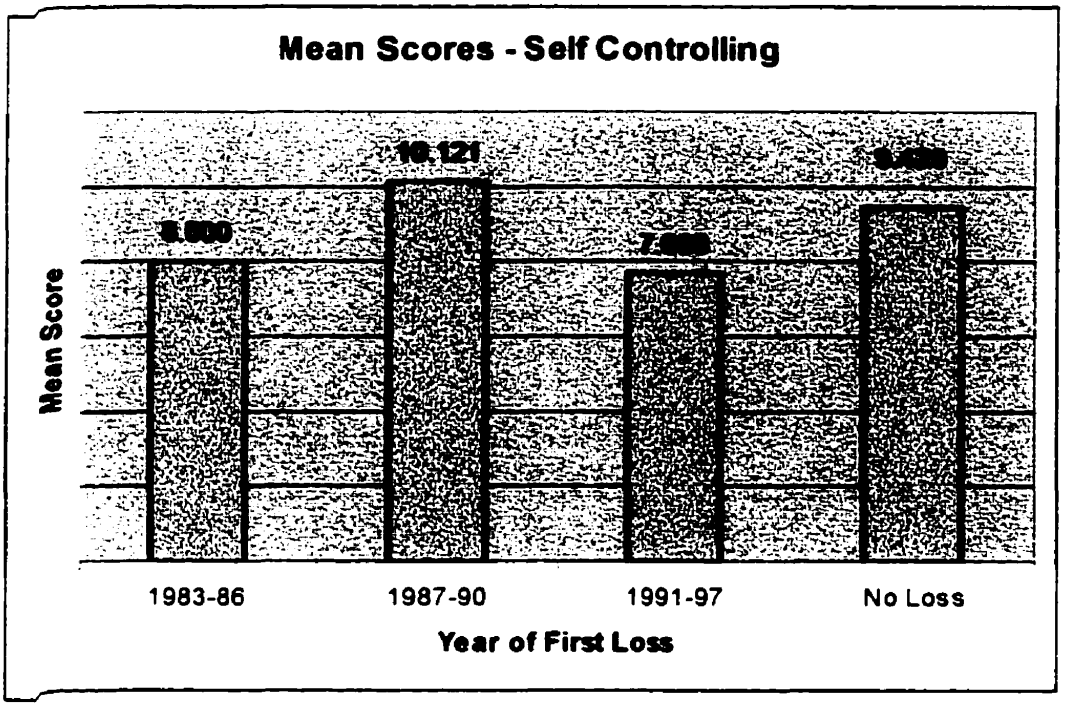

Figure 12: Mean Raw Score by Personal Income – Confrontive Coping

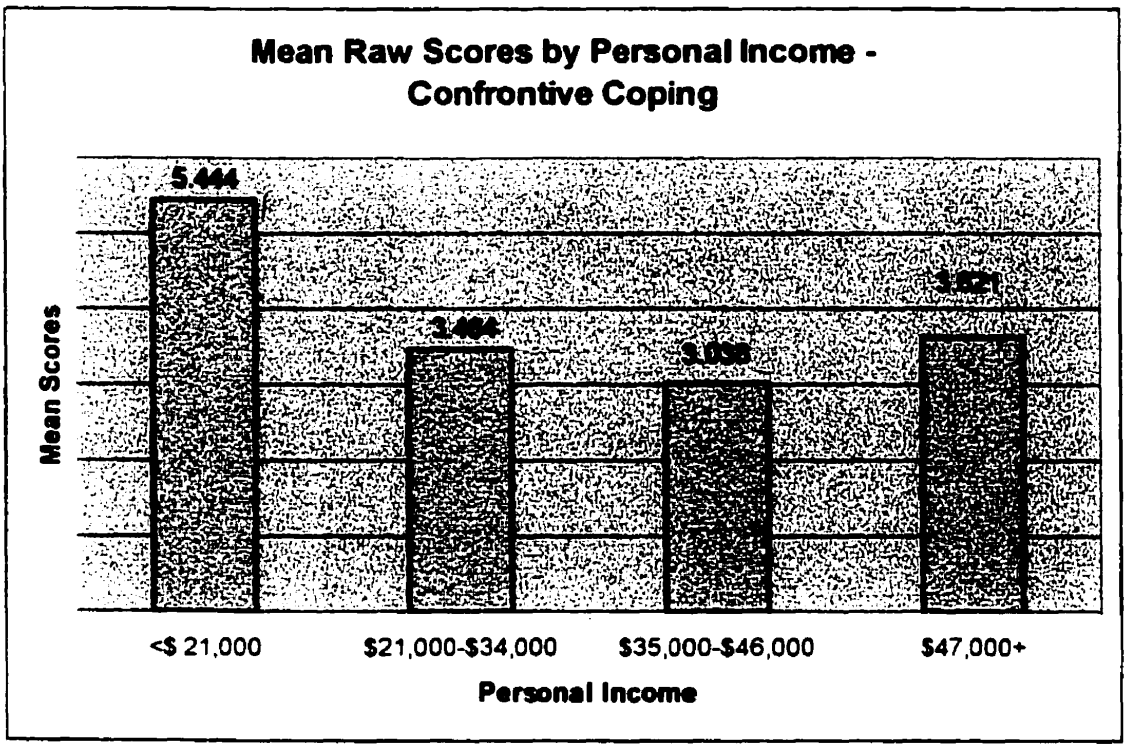

Figure 13: Mean Raw Score by Household Income – Seeking Social Support