UNIVERSITY OF CALGARY

Loneliness and Coping: An Exploratory Study Examining Gender and Sexuality

by

Revekka Charalambos Kakoullis

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE

DEGREE OF MASTER OF SCIENCE

DIVISION OF APPLIED PSYCHOLOGY

CALGARY, ALBERTA

FEBRUARY, 2001

Canada

ABSTRACT

The objective of the present exploratory study was to examine the influence of sub-culture (gender and sexual orientation) on the nature (satisfaction vs. dissatisfaction with 4 social relations) and degree of loneliness, and coping with its experience. The nature and degree of loneliness were measured by the Differential Loneliness Scale (Schmidt & Sermat, 1983) and the UCLA Loneliness Scale (Version 3) (Russell, 1996), respectively, and coping was measured by the Coping Questionnaire (Russell, Cutrona, Rose, & Yurko, 1984).

The sample consisted of 274 participants: Fifty-four women of lesbian and 64 men of gay; 21 women and 6 men of bisexual; and, 75 women and 54 men of heterosexual sexual orientation. Respondents possessed diverse socio-demographic characteristics.

Two-way ANOVAs and MANOVAs were performed to examine sub-cultural group means on the 3 measures. Results indicated statistically significant (alpha level = .05) gender and sexual orientation effects, but not a significant interaction effect on the Differential Loneliness Scale. In respect to the UCLA Loneliness Scale (Version 3), a statistically significant sexual orientation effect was detected, but no significant gender and interaction effects were found. Results of the Coping Questionnaire indicated both a statistically significant interaction and sexual orientation effect, but not a significant gender effect.

Findings suggest that persons are, to some degree, influenced by sub-culture, hence, the loneliness and coping experience of persons of these diverse sub-cultures merit further study.

ACKNOWLEDGMENTS

Elizabeth Lepps; Steven Lock; Edith Mandeville; Lorraine Morrall; Del Rath; Corrine Robert; and, Gwen Villebrun.

My gratefulness also extends to several local agencies and organizations. In alphabetical order, I would like to thank the owners, managers, and/or staff of the following agencies for the interest in and support of my research that they have demonstrated: A Woman's Place Bookstore; Aids Calgary; Apollo Friends In Sports; Arena Coffee Bar; CRHA (Calgary Regional Health Authority); CJSW (Speak Sebastian Gay and Lesbian Radio); G.L.A.S.S. (Gay, Lesbian & Bisexual Academic Students & Staff); G.L.C.S.A. (Gay & Lesbian Community Services Association); Good Earth Cafés Ltd. (1502 – 11th Street SW); Grabbajabba (1610 – 10th Street SW); Kaffa Coffee & Salsa House; Katmandu (2111 – 33 Avenue SW); Rainbow Pride Resource Centre; The Roasterie Zoo (227 – 10th Street NW); Rooks Bar & Beanery; The Women's Centre of Calgary (B644 – 1st Avenue NE); The Women's Collective & Resource Centre; and, Words Cafe Bookstore & Cappuccino Bar. I thank you for having my research available for your clientele, and, thus, for greatly assisting in my data collection process.

Finally, I am grateful for and wish to thank all the persons whom participated in the following study. The sharing of your time and personal experiences, and, in general, the providing of your valuable feedback, provided the basis of the following study.

It is my hope that the effort and contributions of all mentioned will urge other researchers to rectify the shortcomings of the current study, and to engender further research on this subject. It is my belief that we need to grasp the courage that rests within us to challenge and overcome the fear that arises from the unfamiliar, and to examine, understand, accept, appreciate, and to celebrate human differences and diversity – what

separates us – and then to integrate it with the commonality that binds or interconnects us as human beings. By engaging in this approach, I believe, we take steps toward the discovery of our own unique truths, the flourishing and liberation of whole human beings, and the enhancing of our personal and unique understanding of what it means to be human.

TABLE OF CONTENTS

TABLES

CHAPTER ONE

INTRODUCTION

Loneliness has been perceived by some writers as a universal and existential phenomenon. a condition that is fundamental to or an integral part of being human (i.e., Moustakas, 1972. cited in Rokach, 1984; Rokach, 1984, 1998a). It has been conceptualized as a plight or natural condition that all human beings have the potential or ability to encounter and share in its experience at any time throughout their lifetime (Rokach. 1984). regardless of demographics and/or situation (Rokach & Brock. 1996). This position is convincing in light of our evolving human nature and the recurrent environmental changes that accompany us throughout our personal journeys of life.

Although aware of the excruciating pain that may accompany one's journey through loneliness. several existentially oriented authors (i.e.. Moustakas. 1972. cited in Rokach. 1984) and researchers (i.e.. Rokach, 1984; Rokach & Brock. 1997a) have identified numerous potential positive consequences that may arise from this condition. suggesting that this experience may be transposed into one that is benefiting and life enriching. As Moustakas (1972) proposed. loneliness may be a "...joyous experience of self-discovery, a real meeting of self-to-self...it includes a sense of harmony and well being...(and a way) of advancing life and coming alive in a relatively dead or stagnant world" (p. 21. cited in Rokach, 1984). Thus. the above mentioned authors assert that the loneliness experience may give rise to a novel. deeper, and more meaningful appreciation of life in general, if transposed into an opportunity for enhancing one's self-awareness and. thus, acquiring self-growth.

However, although positive consequences have been acknowledged to arise from the loneliness experience, research (i.e., Rokach, 1997a: Rokach & Brock, 1997a) has also brought to light the possible detrimental or adverse effects of its experience on a personal, interpersonal, and social level.

Nonetheless, in the last two decades, loneliness has been acknowledged as a prevalent issue of North American society (Rokach & Brock, 1996, 1997a: Rokach & Koledin, 1997: Rokach & Sharma, 1996). Its pervasiveness has been made apparent in its recurrent reporting to telephone crisis/hot-lines and/or counseling services (Jones, Rose, & Russell, 1990), and research efforts (i.e., Rokach & Brock, 1997a).

In accordance with the upsurge of interest in cultural diversity since the 1970's (Reynolds & Pope, 1991), and the more recent awareness of the significant contribution of culture and sub-culture to an individual's experience (Worell & Remer, 1992), it appears that research on loneliness and coping has more recently begun to examine more closely issues of diversity. The loneliness and coping experience of members of numerous and diverse cultural (i.e., Rokach, 1998b; Rokach & Sharma, 1996) and sub-cultural groups (i.e., Medora & Woodward, 1986: Rokach, 1997a: Rokach & Brock, 1995, 1997b: Rokach & Cripps, 1998) have been investigated. However, to the researcher's awareness, although the influence of gender has been previously examined, the possible influence of sexual orientation on the loneliness and coping experience (as measured in the present study) has not until the present study been explored.

Significance of Research on Loneliness & Coping

In this segment, a rationale will be proposed for the significance of conducting research on loneliness and coping.

Significance of Research on Loneliness

Research on loneliness is pragmatic and meaningful for several sociological and psychological reasons.

The study of this phenomenon serves to potentially identify the nature of individuals' social network structures or relations (Russell, Peplau, & Cutrona, 1980). Additionally, it has been proposed that an individual's loneliness may be characteristic of her or his relation to the overall community, and, furthermore, that the potentially diversified social network structures of individuals amongst different (ethnic) cultures may give rise to differences in their loneliness experience (Rokach, 1998b; Rokach & Sharma, 1996). Conceivably, the above stated proposal may not only apply to members of diverse ethnic cultures, but also of diverse sub-cultures (i.e., gender and sexual orientation).

Research suggests that its experience may have an adverse affect on a personal (i.e., cognitive, emotional, behavioral, and physical), interpersonal, and social level. The loneliness experience has been found to involve self-deprecation, the perception of being socially alienated, emotional distress (Rokach & Brock, 1997a), physiological or somatic disturbances (Rokach, 1988), self-generated social detachment, and to give rise to feelings of alienation, abandonment, and rejection (Rokach & Brock, 1997a).

Furthermore, loneliness has been associated with low self-esteem and feelings of worthlessness (Rokach, 1998a); anxiety and depression (Schultz & Moore, 1984); vulnerability to health problems (Jones, Rose, & Russell, 1990); increased usage of prescribed medication and increased sexual involvement with numerous partners (Rokach & Brock, 1998); the misuse of drugs and alcohol, atypical eating patterns, suicide

attempts, and crime (Rokach, 1990); interpersonal hostility (Hansson, Jones, Carpenter, & Remondet, 1986); and, over-utilization of healthcare services (Lynch, 1976).

Significance of Research on Coping

Research examining further the strategies utilized by individuals in coping with the loneliness experience is significant for several reasons.

It serves to identify and bring to awareness the constructive and growth-promoting strategies [i.e., accepting the experience, restructuring resources, and building social bridges (Rokach, 1990)] utilized in dealing with the loneliness experience. This not only illuminates the rich inner resources that we as human beings possess and apply during such an agonizing experience, but, furthermore, it serves to assist the mental health practitioner in developing effective interventions to alleviate the experience.

An awareness of the possible maladaptive or ineffective coping strategies [i.e., misuse of alcohol and drugs, and self-induced isolation (Rokach, 1990)]is important for the reason that it points to potential areas to explore, and, once again, it serves to assist in the development of effective interventions that will assist individuals to effectively cope with the experience.

Summary

In summary, numerous reasons justify further research on loneliness and coping: (1) To potentially identify the nature of individuals' social network structures; (2) its experience has been acknowledged to possibly have an adverse affect on a personal, interpersonal, and social level; (3) to identify the possible constructive (or useful) and ineffective coping strategies utilized in attempt to alleviate its experience; and, (4) to assist mental health practitioners in developing effective interventions. Hence, loneliness

and coping with its experience needs to be viewed not only as a potential individual, and, furthermore, interpersonal issue, but, perhaps, as an overall social issue. Loneliness and its associated coping are clearly domains requiring further research attention in the field of Counselling Psychology.

Significance of Examining Gender & Sexual Orientation

In the following section, a rationale will be provided for the significance of examining gender and sexual orientation in research.

Significance of Examining Gender

The examination of gender in research is valuable for numerous reasons.

It has been voiced that empirical research examining the experiences of members of diverse sub-cultural groups (i.e., gender and sexual orientation) is immensely needed (Gelso & Fassinger, 1990).

Sub-cultural membership (i.e., gender and sexual orientation) has been recognized to contribute to both commonality and differences among individuals' experiences (i.e., Page & Cole, 1991; Worell & Remer, 1992). Knowledge of similarities and differences in the experiences of persons of diverse sub-cultures may serve to assist in the development of theories and research that may yield implications for practice in terms of more effectively and ethically meeting the mental health needs or concerns of persons of diverse populations.

As will be made evident in the subsequent chapter of this report, the findings of previous research on loneliness (as measured in the present study) have yielded divergent or contrary results. Accordingly, it appears reasonable to continue to examine, become aware of, and to grasp some understanding of these possible differences.

Research examining and identifying the experiences of women and men serves to lessen the androcentric (male-centered) bias that appears to be present in much of the research in this domain.

Significance of Examining Sexual Orientation

Research examining the sexual orientation of individuals is important for numerous reasons.

Based on a literature review, it appears that previous empirical studies on loneliness and coping (as measured in the current study) have neglected to examine the possible contribution of an individual's sexual orientation to her or his experience. Hence, the neglect of this variable has possibly hindered the accuracy of research findings in studies on and understanding of the loneliness experience and coping of persons of lesbian, gay male, bisexual, and heterosexual sexual orientation. The present research is intended to possibly procure more accurate data on the experience of and coping with loneliness of persons from each of these populations.

By having neglected to examine the sexual orientation of individuals, researchers have minimized and neglected to understand the experience of loneliness and coping of persons of lesbian, gay male, and bisexual sexual orientation by presuming that the experiences of these individuals are not very different to that of persons of heterosexual sexual orientation.

Nevertheless, sources (i.e., Davies, 1996a; Worell & Remer, 1992) indicate that persons of lesbian, gay male, and bisexual sexual orientation often experience discrimination, oppression, and marginalization due to heterosexism and homophobia. Additionally, it has been noted that persons of bisexual sexual orientation have

encountered discrimination by both the lesbian/gay and heterosexual communities (Shuster, 1987). Hence, it would seem reasonable to assume that the loneliness experience and coping of persons from each of the three sexual orientation sub-cultural groups may possibly differ from the others. Hence, by examining the loneliness and coping experience of persons of diverse sexual orientation sub-cultures, the present study is further intended to contribute toward lessening the heterosexist bias seemingly inherent in much of the research in this domain.

Summary

In summary, it appears that the examination of gender and sexual orientation in research is of vital importance due to numerous reasons: (1) There exists a necessity for empirical research examining the experiences of members of diverse and multiple sub-cultural groups; (2) sub-cultural membership has been acknowledged to contribute to both commonality and diversity among individuals' experiences; (3) to contribute to the knowledge base of previous research having examined sub-cultural diversity (i.e., gender); (4) to contribute toward the lessening of the androcentric and heterosexist bias that appears to exist in much of the research in this domain and potentially serving to hinder the progress of knowledge in the field of Counselling Psychology; and, (5) to possibly procure more accurate data on the loneliness and coping experience of persons of diverse sub-cultures.

The Present Study

The current study was explorative in nature. An attempt was made to examine the influence of sub-culture (gender and sexual orientation) on the loneliness and coping experience of individuals. More precisely, the objective of the following research was to

explore the nature (or satisfaction vs. dissatisfaction with 4 social relations) and degree of interpersonal loneliness (as assessed by two loneliness scales), as well as the strategies utilized (and the frequency of which they have been applied) in attempting to cope with or alleviate its experience (as ascertained by the coping questionnaire employed), of persons of selected sub-cultures (gender and sexual orientation).

Although appreciating unique individual differences, and upholding the view that we as whole human beings consist of many dimensions and are much too complex to be placed within exclusive categories, due to the nature of the following research, each person was classified in one of the two possible gender categories (i.e., either female or male) and in one of the three possible sexual orientation categories being examined (lesbian/gay, bisexual, or heterosexual sexual orientation). Hence, the present study involved between group comparisons.

The present study was thought to contribute in several ways: Adding to the knowledge base of research on and further understanding of the loneliness and coping experience; lessening a noted methodological issue (i.e., predominant use of college samples) that presented itself in previous studies on loneliness (i.e., Vincenzi & Grabosky, 1987) by attempting to solicit persons of varied socio-demographic characteristics; examining and possibly procuring more accurate data on the experience of persons of diverse sub-cultures, noted to be immensely needed (i.e., Gelso & Fassinger, 1990); seemingly introducing an additional major variable to explore (sexual orientation); and, contributing toward the lessening of the androcentric and heterosexist bias that appears to exist in much of the research in this domain.

Please note that the issue of heterosexual bias in language concerning persons of

lesbian, gay male, and bisexual sexual orientation has been noted (American

Psychological Association, 1991). Although no general consensus exists on appropriate

terminology - due to the incessant language, cultural, and social changes - in the present

study, an attempt has been made to apply current terminology not associated with (and

therefore not perpetuating) negative stereotypes, and to increase the visibility of persons

of lesbian, gay male, and bisexual sexual orientation.

CHAPTER TWO

LITERATURE REVIEW

The following chapter will be composed of five segments: Theoretical review;

definition of loneliness and coping; measurement of loneliness and coping; review of

research on loneliness and coping; and, hypotheses of present study.

Theoretical Review

Numerous and diverse theoretical approaches to the phenomenon of loneliness

have been provided through the years. For a brief summary and comparative analysis of

numerous of these theoretical approaches, the interested reader is referred to Marangoni

and Ickes (1989) and Rokach (1984). Due to the nature and limited space of this report,

discussion will center on the theoretical framework – the cognitive process approach -

that underlies the definition of loneliness and its corresponding measurement in the

current study.

Cognitive Process Approach

In accordance with the present 'cognitive zeitgeist' that appears to pervade the

field of psychology, and, perhaps, due partially to the inability of research on social

networks to indicate a direct association amongst the loneliness experience and objective

interpersonal disruptions, current psychological research on loneliness appears to be

dominated by the cognitive process approach (Marangoni & Ickes, 1989).

As substantiated by research (i.e., Jones, 1982), the cognitive process approach

emphasizes the significance of cognition in the human experience of loneliness, and

conceptualizes loneliness as a cognitive/affective experience associated with how an

individual perceives her- or himself and others (Rokach, 1984). In other words, loneliness

is associated with how persons perceive, evaluate, and respond to their interpersonal reality (Jones, 1982). Hence, cognition or subjective perceptions and evaluations are suggested to be the primary mediators of an individual's loneliness experience (Marangoni & Ickes, 1989; Peplau, Miceli, & Morasch, 1982). Consequently, loneliness is viewed predominantly as a subjective self-created or phenomenological experience (Marangoni & Ickes, 1989; Rokach, 1984) differing qualitatively among individuals (Rokach, 1984).

As demonstrable by research (i.e., Jones, 1982; Russell, Cutrona, Rose, & Yurko, 1984), loneliness and objective social isolation are perceived as two distinct conditions, rather than analogous experiences. It has been suggested that an individual may be alone, but not necessarily experience her- or himself as lonely (Peplau & Perlman, 1982). As has been argued, individuals whom may appear, on an objective standard, to lack particular interpersonal relations, but not be experiencing distress in their aloneness or in not having certain relations, need not be considered lonely (Young, 1982).

Furthermore, it has been suggested that loneliness may not only be potentially experienced in the absence of particular relationships, but, furthermore, in their presence. Although, by objective standards, a person may not be presumed lonely, she or he may potentially experience loneliness if her or his social contacts are qualitatively and/or quantitatively below her or his preference (Peplau & Perlman, 1982; Schmidt & Sermat, 1983). Thus, if existing social relations in an individual's social network are not subjectively perceived to provide the preferred level of quality, significance, or meaning, loneliness may possibly ensue (Schmidt & Sermat, 1983). Hence, loneliness has been

assumed to primarily reflect an individual's subjective perception of either qualitative and/or quantitative disruptions in her or his social network (Russell et al., 1984).

Accordingly, within this theoretical framework, has advanced what has come to be known as the 'Perceived Discrepancy' hypothesis of loneliness – the perceived discrepancy amongst a person's preferred and/or expected form of social relationships and her or his existent kind or quality of relations (Marangoni & Ickes, 1989). Hence, the resulting loneliness experience has been perceived as reflecting the discrepancy between an individual's subjective evaluation of her or his preferred and existent level of satisfaction with her or his present relations. Thus, emphasis is placed on an individual's subjectively perceived and desired quality in her or his relations, rather than on her or his existing social relations (Rokach, 1984).

Limitations of Cognitive Process Approach

Numerous limitations of the cognitive process approach have been noted.

With its emphasis on the subjectivity involved in the experience, it implies that loneliness may not be effectively assessed through the observation of an individual's social network structure (Rokach, 1984).

Furthermore, research has indicated that, although loneliness is primarily a subjective experience, an individual's background/situational variables influence the uniqueness of her or his experience (Rokach, 1997b; Rokach & Brock, 1996). Hence, it appears that the theory's strong emphasis on cognition – viewing the loneliness experience as primarily an internally created experience, as predominantly a product of subjectivity – leaves less room for the consideration of existing external socio-cultural influences impacting an individual. It appears reasonable to assume that some socio-

cultural influences or forces [i.e., heterosexism, sexism, homophobia (external and internalized)] may increase the possibility for experiencing loneliness for members of particular sub-cultures more so than others.

Moreover, the theory's subjective emphasis may potentially indirectly serve to pathologize an individual by suggesting that the loneliness experience is chiefly a product of internally based individual factors (i.e., personal inadequacies). Thus, situational or externally based conditions impacting an individual appear to have been neglected and evidently need to be noted for their importance and contribution to an individual's loneliness experience.

Definition of Loneliness & Coping

Prior to the discussion or consideration of research on loneliness and coping, a definition of terms need precede.

Definitions of Loneliness

A review of the literature indicates that loneliness has generally been defined as either a unidimensional or multidimensional phenomenon.

Proponents of the unidimensional perspective (i.e., Russell, 1996; Russell et al., 1984; Russell et al., 1980) maintain that, regardless of the particular cause or duration of the condition (Russell, 1982), there exists a fundamental commonality, or a common substrate or core of experiences that represent loneliness. Loneliness is perceived as a unitary or global phenomenon varying primarily in its experienced intensity, and impacting all aspects of an individual's experience – psychological, interpersonal, social, and cultural. This conceptualization suggests that there exists some fundamental

undifferentiated nature to loneliness, that it is experienced and grasped similarly by all individuals (Allen & Oshagan, 1995).

The implicit assumption of the unidimensional conceptualization of loneliness is that a common core of experiences represent the loneliness experienced by a single, upper class, and 25 year-old lesbian of Black heritage, and that of a single or married, middle or lower class, 45 year-old woman or man of White European heritage and of bisexual or heterosexual sexual orientation. It would appear that the qualitative experiences of these individuals would not be expected to differ.

Those supporting the multidimensional conceptualization of loneliness (i.e., Rokach, 1988; Rokach & Sharma, 1996; Schmidt & Sermat, 1983) propose that there exist varying and qualitatively distinct types of loneliness arising from numerous and diverse needs, circumstances, and situations of individuals, with each type having, perhaps, some attributes resembling the others, and other characteristics being distinctly different. They suggest that loneliness is a complex multifaceted phenomenon, arising from numerous and diverse antecedents or causes, with numerous and diverse manifestations (Rokach, 1984). For example, an individual's loneliness may stem from interpersonal interaction patterns, the lack of an intimate/romantic or other interpersonal relation, or from feeling isolated or marginalized from the encompassing culture (Schmidt & Sermat, 1983). Loneliness, they maintain, need not include all areas of an individual's experience.

According to the above mentioned conceptualization of loneliness, the loneliness experienced by a single, middle class, and 25 year-old lesbian of Black heritage is expected to be qualitatively different from that experienced by a single or married, lower

or upper class, 45 year-old woman or man of White European heritage and of bisexual or heterosexual sexual orientation.

Although definitions of loneliness differ (as according to theoretical underpinning), the following characteristics or elements have been considered important to include in its definition: Its experience is unpleasant and distressing – it may include, for example, feelings of confusion, hurt, helplessness, hopelessness, fear, and anger (Rokach, 1988; Rokach, & Brock, 1997a); it is accompanied by anxiety, sadness, and feelings of marginality (Rokach, 1988; Rokach & Brock, 1997a); it may transpire in the presence or absence of social relations if they do not provide an expected or desired level of quality (Schmidt & Sermat, 1983); and, the experience may be temporary or persistent and chronic (Young, 1982).

Definition of Loneliness in Present Study

In the present study, loneliness was operationally defined as an individual's dissatisfaction with her or his existing social relations resulting from either a change in her or his desires or qualitative expectations for relationships, or a change in the existing relations in themselves (Peplau & Perlman, 1982). Thus, loneliness was defined in terms of a subjectively experienced discrepancy amongst the quality of relationships an individual perceives her- or himself as having, and what she or he prefers to have (Schmidt & Sermat, 1983).

Several explicit and implicit assumptions underlying this definition may be noted.

This definition implies that loneliness may be an internally subjectively created experience arising from a person's evaluation of her or his existing relationships, and/or

an externallly or situationally constructed condition stemming from actual changes in an individual's social relations.

Further, it suggests that loneliness is a subjective experience that may not be associated with objective social isolation. As previously mentioned, although a person may not be presumed lonely by objective standards, she or he may potentially experience loneliness if her or his social relations are perceived as qualitatively unsatisfactory (Peplau & Perlman, 1982; Schmidt & Sermat, 1983).

Moreover, the implication is that the onset and origin of loneliness is to be found in some form of perceived or actual social relationship disruption.

This definition additionally implies that the loneliness experience may not be all encompassing, but, rather, may be restricted to particular social relations. For example, the interpersonal disruption may be restricted to the lack of a social relation of an intimate nature, or it may include feelings of separation from numerous and diverse social relations (Schmidt & Sermat, 1983).

One apparent limitation of this definition is that it appears to neglect the consideration of the affective component (i.e., emotional distress) considered important in most definitions of loneliness (i.e., Peplau & Perlman, 1982; Rokach, 1988; Rokach & Brock, 1997a; Young, 1982). As mentioned previously, an individual may not experience distress in her or his aloneness or in not having particular social relations, and this would seemingly exclude her or him from being considered lonely.

Definitions of Coping

Although a review of the literature indicates that research has demonstrated the changes or solutions chosen by individuals to cope with or to alleviate their loneliness

experience (i.e., Rokach, 1990, 1996, 1997a; Rokach & Brock, 1998; Van Buskirk &

Duke, 1991), definitions of coping appear to be scarce. Hence, the researcher chose to

apply the definition of coping as provided by Hammer and Marting (1988).

Definition of Coping in Present Study

In the present study, coping was operationally defined as "...the things that

people do in reaction to a specific stressor (i.e., loneliness) occurring in a specific

context" (Hammer & Marting, 1988, p.2). In the current research, however, coping not

only "...referred to behaviors occurring after the appearance of the stressor or in response

to chronic stressors" (Hammer & Marting, 1988, p.2), but, in addition, referred to

thoughts applied by individuals to cope with or alleviate the loneliness experience.

Measurement of Loneliness & Coping

Numerous and diverse theoretical perspectives give rise to various and disparate

instruments to measure the phenomenon of loneliness. In general, however, loneliness

measurements or scales have been developed from the conceptualization of loneliness as

either a unidimensional or multidimensional phenomenon (Marangoni & Ickes, 1989).

Instruments engendered from the unidimensional conceptualization of loneliness

have been most commonly employed in the measurement or assessment of loneliness.

The UCLA Loneliness Scale (Russell, 1996; Russell et al., 1980; Russell, Peplau, &

Ferguson, 1978) has been acknowledged as the most widespread and frequently

employed loneliness scale, and has come to be viewed as the standard scale in the area in

empirical research (Allen & Oshagan, 1995; Marangoni & Ickes, 1989; McWhirter, 1990;

Paloutzian & Janigian, 1987; Russell, 1996; Vincenzi & Grabosky, 1987).

Nonetheless, a review of current literature on the experience of loneliness would mandate the use of multidimensional loneliness scales in research. The results of numerous more recent studies (i.e., Schmidt & Sermat, 1983; Rokach, 1988; Rokach & Brock, 1997a) have supported the multidimensional conceptualization of the loneliness experience. These findings yielded the existence of qualitatively different experiences or kinds of loneliness (Allen & Oshagan, 1995). In terms of multidimensional instruments constructed to date. Marangoni and Ickes (1989) proposed that the Differential Loneliness Scale is one of the most comprehensive scales efficient for assessing the presumed relationship amongst loneliness and numerous disruptions in social needs (i.e.. level of cooperation and understanding).

In the present study, the researcher chose to employ both the University of California. Los Angeles (UCLA) Loneliness Scale (Version 3) (Russell, 1996) and the Differential Loneliness Scale (Schmidt & Sermat, 1983) as the measurements of loneliness, and the Coping Questionnaire (Russell et al., 1984) to assess the strategies utilized (and the frequency they have been applied) by individuals in coping with their loneliness experience.

The UCLA Loneliness Scale (Version 3)

The UCLA Loneliness Scale (Version 3) (Russell, 1996) was originally developed from, or is a modified version of. Sisenwein's (1964, cited in Russell et al., 1978) original 75-item measure, and consists of 20 items. The items on this scale reflect how persons experiencing loneliness described their experience (Russell et al., 1978).

Alike the Differential Loneliness Scale (which will be discussed subsequently),

the UCLA Loneliness Scale (Version 3) reflects an individual's satisfaction vs.

dissatisfaction with her or his social relations (McWhirter, 1990).

The UCLA Loneliness Scale (Version 3) (Russell, 1996) was one of the two

loneliness measures chosen to employ in the current study for several reasons.

The underlying definition of the UCLA Loneliness Scale (Version 3) was

congruent with the operational definition of loneliness utilized in the present study.

The UCLA Loneliness Scale (Version 3) was the refined and enhanced version of

its two predecessors. It was developed to address the limitations [i.e., the ambiguous

wording or readability of questions (i.e., double negatives)] which negatively affected the

reliability of the scale (i.e., Russell et al., 1980) in previous research (Russell, 1996).

The adequate psychometric properties of this particular version of the scale have

been demonstrated. The scale's high reliability both in terms of internal consistency

(coefficient α ranging from .89 to .94), and test-retest reliability over a 1-year period

($r=.73$) has been demonstrated (i.e., Russell, 1996). Its construct validity has been

indicated (see Russell, 1996). Furthermore, the acceptable reliability and validity of the

other two versions of the UCLA Loneliness Scale have been demonstrated repeatedly

(i.e., Cutrona, 1982; Russell, 1982; Russell, 1996; Russell et al., 1980; Russell et al.,

1978; Solano, 1980).

The UCLA Loneliness Scale (Version 3) has been utilized to assess loneliness in

a wide variety of studies and with numerous and diverse populations (i.e., Constable &

Russell, 1986; Kudoh & Nishikawa, 1983; Russell, Altmaier, & Van Velzen, 1987;

Russell & Cutrona, 1991).

Finally, this scale is relatively short and contains a simple response format.

Limitations of UCLA Loneliness Scale (Version 3)

In the few paragraphs that follow, several limitations of the UCLA Loneliness Scale (Version 3) (Russell, 1996) will be presented.

It has been noted that an underlying theoretical formulation for the scale concerning the nature of loneliness was not provided. Thus, it has been proposed that the scale's conceptual explication remains vague (Allen & Oshagan, 1995).

Another limitation concerns the scale's underlying unidimensional conceptualization of loneliness. Although the UCLA Loneliness Scale is hypothesized to assess a general experience of loneliness (the assumed common or core experience of loneliness), or to indicate a general disruption in interpersonal relations (Allen & Oshagan. 1995), it provides minimum information regarding the sources or nature of the disruptions (Schmidt & Sermat. 1983). It may be stated that this scale simply provides an overall rating of loneliness (Vincenzi & Grabosky, 1987) with the majority of the items reflecting lack of company or closeness with others (Schmidt & Sermat, 1983). There appears to be minimal consideration of a range of possible social relations (Schmidt & Sermat, 1983).

Differential Loneliness Scale

The Differential Loneliness Scale (Schmidt & Sermat, 1983) is a 60-item multidimensional measurement of loneliness. This instrument was based on a conceptual model of loneliness, and was designed to assess an individual's perceived satisfaction vs. dissatisfaction with four types of relations – 'Familial,' 'Friendship,' 'Romantic-Sexual,' and 'Group/Community.' The item content of this scale assesses both the quality and

quantity of an individual's interpersonal interactions within these four relations (Schmidt & Sermat, 1983).

The Differential Loneliness Scale was the other loneliness measure chosen for the present study for several reasons.

The underlying definition of the Differential Loneliness Scale was congruent with the operational definition of loneliness utilized in the current study.

The acceptable psychometric properties of this scale have been demonstrated. The scale's high reliability (K-R 20s ranging from .90 to .92, and test-retest coefficients of .85 and .97 for males and females respectively over a period of 1 month), and structural validity have both been demonstrated (Schmidt & Sermat, 1983).

The Differential Loneliness Scale assesses satisfaction vs. dissatisfaction with four relations ('Familial,' 'Friendship,' 'Romantic-Sexual,' and 'Group/Community'). Hence, the scale examines possible variations in loneliness, and takes into consideration experiences not as extreme or restricted to specific areas of relational disruption (Schmidt & Sermat, 1983).

Finally, the scale consists of a relatively simple response format, and it can be easily scored.

Limitations of the Differential Loneliness Scale

Several limitations of the scale need be noted.

Although the scale's item content reflects possible cognitive and behavioral cues indicative of the loneliness experience, affective cues (i.e., emotional distress), often reported by individuals (see Rokach, 1984), and considered by many researchers as

important in identifying its experience (i.e., Peplau & Perlman, 1982; Rokach, 1988;

Rokach & Brock, 1997a; Young, 1982), are not considered.

Since the items of the scale do not include the words 'loneliness' or 'lonely,' it

appears that an underlying assumption of the scale may be that one may not perceive

oneself as experiencing loneliness, when may be considered as lonely as according to this

scale's definition of loneliness. Since its experience need be assessed indirectly, cognitive

and behavioral cues alone may not be sufficient to thoroughly identify one's possible

experience of loneliness. Items inquiring into one's feelings (hypothesized to play a

central role in identifying the experience of loneliness) needed to be included.

The underlying explication of this scale appears to suggest that the etiology of

loneliness is to be found in the disruption in any or in all of the four social relations.

Consequently, it seems that there exists an implicitly assumed notion that individuals

experience loneliness when certain social relations are perceived as unsatisfactory or are

lacking. As previously mentioned, persons not experiencing distress in their aloneness or

in not having particular relations may be excluded from being considered lonely.

An additional limitation of this scale concerns its scoring. It appears that it would

be more appropriate and more useful or meaningful to calculate the 4 subtotal scores

(representing the 4 relational categories) independently rather than the total score of the

scale due to the total item differences in the 4 categories of relationships. For example,

'Familial' (n of items = 18), 'Friendship' (n of items = 23), 'Romantic-Sexual' (n of

items = 12), and 'Group/Community' (n of items = 8). Since each of these 4 categories

have a distinct influence on the total Differential Loneliness Scale score, it would appear

inaccurate to suggest that a higher total score reflects greater dissatisfaction with

relationships in general or higher loneliness. Thus, interpretation of results would appear to be more accurate if independently based on each of the four sub-scales.

The Coping Questionnaire

The Coping Questionnaire (Russell et al., 1984) consists of 24 items of which were based on the free-response data gathered from students concerning how they dealt with their loneliness experience.

In the present study, the researcher chose to employ the Coping Questionnaire (Russell et al., 1984) for several reasons: To identify both the cognitive and behavioral strategies that individuals utilize (and the frequency of which they apply them) in coping with their loneliness experience; to identify both current competencies and constructive coping, as well as possible ineffective coping; its psychometric properties have been validated (see Russell et al., 1984); it has a relatively simple response format; and, it may be completed within a short duration.

Limitations of Coping Questionnaire

Two limitations of the Coping Questionnaire (Russell et al., 1984) are noted. First, this scale does not include several strategies (i.e., religious or spiritual involvement, engaging in atypical eating patterns, attempting suicide) that individuals may utilize during their experience, as founded in previous research (i.e., Rokach, 1990). Secondly, it does not inquire into the usefulness of the strategies utilized.

Review of Research on Loneliness & Coping

In the following segment, a review of loneliness research having utilized the UCLA Loneliness Scale and the Differential Loneliness Scale, and a review of studies on coping with the loneliness experience will be provided.

<u>Review of Loneliness Research / UCLA Loneliness Scale</u>

Studies having examined gender differences regarding the degree or intensity of loneliness experienced have rendered contradictory results. More specifically, the findings of numerous quantitative studies having employed some version of the UCLA Loneliness Scale (Russell, 1996; Russell et al., 1980; Russell et al., 1978) appear to be mixed.

Numerous studies, having employed the original UCLA Loneliness Scale (Russell et al., 1978), have found no statistically significant gender group mean differences in loneliness scores, suggesting that the females and males of these samples were experiencing a comparable degree of loneliness [i.e., Maroldo, 1981; Russell et al., 1978; Solano, 1980; Solano, Batten, & Parish, 1982 (Study 1 & 2); Stokes & Levin, 1986 (Study 1)]. Although no statistically significant gender group mean differences were detected, the data of some of these studies indicated that males have obtained a slightly higher mean score on the scale than females [i.e., Solano, 1980; Solano et al., 1982 (Study 1); Stokes & Levin, 1986 (Study 1)], while the data of others indicated that females have obtained a slightly higher mean score than males (i.e., Maroldo, 1981; Russell et al., 1978).

Several studies having employed the Revised UCLA Loneliness Scale (Russell et al., 1980) have indicated mixed results in regards to gender group differences on the mean score of loneliness on this measure [i.e., Bell, 1991; Russell et al., 1980 (Study 1 & 2); Schultz & Moore, 1986; Stokes & Levin, 1986 (Study 1 & 2); Wheeler, Reis, & Nezlek, 1983; Williams & Solano, 1983; Wilson, Cutts, Lees, Mapungwana, & Maunganidze, 1992].

The results of numerous of the above stated studies have indicated statistically significant gender group mean differences, with males scoring significantly higher than females on this measure, suggesting that the males were experiencing a significantly greater degree of loneliness than the females of these samples [i.e., Russell et al., 1980 (Study 1); Schultz & Moore, 1986; Stokes & Levin, 1986 (Study 1 & 2); Wheeler et al., 1983].

The results of other studies, however, have indicated no statistically significant gender group differences on the mean score of loneliness, suggesting that the females and males of these samples were experiencing a comparable degree of loneliness [i.e., Bell, 1991; Russell et al., 1980 (Study 2); Williams & Solano, 1983; Wilson et al., 1992]. Although no statistically significant gender group differences were detected in these studies, the data indicated that males scored slightly higher than females in two of these studies [i.e., Bell, 1991; Wilson et al., 1992 (adult sample)], while females scored slightly higher than males in one study (i.e., Williams & Solano, 1983). Interestingly enough, the female and male adolescent population of Wilson et al.'s (1992) study scored the same (M=40.34, SD=7.62) on this measure.

Allen and Oshagan's (1995) study employed a reduced form or 7-item version of the Revised UCLA Loneliness Scale (Russell et al., 1980) and indicated that females scored statistically significantly higher than males on this measure, suggesting that the females were experiencing a significantly greater degree of loneliness than the males of this sample.

In regards to the UCLA Loneliness Scale (Version 3) (Russell, 1996), Russell (1996) cited the results of four studies having employed this measure (i.e., Constable &

Russell, 1986; Russell et al., 1987; Russell & Cutrona, 1991; Russell, Kao, & Cutrona,

1987). With the exception of one study (Russell, Kao, & Cutrona, 1987, cited in Russell,

1996), statistically significant gender group mean differences in loneliness scores were

not found on this measure, suggesting that the females and males comprising the samples

of these studies were experiencing a comparable degree of loneliness. In the only study

(Russell, Kao, & Cutrona, 1987, cited in Russell, 1996) whereby means for the two

genders were reported, males scored statistically significantly lonelier than females on

this measure.

In general, the mixed findings of the studies reported above may be partially due

to several reasons. First, perhaps the relationship of loneliness to gender was moderated

by other defining demographic and social structural variables that remained unexamined.

Research (i.e., Rokach & Brock, 1997b; Rubenstein & Shaver, 1982) has suggested that

age and relationship status, for example, contribute to an individual's loneliness

experience.

Secondly, the mixed results may be partially explained by the selected sample

compositions. While the original version of the UCLA Loneliness Scale (Russell et al.,

1978) was generally utilized with college samples (i.e., Maroldo, 1981), the other two

versions were additionally employed with other diverse samples. For example, in

addition to college samples, the Revised UCLA Loneliness Scale (Russell et al., 1980)

has also been utilized with employees of an agency (i.e., Bell, 1991), and the UCLA

Loneliness Scale (Version 3) (Russell, 1996) was employed to elderly persons (i.e.,

Russell & Cutrona, 1991).

Thirdly, the response formats of the original UCLA Loneliness Scale (Russell et al., 1978), the Revised UCLA Loneliness Scale (Russell et al., 1980), and the UCLA Loneliness Scale (Version 3) (Russell, 1996) were slightly different from one another. The various response formats may have influenced the responses of respondents differently, and, possibly, made the cross comparison of results less compatible among the diverse versions of the scales.

Review of Loneliness Research / Differential Loneliness Scale

Although a number of studies (i.e., Pearl, Klopf, & Ishii, 1990; Simmons, Klopf, & Park, 1991) having employed the Differential Loneliness Scale (Schmidt & Sermat, 1983) have neglected to examine possible gender differences, the findings of research having investigated this variable have rendered contradictory results.

The results of several studies have indicated no statistically significant gender group differences in the loneliness experience, suggesting that the females and males of these samples were experiencing comparable satisfaction with their social relations (i.e., Kalliopuska & Laitinen, 1987; Kalliopuska & Laitinen, 1991). Although no statistically significant gender group differences were detected, the data of Kalliopuska & Laitinen's (1987) study indicated that males have obtained slightly higher total loneliness scores than females.

The findings of other research have indicated statistically significant gender group differences (i.e., Schmidt & Sermat, 1983; Schmitt & Kurdek, 1985). In general, the results of Schmidt and Sermat's (1983) study indicated statistically significant gender group differences on the total Differential Loneliness Scale score. Males obtained significantly higher total scores than females, suggesting that males were experiencing

lower satisfaction with their relationships or experiencing greater loneliness. The findings of Schmitt & Kurdek (1985) indicated that males expressed statistically significantly less satisfaction than females with familial, friendship, and large group relations. Although not statistically significant, examination of the data indicated that males scored slightly higher than females on romantic-sexual relations.

In general, the mixed findings of these reported studies may be partially due to the relationship of loneliness to gender being possibly moderated by other defining demographic and social structural variables that remained unexamined, and sample composition. For example, while the samples of several studies were comprised of college/university students (i.e., Schmitt & Kurdek, 1985; Simmons et al., 1991), the research of Kalliopuska and Laitinen (1987, 1991) included samples consisting of both persons attending a mental growth group and university students.

Review of Coping Research

Numerous studies (i.e., Rokach, 1990, 1996, 1997a; Rokach & Brock, 1998; Van Buskirk & Duke, 1991) have examined the types of coping strategies that individuals utilize in attempt to deal with their loneliness experience. A review of these studies suggests that individuals experiencing loneliness utilize diverse and numerous strategies to cope with their experience. Although varied studies on coping with the loneliness experience exist, the researcher has chosen to focus on three (i.e., Rokach, 1990, 1996; Rokach & Brock 1998) due to their relevance and applicability to the coping measure used in the present study.

The study by Rokach and Brock (1998) suggested that diverse and numerous coping strategies are useful in successfully coping with or reducing the loneliness

experience. These coping strategies were compiled into 6 factors: (1) 'Acceptance and Reflection' (i.e., acknowledging and accepting the loneliness experienced, and taking the opportunity of being by oneself to acquire further self-awareness); (2) 'Self-Development and Understanding' (i.e., the outcome from acquiring increased self-awareness and, thus, personal growth, due to engaging in growth promoting activities, and possibly receiving professional help and support); (3) 'Social Support Network' (i.e., establishing social support networks that assist one to feel connected to and valued by others); (4) 'Distancing and Denial' (i.e., denial of the loneliness experience via alcohol, drug abuse, and other atypical behaviors); (5) 'Religion and Faith' (i.e., experiencing a sense of connecting or belonging by affiliating with religious/spiritual groups and/or practicing their faith, and, in the process, gaining inner peace and strength); and, (6) 'Increased Activity' (i.e., attending daily responsibilities, engaging in leisure solitary and/or group activities, and initiating opportunities for diverse activity and further social contact).

Similarly, Rokach's (1990) study identified diverse and numerous useful (or beneficial) and maladaptive (or destructive) coping strategies that individuals utilized in coping with their loneliness experience. These were grouped into 4 clusters: Acceptance and self-healing; transition, restructuring resources; reaching out, building social bridges; and, destructing.

The first cluster, 'Acceptance and Self Healing,' represented two themes: Solitary involvement and reflective solitude. Solitary involvement included attending daily responsibilities, acquiring personal growth by engaging in personal development activities, and engaging in leisure and extracurricular activities. Reflective solitude included acknowledging and accepting the loneliness experience, attaining a positive

perception or outlook of it, reassuring oneself that they can deal with the situation, and obtaining self awareness through the process.

The second cluster, 'Transition, Restructuring Resources,' represented three themes: Professional intervention and support; state and trait modification; and, religion and faith. Professional intervention and support reflected the numerous professional sources of support sought. State and trait modification reflected the personal (cognitive and behavioral) and lifestyle changes accomplished in attempt to alleviate the loneliness experience (i.e., setting new goals, becoming more outgoing). Religion and faith reflected the inner peace and strength experienced due to religious/spiritual affiliation.

'Reaching Out, Building Social Bridges' was the third cluster. This cluster represented seven themes: Building a social support network; engaging in more intimacy by sharing experiences and interests with others; increasing social participation and involvement; seeking the support of immediate and extended family members; initiating romantic involvement; engaging in indirect social contact (i.e., communicating with others via phone, letters); and, initiating lifestyle changes – those resulting in changes in social networks.

The fourth and final cluster, 'Destructing,' represented four themes: Addictive behavior (i.e., engaging in alcohol and drug abuse and/or atypical eating patterns); physical extinction (i.e., inflicting self-injury, attempting suicide); crime; and, avoidance and self-induced isolation (i.e., isolating oneself from and avoiding others).

In regards to the most useful or effective methods in assisting individuals to alleviate their loneliness experience, the study suggested that seeking professional assistance and affiliation with religion/spirituality were the most beneficial. Other coping

strategies reported to have been extremely useful were represented by the themes

Reflective Solitude, Indirect Social Contact, and State and Trait Modification,

respectively. It is important to note, however, that the following study did not examine

the association between the effectiveness of coping and the antecedents or causes of

loneliness.

Rokach's (1996) study attempted to identify the most useful or instrumental

coping strategies, as according to the particular qualitative experience of lonely

individuals. Since the present study examined the nature and degree of individuals'

interpersonal loneliness, only relevant findings will be presented.

The research by Rokach (1996) indicated that loneliness experiences

characterized by interpersonal isolation were significantly related to coping strategies

represented by 4 factors: Acceptance and reflection; self-development and understanding;

distancing from or denying loneliness (as a means to temporarily ignore the perceived

rejection of others); and, religion and faith.

Although, in general, Rokach's (1996) study suggested that reflection into one's

loneliness and acceptance of its experience, self-development and understanding (via

counseling and engagement in growth-promoting activities), and increased activity

appeared to be the most useful coping strategies for the majority of loneliness

experiences, the coping strategies represented by coping factor self-development and

understanding seemed to be the most useful or beneficial for loneliness experiences

identified as involving or characterized by interpersonal isolation.

Hypotheses of Present Study

The researcher chose to posit null hypotheses for 2 reasons: (1) Previous studies

having examined the effect of gender have yielded mixed results; and, (2) to the

researcher's awareness, the effect of sexual orientation has not been previously

considered. Thus, null hypotheses were chosen because the outcomes of previous studies

having examined gender have not dictated a specific prediction regarding gender effects.

and, a prediction regarding sexual orientation effects could not be based on findings

of previous research. To follow were the 12 null hypotheses examined in the present

study. Hypotheses are presented in three parts, as according to the three dependent

measures (or the two loneliness scales and the coping questionnaire) utilized in the

current study.

UCLA Loneliness Scale (Version 3)

In regards to the degree or intensity of the loneliness experience [as measured by

the UCLA Loneliness Scale (Version 3) (Russell, 1996)], the following null hypotheses

were tested by a two-way ANOVA (with gender and sexual orientation as the

independent variables), with an alpha level of .05:

1.A) There is no statistically significant gender effect on the UCLA Loneliness Scale

(Version 3) mean total score.

1.B) There is no statistically significant sexual orientation effect on the UCLA Loneliness

Scale (Version 3) mean total score.

1.C) There is no statistically significant gender by sexual orientation interaction effect on

the UCLA Loneliness Scale (Version 3) mean total score.

Differential Loneliness Scale

In regards to the nature of loneliness or satisfaction vs. dissatisfaction with four

types of social relations [as measured by the Differential Loneliness Scale (Schmidt &

Sermat, 1983)], the following null hypotheses were proposed. Null hypotheses 2.A, 2.B, and 2.C were tested by a two-way ANOVA with an alpha level of .05. Null hypotheses 2.D, 2.E., and 2.F were tested by a two-way MANOVA with an alpha level of .05.

2.A) There is no statistically significant gender effect on the Differential Loneliness Scale mean total score.

2.B) There is no statistically significant sexual orientation effect on the Differential Loneliness Scale mean total score.

2.C) There is no statistically significant gender by sexual orientation interaction effect on the Differential Loneliness Scale mean total score.

2.D) There is no statistically significant gender effect on the Differential Loneliness Scale mean subtotal (or sub-scale) scores.

2.E) There is no statistically significant sexual orientation effect on the Differential Loneliness Scale mean subtotal (or sub-scale) scores.

2.F) There is no statistically significant gender by sexual orientation interaction effect on the Differential Loneliness Scale mean subtotal (or sub-scale) scores.

Coping Questionnaire

In regards to the diverse and numerous strategies utilized by individuals in coping with the loneliness experience [as measured by the Coping Questionnaire (Russell et al., 1984)], the following null hypotheses were tested by a two-way MANOVA with an alpha level of .05.

3.A) There is no statistically significant gender effect on the Coping Questionnaire mean subtotal (or sub-scale) scores.

3.B) There is no statistically significant sexual orientation effect on the Coping

Questionnaire mean subtotal (or sub-scale) scores.

3.C) There is no statistically significant gender by sexual orientation interaction effect on

the Coping Questionnaire mean subtotal (or sub-scale) scores.

CHAPTER THREE

RESEARCH METHODOLOGY

The data for the analyses of the present study was procured from a survey on

loneliness and coping made accessible at several cites in Calgary. Alberta from

November 1999 to October 2000.

Participants / Sample

Three approaches were utilized in the solicitation of participants for the current

study.

(1) Advertisements (Appendix K) of the study were posted at numerous academic

institutions' campuses, and at several local coffee shops, bookstores. and

agencies organizations that catered to persons of diverse sexual orientation (lesbian, gay

male. bisexual. and heterosexual sexual orientation). To view the list of locations

whereby potential participants had the opportunity to become aware of and to participate

in the study, see Appendix M. Packages for participation were attached to the

advertisement of the study.

(2) Advertisements (Appendix L) of the study. (informing individuals of the

nature of the research and locations whereby participation packages may be acquired),

were additionally presented in the monthly newsletters of 'A Woman's Place Bookstore'

and the 'Gay and Lesbian Community Services Association.'

(3) The researcher attended one meeting held by 'Apollo Friends in Sports.' three

meetings held by the 'Gay and Lesbian Community Services Association,' two meetings

held by 'Gay, Lesbian and Bisexual Academic Students and Staff,' and one meeting held

by 'The Women's Collective and Resource Centre' to discuss the research in attempt to

solicit participation. Participation packages were presented and made available to interested individuals during these meetings.

The sample was comprised of adult (18 years of age or older) individuals who chose or personally volunteered to participate upon becoming aware of the study either through its advertisement, or by having attended particular meetings held by the organizations mentioned above. Hence, at the time of their participation, respondents were either attending a local academic institution, frequenting particular local coffee shops, bookstores, and agencies/organizations, receiving particular newsletters, and/or attending particular organized meetings. This approach was selected for two reasons: To attempt to maximize variation between socio-demographic variables; and, to attempt to solicit a satisfactory or an ample number of individuals belonging to a minority sub-culture (i.e., persons of lesbian, gay male, and bisexual sexual orientation). Thus, an effort was made to solicit persons of diverse populations whom possibly have been underrepresented in previous research on loneliness and coping (including those who, perhaps, have not disclosed their sexual orientation to others).

Three options for participation were proposed. First, mutually agreed upon arrangements may have been made for participants to attend a specified session time that would have taken place at a research room at the University of Calgary whereby participation may have taken place with several other participants in the presence of the researcher. Secondly, mutually agreed upon arrangements may have been made for participants to participate during a specified time at the researcher's office at the University of Calgary. This option was proposed due to the researcher's awareness of research indicating the social stigma of loneliness (i.e., Lau & Gruen, 1992). Thirdly,

respondents may have participated by simply acquiring a participation package (which was made available either at several cites in the Calgary area or during particular meetings), completing their participation at their own time, and mailing away their completed questionnaires to the researcher.

Although three options for participation were proposed, all participation took place via mail. Participation packages were either attained from one of the several cites where it was made available, or from the researcher at particular meetings. Thirty-nine participation packages in total were provided to interested persons during the several meetings, and all other packages were obtained from one of the several cites where it was made available. All participants remained anonymous.

Materials

Participation materials enclosed within an envelop consisted of the following: Written participation instructions; a cover letter; a demographic questionnaire; the UCLA Loneliness Scale (Version 3) (Russell, 1996); the Differential Loneliness Scale (Schmidt & Sermat, 1983); and, the Coping Questionnaire (Russell et al., 1984). Although the participation instructions and the cover letter were always presented in first and second order respectively, to minimize carryover effects (Elmes, Kantowitz, & Roediger, 1992), all other materials [i.e., the Demographic Questionnaire, the UCLA Loneliness Scale (Version 3), the Differential Loneliness Scale, and the Coping Questionnaire] were arranged in a counterbalanced order. Thus, questionnaires were arranged or presented in one of 24 assigned orders. Additionally, inserted within the envelop, was a pre-addressed and pre-posted envelop for participants to place their completed questionnaires in, and to mail to the researcher at the University of Calgary.

Participation Instructions

To view the written participation instructions, see Appendix A.

Cover Letter

The cover letter informed potential participants of the following elements: The title and nature (or purpose) of the study; the status of the research (i.e., ethical requirements having been met); the age requirement for participation (i.e., 18 years of age or older); participant involvement and approximate duration of participation; the voluntary nature of the study; issues concerning withdraw of consent (due to the anonymous nature of the study); potential risks and benefits of participating; issues regarding anonymity and confidentiality; and, names and contact numbers of the researcher, the researcher's supervisor, the Office of the Chair, Joint Faculties Research Ethics Committee, and Office of the Vice-President (Research).

For the purposes of maintaining the participants' anonymity, they were not asked to identify themselves, and, additionally, no consent form was to be signed. Potential participants were informed within the cover letter that their choice to participate in the study by completing the questionnaires and mailing them to the researcher would imply their informed consent. To view the cover letter, see Appendix B. (The cover letter presented in Appendix C was to be provided to respondents whom may have chosen to participate in the presence of the researcher during a specified session time that would have taken place either at a research room or at the researcher's office at the University of Calgary.)

Demographic Questionnaire

The Demographic Questionnaire consisted of 13 items. Items or questions

pertained to the following areas: Date; age; gender/gender identity; factors possibly having a bearing on gender identity and/or sexual orientation; ethnic origin; educational status; employment status; approximate population of present area of residence; duration of residence in present area; living arrangements; sexual orientation; degree of "outness" (pertaining only to persons of lesbian, gay, bisexual, or two-spirited sexual orientation); and, relationship status.

In general, all items on this questionnaire were selected for the purposes of effectively identifying the sample of the present study. As evident, items # 3 and #11 were specifically included due to the nature of the present study. Several of these items (#2, #3, #6, and #13) were selected on the basis that their possible contribution and unique significance to an individual's loneliness experience has been indicated in previous research (i.e., Page & Cole, 1991; Rubenstein & Shaver, 1982). Item #12 was included on the basis that literature has indicated that 'outness' has been recognized as part of the identity formation process of persons of lesbian, gay male, and bisexual sexual orientation (i.e., Cass, 1979; Davies, 1996b), and that minimal degree of 'outness' may contribute to feelings of alienation and social withdrawing (Cass, 1979). Accordingly, the degree of 'outness' of persons of lesbian, gay male, and bisexual sexual orientation was thought appropriate to identify, since, it may conceivably have had an influence on the data that persons of these populations may have provided.

Although slightly modified, item numbers #3, #5, #6, #7, #11, and #12 on this questionnaire were adopted from The First National Survey of Lesbians, Gay Men and Bisexuals in Canada, distributed by EGALE (Equality for Gays and Lesbians Everywhere) (Goundry & Samis, 1997). The purpose for having adopted these questions

was to attempt to include questions that reflected the diverse experiences of persons of various sub-cultures or populations.

Participants were asked to answer the questions presented by either filling in the blank space where indicated, or by placing an "X" in the appropriate box to indicate the answer that was most applicable to them. Due to the sensitive nature of the study (i.e., participants were asked to identify their sexual orientation), it was also stated in writing that, if participants were to feel any discomfort about answering a certain question, it would be alright if they were to leave it blank.

To view the Demographic Questionnaire, see Appendix D.

UCLA Loneliness Scale (Version 3)

The UCLA Loneliness Scale (Version 3) (Russell, 1996) has been acknowledged as a unidimensional scale designed to explore individuals' feelings or degree of loneliness, or satisfaction versus dissatisfaction with social relations in general.

This scale consisted of 20 items. To lessen the possibility of response acquiescense (Elmes et al., 1992), out of the 20 items, 9 were worded positively (non-lonely), and 11 were worded in the negative or lonely direction (Russell, 1996). Possible responses on this questionnaire were based on a 4-point scale.

Participants were asked to indicate how often they have felt the way described by each of the 20 questions presented by placing an "X" in one of the four possible responses provided: (1) 'Never'; (2) 'Rarely'; (3) 'Sometimes'; or (4) 'Always.' Since it has been suggested that the clarity and accuracy of responses tends to increase by having respondents place an "X" in brackets (i.e., Neuman, 1997), the response format of the UCLA Loneliness Scale (Version 3) was modified as such in the following study.

The scoring of this scale was determined by computing the sum of the 20 responses, and attaining one total loneliness scale score for each participant. Higher scores were interpreted as indicative of greater degrees of loneliness or dissatisfaction with social relations in general.

To view the UCLA Loneliness Scale (Version 3), see Appendixes E (participant version) and H (original version).

Differential Loneliness Scale

The Differential Loneliness Scale (Schmidt & Sermat, 1983), in general, has been recognized as a multidimensional loneliness instrument designed to assess individuals' feelings of satisfaction versus dissatisfaction with four types of relationships in their social network: 'Familial'; 'Friendship'; 'Romantic-Sexual'; and, relationships with larger 'Groups or the Community.' In addition to the mentioned relationship dimension, however, it was also designed to explore five dimensions of interpersonal interaction within these four relationships. It was intended to examine whether or not an individual's dissatisfaction with any one of the four relationships may be due to one or more of five particular dimensions of interaction: (1) the presence or absence of a particular relationship; (2) approach versus avoidance interaction with respect to a specific relationship; (3) cooperation; (4) perceived evaluation; and, (5) communication involved in a particular relationship (Schmidt & Sermat, 1983).

The original version of the Differential Loneliness Scale, as constructed by Schmidt and Sermat (1983), consisted of 60 items. However, on account of appreciating that members of diverse sub-cultures may prefer diverse social network structures, item # 8 ("I have at least one good friend of the opposite-sex.") was added. This addition

slightly revised the scale by having it consist of 61 items in total. In attempt to lessen the response tendency toward acquiescense (Elmes et al., 1992), and to minimize the possible negative emotional impact that negatively stated content may produce, 27 of the items were worded positively (non-lonely), and 34 items were written negatively or in the lonely direction (Schmidt & Sermat, 1983). Possible responses on this scale were based on a dichotomous response format - answers may have either been "True" or "False."

Participants were asked to respond by placing an "X" in either the "True" or "False" box associated with each question or item.

The scoring of this scale, for each individual, was determined in two ways: (1) By computing the sum of the total 61 responses, and attaining one total loneliness scale score; and, (2) by computing the sum of items associated with each of the four relationships (i.e., 'Familial' = 18 items; 'Friendship' = 23 items; 'Romantic-Sexual' = 12 items; and, 'Groups/Community' = 8 items), and, thus, obtaining four independent subtotal or sub-scale loneliness scores. Higher scores were interpreted as indicative of greater degrees of dissatisfaction with interpersonal relationships in an individual's social network or greater loneliness.

To view the Differential Loneliness Scale, see Appendixes F (participant version) and I (original version).

Coping Questionnaire

The Coping Questionnaire (Russell et al., 1984) was designed to examine or assess the strategies that individuals utilize to cope with their loneliness experience.

The original version of the scale (Russell et al., 1984), consisted of 24 items. Items #25 ("Talked to a friend or relative about ways to overcome your loneliness."), #26

("Taken your mind off feeling lonely by using drugs or alcohol."), and #27 ("Talked to a counselor or therapist about ways to overcome your loneliness.") were added to the scale on the basis that their application in coping with the loneliness experience has been established by previous research (i.e., Rook & Peplau, 1982). With the addition of these three items, the scale consisted of a total of 27 items. Thirteen of these items reflected cognitive strategies utilized to cope with the loneliness experience, and 14 items reflected behavioral strategies. Item #21 had been altered from "Taken your mind off feeling lonely by concentrating on schoolwork" to "Taken your mind off feeling lonely by concentrating on work (such as schoolwork, etc.)" to make it more applicable to persons not acquiring formal education at the time of their participation. Possible responses on this questionnaire were based on a 9-point scale.

Participants were asked to indicate how often or the frequency of which they have engaged in each of the 27 activities or strategies provided or described (in dealing with their loneliness experience) by encircling a number on a scale from 1 ("Never") to 9 ("Very Often"). Since it has been suggested that the clarity and accuracy of responses also tends to increase by having individuals respond by circling a number (Neuman, 1997), the response format of the Coping Questionnaire was maintained.

The scoring of this scale was established by computing the sum of items associated with each of the 5 classifications of coping strategies [as found via factor analysis by Russell et al. (1984)] for each participant: 'Self-Enhancing Behaviors' (n of items = 5); 'Behavioral Problem-Solving' (n of items = 5); 'Redefining Problem' (n of items = 4); 'Distraction' (n of items = 3); and, 'Cognitive Problem-Solving' (n of items =

3). Thus, 5 independent subtotal (or sub-scale) scores were attained for each participant. Higher scores were interpreted as indicative of higher frequency of usage.

To view the Coping Questionnaire, please see Appendixes G (participant version) and J (original version).

<div align="center">Procedure</div>

As mentioned within the participants/sample segment of this chapter, three approaches were exercised in the solicitation of participants for the present study.

Respondents who chose to participate upon becoming aware of the study through its advertisement acquired a participation package at one of the several cites where it was made available, completed the questionnaires at their own time, and mailed them to the researcher at the University of Calgary.

In regards to the local organizations' meetings, the researcher presented and verbally communicated to persons present the information that was provided within the cover letter, displayed the materials included in the participation packages, and expressed that any questions or concerns regarding the study raised by them may be addressed immediately or during specified days and times via phone. Furthermore, packages for participation were made available for and provided to those indicating or voicing interest in participating in the study.

Regarding the number of possible researcher/participant contacts, see Appendix N.

<div align="center">Analyses</div>

<u>Independent Variables</u>

Gender and sexual orientation were the two independent variables that were the

focus of the present study. In regards to the gender variable, participants were grouped as either female or male. In respect of the latter sexual orientation variable, participants were assorted within three groups: Lesbian/gay, bisexual, or heterosexual sexual orientation.

Dependent Variables

There were three dependent variables in the current study: The responses to the items (or scores) on the UCLA Loneliness Scale (Version 3) (Russell, 1996), the Differential Loneliness Scale (Schmidt & Sermat, 1983), and the Coping Questionnaire (Russell et al., 1984).

Statistical Analyses

Both descriptive and inferential statistical analyses were performed on the data of the current study.

Descriptive statistics (central tendency, frequency distributions, and variability) were performed on the socio-demographic data (procured from the Demographic Questionnaire) to identify the characteristics of the sample.

Factor analyses (principal component extraction method) were performed on the total items of the UCLA Loneliness Scale (Version 3), the Differential Loneliness Scale, and the Coping Questionnaire independently. Both nonorthogonal (oblimin) and orthogonal (varimax) rotation methods were applied to the data for each of the 2 loneliness scales and the coping scale. Criteria for factor loading of items was set at .30. Extracted factors to be considered were those indicating eigenvalues 1.0 or greater, and consisting of a minimum of 3 variables or items.

The factor analyses were thought appropriate for four reasons: (1) To simplify or facilitate the interpretation of the data; (2) to determine the number of reliable extracted factors (i.e., with eigenvalues 1.0 or greater) of each of the three scales; (3) to identify the highly intercorrelated items which comprised or represented the extracted factors of each of the three scales; and, (4) to examine whether or not the extracted factors or factor structure of the 3 scales (as found in the present study) included the same items, and were the same as those found in these scales in previous research (i.e., Russell, 1996; Russell et al., 1984; Schmidt & Sermat, 1983).

The internal consistency method [Cronbach alphas (α)] was performed on the data to assess the reliability of the 3 measuring instruments – the UCLA Loneliness Scale (Version 3), the Differential Loneliness Scale, and the Coping Questionnaire. Reliability assessment of the total items of each of the three scales [UCLA Loneliness Scale (Version 3), total n of items = 20; Differential Loneliness Scale, total n of items = 61; Coping Questionnaire, total n of items = 27) was performed. Furthermore, the reliability of the four and five subtotal (or sub-scale) items of the Differential Loneliness Scale and the Coping Questionnaire respectively was assessed. Finally, the reliability of each of the extracted factors of each of the three scales, as found by the factor analyses in the present study, was also assessed. Acceptable or adequate level of reliability was considered to be .80 and above.

Two-way between subjects analyses of variance (ANOVAs) 2 (female, male) X 3 (lesbian/gay, bisexual, heterosexual) design were performed to consider two dependent variables [the UCLA Loneliness Scale (Version 3) and the Differential Loneliness Scale], and to compare the mean total scores on these two scales amongst the two gender and

three sexual orientation sub-cultural groups. Two-way between subjects multivariate analyses of variance (MANOVAs) 2 X 3 design were performed to consider two dependent variables (the Differential Loneliness Scale and the Coping Questionnaire), and to compare the 4 and 5 mean subtotal scores on these two scales respectively amongst the two gender and three sexual orientation sub-cultural groups. Two-way between subjects MANOVAs 2 X 3 design were performed to consider the 3, 8, and 5 extracted factors of the UCLA Loneliness Scale (Version 3), the Differential Loneliness Scale, and the Coping Questionnaire respectively, (as found by the factor analyses in the present study), and to compare the 3, 8, and 5 mean subtotal scores on these three scales respectively amongst the two gender and three sexual orientation sub-cultural groups.

An alpha level of .05 was selected or used for these statistical tests. Post hoc tests (Scheffe) were performed on statistically significant sexual orientation effects. Simple effects testing was performed on statistically significant gender by sexual orientation interaction effects.

Two-way between subjects ANOVAs 2 X 2 design and MANOVAs 2 X 2 design (excluding the bisexual sub-cultural group) were also performed. This was thought appropriate for 2 reasons. First, due to the small sample size of the bisexual sexual orientation sub-cultural group [total n = 27 (women, n = 21), (men, n = 6)], it was conceivable that high variability may have existed in the data produced by members of this small sample and may have resulted in unstable or unreliable findings (Diekhoff, 1992). Furthermore, as suggested by Diekhoff (1992), there was a greater chance that the findings based on this small sample may have been idiosyncratic to this particular sample and would not have been replicated in subsequent research. Secondly, the ANOVA and

MANOVA (2X3 designs) analyses indicated no statistically significant differences amongst the bisexual group and lesbian/gay group, and between the bisexual group and heterosexual group.

Accordingly, two-way between subjects ANOVAs 2 (female. male) X 2 (lesbian/gay, heterosexual) design were performed to consider two dependent variables [the UCLA Loneliness Scale (Version 3) and the Differential Loneliness Scale], and to compare the mean total scores on these two scales amongst the two gender and two sexual orientation sub-cultural groups. Two-way between subjects MANOVAs 2 X 2 design were performed to consider two dependent variables (the Differential Loneliness Scale and the Coping Questionnaire), and to compare the 4 and 5 mean subtotal scores on these two scales respectively amongst the two gender and two sexual orientation sub-cultural groups. Two-way between subjects MANOVAs 2 X 2 design were performed to consider the 3, 8, and 5 extracted factors of the UCLA Loneliness Scale (Version 3), the Differential Loneliness Scale, and the Coping Questionnaire respectively. (as found by the factor analyses in the present study), and to compare the 3, 8, and 5 mean subtotal scores on these three scales respectively amongst the two gender and two sexual orientation sub-cultural groups.

An alpha level of .05 was selected or used for these statistical tests. Simple effects testing was performed on statistically significant gender by sexual orientation interaction effects.

The two-way between subjects ANOVA and MANOVA (2X3 and 2X2 designs) analyses were thought appropriate for numerous reasons: The nature and number of independent and dependent variables: the questions raised and hypotheses proposed by

the researcher concerning the data (i.e., desired to examine the mean scores on the three

dependent variables amongst the gender and sexual orientation sub-cultural groups); and,

it enabled the researcher to explore possible gender by sexual orientation interaction

effects.

CHAPTER FOUR

RESULTS

The results of the current study will be presented within 5 segments:

Demographics of sample: factor analyses of scales: reliability analyses of scales: analyses

(2X3 design) of sub-cultural group (gender and sexual orientation) scores; and, analyses

(2X2 design) of sub-cultural group (gender and sexual orientation) scores. In addition,

each of these 5 segments will consist of a number of subsections, as has been deemed

appropriate.

Demographics of Sample

Descriptive statistics (central tendency, frequency distributions, and variability)

were performed on the socio-demographic data (procured from the Demographic

Questionnaire) to sufficiently identify the characteristics of the sample.

Sample Size

A total of 274 participants (150 women and 124 men) were solicited for the

current study.

Sexual Orientation

Of these 274 participants, 118 [(women, n = 54), (men, n = 64)] or 43.1% were of

lesbian/gay, 27 [(women, n = 21), (men, n = 6)] or 9.9% were of bisexual, and 129

[(women, n = 75), (men, n = 54)] or 47.1% were of heterosexual sexual orientation. With

the exception of missing data (n = 13), all other individuals (n = 261) reported of having

no possible factors (i.e., sex change) influencing their gender identity and/or sexual

orientation.

<u>'Outness'</u>

To view the reported degree of 'outness' (or degree of openness regarding one's

sexual orientation with particular others) of persons of lesbian/gay and bisexual sexual

orientation, refer to Tables 1, 2, and 3.

With the exception of missing data (as has been indicated on the Tables), and the

non-applicability of particular questions to numerous members of these populations,

based on the reports of persons comprising the present sample, the following statements

may be made.

First, in context of the following sample, the data suggested that the persons of

these sub-cultural populations, in general, appeared to be predominantly entirely 'out' to

members of their immediate families and friends, while primarily not 'out' at all to their

children, other relatives, and neighbors.

Table 1 'Outness': Immediate Family, Relatives, Friends, and Neighbors

	Not 'Out' At All								Totally 'Out'		Missing Value
	1		2		3		4		5		
	N	%	N	%	N	%	N	%	N	%	N
Mother	33	23.9	13	9.4	6	4.3	3	2.2	83	60.1	2
Father	45	36.3	7	5.6	7	5.6	3	2.4	62	50	3
Sister(s)	21	22.6	7	7.5	10	10.8	4	4.3	51	54.8	5
Brother(s)	27	27	4	4.0	10	10.0	4	4.0	55	55	2
Children	21	43.8	5	10.4	8	16.7	3	6.3	11	22.9	5
Other Relatives	58	43.6	25	18.8	19	14.3	10	7.5	21	15.8	2
Friends	5	3.5	6	4.3	10	7.1	23	16.3	97	68.8	2
Neighbors	61	48.8	16	12.8	14	11.2	9	7.2	25	20	3

Secondly, while the majority of participants reported of having been moderately

to completely 'out' to other students, most have also reported of being totally not to

moderately 'out' to instructors and other school authorities.

Table 2 'Outness': Students, Instructors, and Other School Authorities

	Not 'Out' At All 1		2		3		4		Totally 'Out' 5		Missing Value
	N	%	N	%	N	%	N	%	N	%	N
Other Students	4	12.9	4	12.9	11	35.5	4	12.9	8	25.8	2
Instructors / Other School Authorities	15	50	3	10	8	26.7	0	0	4	13.3	2

Finally, it appeared that the large majority were either not at all or totally 'out' to their supervisors, moderately to totally 'out' to their co-workers, colleagues, and/or staff, and not 'out' at all to their clients or customers.

Table 3 'Outness': Supervisors, Co-Workers/Colleagues/Staff, and Clients/Customers

	Not 'Out' At All 1		2		3		4		Totally 'Out' 5		Missing Value
	N	%	N	%	N	%	N	%	N	%	N
Supervisors	42	37.5	11	9.8	8	7.1	8	7.1	43	38.4	10
Co-Workers / Colleagues / Staff	24	20.7	17	14.7	14	12.1	10	8.6	51	44	9
Clients/Customers	61	55.5	11	10	17	15.5	6	5.5	15	13.6	7

Age

The age of participants ranged from 18 to 65 years (Mean = 30.50 years, Std. Deviation = 8.58, missing data, n = 5).

Ethnic Origins

Participants were of diverse ethnic backgrounds. The large majority of individuals identified themselves as having White / European ethnic origins [n = 232 (85.9%)]. All others reported of identifying with the following ethnic origins: First Nations / Aboriginal [n = 9 (3.3%)]; East Asian [n = 7 (2.6%)]; South Asian [n = 6 (2.2%)]; West Asian / Middle Eastern [n = 6 (2.2%)]; Central or South American [n = 6 (2.2%)]; Black / African Canadian [n = 6 (2.2%)]; Southeast Asian / Pacific Islander [n =5 (1.9%)]; and, other [n = 3 (1.1%)], not specified on the Demographic Questionnaire.

Only 10 participants (previously accounted for in the above mentioned) reported of having a mixed ethnic background, and 4 respondents had not completed this question.

Educational Status

The educational status of respondents ranged from having been a junior high school graduate (indicating completion of grade 9) to possessing a post-graduate degree. A large proportion [n = 119 (43.4%)] were either college, university, or other post-secondary graduates. The subsequent largest group [n = 78 (28.5%)] were persons having obtained some college, university, or other post-secondary education. The ensuing largest group was composed of individuals whom were high school graduates [n = 24 (8.8%)].

The remaining participants indicated that they either possessed a graduate degree [n = 15 (5.5%)] or had obtained some graduate level education [n = 16 (5.8%)], possessed a post-graduate degree [n = 7 (2.6%)] or had obtained some post-graduate level education [n = 4 (1.5%)], or had completed some high school education (grades 10, 11, or 12) or were a junior high school graduate [n = 11 (4.0%)].

Employment Status

The most prevalent vocational status of the large majority of participants [n = 162 (59.1%)] was full-time employment. The succeeding most predominant vocational status reported was part-time employment [n = 54 (19.7%)]. Persons having been acquiring some type of formal education either on a full-time [n = 48 (17.5%)] or part-time [n = 15 (5.5%)] basis at the time of their participation also comprised a large proportion of the sample [total n = 63 (23.0%)].

Additional forms or types of employment status' reported included having been self-employed [n = 33 (12.0%)], engaging in either contract [n=8 (2.9%)] or seasonal [n =

3 (1.1%)] work, and/or other forms of employment not having been indicated on the
Demographic Questionnaire [n = 4 (1.5%)].

A small proportion of individuals [n = 16 (5.9%)] either reported of having
worked at home / not for pay, of having been unemployed, or of having been retired at
the time of their participation.

Of all participants accounted for in the above mentioned, 213 reported of having
possessed 1 source of employment, 55 of 2 sources, and 6 of 3-5 sources of employment.

Relationship Status

In reference to the relationship status of respondents, the analysis of the data
produced the following results: One hundred twenty two persons (47.8 %) indicated of
having been single; 43 (16.9%) were either involved in a same-sex or other/opposite-sex
relationship [n = 25 (9.8%), n =18 (7.1%) respectively]; 37 (14.5%) reported of living
with either a same-sex or other/opposite-sex partner [n = 20 (7.8%), n =17 (6.7%)
respectively]; 30 (11.8%) indicated of having had a commitment ceremony with a same-
sex partner, or of having been married to an other/opposite-sex partner [n = 3 (1.2%), n=
27 (10.6%) respectively]; 11 (4.3%) had been either separated from a same-sex or
other/opposite-sex partner; and, 12 (4.7%) reported of having been divorced. Nineteen
persons had not responded to this question.

Living Arrangements

In regards to living arrangements, the largest proportion of individuals [n =127
(46.5%)] indicated of having been living with others (not including possible intimate
partner). The breakdown of other living arrangements reported was as follows: Sixty four
(23.4%) persons indicated of having been living alone; 55 (20.1%) reported of having

been living with their intimate partner; and, 27 (9.9%) having lived with others (i.e., friends, kids, etc.) along with their intimate partner at the time of their participation. Missing data, n = 1.

<u>Area/Duration of Residence</u>

In respect to the approximate population of the area that the participants resided in, the largest proportion of individuals [n = 220 (81.5%)] indicated of having lived in an area comprised of a population of 100,000 or more residents. The remaining proportion of respondents resided in areas comprised of a population of 100,000 or less [n = 50 (18.5%)] (missing data, n = 4).

One hundred seventy seven (65.1%) individuals reported of having lived in their present area of residence for more than 3 years, 56 (20.6%) for 1 to 3 years, and 39 (14.3%) for less than 1 year (missing data, n = 2).

Factor Analyses of Scales

Factor analyses (principal component extraction method) were performed on the total items of the three dependent measures or scales independently. Both nonorthogonal (oblimin) and orthogonal (varimax) rotation methods were applied to the data for each of the three scales. Criteria for factor loading of items was set at .30. Since oblimin rotation indicated minimum (less than $\pm$ .30) correlation among the extracted factors, as has been suggested in such an event (Diekhoff, 1992), the varimax rotation was chosen for the reporting of results.

Additionally, since it has been accepted that stable factors are only those indicating eigenvalues 1.0 or greater (Diekhoff, 1992), this criteria was utilized to determine the number of extracted factors to be reported. Extracted factors with

eigenvalues less than 1.0 were considered as having indicated weak correlations to the

original variables, and as accounting for less variance than was found in any of the

original variables. Thus, these factors were considered trivial to report. Furthermore,

since it has been noted that, in appropriate use of factor analysis, a factor should consist

of a minimum of three variables or items (Streiner, 1994), extracted factors comprised of

less than this number of variables were also disregarded.

UCLA Loneliness Scale (Version 3)

The varimax rotation indicated that the 20 items or variables of the UCLA

Loneliness Scale (Version 3) revealed 3 underlying factors with eigenvalues greater than

1.0. The 3 extracted factors of this rotation collectively accounted for 58.41% of the

variance.

The following were the eigenvalues (λ) and the explained variance (s^2) of the

original variables considered as a set for each extracted factor: Factor 1 (λ 9.23, s^2 =

46.13%); Factor 2 (λ 1.24, s^2 = 6.19%); and, Factor 3 (λ 1.22, s^2 = 6.09%). To view the

items representing each extracted factor, see Table 4. To view factor loading of items, see

Appendix O.

Table 4 UCLA Loneliness Scale (Version 3) Items Representing Each Extracted Factor

Extracted Factor	Item Numbers
Factor 1	2, 3, 4, 7, 12, 13, 15, 19, 20
Factor 2	1, 5, 6, 9, 10, 16
Factor 3	8, 11, 14, 17, 18

Differential Loneliness Scale

Results of the varimax rotation extraction method indicated that the 61 items of

the Differential Loneliness Scale revealed 14 underlying factors with eigenvalues greater

than 1.0. These 14 factors collectively accounted for 64.11% of the variance.

The following were the eigenvalues (λ) and the explained variance (s^2) of the original variables considered as a set for each extracted factor: Factor 1 (λ 14.14, s^2 = 23.19%); Factor 2 (λ 5.50, s^2 = 9.02%); Factor 3 (λ 4.29, s^2 = 7.04%); Factor 4 (λ 2.12, s^2 = 3.48%); Factor 5 (λ 1.74, s^2 = 2.86%); Factor 6 (λ 1.58, s^2 = 2.60%); Factor 7 (λ 1.45, s^2 = 2.38%); Factor 8 (λ 1.35, s^2 = 2.22%); Factor 9 (λ 1.29, s^2 = 2.12%); Factor 10 (λ 1.22, s^2 = 2.01%); Factor 11 (λ 1.18, s^2 = 1.94%); Factor 12 (λ 1.13, s^2 = 1.84%); Factor 13 (λ 1.07, s^2 = 1.75%); and, Factor 14 (λ 1.02, s^2 = 1.67%).

To view the items representing each extracted factor, see Table 5. Please note that extracted factors #8, #10, #11, #12, #13, and #14 each consisted of less than 3 items, and, thus, were not reported in Table 5. Hence, only the 8 remaining factors were accounted for (in sequential order) in the table. To view factor loading of items, see Appendix P.

Table 5 Differential Loneliness Scale Items Representing Each Extracted Factor

Extracted Factor	Item Numbers
Factor 1	6, 15, 21, 24, 26, 30, 35, 37, 41, 43, 45, 48, 51, 55, 58, 60
Factor 2	5, 10, 19, 22, 29, 32, 42, 46, 59
Factor 3	4, 20, 23, 25, 27, 40
Factor 4	3, 14, 38, 54
Factor 5	13, 28, 57
Factor 6	7, 12, 49, 56, 61
Factor 7	17, 44, 47
Factor 8	1, 11, 16, 33

Coping Questionnaire

Results indicated that the 27 items of the Coping Questionnaire revealed 7 underlying factors with eigenvalues greater than 1.0. These 7 factors collectively accounted for 64.87% of the variance.

The following were the eigenvalues (λ) and the explained variance (s^2) of the original variables considered as a set for each extracted factor: Factor 1 (λ 8.46, s^2 =

31.34%); Factor 2 (λ 2.26, s^2 = 8.36%); Factor 3 (λ 1.69, s^2 = 6.28%); Factor 4 (λ 1.58,

s^2 = 5.85%); Factor 5 (λ 1.29, s^2 = 4.78%); Factor 6 (λ 1.21, s^2 = 4.49%); and, Factor 7

(λ 1.02, s^2 = 3.78%). To view the items representing each extracted factor, see Table 6.

Please note that extracted factors #6 and #7 each consisted of less than 3 items, and, thus,

were excluded from the table. To view factor loading of items, see Appendix Q.

Table 6 Coping Questionnaire Items Representing Each Extracted Factor

Extracted Factor	Item Numbers
Factor 1	12, 13, 14, 15, 16, 17, 19
Factor 2	8, 9, 10, 11, 20, 21
Factor 3	22, 23, 24
Factor 4	1, 2, 3, 4, 5
Factor 5	6, 7, 18

Reliability Analyses of Scales

In the following segment of this chapter, results regarding the psychometric

properties (reliability) of the UCLA Loneliness Scale (Version 3), the Differential

Loneliness Scale, and the Coping Questionnaire will be provided. The internal

consistency method [Cronbach alphas (α)] was performed on the data to assess the

reliability of all three dependent measures or scales. This included the reliability

assessment of the total items of and for each scale, the subtotal items of the 4 and 5 sub-

scales of the Differential Loneliness Scale and the Coping Questionnaire respectively,

and the subtotal items of each of the extracted factors of the 3 scales.

The level of reliability that has previously been determined as sufficient for scales

in research is 0.80 and above (Carmines & Zeller, 1979).

UCLA Loneliness Scale (Version 3)

The calculation of Cronbach alphas internal consistency reliabilities yielded an

alpha value of 0.93 for the total 20 items of this scale.

The calculation of Cronbach alphas internal consistency reliabilities yielded the following alpha values for the 3 extracted factors, as found via factor analysis in the present study: Factor 1 (n of items = 9, alpha = 0.89); Factor 2 (n of items = 6, alpha = 0.85); and, Factor 3 (n of items = 5, alpha = 0.79).

Differential Loneliness Scale

Cronbach alpha internal consistency reliability analysis of all 61 items of the scale yielded the alpha value or reliability coefficient of 0.94.

Reliability analysis of each of the 4 sub-scales of the Differential Loneliness Scale yielded Cronbach alphas ranging from 0.75 to 0.91: 'Familial' (n of items = 18, alpha = 0.91); 'Friendship' (n of items = 23, alpha = 0.87); 'Romantic-Sexual' (n of items = 12, alpha = 0.91); and, 'Group/Community' (n of items = 8, alpha = 0.75).

The calculation of Cronbach alphas internal consistency reliabilities yielded the following alpha values for the 8 extracted factors: Factor 1 (n of items = 16, alpha = 0.92); Factor 2 (n of items = 9, alpha = 0.94); Factor 3 (n of items = 6, alpha = 0.78); Factor 4 (n of items = 4, alpha = 0.67); Factor 5 (n of items = 3, alpha = 0.73); Factor 6 (n of items = 5, alpha = 0.72); Factor 7 (n of items = 3, alpha = 0.58); and, Factor 8 (n of items = 4, alpha = 0.65).

Coping Questionnaire

Cronbach alpha internal consistency reliability analysis of all 27 items of the scale yielded the alpha value or reliability coefficient of 0.90.

Reliability analysis of each of the 5 sub-scales of the Coping Questionnaire yielded Cronbach alphas ranging from 0.54 to 0.75: 'Self-Enhancing Behaviors' (n of items = 5, alpha = 0.75); 'Behavioral Problem-Solving' (n of items = 5, alpha = 0.63);

'Redefining Problem' (n of items = 4, alpha = 0.62); 'Distraction' (n of items = 3, alpha = 0.61); and, 'Cognitive Problem-Solving' (n of items = 3, alpha = 0.54).

The calculation of Cronbach alphas internal consistency reliabilities yielded the following alpha values for the 5 extracted factors: Factor 1 (n of items = 7, alpha = 0.85); Factor 2 (n of items = 6, alpha = 0.81); Factor 3 (n of items = 3, alpha = 0.84); Factor 4 (n of items = 5, alpha = 0.78); and, Factor 5 (n of items = 3, alpha = 0.70).

Analyses (2X3 Design) of Sub-Cultural Group (Gender & Sexual Orientation) Scores

As mentioned in the preceding chapter, two-way between subjects ANOVAs 2X3 design [(female and male), (lesbian/gay, bisexual, and heterosexual)] were performed on the data of the two loneliness scales. Two-way between subjects MANOVAs 2X3 design were performed on the data of all three scales. Due to the substantial amount of information presented in this segment, for the purposes of clarity and simplicity, it was thought appropriate to report the specific analysis performed under each labeled subsection.

An alpha level of .05 was selected for these statistical tests. In other words, the decision criteria to reject the null hypotheses proposed in Chapter 2 of this report, was selected as a probability level of .05.

Post hoc tests (Scheffe) were performed on statistically significant sexual orientation effects. Simple effects testing was performed on statistically significant gender by sexual orientation interaction effects.

UCLA Loneliness Scale (Version 3)

A two-way between subjects ANOVA 2X3 design was performed on the data of this scale to compare the mean of total scores amongst the two gender and three sexual

orientation sub-cultural groups. Summary statistics for total scores on the UCLA

Loneliness Scale (Version 3) as classified within gender categories are shown in Table 7.

Hypothesis 1.A stated that there was no statistically significant gender effect on

the UCLA Loneliness Scale (Version 3) mean total score.

Univariately, the effect of gender was not statistically significant [F(1, 268) =

0.782, P = 0.377]. Thus, failed to reject hypothesis 1.A.

Table 7 Means of Total Scores on the UCLA LS (Version 3) / Function of Gender

Gender	N	Mean	Standard Deviation
Women	150	43.34	9.85
Men	124	46.13	10.92
Total	274	44.60	10.42

Summary statistics for total scores on the UCLA Loneliness Scale (Version 3) as

classified within sexual orientation categories are shown in Table 8.

Hypothesis 1.B stated that there was no statistically significant sexual orientation

effect on the UCLA Loneliness Scale (Version 3) mean total score.

Univariately, the effect of sexual orientation was statistically significant [F(2,

268) = 3.127, P = 0.045]. Post hoc test (Scheffe) indicated a statistically significant mean

difference between the lesbian/gay group and the heterosexual group (P = 0.030). Thus,

hypothesis 1.B was rejected.

A statistically significant mean difference was not found between the bisexual and

heterosexual groups (P = 0.999), and the bisexual and lesbian/gay groups (P = 0.304).

Table 8 Means of Total Scores on the UCLA LS (Version 3) / Function of Sexual
Orientation

Sexual Orientation	N	Mean	Standard Deviation
Lesbian/Gay	118	46.58	10.73
Bisexual	27	43.19	9.27
Heterosexual	129	43.09	10.13
Total	274	44.60	10.42

Summary statistics for total scores on the UCLA Loneliness Scale (Version 3) as

classified within both sexual orientation and gender categories are shown in Table 9.

Hypothesis 1.C stated that there was no statistically significant gender by sexual

orientation interaction effect on the UCLA Loneliness Scale (Version 3) mean total score.

Univariately, the gender by sexual orientation interaction effect was not

statistically significant [$F(2, 268) = 0.171$, $P = 0.843$]. Thus, failed to reject hypothesis

1.C.

Table 9 Means of Total Scores on the UCLA LS (Version 3) / Function of Sexual
Orientation & Gender

Sexual Orientation	Gender	N	Mean	Standard Deviation
Lesbian/Gay	Women	54	45.33	10.65
	Men	64	47.64	10.76
	Total	118	46.58	10.73
Bisexual	Women	21	43.24	8.79
	Men	6	43.00	11.73
	Total	27	43.19	9.27
Heterosexual	Women	75	41.93	9.40
	Men	54	44.69	10.96
	Total	129	43.09	10.13

New Factor Structure of UCLA Loneliness Scale (Version 3)

A two-way between subjects MANOVA 2X3 design was performed on the data

of this scale to compare the mean of 3 subtotal scores (the 3 extracted factors, as found

via factor analysis in the present study) amongst the two gender and three sexual

orientation sub-cultural groups. Summary statistics for subtotal scores on the UCLA

Loneliness Scale (Version 3) as classified within gender categories are shown in Table

10.

Multivariately, the effect of gender was not statistically significant [Wilks'

Lambda = 0.974, $F(3, 266) = 2.406$, $P = 0.068$].

Univariately, the effect of gender was not statistically significant for any of the 3

extracted factors: Factor 1 [F(1, 268) = 1.700, P = 0.193]; Factor 2 [F(1, 268) = 1.242, P

= 0.266]; and, Factor 3 [F(1, 268) = 0.274, P = 0.601].

Table 10 Means of Subtotal Scores on the 3 Extracted Factors of UCLA LS (Version 3) /
Function of Gender

Extracted Factor	Gender	N	Mean	Standard Deviation
Factor 1	Women	150	19.08	5.20
	Men	124	20.92	5.66
	Total	274	19.91	5.48
Factor 2	Women	150	11.59	3.03
	Men	124	12.26	3.29
	Total	274	11.89	3.16
Factor 3	Women	150	12.67	2.61
	Men	124	12.95	3.03
	Total	274	12.80	2.81

Summary statistics for subtotal scores on the UCLA Loneliness Scale (Version 3)

as classified within sexual orientation categories are shown in Table 11.

Multivariately, the effect of sexual orientation was statistically significant [Wilks'

Lambda = 0.954, F(6, 532) = 2.131, P = 0.048].

Univariately, the effect of sexual orientation was statistically significant for

Factor 3 [F(2, 268) = 5.280, P = 0.006]. Post hoc test (Scheffe) indicated a statistically

significant mean difference between the lesbian/gay group and the heterosexual group (P

= 0.011) on this factor. A statistically significant mean difference was not found on this

factor amongst the bisexual and heterosexual groups (P = 0.988), and the bisexual and

lesbian/gay groups (P = 0.150).

Univariately, the effect of sexual orientation was not statistically significant on

Factor 1 [F(2, 268) = 2.564, P = 0.079] and Factor 2 [F(2, 268) = 1.114, P = 0.330].

Table 11 Means of Subtotal Scores on the 3 Extracted Factors of UCLA LS (Version 3) / Function of Sexual Orientation

Extracted Factor	Sexual Orientation	N	Mean	Standard Deviation
Factor 1	Lesbian/Gay	118	20.89	5.62
	Bisexual	27	19.33	4.53
	Heterosexual	129	19.14	5.43
	Total	274	19.91	5.48
Factor 2	Lesbian/Gay	118	12.28	3.19
	Bisexual	27	11.59	2.69
	Heterosexual	129	11.60	3.21
	Total	274	11.89	3.16
Factor 3	Lesbian/Gay	118	13.42	2.88
	Bisexual	27	12.26	2.98
	Heterosexual	129	12.35	2.61
	Total	274	12.80	2.81

Summary statistics for subtotal scores on the UCLA Loneliness Scale (Version 3) as classified within both sexual orientation and gender categories are shown in Tables 12.A and 12.B.

Multivariately, the gender by sexual orientation interaction effect was not statistically significant [Wilks' Lambda = 0.978, $F_{(6, 532)}$ = 1.002, P = 0.423].

Univariately, the gender by sexual orientation interaction effect was not statistically significant for any of the three extracted factors: Factor 1 [$F_{(2, 268)}$ = 0.179, P = 0.836]; Factor 2 [$F_{(2, 268)}$ = 0.462, P = 0.630]; and, Factor 3 [$F_{(2, 268)}$ = 0.599, P = 0.550].

Table 12.A Means of Subtotal Scores on the 3 Extracted Factors of UCLA LS (Version 3) / Factor 1 / Function of Sexual Orientation & Gender

Extracted Factor	Sexual Orientation	Gender	N	Mean	Standard Deviation
Factor 1	Lesbian/Gay	Women	54	19.91	5.60
		Men	64	21.72	5.54
		Total	118	20.89	5.62
	Bisexual	Women	21	19.29	4.20
		Men	6	19.50	6.02
		Total	27	19.33	4.53
	Heterosexual	Women	75	18.43	5.12
		Men	54	20.13	5.73
		Total	129	19.14	5.43

Table 12.B Means of Subtotal Scores on the 3 Extracted Factors of UCLA LS (Version 3) / Factors 2 & 3 / Function of Sexual Orientation & Gender

Extracted Factor	Sexual Orientation	Gender	N	Mean	Standard Deviation
Factor 2	Lesbian/Gay	Women	54	12.19	3.27
		Men	64	12.36	3.14
		Total	118	12.28	3.19
	Bisexual	Women	21	11.43	2.60
		Men	6	12.17	3.19
		Total	27	11.59	2.69
	Heterosexual	Women	75	11.20	2.94
		Men	54	12.15	3.52
		Total	129	11.60	3.21
Factor 3	Lesbian/Gay	Women	54	13.24	2.60
		Men	64	13.56	3.11
		Total	118	13.42	2.88
	Bisexual	Women	21	12.52	2.75
		Men	6	11.33	3.83
		Total	27	12.26	2.98
	Heterosexual	Women	75	12.31	2.54
		Men	54	12.41	2.72
		Total	129	12.35	2.61

Differential Loneliness Scale (Entire Scale)

A two-way between subjects ANOVA 2X3 design was performed on the data of this scale to compare the mean of total scores amongst the two gender and three sexual orientation sub-cultural groups. Summary statistics for total scores on the Differential Loneliness Scale as classified within gender categories are shown in Table 13.

Hypothesis 2.A stated that there was no statistically significant gender effect on the Differential Loneliness Scale mean total score.

Univariately, the effect of gender was statistically significant [$F_{(1, 268)}$ = 12.116, P = 0.001]. Thus, hypothesis 2.A was rejected.

Table 13 Means of Total Scores on the DLS / Function of Gender

Gender	N	Mean	Standard Deviation
Women	150	15.54	11.53
Men	124	22.44	13.11
Total	274	18.66	12.72

Summary statistics for total scores on the Differential Loneliness Scale as

classified within sexual orientation categories are shown in Table 14.

Hypothesis 2.B stated that there was no statistically significant sexual orientation

effect on the Differential Loneliness Scale mean total score.

Univariately, the effect of sexual orientation was statistically significant [$F(2,$

$268) = 4.311$, $P = 0.014$]. Post hoc test (Scheffe) indicated a statistically significant mean

difference between the lesbian/gay group and the heterosexual group ($P = 0.006$). Thus,

hypothesis 2.B was rejected.

A statistically significant mean difference was not found amongst the bisexual

and heterosexual groups ($P = 0.456$), and the bisexual and lesbian/gay groups ($P =$

0.787).

Table 14 Means of Total Scores on the DLS / Function of Sexual Orientation

Sexual Orientation	N	Mean	Standard Deviation
Lesbian/Gay	118	21.20	12.97
Bisexual	27	19.41	11.11
Heterosexual	129	16.18	12.41
Total	274	18.66	12.72

Summary statistics for total scores on the Differential Loneliness Scale as

classified within sexual orientation and gender categories are shown in Table 15.

Hypothesis 2.C stated that there was no statistically significant gender by sexual

orientation interaction effect on the Differential Loneliness Scale mean total score.

Univariately, the gender by sexual orientation interaction effect was not

statistically significant [$F(2, 268) = 0.143$, $P = 0.867$]. Thus, failed to reject hypothesis

2.C.

Table 15 Means of Total Scores on the DLS / Function of Sexual Orientation & Gender

Sexual Orientation	Gender	N	Mean	Std. Deviation
Lesbian / Gay	Women	54	17.69	12.03
	Men	64	24.17	13.08
	Total	118	21.20	12.97
Bisexual	Women	21	17.29	10.51
	Men	6	26.83	10.68
	Total	27	19.41	11.11
Heterosexual	Women	75	13.51	11.21
	Men	54	19.89	13.12
	Total	129	16.18	12.41

Differential Loneliness Scale (Sub-Scales of Scale)

A two-way between subjects MANOVA 2X3 design was performed on the data of this scale to compare the mean of 4 subtotal (or sub-scale) scores amongst the two gender and three sexual orientation sub-cultural groups. Summary statistics for subtotal (or sub-scale) scores on the Differential Loneliness Scale as classified within gender categories are shown in Table 16.

Hypothesis 2.D stated that there was no statistically significant gender effect on the Differential Loneliness Scale mean subtotal (or sub-scale) scores.

Multivariately, the effect of gender was statistically significant [Wilks' Lambda = 0.946. $F_{(4, 265)}$ = 3.755. P = 0.005]. Thus, hypothesis 2.D was rejected.

Univariately, the effect of gender was statistically significant for 'Friendship' [$F_{(1, 268)}$ = 9.174, P = 0.003], 'Romantic-Sexual' [$F_{(1, 268)}$ = 11.527. P = 0.001], and 'Group/Community' [$F_{(1, 268)}$ = 4.741, P = 0.030] relations.

Univariately, the effect of gender was not statistically significant on 'Familial' relations [$F_{(1, 268)}$ = 3.606, P = 0.059].

Table 16 Means of Subtotal Scores on the DLS / Function of Gender

Sub-Scale	Gender	N	Mean	Standard Deviation
Familial	Women	150	5.26	5.43
	Men	124	6.94	5.21
	Total	274	6.02	5.39
Friendship	Women	150	4.18	4.19
	Men	124	6.57	5.10
	Total	274	5.26	4.77
Romantic-Sexual	Women	150	4.35	4.13
	Men	124	6.30	3.99
	Total	274	5.23	4.17
Group/Community	Women	150	1.75	2.01
	Men	124	2.63	2.15
	Total	274	2.15	2.12

Summary statistics for subtotal (or sub-scale) scores on the Differential Loneliness Scale as classified within sexual orientation categories are shown in Table 17.

Hypothesis 2.E stated that there was no statistically significant sexual orientation effect on the Differential Loneliness Scale mean subtotal (or sub-scale) scores.

Multivariately, the effect of sexual orientation was not statistically significant [Wilks' Lambda = 0.946, F(8, 530) = 1.865, P = 0.063]. Thus, failed to reject hypothesis 2.E.

Univariately, the effect of sexual orientation was statistically significant for 'Familial' relations [F(2, 268) = 7.088, P = 0.001]. Post hoc test (Scheffe) indicated a statistically significant mean difference between the lesbian/gay group and the heterosexual group (P = 0.001). Univariately, a statistically significant mean difference was not found between the bisexual and heterosexual groups (P = 0.100), and the bisexual and lesbian/gay groups (P = 0.990) on this relation.

Univariately, the effect of sexual orientation was not statistically significant for 'Friendship' [F(2, 268) = 1.196, P = 0.304], 'Romantic-Sexual' [F(2, 268) = 1.199, P = 0.303], and 'Group/Community' [F(2, 268) = 1.190, P = 0.306] relations.

Table 17 Means of Subtotal Scores on the DLS / Function of Sexual Orientation

Sub-Scale	Sexual Orientation	N	Mean	Standard Deviation
Familial	Lesbian/Gay	118	7.23	5.40
	Bisexual	27	7.07	5.68
	Heterosexual	129	4.69	5.03
	Total	274	6.02	5.39
Friendship	Lesbian/Gay	118	5.92	5.17
	Bisexual	27	4.89	3.86
	Heterosexual	129	4.74	4.51
	Total	274	5.26	4.77
Romantic-Sexual	Lesbian/Gay	118	5.64	4.12
	Bisexual	27	5.30	4.26
	Heterosexual	129	4.85	4.19
	Total	274	5.23	4.17
Group/Community	Lesbian/Gay	118	2.42	2.22
	Bisexual	27	2.15	1.75
	Heterosexual	129	1.91	2.08
	Total	274	2.15	2.12

Summary statistics for subtotal (or sub-scale) scores on the Differential

Loneliness Scale as classified within sexual orientation and gender categories are shown

in Table 18.

Hypothesis 2.F stated that there was no statistically significant gender by sexual

orientation interaction effect on the Differential Loneliness Scale mean subtotal (or sub-

scale) scores.

Multivariately, the gender by sexual orientation interaction effect was not

statistically significant [Wilks' Lambda = 0.993, $F(8, 530) = 0.225$, $P = 0.986$]. Thus,

failed to reject hypothesis 2.F.

Univariately, the gender by sexual orientation interaction effect was not

statistically significant for any of the 4 interpersonal relationships: 'Familial' [$F(2, 268) =$

0.054, $P = 0.947$]; 'Friendship' [$F(2, 268) = 0.062$, $P = 0.940$]; 'Romantic-Sexual' [$F(2,$

$268) = 0.544$, $P = 0.581$]; and, 'Group/Community' [$F(2, 268) = 0.029$, $P = 0.971$].

Table 18 Means of Subtotal Scores on the DLS / Function of Sexual Orientation & Gender

Sub-Scale	Sexual Orientation	Gender	N	Mean	Standard Deviation
Familial	Lesbian/Gay	Women	54	6.46	5.47
		Men	64	7.88	5.29
		Total	118	7.23	5.40
	Bisexual	Women	21	6.57	6.05
		Men	6	8.83	4.12
		Total	27	7.07	5.68
	Heterosexual	Women	75	4.03	4.99
		Men	54	5.61	4.99
		Total	129	4.69	5.03
Friendship	Lesbian/Gay	Women	54	4.76	4.67
		Men	64	6.91	5.39
		Total	118	5.92	5.17
	Bisexual	Women	21	4.24	3.38
		Men	6	7.17	4.88
		Total	27	4.89	3.86
	Heterosexual	Women	75	3.75	4.03
		Men	54	6.11	4.82
		Total	129	4.74	4.51
Romantic-Sexual	Lesbian/Gay	Women	54	4.54	4.13
		Men	64	6.56	3.91
		Total	118	5.64	4.12
	Bisexual	Women	21	4.48	4.25
		Men	6	8.17	3.06
		Total	27	5.30	4.26
	Heterosexual	Women	75	4.17	4.13
		Men	54	5.78	4.13
		Total	129	4.85	4.19
Group/Community	Lesbian/Gay	Women	54	1.93	2.14
		Men	64	2.83	2.21
		Total	118	2.42	2.22
	Bisexual	Women	21	2.00	1.58
		Men	6	2.67	2.34
		Total	27	2.15	1.75
	Heterosexual	Women	75	1.56	2.03
		Men	54	2.39	2.07
		Total	129	1.91	2.08

New Factor Structure of Differential Loneliness Scale

A two-way between subjects MANOVA 2X3 design was performed on the data

of this scale to compare the mean of 8 subtotal scores (the 8 extracted factors, as found

via factor analysis in the present study) amongst the two gender and three sexual

orientation sub-cultural groups. Summary statistics for subtotal scores on the Differential

Loneliness Scale as classified within gender categories are shown in Table 19.

Multivariately, the effect of gender was statistically significant [Wilks' Lambda =

0.902, F(8, 261) = 3.541, P = 0.001].

Univariately, the effect of gender was statistically significant for 6 of the

extracted factors: Factor 2 [F(1, 268) = 8.541, P = 0.004]; Factor 3 [F(1, 268) = 4.604, P

= 0.033]; Factor 4 [F(1, 268) = 9.576, P = 0.002]; Factor 6 [F(1, 268) = 5.886, P = 0.016];

Factor 7 [F(1, 268) = 5.638, P = 0.018]; and, Factor 8 [F(1, 268) = 18.308, P = .000].

Univariately, the effect of gender was not statistically significant for Factor 1

[F(1, 268) = 1.875, P = 0.172] and Factor 5 [F(1, 268) = 0.846, P = 0.359].

Table 19 Means of Subtotal Scores on the 8 Extracted Factors of the DLS / Function of
Gender

Extracted Factor	Gender	N	Mean	Standard Deviation
Factor 1	Women	150	4.58	5.11
	Men	124	5.90	4.86
	Total	274	5.18	5.03
Factor 2	Women	150	3.85	3.77
	Men	124	5.35	3.45
	Total	274	4.53	3.70
Factor 3	Women	150	1.05	1.43
	Men	124	1.84	1.91
	Total	274	1.41	1.71
Factor 4	Women	150	0.58	0.95
	Men	124	1.17	1.30
	Total	274	0.85	1.16
Factor 5	Women	150	0.76	1.09
	Men	124	0.94	1.09
	Total	274	0.84	1.09
Factor 6	Women	150	0.26	0.74
	Men	124	0.58	1.11
	Total	274	0.41	0.94
Factor 7	Women	150	1.16	1.08
	Men	124	1.47	1.05
	Total	274	1.30	1.08
Factor 8	Women	150	1.19	1.23
	Men	124	1.88	1.39
	Total	274	1.50	1.35

Summary statistics for subtotal scores on the Differential Loneliness Scale as classified within sexual orientation categories are shown in Tables 20.A and 20.B.

Multivariately, the effect of sexual orientation was statistically significant [Wilks' Lambda = 0.902, F(16, 522) = 1.721, P = 0.039].

Univariately, the effect of sexual orientation was statistically significant for Factor 1 [F(2, 268) = 5.661, P = 0.004] and Factor 8 [F(2, 268) = 5.986, P = 0.003]. Post hoc test (Scheffe) indicated a statistically significant mean difference on Factor 1 between the lesbian/gay group and the heterosexual group (P = 0.003). Statistically significant mean differences were not found on Factor 1 amongst the bisexual and heterosexual groups (P = 0.141), and the bisexual and lesbian/gay groups (P = 0.996). Post hoc test (Scheffe) indicated a statistically significant mean difference on Factor 8 between the lesbian/gay group and the heterosexual group (P = 0.002). Statistically significant mean differences were not found on Factor 8 amongst the bisexual and heterosexual groups (P = 0.721), and the bisexual and lesbian/gay groups (P = 0.404).

Univariately, the effect of sexual orientation was not statistically significant on the remaining 6 extracted factors: Factor 2 [F(2, 268) = 0.943, P = 0.391]; Factor 3 [F(2, 268) = 0.119, P = 0.888]; Factor 4 [F(2, 268) = 1.594, P = 0.205]; Factor 5 [F(2, 268) = 0.273, P = 0.761]; Factor 6 [F(2, 268) = 1.764, P = 0.173]; and, Factor 7 [F(2, 268) = 0.790, P = 0.455].

Table 20.A Means of Subtotal Scores on the 8 Extracted Factors of the DLS / Factor 1 / Function of Sexual Orientation

Extracted Factor	Sexual Orientation	N	Mean	Standard Deviation
Factor 1	Lesbian/Gay	118	6.20	5.08
	Bisexual	27	6.11	5.32
	Heterosexual	129	4.04	4.71
	Total	274	5.18	5.03

Table 20.B Means of Subtotal Scores on the 8 Extracted Factors of the DLS / Factors 2
- 8 / Function of Sexual Orientation

Extracted Factor	Sexual Orientation	N	Mean	Standard Deviation
Factor 2	Lesbian/Gay	118	4.82	3.61
	Bisexual	27	4.67	3.75
	Heterosexual	129	4.23	3.77
	Total	274	4.53	3.70
Factor 3	Lesbian/Gay	118	1.53	1.84
	Bisexual	27	1.30	1.23
	Heterosexual	129	1.32	1.67
	Total	274	1.41	1.71
Factor 4	Lesbian/Gay	118	1.04	1.30
	Bisexual	27	0.56	0.85
	Heterosexual	129	0.73	1.05
	Total	274	0.85	1.16
Factor 5	Lesbian/Gay	118	0.90	1.11
	Bisexual	27	0.85	0.82
	Heterosexual	129	0.78	1.12
	Total	274	0.84	1.09
Factor 6	Lesbian/Gay	118	0.54	1.15
	Bisexual	27	0.33	0.68
	Heterosexual	129	0.29	0.73
	Total	274	0.41	0.94
Factor 7	Lesbian/Gay	118	1.30	1.09
	Bisexual	27	1.41	1.05
	Heterosexual	129	1.28	1.08
	Total	274	1.30	1.08
Factor 8	Lesbian/Gay	118	1.81	1.36
	Bisexual	27	1.44	1.28
	Heterosexual	129	1.22	1.29
	Total	274	1.50	1.35

Summary statistics for subtotal scores on the Differential Loneliness Scale as
classified within sexual orientation and gender categories are shown in Tables 21.A and
21.B.

Multivariately, the gender by sexual orientation interaction effect was not
statistically significant [Wilks' Lambda = 0.919, F(16, 522) = 1.406, P = 0.133].

Univariately, the gender by sexual orientation interaction effect was not
statistically significant for any of the 8 extracted factors: Factor 1 [F(2, 268) = 0.019, P =
0.981]; Factor 2 [F(2, 268) = 0.397, P = 0.673]; Factor 3 [F(2, 268) = 1.653, P = 0.193];

Factor 4 [F(2, 268) = 0.207, P = 0.813]; Factor 5 [F(2, 268) = 0.183, P = 0.833]; Factor 6

[F(2, 268) = 0.571, P = 0.566]; Factor 7 [F(2, 268) = 0.486, P = 0.616]; and, Factor 8

[F(2, 268) = 2.127, P = 0.121].

Table 21.A Means of Subtotal Scores on the 8 Extracted Factors of the DLS / Factors 1 –
4 / Function of Sexual Orientation & Gender

Extracted Factor	Sexual Orientation	Gender	N	Mean	Std. Deviation
Factor 1	Lesbian/Gay	Women	54	5.61	5.28
		Men	64	6.70	4.89
		Total	118	6.20	5.08
	Bisexual	Women	21	5.86	5.63
		Men	6	7.00	4.38
		Total	27	6.11	5.32
	Heterosexual	Women	75	3.48	4.65
		Men	54	4.81	4.74
		Total	129	4.04	4.71
Factor 2	Lesbian/Gay	Women	54	3.94	3.74
		Men	64	5.56	3.35
		Total	118	4.82	3.61
	Bisexual	Women	21	4.05	3.81
		Men	6	6.83	2.79
		Total	27	4.67	3.75
	Heterosexual	Women	75	3.72	3.82
		Men	54	4.94	3.61
		Total	129	4.23	3.77
Factor 3	Lesbian/Gay	Women	54	1.28	1.66
		Men	64	1.73	1.96
		Total	118	1.53	1.84
	Bisexual	Women	21	1.24	1.22
		Men	6	1.50	1.38
		Total	27	1.30	1.23
	Heterosexual	Women	75	0.83	1.29
		Men	54	2.00	1.90
		Total	129	1.32	1.67
Factor 4	Lesbian/Gay	Women	54	0.72	1.12
		Men	64	1.31	1.39
		Total	118	1.04	1.30
	Bisexual	Women	21	0.38	0.59
		Men	6	1.17	1.33
		Total	27	0.56	0.85
	Heterosexual	Women	75	0.53	0.89
		Men	54	1.00	1.20
		Total	129	0.73	1.05

Table 21.B Means of Subtotal Scores on the 8 Extracted Factors of the DLS / Factors 5 – 8 / Function of Sexual Orientation & Gender

Extracted Factor	Sexual Orientation	Gender	N	Mean	Std. Deviation
Factor 5	Lesbian/Gay	Women	54	0.76	1.08
		Men	64	1.02	1.13
		Total	118	0.90	1.11
	Bisexual	Women	21	0.81	0.81
		Men	6	1.00	0.89
		Total	27	0.85	0.82
	Heterosexual	Women	75	0.75	1.18
		Men	54	0.83	1.06
		Total	129	0.78	1.12
Factor 6	Lesbian/Gay	Women	54	0.35	0.89
		Men	64	0.70	1.32
		Total	118	0.54	1.15
	Bisexual	Women	21	0.19	0.51
		Men	6	0.83	0.98
		Total	27	0.33	0.68
	Heterosexual	Women	75	0.21	0.66
		Men	54	0.41	0.81
		Total	129	0.29	0.73
Factor 7	Lesbian/Gay	Women	54	1.17	1.11
		Men	64	1.41	1.06
		Total	118	1.30	1.09
	Bisexual	Women	21	1.24	1.04
		Men	6	2.00	0.89
		Total	27	1.41	1.05
	Heterosexual	Women	75	1.13	1.08
		Men	54	1.48	1.06
		Total	129	1.28	1.08
Factor 8	Lesbian/Gay	Women	54	1.46	1.22
		Men	64	2.11	1.42
		Total	118	1.81	1.36
	Bisexual	Women	21	1.05	1.07
		Men	6	2.83	0.98
		Total	27	1.44	1.28
	Heterosexual	Women	75	1.03	1.25
		Men	54	1.50	1.31
		Total	129	1.22	1.29

Coping Questionnaire

A two-way between subjects MANOVA 2X3 design was performed on the data

of this scale to compare the mean of 5 subtotal (or sub-scale) scores amongst the two

gender and three sexual orientation sub-cultural groups. Please note that the sample size

for the Coping Questionnaire is smaller than that found for the loneliness scales due to

missing data. Summary statistics for subtotal scores on the Coping Questionnaire as

classified within gender categories are shown in Table 22.

Hypothesis 3.A stated that there was no statistically significant gender effect on

the Coping Questionnaire mean subtotal (or sub-scale) scores.

Multivariately, the effect of gender was not statistically significant [Wilks'

Lambda = 0.989, $F(5, 235) = 0.544$, $P = 0.743$]. Thus, failed to reject hypothesis 3.A.

Univariately, the effect of gender was not statistically significant for any of the 5

coping strategy categories: 'Self-Enhancing Behaviors' [$F(1, 239) = 0.041$, $P = 0.839$];

'Behavioral Problem-Solving' [$F(1, 239) = 0.254$, $P = 0.615$]; 'Redefining Problem' [$F(1,

239) = 0.001$, $P = 0.969$]; 'Distraction' [$F(1, 239) = 1.128$, $P = 0.289$]; and, 'Cognitive

Problem-Solving' [$F(1, 239) = 1.062$, $P = 0.304$].

Table 22 Means of Subtotal Scores on the Coping Strategies / Function of Gender

Coping Strategy Category	Gender	N	Mean	Std. Deviation
Self-Enhancing Behaviors	Women	135	29.19	8.29
	Men	110	28.31	8.97
	Total	245	28.80	8.60
Behavioral Problem-Solving	Women	135	28.42	7.62
	Men	110	27.12	7.28
	Total	245	27.84	7.48
Redefining Problem	Women	135	21.64	7.03
	Men	110	20.98	7.22
	Total	245	21.35	7.11
Distraction	Women	135	17.48	4.98
	Men	110	16.36	5.57
	Total	245	16.98	5.27
Cognitive Problem-Solving	Women	135	17.99	4.65
	Men	110	17.54	4.90
	Total	245	17.78	4.76

Summary statistics for subtotal scores on the Coping Questionnaire as classified

within sexual orientation categories are shown in Table 23.

Hypothesis 3.B stated that there was no statistically significant sexual orientation

effect on the Coping Questionnaire mean subtotal (or sub-scale) scores.

Multivariately, the effect of sexual orientation was not statistically significant

[Wilks' Lambda = 0.948, F(10, 470) = 1.270; P = 0.245]. Thus, failed to reject hypothesis

3.B.

Univariately, the effect of sexual orientation was not statistically significant for

any of the 5 coping strategy categories: 'Self-Enhancing Behaviors' [F(2, 239) = 0.519, P

= 0.596]; 'Behavioral Problem-Solving' [F(2, 239) = 2.417, P = 0.091]; 'Redefining

Problem' [F(2, 239) = 0.562, P = 0.571]; 'Distraction' [F(2, 239) = 0.828, P = 0.438];

and. 'Cognitive Problem-Solving' [F(2, 239) = 0.072, P = 0.930].

Table 23 Means of Subtotal Scores on the Coping Strategies / Function of Sexual
Orientation

Coping Strategy Category	Sexual Orientation	N	Mean	Std. Deviation
Self-Enhancing Behaviors	Lesbian/Gay	104	29.22	8.98
	Bisexual	24	29.46	8.72
	Heterosexual	117	28.28	8.26
	Total	245	28.80	8.60
Behavioral Problem-Solving	Lesbian/Gay	104	28.75	7.64
	Bisexual	24	28.96	7.28
	Heterosexual	117	26.79	7.29
	Total	245	27.84	7.48
Redefining Problem	Lesbian/Gay	104	21.01	7.19
	Bisexual	24	22.67	6.82
	Heterosexual	117	21.38	7.13
	Total	245	21.35	7.11
Distraction	Lesbian/Gay	104	17.29	5.01
	Bisexual	24	17.67	5.99
	Heterosexual	117	16.56	5.36
	Total	245	16.98	5.27
Cognitive Problem-Solving	Lesbian/Gay	104	17.82	5.00
	Bisexual	24	18.46	4.81
	Heterosexual	117	17.62	4.55
	Total	245	17.78	4.76

Summary statistics for subtotal scores on the Coping Questionnaire as classified

within sexual orientation and gender categories are shown in Tables 24.A and 24.B.

Hypothesis 3.C stated that there was no statistically significant gender by sexual orientation interaction effect on the Coping Questionnaire mean subtotal (or sub-scale) scores.

Multivariately, the gender by sexual orientation interaction effect was statistically significant [Wilks' Lambda = 0.925, F(10, 470) = 1.877, P = 0.046]. Thus, hypothesis 3.C was rejected.

Univariately, the gender by sexual orientation interaction effect was statistically significant for the 'Redefining Problem' coping strategy category [F(2, 239) = 3.318, P = 0.038]. Simple effects test indicated a statistically significant gender effect on this coping strategy category for the heterosexual group [F(1, 239) = 4.95, P = 0.027]. There was no statistically significant gender effect for the 'Redefining Problem' coping strategy category for the lesbian/gay group [F(1, 239) = 1.89, P = 0.171] and the bisexual group [F(1, 239) = 0.11, P = 0.740]. Furthermore, there was no statistically significant sexual orientation effect for this coping strategy category for women [F(2, 239) = 2.12, P = 0.122] and men [F(2, 239) = 1.62, P = 0.199].

Univariately, the gender by sexual orientation interaction effect was not statistically significant for the remaining 4 coping strategy categories: 'Self-Enhancing Behaviors' [F(2, 239) = 0.536, P = 0.586]; 'Behavioral Problem-Solving' [F(2, 239) = 0.244, P = 0.783]; 'Distraction' [F(2, 239) = 2.699, P = 0.069]; and, 'Cognitive Problem-Solving' [F(2, 239) = 0.685, P = 0.505].

Table 24.A Means of Subtotal Scores on the Coping Strategies / Function of Sexual Orientation & Gender

Coping Strategy Category	Sexual Orientation	Gender	N	Mean	Std. Deviation
Self-Enhancing Behaviors	Lesbian/Gay	Women	51	29.16	8.45
		Men	53	29.28	9.54
		Total	104	29.22	8.98

Table 24.B Means of Subtotal Scores on the Coping Strategies / Function of Sexual
Orientation & Gender

Coping Strategy Category	Sexual Orientation	Gender	N	Mean	Std. Deviation
Self-Enhancing Behaviors	Bisexual	Women	19	29.26	8.47
		Men	5	30.20	10.64
		Total	24	29.46	8.72
	Heterosexual	Women	65	29.20	8.24
		Men	52	27.13	8.22
		Total	117	28.28	8.26
Behavioral Problem-Solving	Lesbian/Gay	Women	51	29.31	8.02
		Men	53	28.21	7.29
		Total	104	28.75	7.64
	Bisexual	Women	19	28.79	7.22
		Men	5	29.60	8.35
		Total	24	28.96	7.28
	Heterosexual	Women	65	27.62	7.43
		Men	52	25.77	7.05
		Total	117	26.79	7.29
Redefining Problem	Lesbian/Gay	Women	51	20.04	6.69
		Men	53	21.94	7.58
		Total	104	21.01	7.19
	Bisexual	Women	19	22.42	5.92
		Men	5	23.60	10.41
		Total	24	22.67	6.82
	Heterosexual	Women	65	22.68	7.44
		Men	52	19.75	6.43
		Total	117	21.38	7.13
Distraction	Lesbian/Gay	Women	51	16.98	5.12
		Men	53	17.58	4.92
		Total	104	17.29	5.01
	Bisexual	Women	19	17.89	5.28
		Men	5	16.80	8.93
		Total	24	17.67	5.99
	Heterosexual	Women	65	17.75	4.83
		Men	52	15.08	5.67
		Total	117	16.56	5.36
Cognitive Problem-Solving	Lesbian/Gay	Women	51	17.67	4.97
		Men	53	17.96	5.07
		Total	104	17.82	5.00
	Bisexual	Women	19	18.95	4.06
		Men	5	16.60	7.30
		Total	24	18.46	4.81
	Heterosexual	Women	65	17.95	4.57
		Men	52	17.19	4.54
		Total	117	17.62	4.55

New Factor Structure of Coping Questionnaire

A two-way between subjects MANOVA 2X3 design was performed on the data

of this scale to compare the mean of 5 subtotal scores (the 5 extracted factors, as found

via factor analysis in the present study) amongst the two gender and three sexual

orientation sub-cultural groups. Summary statistics for subtotal scores on the Coping

Questionnaire as classified within gender categories are shown in Table 25.

Multivariately, the effect of gender was not statistically significant [Wilks'

Lambda = 0.974, F(5, 235) = 1.231, P = 0.295].

Univariately, the effect of gender was not statistically significant for any of the 5

extracted factors: Factor 1 [F(1, 239) = 0.105, P = 0.746]; Factor 2 [F(1, 239) = 1.162, P

= 0.282]; Factor 3 [F(1, 239) = 0.353, P = 0.553]; Factor 4 [F(1, 239) = 0.768, P = 0.382];

and, Factor 5 [F(1, 239) = 1.017, P = 0.314].

Table 25 Means of Subtotal Scores on the 5 Extracted Factors of the CQ / Function of
Gender

Extracted Factor	Gender	N	Mean	Std. Deviation
Factor 1	Women	135	41.64	12.29
	Men	110	38.75	13.00
	Total	245	40.34	12.67
Factor 2	Women	135	35.58	10.03
	Men	110	34.10	9.25
	Total	245	34.91	9.70
Factor 3	Women	135	14.46	6.16
	Men	110	14.10	6.11
	Total	245	14.30	6.13
Factor 4	Women	135	29.26	8.59
	Men	110	28.28	8.74
	Total	245	28.82	8.65
Factor 5	Women	135	14.84	5.85
	Men	110	15.64	5.94
	Total	245	15.20	5.89

Summary statistics for subtotal scores on the Coping Questionnaire as classified

within sexual orientation categories are shown in Table 26.

Multivariately, the effect of sexual orientation was not statistically significant [Wilks' Lambda = 0.928, F(10, 470) = 1.780, P = 0.062].

Univariately, the effect of sexual orientation was statistically significant for Factor 3 [F(2, 239) = 6.539, P = 0.002]. Post hoc test (Scheffe) indicated a statistically significant mean difference between the lesbian/gay group and the heterosexual group on this Factor (P = 0.005). A statistically significant mean difference was not found on this factor amongst the bisexual and heterosexual groups (P = 0.218), and the bisexual and lesbian/gay groups (P = 0.974).

Univariately, the effect of sexual orientation was not statistically significant on the remaining 4 extracted factors: Factor 1 [F(2, 239) = 1.083, P = 0.340]; Factor 2 [F(2, 239) = 0.010, P = 0.990]; Factor 4 [F(2, 239) = 1.488, P = 0.228]; and, Factor 5 [F(2, 239) = 0.036, P = 0.964].

Table 26 Means of Subtotal Scores on the 5 Extracted Factors of the CQ / Function of Sexual Orientation

Extracted Factor	Sexual Orientation	N	Mean	Std. Deviation
Factor 1	Lesbian/Gay	104	40.72	13.28
	Bisexual	24	42.63	13.04
	Heterosexual	117	39.54	12.07
	Total	245	40.34	12.67
Factor 2	Lesbian/Gay	104	34.86	9.66
	Bisexual	24	35.79	10.79
	Heterosexual	117	34.79	9.57
	Total	245	34.91	9.70
Factor 3	Lesbian/Gay	104	15.61	6.20
	Bisexual	24	15.29	7.17
	Heterosexual	117	12.93	5.57
	Total	245	14.30	6.13
Factor 4	Lesbian/Gay	104	29.57	8.20
	Bisexual	24	30.71	8.19
	Heterosexual	117	27.77	9.06
	Total	245	28.82	8.65
Factor 5	Lesbian/Gay	104	15.27	5.99
	Bisexual	24	14.96	5.92
	Heterosexual	117	15.18	5.85
	Total	245	15.20	5.89

Summary statistics for subtotal scores on the Coping Questionnaire as classified within sexual orientation and gender categories are shown in Tables 27.A and 27.B.

Multivariately, the gender by sexual orientation interaction effect was statistically significant [Wilks' Lambda = 0.913, $F(10, 470) = 2.193$, $P = 0.017$].

Univariately, the gender by sexual orientation interaction effect was statistically significant for Factor 5 [$F(2, 239) = 6.268$, $P = 0.002$]. Simple effects test indicated a statistically significant gender effect for this factor for the lesbian/gay group [$F(1, 239) = 10.30$, $P = 0.002$]. There was no statistically significant gender effect for Factor 5 for the bisexual [$F(1, 239) = 0.29$, $P = 0.590$] and heterosexual [$F(1, 239) = 3.05$, $P = 0.082$] groups. Furthermore, there was a statistically significant sexual orientation effect for men on this factor [$F(2, 239) = 3.37$, $P = 0.036$], but not for women [$F(2, 239) = 2.90$, $P = 0.057$].

Univariately, the gender by sexual orientation interaction effect was not statistically significant for the remaining 4 extracted factors: Factor 1 [$F(2, 239) = 1.705$, $P = 0.184$]; Factor 2 [$F(2, 239) = 0.282$, $P = 0.754$]; Factor 3 [$F(2, 239) = 0.905$, $P = 0.406$]; and, Factor 4 [$F(2, 239) = 0.643$, $P = 0.527$].

Table 27.A Means of Subtotal Scores on the 5 Extracted Factors of the CQ / Factor 1/ Function of Sexual Orientation & Gender

Extracted Factor	Sexual Orientation	Gender	N	Mean	Std. Deviation
Factor 1	Lesbian/Gay	Women	51	41.06	13.21
		Men	53	40.40	13.46
		Total	104	40.72	13.28
	Bisexual	Women	19	41.79	12.40
		Men	5	45.80	16.42
		Total	24	42.63	13.04
	Heterosexual	Women	65	42.06	11.66
		Men	52	36.38	11.92
		Total	117	39.54	12.07

Table 27.B Means of Subtotal Scores on the 5 Extracted Factors of the CQ / Factors 2 – 5 / Function of Sexual Orientation & Gender

Extracted Factor	Sexual Orientation	Gender	N	Mean	Std. Deviation
Factor 2	Lesbian/Gay	Women	51	35.08	10.52
		Men	53	34.64	8.85
		Total	104	34.86	9.66
	Bisexual	Women	19	36.53	10.38
		Men	5	33.00	13.10
		Total	24	35.79	10.79
	Heterosexual	Women	65	35.69	9.67
		Men	52	33.65	9.42
		Total	117	34.79	9.57
Factor 3	Lesbian/Gay	Women	51	15.84	6.75
		Men	53	15.38	5.67
		Total	104	15.61	6.20
	Bisexual	Women	19	14.58	6.51
		Men	5	18.00	9.67
		Total	24	15.29	7.17
	Heterosexual	Women	65	13.34	5.39
		Men	52	12.42	5.80
		Total	117	12.93	5.57
Factor 4	Lesbian/Gay	Women	51	29.31	8.02
		Men	53	29.81	8.44
		Total	104	29.57	8.20
	Bisexual	Women	19	31.32	7.27
		Men	5	28.40	11.80
		Total	24	30.71	8.19
	Heterosexual	Women	65	28.62	9.36
		Men	52	26.71	8.64
		Total	117	27.77	9.06
Factor 5	Lesbian/Gay	Women	51	13.41	5.68
		Men	53	17.06	5.78
		Total	104	15.27	5.99
	Bisexual	Women	19	14.63	5.25
		Men	5	16.20	8.67
		Total	24	14.96	5.92
	Heterosexual	Women	65	16.02	5.96
		Men	52	14.13	5.58
		Total	117	15.18	5.85

Analyses (2X2 Design) of Sub-Cultural Group (Gender & Sexual Orientation) Scores

As mentioned in the precursory chapter, two-way between subjects ANOVAs

2X2 design [(female and male), (lesbian/gay and heterosexual)] were furthermore

performed on the data of the two loneliness scales. Additionally, two-way between

subjects MANOVAs 2X2 design were likewise performed on the data of all three scales.

Once more, the specific analyses conducted will be reported under each labeled

subsection.

An alpha level of .05 was selected for these statistical tests. Simple effects testing

was performed on statistically significant gender by sexual orientation interaction effects.

UCLA Loneliness Scale (Version 3)

A two-way between subjects ANOVA 2X2 design was performed on the data of

this scale to compare the mean of total scores amongst the two gender and two sexual

orientation sub-cultural groups. Summary statistics for total scores on the UCLA

Loneliness Scale (Version 3) as classified within gender categories are shown in Table

28.

Hypothesis 1.A stated that there was no statistically significant gender effect on

the UCLA Loneliness Scale (Version 3) mean total score.

Univariately, the effect of gender was not statistically significant [F(1, 243) =

3.597, P = 0.059]. Thus, failed to reject hypothesis 1.A.

Table 28 Means of Total Scores on the UCLA LS (Version 3) / Function of Gender

Gender	N	Mean	Standard Deviation
Women	129	43.36	10.04
Men	118	46.29	10.90
Total	247	44.76	10.54

Summary statistics for total scores on the UCLA Loneliness Scale (Version 3) as

classified within sexual orientation categories are shown in Table 29.

Hypothesis 1.B stated that there was no statistically significant sexual orientation

effect on the UCLA Loneliness Scale (Version 3) mean total score.

Univariately, the effect of sexual orientation was statistically significant [F(1,

243) = 5.676, P = 0.018]. Thus, hypothesis 1.B was rejected.

Table 29 Means of Total Scores on the UCLA LS (Version 3) / Function of Sexual Orientation

Sexual Orientation	N	Mean	Standard Deviation
Lesbian/Gay	118	46.58	10.73
Heterosexual	129	43.09	10.13
Total	247	44.76	10.54

Summary statistics for total scores on the UCLA Loneliness Scale (Version 3) as classified within both sexual orientation and gender categories are shown in Table 30.

Hypothesis 1.C stated that there was no statistically significant gender by sexual orientation interaction effect on the UCLA Loneliness Scale (Version 3) mean total score.

Univariately, the gender by sexual orientation interaction effect was not statistically significant [$F_{(1, 243)} = 0.028$, $P = 0.868$]. Thus, failed to reject hypothesis 1.C.

Table 30 Means of Total Scores on the UCLA LS (Version 3) as a Function of Sexual Orientation & Gender

Sexual Orientation	Gender	N	Mean	Standard Deviation
Lesbian/Gay	Women	54	45.33	10.65
	Men	64	47.64	10.76
	Total	118	46.58	10.73
Heterosexual	Women	75	41.93	9.40
	Men	54	44.69	10.96
	Total	129	43.09	10.13

New Factor Structure of UCLA Loneliness Scale (Version 3)

A two-way between subjects MANOVA 2X2 design was performed on the data of this scale to compare the mean of 3 subtotal scores (the 3 extracted factors, as found via factor analysis in the present study) amongst the two gender and two sexual orientation sub-cultural groups. Summary statistics for subtotal scores on the UCLA Loneliness Scale (Version 3) as classified within gender categories are shown in Table 31.

Multivariately, the effect of gender was statistically significant [Wilks' Lambda = 0.964, F(3, 241) = 3.034, P = 0.030].

Univariately, the effect of gender was statistically significant for Factor 1 [F(1, 243) = 6.243, P = 0.013].

Univariately, the effect of gender was not statistically significant for the remaining 2 extracted factors: Factor 2 [F(1, 243) = 1.870, P = 0.173] and Factor 3 [F(1, 243) = 0.358, P = 0.550].

Table 31 Means of Subtotal Scores on the 3 Extracted Factors of UCLA LS (Version 3) / Function of Gender

Extracted Factor	Gender	N	Mean	Standard Deviation
Factor 1	Women	129	19.05	5.36
	Men	118	20.99	5.66
	Total	247	19.98	5.58
Factor 2	Women	129	11.61	3.11
	Men	118	12.26	3.30
	Total	247	11.92	3.21
Factor 3	Women	129	12.70	2.60
	Men	118	13.03	2.98
	Total	247	12.86	2.79

Summary statistics for subtotal scores on the UCLA Loneliness Scale (Version 3) as classified within sexual orientation categories are shown in Table 32.

Multivariately, the effect of sexual orientation was statistically significant [Wilks' Lambda = 0.961, F(3, 241) = 3.300, P = 0.021].

Univariately, the effect of sexual orientation was statistically significant for 2 extracted factors: Factor 1 [F(1, 243) = 4.764, P = 0.030] and Factor 3 [F(1, 243) = 8.750, P = 0.003].

Univariately, the effect of sexual orientation was not statistically significant for Factor 2 [F(1, 243) = 2.125, P = 0.146].

Table 32 Means of Subtotal Scores on the 3 Extracted Factors of UCLA LS (Version 3) / Function of Sexual Orientation

Extracted Factor	Sexual Orientation	N	Mean	Standard Deviation
Factor 1	Lesbian/Gay	118	20.89	5.62
	Heterosexual	129	19.14	5.43
	Total	247	19.98	5.58
Factor 2	Lesbian/Gay	118	12.28	3.19
	Heterosexual	129	11.60	3.21
	Total	247	11.92	3.21
Factor 3	Lesbian/Gay	118	13.42	2.88
	Heterosexual	129	12.35	2.61
	Total	247	12.86	2.79

Summary statistics for subtotal scores on the UCLA Loneliness Scale (Version 3) as classified within both sexual orientation and gender categories are shown in Tables 33.A and 33.B.

Multivariately, the gender by sexual orientation interaction effect was not statistically significant [Wilks' Lambda = 0.987, $F(3, 241) = 1.090$, $P = 0.354$].

Univariately, the gender by sexual orientation interaction effect was not statistically significant for any of the 3 extracted factors: Factor 1 [$F(1, 243) = 0.006$, $P = 0.939$]; Factor 2 [$F(1, 243) = 0.889$, $P = 0.347$]; and, Factor 3 [$F(1, 243) = 0.098$, $P = 0.755$].

Table 33.A Means of Subtotal Scores on the 3 Extracted Factors of UCLA LS (Version 3) / Factors 1 & 2 / Function of Sexual Orientation & Gender

Extracted Factor	Sexual Orientation	Gender	N	Mean	Std. Deviation
Factor 1	Lesbian/Gay	Women	54	19.91	5.60
		Men	64	21.72	5.54
		Total	118	20.89	5.62
	Heterosexual	Women	75	18.43	5.12
		Men	54	20.13	5.73
		Total	129	19.14	5.43
Factor 2	Lesbian/Gay	Women	54	12.19	3.27
		Men	64	12.36	3.14
		Total	118	12.28	3.19
	Heterosexual	Women	75	11.20	2.94
		Men	54	12.15	3.52
		Total	129	11.60	3.21

Table 33.B Means of Subtotal Scores on the 3 Extracted Factors of UCLA LS (Version 3) / Factor 3 / Function of Sexual Orientation & Gender

Extracted Factor	Sexual Orientation	Gender	N	Mean	Std. Deviation
Factor 3	Lesbian/Gay	Women	54	13.24	2.60
		Men	64	13.56	3.11
		Total	118	13.42	2.88
	Heterosexual	Women	75	12.31	2.54
		Men	54	12.41	2.72
		Total	129	12.35	2.61

Differential Loneliness Scale (Entire Scale)

A two-way between subjects ANOVA 2X2 design was performed on the data of this scale to compare the mean of total scores amongst the two gender and two sexual orientation sub-cultural groups. Summary statistics for total scores on the Differential Loneliness Scale as classified within gender categories are shown in Table 34.

Hypothesis 2.A stated that there was no statistically significant gender effect on the Differential Loneliness Scale mean total score.

Univariately, the effect of gender was statistically significant [$F(1, 243) = 16.536$, P = 0.000]. Thus, hypothesis 2.A was rejected.

Table 34 Means of Total Scores on the DLS / Function of Gender

Gender	N	Mean	Standard Deviation
Women	129	15.26	11.70
Men	118	22.21	13.22
Total	247	18.58	12.90

Summary statistics for total scores on the Differential Loneliness Scale as classified within sexual orientation categories are shown in Table 35.

Hypothesis 2.B stated that there was no statistically significant sexual orientation effect on the Differential Loneliness Scale mean total score.

Univariately, the effect of sexual orientation was statistically significant [$F(1, 243) = 7.149$, P = 0.008]. Thus, hypothesis 2.B was rejected.

Table 35 Means of Total Scores on the DLS / Function of Sexual Orientation

Sexual Orientation	N	Mean	Standard Deviation
Lesbian/Gay	118	21.20	12.97
Heterosexual	129	16.18	12.41
Total	247	18.58	12.90

Summary statistics for total scores on the Differential Loneliness Scale as classified within sexual orientation and gender categories are shown in Table 36.

Hypothesis 2.C stated that there was no statistically significant gender by sexual orientation interaction effect on the Differential Loneliness Scale mean total score.

Univariately, the gender by sexual orientation interaction effect was not statistically significant [$F(1, 243) = 0.001$, P=0.974]. Thus, failed to reject hypothesis 2.C.

Table 36 Means of Total Scores on the DLS / Function of Sexual Orientation & Gender

Sexual Orientation	Gender	N	Mean	Std. Deviation
Lesbian/Gay	Women	54	17.69	12.03
	Men	64	24.17	13.08
	Total	118	21.20	12.97
Heterosexual	Women	75	13.51	11.21
	Men	54	19.89	13.12
	Total	129	16.18	12.41

Differential Loneliness Scale (Sub-Scales of Scale)

A two-way between subjects MANOVA 2X2 design was performed on the data of this scale to compare the mean of 4 subtotal (or sub-scale) scores amongst the two gender and two sexual orientation sub-cultural groups. Summary statistics for subtotal (or sub-scale) scores on the Differential Loneliness Scale as classified within gender categories are shown in Table 37.

Hypothesis 2. D stated that there was no statistically significant gender effect on the Differential Loneliness Scale mean subtotal (or sub-scale) scores.

Multivariately, the effect of gender was statistically significant [Wilks' Lambda = 0.928, F(4, 240) = 4.667, P = 0.001]. Thus, hypothesis 2.D was rejected.

Univariately, the effect of gender was statistically significant for all four interpersonal relationships: 'Familial' [F(1, 243) = 5.074, P = 0.025]; 'Friendship' [F(1, 243) = 13.820, P = 0.000]; 'Romantic-Sexual' [F(1, 243) = 12.017, P = 0.001]; and, 'Group/Community' [F(1, 243) = 10.197, P = 0.002].

Table 37 Means of Subtotal Scores on the DLS / Function of Gender

Sub-Scale	Gender	N	Mean	Standard Deviation
Familial	Women	129	5.05	5.32
	Men	118	6.84	5.26
	Total	247	5.90	5.35
Friendship	Women	129	4.17	4.32
	Men	118	6.54	5.13
	Total	247	5.30	4.86
Romantic-Sexual	Women	129	4.33	4.12
	Men	118	6.20	4.01
	Total	247	5.22	4.17
Group/Community	Women	129	1.71	2.08
	Men	118	2.63	2.15
	Total	247	2.15	2.16

Summary statistics for subtotal (or sub-scale) scores on the Differential Loneliness Scale as classified within sexual orientation categories are shown in Table 38.

Hypothesis 2.E stated that there was no statistically significant sexual orientation effect on the Differential Loneliness Scale mean subtotal (or sub-scale) scores.

Multivariately, the effect of sexual orientation was statistically significant [Wilks' Lambda = 0.951, F(4, 240) = 3.115, P = 0.016]. Thus, hypothesis 2.E was rejected.

Univariately, the effect of sexual orientation was statistically significant for 'Familial' relations [F(1, 243) = 12.485, P = 0.000].

Univariately, the effect of sexual orientation was not statistically significant for 'Friendship' [F(1, 243) = 2.219, P = 0.138], 'Romantic-Sexual' [F(1, 243) = 1.203, P = 0.274], and 'Group/Community' [F(1, 243) = 2.206, P = 0.139] relations.

Table 38 Means of Subtotal Scores on the DLS / Function of Sexual Orientation

Sub-Scale	Sexual Orientation	N	Mean	Standard Deviation
Familial	Lesbian/Gay	118	7.23	5.40
	Heterosexual	129	4.69	5.03
	Total	247	5.90	5.35
Friendship	Lesbian/Gay	118	5.92	5.17
	Heterosexual	129	4.74	4.51
	Total	247	5.30	4.86
Romantic-Sexual	Lesbian/Gay	118	5.64	4.12
	Heterosexual	129	4.85	4.19
	Total	247	5.22	4.17
Group/Community	Lesbian/Gay	118	2.42	2.22
	Heterosexual	129	1.91	2.08
	Total	247	2.15	2.16

Summary statistics for subtotal (or sub-scale) scores on the Differential Loneliness Scale as classified within sexual orientation and gender categories are shown in Table 39.

Hypothesis 2.F stated that there was no statistically significant gender by sexual orientation interaction effect on the Differential Loneliness Scale mean subtotal (or sub-scale) scores.

Multivariately, the gender by sexual orientation interaction effect was not statistically significant [Wilks' Lambda = 0.998, F(4, 240) = 0.111, P = 0.978]. Thus, failed to reject hypothesis 2.F.

Univariately, the gender by sexual orientation interaction effect was not statistically significant for any of the 4 interpersonal relationships: 'Familial' [F(1, 243) = 0.017, P = 0.897]; 'Friendship' [F(1, 243) = 0.032, P = 0.858]; 'Romantic-Sexual' [F(1, 243) = 0.162, P = 0.688]; and, 'Group/Community' [F(1, 243) = 0.018, P = 0.893].

Table 39 Means of Subtotal Scores on the DLS / Function of Sexual Orientation &
Gender

Sub-Scale	Sexual Orientation	Gender	N	Mean	Std. Deviation
Familial	Lesbian/Gay	Women	54	6.46	5.47
		Men	64	7.88	5.29
		Total	118	7.23	5.40
	Heterosexual	Women	75	4.03	4.99
		Men	54	5.61	4.99
		Total	129	4.69	5.03
Friendship	Lesbian/Gay	Women	54	4.76	4.67
		Men	64	6.91	5.39
		Total	118	5.92	5.17
	Heterosexual	Women	75	3.75	4.03
		Men	54	6.11	4.82
		Total	129	4.74	4.51
Romantic-Sexual	Lesbian/Gay	Women	54	4.54	4.13
		Men	64	6.56	3.91
		Total	118	5.64	4.12
	Heterosexual	Women	75	4.17	4.13
		Men	54	5.78	4.13
		Total	129	4.85	4.19
Group/Community	Lesbian/Gay	Women	54	1.93	2.14
		Men	64	2.83	2.21
		Total	118	2.42	2.22
	Heterosexual	Women	75	1.56	2.03
		Men	54	2.39	2.07
		Total	129	1.91	2.08

New Factor Structure of Differential Loneliness Scale

A two-way between subjects MANOVA 2X2 design was performed on the data

of this scale to compare the mean of 8 subtotal scores (the 8 extracted factors, as found

via factor analysis in the present study) amongst the two gender and two sexual

orientation sub-cultural groups. Summary statistics for subtotal scores on the Differential

Loneliness Scale as classified within gender categories are shown in Table 40.

Multivariately, the effect of gender was statistically significant [Wilks' Lambda =

0.895, $F(8, 236) = 3.467$, $P = 0.001$].

Univariately, the effect of gender was statistically significant for 5 extracted

factors: Factor 1 [$F(1, 243) = 6.243$, $P = 0.013$]; Factor 4 [$F(1, 243) = 12.725$, $P = 0.000$];

Factor 6 [F(1, 243) = 4.993, P = 0.026]; Factor 7 [F(1, 243) = 4.493, P = 0.035]; and,

Factor 8 [F(1, 243) = 11.176, P = 0.001].

Univariately, the effect of gender was not statistically significant for 3 extracted

factors: Factor 2 [F(1, 243) = 1.870, P = 0.173]; Factor 3 [F(1, 243) = 0.358, P = 0.550];

and Factor 5 [F(1, 243) = 1.423, P = 0.234].

Table 40 Means of Subtotal Scores on the 8 Extracted Factors of the DLS / Function of
Gender

Extracted Factor	Gender	N	Mean	Standard Deviation
Factor 1	Women	129	19.05	5.36
	Men	118	20.99	5.66
	Total	247	19.98	5.58
Factor 2	Women	129	11.61	3.11
	Men	118	12.26	3.30
	Total	247	11.92	3.21
Factor 3	Women	129	12.70	2.60
	Men	118	13.03	2.98
	Total	247	12.86	2.79
Factor 4	Women	129	0.61	0.99
	Men	118	1.17	1.31
	Total	247	0.88	1.19
Factor 5	Women	129	0.75	1.13
	Men	118	0.93	1.10
	Total	247	0.84	1.12
Factor 6	Women	129	0.27	0.77
	Men	118	0.57	1.12
	Total	247	0.41	0.96
Factor 7	Women	129	1.15	1.09
	Men	118	1.44	1.06
	Total	247	1.29	1.08
Factor 8	Women	129	1.21	1.25
	Men	118	1.83	1.40
	Total	247	1.51	1.36

Summary statistics for subtotal scores on the Differential Loneliness Scale as

classified within sexual orientation categories are shown in Table 41.

Multivariately, the effect of sexual orientation was statistically significant [Wilks'

Lambda = 0.930, F(8, 236) = 2.207, P = 0.028].

Univariately, the effect of sexual orientation was statistically significant for 3

extracted factors: Factor 1 [$F_{(1, 243)}$ = 4.764, P = 0.030]; Factor 3 [$F_{(1, 243)}$ = 8.750, P

= 0.003]; and, Factor 8 [$F_{(1, 243)}$ = 9.746, P = 0.002].

Univariately, the effect of sexual orientation was not statistically significant for 5

extracted factors: Factor 2 [$F_{(1, 243)}$ = 2.125, P = 0.146]; Factor 4 [$F_{(1, 243)}$ = 2.864, P

= 0.092]; Factor 5 [$F_{(1, 243)}$ = 0.459, P = 0.499]; Factor 6 [$F_{(1, 243)}$ = 3.166, P = 0.076];

and, Factor 7 [$F_{(1, 243)}$ = 0.023, P = 0.880].

Table 41 Means of Subtotal Scores on the 8 Extracted Factors of the DLS / Function of
Sexual Orientation

Extracted Factor	Sexual Orientation	N	Mean	Standard Deviation
Factor 1	Lesbian/Gay	118	20.89	5.62
	Heterosexual	129	19.14	5.43
	Total	247	19.98	5.58
Factor 2	Lesbian/Gay	118	12.28	3.19
	Heterosexual	129	11.60	3.21
	Total	247	11.92	3.21
Factor 3	Lesbian/Gay	118	13.42	2.88
	Heterosexual	129	12.35	2.61
	Total	247	12.86	2.79
Factor 4	Lesbian/Gay	118	1.04	1.30
	Heterosexual	129	0.73	1.05
	Total	247	0.88	1.19
Factor 5	Lesbian/Gay	118	0.90	1.11
	Heterosexual	129	0.78	1.12
	Total	247	0.84	1.12
Factor 6	Lesbian/Gay	118	0.54	1.15
	Heterosexual	129	0.29	0.73
	Total	247	0.41	0.96
Factor 7	Lesbian/Gay	118	1.30	1.09
	Heterosexual	129	1.28	1.08
	Total	247	1.29	1.08
Factor 8	Lesbian/Gay	118	1.81	1.36
	Heterosexual	129	1.22	1.29
	Total	247	1.51	1.36

Summary statistics for subtotal scores on the Differential Loneliness Scale as

classified within sexual orientation and gender categories are shown in Tables 42.A and

42.B.

Multivariately, the gender by sexual orientation interaction effect was not

statistically significant [Wilks' Lambda = 0.976, F(8, 236) = 0.713, P = 0.680].

Univariately, the gender by sexual orientation interaction effect was not

statistically significant for all 8 extracted factors: Factor 1 [F(1, 243) = 0.006, P = 0.939];

Factor 2 [F(1, 243) = 0.889, P = 0.347]; Factor 3 [F(1, 243) = 0.098, P = 0.755]; Factor 4

[F(1, 243) = 0.174, P = 0.677]; Factor 5 [F(1, 243) = 0.348, P = 0.556]; Factor 6 [F(1,

243) = 0.415, P = 0.520]; Factor 7 [F(1, 243) = 0.153, P = 0.696]; and, Factor 8 [F(1,

243) = 0.267. P = 0.606].

Table 42.A Means of Subtotal Scores on the 8 Extracted Factors of the DLS / Factors 1 –
4 / Function of Sexual Orientation & Gender

Extracted Factor	Sexual Orientation	Gender	N	Mean	Std. Deviation
Factor 1	Lesbian/Gay	Women	54	19.91	5.60
		Men	64	21.72	5.54
		Total	118	20.89	5.62
	Heterosexual	Women	75	18.43	5.12
		Men	54	20.13	5.73
		Total	129	19.14	5.43
Factor 2	Lesbian/Gay	Women	54	12.19	3.27
		Men	64	12.36	3.14
		Total	118	12.28	3.19
	Heterosexual	Women	75	11.20	2.94
		Men	54	12.15	3.52
		Total	129	11.60	3.21
Factor 3	Lesbian/Gay	Women	54	13.24	2.60
		Men	64	13.56	3.11
		Total	118	13.42	2.88
	Heterosexual	Women	75	12.31	2.54
		Men	54	12.41	2.72
		Total	129	12.35	2.61
Factor 4	Lesbian/Gay	Women	54	0.72	1.12
		Men	64	1.31	1.39
		Total	118	1.04	1.30
	Heterosexual	Women	75	0.53	0.89
		Men	54	1.00	1.20
		Total	129	0.73	1.05

Table 42.B Means of Subtotal Scores on the 8 Extracted Factors of the DLS / Factors 5 – 8 / Function of Sexual Orientation & Gender

Extracted Factor	Sexual Orientation	Gender	N	Mean	Std. Deviation
Factor 5	Lesbian/Gay	Women	54	0.76	1.08
		Men	64	1.02	1.13
		Total	118	0.90	1.11
	Heterosexual	Women	75	0.75	1.18
		Men	54	0.83	1.06
		Total	129	0.78	1.12
Factor 6	Lesbian/Gay	Women	54	0.35	0.89
		Men	64	0.70	1.32
		Total	118	0.54	1.15
	Heterosexual	Women	75	0.21	0.66
		Men	54	0.41	0.81
		Total	129	0.29	0.73
Factor 7	Lesbian/Gay	Women	54	1.17	1.11
		Men	64	1.41	1.06
		Total	118	1.30	1.09
	Heterosexual	Women	75	1.13	1.08
		Men	54	1.48	1.06
		Total	129	1.28	1.08
Factor 8	Lesbian/Gay	Women	54	1.46	1.22
		Men	64	2.11	1.42
		Total	118	1.81	1.36
	Heterosexual	Women	75	1.03	1.25
		Men	54	1.50	1.31
		Total	129	1.22	1.29

Coping Questionnaire

A two-way between subjects MANOVA 2X2 design was performed on the data of this scale to compare the mean of 5 subtotal (or sub-scale) scores amongst the two gender and two sexual orientation sub-cultural groups. Summary statistics for subtotal (or sub-scale) scores on the Coping Questionnaire as classified within gender categories are shown in Table 43.

Hypothesis 3.A stated that there was no statistically significant gender effect on the Coping Questionnaire mean subtotal (or sub-scale) scores.

Multivariately, the effect of gender was not statistically significant [Wilks' Lambda = 0.980, F(5, 213) = 0.859, P = 0.510]. Thus, failed to reject hypothesis 3.A.

Univariately, the effect of gender was not statistically significant for any of the 5

coping strategy categories: 'Self-Enhancing Behaviors' [F(1, 217) = 0.694, P = 0.406];

'Behavioral Problem-Solving' [F(1, 217) = 2.147, P = 0.144]; 'Redefining Problem' [F(1,

217) = 0.286, P = 0.594]; 'Distraction' [F(1, 217) = 2.236, P = 0.136]; and, 'Cognitive

Problem-Solving' [F(1, 217) = 0.130, P = 0.719].

Table 43 Means of Subtotal Scores on the Coping Strategies / Function of Gender

Coping Strategy Category	Gender	N	Mean	Std. Deviation
Self-Enhancing Behaviors	Women	116	29.18	8.29
	Men	105	28.22	8.94
	Total	221	28.72	8.60
Behavioral Problem-Solving	Women	116	28.36	7.71
	Men	105	27.00	7.25
	Total	221	27.71	7.51
Redefining Problem	Women	116	21.52	7.21
	Men	105	20.86	7.08
	Total	221	21.20	7.14
Distraction	Women	116	17.41	4.95
	Men	105	16.34	5.43
	Total	221	16.91	5.20
Cognitive Problem-Solving	Women	116	17.83	4.73
	Men	105	17.58	4.81
	Total	221	17.71	4.76

Summary statistics for subtotal scores on the Coping Questionnaire as classified

within sexual orientation categories are shown in Table 44.

Hypothesis 3.B stated that there was no statistically significant sexual orientation

effect on the Coping Questionnaire mean subtotal (or sub-scale) scores.

Multivariately, the effect of sexual orientation was not statistically significant

[Wilks' Lambda = 0.951, F(5, 213) = 2.177, P = 0.058]. Thus, failed to reject hypothesis

3.B.

Univariately, the effect of sexual orientation was statistically significant for the

'Behavioral Problem-Solving' coping strategy category [F(1, 217) = 4.215, P = 0.041].

Univariately, the effect of sexual orientation was not statistically significant for

the remaining 4 coping strategy categories: 'Self-Enhancing Behaviors' [F(1, 217) =

0.818, P = 0.367]; 'Redefining Problem' [F(1, 217) = 0.054, P = 0.817]; 'Distraction'

[F(1, 217) = 1.567, P = 0.212]; and, 'Cognitive Problem-Solving' [F(1, 217) = 0.140, P =

0.709].

Table 44 Means of Subtotal Scores on the Coping Strategies / Function of Sexual
Orientation

Coping Strategy Category	Sexual Orientation	N	Mean	Std. Deviation
Self-Enhancing Behaviors	Lesbian/Gay	104	29.22	8.98
	Heterosexual	117	28.28	8.26
	Total	221	28.72	8.60
Behavioral Problem-Solving	Lesbian/Gay	104	28.75	7.64
	Heterosexual	117	26.79	7.29
	Total	221	27.71	7.51
Redefining Problem	Lesbian/Gay	104	21.01	7.19
	Heterosexual	117	21.38	7.13
	Total	221	21.20	7.14
Distraction	Lesbian/Gay	104	17.29	5.01
	Heterosexual	117	16.56	5.36
	Total	221	16.91	5.20
Cognitive Problem-Solving	Lesbian/Gay	104	17.82	5.00
	Heterosexual	117	17.62	4.55
	Total	221	17.71	4.76

Summary statistics for subtotal scores on the Coping Questionnaire as classified

within sexual orientation and gender categories are shown in Tables 45.A and 45.B.

Hypothesis 3.C stated that there was no statistically significant gender by sexual

orientation interaction effect on the Coping Questionnaire mean subtotal (or sub-scale)

scores.

Multivariately, the gender by sexual orientation interaction effect was statistically

significant [Wilks' Lambda = 0.933, F(5, 213) = 3.054, P = 0.011]. Thus, hypothesis 3.C

was rejected.

Univariately, the gender by sexual orientation interaction effect was statistically significant for the 'Redefining Problem' [$F(1, 217) = 6.371$, $P = 0.012$] and 'Distraction' [$F(1, 217) = 5.607$, $P = 0.019$] coping strategies categories.

Simple effects test for the 'Redefining Problem' coping strategy category indicated a statistically significant gender effect for the heterosexual group [$F(1, 137) = 5.05$, $P = 0.026$], but not for the lesbian/gay group [$F(1, 137) = 0.11$, $P = 0.738$]. A statistically significant sexual orientation effect was not found for women [$F(1, 137) = 0.02$, $P = 0.889$] and men [$F(1, 137) = 1.38$, $P = 0.242$] on this coping strategies category.

In reference to the 'Distraction' coping strategies category, simple effects test indicated a statistically significant gender effect for the heterosexual group [$F(1, 137) = 7.18$, $P = 0.008$], but not for the lesbian/gay group [$F(1, 137) = 0.16$, $P = 0.686$]. A statistically significant sexual orientation effect was not found for women [$F(1, 137) = 0.01$, $P=0.920$] and men [$F(1, 137) = 0.47$, $P = 0.494$] on this coping strategies category.

Univariately, the gender by sexual orientation interaction effect was not statistically significant for the remaining 3 coping strategy categories: 'Self-Enhancing Behaviors' [$F(1, 217) = 0.886$, $P = 0.348$]; 'Behavioral Problem-Solving' [$F(1, 217) = 0.135$, $P = 0.714$]; and, 'Cognitive Problem-Solving' [$F(1, 217) = 0.669$, $P = 0.414$].

Table 45.A Means of Subtotal Scores on the Coping Strategies, Function of Sexual Orientation & Gender

Coping Strategy Category	Sexual Orientation	Gender	N	Mean	Std. Deviation
Self-Enhancing Behaviors	Lesbian/Gay	Women	51	29.16	8.45
		Men	53	29.28	9.54
		Total	104	29.22	8.98
	Heterosexual	Women	65	29.20	8.24
		Men	52	27.13	8.22
		Total	117	28.28	8.26

Table 45.B Means of Subtotal Scores on the Coping Strategies / Function of Sexual Orientation & Gender

Coping Strategy Category	Sexual Orientation	Gender	N	Mean	Std. Deviation
Behavioral Problem-Solving	Lesbian/Gay	Women	51	29.31	8.02
		Men	53	28.21	7.29
		Total	104	28.75	7.64
	Heterosexual	Women	65	27.62	7.43
		Men	52	25.77	7.05
		Total	117	26.79	7.29
Redefining Problem	Lesbian/Gay	Women	51	20.04	6.69
		Men	53	21.94	7.58
		Total	104	21.01	7.19
	Heterosexual	Women	65	22.68	7.44
		Men	52	19.75	6.43
		Total	117	21.38	7.13
Distraction	Lesbian/Gay	Women	51	16.98	5.12
		Men	53	17.58	4.92
		Total	104	17.29	5.01
	Heterosexual	Women	65	17.75	4.83
		Men	52	15.08	5.67
		Total	117	16.56	5.36
Cognitive Problem-Solving	Lesbian/Gay	Women	51	17.67	4.97
		Men	53	17.96	5.07
		Total	104	17.82	5.00
	Heterosexual	Women	65	17.95	4.57
		Men	52	17.19	4.54
		Total	117	17.62	4.55

New Factor Structure of Coping Questionnaire

A two-way between subjects MANOVA 2X2 design was performed on the data of this scale to compare the mean of 5 subtotal scores (the 5 extracted factors, as found via factor analysis in the present study) amongst the two gender and two sexual orientation sub-cultural groups. Summary statistics for subtotal scores on the Coping Questionnaire as classified within gender categories are shown in Table 46.

Multivariately, the effect of gender was not statistically significant [Wilks' Lambda = 0.957, $F(5, 213)$ = 1.932, P = 0.090].

Univariately, the effect of gender was not statistically significant for any of the 5 extracted factors: Factor 1 [$F(1, 217)$ = 3.499, P = 0.063]; Factor 2 [$F(1, 217)$ = 0.904, P

= 0.343]; Factor 3 [F(1, 217) = 0.753, P = 0.387]; Factor 4 [F(1, 217) = 0.359, P = 0.549];

and, Factor 5 [F(1, 217) = 1.280, P = 0.259].

Table 46 Means of Subtotal Scores on the 5 Extracted Factors of the CQ / Function of
Gender

Extracted Factor	Gender	N	Mean	Std. Deviation
Factor 1	Women	116	41.62	12.32
	Men	105	38.41	12.82
	Total	221	40.10	12.63
Factor 2	Women	116	35.42	10.01
	Men	105	34.15	9.11
	Total	221	34.82	9.59
Factor 3	Women	116	14.44	6.13
	Men	105	13.91	5.90
	Total	221	14.19	6.01
Factor 4	Women	116	28.92	8.77
	Men	105	28.28	8.64
	Total	221	28.62	8.69
Factor 5	Women	116	14.87	5.96
	Men	105	15.61	5.84
	Total	221	15.22	5.90

Summary statistics for subtotal scores on the Coping Questionnaire as classified

within sexual orientation categories are shown in Table 47.

Multivariately, the effect of sexual orientation was statistically significant [Wilks'

Lambda = 0.934, F(5, 213) = 3.014, P = 0.012].

Univariately, the effect of sexual orientation was statistically significant for

Factor 3 [F(1, 217) = 11.761, P = 0.001].

Univariately, the effect of sexual orientation was not statistically significant for

the remaining 4 extracted factors: Factor 1 [F(1, 217) = 0.788, P = 0.376]; Factor 2 [F(1,

217) = 0.021, P = 0.886]; Factor 4 [F(1, 217) = 2.622, P = 0.107]; and, Factor 5 [F(1,

217) = 0.042, P = 0.838].

Table 47 Means of Subtotal Scores on the 5 Extracted Factors of the CQ / Function of Sexual Orientation

Extracted Factor	Sexual Orientation	N	Mean	Std. Deviation
Factor 1	Lesbian/Gay	104	40.72	13.28
	Heterosexual	117	39.54	12.07
	Total	221	40.10	12.63
Factor 2	Lesbian/Gay	104	34.86	9.66
	Heterosexual	117	34.79	9.57
	Total	221	34.82	9.59
Factor 3	Lesbian/Gay	104	15.61	6.20
	Heterosexual	117	12.93	5.57
	Total	221	14.19	6.01
Factor 4	Lesbian/Gay	104	29.57	8.20
	Heterosexual	117	27.77	9.06
	Total	221	28.62	8.69
Factor 5	Lesbian/Gay	104	15.27	5.99
	Heterosexual	117	15.18	5.85
	Total	221	15.22	5.90

Summary statistics for subtotal scores on the Coping Questionnaire as classified within sexual orientation and gender categories are shown in Table 48.

Multivariately, the gender by sexual orientation interaction effect was statistically significant [Wilks' Lambda = 0.933, $F_{(5, 213)}$ = 3.074, P = 0.011].

Univariately, the gender by sexual orientation interaction effect was statistically significant for Factor 5 [$F_{(1, 217)}$ = 12.562, P = 0.000]. Simple effects test indicated no statistically significant gender effect for the lesbian/gay group [$F_{(1, 137)}$ = 0.29, P = 0.594] and the heterosexual group [$F_{(1, 137)}$ = 3.00, P = 0.085]. A statistically significant sexual orientation effect was not found for women [$F_{(1, 137)}$ = 0.83, P = 0.365] and men [$F_{(1, 137)}$ = 0.57, P = 0.451].

Univariately, the gender by sexual orientation interaction effect was not statistically significant for the remaining 4 extracted factors: Factor 1[$F_{(1, 217)}$ = 2.189, P = 0.140]; Factor 2 [$F_{(1, 217)}$ = 0.379, P = 0.539]; Factor 3 [$F_{(1, 217)}$ = 0.080, P = 0.778]; and, Factor 4 [$F_{(1, 217)}$ = 1.048, P = 0.307].

Table 48 Means of Subtotal Scores on the 5 Extracted Factors of the CQ / Function of Sexual Orientation & Gender

Extracted Factor	Sexual Orientation	Gender	N	Mean	Std. Deviation
Factor 1	Lesbian/Gay	Women	51	41.06	13.21
		Men	53	40.40	13.46
		Total	104	40.72	13.28
	Heterosexual	Women	65	42.06	11.66
		Men	52	36.38	11.92
		Total	117	39.54	12.07
Factor 2	Lesbian/Gay	Women	51	35.08	10.52
		Men	53	34.64	8.85
		Total	104	34.86	9.66
	Heterosexual	Women	65	35.69	9.67
		Men	52	33.65	9.42
		Total	117	34.79	9.57
Factor 3	Lesbian/Gay	Women	51	15.84	6.75
		Men	53	15.38	5.67
		Total	104	15.61	6.20
	Heterosexual	Women	65	13.34	5.39
		Men	52	12.42	5.80
		Total	117	12.93	5.57
Factor 4	Lesbian/Gay	Women	51	29.31	8.02
		Men	53	29.81	8.44
		Total	104	29.57	8.20
	Heterosexual	Women	65	28.62	9.36
		Men	52	26.71	8.64
		Total	117	27.77	9.06
Factor 5	Lesbian/Gay	Women	51	13.41	5.68
		Men	53	17.06	5.78
		Total	104	15.27	5.99
	Heterosexual	Women	65	16.02	5.96
		Men	52	14.13	5.58
		Total	117	15.18	5.85

CHAPTER FIVE

DISCUSSION

The objective of the current study was to examine some of the characteristics of

the interpersonal loneliness and coping experience of persons of selected sub-cultures

(gender and sexual orientation). More specifically, the purpose was to explore the

influence of sub-culture on the nature and degree of interpersonal loneliness and coping

with its experience.

The findings of the present research were based on the questions raised by the

researcher, the scales chosen and employed – thus, interpretation of results was guided by

the explicit and implicit underlying theoretical assumptions of these scales – the type of

data collected (i.e., quantitative), and the type of analyses performed.

The findings of the current study will be presented in depth within eight

segments: Factor analyses of scales; reliability analyses of scales; analyses (2X2 design)

of sub-cultural group (gender and sexual orientation) scores; theoretical integration of

findings; contribution of present study; limitations of present study; future research

directions; and, implications for counselling. Moreover, several of these eight segments

will consist of several sub-sections, as has been deemed appropriate.

Factor Analyses of Scales

Results of factor analyses indicated that a factor structure underlies the 20, 61,

and 27 items of the UCLA Loneliness Scale (Version 3), the Differential Loneliness

Scale, and the Coping Questionnaire, respectively. Findings of the current study,

however, have not supported the factor structure of these scales as found in previous

research.

UCLA Loneliness Scale (Version 3)

In the present study, the varimax rotation indicated that the 20 items of the UCLA Loneliness Scale (Version 3) revealed 3 underlying factors. Likewise, the factor analysis of this scale, in previous research (Russell, 1996), has also indicated three factors, with one reflecting one global factor, and the other two the direction of item wording (i.e., negative vs. positive).

To view the comparison of items comprising each factor on the UCLA Loneliness Scale (Version 3), as found in previous research versus those of the present study, see Table 49.

Table 49 Items Representing Each Extracted Factor / UCLA Loneliness Scale (Version 3)

Reference	Factor	Item Numbers
Russell, 1996	Factor 1	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
	Factor 2	2, 3, 4, 7, 8, 11, 12, 13, 14, 17, 18
	Factor 3	1, 5, 6, 9, 10, 19, 20
Present Study	Factor 1	2, 3, 4, 7, 12, 13, 15, 19, 20
	Factor 2	1, 5, 6, 9, 10, 16
	Factor 3	8, 11, 14, 17, 18

The three factors extracted in the current study somewhat resembled those of Russell's (1996) research with several exceptions. In the present analysis, Factor 1 resembled Russell's (1996) Factor 1 with the exception that items #1, #5, #6, #8, #9, #10, #11, #14, #16, #17, and #18 have not loaded on this factor in the current study. Factor 1 additionally resembled Russell's (1996) Factor 2, with the exception that Factor 1 has not included items #8, #11, #14, #17, and #18. In the current factor structure, the aforementioned items comprised Factor 3. Additionally, items #19 and #20 also loaded on Factor 1 of the current study, but loaded on Factor 3 in Russell's (1996) research.

Factor 2, in the current research, resembled Russell's (1996) Factor 3, with the

exception that it had not included items #19 and #20, but had additionally included item #16.

Close examination of the items comprising each factor yielded the following conclusions. The items comprising Factor 1 primarily appeared to represent loneliness of an emotional/intimate nature (i.e., "How often do you feel that you are no longer close to anyone?").

Items comprising Factors 2 and 3 generally seemed to reflect loneliness of a social nature. Collectively, these items appeared to reflect the degree of one's social integration (i.e., feeling a sense of commonality and belonging with others) and, somewhat, one's pattern of interaction (i.e., feeling outgoing or shy). However, items comprising Factor 2 appeared to reflect more so loneliness of a social/emotional nature connected to persons within one's social group or network (i.e., "How often do you feel that you are 'in tune' with the people around you?"), and items comprising Factor 3 generally appeared to reflect loneliness of a social/isolation nature related to the bigger community or social structure (i.e., "How often do you feel isolated from others?"). To view the compiled items representing each extracted factor, see Appendix R.

Consequently, although research has indicated that the precise factorial structure of this scale remains debatable, in general, numerous factor analytic studies indicated that the factor content of this scale appears to reflect the themes as found in the present study: Lack of intimate other (s); absence of social groups or networks in which one may participate in; and, feeling of not belonging or being affiliated with others (see Hartshorne, 1993).

The contrasted factor structure of this scale, as detected in the present research, may have been partly due to three conceivable reasons: The characteristics of the

population having comprised the sample of the present study; the disparate analyses been

utilized in Russell's (1996) study; and, possibly, due to the negative item responses been

converted to positive ones prior to having them entered into the data base for analyses.

The implication of the factor structure of this scale possibly being affected by the

population characteristics is that the nature of the loneliness experience may differ among

diverse populations, although the number of factors may remain invariable (Russell,

1996). Consequently, this possibility may challenge the identification of the scale as a

unidimensional measure.

Differential Loneliness Scale

Factor analysis of the 61 items of the Differential Loneliness Scale revealed 14

underlying factors in the current research. However, due to reasons previously mentioned

in the foregoing chapter, 6 factors were discarded, leaving 8 for consideration.

In a previous study (Schmidt & Sermat, 1983), factor analysis of the original 60-

item Differential Loneliness Scale indicated that the items represented primarily 4

factors, with each factor reflecting one type of social relationship.

To view the comparison of items comprising each factor of the Differential

Loneliness Scale, as found in previous research versus those of the present study, see

Table 50. Note that, due to the addition of one more item (#8) to the Differential

Loneliness Scale administered in the current study, commencing with #8, the identified

ordered number of an item on the original 60-item version of the Differential Loneliness

Scale was increased by 1 (i.e., #8 became #9, #9 became # 10, etc.). Furthermore, since

item #8 was not an item on the original Differential Loneliness Scale, it was not reported

in the table.

Table 50 Items Representing Each Extracted Factor / Differential Loneliness Scale

Reference	Factor	Item Numbers
Schmidt & Sermat, 1983	Familial	1, 6, 11, 15, 21, 26, 30, 33, 35, 37, 41, 43, 45, 48, 51, 55, 58, 60
	Friendship	3, 4, 7, 12, 14, 17, 20, 23, 24, 25, 27, 31, 34, 38, 40, 44, 47, 49, 52, 54, 56, 61
	Romantic	5, 10, 16, 19, 22, 29, 32, 36, 42, 46, 53, 59
	Group	2, 9, 13, 18, 28, 39, 50, 57
Present Study	Factor 1	6, 15, 21, 24, 26, 30, 35, 37, 41, 43, 45, 48, 51, 55, 58, 60
	Factor 2	5, 10, 19, 22, 29, 32, 42, 46, 59
	Factor 3	4, 20, 23, 25, 27, 40
	Factor 4	3, 14, 38, 54
	Factor 5	13, 28, 57
	Factor 6	7, 12, 49, 56, 61
	Factor 7	17, 44, 47
	Factor 8	1, 11, 16, 33

In the current analysis, Factor 1 was similar to that of Schmidt and Sermat's (1983) 'Familial' factor, with the following exception: Items #1, #11, and #33 have not loaded on this factor in the current analysis, but item #24 has. Items #1, #11, and #33 loaded on Factor 8 in the present study, while item #24 loaded on the 'Friendship' factor of Schmidt and Sermat's (1983) study.

Factor 2 was similar to that of Schmidt and Sermat's (1983) 'Romantic-Sexual' factor, with the exception that items #16, #36, and #53 have not loaded on this factor in the present study. Rather, item #16 loaded on Factor 8, and items #36 and #53 were discarded, in the current research.

The items comprising Factor 3 were items that partially comprised the 'Friendship' factor in Schmidt and Sermat's (1983) research. However, Schmidt and Sermat's (1983) 'Friendship' factor additionally included the following items: #3, #7, #12, #14, #17, #24, #31, #34, #38, #44, #47, #49, #52, #54, #56, and #61. Items #3, #14, #38, and #54 comprised Factor 4, items #7, #12, #49, #56, and #61 comprised Factor 6,

items #17, #44, and #47 comprised Factor 7, and items #31, #34, and #52 were discarded in the current study.

Factor 5 (items #13, #28, and #57) partially comprised Schmidt and Sermat's (1983) 'Group/Community' factor. However, the 'Group/Community' factor also included items #2, #9, #18, #39, and #50.

Examination of the items comprising each of the 8 extracted factors yielded the following conclusions. Collectively, items comprising Factors 1 and 8 were associated with familial relations. The items of Factor 1 primarily appeared to reflect numerous and diverse dimensions of interpersonal interaction (i.e., approach vs. avoidance, cooperation, perceived evaluation, and communication).

The items of Factor 8 generally seemed to reflect 2 dimensions of interaction (approach vs. avoidance and communication). Furthermore, items comprising Factor 8 additionally reflected the communication of intimate or emotional content (i.e., "I am not very open with members of my family," "I find it easy to express feelings of affection toward members of my family," and "I find it difficult to tell anyone that I love him or her.").

Items comprising Factor 2 were associated with numerous and diverse dimensions of interpersonal interaction within romantic-sexual relations (i.e., presence or absence of relationship, cooperation, perceived evaluation, and communication).

Items comprising Factors 3, 4, 6, and 7 were associated with friendship relations. Factor 3 items generally appeared to reflect the interpersonal interaction dimensions of perceived evaluation and communication (i.e., "I don't feel that I can turn to my friends...for help when I need it," "Most of my friends understand my motives and

reasoning."). Additionally, several of these items reflected perceived social support from friends.

Items comprising Factor 4 generally appeared to reflect 3 dimensions of interpersonal interaction (i.e., approach vs. avoidance, perceived evaluation, and communication). The following were examples of these items: "I usually wait for a friend to call me up and invite me out before making plans...."; "My trying to have friends...seldom succeeds the way I would like it to."; and, "...I am generally able to express both positive and negative feelings."

The items of Factor 6 seemed to reflect 2 dimensions of interpersonal interaction: Presence or absence of relationship (i.e., "I have at least one real friend."); and, perceived evaluation (i.e.. "My friends don't seem to stay interested in me for long."). In addition. several items of Factor 6 reflected perceived social support from friends (i.e.. "Some of my friends will stand by me in almost any difficulty.").

The items of Factor 7 appeared to reflect the interpersonal interaction dimensions of perceived presence or absence of friendship relations, perceived evaluation, and communication. In general, however, the predominant theme of these items appeared to be the perceived presence or absence of friendship relations.

Items comprising Factor 5 were associated with an individual's perceived evaluation of her or his community. In other words, these items were associated with how socially integrated one perceived one self to be within one's community. Community may have been defined in numerous ways. For example, it may have been interpreted as pertaining to one's social network structure, the lesbian/gay or bisexual community, and/or the overall society.

To view the compiled items representing each extracted factor, see Appendix S.

Although factor analysis of this scale yielded 8 distinct factors, note that, for

practical purposes and due to the nature of the study, these factors will not be labeled,

but, rather, will be presented in context with their themes in the segment concerning

analyses (2X2 design) of sub-cultural group scores. For example, when referring to

Factor 5, it will be presented as Factor 5 associated with group/community relations.

The distinct factor structure of the Differential Loneliness Scale, as found in the

current research, may have been partially due to the characteristics of the population

having comprised the sample of the current study.

Coping Questionnaire

Results indicated that the 27 items of the Coping Questionnaire revealed 7

underlying factors. Due to the reasoning provided in the preceding chapter, only 5 factors

were considered for reporting.

In Russell et al.,'s (1984) study, factor analysis of this scale also indicated that the

items represented 5 factors. To view the comparison of items comprising each factor on

the Coping Questionnaire, as found in previous research versus those of the present

study, see Table 51.

Table51 Items Representing Each Extracted Factor / Coping Questionnaire

Reference	Factor	Item Numbers
Russell et al., 1984	Self-Enhancing Behaviors	4, 5, 12, 13, 20
	Behavioral Problem-Solving	8, 11, 16, 19, 24
	Redefining Problem	6, 7, 14, 15
	Distraction	9, 17, 21
	Cognitive Problem-Solving	2, 10, 18
Present Study	Factor 1	12, 13, 14, 15, 16, 17, 19
	Factor 2	8, 9, 10, 11, 20, 21
	Factor 3	22, 23, 24
	Factor 4	1, 2, 3, 4, 5
	Factor 5	6, 7, 18

Upon viewing Table 51, it is evident that the factor structure of the Coping

Questionnaire of the current study greatly differed from that of Russell et al.,'s

(1984) research.

The following conclusions were drawn from the examination of the items

comprising each of the 5 extracted factors. The items of Factor 1 represented cognitive

strategies utilized to cope with and/or to alleviate the loneliness experience. This solitary

involvement primarily included engaging in positive self cognitive talk and normalizing

the experience (i.e., "Told yourself that most other people are lonely at one time or

another."), reassuring oneself that the situation would improve (i.e., "Told yourself that

your loneliness would not last forever, that things would get better."), reflecting on

possible solutions (i.e., "Thought about how to change your loneliness."), and perceiving

the situation positively (i.e., "Thought about possible benefits of your experience of

loneliness....").

Factor 2 was comprised of items reflecting both cognitive and behavioral coping

strategies. The cognitive items were associated with reflecting on positive personal

qualities (i.e., "Thought about good qualities that you possess....") and personal

successes (i.e., "Thought about things you can do extremely well...."). The behavioral

items reflected active engagement in activities for leisure purposes or personal growth

(i.e., "Actually done something you are very good at...," "Worked particularly hard to

succeed at some activity...."), or in activities reflecting the continuation of attending to

daily responsibilities, and/or that may have assisted one to escape from the loneliness

experience temporarily (i.e., "Taken your mind off feeling lonely by concentrating on

work....").

The behavioral oriented items of Factor 3 reflected the active social actions that individuals engaged in, in attempt to alleviate their loneliness experience (i.e., "Attended a social gathering to meet new people, " Attended organized recreational activities to meet new people.").

Factor 4 was comprised of items reflecting both cognitive and behavioral coping strategies. The cognitive items reflected distracting oneself from the loneliness experience either as a means to continue attending to daily responsibilities, or to temporarily escape from the experience (i.e., "Taken your mind off feeling lonely by deliberately thinking about other things...."), and engaging in reflection as to possible solutions to the experience (i.e., "Tried to figure out why you were lonely," "Thought about things you could do to overcome your loneliness."). The behavioral items reflected active engagement in leisure and extracurricular activities (i.e., "Taken your mind off feeling lonely by doing some physical activity...." "Taken your mind off feeling lonely through some mental activity....").

The behavioral oriented items of Factor 5 reflected the activities engaged in, in attempt to give rise to personal trait changes (i.e., "Done something to make yourself more physically attractive to others...."), and to attain personal development and growth (i.e., "Done something to improve your social skills...." "Done something to make yourself a more out-going person.").

To view the compiled items representing each extracted factor, see Appendix T.

Although the factor analysis of this scale yielded 5 distinct extracted factors, once again, for practical purposes, these factors will not be labeled, but, rather, will be presented in context with their themes in the segment concerning analyses (2X2 design)

of sub-cultural group scores. For example, when referring to Factor 5, it will be presented as Factor 5 associated with activities engaged in to bring on personal trait changes and to attain personal development and growth.

Once again, perhaps the presently identified factor structure of this scale differed from that of Russell et al.,'s (1984) study due to the characteristics of the sample of the current study.

Reliability Analyses of Scales

Despite underlying theoretical differences (i.e., unidimensional vs. multidimensional conceptualizations of loneliness), the analyses of the present study indicated that both the UCLA Loneliness Scale (Version 3) and the Differential Loneliness Scale have high reliability. Furthermore, the 4 relationship sub-scales of the Differential Loneliness Scale were demonstrated to have adequate to high reliability.

Previous studies have yielded comparable alpha values for the UCLA Loneliness Scale (Version 3) and the Differential Loneliness Scale. To view the comparison of alpha values yielded in the present study with those found in previous research, see Tables 52 and 53, respectively.

Table 52 Psychometric Properties (Reliability) / UCLA Loneliness Scale (Version 3)

Reference	Total Scale α
Constable & Russell, 1986	.94
Russell, Altmaier, & Van Velzen, 1987	.89
Russell & Cutrona, 1991	.89
Russell, Kao, & Cutrona, 1987, cited in Russell, 1996	.92
Present Study	.93

Table 53 Psychometric Properties (Reliability) / Differential Loneliness Scale

Reference	Familial α	Friendship α	Romantic α	Group α	Total Scale α
Kalliopuska & Laitinen, 1987	*	*	*	*	.92
Kalliopuska & Laitinen, 1991	**	**	*	*	.92
Schmitt & Kurdek, 1985 (Students)	.88	.76	.89	.61	*
Schmitt & Kurdek, 1985 (Elderly Women)	.83	.82	.85	.46	*
Schmidt & Sermat, 1983	.70	.72	.71	.73	.92
Present Study	.91	.87	.91	.75	.94

Note: Values that were not presented in studies were reported as '*.'

Results further indicated the high reliability of the Coping Questionnaire (α = 0.90). Reliability analysis of the 5 sub-scales of the Coping Questionnaire, however, indicated low to moderate reliability (Cronbach alphas ranging from 0.54 to 0.75).

Previous research has not yielded comparable alpha values for the Coping Questionnaire. To view the comparison of alpha values yielded in the present study with those found in Russell et al..'s (1984) research, see Table 54.

Table 54 Psychometric Properties (Reliability) / Coping Questionnaire

Reference	Self-Enhancing Behaviors α	Behavioral Problem-Solving α	Redefining Problem α	Distraction α	Cognitive Problem-Solving α
Russell et al., 1984	.83	.85	.77	.70	.80
Present Study	.75	.63	.62	.61	.54

Finally, reliability analyses of the 3, 8, and 5 extracted factors of the three scales indicated low to high reliabilities. Findings indicated that the 3 extracted factors of the UCLA Loneliness Scale (Version 3) have adequate to high reliabilities (Cronbach alphas ranging from 0.79 to 0.89). The 8 extracted factors of the Differential Loneliness Scale were demonstrated to have low to high reliabilities (Cronbach alphas ranging from 0.58

to 0.94). Reliability analysis of the 5 extracted factors of the Coping Questionnaire

indicated moderate to adequate reliabilities (Cronbach alphas ranging from 0.70 to 0.85).

Analyses (2X2 Design) of Sub-Cultural Group (Gender & Sexual Orientation) Scores

In general, the findings of the present research suggested that sub-culture appears

to influence the nature and degree or intensity of the interpersonal loneliness experience.

That an individual's culture (i.e., ethnicity) has an influence on her or his loneliness

experience, has been previously founded by research conducted by Rokach and Sharma

(1996). However, it seems that the same can not be stated in regards to coping with the

loneliness experience. With several exceptions, in general, the results of the current study

suggested that persons amongst the selected sub-cultures cope somewhat similarly with

their experience of loneliness, applying relatively similar cognitive/behavioral strategies,

at a relatively equal frequency.

In the following segment, for the purposes of clarity, sub-cultural group results

will be presented within 9 sections: UCLA Loneliness Scale (Version 3); new factor

structure of UCLA Loneliness Scale (Version 3); summary of UCLA Loneliness Scale

(Version 3) results; Differential Loneliness Scale; new factor structure of Differential

Loneliness Scale; summary of Differential Loneliness Scale results; Coping

Questionnaire; new factor structure of Coping Questionnaire; and, summary of Coping

Questionnaire results.

UCLA Loneliness Scale (Version 3)

Univariately, the effect of gender was not statistically significant (P = 0.059) on

the total score of the UCLA Loneliness Scale (Version 3). Findings indicated that the

women group (M = 43.36) and the men group (M = 46.29) scored comparably on the

scale. This suggested that the women and men of the current sample were experiencing a comparable degree or intensity of loneliness. This finding compares with the results of previous studies having utilized this particular version of the UCLA Loneliness Scale (i.e., Constable & Russell, 1986; Russell, Altmaier, & Van Velzen, 1987; Russell & Cutrona, 1991).

However, an examination of the mean scores indicated that, men, as a group, obtained a slightly higher mean score than the women group, making this finding comparable to other research of similar results [i.e., original UCLA Loneliness Scale (Solano, 1980; Solano et al., 1982 (Study 1)); revised UCLA Loneliness Scale (Bell, 1991; Wilson et al., 1992 (adult sample))].

Univariately, the effect of sexual orientation was statistically significant ($P = 0.018$). The lesbian/gay group ($M = 46.58$) scored statistically significantly higher, and, hence, were assumed to have been experiencing a statistically significantly higher degree of loneliness, than the heterosexual group ($M = 43.09$) on this scale.

Univariately, the gender by sexual orientation interaction effect was not statistically significant ($P = 0.868$). That is, the women and men of the lesbian/gay group, and the women and men of the heterosexual group, have not differed in terms of the degree of loneliness experienced. This also indicated that, the women of the lesbian/gay and heterosexual groups, and the men of the lesbian/gay and heterosexual groups have not differed in terms of the degree of loneliness experienced.

New Factor Structure of UCLA Loneliness Scale (Version 3)

Multivariately, the effect of gender was statistically significant ($P = 0.030$).

Univariately, the effect of gender was statistically significant for Factor 1 ($P = 0.013$).

The women group ($M = 19.05$) scored statistically significantly lower on Factor 1, thus,

suggesting they have experienced a statistically significantly lower degree of loneliness of an emotional/intimate nature, than the men group (M = 20.99).

Univariately, the effect of gender was not statistically significant for Factor 2 (P = 0.173) and Factor 3 (P = 0.550). This suggested that the two groups were experiencing a comparable degree of loneliness of a social/emotional nature (connected to persons within their social network), and of a social/isolation nature (related to the bigger community or societal level). Examination of the mean scores on these two factors, however, indicated that the men group scored slightly higher than the women group.

Multivariately, the effect of sexual orientation was statistically significant (P = 0.021). Univariately, the effect of sexual orientation was statistically significant for Factor 1 (P = 0.030) and Factor 3 (P = 0.003). The lesbian/gay group (M = 20.89) scored statistically significantly higher on Factor 1, and, thus, suggesting they have experienced a statistically significantly greater degree of loneliness of an emotional/intimate nature, than the heterosexual group (M = 19.14). Additionally, the lesbian/gay group (M = 13.42) scored statistically significantly higher on Factor 3, hence, suggesting they have experienced a statistically significantly greater degree of loneliness of a social/isolation nature, than the heterosexual group (M = 12.35).

Univariately, the effect of sexual orientation was not statistically significant for Factor 2 (P = 0.146). This suggested a comparable degree of loneliness of a social/emotional nature experienced by members of these two sexual orientation groups. Examination of the mean scores on this factor indicated that the lesbian/gay group scored slightly higher than the heterosexual group.

Multivariately, the gender by sexual orientation interaction effect was not statistically significant (P = 0.354). Univariately, the gender by sexual orientation interaction effect was not statistically significant for any of the three extracted factors: Factor 1 (P = 0.939); Factor 2 (P = 0.347); and, Factor 3 (P = 0.755). Thus, the women and men of the lesbian/gay group, and the women and men of the heterosexual group, have not differed in terms of the experienced degree of loneliness of an emotional/intimate, social/emotional, and social/isolation nature. Additionally, the women of the lesbian/gay and heterosexual groups, and the men of the lesbian/gay and heterosexual groups, have not differed in terms of the experienced degree of loneliness of an emotional/intimate, social/emotional, and social/isolation nature.

Summary of UCLA Loneliness Scale (Version 3) Results

In summary, although the effect of gender was not statistically significant on the total score of the UCLA Loneliness Scale (Version 3), a statistically significant gender effect was detected on Factor 1 of the new factor structure of this scale. This suggested that the degree or intensity of the loneliness experience of the women and men was comparable when considering the total of all items of this scale, and on items reflecting loneliness of a social/emotional and social/isolation nature. However, this further suggested that the degree of the loneliness experience differed statistically significantly amongst the women and men on items reflecting loneliness of an emotional/intimate nature. Together these findings suggested that loneliness appears to be a multidimensional phenomenon, and that further attention on gender differences may be warranted.

Furthermore, findings indicated that the effect of sexual orientation was statistically significant on both the total items of this loneliness measure, and on Factors 1 and 3 of the new factor structure of this scale. This suggested that the degree of the loneliness experience of the lesbian/gay group and the heterosexual group differed statistically significantly when considering the total of all items of this scale, and on items reflecting loneliness of an emotional/intimate and social/isolation nature. This further suggested that the degree of loneliness of a social/emotional nature was comparable amongst the two sexual orientation groups. Once again, these findings appear to support a multidimensional conceptualization of loneliness, and suggest that further exploration of sexual orientation differences may be warranted. Moreover, results also implied that, within this sociocultural context, sexual orientation, perhaps more so than gender, appears to be an important moderating factor in the experience of loneliness.

Finally, the gender by sexual orientation interaction effect was not statistically significant on neither the total items of this scale, nor on its new factor structure as found in the present study via factor analysis.

Differential Loneliness Scale

Although it has been previously noted that the interpretation of results is limited if based on the total scores of the Differential Loneliness Scale, for the purposes of comparing the results of the present study with those of others, the findings of the total scale scores will also be presented.

Univariately, the effect of gender was statistically significant ($P = 0.000$). Women, as a group ($M = 15.26$), scored statistically significantly lower than the men group ($M = 22.21$) on the total Differential Loneliness Scale score. This suggested that

the women group was experiencing statistically significantly greater satisfaction in general with the 4 social relationships specified on this scale, and, thus, experiencing statistically significantly less loneliness than the men group. This finding is comparable to those of previous research having employed this loneliness measure (i.e., Schmidt & Sermat, 1983; Schmitt & Kurdek, 1985).

Regarding each of the four particular relationships specified on this scale, multivariately, the effect of gender was statistically significant (P = 0.001). Univariately, the effect of gender was statistically significant for all 4 relations: 'Familial' (P = 0.025); 'Friendship' (P = 0.000); 'Romantic-Sexual' (P = 0.001); and, 'Group/Community' (P = 0.002). Women, as a group, scored statistically significantly lower than men on all four relationship sub-categories of the Differential Loneliness Scale: 'Familial' [women (M = 5.05), men (M = 6.84)]; 'Friendship' [women (M = 4.17), men (M = 6.54)]; 'Romantic-Sexual' [women (M = 4.33), men (M = 6.20)]; and, 'Group/Community' [women (M = 1.71), men (M = 2.63)]. This suggested that the women, as a group, were experiencing statistically significantly greater satisfaction than men with these 4 relationships in general.

The above stated results compare with the findings of Schmitt and Kurdek's (1985) study, in that males were found to express statistically significantly less satisfaction than females with familial, friendship, and group/community relations. The results of the current study, however, differed from those of Schmitt and Kurdek's (1985) research, in that the women were furthermore found to be experiencing statistically significantly greater satisfaction than the men with their romantic relations.

Univariately, the effect of sexual orientation was statistically significant (P =

0.008). The lesbian/gay group (M = 21.20) scored statistically significantly higher than

the heterosexual group (M = 16.18) on the total Differential Loneliness Scale score. This

suggested that the lesbian/gay group was, in general, experiencing statistically

significantly less satisfaction with the 4 social relations indicated on this scale, and,

hence, experiencing statistically significantly greater loneliness, than the heterosexual

group.

Regarding each of the four specified social relations on this scale, multivariately,

the effect of sexual orientation was statistically significant (P = 0.016). Univariately, the

effect of sexual orientation was statistically significant for 'Familial' relations (P =

0.000). The lesbian/gay group (M = 7.23) scored statistically significantly higher than the

heterosexual group (M = 4.69) on the 'Familial' relations sub-scale, suggesting that the

lesbian/gay group was experiencing statistically significantly less satisfaction with this

social relationship.

Univariately, the effect of sexual orientation was not statistically significant for

the remaining three social relations: 'Friendship' (P = 0.138); 'Romantic-Sexual' (P =

0.274); and, 'Group/Community' (P = 0.139). This suggested comparable satisfaction

amongst the two sexual orientation groups with these 3 types of relationships.

Examination of the mean scores indicated that the lesbian/gay sexual orientation group

scored slightly higher than the heterosexual group on these 3 relations.

Univariately, the gender by sexual orientation interaction effect was not

statistically significant (P = 0.974) for the total Differential Loneliness Scale score.

Hence, the women and men of the lesbian/gay group, and the women and men of the

heterosexual group, have not differed in terms of expressed satisfaction with their familial, friendship, romantic-sexual, and group/community relations in general. In addition, the women of the lesbian/gay and heterosexual groups, and the men of the lesbian/gay and heterosexual groups, have not differed in terms of expressed satisfaction with the four specified social relations in general.

Regarding each of the 4 specified relations, multivariately, the gender by sexual orientation interaction effect was not statistically significant (P = 0.978). Univariately, the gender by sexual orientation interaction effect was not statistically significant for any of the 4 relationships: 'Familial' (P = 0.897); 'Friendship' (P = 0.858); 'Romantic-Sexual' (P = 0.688); and, 'Group/Community' (P = 0.893). Thus, for each of the 4 relations, regardless of gender, neither the lesbian/gay group nor the heterosexual group differed in terms of expressed satisfaction. Furthermore, regardless of sexual orientation, neither the women group nor the men group differed in terms of expressed satisfaction with each of the 4 relations.

New Factor Structure of Differential Loneliness Scale

Multivariately, the effect of gender was statistically significant (P = 0.001). Univariately, the effect of gender was statistically significant for 5 of the 8 extracted factors: Factor 1 (P = 0.013); Factor 4 (P = 0.000); Factor 6 (P = 0.026); Factor 7 (P = 0.035); and, Factor 8 (P = 0.001). Women, as a group, scored statistically significantly lower than the men group on these 5 factors: Factor 1 [women (M = 19.05), men (M = 20.99)]; Factor 4 [women (M = 0.61), men (M = 1.17)]; Factor 6 [women (M = 0.27), men (M = 0.57)]; Factor 7 [women (M = 1.15), men (M = 1.44)]; and, Factor 8 [women (M = 1.21), men (M = 1.83)].

Regarding Factors 1 and 8, findings suggested that the women group was statistically significantly more satisfied than the men group with 4 dimensions of interpersonal interaction within their 'Familial' relations: Approach vs. avoidance; cooperation; perceived evaluation; and, communication (i.e., the communication of intimate or emotional content). Regarding Factors 4, 6, and 7, findings suggested that the women group was statistically significantly more satisfied than the men group with 4 interpersonal interaction dimensions within their 'Friendship' relations: Presence vs. absence of relationships; approach vs. avoidance; perceived evaluation (i.e., support); and, communication.

Univariately, the effect of gender was not statistically significant for 3 extracted factors: Factor 2 (P = 0.173); Factor 3 (P = 0.550); and, Factor 5 (P = 0.234). The women group and the men group scored comparably on these 3 factors.

Regarding Factor 2, findings suggested that the women group and the men group were comparably satisfied with 4 dimensions of interpersonal interaction within their 'Romantic-Sexual' relations: Presence or absence of relationship; cooperation; perceived evaluation; and, communication. As for Factor 3, results suggested that the two gender groups were comparably satisfied with 2 interpersonal interaction dimensions within their 'Friendship' relations: Perceived evaluation (i.e., support), and communication. In respect to Factor 5, findings suggested that the two gender groups were comparably satisfied with their relationship with 'Groups' or the 'Community.'

Multivariately, the effect of sexual orientation was statistically significant (P = 0.028). Univariately, the effect of sexual orientation was statistically significant for 3 extracted factors: Factor 1 (P = 0.030); Factor 3 (P = 0.003); and, Factor 8 (P = 0.002).

The lesbian/gay group scored statistically significantly higher than the heterosexual

sexual orientation group on these extracted factors: Factor 1[lesbian/gay (M = 20.89),

heterosexual (M = 19.14)]; Factor 3 [lesbian/gay (M = 13.42), heterosexual (M = 12.35)];

and, Factor 8 [lesbian/gay (M = 1.81), heterosexual (M = 1.22)].

In respect to Factors 1 and 8, findings suggested that the lesbian/gay group was

statistically significantly less satisfied than the heterosexual group with 4 dimensions of

interpersonal interaction within their 'Familial' relations: Approach vs. avoidance;

cooperation; perceived evaluation; and, communication (i.e., the communication of

intimate or emotional content). Regarding Factor 3, findings suggested that the

lesbian/gay group was statistically significantly less satisfied than the heterosexual group

with 2 interpersonal interaction dimensions within their 'Friendship' relations: Perceived

evaluation (i.e., support), and communication.

Univariately, the effect of sexual orientation was not statistically significant for

the remaining 5 extracted factors: Factor 2 (P = 0.146); Factor 4 (P = 0.092); Factor 5 (P

= 0.499); Factor 6 (P = 0.076); and, Factor 7 (P = 0.880). The lesbian/gay group and the

heterosexual group scored comparably on these factors.

As to Factor 2, results suggested that the lesbian/gay and heterosexual sexual

orientation groups were comparably satisfied with 4 dimensions of interpersonal

interaction within their 'Romantic-Sexual' relations: Presence or absence of relationship;

cooperation; perceived evaluation; and, communication. Regarding Factors 4, 6, and 7,

findings suggested that the 2 groups were comparably satisfied with 4 interpersonal

interaction dimensions within their 'Friendship' relations: Presence vs. absence of

relationships; approach vs. avoidance; perceived evaluation (i.e., support); and,

communication. In respect to Factor 5, findings suggested that the two sexual orientation groups were comparably satisfied with their relationship to 'Groups' or the 'Community.' Examination of the mean scores indicated that the lesbian/gay sexual orientation group scored slightly higher than the heterosexual group on these 5 factors.

Multivariately, the gender by sexual orientation interaction effect was not statistically significant ($P = 0.680$). Univariately, the gender by sexual orientation interaction effect was not statistically significant for any of the 8 extracted factors: Factor 1 ($P = 0.939$); Factor 2 ($P = 0.347$); Factor 3 ($P = 0.755$); Factor 4 ($P = 0.677$); Factor 5 ($P = 0.556$); Factor 6 ($P = 0.520$); Factor 7 ($P = 0.696$); and, Factor 8 ($P = 0.606$). Thus, regardless of gender, neither the lesbian/gay group nor the heterosexual group differed in terms of the expressed satisfaction with the 4 relations (or quality thereof) specified in each of the 8 extracted factors. Moreover, regardless of sexual orientation, neither the women group nor the men group differed in terms of the expressed satisfaction with the 4 relationships specified (or quality thereof) in each of the 8 extracted factors.

Summary of Differential Loneliness Scale Results

In summary, the effect of gender was statistically significant on the Differential Loneliness Scale total score, on all 4 of the scale's relationship categories, and on 5 factors - each associated with particular dimensions of interpersonal interaction within familial and friendship relations - of the new factor structure of this scale.

Results regarding the total score of the Differential Loneliness Scale, and each of the 4 relationship sub-scales of this scale, suggested that the satisfaction with familial, friendship, romantic-sexual, and group/community relations and quality thereof differed statistically significantly amongst the women group and the men group. However,

findings regarding the 8 extracted factors of this scale suggested that, although there were statistically significant mean differences on several factors amongst the two gender groups, there were also similarities. The women group and the men group differed statistically significantly on 5 factors associated with particular dimensions of interpersonal interaction within familial and friendship relations. The women group and the men group, however, expressed comparable satisfaction with particular dimensions of interpersonal interaction within friendship (Factor 3), romantic-sexual (Factor 2), and group/community (Factor 5) relations. Hence, these findings appear to provide further support for the multidimensional conceptualization of loneliness.

Furthermore, the effect of sexual orientation was statistically significant on the total items of the Differential Loneliness Scale, on the 'Familial' relationship category, and on 3 factors - each associated with particular dimensions of interpersonal interaction within familial and friendship relations - on the new factor structure of this scale.

Results regarding the total score of the Differential Loneliness Scale suggested that the lesbian/gay group was statistically significantly less satisfied than the heterosexual group with their familial, friendship, romantic-sexual, and group/community relations. Results regarding each of the 4 relationships, however, suggested that the lesbian/gay group was statistically significantly less satisfied than the heterosexual group with their familial relations, but that they were experiencing comparable satisfaction with the heterosexual group with their friendship, romantic-sexual, and group community relations. Findings regarding the 8 extracted factors of this scale suggested that, although the mean scores of the lesbian/gay group and heterosexual group differed statistically significantly on 3 factors - associated with particular dimensions of interpersonal

interaction within familial and friendship relations – the two groups expressed comparable satisfaction with particular dimensions of interpersonal interaction within friendship (Factors 4, 6, and 7), romantic-sexual (Factor 2), and group/community (Factor 5) relations.

Finally, the gender by sexual orientation interaction effect was not statistically significant on the Differential Loneliness Scale total score, on any of the 4 relationship sub-scales, and on any of the 8 extracted factors of the new factor structure as found in the present study via factor analysis.

<u>Coping Questionnaire</u>

Multivariately, the effect of gender was not statistically significant ($P = 0.510$). Univariately, the effect of gender was not statistically significant for any of the 5 categories of cognitive/behavioral coping strategies of the Coping Questionnaire: 'Self-Enhancing Behaviors' ($P = 0.406$); 'Behavioral Problem-Solving' ($P = 0.144$); 'Redefining Problem' ($P = 0.594$); 'Distraction' ($P = 0.136$); and, 'Cognitive Problem-Solving' ($P = 0.719$). This suggested that the women and men, comprising the sample of the following research, coped similarly, or have applied relatively similar cognitive/behavioral strategies at a relatively comparable frequency, in attempt to reduce or alleviate their loneliness experience. Examination of the mean scores indicated that the women group obtained slightly higher scores than the men group on these 5 categories of coping strategies.

Furthermore, the findings of the present study indicated that the most frequently applied coping strategies, for both the women and men, were those that were listed within

the categories of 'Self-Enhancing Behaviors,' 'Behavioral Problem-Solving,' and 'Redefining Problem,' consecutively.

The coping strategies having comprised the 'Self-Enhancing Behaviors' category were as follows: "Tried to figure out why you were lonely"; "Thought about things you could do to overcome your loneliness"; "Told yourself that you were over-reacting, that you shouldn't be so upset"; "Told yourself that your loneliness would not last forever, that things would get better"; and, "Thought about things you have done successfully in the past." Thus, these coping strategies were associated with the following themes: Reflecting on the loneliness experience and on possible solutions; attempting to normalize the experience; assuring oneself that the situation would improve; and, focusing on personal successes.

The 'Behavioral Problem-Solving' category included the following coping strategies: "Thought about good qualities that you possess..."; "Worked particularly hard to succeed at some activity..."; "Reminded yourself that you actually do have good relationships with other people"; "Thought about how to change your loneliness"; and, "Attended organized recreational activities to meet new people." Several themes underlie these coping strategies: Focusing on positive personal qualities; engaging in activities to foster personal growth; reflecting on possible solutions; and, engaging in social activities.

The 'Redefining Problem' coping category consisted of 4 strategies: "Done something to make yourself more physically attractive to others..."; "Done something to improve your social skills..."; "Thought about possible benefits of your experience of loneliness..."; and, "Told yourself that most other people are lonely at one time or another." The following are themes that may be stated to represent these coping

strategies: Changing particular personal traits; engaging in activities to foster personal growth; acquiring a positive outlook of the situation; and, normalizing the experience.

According to the findings of Rokach (1996), several coping strategies appear to be the most useful for most loneliness experiences: Those associated with accepting and reflecting on the loneliness experience, engaging in self-reflection and in growth promoting activities, and, increasing activity. Furthermore, Rokach's (1996) study suggested that coping strategies associated with reflecting and gaining self-awareness, and engaging in growth promoting activities, appeared to be the most useful for loneliness experiences of an interpersonal nature. Hence, it appears that the women and men of the present study most frequently utilized the coping strategies suggested by research (i.e., Rokach, 1996) to be most useful for loneliness of an interpersonal nature.

The least applied coping strategies, for both the women and men, were those that constituted the 'Distraction' and 'Cognitive Problem-Solving' categories, consecutively.

The 'Distraction' coping category included the following strategies: "Thought about things you can do extremely well..."; "Changed your goals for social relationships..."; and, "Taken your mind off feeling lonely by concentrating on school work." Hence, this coping strategies category was associated with the following themes: Focusing on personal successes; reflecting on the experience; and, engaging in activities reflecting the continuation of attending to daily responsibilities, and/or that assisted one to temporarily escape from loneliness.

The 'Cognitive Problem-Solving' classification consisted of the following items: "Taken your mind off feeling lonely through some mental activity..."; "Actually done something you are very good at..."; and, "Done something to make yourself a more out-

going person." This category was associated with engaging in activities for leisure, and changing particular personal traits.

Multivariately, the effect of sexual orientation was not statistically significant ($P = 0.058$). Univariately, the effect of sexual orientation was statistically significant for the 'Behavioral Problem-Solving' coping strategies category ($P = 0.041$). The lesbian/gay group ($M = 28.75$) scored statistically significantly higher than the heterosexual group ($M = 26.79$) on this category. This finding suggested that the lesbian/gay group has utilized either some or all of the coping strategies (i.e., focusing on positive personal qualities, engaging in activities to foster personal growth, reflecting on possible solutions, and engaging in social activities) comprising this category statistically significantly more frequently than the heterosexual group.

Univariately, the effect of sexual orientation was not statistically significant for the remaining 4 categories of coping strategies: 'Self-Enhancing Behaviors' ($P = 0.367$); 'Redefining Problem' ($P = 0.817$); 'Distraction' ($P = 0.212$); and, 'Cognitive Problem-Solving' ($P = 0.709$). This suggested that, with the exception of the 'Behavioral Problem-Solving" coping category, the 2 sexual orientation groups applied similar strategies at a relatively comparable frequency, in attempt to reduce or alleviate the loneliness experience. These strategies collectively represented the following themes: Reflecting on the loneliness experience and on possible solutions; attempting to normalize the experience; focusing on personal successes; assuring oneself that the situation would improve; changing particular personal traits; engaging in activities for leisure and/or to foster personal growth; acquiring a positive outlook of the situation; and, engaging in

activities reflecting the continuation of attending to daily responsibilities, and/or that assisted one to temporarily escape from loneliness.

Furthermore, examination of the mean scores indicated that, with the exception of the 'Redefining Problem' coping strategies category, (whereby the heterosexual group scored slightly higher than the lesbian/gay group), the lesbian/gay sexual orientation group scored slightly higher on the remaining 4 categories of coping strategies.

Furthermore, the findings of the present study suggested that the most frequently applied coping strategies, for both sexual orientation groups, were those that were listed within the categories of 'Self-Enhancing Behaviors,' 'Behavioral Problem-Solving,' and 'Redefining Problem.' respectively. As such, it seems that the lesbian/gay group and the heterosexual group of the present study most frequently utilized the coping strategies suggested by research (i.e.. Rokach, 1996) to be most beneficial for loneliness of an interpersonal nature.

The least applied coping strategies for both groups were those that constituted the 'Distraction,' followed by the 'Cognitive Problem-Solving' category. Collectively, the coping strategies of these 2 categories were represented by the following themes: Reflecting on the experience; focusing on personal successes; changing particular personal traits; engaging in activities for leisure; and, engaging in activities reflecting the continuation of attending to daily responsibilities, and/or that assisted one to temporarily escape from loneliness.

Multivariately, the gender by sexual orientation interaction effect was statistically significant (P = 0.011). Univariately, the gender by sexual orientation interaction effect

was statistically significant for two coping strategy categories: 'Redefining Problem' (P = 0.012), and 'Distraction' (P = 0.019).

In regards to the 'Redefining Problem' coping strategies category, a simple effects test indicated a statistically significant gender effect for the heterosexual group (P = 0.026) but not for the lesbian/gay group (P = 0.738). This indicated that the heterosexual women scored statistically significantly higher, thus, indicating having utilized strategies associated with normalizing the experience, engaging in activities to foster personal growth, changing particular personal traits, and, acquiring a positive outlook of the situation statistically significantly more frequently, than heterosexual men. A statistically significant sexual orientation effect was not detected for this coping strategies category [women (P = 0.889), men (P = 0.242)]. This indicated that the women of the lesbian/gay and heterosexual groups, and the men of the lesbian/gay and heterosexual groups, utilized the above mentioned coping strategies at a relatively comparable frequency.

In respect to the 'Distraction' coping strategies category, a simple effects test indicated a statistically significant gender effect for the heterosexual group (P = 0.008) but not for the lesbian/gay group (P = 0.686). Once more, this indicated that the heterosexual women scored statistically significantly higher, thus, indicating having utilized strategies associated with reflecting on the loneliness experience, focusing on personal successes, and engaging in activities reflecting the continuation of attending to daily responsibilities or assisting one to temporarily escape the experience statistically significantly more frequently, than heterosexual men. A statistically significant sexual orientation effect was not detected for the 'Distraction' coping strategies category [women (P = 0.920), men (P = 0.494)]. This indicated that the women of the lesbian/gay

and heterosexual groups, and the men of the lesbian/gay and heterosexual groups, utilized the above mentioned coping strategies at a relatively comparable frequency.

Univariately, the gender by sexual orientation interaction effect was not statistically significant for the 3 remaining coping strategy categories: `Self-Enhancing Behaviors` (P = 0.348); `Behavioral Problem-Solving` (P = 0.714); and, `Cognitive Problem-Solving` (P = 0.414).

New Factor Structure of Coping Questionnaire

Multivariately, the effect of gender was not statistically significant (P = 0.090). Univariately, the effect of gender was not statistically significant for any of the 5 extracted factors of the Coping Questionnaire: Factor 1 (P = 0.063); Factor 2 (P = 0.343); Factor 3 (P = 0.387); Factor 4 (P = 0.549); and, Factor 5 (P = 0.259). This suggested that the women and men coped similarly, or have applied similar cognitive/behavioral strategies at a relatively comparable frequency, in attempt to reduce or alleviate their loneliness experience.

Examination of the mean scores indicated that, with the exception of Factor 5, the women group scored slightly higher than the men group on the remaining 4 categories of coping strategies.

The findings of the present study indicated that the most frequently applied coping strategies, for both the women and men, were those that were listed within Factor 1, Factor 2, and Factor 4, respectively. The coping strategies comprising Factor 1 reflected engaging in positive self cognitive talk, normalizing the experience, reassuring oneself that the situation would improve, reflecting on possible solutions, and perceiving the situation positively. The coping strategies of Factor 2 included reflecting on positive

personal qualities and personal successes, engaging in activities for leisure or personal growth purposes, or engaging in activities reflecting the continuation of attending to daily responsibilities, and/or that assist one to temporarily escape from the loneliness experience. Factor 4 reflected distracting oneself from the loneliness experience either as a means to continue attending to daily responsibilities or to temporarily escape from the experience, reflecting on possible solutions, and engaging in leisure and extracurricular activities.

Hence, it appears that the women and men of the current research most frequently utilized the coping strategies suggested by research (i.e., Rokach, 1996) to be most useful for loneliness of an interpersonal nature. That is, coping strategies associated with accepting and reflecting on the loneliness experience, engaging in self-reflection and in growth promoting activities, and increasing activity.

The least frequently applied strategies, for both the women and men, were those that constituted Factor 3 and 5, consecutively. Factor 3 reflected the social actions engaged in, in attempt to alleviate the loneliness experience. Factor 5 reflected activities engaged in, in attempt to change particular personal traits, and to attain personal development and growth.

Multivariately, the effect of sexual orientation was statistically significant ($P = 0.012$). Univariately, the effect of sexual orientation was statistically significant for Factor 3 ($P = 0.001$). The lesbian/gay group ($M = 15.61$) scored statistically significantly higher than the heterosexual group ($M=12.93$) on this factor. This finding suggested that the lesbian/gay group actively engaged in social actions statistically significantly more frequently than the heterosexual group in attempt to alleviate the loneliness experience.

Univariately, the effect of sexual orientation was not statistically significant for the remaining 4 extracted factors: Factor 1 (P = 0.376); Factor 2 (P = 0.886); Factor 4 (P = 0.107); and, Factor 5 (P = 0.838). Hence, the findings suggested that, with the exception of actively engaging in social actions (Factor 3), the two sexual orientation groups coped similarly, or had applied similar cognitive/behavioral strategies at a comparable frequency, in attempt to reduce or alleviate the loneliness experience. Examination of the mean scores indicated that the lesbian/gay group scored slightly higher than the heterosexual group on these 4 categories of coping strategies.

Furthermore, the most frequently applied coping strategies for the two sexual orientation groups were those that were listed within Factor 1, Factor 2, and Factor 4, consecutively. Thus, it appears that the lesbian/gay group and heterosexual group of the present study most frequently utilized the coping strategies suggested by research (i.e.. Rokach, 1996) to be most useful for loneliness of an interpersonal nature.

The least frequently applied coping strategies were those that constituted Factor 5 for the lesbian/gay group, and Factor 3 for the heterosexual group. Hence, results suggested that the lesbian/gay group least frequently engaged in certain activities associated with attempting to change personal traits, and certain activities associated with attaining personal development and growth. Furthermore, results suggested that the heterosexual group least frequently engaged in certain social actions in attempt to alleviate the loneliness experience.

Multivariately, the gender by sexual orientation interaction effect was statistically significant (P = 0.011). Univariately, the gender by sexual orientation interaction effect was statistically significant for Factor 5 (P=0.000). A simple effects test indicated no

statistically significant gender effect for the lesbian/gay group (P = 0.594) and the heterosexual group (P = 0.085) on this factor. Furthermore, there was no indication of a statistically significant sexual orientation effect for the women group (P=0.365) and men group (P=0.451). This indicated that the women and men of the lesbian/gay group, and the women and men of the heterosexual group, utilized the coping strategies comprising this factor at a comparable frequency. This also indicated that the women of the lesbian/gay and heterosexual groups, and the men of the lesbian/gay and heterosexual groups, utilized the coping strategies comprising this factor at a relatively comparable frequency.

An explanation is provided for the statistically significant gender by sexual orientation interaction effect, yet not statistically significant simple effects for Factor 5. An examination of the data indicated that for the lesbian/gay group, the women group (M = 13.41) scored lower than the men group (M = 17.06), and, for the heterosexual group, the women group (M = 16.02) scored higher than the men group (M = 14.13).

Univariately, the gender by sexual orientation interaction effect was not statistically significant for the remaining 4 extracted factors: Factor 1 (P = 0.140); Factor 2 (P = 0.539); Factor 3 (P = 0.778); and, Factor 4 (P = 0.307).

Summary of Coping Questionnaire Results

In summary, the effect of gender was not statistically significant on any of the 5 categories of cognitive/behavioral coping strategies, or on any of the 5 extracted factors of the scale's new factor structure. This suggested that the women group and the men group coped similarly, or applied relatively similar cognitive/behavioral strategies at a relatively comparable frequency to cope with or to alleviate the loneliness experience.

Findings indicated that the most frequently applied coping strategies for both the women and men were those that were listed within the categories of 'Self-Enhancing Behaviors,' 'Behavioral Problem-Solving,' 'Redefining Problem,' and Factors 1, 2, and 4 (of the new factor structure), consecutively. These 3 categories and 3 factors consisted of cognitive/behavioral coping strategies associated with the following themes or elements: Acknowledging and normalizing the experience; engaging in positive self cognitive talk; reflecting on the experience and possible solutions; reassuring oneself that the situation would improve; focusing on positive personal qualities and successes; engaging in extracurricular activities for leisure and/or to foster personal growth; engaging in activities reflecting the continuation of attending to daily responsibilities and/or that assisted one to escape the loneliness experience temporarily; changing particular personal traits; engaging in social activities; and, acquiring a positive outlook of the situation (i.e., seeing it as an opportunity for personal growth).

The least frequently applied coping strategies for both women and men were those listed under the 'Distraction' category and Factor 3. This category and factor consisted of cognitive/behavioral coping strategies associated with the following themes: Reflecting on the experience; focusing on personal successes; engaging in activities reflecting the continuation of attending to daily responsibilities, and/or that assisted one to escape the loneliness experience temporarily; and, engaging in social activities.

Furthermore, the effect of sexual orientation was statistically significant for the 'Behavioral Problem-Solving' coping strategies category and Factor 3 (i.e., engaging in social activities). However, for the remaining 4 coping strategy categories and 4 factors, the 2 sexual orientation groups scored comparably. This suggested that, in general, the 2

groups applied relatively similar cognitive/behavioral strategies at a relatively comparable frequency in attempt to cope with or to alleviate the loneliness experience.

Findings indicated that the most frequently applied coping strategies for both sexual orientation groups were those that were listed within the categories of 'Self-Enhancing Behaviors,' 'Behavioral Problem-Solving,' 'Redefining Problem,' and Factors 1, 2, and 4, consecutively. Hence, it appears that, regardless of gender and sexual orientation, the coping strategies comprising these categories were applied at the greatest frequency.

The least frequently applied coping strategies for both sexual orientation groups were those listed within the 'Distraction' category, and Factor 5 (i.e., strategies associated with changing particular personal traits and engaging in certain activities for personal growth) for the lesbian/gay group, and Factor 3 (i.e., strategies associated with engaging in certain social actions) for the heterosexual group.

Finally, the gender by sexual orientation interaction effect was statistically significant on the 'Redefining Problem' and 'Distraction' strategy categories, and on Factor 5 of the questionnaire's new factor structure as found in the present study via factor analysis. However, a statistically significant interaction effect was not detected on the remaining three coping strategy categories, and 4 extracted factors.

Theoretical Integration of Findings

The researcher proposes that the sub-cultural group (gender and sexual orientation) differences detected on the interpersonal loneliness experience in the present study, may, at least partly, be accounted for in the context of gender socialization and other social/contextual factors (i.e., heterosexism, homophobia). The following proposal

will be elaborated on within 2 sub-sections: Gender socialization and social/contextual

factors.

Gender Socialization

Although loneliness was not given consideration in Kaschak's (1992) theory, an

attempt was made to interpret the results of the present study within her contextual

theoretical framework.

According to Kaschak (1992), females have been conceptualized as more

relational and interpersonally connected, and males as more so independent and separate

from others. Kaschak proposes that, while the relational potential may appear to differ

amongst females and males, it is necessary to view this distinction contextually.

Kaschak suggests that the source for this gender difference not only stems from

how females and males are valued and treated disparately within the home environment,

but, furthermore, how they are socialized within society as a whole. She posits that

individuals learn about becoming women and men and the value of relationships by the

implicit and explicit messages regarding traditional gender expectations, behaviors, and

social roles, communicated both in the home as well as within society.

Kaschak maintains that, as long as traditional socialization standards prevail and

are communicated both in the home and wider societal context, gender differences

regarding the pattern of interpersonal interaction and value placed on relations will

emerge through socialization. Females will be socialized and will learn to base their self-

worth on the success of their relations, and, to be inclined toward emotional expression

and relatedness. Males, on the other hand, will be socialized and will learn to base their

self-worth on the public work they choose, and not to be inclined toward emotional

expression and relationships, but, rather, to be externally oriented.

Furthermore, according to Kaschak, this gender system, or pattern of

socialization, will continue to be enforced and reinforced by means of negative

evaluation. While females will be valued for and encouraged to focus on their emotional

expressiveness and relational or interpersonal connection, males will be negatively

evaluated if they in any way manifest female socialization behaviors (i.e., emotional

expressiveness and/or relational orientation). Hence, Kaschak suggests that both women

and men are relational, but socialized to be relational in different ways.

In context of Kaschak's (1992) theoretical perspective - the conception that as

long as traditional socialization standards prevail men will not be socialized toward. but,

rather. discouraged from. emotional expression, intimacy. and relationships - and in light

of loneliness research suggesting that the qualitative (i.e.. intimate disclosure) rather than

quantitative aspects of relations appear to be more significant in mediating the loneliness

experience (Cutrona, 1982; Russell et al., 1984; Wheeler et al, 1983), it would seem

reasonable to presume that men may possibly be more susceptible to experiencing

interpersonal loneliness than women.

Accordingly, results regarding the Differential Loneliness Scale suggested that

men, as a group, were significantly less satisfied than the women group with familial.

friendship. romantic-sexual. and group/community relations and quality thereof. and.

thus, assumed to have been experiencing a significantly greater degree of loneliness.

However. other findings of the study raised some questions. or have not supported

the notion that traditional socialization standards prevail, and, thus, men may possibly be

more susceptible to experiencing interpersonal loneliness than women. More specifically,

results indicated that the effect of gender was not statistically significant on the total

score of the UCLA Loneliness Scale (Version 3). In other words, findings suggested that

the women and men have not significantly differed on the degree of loneliness

experienced (as measured by this scale).

Nonetheless, for purposes of consistency, in accordance with the view that

traditional socialization standards continue to prevail to some degree, the researcher

proposes that, perhaps. this non-significant gender effect may be partially explained as

being partly due to the combined content of the overall items.

Recall that factor analysis of this scale yielded 3 factors. While the items of

Factor 2 (n of items = 6) and Factor 3 (n of items = 5) were interpreted as reflecting

loneliness of a social/emotional and social/isolation nature. respectively. the items of

Factor 1 (n of items = 9) were interpreted as reflecting loneliness of an

emotional/intimate nature. In accordance with the notion that men continue to be

socialized to be less emotionally expressive and intimate than women, and, thus, possibly

at higher risk than women for experiencing loneliness, results suggested that the men

group was experiencing a statistically significantly greater degree of loneliness of an

emotional/intimate nature than the women group.

Similarly, although not explicitly stated in Kaschak's (1992) theory, it may be

stated that. as long as traditional (heterosexual) socialization standards prevail. and

persons of lesbian, gay male, and bisexual sexual orientation continue to be socialized

within a traditional heterosexual context, and implicit and explicit messages regarding the

disapproval of alternative lifestyles continue to be communicated within the familial and

larger societal context, it is conceivable that numerous women and men from these populations may experience temporary or chronic loneliness for three conceivable reasons.

First, possible hesitance toward or fear of emotional intimacy may partially stem from their apprehension of possibly being rejected or abandoned by significant others (i.e., be it family members, friends) or a community, if their sexual orientation were to be disclosed. Secondly, possible hesitancy toward emotional intimacy within same-sex romantic relations may possibly and partly stem from their fear of emotional involvement in such a relation eventually leading to the disclosure of their sexual orientation, and, thus, the rejection by others. Thirdly, if same-sex romantic relations are not implicitly and explicitly valued as equally as heterosexual relations, these relations may possibly not be validated and perceived as 'real' and potentially enduring, thus, numerous women and men of these populations may become more hesitant toward experiencing immense emotional intimacy with significant others or their partners.

Accordingly, results regarding the UCLA Loneliness Scale (Version 3) suggested that the lesbian/gay group was experiencing a statistically significantly greater degree of loneliness than the heterosexual group. Furthermore, the analysis of the extracted factors of this scale indicated that the lesbian/gay group was experiencing a statistically significantly greater degree of loneliness of an emotional/intimate and social/isolation nature, than the heterosexual group.

Results of the Differential Loneliness Scale indicated that the lesbian/gay group scored statistically significantly higher than the heterosexual group on the total score of the scale, suggesting that the lesbian/gay group was significantly less satisfied with their

familial, friendship, romantic-sexual, and group/community relations and quality thereof in general. However, the MANOVA performed on the four relationship sub-scales of the Differential Loneliness Scale, suggested that the lesbian/gay group was statistically significantly less satisfied than the heterosexual group with familial relations.

The researcher proposes that one way of conceptualizing this finding - that the lesbian/gay group was less satisfied than the heterosexual group with familial relations, but that they were comparably satisfied with the heterosexual group with friendship, romantic-sexual, and group/community relations - is that, although traditional heterosexual socialization standards may appear to have lessened to some degree, still there appears to be a possible absence of familial security for some of these members. Recall that only a moderate proportion (50% - 60%) of the lesbian, gay male, and bisexual population of the present sample reported of being 'totally out' to numerous family members. Thus, to feel a sense of acceptance and belonging, numerous persons of the lesbian/gay group may have chosen to develop strong social support networks consisting of friends and significant others within and/or external to the lesbian and gay community. That friends have been reported to be the most frequent and supportive members of gay men's social networks has been noted in studies of social support (i.e., Berger & Mallon, 1993).

As such, in accordance with the theoretical context presented, it appears that, although the traditional (heterosexual) socialization standards seem to have lessened, they still prevail to some degree, and persons of lesbian, gay male, and bisexual sexual orientation continue to be socialized within this context, and, this possibly places them at

greater likelihood than persons of heterosexual sexual orientation for experiencing

interpersonal loneliness.

Social/Contextual Factors

It seems reasonable to assume that certain standings within a social structure may

foster loneliness more so than others. In other words, it is conceivable that certain

positions in North American society may provide fewer opportunities for persons to form

intimate interpersonal relations.

Due to the existence and internalization of heterosexism and homophobia within

the North American culture, persons of lesbian, gay male, and bisexual sub-cultures often

experience discrimination, prejudice, oppression, and marginalization due to the general

societal disapproval of their sexual orientation (Davies & Neal, 1996). It has been noted

that they are often faced with obstacles within political, legal, religious and other societal

institutions, and with the possible challenge of being ostracized by their families and

larger community or society in general (i.e., Fassinger, 1991). Consequently, numerous

persons of these sub-cultures may experience reduced social support networks.

Within this sociocultural context, and conceivably so, as a result, some members

of these populations may experience a decrease in their interpersonal trust, and may

become more hesitant to interact and further develop intimate relations with many others.

As Rokach (1984) has suggested, the experience of painful interpersonal interactions, and

possible ensuing hesitance toward or fear of intimacy, may serve to contribute in

deterring an individual from becoming intimate with others and becoming socially

connected.

In context of the above mentioned circumstances, it would appear that this sociocultural setting may tend to increase the possibility for experiencing loneliness for persons of lesbian, gay male, and bisexual sexual orientation sub-cultures. Moreover, it would furthermore be conceivable to expect increased levels of loneliness among members of these populations. Finally, although not minimizing individual differences, it would seem reasonable to assume that the loneliness experience of persons of each of these sub-cultures may differ from the loneliness experience of those of the other sub-cultural groups. As Rokach and Sharma (1996) have concluded from their examination of cultural (i.e., etnicity) influence on the loneliness experience, "...the difference of the social tapestry, interpersonal interactions, and the support networks which are available to individuals...are, naturally, bound to affect the manner in which they experience loneliness"(p. 830).

The author further suggests that, in contrast to persons of lesbian and gay male sexual orientation, persons of heterosexual sexual orientation may be presented with more opportunities to establish numerous and diverse meaningful relationships. Although persons of heterosexual sexual orientation may be presented with these interpersonal opportunities, however, it is not accurate to presume that they are likely to experience a lower degree or intensity of loneliness than persons of lesbian and gay male sexual orientation, simply due to the possibility of their involvement with numerous and diverse relationships. Also, it does not appear accurate to assume that heterosexual persons may experience greater loneliness due to the lack of numerous and diverse relations. All in all, it does seem reasonable to presume that persons of heterosexual sexual orientation may be less likely to experience interpersonal loneliness than persons of lesbian and gay male

sexual orientation, and that the loneliness experience may differ amongst persons of heterosexual and lesbian or gay male sexual orientation.

Accordingly, results regarding the total scores of both the UCLA Loneliness Scale and the Differential Loneliness Scale indicated that the lesbian/gay group was significantly less satisfied than the heterosexual group with their social relations in general. Nonetheless, results of each of the 4 relationship sub-scales (i.e., familial, friendship, romantic-sexual, group/community) indicated that the lesbian/gay group was only significantly less satisfied than the heterosexual group with their familial relations. Commonality was also found amongst the 2 sexual orientation groups. For example, results of the new factor structure of the UCLA Loneliness Scale (Version 3) indicated that the lesbian/gay and heterosexual groups experienced a comparable degree of loneliness of a social/emotional nature.

Contribution of Present Study

In the following segment, the contributions of the present study will be presented.

It has been acknowledged that loneliness is a prevalent social issue (i.e., Rokach & Brock, 1996). The following study contributed to the knowledge base of research on and to further understanding of loneliness and coping. For example, the findings of the present study provided further support for the multidimensional conceptualization of loneliness, and, consequently, pointed to the significance of identifying and distinguishing amongst numerous and qualitatively diverse types of interpersonal loneliness.

It has been voiced that there exists an immense need for empirical research examining the experiences of members of diverse sub-cultures (i.e., Gelso & Fassinger,

1990). The present study examined the effect of gender and sexual orientation on the loneliness and coping experience. Furthermore, since, to the researcher's awareness, researchers having previously studied the experience of individuals' loneliness and coping (as measured in the present study) have neglected to consider or examine the possible influence of sexual orientation, it appears that the present study introduced an additional major variable to explore. Additionally, this served to increase the visibility of persons of lesbian, gay male, and bisexual sexual orientation.

The present research, in general, indirectly contributed to the knowledge base of research regarding gender, sexual orientation, social networks, social support, and interpersonal relations.

It has been noted that research on loneliness has largely been conducted with college samples and that this raises questions as to the validity of scores of persons from other groups (i.e., Paloutzian & Janigian, 1987; Vincenzi & Grabosky, 1987). The individuals having comprised the sample of the present study possessed diverse socio-demographic characteristics.

The approach (i.e., anonymous participation via mail) of the current study was uncommon. To the researcher's awareness, only two other studies having administered some version of the UCLA Loneliness Scale used a similar approach (i.e., Constable & Russell, 1986; Russell, Altmaier, & Van Velzen, 1987). It was thought that issues regarding social desirability may possibly be lessened through this approach.

The current study provided further support for the reliability of the UCLA Loneliness Scale (Version 3) (Russell, 1996), the Differential Loneliness Scale (Schmidt & Sermat, 1983), and the Coping Questionnaire (Russell et al., 1984).

Limitations of Present Study

Numerous limitations of the present research need to be noted. Limitations will be presented within two sub-sections: Sample and measurement.

Sample

Although the overall sample of the current study was composed of an adequate number of participants (n = 274), it is important to note that the size of the bisexual sexual orientation group was minimal [total n = 27 (women, n = 21), (men, n = 6)]. The relatively small size of the bisexual group limited the comparison of data of this group to the data of the lesbian/gay and heterosexual groups for 2 reasons: It was conceivable that high variability may have existed in the data produced by persons of the bisexual group and may have resulted in unstable or unreliable findings; and, there was a greater chance that the findings based on this small bisexual sample may have been idiosyncratic to this particular sample and would not have been replicated in future research.

All participants were volunteers. Perhaps, these individuals possessed some characteristics (i.e., were not completely aware of their loneliness, were not as lonely, or were more comfortable with revealing their loneliness) that were different from those of others who may have been reluctant to participate in the study. As has been noted, individuals differ in their readiness to recognize or admit (to themselves and others) that they may be lonely (Rook & Peplau, 1982). Hence, the responses of the participants in the following study may have been very different from those of persons whom have chosen not to participate or were unaware of the study.

Participants who identified themselves as lesbian, gay male, or bisexual may have represented those whom were relatively open with their sexual orientation. Hence, the

responses of these participants may not have been representative of those who are not as open with their sexual orientation.

Thus, the findings of the present study need to be acknowledged as suggestive and tentative, and not definitive. Caution need be placed in generalizing the results to any population other than the one in the current study.

Measurement

Demographic Questionnaire. In regards to the Demographic Questionnaire, question #11 ("Which sexual orientation do you identify with?") pertained to one's currently identified sexual orientation – whether one currently perceived oneself as lesbian, gay, or of bisexual or heterosexual sexual orientation. The behavioral component of sexual orientation was not included for this question.

Davies and Neal (1996) propose that, in general, the majority of individuals do not identify their sexual orientation in accordance with their behavior and fantasies. It has been recognized that some women and men engage in same-gender sexual activity but not necessarily identify themselves as lesbian, gay, or bisexual, while others do not engage in same-gender sexual activity but may identify themselves as lesbian, gay, or bisexual (i.e., American Psychological Association, 1991; Davies & Neal, 1996).

Hence, question #11 may have been interpreted in numerous ways, and, thus, may have influenced the responses of participants accordingly. Therefore, whether participants only self-defined or self-defined in accordance with their behavior, remains uncertain, and may have limited the accuracy of their classification in one of the three sexual orientation groups.

Also, as to whether or not the relationship of loneliness to gender and sexual orientation was moderated by other defining demographic (i.e., age) and social structural

variables (i.e., educational status) was not examined. Possible variances in these variables may have had an influence on the results of the present study.

UCLA Loneliness Scale (Version 3). Concern with the UCLA Loneliness Scale (Version 3) arises from one of its 4 response options ("Never"; "Rarely"; "Sometimes"; "Always"). Of concern is the "Always" response option. Perhaps the response option "Often," as has appeared in the response format of the original version of the scale (Russell et al., 1978), may have been more practical. It is conceivable that the "Always" response option may have had an influence on the responses, and, thus, total loneliness scale score of participants. More specifically, persons who may have chosen the response "Often" (4 points) but not "Always" (4 points), may have chosen instead the response "Sometimes" (3 points). As a result, these persons may have received slightly lower total loneliness scale scores.

Further, if the response format of the original version of the UCLA Loneliness Scale had been utilized, the cross comparison of results of this study and those of other studies having used the present response format, would have been more compatible with studies having employed the original scale. Since the different response formats may have influenced the responses of participants differently, this limitation is to be noted as a possible factor influencing the results of participants and cross-comparisons of results of this study with previous studies having used other response formats.

Since the item content of the UCLA Loneliness Scale (Version 3) has not reflected possible affective cues indicative of loneliness (i.e., emotional distress), and considered by many researchers as important in identifying its experience (i.e., Peplau &

Perlman, 1982; Rokach & Brock, 1997a), a thorough assessment of the presence or absence of loneliness was limited.

Considering that the responses of participants were based on their perception of their relationships or self-reports, answers may have been vulnerable to subjective error.

Additionally, it appears to remain uncertain as to whether the mean differences of women and men on this scale reflect different levels or degrees or different types (i.e., qualitative and/or quantitative aspects) of loneliness. For example, as indicated by the results of the extracted factors of this scale, a statistically significant gender effect was detected on Factor 1, suggesting that the women and men differed significantly on items reflecting loneliness of an emotional/intimate nature. However, a statistically significant gender effect was not found on Factors 2 and 3, suggesting that the women and men have not differed significantly on items reflecting loneliness of a social/emotional and social/isolation nature.

Differential Loneliness Scale. In respect to the Differential Loneliness Scale, a possible issue concerns the total item differences existing amongst the 4 relationship categories. One possible limitation worthy of noting is that a large number of items (n of items = 18) pertain to familial relationships. When considering that numerous lesbian women and gay men may have minimal, if not lack of, familial support, it may be stated that the scale is biased in this manner. Due to the large number of items pertaining to this relationship category, this category has a distinct influence on the total Differential Loneliness Scale score of participants.

Furthermore, as in the case of the UCLA measure, since the item content of this scale has not reflected possible affective cues indicative of loneliness, a thorough assessment of the presence or absence of loneliness was limited.

Moreover, as in the case of the UCLA questionnaire, the responses of participants were based on their perception of their social relations, thus, answers may have been vulnerable to subjective error, and the quantitative aspects of their relationships may not have been accurately assessed.

Coping Questionnaire. In reference to the Coping Questionnaire, although this measure solicits important information regarding numerous and diverse cognitive/behavioral coping strategies and the frequency to which they have been applied, it does not address the usefulness or effectiveness of the strategies.

Issues of Social Desirability. Since research has demonstrated that social stigma is attached to loneliness (i.e., Lau & Gruen, 1992), it has been noted that responses of participants may be influenced by social desirability (i.e., Russell et al., 1980). Although the researcher has attempted to lessen this social desirability influence by having respondents participate anonymously via mail, perhaps its influence still partially existed in the data provided.

However, examination and cross-comparison of the data indicated that the mean scores obtained by the present sample on the UCLA Loneliness Scale were higher than those found in numerous previous studies (i.e., Bell, 1991; Maroldo, 1981; Russell, Kao, & Cutrona, 1987, cited in Russell, 1996; Russell et al., 1980; Russell et al., 1978; Schultz & Moore, 1986; Solano, 1980; Solano et al., 1982; Stokes & Levin, 1986; Wheeler et al., 1983; Williams & Solano, 1983; Wilson et al., 1992).

Similarly, the mean scores of the present sample on the Differential Loneliness

Scale were higher than those found in previous research (i.e., Kalliopuska & Laitinen,

1987, 1991; Schmidt & Sermat, 1983; Schmitt & Kurdek, 1985; Simmons et al., 1991).

All in all, these comparisons suggested that, perhaps, due to the anonymous

nature of the study, persons may have been less influenced by the social desirability

factor.

Future Research Directions

In this segment, implications of the results found in the present study for future

research on loneliness and coping are suggested.

The findings of the present study suggest that, within this cultural/social context, a

person's gender and sexual orientation both play a mediating role in the nature and

intensity of the loneliness experience. Thus, results suggest the need for further research

examining the influence of gender and sexual orientation on the loneliness experience.

In addition to contributing further support to the validity of each of the three

scales in the current research, further validation of these scales with the presently selected

sub-cultures is needed.

The present study examined between group differences. Within group differences

(i.e., women of lesbian vs. women of bisexual or heterosexual sexual orientation) may

additionally be examined.

Although the results of the current research suggested that persons of the selected

sub-cultures cope relatively similar with the loneliness experience in general, future

research directions may be aimed at inquiring into the kinds of coping strategies

experienced as most effective, and the several combined coping strategies that are most

useful for members amongst and within each of these sub-cultures.

<div align="center">Implications for Counselling</div>

The findings of the present research render numerous implications and

suggestions for counselling practice in general, and effective interventions. This segment

will consist of 2 sub-sections: Counselling and loneliness; and, counselling and coping.

<u>Counselling & Loneliness</u>

The results of this study underscore the importance of assessing an individual's

social network structure and quality thereof no matter what the issues presented.

In context of the lesbian, gay male, and bisexual sub-cultures, the therapist needs

to be aware of and sensitive to the higher likelihood or possibility of social

marginalization of members of these populations due to heterosexism and homophobia

(of which may be externally manifested and/or internalized), and to assess their social

networks and quality thereof. As the results of the present study suggested, the

lesbian/gay group was experiencing a significantly higher degree of loneliness of a

social/isolation nature than the heterosexual group.

Furthermore, as Schmidt and Sermat (1983) have proposed, the indication of

numerous relational disruptions may suggest that one may be potentially at high-risk for

experiencing loneliness. As the results additionally indicated, the men group was

significantly less satisfied than the women group with their social relations in general,

suggesting that men may be at higher risk for experiencing loneliness. Moreover, since

research has indicated that individuals experiencing loneliness, especially males, are

socially stigmatized (i.e., Lau & Gruen, 1992), individuals, especially males, may not

identify themselves as lonely, and, thus, not share and possibly not cope effectively with their pain (McWhirter, 1990). Thus, adequate assessment of one's social network and quality thereof may assist in developing preventive or reactive interventions.

Secondly, as according to the 2 loneliness measures employed (and their underlying theoretical definitions of loneliness), the findings of the present study suggested that the loneliness experience is mediated by an individual's perceived discrepancy between her/his actual or existing and desired relationships. The implication is that perception, or cognitive [i.e., negative self-attributions (Shultz & Moore, 1986)] and evaluative [i.e., standards, expectations (Peplau et al., 1982)] processes, and actual or objective circumstances both play a role in an individual's loneliness experience. Hence, it appears important for the therapist to explore as to whether the loneliness experience has been primarily internally generated and/or externally created by circumstances in the client's social world, and to assist, encourage, and empower clients to re-evaluate the factors or circumstances influencing their feelings of loneliness. Thus, these areas need to be assessed by the mental health practitioner when considering relevant and effective interventions (i.e., cognitive-oriented therapies, modifying social skills, modifying interpersonal orientation, bibliotherapy). This additionally underscores the importance of professionals taking a personal and professional active stance against circumstances (i.e., heterosexism, sexism) that promote social injustice (i.e., oppression and marginalization of persons of diverse sub-cultural groups), and working toward positive social changes.

Thirdly, findings suggested that loneliness is not a unitary phenomenon, but, rather, a multidimensional experience, and that it need not include all areas of an individual's experience. For example, findings suggested that the men group was

experiencing a significantly greater degree of loneliness of an emotional/intimate nature than the women group, and the lesbian/gay group was significantly less satisfied than the heterosexual group with their familial relations.

Furthermore, findings also suggested that, perhaps, the social network structures of persons of lesbian and gay male sexual orientation and of persons of heterosexual sexual orientation may differ, and that this may influence the loneliness experience differently. For example, considering that the results of the present study indicated that 69% of the lesbian, gay male, and bisexual persons reported of been "totally out" to their friends (while 50% - 60% were out to numerous family members), and that friends are reported to provide the most frequent emotional support to persons of lesbian and gay male sexual orientation (i.e., Berger & Mallon, 1993), perhaps, the lesbian/gay group's dissatisfaction with familial relations places them at lower risk for experiencing loneliness, than if they were to perceive dissatisfaction with their friendship relations.

Therefore, an individual's loneliness experience needs to be thoroughly assessed so that adequate identification of its nature (i.e., familial, friendship, romantic, group/community) and significance is ascertained. Accordingly, it would appear that interventions selected would vary depending on the nature and associated cognitive, affective, and behavioral responses of the loneliness experience (i.e., cognitive-oriented interventions, social skills training).

Fourthly, results underscored the importance of mental health practitioners needing to engage in social network interventions. These interventions need not only provide new opportunities to individuals for enriching existing relations, but also for expanding their social network. This may include providing clients with information and

resources, and encouraging them to seek out organizations and community centres that will provide them with opportunities to become more socially integrated (Rook, 1984).

In context of enriching existing relations, results suggested that the network structure amongst persons of the selected sexual orientation sub-cultures may differ, and, thus, appropriate and ethical social network interventions need to be assessed. Recall that findings of the Demographic Questionnaire indicated that only a moderate proportion (50% - 60%) of persons of lesbian, gay male, and bisexual sexual orientation were 'totally out' to numerous family members, but approximately 69% were 'totally out' to their friends. One implication of this is that persons of lesbian or gay male sexual orientation may prefer and/or benefit from enriching existing relations with friends and/or others in their social network outside the familial setting. In other words, for some of these individuals, it may be more appropriate to explore possible effective methods in dealing with the possible absence of familial security, and to learn new ways of restructuring and enriching existing relations with friends and/or others. An additional implication of this is that the professional needs a sufficient awareness of issues surrounding gender and sexual orientation, and of agencies or organizations sensitive to such sub-cultural differences, so that appropriate referrals may be provided to clients if needed.

In context of expanding an individual's social network, the findings suggested that the lesbian/gay group was experiencing a higher degree of loneliness of a social/isolation nature than the heterosexual group. Hence, one implication of this result is that members of these populations may greatly benefit from obtaining information

regarding particular resources and becoming aware of organizations and community

centres that may provide them with opportunities to become more socially integrated.

Finally, the results of the present study suggested that mental health practitioners

need to become aware of the prevalence and severity of loneliness amongst diverse sub-

cultures so that populations perhaps facing greater likelihood of experiencing

interpersonal loneliness may be considered for preventive interventions. In general, the

findings of the current research suggested that, within our social/cultural context, men

and persons of lesbian and gay male sexual orientation may be more susceptible to

experiencing interpersonal loneliness. Hence, mental health practitioners may exercise

preventive interventions with populations by chance more likely to experience

interpersonal loneliness. Preventive interventions may include, for example, the

dissemination of educational materials (Rook, 1984) to organizations and/or communities

that cater to persons of these high-risk populations.

Counselling & Coping Strategies

Findings indicated that, in general, the selected sub-cultural groups utilized

similar coping strategies at a relatively comparable frequency in attempt to alleviate the

loneliness experience.

Results indicated that, regardless of gender and sexual orientation, the most

frequently applied cognitive/behavioral coping strategies, [and suggested by research to

be most useful (i.e., Rokach, 1996)], were those associated with the following elements:

Acknowledging and normalizing the experience; reflecting on the experience and

possible solutions; engaging in positive self cognitive talk; reassuring oneself that the

situation would improve; focusing on positive personal qualities and successes; engaging

in activities for leisure and to foster personal growth; changing particular personal traits; engaging in activities reflecting the continuation of attending to personal responsibilities, and/or that assist in temporarily escaping the loneliness experience; engaging in social activities; and, acquiring a positive outlook of the situation (i.e., seeing it as an opportunity for personal growth).

As findings have suggested, loneliness appears to be a multidimensional experience. Hence, although the above mentioned cognitive/behavioral coping strategies have been most frequently applied by the sample of the present study, it would seem reasonable to propose that the usefulness or effectiveness of particular coping strategies for a particular individual would need to be individually assessed. As Rokach (1997a) suggested, it is important for mental health practitioners to understand individuals' chosen ways of attempting to cope with their experience. By taking this approach, he suggested, the therapist may encourage further use of their present inner resources and useful coping strategies, and make suggestions for additional effective ones.

References

Allen, R. L., & Oshagan, H. (1995). The UCLA loneliness scale: Invariance of social structural characteristics. Personality & Individual Differences, 19 (2), 185-195.

American Psychological Association (1991). Avoiding heterosexual bias in language. American Psychologist, 46 (9), 973-974.

Bell, R. A. (1991). Gender, friendship network density, and loneliness. Journal of Social Behavior and Personality, 6 (1), 45-56.

Berger, R. M., & Mallon, D. (1993) Social support networks of gay men. Journal of Sociology & Social Welfare, 20 (1), 155-174.

Carmines, E. G., & Zeller, R. A. (1979). Reliability and validity assessment. Newbury Park, California: SAGE Publications, Inc..

Cass, V. C. (1979). Homosexual identity formation: A theoretical model. Journal of Homosexuality, 4 (3), 219-235.

Constable, J. F., & Russell, D. (1986). Effect of social support and the work environment upon burnout among nurses. Journal of Human Stress, 12, 20-26.

Cutrona, C. E. (1982). Transition to college: Loneliness and the process of social adjustment. In L. A. Peplau & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research and therapy (pp. 291-309). New York: John Wiley & Sons, Inc..

Davies, D. (1996a). Homophobia and heterosexism. In D. Davies & C. Neal (Eds.), Pink therapy: A guide for counsellors and therapists working with lesbian, gay and bisexual clients (pp. 41-65). Bristol, PA: Open University Press.

Davies, D. (1996b). Working with people coming out. In D. Davies & C. Neal (Eds.), Pink therapy: A guide for counsellors and therapists working with lesbian, gay and bisexual client (pp. 66-85). Bristol, PA: Open University Press.

Davies, D., & Neal, C. (1996). An historical overview of homosexuality and therapy. In D. Davies & C. Neal (Eds.), Pink therapy: A guide for counsellors and therapists working with lesbian, gay and bisexual clients (pp. 11-23). Bristol, PA: Open University Press.

Diekhoff, G. (1992). Statistics for the social and behavioral sciences: Univariate, bivariate, multivariate. Dubuque, IA: Wm. C. Brown Publishers.

Elmes, D. G., Kantowitz, B. H., & Roediger, H. L., III (1992). Research methods in psychology (4rth ed.). St. Paul, MN: West Publishing Company.

Fassinger, R. E. (1991). The hidden minority: Issues and challenges in working with lesbian women and gay men. The Counseling Psychologist, 19 (2), 157-176.

Gelso, C. J., & Fassinger, R. E. (1990). Counseling psychology: Theory and research on interventions. Annual Review of Psychology, 41, 355-386.

Goundry, S., & Samis, S. (1997). The first national survey of lesbians, gay men and bisexuals in Canada. Vancouver, BC: Sandra Goundry and Stephen Samis.

Hammer, A. L., & Marting, M. S. (1988). Manual for the coping resources inventory. Palo Alto, California: Consulting Psychologists Press, Inc..

Hansson, R. O., Jones, W. H., Carpenter, B. N., & Remondet, I. (1986). Loneliness and adjustment to old age. International Journal of Aging and Human Development, 24, 41-53.

Hartshorne, T. S. (1993). Psychometric properties and confirmatory factor analysis of the UCLA loneliness scale. Journal of Personality Assessment, 61 (1), 182-195.

Jones, W. H. (1982). Loneliness and social behavior. In L. A. Peplau & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research and therapy (pp. 238-252). New York: John Wiley & Sons, Inc..

Jones, W. H., Rose, J., & Russell, D. (1990). Loneliness and social anxiety. In H. Leitenberg (Ed.), Handbook of social and evaluation anxiety (pp. 247-266). New York: Plenum.

Kalliopuska, M., & Laitinen, M. (1987). Testing loneliness on the differential loneliness scale. Psychological Reports, 60 (1), 15-18.

Kalliopuska, M., & Laitinen, M. (1991). Loneliness related to self-concept. Psychological Reports, 69, 27-34.

Kaschak, E. (1992). Engendered lives: A new psychology of women's experience. New York, NY: BasicBooks.

Kudoh, T., & Nishikawa, M. (1983). A study of the feeling of loneliness: The reliability and validity of the revised UCLA loneliness scale. Japanese Journal of Experimental Social Psychology, 22 (2), 99-108.

Lau, S. & Gruen, G. E. (1992). The social stigma of loneliness: Effect of target person's and perceiver's sex. Personality and Social Psychology Bulletin, 18 (2), 182-189.

Lynch, J. J. (1976). The broken heart: The medical consequences of loneliness in America. New York: Basic Books.

Marangoni, C., & Ickes, W. (1989). Loneliness: A theoretical review with

implications for measurement. Journal of Social and Personal Relationships, 6, 93-128.

Maroldo, G. K. (1981). Shyness and loneliness among college men and women.

Psychological Reports, 48, 885-886.

McWhirter, B. T. (1990). Loneliness: A review of current literature, with

implications for counseling and research. Journal of Counseling and Development, 68,

417-422.

Medora, N., & Woodward, J. C. (1986). Loneliness among adolescent college

students at a midwestern university. Adolescence, 21 (82), 391-402.

Neuman, W. L. (1997). Social research methods: Qualitative and quantitative

approaches (3rd ed.). Needham Heights, MA: Allyn & Bacon.

Page, R. M., & Cole, G. E. (1991). Demographic predictors of self-reported

loneliness in adults. Psychological Reports, 68 (3), 939-945.

Paloutzian, R. F., & Janigian, A. S. (1987). Models and methods in loneliness

research: Their status and direction. Journal of Social Behavior and Personality, 2 (2), 31-

36.

Pearl, T., Klopf, D. W., & Ishii, S. (1990). Loneliness among Japanese and

American college students. Psychological Reports, 67, 49-50.

Peplau, L. A., Miceli, M., & Morasch, B. (1982). Loneliness and self-evaluation. In

L. A. Peplau & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research

and therapy (pp. 135-151). New York: John Wiley & Sons, Inc..

Peplau, L. A., & Perlman, D. (1982). Perspectives on loneliness. In L. A. Peplau & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research and therapy (pp. 1-18). New York: John Wiley & Sons, Inc..

Reynolds, A. L., & Pope, R. L. (1991). The complexities of diversity: Exploring multiple oppressions. Journal of Counseling and Development, 70, 174-180.

Rokach, A. (1984). Theoretical approaches to loneliness: From a univariate to a multidimensional experience. Review of Existential Psychology and Psychiatry, 19 (2-3), 225-254.

Rokach, A. (1988). The experience of loneliness: A tri-level model. The Journal of Psychology, 122 (6), 531-544.

Rokach, A. (1990). Surviving and coping with loneliness. The Journal of Psychology, 124 (1), 39-54.

Rokach, A. (1996). The subjectivity of loneliness and coping with it. Psychological Reports, 79, 475-481.

Rokach, A. (1997a). Loneliness in jail: Coping strategies. International Journal of Offender Therapy and Comparative Criminology, 41 (3), 260-271.

Rokach, A. (1997b). Relations of perceived causes and the experience of loneliness. Psychological Reports, 80, 1067-1074.

Rokach, A. (1998a). Loneliness and psychotherapy. Psychology: A Journal of Human Behavior, 35 (3-4), 2-18.

Rokach, A. (1998b). The relation of cultural background to the causes of loneliness. Journal of Social and Clinical Psychology, 17 (1), 75-88.

Rokach, A., & Brock, H. (1995). The effects of gender, marital status, and the chronicity and immediacy of loneliness. Journal of Social Behavior and Personality, 10 (4), 833-848.

Rokach, A., & Brock, H. (1996). The causes of loneliness. Psychology: A Journal of Human Behavior, 33 (3), 1-11.

Rokach, A., & Brock, H. (1997a). Loneliness: A multidimensional experience. Psychology: A Journal of Human Behavior, 34 (1), 1-9.

Rokach, A., & Brock, H. (1997b). Loneliness and the effects of life changes. The Journal of Psychology, 131 (3), 284-298.

Rokach, A., & Brock, H. (1998). Coping with loneliness. The Journal of Psychology, 132 (1), 107-127.

Rokach, A., & Cripps, J. E. (1998). Loneliness of incarcerated men. Psychological Studies, 43 (1-2), 12-20.

Rokach, A., & Koledin, S. (1997). Loneliness in jail: A study of the loneliness of incarcerated men. International Journal of Offender Therapy and Comparative Criminology, 41 (2), 168-179.

Rokach, A., & Sharma, M. (1996). The loneliness experience in a cultural context. Journal of Social Behavior and Personality, 11 (4), 827-839.

Rook, K. S. (1984). Promoting social bonding: Strategies for helping the lonely and socially isolated. American Psychologist, 39 (12), 1389-1407.

Rook, K. S., & Peplau, L. A. (1982). Perspectives on helping the lonely. In L. A. Peplau & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research and therapy (pp. 351-378). New York: John Wiley & Sons, Inc..

Rubenstein, C., & Shaver, P. (1982). The experience of loneliness. In L. A. Peplau & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research and therapy (pp. 206-223). New York: John Wiley & Sons, Inc..

Russell, D. (1982). The measurement of loneliness. In L. A. Peplau & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research and therapy (pp. 81-104). New York: John Wiley & Sons, Inc..

Russell, D. W. (1996). UCLA loneliness scale (version 3): Reliability, validity, and factor structure. Journal of Personality Assessment, 66 (1), 20-40.

Russell, D. W., Altmaier, E., & Van Velzen, D. (1987). Job-related stress, social support, and burnout among classroom teachers. Journal of Applied Psychology, 72 (2), 269-274.

Russell, D. W., & Cutrona, C. E. (1991). Social support, stress, and depressive symptoms among the elderly: Test of a process model. Psychology and Aging, 6 (2) 190-201.

Russell, D., Cutrona, C. E., Rose, J., & Yurko, K. (1984). Social and emotional loneliness: An examination of Weiss's typology of loneliness. Journal of Personality and Social Psychology, 46 (6), 1313-1321.

Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA loneliness scale: Concurrent and discriminant validity evidence. Journal of Personality and Social Psychology, 39 (3), 472-480.

Russell, D., Peplau, L. A., & Ferguson, M. L. (1978). Developing a measure of loneliness. Journal of Personality Assessment, 42 (3), 290-294.

Schmidt, N., & Sermat, V. (1983). Measuring loneliness in different relationships. Journal of Personality and Social Psychology, 44 (5), 1038-1047.

Schmitt, J. P., & Kurdek, L. A. (1985). Age and gender differences in and personality correlates of loneliness in different relationships. Journal of Personality Assessment, 49 (5), 485-496.

Schultz, N. R., Jr., & Moore, D. (1984). Loneliness: Correlates, attributions, and coping among older adults. Personality and Social Psychology Bulletin, 10 (1), 67-77.

Schultz, N. R., Jr., & Moore, D. (1986). The loneliness experience of college students: Sex differences. Personality and Social Psychology Bulletin, 12 (1), 111-119.

Shuster, R. (1987). Sexuality as a continuum: The bisexual identity. In M. Bragg, R. D. Dalton, B. Dunker, P. Fisher, N. Garcia, L. K. Obler, L. Orwoll, P. Paiser, & S. F. Pearlman (Eds.), Lesbian psychologies: Explorations and challenges (pp. 56-71). Chicago, Illinois: University of Illinois Press.

Simmons, C. M., Klopf, D. W., & Park, M. (1991). Loneliness among Korean and American university students. Psychological Reports, 68, 754.

Solano, C. H. (1980). Two measures of loneliness: A comparison. Psychological Reports, 46, 23-28.

Solano, C. H., Batten, P. G., & Parish, E. A. (1982). Loneliness and patterns of self-disclosure. Journal of Personality and Social Psychology, 43 (3), 524-531.

Stokes, J., & Levin, I. (1986). Gender differences in predicting loneliness from social network characteristics. Journal of Personality and Social Psychology, 51 (5), 1069-1074.

Streiner, D. L. (1994). Figuring out factors: The use and misuse of factor analysis. Canadian Journal of Psychiatry, 39 (3) 135-140.

Van Buskirk, A. M., & Duke, M. P. (1991). The relationship between coping style and loneliness in adolescents: Can "sad passivity" be adaptive? The Journal of Genetic Psychology, 152 (2), 145-157.

Vincenzi, H., & Grabosky, F. (1987). Measuring the emotional/social aspects of loneliness and isolation. Journal of Social Behavior and Personality, 2 (2), 257-270.

Wheeler, L., Reis, H., & Nezlek, J. (1983). Loneliness, social interaction, and sex roles. Journal of Personality and Social Psychology, 45 (4), 943-953.

Williams, J. G., & Solano, C. H. (1983). The social reality of feeling lonely: Friendship and reciprocation. Personality and Social Psychology Bulletin, 9 (2), 237-242.

Wilson, D., Cutts, J., Lees, I., Mapungwana, S., & Maunganidze, L. (1992). Psychometric properties of the revised UCLA loneliness scale and two short-form measures of loneliness in Zimbabwe. Journal of Personality Assessment, 59 (1), 72-81.

Worell, J., & Remer, P. (1992). Feminist perspectives in therapy: An empowerment model for women. New York, NY: John Wiley & Sons, Inc..

Young, J. E. (1982). Loneliness, depression and cognitive therapy: Theory and application. In L. A. Peplau & D. Perlman (Eds.), Loneliness: A sourcebook of current theory, research and therapy (pp. 379-405). New York: John Wiley & Sons, Inc..

Appendix A
Participation Instructions

(1) Please ensure that you read the Cover Letter (pages 2 – 3) prior to participating in the study.

(2) Please complete the questionnaires in the order (i.e., in the numerical order of the pages) provided. Try to answer all the questions as accurately as possible. Although I hope that you will answer all of the questions, if you feel discomfort about answering a certain question, it is ok to leave it blank.

(3) Once you have completed all questionnaires, please place them in the pre-addressed and pre-posted envelop enclosed and mail them to the researcher at the University of Calgary.

(4) If any concerns or questions should arise before, during, or after your participation, please feel free to contact the researcher (Revekka Kakoullis) at 870-0390 on Monday's and Tuesday's between 7:30 P.M. and 10:00 P.M.. If the researcher is unable to answer your call at that time, she will leave a message on her voice-mail informing you of the time(s) that she will be available to be contacted.

I wish to thank you for taking the time out of your own busy schedule to participate in the following study. Your feedback is very valuable and deeply appreciated.

Revekka Kakoullis

Appendix B
Cover Letter

PLEASE ENSURE THAT YOU READ THE FOLLOWING COVER LETTER PRIOR TO PARTICIPATING IN THE STUDY BY COMPLETING AND MAILING THE ENCLOSED QUESTIONNAIRES.

Hi! My name is Revekka Kakoullis. I am a graduate student, in the Department of Educational Psychology at the University of Calgary, conducting a research project under the supervision of Dr. L. Handy as part of my requirements for my M.Sc. Degree. This research project has met ethical requirements and has been approved by the Department of educational Psychology and the Joint Faculties Research Ethics Committee. I am writing to provide information regarding my research project entitled "Loneliness and Coping: An Exploratory Study Examining Gender and Sexuality," so that you can make an informed decision regarding your participation.

The purpose of the study is to examine the influence of gender and sexual orientation on loneliness and coping with its experience.

You need to be aware that you must be 18 years of age or older to participate in the following study.

Your involvement will consist of completing 4 questionnaires: A Demographic Questionnaire; the Differential Loneliness Scale; The UCLA Loneliness Scale (Version 3); and the Coping Questionnaire. The Demographic Questionnaire will consist of 13 questions soliciting information regarding the following areas: Age; gender/gender identity; possible factors (i.e.. sex change) that may have a bearing on your gender identity and/or sexual orientation; ethnic origin; educational status; employment status; approximate population of your area of residence; the duration you have resided in your area of residence; living arrangements; sexual orientation; if lesbian, gay, bisexual or two-spirited (First Nations only), the extent of being 'out' to or open with others about your sexual orientation; and, relationship status. The sexual orientation question will only require that you identify yourself with one of the following sexual orientations: Heterosexual woman; heterosexual man; bisexual woman; bisexual man; two-spirited woman (First Nations only); two-spirited man (First Nations only); lesbian woman; or gay man. The Differential Loneliness Scale will consist of 61 statements. You will be required to indicate how you feel about each statement by designating whether each statement is true or false for you or your situation. The UCLA Loneliness Scale (Version 3) will consist of 20 statements. You will be required to indicate how you feel about each statement on a 4-point scale. The Coping Questionnaire will consist of 27 statements. For each statement, you will be required to indicate how often you used each coping strategy described on a 9-point scale. This procedure will take approximately 35 minutes to complete.

You should be aware that your participation is to be strictly voluntary. You have the right to choose not to participate, or to take adequate time to consider the information on this cover letter and to consult with others if necessary prior to deciding to participate.

If you choose to give your consent to participate in the study by completing the 4 questionnaires and mailing them to the researcher in the enclosed pre-addressed and pre-posted envelop, you should be aware that once you mail away your completed questionnaires, due to the anonymous nature of the study, you will not be able to withdraw your consent and to terminate your participation from the study.

If, however, you choose to contact me to make arrangements to either attend a specified session time that will take place in a research room or at my office at the University of Calgary to participate in the study, you will be free to withdraw your consent and to terminate your participation from the study prior to or during your participation for any reason without penalty. You should also be aware that the researcher, upon her discretion in preserving your well being, has the right to withdraw your participation from the study prior to or during your participation.

Although safeguards have been taken to minimize any kind of potential risks, you need to be aware that the nature of the study may raise some issues that you may wish to explore further. If you are a University of Calgary student, and if by virtue of your participation you wish to explore issues further, I will provide you with a referral list consisting of names and numbers of persons that you may contact at the University of Calgary Counseling and Student Development Centre. If you are a non-student, and if by virtue of your participation you wish to explore issues further, I will provide you with a referral list consisting of names and numbers of local counseling agencies that you may contact.

Data will be collected in such a manner as to ensure anonymity and confidentiality. You will not be asked to identify yourself on any of the data you provide. Hence, the data you provide will not identify you in any way. Furthermore, all information obtained will remain strictly confidential. All data will be kept in a locked filing cabinet and will only be accessible to myself (Revekka Kakoullis) and my supervisor (Dr. L. Handy). Summary of group results will be available at a later time. Additionally, you need to be aware that if the following study is published, only group data will be reported. Furthermore, all data will be shredded within three years of when study will be completed. The study should be completed within a year.

Benefits by virtue of your participation include been given the opportunity to learn something about yourself and loneliness and coping in general, as well as to contribute to knowledge regarding gender, sexual orientation, loneliness and coping.

If you have any questions prior to or after your participation, please feel free to contact me at 870-0390, my supervisor Dr. L. Handy at 220-4084, the Office of the Chair, Joint Faculties Research Ethics Committee at 220-5465, or the Office of the Vice-President (Research) at 220-2145.

Due to the anonymous nature of the following study, no consent form is to be signed. If you choose to participate by completing the questionnaires, your informed consent will be implied. Please retain this cover letter for your records.

Thank you for your cooperation.

Sincerely,

Revekka Kakoullis

M.Sc. Student

University of Calgary

Appendix C
Cover Letter
Hi! My name is Revekka Kakoullis. I am a graduate student, in the Department of Educational Psychology at the University of Calgary, conducting a research project under the supervision of Dr. L. Handy as part of my requirements for my M.Sc. Degree. This research project has met ethical requirements and has been approved by the Department of educational Psychology and the Joint Faculties Research Ethics Committee. I am writing to provide information regarding my research project entitled "Loneliness and Coping: An Exploratory Study Examining Gender and Sexuality," so that you can make an informed decision regarding your participation.

The purpose of the study is to examine the influence of gender and sexual orientation on loneliness and coping with its experience.

You need to be aware that you must be 18 years of age or older to participate in the following study.

Your involvement will consist of completing 4 questionnaires: A Demographic Questionnaire; the Differential Loneliness Scale; The UCLA Loneliness Scale (Version 3); and the Coping Questionnaire. The Demographic Questionnaire will consist of 13 questions soliciting information regarding the following areas: Age; gender/gender identity; possible factors (i.e., sex change) that may have a bearing on your gender identity and/or sexual orientation; ethnic origin; educational status; employment status; approximate population of your area of residence; the duration you have resided in your area of residence; living arrangements; sexual orientation; if lesbian, gay, bisexual or two-spirited (First Nations only), the extent of being 'out' to or open with others about your sexual orientation; and, relationship status. The sexual orientation question will only require that you identify yourself with one of the following sexual orientations: Heterosexual woman; heterosexual man; bisexual woman; bisexual man; two-spirited woman (First Nations only); two-spirited man (First Nations only); lesbian woman; or gay man. The Differential Loneliness Scale will consist of 61 statements. You will be required to indicate how you feel about each statement by designating whether each statement is true or false for you or your situation. The UCLA Loneliness Scale (Version 3) will consist of 20 statements. You will be required to indicate how you feel about each statement on a 4-point scale. The Coping Questionnaire will consist of 27 statements. For each statement, you will be required to indicate how often you used each coping strategy described on a 9-point scale. This procedure will take approximately 35 minutes to complete.

You should be aware that your participation is to be strictly voluntary. You have the right to choose not to participate, or to take adequate time to consider the information on this cover letter and to consult with others if necessary prior to deciding to participate.

You should also be aware that if you give your consent to participate in the study, you will be free to withdraw your consent and to terminate your participation from the study prior to or during your participation for any reason without penalty.

You should also be aware that the researcher, upon her discretion in preserving your well being, has the right to withdraw your participation from the study prior to or during your participation.

Although safeguards have been taken to minimize any kind of potential risks, you need to be aware that the nature of the study may raise some issues that you may wish to

explore further. If you are a University of Calgary student, and if by virtue of your participation you wish to explore issues further, I will provide you with a referral list consisting of names and numbers of persons that you may contact at the University of Calgary Counseling and Student Development Centre. If you are a non-student, and if by virtue of your participation you wish to explore issues further, I will provide you with a referral list consisting of names and numbers of local counseling agencies that you may contact.

Data will be collected in such a manner as to ensure anonymity and confidentiality. You will not be asked to identify yourself on any of the data you provide. Hence, the data you provide will not identify you in any way. Furthermore, all information obtained will remain strictly confidential. All data will be kept in a locked filing cabinet and will only be accessible to myself (Revekka Kakoullis) and my supervisor (Dr. L. Handy). Summary of group results will be available at a later time. Additionally, you need to be aware that if the following study is published, only group data will be reported. Furthermore, all data will be shredded within three years of when study will be completed. The study should be completed within a year.

Benefits by virtue of your participation include been given the opportunity to learn something about yourself and loneliness and coping in general, as well as to contribute to knowledge regarding gender, sexual orientation, loneliness and coping.

If you have any questions prior to or after your participation, please feel free to contact me at 870-0390, my supervisor Dr. L. Handy at 220-4084, the Office of the Chair, Joint Faculties Research Ethics Committee at 220-5465, or the Office of the Vice-President (Research) at 220-2145.

Due to the anonymous nature of the following study, no consent form is to be signed. If you choose to participate by completing the questionnaires, your informed consent will be implied. Please retain this cover letter for your records.

Thank you for your cooperation.

Sincerely,

Revekka Kakoullis

M.Sc. Student

University of Calgary

Appendix D
Demographic Questionnaire

Instructions: Please answer the following questions by either filling in the blank space where indicated or by placing an "X" in the appropriate box to indicate the answer that is most applicable to you. Although I hope that you will answer all of the following questions, if you feel discomfort about answering a certain question, it is okay to leave it blank.

(1) Date: _____

(2) Age: _____

(3) Gender / Gender Identity:

Female [ ]   Male [ ]   Transgender [ ]   Transsexual [ ]

Other _____

(4) Are there any possible factors (i.e., having participated in a sex change) that may have a bearing on your gender identity and/or sexual orientation?

No [ ]   Yes [ ]   If yes, please specify: _____

(5) Ethnic Origin: (Please place an "X" in all the boxes that apply.)

First Nations / Aboriginal   [ ]   White European   [ ]

South Asian   [ ]   Southeast Asian / Pacific Islander [ ]

East Asian   [ ]   West Asian / Middle Eastern   [ ]

Central or South American   [ ]   Black / African Canadian   [ ]

Other _____

(6) Educational Status: (Please refer only to the highest educational level completed.)

Elementary School	[ ]	Some Graduate School	[ ]
Some Junior High School (Grades 7, 8 or 9)	[ ]	Graduate Degree	[ ]
Junior High School Graduate	[ ]	Some Post-Graduate School	[ ]
Some High School (Grades 10, 11 or 12)	[ ]	Post-Graduate Degree	[ ]
High School Graduate	[ ]		
Some College, University or Other Post-Secondary Education	[ ]		
College, University or Other Post-Secondary Graduate	[ ]		

(7)Employment Status: (Please place an "X" in all the boxes that apply.)

Employed Full-Time (29 Hours or More Per Week)	[ ]	Work at Home, Not for Pay	[ ]
Employed Part-Time (Less Than 29 Hours Per Week)	[ ]	Unemployed	[ ]
Self-Employed	[ ]	Retired	[ ]
Contract Worker	[ ]	Full-Time Student	[ ]
Seasonal Worker (Full- or Part-Time)	[ ]	Part-Time Student	[ ]

Other _____

(8) Approximate population of your present area (i.e., city, town) of residence:

0 – 5, 000 [ ]   5. 000 – 10, 000 [ ]   10. 000 – 25, 000 [ ]

25. 000 – 100, 000 [ ]   100, 000÷ [ ]

(9) How long have you lived in your present area (i.e., city, town) of residence?

Less Than 1 Year [ ]   1 – 3 Years [ ]   More Than 3 Years [ ]

(10)Living Arrangements:

Living Alone	[ ]	Living With Others (Not Intimate Partner)	[ ]
Living With Intimate Partner	[ ]	Living With Others (Along With Intimate Partner)	[ ]

(11)Which sexual orientation do you identify with?

Heterosexual Woman	[ ]	Heterosexual Man	[ ]
Bisexual Woman	[ ]	Bisexual Man	[ ]
Two-Spirited Woman (First Nations Only)	[ ]	Two-Spirited Man (First Nations Only)	[ ]
Lesbian Woman	[ ]	Gay Man	[ ]

(12) "Outness": (The following question pertains only to persons of lesbian, gay, bisexual or two-spirited sexual orientation.)

The following question deals with being "out" to or open with others about the fact that you are lesbian, gay, bisexual or two-spirited. Please indicate how "out" you are to the following people by placing an "X" in the box that is most applicable to you on a scale from 1 to 5 where 1 is "Not Out At All" and 5 is "Totally Out." If any of these do not pertain to you, please place an "X" in the "Not Applicable" box.

Presently, how "out" are you to your:	Not "Out" At All 1	2	3	4	Totally "Out" 5	Not Applicable 6
Mother	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Father	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Sister(s)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Brother(s)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Other Relatives	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Children	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Friends	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Neighbors	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
If you are presently a student to:						
Other Students	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Teachers/ Instructors or Other School Authorities	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
If you are presently working to:						
Supervisors	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Co-Workers / Colleagues / Staff	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Clients / Customers	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

(13) Relationship Status: (Please place an "X" in one box only.)

Single	[ ]	Commitment Ceremony / Same-Sex Partner	[ ]
In Opposite-Sex Relationship	[ ]	Separated / Opposite-Sex Partner	[ ]
In Same-Sex Relationship	[ ]	Separated / Same-Sex Partner	[ ]
Living With Opposite-Sex Partner	[ ]	Divorced	[ ]
Living With Same-Sex Partner	[ ]	Widowed / Opposite-Sex Partner	[ ]
Married / Opposite-Sex Partner	[ ]	Widowed / Same-Sex Partner	[ ]

Appendix E
UCLA Loneliness Scale: Version 3 (Russell, 1996)

Instructions: The following statements describe how people sometimes feel. For each statement, please indicate how often you feel the way described by placing an "X" in one of the four responses provided: (1) N=Never; (2) R=Rarely; (3) S=Sometimes; and (4) A=Always.

Here is an example:

How often do you feel happy?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

If you never feel happy, place an "X" in the N box corresponding to NEVER.
If you sometimes feel happy, place an "X" in the S box corresponding to SOMETIMES.
If you always feel happy, place an "X" in the A box corresponding to ALWAYS.

---

1. How often do you feel that you are 'in tune' with the people around you?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

2. How often do you feel that you lack companionship?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

3. How often do you feel that there is no one you can turn to?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

4. How often do you feel alone?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

5. How often do you feel part of a group of friends?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

6. How often do you feel that you have a lot in common with the people around you?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

7. How often do you feel that you are no longer close to anyone?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

8. How often do you feel that your interests and ideas are not shared by those around you?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

9. How often do you feel outgoing and friendly?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

10. How often do you feel close to people?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

11. How often do you feel left out?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

12. How often do you feel that your relationships with others are not meaningful?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

13. How often do you feel that no one really knows you well?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

14. How often do you feel isolated from others?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

15. How often do you feel you can find companionship when you want it?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

16. How often do you feel that there are people who really understand you?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

17. How often do you feel shy?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

18. How often do you feel that people are around you but not with you?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

19. How often do you feel that there are people you can talk to?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

20. How often do you feel that there are people you can turn to?   (1) N [ ]   (2) R [ ]   (3) S [ ]   (4) A [ ]

Appendix F
Differential Loneliness Scale (Schmidt & Sermat, 1983)

Instructions: For each statement, decide whether it describes you or your situation or not. If it does seem to describe you or your situation, place an "X" in the T box corresponding to TRUE. If not, place an "X" in the F box corresponding to FALSE. If a statement is not applicable to you because you are currently not involved in the situation it depicts (i.e., a current romantic or marital relationship), then place an "X" in the F box corresponding to FALSE.

Here is an example:

I have a lover or spouse who fulfills many of my emotional needs.   T [ ]   F [ ]

If the above statement seems to describe you or your situation, place an "X" in the T box corresponding to TRUE.
If the above statement does not seem to describe you or your situation, place an "X" in the F box corresponding to FALSE.
If the above statement is not applicable to you because you are currently not involved in the situation, place an "X" in the F box corresponding to FALSE.

1   I find it easy to express feelings of affection toward members of my   T [ ]   F [ ]
     family.

2   Most everyone around me is a stranger.   T [ ]   F [ ]

3   I usually wait for a friend to call me up and invite me out before making   T [ ]   F [ ]
     plans to go anywhere.

4   Most of my friends understand my motives and reasoning.   T [ ]   F [ ]

5   At this time, I do not have a romantic relationship that means a great   T [ ]   F [ ]
     deal to me.

6   I don't get along very well with my family.   T [ ]   F [ ]

7   I have at least one good friend of the same sex.   T [ ]   F [ ]

8   I have at least one good friend of the opposite sex.   T [ ]   F [ ]

9   I can't depend on getting moral or financial support from any group or   T [ ]   F [ ]
     organization in a time of trouble.

10   I am now involved in a romantic or marital relationship where both of   T [ ]   F [ ]
     us make a genuine effort at cooperation.

11 I often become shy and retiring in the company of relatives.   T [ ] F [ ]

12 Some of my friends will stand by me in almost any difficulty.   T [ ] F [ ]

13 People in my community aren't really interested in what I think or feel.   T [ ] F [ ]

14 My trying to have friends and to be liked seldom succeeds the way I   T [ ] F [ ]
    would like it to.

15 I spend time talking individually with each member of my family.   T [ ] F [ ]

16 I find it difficult to tell anyone that I love him or her.   T [ ] F [ ]

17 I don't have many friends in the city where I live.   T [ ] F [ ]

18 I work well with others in a group.   T [ ] F [ ]

19 I am an important part of the emotional and physical well-being of my   T [ ] F [ ]
    lover or spouse.

20 I don't feel that I can turn to my friends living around me for help when T [ ] F [ ]
    I need it.

21 I don't think that anyone in my family really understands me.   T [ ] F [ ]

22 I have a lover or spouse who fulfills many of my emotional needs.   T [ ] F [ ]

23 My friends are generally interested in what I am doing, although not to   T [ ] F [ ]
    the point of being nosy.

24 Members of my family enjoy meeting my friends.   T [ ] F [ ]

25 I allow myself to become close to my friends.   T [ ] F [ ]

26 My relatives are generally too busy with their concerns to bother about   T [ ] F [ ]
    my problems.

27 Few of my friends understand me the way I want to be understood.   T [ ] F [ ]

28 No one in the community where I live cares much about me.   T [ ] F [ ]

29 Right now, I don't have true compatibility in a romantic or marital   T [ ] F [ ]
    relationship.

30 Members of my family give me the kind of support that I need.   T [ ] F [ ]

31 A lot of my friendships ultimately turn out to be pretty disappointing.   T [ ]   F [ ]

32 My romantic or marital partner gives me much support and encouragement.   T [ ]   F [ ]

33 I am not very open with members of my family.   T [ ]   F [ ]

34 I often feel resentful about certain actions of my friends.   T [ ]   F [ ]

35 I am embarrassed about the way my family behaves.   T [ ]   F [ ]

36 People who say they are in love with me are usually only trying to rationalize using me for their own purposes.   T [ ]   F [ ]

37 I have a good relationship with most members of my immediate family.   T [ ]   F [ ]

38 In my relationships, I am generally able to express both positive and negative feelings.   T [ ]   F [ ]

39 I don't get much satisfaction from the groups I attend.   T [ ]   F [ ]

40 I get plenty of help and support from friends.   T [ ]   F [ ]

41 I seem to have little to say to members of my family.   T [ ]   F [ ]

42 I don't have any one special love relationship in which I feel really understood.   T [ ]   F [ ]

43 I really feel that I belong to a family.   T [ ]   F [ ]

44 I have few friends with whom I can talk openly.   T [ ]   F [ ]

45 My family is quite critical of me.   T [ ]   F [ ]

46 I have an active love life.   T [ ]   F [ ]

47 I have few friends that I can depend on to fulfill their end of mutual commitments.   T [ ]   F [ ]

48 Generally I feel that members of my family acknowledge my strengths and positive qualities.   T [ ]   F [ ]

49 I have at least one real friend.   T [ ]   F [ ]

50 I don't have any neighbors who would help me out in a time of need.   T [ ]   F [ ]

51 Members of my family are relaxed and easy-going with each other.   T [ ] F [ ]

52 I have moved around so much that I find it difficult to maintain lasting   T [ ] F [ ]
    friendships.

53 I tend to get along well with partners in romantic relationships.   T [ ] F [ ]

54 I find it difficult to invite a friend to do something with me.   T [ ] F [ ]

55 I have little contact with members of my family.   T [ ] F [ ]

56 My friends don't seem to stay interested in me for long.   T [ ] F [ ]

57 There are people in my community who understand my views and   T [ ] F [ ]
    beliefs.

58 As much as possible, I avoid members of my family.   T [ ] F [ ]

59 I seldom get the emotional security I need from a romantic or sexual   T [ ] F [ ]
    relationship.

60 My family usually values my opinion when a family decision is to be   T [ ] F [ ]
    made.

61 Most of my friends are genuinely concerned about my welfare.   T [ ] F [ ]

Appendix G
Coping Questionnaire (Russell, Cutrona, Rose, & Yurko, 1984)

Instructions: The following are some ways in which people cope with loneliness. Think about your own experiences of loneliness, and indicate how often you have engaged in each of the activities described by each statement to deal with loneliness by circling a number on a scale from 1 (NEVER) to 9 (VERY OFTEN).

Here is an example:
                                  Never   Very Often
Tried to figure out why you were lonely.   1   2   3   4   5   6   7   8   9

If you never engaged in this activity to deal with loneliness, circle number 1.
If you engaged in this activity very often in dealing with loneliness, circle number 9.

		Never						Very Often		
1	Taken your mind off feeling lonely by doing some physical activity (such as jogging, playing basketball, going shopping, washing the car, etc.).	1	2	3	4	5	6	7	8	9
2	Taken your mind off feeling lonely through some mental activity (such as reading a novel, watching TV, going to a movie, etc.).	1	2	3	4	5	6	7	8	9
3	Taken your mind off feeling lonely by deliberately thinking about other things (anything other than your loneliness).	1	2	3	4	5	6	7	8	9
4	Tried to figure out why you were lonely.	1	2	3	4	5	6	7	8	9
5	Thought about things you could do to overcome your loneliness.	1	2	3	4	5	6	7	8	9
6	Done something to make yourself more physically attractive to others (such as going on a diet, buying new clothes, changing your hairstyle, etc.).	1	2	3	4	5	6	7	8	9
7	Done something to improve your social skills (such as learning to dance, learning to be more assertive, improving conversational skills, etc.).	1	2	3	4	5	6	7	8	9

		Never							Very Often	
		1	2	3	4	5	6	7	8	9
8	Thought about good qualities that you possess (such as being warm, intelligent, sensitive, self-sufficient, etc.).	1	2	3	4	5	6	7	8	9
9	Thought about things you can do extremely well (excelling at schoolwork, athletics, artwork, gourmet cooking, etc.).	1	2	3	4	5	6	7	8	9
10	Actually done something you are very good at (do schoolwork, athletics, artwork, etc.).	1	2	3	4	5	6	7	8	9
11	Worked particularly hard to succeed at some activity (such as studying extra hard for an exam, putting extra effort into practicing an instrument, pushing yourself on an athletic skill, etc.).	1	2	3	4	5	6	7	8	9
12	Told yourself that you were over-reacting, that you shouldn't be so upset.	1	2	3	4	5	6	7	8	9
13	Told yourself that your loneliness would not last forever, that things would get better.	1	2	3	4	5	6	7	8	9
14	Thought about possible benefits of your experience of loneliness (such as telling yourself that you were learning to be self-reliant, that you would grow from the experience, etc.).	1	2	3	4	5	6	7	8	9
15	Told yourself that most other people are lonely at one time or another.	1	2	3	4	5	6	7	8	9
16	Reminded yourself that you actually do have good relationships with other people.	1	2	3	4	5	6	7	8	9
17	Changed your goals for social relationships (such as telling yourself that it is not that important to be popular; that at this point in your life it's all right not to have a boyfriend/girlfriend, etc.).	1	2	3	4	5	6	7	8	9
18	Done something to make yourself a more out-going person.	1	2	3	4	5	6	7	8	9

		Never							Very Often	
19	Thought about how to change your loneliness.	1	2	3	4	5	6	7	8	9
20	Thought about things you have done successfully in the past.	1	2	3	4	5	6	7	8	9
21	Taken your mind off feeling lonely by concentrating on work (such as schoolwork, etc.).	1	2	3	4	5	6	7	8	9
22	Tried to do new things to meet people (i.e., going to dances, joining a club).	1	2	3	4	5	6	7	8	9
23	Attended a social gathering to meet new people.	1	2	3	4	5	6	7	8	9
24	Attended organized recreational activities to meet new people.	1	2	3	4	5	6	7	8	9
25	Talked to a friend or relative about ways to overcome your loneliness.	1	2	3	4	5	6	7	8	9
26	Taken your mind off feeling lonely by using drugs or alcohol.	1	2	3	4	5	6	7	8	9
27	Talked to a counselor or therapist about ways to overcome your loneliness.	1	2	3	4	5	6	7	8	9

Appendix H
UCLA Loneliness Scale: Version 3 (Russell, 1996)

Instructions: The following statements describe how people sometimes feel. For each statement, please indicate how often you feel the way described by writing a number in the space provided.

Here is an example:

How often do you feel happy?

If you never felt happy, you would respond "never"; if you always feel happy, you would respond "always."

NEVER	RARELY	SOMETIMES	ALWAYS
1	2	3	4

1. How often do you feel that you are 'in tune' with the people around you? ___
2. How often do you feel that you lack companionship? ___
3. How often do you feel that there is no one you can turn to? ___
4. How often do you feel alone? ___
5. How often do you feel part of a group of friends? ___
6. How often do you feel that you have a lot in common with the people around you? ___
7. How often do you feel that you are no longer close to anyone? ___
8. How often do you feel that your interests and ideas are not shared by those around you? ___
9. How often do you feel outgoing and friendly? ___
10. How often do you feel close to people? ___
11. How often do you feel left out? ___
12. How often do you feel that your relationships with others are not meaningful? ___
13. How often do you feel that no one really knows you well? ___
14. How often do you feel isolated from others? ___
15. How often do you feel you can find companionship when you want it? ___
16. How often do you feel that there are people who really understand you? ___
17. How often do you feel shy? ___
18. How often do you feel that people are around you but not with you? ___
19. How often do you feel that there are people you can talk to? ___
20. How often do you feel that there are people you can turn to? ___

Scoring: Items #1, #5, #6, #9, #10, #15, #16, #19, and #20 should be reversed (i.e., 1=4, 2=3, 3=2, 4=1), and the scores for each item then summed together. Higher scores indicate greater degrees of loneliness.

Appendix I
Differential Loneliness Scale (Schmidt & Sermat, 1983)

Directions: For each statement, decide whether it describes you or your situation or not. If it does seem to describe you or your situation, mark it TRUE. If not, mark it FALSE. If an item is not applicable to you because you are currently not involved in the situation it depicts, e.g., a current romantic or marital relationship, then score it FALSE.

Item #	Item	Key	Scoring
1	I find it easy to express feelings of affection toward members of my family.	Fam.	F
2	Most everyone around me is a stranger.	Gr.	T
3	I usually wait for a friend to call me up and invite me out before making plans to go anywhere.	Fr.	T
4	Most of my friends understand my motives and reasoning.	Fr.	F
5	At this time, I do not have a romantic relationship that means a great deal to me.	R.S.	T
6	I don't get along very well with my family.	Fam.	T
7	I have at least one good friend of the same sex.	Fr.	F
8	I have at least one good friend of the opposite sex.	Fr.	F
9	I can't depend on getting moral or financial support from any group or organization in a time of trouble.	Gr.	T
10	I am now involved in a romantic or marital relationship where both of us make a genuine effort at cooperation.	R.S.	F
11	I often become shy and retiring in the company of relatives.	Fam.	T
12	Some of my friends will stand by me in almost any difficulty.	Fr.	F
13	People in my community aren't really interested in what I think or feel.	Gr.	T
14	My trying to have friends and to be liked seldom succeeds the way I would like it to.	Fr.	T
15	I spend time talking individually with each member of my family.	Fam.	F
16	I find it difficult to tell anyone that I love him or her.	R.S.	T
17	I don't have many friends in the city where I live.	Fr.	T
18	I work well with others in a group.	Gr.	F
19	I am an important part of the emotional and physical well-being of my lover or spouse.	R.S.	F
20	I don't feel that I can turn to my friends living around me for help when I need it.	Fr.	T
21	I don't think that anyone in my family really understands me.	Fam.	T
22	I have a lover or spouse who fulfills many of my emotional needs.	R.S.	F
23	My friends are generally interested in what I am doing, although not to the point of being nosy.	Fr.	F
24	Members of my family enjoy meeting my friends.	Fr.	F

Item #	Item	Key	Scoring
25	I allow myself to become close to my friends.	Fr.	F
26	My relatives are generally too busy with their concerns to bother about my problems.	Fam.	T
27	Few of my friends understand me the way I want to be understood.	Fr.	T
28	No one in the community where I live cares much about me.	Gr.	T
29	Right now, I don't have true compatibility in a romantic or marital relationship.	R.S.	T
30	Members of my family give me the kind of support that I need.	Fam.	F
31	A lot of my friendships ultimately turn out to be pretty disappointing.	Fr.	T
32	My romantic or marital partner gives me much support and encouragement.	R.S.	F
33	I am not very open with members of my family.	Fam.	T
34	I often feel resentful about certain actions of my friends.	Fr.	T
35	I am embarrassed about the way my family behaves.	Fam.	T
36	People who say they are in love with me are usually only trying to rationalize using me for their own purposes.	R.S.	T
37	I have a good relationship with most members of my immediate family.	Fam.	F
38	In my relationships, I am generally able to express both positive and negative feelings.	Fr.	F
39	I don't get much satisfaction from the groups I attend.	Gr.	T
40	I get plenty of help and support from friends.	Fr.	F
41	I seem to have little to say to members of my family.	Fam.	T
42	I don't have any one special love relationship in which I feel really understood.	R.S.	T
43	I really feel that I belong to a family.	Fam.	F
44	I have few friends with whom I can talk openly.	Fr.	T
45	My family is quite critical of me.	Fam.	T
46	I have an active love life.	R.S.	F
47	I have few friends that I can depend on to fulfill their end of mutual commitments.	Fr.	T
48	Generally I feel that members of my family acknowledge my strengths and positive qualities.	Fam.	F
49	I have at least one real friend.	Fr.	F
50	I don't have any neighbors who would help me out in a time of need.	Gr.	T
51	Members of my family are relaxed and easy-going with each other.	Fam.	F
52	I have moved around so much that I find it difficult to maintain lasting friendships.	Fr.	T
53	I tend to get along well with partners in romantic relationships.	R.S.	F
54	I find it difficult to invite a friend to do something with me.	Fr.	T

Item #	Item	Key	Scoring
55	I have little contact with members of my family.	Fam.	T
56	My friends don't seem to stay interested in me for long.	Fr.	T
57	There are people in my community who understand my views and beliefs.	Gr.	F
58	As much as possible, I avoid members of my family.	Fam.	T
59	I seldom get the emotional security I need from a romantic or sexual relationship.	R.S.	T
60	My family usually values my opinion when a family decision is to be made.	Fam.	F
61	Most of my friends are genuinely concerned about my welfare.	Fr.	F

*Please Note: Question #8 was added to this original version of the questionnaire.

Note. Scoring on the scale was determined in the following way: If T (True) or F (False) was marked as above, one point was given toward the total score. R.S.=Romantic-Sexual Relationships, Fr.=Friendships, Fam.=Relationships With Family, Gr.=Relationships With Larger Groups.

Appendix J
Coping Questionnaire (Russell, Cutrona, Rose, & Yurko, 1984)

Instructions: The following are some ways in which people cope with loneliness. Think back on your own experiences of loneliness during the past year, and indicate how often you have engaged in each of these activities to deal with loneliness.

		Never							Very Often	
1	Taken your mind off feeling lonely by doing some physical activity (such as jogging, playing basketball, going shopping, washing the car, etc.).	1	2	3	4	5	6	7	8	9
2	Taken your mind off feeling lonely through some mental activity (such as reading a novel, watching TV, going to a movie, etc.).	1	2	3	4	5	6	7	8	9
3	Taken your mind off feeling lonely by deliberately thinking about other things (anything other than your loneliness).	1	2	3	4	5	6	7	8	9
4	Tried to figure out why you were lonely.	1	2	3	4	5	6	7	8	9
5	Thought about things you could do to overcome your loneliness.	1	2	3	4	5	6	7	8	9
6	Done something to make yourself more physically attractive to others (such as going on a diet, buying new clothes, changing your hairstyle, etc.).	1	2	3	4	5	6	7	8	9
7	Done something to improve your social skills (such as learning to dance, learning to be more assertive, improving conversational skills, etc.).	1	2	3	4	5	6	7	8	9
8	Thought about good qualities that you possess (such as being warm, intelligent, sensitive, self-sufficient, etc.).	1	2	3	4	5	6	7	8	9
9	Thought about things you can do extremely well (excelling at schoolwork, athletics, artwork, etc.).	1	2	3	4	5	6	7	8	9

		Never							Very	Often
10	Actually done something you are very good at (do schoolwork, athletics, artwork, etc.).	1	2	3	4	5	6	7	8	9
11	Worked particularly hard to succeed at some activity (such as studying extra hard for an exam, putting extra effort into practicing an instrument, pushing yourself on an athletic skill, etc.).	1	2	3	4	5	6	7	8	9
12	Told yourself that you were over-reacting, that you shouldn't be so upset.	1	2	3	4	5	6	7	8	9
13	Told yourself that your loneliness would not last forever, that things would get better.	1	2	3	4	5	6	7	8	9
14	Thought about possible benefits of your experience of loneliness (such as telling yourself that you were learning to be self-reliant, that you would grow from the experience, etc.).	1	2	3	4	5	6	7	8	9
15	Told yourself that most other people are lonely at one time or another.	1	2	3	4	5	6	7	8	9
16	Reminded yourself that you actually do have good relationships with other people.	1	2	3	4	5	6	7	8	9
17	Changed your goals for social relationships (such as telling yourself that it is not that important to be popular; that at this point in your life it's all right not to have a boyfriend/girlfriend, etc.).	1	2	3	4	5	6	7	8	9
18	Done something to make yourself a more out-going person.	1	2	3	4	5	6	7	8	9
19	Thought about how to change your loneliness.	1	2	3	4	5	6	7	8	9

		Never							Very Often	
20	Thought about things you have done successfully in the past.	1	2	3	4	5	6	7	8	9
21	Taken your mind off feeling lonely by concentrating on schoolwork.	1	2	3	4	5	6	7	8	9
22	Tried to do new things to meet people (i.e., going to dances, joining a club).	1	2	3	4	5	6	7	8	9
23	Attended a social gathering to meet new people.	1	2	3	4	5	6	7	8	9
24	Attended organized recreational activities to meet new people.	1	2	3	4	5	6	7	8	9
25	Talked to a friend or relative about ways to overcome your loneliness.	1	2	3	4	5	6	7	8	9
26	Taken your mind off feeling lonely by using drugs or alcohol.	1	2	3	4	5	6	7	8	9
27	Talked to a counselor or therapist about ways to overcome your loneliness.	1	2	3	4	5	6	7	8	9

*Please Note: Questions #25. #26. and #27 were added to the original version of this questionnaire.

Scoring: In creating each of the coping scores, responses to the items that are indicated should be summed together.
(1) Self-Enhancing Behaviors: Items #4, #5, #12, #13, and #20.
(2) Behavioral Problem-Solving: Items #8, #11, #16, #19, and #24.
(3) Redefining Problem: Items #6, #7, #14, and #15.
(4) Distraction: Items #9, #17, and #21.
(5) Cognitive Problem-Solving: Items #2, #10, and #18.

Appendix K
Advertisement
PARTICIPANTS ARE NEEDED FOR A RESEARCH PROJECT

MUST BE 18 YEARS OF AGE OR OLDER TO PARTICIPATE

"LONELINESS IS AS NATURAL and integral a part of being human as are joy, hunger, and self-actualization" (Rokach, 1990, p.39). Loneliness has been recognized as a universally experienced condition, that may potentially be encountered by all individuals at some time in their lives (Rokach, 1984). I, Revekka Kakoullis, the researcher, am seeking to understand individual's nature and degree or intensity of interpersonal loneliness, as well as the diverse and numerous strategies utilized in coping with or alleviating its experience. Your input would be immensely appreciated, and would contribute enormously to the current knowledge base of gender, sexual orientation, loneliness, and coping research.

RESEARCH TITLE:
LONELINESS AND COPING: AN EXPLORATORY STUDY EXAMINING GENDER AND SEXUALITY.

RESEARCH STATUS:
THIS RESEARCH PROJECT HAS MET ETHICAL REQUIREMENTS AND HAS BEEN APPROVED BY THE DEPARTMENT OF EDUCATIONAL PSYCHOLOGY AND THE JOINT FACULTIES RESEARCH ETHICS COMMITTEE.

NATURE OF RESEARCH:
TO EXAMINE THE INFLUENCE OF GENDER AND SEXUAL ORIENTATION ON LONELINESS AND COPING WITH ITS EXPERIENCE.

PARTICIPANT INVOLVEMENT:
TO COMPLETE 4 QUESTIONNAIRES: A DEMOGRAPHIC QUESTIONNAIRE; THE UCLA LONELINESS SCALE (VERSION 3); THE DIFFERENTIAL LONELINESS SCALE; AND, THE COPING QUESTIONNAIRE.

DURATION OF PARTICIPATION:
THE PROCEDURE WILL TAKE APPROXIMATELY 35 MINUTES TO COMPLETE.

ANONYMITY AND CONFIDENTIALITY:
ALL DATA WILL BE COLLECTED IN SUCH A MANNER AS TO ENSURE ANONYMITY AND CONFIDENTIALITY. YOU WILL NOT BE ASKED TO IDENTIFY YOURSELF. HENCE, THE DATA YOU PROVIDE WILL NOT IDENTIFY YOU IN ANY WAY. ALL INFORMATION OBTAINED WILL REMAIN STRICTLY CONFIDENTIAL. ALL DATA WILL BE KEPT IN A LOCKED FILING CABINET, AND WILL ONLY BE ACCESSIBLE TO THE RESEARCHER (REVEKKA KAKOULLIS) AND HER SUPERVISOR (DR. L. HANDY). SUMMARY OF GROUP RESULTS WILL BE AVAILABLE AT A LATER TIME.

RISKS:

ALTHOUGH SAFEGUARDS HAVE BEEN TAKEN TO MINIMIZE ANY KIND OF POTENTIAL RISKS, THE NATURE OF THE STUDY MAY RAISE ISSUES THAT YOU MAY WISH TO EXPLORE FURTHER. IF YOU ARE A UNIVERSITY OF CALGARY STUDENT, AND IF BY VIRTUE OF YOUR PARTICIPATION YOU WISH TO EXPLORE ISSUES FURTHER, THE RESEARCHER WILL PROVIDE YOU WITH A REFERRAL LIST CONSISTING OF NAMES AND NUMBERS OF PERSONS THAT MAY BE CONTACTED AT THE UNIVERSITY OF CALGARY COUNSELLING AND STUDENT DEVELOPMENT CENTRE. IF YOU ARE A NON-STUDENT, AND IF BY VIRTUE OF YOUR PARTICIPATION YOU WISH TO EXPLORE ISUES FURTHER, THE RESEARCHER WILL PROVIDE YOU WITH A REFERRAL LIST CONSISTING OF NAMES AND NUMBERS OF LOCAL COUNSELLING AGENCIES THAT MAY BE CONTACTED FOR ASSISTANCE.

BENEFITS:

BENEFITS BY VIRTUE OF YOUR PARTICIPATION INCLUDE BEEN GIVEN THE OPPORTUNITY TO LEARN SOMETHING ABOUT YOURSELF AND LONELINESS AND COPING IN GENERAL, AND TO CONTRIBUTE TO KNOWLEDGE REGARDING GENDER, SEXUAL ORIENTATION, LONELINESS AND COPING.

RESEARCHER:

REVEKKA KAKOULLIS

RESEARCHER'S STATUS:

M.SC. STUDENT / DEPARTMENT OF APPLIED PSYCHOLOGY / UNIVERSITY OF CALGARY

SUPERVISOR:

DR. L. HANDY

CONFIRMATION OF RESEARCH STATUS:

IF YOU FEEL YOU NEED TO CONFIRM THE STATUS OF THE RESEARCH PROJECT, PLEASE FEEL FREE TO CONTACT THE FOLLOWING PERSONS AT THE UNIVERSITY OF CALGARY:

DR. L. HANDY	220-4084
OFFICE OF THE CHAIR, JOINT FACULTIES RESEARCH ETHICS COMMITTEE	220-5465
OFFICE OF THE VICE-PRESIDENT (RESEARCH)	220-2145

I'M INTERESTED! HOW DO I PARTICIPATE?

IN RECOGNIZING THAT YOU ARE TAKING TIME OUT OF YOUR OWN BUSY SCHEDULE TO PROVIDE VALUABLE FEEDBACK, AND IN ATTEMPT TO ACCOMMODATE YOU, I HAVE COME UP WITH A FEW OPTIONS FOR THOSE OF YOU INTERESTED IN PARTICIPATING IN THE RESEARCH PROJECT:

(1) YOU MAY CONTACT THE RESEARCHER (REVEKKA KAKOULLIS) AT 870-0390 [MONDAY'S AND TUESDAY'S BETWEEN 7:30 P.M. – 10:00 P.M.] TO MAKE ARRANGEMENTS TO EITHER ATTEND A SPECIFIED SESSION TIME THAT WILL TAKE PLACE IN A RESEARCH ROOM OR AT THE RESEARCHER'S OFFICE AT THE UNIVERSITY OF CALGARY.

<div align="center">OR</div>

(2) YOU MAY TAKE AN ENVELOP (THAT IS ATTACHED TO THIS ADVERTISEMENT) CONSISTING OF STEP-BY-STEP INSTRUCTIONS AND PARTICIPATION MATERIALS (I.E., THE FOUR QUESTIONNAIRES), COMPLETE THE QUESTIONNAIRES, AND MAIL THEM AWAY IN THE ENCLOSED PRE-POSTED ENVELOP ADDRESSED TO THE RESEARCHER AT THE UNIVERSITY OF CALGARY.

Appendix L
Newsletter Advertisement
PARTICIPANTS OF LESBIAN, GAY MALE, BISEXUAL, AND HETEROSEXUAL SEXUAL ORIENTATION NEEDED FOR RESEARCH PROJECT

Research Title: Loneliness and Coping: An Exploratory Study Examining Gender and Sexuality.

Nature of Research: The objective is to examine the loneliness and coping experience of persons of diverse sub-cultures, and to attempt to lessen the heterosexist bias that appears to exist in this domain of research.

Participant Requirements: Must be 18 years of age or older to participate.

Anonymity and Confidentiality: All data will be collected in such a manner as to ensure anonymity and confidentiality. Participants will NOT be asked to identify themselves on any of the data provided.

Contact Number: For more information, please contact Revekka Kakoullis at 870-0390 on Monday's and Tuesday's between 7:30 P.M. – 10:00 P.M..

Information about the study and packages for participation may be picked up at Grabbajabba (1610-10th Street SW) and at GLCSA (#206-233 12th Avenue SW).

Appendix M
List of Locations of Advertisement

1   A Woman's Place Bookstore
2   Aids Calgary
3   Apollo Friends In Sports
4   Arena Coffee Bar
5   CRHA (Calgary Regional Health Authority)
6   CJSW (Speak Sebastian Gay and Lesbian Radio)
7   G.L.A.S.S. (Gay, Lesbian & Bisexual Academic Students & Staff)
8   G.L.C.S.A. (Gay & Lesbian Community Services Association)
9   Good Earth Cafes Ltd. (1502-11th Street SW)
10   Grabbajabba (1610 – 10th Street SW)
11   Kaffa Coffee & Salsa House
12   Katmandu (2111 – 33 Avenue SW)
13   Mount Royal College
14   Rainbow Pride Resource Centre
15   The Roasterie Zoo (10L-227 10th Street NW)
16   Rooks Bar & Beanery
17   University of Calgary
18   The Women's Centre of Calgary (B644 – 1 Avenue NE)
19   The Women's Collective & Resource Centre
20   Words Cafe Bookstore & Cappuccino Bar

Appendix N
Researcher/Participant Contact

I)   If participants were solicited through the advertisement of the study posted at several cites within the Calgary area, and whereby participation packages were made available, the following procedure ensued.

    1.A   Initial contact with participants may have been made by phone. Those interested in participating in the study may have contacted the researcher and mutually satisfactory or agreed upon arrangements may have been made for participants to either attend a specified session time that would have taken place in a research room or to meet with the researcher at the researcher's office.

    1.B   The next contact would have taken place at the scheduled meeting. At that time, participants would have been provided with a cover letter consisting of a detailed description of the nature and expectations of the study. Additionally, participants would have been explicitly informed by the researcher that they had the right to choose not to participate, to take adequate time to consider the information on the cover letter and to consult with others if necessary prior to deciding to participate, or to participate at that time. If participants were to chose to participate in the study at that time, the researcher would have reminded them that they were not to identify themselves on the data they provided.

    1.C   The next possible contact would have been made by phone with those participants who have decided to participate in the study after having adequate time to consider their participation. Upon deciding to participate in the study, these individuals would have contacted the researcher and mutually agreed upon arrangements would have been made for them to either attend a specified session time that would have taken place in a research room, or to meet with the researcher at the researcher's office.

    1.D   The next contact would have taken place at the scheduled meeting. At that time, participants would once again be provided with a cover letter consisting of a detailed description of the nature and expectations of the study. Additionally, the researcher would have once again explicitly informed participants that they had the right to choose not to participate, to take adequate time to consider the information on the cover letter and to consult with others if necessary prior to deciding to participate, or to participate at that time. If participants were to chose to participate in the study at that time, the researcher would have reminded them that they were not to identify themselves on the data they provided.

    2   Participants may have attained the participation package, have no contact with the researcher, or may have subsequently contacted the researcher via phone.

II)   If participants were solicited through the advertisement of the study presented in the previously specified monthly newsletters, the following procedure ensued:

    1   Initial contact with participants may have been made by phone. Those interested in participating in the study may have contacted the researcher and

mutually satisfactory or agreed upon arrangements may have been made for participants to either attend a specified session time that would have taken place in a research room or to meet with the researcher at the researcher's office. For further steps in the process, please review 1.B – 1.D in section I.

2   Participants may have attained the participation package, have no contact with the researcher, or may have subsequently contacted the researcher via phone.

III) If participants were solicited during one of the meetings that the researcher attended, the following procedure ensued:

1   Initial contact with potential participants was made at the meeting. At the meeting, the researcher presented and verbally communicated to persons present the information provided within the cover letter. Those interested in participating in the study may have approached the researcher and mutually satisfactory or agreed upon arrangements may have been made for them to either attend a specified session time that would have taken place in a research room, or to meet with the researcher at the researcher's office. For further steps in the process, please review 1.B – 1.D in section I.

2   Interested persons may have attained a participation package and have no further contact with the researcher, or have subsequent contact with the researcher via phone.

IV) For potential participants that were not initially interested in participating in the study at the time of the meeting but later were, the following procedure may have occurred:

1   Potential participants may have contacted the researcher at a later time by phone, and mutually satisfactory or agreed upon arrangements may have been made for them to either attend a specified session time that would have taken place in a research room, or to meet with the researcher at the researcher's office. For further steps in the process, please review 1.B – 1.D in section I.

2   Potential participants may have contacted the researcher at a later time by phone to inquire as to the locations whereby participation materials were made available.

Please Note: Respondents asking for clarification of items on the questionnaires were instructed to respond in accordance with their own interpretation.

Appendix O
Factor Analysis of UCLA Loneliness Scale (Version 3)
Extraction Method: Principal Component Analysis
Rotation Method: Varimax with Kaiser Normalization

Factor	Item	Item Loading
Factor 1	2	.704
	3	.674
	4	.671
	7	.644
	12	.562
	13	.596
	15	.618
	19	.585
	20	.589
Factor 2	1	.704
	5	.599
	6	.753
	9	.591
	10	.698
	16	.594
Factor 3	8	.426
	11	.519
	14	.535
	17	.776
	18	.511

Appendix P
Factor Analysis of Differential Loneliness Scale
Extraction Method: Principal Component Analysis
Rotation Method: Varimax with Kaiser Normalization

Factor	Item	Item Loading
Factor 1	6	.792
	15	.573
	21	.564
	24	.631
	26	.505
	30	.742
	35	.559
	37	.806
	41	.657
	43	.651
	45	.589
	48	.751
	51	.611
	55	.635
	58	.733
	60	.655
Factor 2	5	.837
	10	.941
	19	.892
	22	.937
	29	.777
	32	.927
	42	.641
	46	.736
	59	.586
Factor 3	4	.584
	20	.421
	23	.766
	25	.378
	27	.477
	40	.532
Factor 4	3	.666
	14	.449
	38	.394
	54	.725
Factor 5	13	.686
	28	.742
	57	.699
Factor 6	7	.738
	12	.585

Factor	Item	Item Loading
Factor 6	49	.777
	56	.333
	61	.482
Factor 7	17	.331
	44	.686
	47	.706
Factor 8	31	.495
	34	.717
Factor 9	1	.663
	11	.432
	16	.707
	33	.411
Factor 10	2	.459
	53	.475
Factor 11	36	.691
	39	.376
Factor 12	8	.808
	18	.619
Factor 13	50	.509
Factor 14	52	.783

Appendix Q
Factor Analysis of Coping Questionnaire
Extraction Method: Principal Component Analysis
Rotation Method: Varimax with Kaiser Normalization

Factor	Item	Item Loading
Factor 1	12	.660
	13	.775
	14	.693
	15	.703
	16	.619
	17	.596
	19	.539
Factor 2	8	.555
	9	.773
	10	.776
	11	.670
	20	.649
	21	.384
Factor 3	22	.838
	23	.804
	24	.832
Factor 4	1	.737
	2	.564
	3	.724
	4	.562
	5	.540
Factor 5	6	.767
	7	.748
	18	.538
Factor 6	25	.662
	27	.748
Factor 7	26	.655

Appendix R
UCLA Loneliness Scale (Version 3)
Compiled Items Representing Each Extracted Factor

Factor	Item #	Item
Factor 1	2	How often do you feel that you lack companionship?
	3	How often do you feel that there is no one you can turn to?
	4	How often do you feel alone?
	7	How often do you feel that you are no longer close to anyone?
	12	How often do you feel that your relationships with others are not meaningful?
	13	How often do you feel that no one really knows you well?
	15	How often do you feel you can find companionship when you want it?
	19	How often do you feel that there are people you can talk to?
	20	How often do you feel that there are people you can turn to?
Factor 2	1	How often do you feel that you are 'in tune' with the people around you?
	5	How often do you feel part of a group of friends?
	6	How often do you feel that you have a lot in common with the people around you?
	9	How often do you feel outgoing and friendly?
	10	How often do you feel close to people?
	16	How often do you feel that there are people who really understand you?
Factor 3	8	How often do you feel that your interests and ideas are not shared by those around you?
	11	How often do you feel left out?
	14	How often do you feel isolated from others?
	17	How often do you feel shy?
	18	How often do you feel that people are around you but not with you?

Appendix S
Differential Loneliness Scale
Compiled Items Representing Each Extracted Factor

Factor	Item #	Item
Factor 1	6	I don't get along very well with my family.
	15	I spend time talking individually with each member of my family.
	21	I don't think that anyone in my family really understands me.
	24	Members of my family enjoy meeting my friends.
	26	My relatives are generally too busy with their concerns to bother about my problems.
	30	Members of my family give me the kind of support that I need.
	35	I am embarrassed about the way my family behaves.
	37	I have a good relationship with most members of my immediate family.
	41	I seem to have little to say to members of my family.
	43	I really feel that I belong to a family.
	45	My family is quite critical of me.
	48	Generally I feel that members of my family acknowledge my strengths and positive qualities.
	51	Members of my family are relaxed and easy-going with each other.
	55	I have little contact with members of my family.
	58	As much as possible, I avoid members of my family.
	60	My family usually values my opinion when a family decision is to be made.
Factor 2	5	At this time, I do not have a romantic relationship that means a great deal to me.
	10	I am now involved in a romantic or marital relationship where both of us make a genuine effort at cooperation.
	19	I am an important part of the emotional and physical well-being of my lover or spouse.
	22	I have a lover or spouse who fulfills many of my emotional needs.
	29	Right now, I don't have true compatibility in a romantic or marital relationship.
	32	My romantic or marital partner gives me much support and encouragement.
	42	I don't have any one special love relationship in which I feel really understood.
	46	I have an active love life.
	59	I seldom get the emotional security I need from a romantic or sexual relationship.
Factor 3	4	Most of my friends understand my motives and reasoning.
	20	I don't feel that I can turn to my friends living around me for help when I need it.
	23	My friends are generally interested in what I am doing, although not to the point of being nosy.

Factor	Item #	Item
Factor 3	25	I allow myself to become close to my friends.
	27	Few of my friends understand me the way I want to be understood.
	40	I get plenty of help and support from friends.
Factor 4	3	I usually wait for a friend to call me up and invite me out before making plans to go anywhere.
	14	My trying to have friends and to be liked seldom succeeds the way I would like it to.
	38	In my relationships, I am generally able to express both positive and negative feelings.
	54	I find it difficult to invite a friend to do something with me.
Factor 5	13	People in my community aren't really interested in what I think or feel.
	28	No one in the community where I live cares much about me.
	57	There are people in my community who understand my views and beliefs.
Factor 6	7	I have at least one good friend of the same sex.
	12	Some of my friends will stand by me in almost any difficulty.
	49	I have at least one real friend.
	56	My friends don't seem to stay interested in me for long.
	61	Most of my friends are genuinely concerned about my welfare.
Factor 7	17	I don't have many friends in the city where I live.
	44	I have few friends with whom I can talk openly.
	47	I have few friends that I can depend on to fulfill their end of mutual commitments.
Factor 8	1	I find it easy to express feelings of affection toward members of my family.
	11	I often become shy and retiring in the company of relatives.
	16	I find it difficult to tell anyone that I love him or her.
	33	I am not very open with members of my family.

Appendix T
Coping Questionnaire
Compiled Items Representing Each Extracted Factor

Factor	Item #	Item
Factor 1	12	Told yourself that you were over-reacting, that you shouldn't be so upset.
	13	Told yourself that your loneliness would not last forever, that things would get better.
	14	Thought about possible benefits of your experience of loneliness (such as telling yourself that you were learning to be self-reliant, that you would grow from the experience, etc.).
	15	Told yourself that most other people are lonely at one time or another.
	16	Reminded yourself that you actually do have good relationships with other people.
	17	Changed your goals for social relationships (such as telling yourself that it is not that important to be popular; that at this point in your life it's all right not to have a boyfriend/girlfriend, etc.).
	19	Thought about how to change your loneliness.
Factor 2	8	Thought about good qualities that you possess (such as being warm, intelligent, sensitive, self-sufficient, etc.).
	9	Thought about things you can do extremely well (excelling at schoolwork, athletics, artwork, gourmet cooking, etc.).
	10	Actually done something you are very good at (do schoolwork, athletics, artwork, etc.).
	11	Worked particularly hard to succeed at some activity (such as studying extra hard for an exam, putting extra effort into practicing an instrument, pushing yourself on an athletic skill, etc.).
	20	Thought about things you have done successfully in the past.
	21	Taken your mind off feeling lonely by concentrating on work (such as schoolwork, etc.).
Factor 3	22	Tried to do new things to meet people (i.e., going to dances, joining a club).
	23	Attended a social gathering to meet new people.
	24	Attended organized recreational activities to meet new people.
Factor 4	1	Taken your mind off feeling lonely by doing some physical activity (such as jogging, playing basketball, going shopping, washing the car, etc.).
	2	Taken your mind off feeling lonely through some mental activity (such as reading a novel, watching TV, going to a movie, etc.).
	3	Taken your mind off feeling lonely by deliberately thinking about other things (anything other than your loneliness).
	4	Tried to figure out why you were lonely.
	5	Thought about things you could do to overcome your loneliness.

Factor	Item #	Item
Factor 5	6	Done something to make yourself more physically attractive to others (such as going on a diet, buying new clothes, changing your hairstyle, etc.).
	7	Done something to improve your social skills (such as learning to dance, learning to be more assertive, improving conversational skills, etc.).
	18	Done something to make yourself a more out-going person.

IOWA STATE UNIVERSITY

Institute for Social and Behavioral Research
Center for Family Research in Rural Mental Health

2625 North Loop Drive, Suite 500
Ames, Iowa 50010-8296
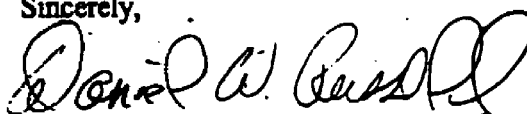515 294-4518
FAX 515 294-3613

April 29, 1999

Revekka Kakoullis
#140-3809-45 Street, SW
Calgary, Alberta
T3E #h4
CANADA

Dear Ms. Kakoullis:

You have my permission to use the UCLA Loneliness Scale (Version 3) in your research project. I have enclosed a copy of a paper we published on this version of the scale, that includes a copy of the scale and psychometric information.

My only request is that you send me a summary of your findings once you have completed your research. Let me know if you have any further questions concerning the measure. If you do, you can reach me via e-mail at drussell@iastate.edu. Good luck with your study.

Sincerely,

Daniel W. Russell, Ph.D.
Professor

Appendix V
Letter of Permission
Differential Loneliness Scale

Vello Sermat
65 High Park Avenue, Apt. #304
Toronto, Ontario M6P 2R7
phone: (416) 604-2102
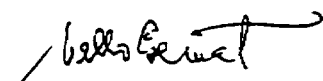**e-mail: vsermat@yorku.ca**

July 13, 1999

Revekka Kakoullis
140-3809 45th St. S.W.
Calgary, Alberta T3E 3H4

Dear Ms. Kakoullis:

This is to confirm that you have my permission to use the Differential Loneliness Scale.

Sincerely yours.

Vello Sermat, Ph.D.
Professor Emeritus

IOWA STATE UNIVERSITY

Institute for Social and Behavioral Research
Center for Family Research in Rural Mental Health

2625 North Loop Drive, Suite 500
Ames, Iowa 50010-8296
515 294-4518
FAX 515 294-3613

July 20, 1999

Revekka Kakoullis
#140 – 3809 – 45 Street SW
Calgary, Alberta
T3E – 3H4
CANADA

Dear Ms.. Kakoullis:

I have enclosed a copy of the measure of copying with loneliness that we developed. Also enclosed is a copy of the paper where we first described the scale, which provides further information regarding the measure.

You have my permission to use the measure of coping in your research. My only request is that you send me a summary of your findings once you have completed your research. Good luck with your study.

Sincerely,

Daniel W. Russell, Ph.D.
Professor

Appendix X
Letter of Permission
University of Calgary Counseling and Student Development Centre

UNIVERSITY OF CALGARY

UNIVERSITY COUNSELLING SERVICES

375 MacEwan Student Centre

Accredited by the
International Association of Counseling Services, Inc.

Telephone: (403) 220-5893
Fax: (403) 284-0069

August 9, 1999

Revekka Kakoullis
Department of Educational Psychology
University of Calgary
2500 University Drive
Calgary, AB
T2N 1N4

Dear Revekka Kakoullis:

This letter is to confirm that Counselling and Student Development Centre will provide back-up services that are required for ethics clearance for your research project, "Loneliness and Coping: An Exploratory Study Examining Gender and Sexuality".

Sincerely,

J.J. Miles, Ph.D.
Associate Director

c: Lee C. Handy, Ph.D.

JM/ls