Social Isolation Among Seniors: An Emerging Issue

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Executive Summary

Social Isolation: An Emerging Issue

Social integration and participation of older adults in society are frequently seen as indicators of productive and healthy aging and it is widely accepted that social support has a strong protective effect on health. However, an increasing amount of seniors may be at risk of being socially isolated or lonely. This may be due to a number of factors such as increased likelihood of living alone, death of family members or friends, retirement or poor health. With current trends such as encouraging seniors to live longer at home or in the community, a highly mobile society and fewer children per family, the issue of social isolation takes on a new importance.

A better understanding is needed of the prevalence of social isolation in older persons, its risk factors, the links between isolation and well-being, and its financial impacts for health care and social services. The following review endeavors to deepen the understanding of social isolation and loneliness and its risk factors, explore any connections that may exist between lonely or socially isolated seniors and increased demand or utilization of health and social services, and outline some of the policy implications of these findings.

Definitions of social isolation and loneliness

The concepts that are primarily presented and measured in the literature are loneliness and social isolation. *Loneliness* is subjective and is measured using questions that seek perceptions of relationships, social activity, and feelings about social activity. *Social isolation* is objective and can be measured using observations of an individual's social interactions and network. Loneliness is often viewed as the subjective counterpart to social isolation. There are also several related concepts that present themselves in the literature, they are, social support, social exclusion, social networks, social environment and social cohesion.

Risk factors for social isolation and loneliness

Factors that *may* put someone at risk for being socially isolated or lonely are poor health, disabilities, gender, loss of a spouse, living alone, reduced social networks, aging, transportation issues, place of residence and others such as poverty and low self-esteem. While these factors have been associated with social isolation and loneliness, a "chicken and egg" relationship is present that makes it difficult to determine the direction of association between the variables.

The Effects of Seniors' Social Isolation, Loneliness and Related Concepts on Health and Social Service Usage

Seniors clearly value their social relationships as those age 65 years and over "consistently ranked relationships with family and friends second only to health as the most important area of life" (Victor et al, 2000 p. 409). The prevailing belief, one that is espoused by the World Health Organisation (2003) is that social isolation and exclusion are associated with "increased rates of premature death, lower general well-being, more depression, and a higher level of disability from chronic diseases" (p.16). However, the relationships between social support and loneliness, and their impacts on health and social service usage, are complex and varied. Some outcomes support the hypothesis that those experiencing social isolation and loneliness use more services and others show opposing patterns. Yet others present findings that endeavor to isolate the deeper complexity in the interactions between the variables. The literature consistently presents the importance of the quality of social relationships but cautions that social support may not be the magic bullet for health and happiness it has been made out to be. Furthermore, the well-documented circular nature and complex interactions among the variables of social isolation, loneliness and service use make a difficult task of determining the direction of causation.

Although the exact relationship between social support and health care usage is difficult to define and isolate, there are clearly links between the variables. These links are illustrated by the following research highlights.

- Often socially isolated seniors use fewer health and social services. This may be explained by recognizing the role that informal and family support networks play in recognizing and affirming the need for formal assistance and facilitating access and entry into the formal care system.
- High levels of instrumental support are associated with both a reduced likelihood of health service use and reduced levels of use among those receiving service. This finding is consistent with the notion that informal support resources reduce unmet need and can directly substitute for formal services.
- Distinguishing the type of support network a senior has can be helpful in understanding their service use patterns.
- After adjusting for age and gender, those who were lonely or had few social contacts, were more than one and a half times more likely to be using homecare services in one year.
- A reduction in household size that resulted in a senior living alone -- which indicates a potential change in levels of social support-- was independently associated with entry into home care.
- The combination between high distress and the absence of a social network/ support leads to an especially high use of medical services.
- Extreme loneliness appears to be a predictor for rural adults entering nursing homes.
- Some of the variation in home care and nursing home usage may be explained by the degree of family support available to the senior.
- Although some studies report direct impacts on health from social support, the use of medical services among older adults is still primarily related to need. However, social support may also be exerting an indirect influence on health status and service use through need or perceived need.

Volunteering

Seniors who are socially isolated are disengaged from their families and peers and are likely not volunteering their time to contribute to their communities. When one examines seniors' social isolation from a 'lost opportunity' perspective it takes on additional meaning. From a societal perspective, when seniors are isolated and do not volunteer, the community is losing out on their valuable contributions. For example, about a quarter of Canadian seniors actively volunteer and their unpaid help constituted 1.5 percent of the 1992 GDP. Considering the degree to which seniors volunteer, the negative impacts of seniors' social isolation should be seen as an issue for the entire community.

Interventions for social isolation among seniors

The most common type of program aimed at reducing social isolation and loneliness found in the literature was a type of peer (volunteer) helping/ visiting outreach model. Several examples of these types of programs are presented as well as others that involve peer support groups and programs that recruit seniors to volunteer with other populations such as children. The literature does caution that when planning interventions for socially isolated and lonely seniors a good understanding of the target group, or of an individual's need for acceptance and social support is necessary before employing commonly recommended interventions. Also, it may be possible that feeling supported is in fact exclusively an outcome of caring interpersonal transactions among individuals who trust each other and not an intervention that can be implemented.

Policy implications: Future work around social isolation and loneliness in seniors

Given the potential harmful effects of social isolation and loneliness in seniors it is important to pursue this issue in order to reduce emotional damage to seniors and inappropriate health and social service usage. The policy implications of social isolation and loneliness among seniors can be separated into two categories, areas for further research and the development of future interventions.

Recommendation: Future research directions

- *Exploring and documenting the experiences of different ethnicities with loneliness and social isolation.*
- *Exploring and documenting the interaction of loneliness with poverty.*
- *Exploring and documenting the experiences of individuals whose spouses have a disability or physical or cognitive decline.*
- *Exploring and identifying the direct links between social isolation and loneliness and service usage.*
- *Identifying the specific health enhancing elements of social support.*
- *Developing a discourse on best practices for addressing the adverse affects of social isolation and loneliness among seniors.*
- *Increasing the qualitative element in studies on social isolation and loneliness.*

Recommendation: Program development

- *Supporting transportation initiatives for seniors,*
- *Using remote communications to reduce isolation,*
- *Increasing community awareness of services for seniors,*
- *Supporting informal caregivers,*
- *Increasing the service delivery capacity of small community agencies,*
- *Supporting the development of volunteer based outreach programs.*

Introduction: Social Isolation: An Emerging Issue

Social integration and participation of older adults in society are frequently seen as indicators of productive and healthy aging and it is widely accepted that social support has a strong protective effect on health. However, an increasing amount of seniors may be at risk of being socially isolated or lonely. This may be due to a number of factors such as increased likelihood of living alone, death of family members or friends, retirement or poor health. With current trends that encourage more seniors to live longer at home or in the community, the issue of social isolation takes on a new importance.

A better understanding is needed of the prevalence of social isolation in older persons, its risk factors, the links between isolation and well-being, and its financial impacts for health care and social services. This literature review has several purposes. It endeavors to deepen the understanding of social isolation and loneliness and its risk factors as well as explore any connections that may exist between lonely or socially isolated seniors and increased demand or utilization of health and social services. The review also explores seniors' volunteering contributions. Finally, some of the policy implications and past interventions for social isolation and loneliness are presented. This compilation of background information may provide support for health and social service interventions that target isolated seniors or seniors at risk for being isolated in order to improve their health outcomes and quality of life.

1. Definitions of social isolation and related concepts

It is important to understand how social isolation and loneliness are defined as well as how researchers attempt to objectively measure prevalence rates, risk factors and consequences.

The concepts that are primarily presented and measured in the literature are loneliness and social isolation[1]. Although these terms are sometimes used outside the academic literature interchangeably they actually have quite different meanings and attempts to measure them differ.

1.1 Loneliness

Loneliness is subjective and is measured using questions that seek perceptions of relationships, social activity, and feelings about social activity.

As a social concept, loneliness highlights the importance of social perceptions and evaluations of personal relationships. In particular, loneliness is defined by those situations where the number of relationships is smaller than expected or the quality of the existing relationships is less than desired (de Jong-Gierveld and van Tilburg ,1999). Because loneliness is a perception that cannot be objectively observed it has been presented in several ways. Victor et al (2000) view it as a discrepancy between the actual and desired interaction with others; a perceived deprivation of social contact; a lack of people perceived to be available or willing to share social and emotional experiences; or a state where an individual has the potential to interact with others but is not doing so.

Forbes (1996) defines loneliness as "an unwelcome feeling of lack or loss of companionship" (p. 35). Within this definition of loneliness are *external loneliness,* which is brought about by a persons life circumstances (bereavement for example), and *internal loneliness,* that relates more closely to personality type.

Attachment theory, which characterizes 'emotional isolation' as the absence of a reliable attachment figure, such as a partner, and 'social isolation' as loneliness caused by a lack of social integration and embeddedness (Weiss, as cited in van Baarsen 2002). The difference between the two is highlighted by their remedies. Absence or loss of an attachment figure can only be substituted by another close and intimate bond - other supportive friendships cannot compensate for the loss. Conversely, social isolation, which may occur following a relocation, can best be resolved by acquiring new contacts (Weiss, as cited in van Baarsen 2002).

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[1] A common measure for loneliness is the De Jong-Gierveld Loneliness Scale which is a subjective measure of feelings of loneliness and expected social support. A common measure for social isolation is the Life Space Score which examines the amount of social contacts and their frequency.

1.2 Social Isolation

Social isolation is objective and can be measured using observations of an individuals social interactions and network (network discussed below).

In Hall and Havens' study (1999), social isolation is an objective measure of social interaction (number of personal contacts) and is sometimes referred to as aloneness or solitude. Those who are often alone, however, are not necessarily lonely, as solitude can be a personal choice. Moen et al. (1989) concurs with social isolation being objectively measurable with the idea that social isolation, or conversely integration, represents the existence or quantity of relationships.

1.3 The relationship between social isolation and loneliness

Loneliness is often viewed as the subjective counterpart to social isolation and the antithesis to social support (Victor, Scrambler, Bond and Bowling, 2000). The terms loneliness and social isolation are often used interchangeably or integrated into a definition that endeavors to encompass both of them. For example, Victor et al (2000) mix both subjective and objective elements into their definition: "the lack of meaningful and sustained contact with either family or the wider community… relating to the integration of individuals and groups into the wider social environment" (p. 407). However, it is important to keep these concepts differentiated as amalgamating them may lead to misunderstandings when interpreting the literature and erroneous policy decisions.

Havens and Hall (1999) link the two concepts by identifying *social* loneliness as the subjective expression of dissatisfaction with a low number of social contacts and negative feelings about being alone that occur irrespective of choice. Social loneliness, then can be thought of as negatively perceived social isolation.

1.4 Related concepts used in the literature

There are several related concepts that present themselves in the literature, they are, social support, social exclusion, social networks, social environment and social cohesion. These terms have different meanings but are linked to social isolation and loneliness in a number of ways.

*Social network*s, defined by Berkman (as cited in Bosworth and Schaie, 1997), as "a set of linkages whose characteristics in an identified group of people may explain the social behavior of the people involved" (p. 197). Social networks are the social relationships that surround a person,

their characteristics and the individual's perceptions of them. Social networks can be identified by size (# of people), density (degree to which the people are interrelated), and the accessibility and reciprocity within the relationships (Victor et al, 2000). The World Health Organization (2003) states "belonging to a social network of communication and mutual obligation makes people feel cared for, loved, esteemed and valued- this has a powerful protective effect on health" (p. 22).

Social exclusion is a determinant of health as defined by the World Health Organization (2003). Social exclusion

> *"results from poverty, relative deprivation, racism, discrimination, stigmatization, hostility, and unemployment. These processes prevent people from participating in education or training, and gaining access to services and citizenship activities. They are socially and psychologically damaging, materially costly and harmful to health"* (p. 16).

Social support is having friends and other people to turn to in times of need or crisis. The World Health Organization (2003) states "friendship, good social relations and strong supportive networks improve health at home, at work and in the community" (p.22).

Social cohesion is defined as the quality of social relationships and the existence of trust, mutual obligations and respect in communities (WHO, 2003 p. 22).

The social environment is the aggregate of social and cultural institutions, forms, patterns, and processes that influence the life of an individual or community[2]. When endeavoring to identify and assess the interactive process by which emotional, instrumental, or financial aid is obtained from ones social network, Bosworth and Schaie (1997) examined perceived social environment and endeavored to measure it using six dimensions

1. Cohesion: the degree of commitment help and support family members and friends provide for one another
2. Expressiveness: the extent to which friends and family members are encouraged to express their feelings directly.
3. Conflict: the amount of openly expressed anger, aggression and conflict between family members and friends
4. Achievement orientation: the extent to which activities are cast into an achievement oriented competitive framework
5. Intellectual/ cultural orientation: the degree of interest in political social and cultural activities
6. Active/ recreational orientation: the extent of participation in social and recreational activities.

[2] www.websters-online-dictionary.org

1.5 The importance of social integration

Regardless of how the concept of quality of life is defined, those age 65 years and over "consistently ranked relationships with family and friends second only to health as the most important area of life" (Victor et al, 2000 p. 409). It is clear by this ordering how important social relationships are to seniors and how potentially damaging loneliness or social isolation may be. The next section will explore the prevalence of social isolation and loneliness among the elderly and then carry on to examine the risk factors and consequences of social isolation and loneliness.

2. Risk factors for social isolation and loneliness

This section presents a discussion on the risk factors that may lead to social isolation and loneliness. Risk factors presented here include gender, health, death of a spouse, disability and social networks among others. The list is not exhaustive and the studies are often not comparable because they use different methodologies and measurement tools. Furthermore, risk factors are just that - factors that *may* put someone at risk for being socially isolated or lonely- and none of the factors below are intended to be presented as causal links to isolation and loneliness. However, several studies (Hall, Havens, 1999) have established that the risk factors are in fact additive, meaning that the presence of more than one risk factor compounds the risk of loneliness and social isolation.

Another major caution that should always be forefront in the reader's mind is the presence of a "chicken and egg" relationship of social isolation with its risk factors. It is difficult, if not impossible, to determine the direction of association. This relationship is also important to be aware of when examining the health and social service usage consequences of social isolation and loneliness presented later on in this review. That said, the following section presents highlights from a number of studies on the risk factors of social isolation and loneliness for older adults.

2.1. Risk Factor: Health and Disabilities

Compromised health appears to play a major interactive role as a risk factor for social isolation and loneliness. However, there remains dispute on whether poor health causes loneliness and isolation or if being isolated and lonely leads to poor health. Most research illustrates a relationship between the two but the causal direction remains unclear as loneliness may be a symptom of health problems rather than a cause.

Several researchers have noted an association between poor self-rated health and increased loneliness (Mullins, Smith, Colquit and Mushel, 1996; Kivett, 1979; Hall and Havens, 1999; Mullins, Elston and Gutkowski, 1996; Tijhuis, deJong-Gierveld, Feskens and Kromhout. 1999). Although self-rated health is a subjective measure, results from the majority of studies examining health in an objective manner, and its relationship to loneliness, appear to concur.

There has been some evidence presented that disabilities (or embarrassment because of physical limitations) and poor health increase levels of loneliness and social isolation. The literature presents many examples of poor health and disability being associated with a higher incidence of loneliness and social isolation. For example, predictors of loneliness have been observed to be higher numbers of chronic conditions (Hall and Havnes, 1999) such as arthritis and lung disease (Penninx et al, 1999), poor mental health status or reduced cognitive functioning (Hall and Havens, 1999; Holmen, Ericsson and Winblad, 2000; Holmen, 1992; Victor, et al,2000), poor vision (Kivett, 1979), poor hearing (Dugan, as cited in Russell, Cutrona and de la mora, 1997), increased disability (Mullins, Elston and Gutkowski, 1996) or activity limitations (Creecy et all and Kivett et al as cited in Russell et al, 1997;Tijhuis et al 1999) and poor general health (Havens and Hall 1999;Victor, et al, 2000;van Baarsen, 2002).

Social isolation had similar predictors such as poor perceived health (Hall and Havnes, 1999), a higher number of chronic illnesses (Hall and Havens, 1999), compromised mental health (Victor, et al, 2000) and poor general health (Victor, et al, 2000; van Baarsen, 2002; Havens and Hall, 1999).

The literature generally associates the predictors mentioned above with social isolation and loneliness although there are some studies that illustrate different links. For example, one study done with only men (Tijhuis et al, 1999) found that the increase in loneliness was attributable to poorer subjective health but not activity limitations or cognitive function.

Poor self-rated and objectively measured health, impact loneliness and social isolation in a number of complex and circular ways. For example, poor health can cause or compound loneliness by reducing the capacity and opportunities for the individual to participate in social activities (“staying home is more comfortable when there are communication barriers such as hearing, speech or other health issues”) (Hall Havens 1999 p. 38). Also, mental health issues such as depression can impact self-rated health scores in an indirect way as those who are depressed may evaluate their social relationships negatively and therefore create apparent associations with other risk factors when in fact it is depression that is the issue (Russel et al, 1997). Finally, isolated people’s health may deteriorate because “they lack the environmental support, social ties and assistance by others that become critical factors in the maintenance of their independence later in life” (Bosworth and Schaie, 1997 p.197).

2.2. Risk Factor: Gender

When examining gender as a risk factor it becomes apparent in the literature that many studies point to women as being more at risk for loneliness and isolation than men (Kivett 1979). However, this may not be entirely accurate because of the interactions of loneliness with other risk factors that disproportionately affect women. For example, the death of a spouse and living alone are significant additive risk factors for loneliness and isolation (Hall and Havens, 1999). Both being widowed and living alone in later life are more common among women. Also, some hypothesize that part of the reason loneliness appears more predominant in women is the result of a reporting bias. The stigma associated with loneliness is stronger for men and may result in them being less likely to report feeling lonely than women.

Women's tendency to outlive male partners and other family members, and their traditional social roles, were cited as contributing to isolation and loneliness in old age. Women are more likely than men to be widowed, to live alone, to be unable to access transportation (Kivett, 1979), to be concerned about issues of personal safety, to be dependent on other people and be the caregivers for other people (Hall and Havens, 1999). However, when controlling for the additive risk factors that disproportionately affect women, several studies found the opposite- that greater loneliness was expressed by men (Mullins, Elston and Gutkowski, 1996; Mullins, Smith et al, 1996).

2.3. Risk Factor: Loss of a Spouse

The vast majority of the literature points to the loss of a spouse or intimate relationship as a strong determinant of both loneliness and social isolation (Havens and Hall, 2003; Berg, Mellstrom, Persson and Svanborg 1981; Mcinnis, 2000; Chipperfield and Havens, 2001; Kivett, 1979; Tijhuis et al 1999; Koropeckyj-Cox, 1998; Davidson and Lopata as cited in Hall and Havens, 2003). One study determined that the relationship between marital status and loneliness was stronger than its relationship with social isolation. Events such as widowhood emphasize that bereaved persons are especially vulnerable for emotional isolation (loneliness) rather than social isolation (van Baarsen et al, 1999).

The presence, and loss of a spouse or intimate partner interacts in several ways with social isolation and loneliness. Dykstra (1995) argues that the beneficial effects of marriage are attributable to the socially integrating function of the partner. The presence of a partner facilitates social interaction and many activities are undertaken as a couple, with other couples (mcInnis, 2000). Loneliness occurred as a result of the absence of an important relationship or was a response that accompanied a lost connection with a loved one (Mcinnis, 2000). The spousal

relationship does have a role independent of the social ties it may facilitate as van Baarsen (2002) demonstrated that social network support had “no effect whatsoever on emotional loneliness after loss of a spouse” (p. 39).

The loss of a spouse understandable had different effects depending on individual circumstances. Findings from one study (Carr, House , Kessler et al, 2000) suggests that adjustment to widowhood is hardest for those who experience the most amount of warmth and instrumental dependence on their spouses, and low levels of conflict in their marriages. Also, loneliness caused by loss of a spouse was deemed worse if the surviving spouse was unable to anticipate and prepare for a partners death (van Baarsen et al, 1999).

There also appears to be some interaction with gender, lack of spouse and loneliness. Chipperfield and Havens (2001) suggest that the loss of a spouse may be more detrimental to men than women because males’ life satisfaction after losing a spouse declined more dramatically than that of women. Carr et al (2000) found also that dependence on a male spouse for male typed tasks (instrumental support) is a strong predictor of anxiety for widowed women. Finally, women’s traditionally dependent roles themselves may also contribute to loneliness. A woman may not be able to drive, or feel safe walking around at night (when many gatherings take place), or feel she is able to entertain if she is no longer part of a couple (Hall and Havens, 1999).

There are also studies that examine the absence of a spouse and the relative loneliness of unmarried individuals. When investigating the social determinants of loneliness, Mullins, Elston and Gutkowski (1996) found that whether participants were married or not did not impact on loneliness. Dykstra (1995) further elaborates along this vein in a study that focuses on friendship support as an indicator of achieved relationships among never married and formerly married individuals. This study cautions against equating being old and single with being lonely and also the belief that marriage offers unconditional security against loneliness. The findings show that the absence of a partner should not be equated with loneliness. Friendship support, rather than being single appears to be an important determinant of loneliness (Dykstra, 1995). Older adults living without a partner are unlikely to be lonely when they receive relatively high levels of friendship support. So to the extent that single older adults are able to create and sustain mutually satisfying relationships they are likely to be characterized by low levels of loneliness (Dykstra, 1995). Also, the study revealed that how people feel about not having a partner strongly influences experiences of loneliness -ie if being single is their preferred lifestyle they are unlikely to be lonely. Finally, the never married are free from the desolation brought on by the loss of an intimate attachment - such as the death of a spouse (Dykstra, 1995).

So although it is widely accepted that the loss of an intimate relationship is a strong risk factor for loneliness it is inappropriate to assume that the state of being alone itself is a predictor of loneliness. Loneliness appears to be more strongly determined by the meaning people attach to being alone, and the grieving process, than being unpartnered.

2.4 Risk Factor: Living Alone.

Most researchers have found that both loneliness and isolation tend to be more evident among elderly persons who have outlived family members and friends, and live alone (Hadley and Webb as cited in Hall and Havens, 1997; Hall Haven, 1997; Victor et al, 2000). When examining living alone as a demographic variable that acts as a risk factor for loneliness, it is important to remember that most people who are lonely may live alone, but not all people who live alone are lonely.

Living alone also interacts with many of the other variables to create varying pictures of loneliness. For example, “women often appear to be more lonely but it has been argued that this is only because they are more likely to live alone” (Hall Havens, 1999 p.26). To counter this prevailing myth one study shows that men who are married also appear to be quite lonely (Hall and Havens, 1999)

Loneliness and sad mood prevailed among those with cognitive difficulties. Loneliness was more common in those suffering from different levels of dementia and increased with reduced cognitive functioning. However, living together with someone and living in one’s own apartment (as opposed to an institution) showed a positive influence on feelings of loneliness for this population. (Holmen et al, 2000).

2.5 Risk Factor: Reduced Social Networks

The findings are mixed when examining reduced social networks as a determinant of loneliness. Much of the literature associated few[3] or reduced social contacts with family and friends with loneliness[4] (Havens and Hall, 1999; Mullins, Elston and Gutkowski, 1996; Berg et al, 1981; Victor et al, 2000) but others found that social supports alone were insufficient for explaining loneliness (Mullins, Elston and Gutkowski, 1996). Other researchers looked at different elements of the social network such as size, composition and quality of relationships.

[3] As measured by the life space score

[4] Those who had few social contacts (as measured by the life space score) are 40% more likely to be lonely as those with many contacts.

One study found that loneliness, or subjective feelings of unhappiness, were not related to how many individuals one has in his or her network, but rather to the quality of the relationships one has with others (Victor et al 2000;Chappell and Prince, 1994). Network size and network support were related more strongly to social isolation than to loneliness (van Baarsen et al, 1999).

There are many different arguments presented as to if, and how, social support networks impact loneliness in the elderly. Many elderly people have a reduced social network because they have outlived family members and contemporaries (Victor et al, 2000; Berg et a 1981; Holmen, 1992). Delisle, (1988) also suggested that ”the lonely aged may be caught in a vicious circle - a lackluster social life would render them silent and this in turn would prevent them from having a fulfilling social life” (p.370).

Several researchers have also looked into the effect of children on late life loneliness. Some found childlessness to be related to increased loneliness (Mullins, Elston and Gutkowski, 1996). However, others found little or no relation between the two (Holmen, 1992;Koropeckyj-Cox, 1998).

Another interaction with loneliness found in the literature was that frequent loneliness was associated with low participation in organized social activities (Kivett, 1979). However, as it has been demonstrated by van Baarsen (2002), social network support could not fulfill intimate companion needs.

A social network has complex effects on the incidence of loneliness. Many of the variation in these effects is likely to be because studies measure different elements of the social network and social support. The literature presents the importance of the quality of relationships but cautions that social support may not be the magic bullet for health and happiness it has been made out to be. Furthermore, the potentially damaging effects of social support, and the resentment and dependence it may incur, have not been presented as they will be discussed later in this paper.

2.6 Risk Factor: Aging

Several researchers have found loneliness to be a correlate of aging itself (Tijhuis et al, 1999; Victor et al, 2000) and that there was a gradual increase in loneliness up to the age of 90, after which a leveling off was found (Holmen, 1992). This increase in loneliness with aging itself may be attributable to interactions with other factors such as the loss of contemporaries, cognitive impairments, disability and the loss of social roles (Victor et al, 2000).

2.7 Risk Factor: Transportation Issues

Driving status and transportation have an effect on the loneliness and social isolation of the elderly because of their role in facilitating access to the social network. For example, driving cessation was associated with a decrease in out-of-home activity levels (Mooney, 2003), which, in turn, may have negative consequences such as isolation and ill health. Increasing evidence supports the idea that out-of-home activity levels affect health status, well-being and survival in old age. “Disengagement from out-of-home activities is associated with declines in cognitive functioning among elderly persons” (Marottoli, Mendes de Leon, Glass, Williams, Cooney and Berkman, 2000 p. 337). Furthermore, loneliness and immobility were the most commonly mentioned effects of the forfeiture of a drivers license by the elderly (Johnson, 1999).

Although transportation issues are present in urban and rural settings they may have more of an effect on isolation and loneliness in rural areas. Kivett (1979) categorized older rural adults with transportation problems as at a high risk for loneliness. Rural communities, especially those in the interior, may also have heightened transportation issues during winter when the roads are icy and dangerous (Hall and Havens, 1999).

Transportation may also be a compounding issue for those who are widowed, single or part of a couple where one member is disabled. For example, the death of spouse may mean lack of transportation for those who never learned to drive. Also, if a single person, or part of a couple, is not able to drive because of vision or health issues this may isolate both of them. Many seniors are restricted to pre arranged van trips with community or volunteer drivers. Dependence on others for transportation related to socializing may change the nature of social interactions for those people (Hall Havens, 1999).

Transportation is a determinant of health according to the World Health Organisation because of the role it plays in independence and how it shapes individuals access to resources. Transportation issues presented themselves many times in the literature and when it is viewed as access it becomes even more important to this population. Programs for seniors will be ineffective if they cannot access them.

2.8 Risk Factor: Place of Residence

Several researchers have looked at the surrounding community and living arrangements of seniors and their effects on loneliness and isolation.

Krause (1993) found that neighborhood deterioration promotes distrust of others and that older adults who are distrustful of others tend to be more socially isolated. Authors hypothesize that distrustful individuals may not seek out support from others even when they are in need. They also may underutilize their social support network because they feel embarrassed or stigmatized or they may reject aid from others because they feel uncomfortable when assistance is provided (Krause, 1993). This may create a vicious cycle as behaving in this manner may actually help provoke the very conditions that are invoked to justify the behavior. Dilapidated areas of the city tend to promote anonymity and greater isolation among residents because of fear of crime. Anticipated social support is lower among the elderly who live in deteriorated neighborhoods than those who live in well maintained neighborhoods - higher neighborhood quality is related to increased contact with family members and interaction with friends (Krause, 1993). Moreover, the deleterious effects of run down neighborhoods appear especially pronounced for older adults who live alone (Thompson and Krause, 1998).

There are also some differences between seniors living in urban and rural environments. Several studies associate greater loneliness with an urban environment (Broese, van Groenou, van Tilberg, de Jong Gierveld, 1999; Hall and Havens, 1999; BC Ministry of Health: Provincial Health Officer, 2002). Loneliness was compounded in urban environments where individuals lived in a neighborhood with relatively few older people (Broese et al, 1999). Rural communities are often identified as taking care of their residents and the elderly who continue to live with children, or other relatives usually come from rural or semi rural communities (or more traditional backgrounds such as ethnic communities) (Delisle, 1988). Contrary to this finding, Anderson (1984) found, in the responses from a national survey examining differences in loneliness, age, gender and urbanization, that the degree of urbanization had no effect on loneliness. Finally, since many seniors move between urban and rural environments it is important to note that, regardless of population density, seniors who have moved residences (to a different town) are more at risk for loneliness and social isolation than those who do not have a major move (Hall and Havens, 1999).

Place of residence is also associated with loneliness and social isolation. The experience of living in a nursing home can increase social isolation and loneliness among older people. The lack of intimate relationships, increased dependency, loss of mobility, speech, hearing and cognition were all found to increase the level of loneliness experienced among older people in nursing homes (Hicks as cited in Hall and Havens, 2003). Furthermore, it was suggested that seniors who are not engaged in activities, as is often the case in nursing homes, may dwell on past issues, losses or regrets that may exacerbate loneliness (Hall and Havens, 1999).

2.9 Other Risk Factors

Other possible determinants of loneliness were presented in the literature. Among others, one's economic status and self-esteem have been found to have a relationship with loneliness.

The lack of economic resources is somewhat related to loneliness. A study examining the experience of loneliness as it relates to selected health and economic conditions found greater loneliness was expressed by those older persons with less adequate self-rated economic conditions and those living in actual poverty (Mullins, Smith, Colquit and Mushel, 1996). However, another study (Mullins, Elston and Gutkowski, 1996) concurred that the less financially adequate individuals perceive their situation to be the more lonely they were. However, the objective measure of being above or below the poverty line had no effect at all on assessments of personal loneliness.

Some individual qualities may also have an effect on the experience of loneliness. For example, respondents with higher self esteem experienced relatively weaker feelings of loneliness (van Baarsen et al, 1999). It was also found that educational and occupational resources were positively related to the intensity of social participation (Bukov, Mass and Lampert, 2002). This may indicate that more educated individuals experience less loneliness as they participate in more social activities. However, social participation can still be better explained by age and health status (Bukov et al, 2002).

3.0. The Effects of Seniors' Social Isolation, Loneliness and Related Concepts on Health and Social Service Usage

The relationships between social support and loneliness, and their impacts on health and social service usage, are complex and varied. The prevailing belief, one that is espoused by the World Health Organisation (2003) is that social isolation and exclusion are associated with "increased rates of premature death, lower general well-being, more depression, and a higher level of disability from chronic diseases" (p.16). Many of these, such as disability from chronic illness and lower general well being may logically lead to increased use of social and health services. The following section will present findings from several studies that examine the effect of social isolation, loneliness and social support on health and social service usage among the elderly. Some outcomes support the hypothesis that those experiencing social isolation and loneliness use more services and others show opposing patterns. Yet others present findings that endeavor to uncover the deeper complexity in the interactions between the variables.

3.1. Impacts on health service usage

Penning (1995) examined social support in terms of its relationship to health status and formal service utilization. In her review of literature she outlines the results of several relevant studies. Findings showed that greater utilization of hospital emergency room services are incurred among older adults without family support networks. Also, Krause, as cited in Penning (1995), reveals that social support (tangible, emotional and informational support) buffers the effects of stress and reduces physician visits for checkups and physical examinations (discretionary use) but not on visits for physical complaints (non-discretionary use). Furthermore, informal and family support networks can be important in recognizing and affirming the need for formal assistance and facilitating access and entry into the formal care system. This illustrates how informal caregivers can influence service use directly. The theory that informal caregivers influence and promote service use may explain the common finding that socially isolated elders use fewer services including mental health, personal care and recreation.

This study (Penning, 1995) defines social support in terms of instrumental assistance and found that, on its own, it is unrelated to the use, or non-use, of medical services. However, when other variables are added, a relationship begins to appear. For example, adults with Activities of Daily Living (ADL) difficulties who receive high levels of instrumental support are somewhat more likely to use hospital care than those who do not have that kind of support (Penning, 1995). Additionally, among those who report having a disability in terms of needing help with ADL's those reporting high levels of instrumental assistance from family members and friends are less likely to be users of home care services (Penning, 1995). However, without the disability neither emotional support nor any interactions between emotional support and aspects of health were found to significantly influence home-care use (Penning, 1995).

Litwin (1997) attempts to disentangle some of the complex interactions of social networks on health service usage by identifying different types of networks and their effects on the health service use of seniors. This study suggests that distinguishing the type of support network a senior has can be helpful in understanding their service use patterns. Litwin (1997) found that old frail seniors with an attenuated network[5] have a very low rate of utilization even though they may have the highest need. Despite their need, their limited networks may not provide the motivation and means that enable access to formal services. Conversely, those seniors with diversified friend and neighbor network[6] types have a greater than average use of services which may be

[5] An attenuated network is distinguished by the senior having a very low occurrence of contact with siblings friends and neighbors and low participation in religious activity.

[6] A diversified friend and neighbor network is distinguished by a high frequency of friend contact, moderate availability of a helpful neighbor, a low degree of proximate children and virtually no sibling contact.

because the varied communications within their diverse network direct them towards services (Litwin, 1997). Perhaps it is also because this type of network relinquishes caregiving earlier and refers the senior to alternate sources of care. Finally, the religious and family focused networks offset formal care needs somewhat, even for seniors with high needs, because of the informal support they offer (Litwin, 1997).

Evashwick, Rowe, Diehr and Branch (1984) show that most of the use of health services usage is based on need (as need explained more of the variability in service use). The study tested for predisposing variables, such as living alone and marital status, but did not find significant correlations. The data did show some general trends: those who were widowed used more physician, hospital, nursing home, ambulatory care and home care services; those who were separated used less of all the services; those who were divorced used more physician, nursing home, ambulatory care, and home care services but less hospital services; those who were married used more hospital services but less of every other service; and those who lived alone used less of all the services except hospital care (Evashwick et al , 1984). The researchers hypothesize that “people who are healthier are able to continue to live alone while those in poorer health are not able to manage if they live by themselves and thus live with others who are able to provide assistance” (Evashwick et al, 1984 p. 378).

Need also interacts with support in Penning’s (1995) study. For example, participants with moderate or higher levels of support appeared to use a lower volume of medical services at higher levels of need than did those with lower levels of support (Penning, 1995). The findings show that “the extent of medical services use increased at a lower rate in response to increasing disability and chronic illness among respondents having moderate or high, as opposed to low, levels of instrumental support” (Penning, 1995 p. 337). Furthermore, high levels of instrumental support are associated with both a reduced likelihood of service use and reduced levels of use among those receiving service (Penning, 1995). This finding is consistent with the notion that informal support resources reduce unmet need and directly substitute for formal services. This study (Penning, 1995) does a particularly good job of presenting the complex role of social support and how different levels of it produces variation within the type and volume of the service provided.

Bosworth and Chaie (1997) support the hypothesis of a positive association between social relationships and health outcomes. However, even when controlling for other factors, such as age and income, social relationships explained only a small part of the health outcome variance. Specifically, the findings of this study showed that low levels of perceived social environment[7] were related to a larger number of hospital visits and that those individuals who lacked a social network were more likely to have severe health problems (Bosworth and Schaie, 1997). Marital status also had an influence on the healthcare usage patterns of participants in this study. Among married individuals a greater social network was associated with lower total care costs, outpatient costs, and fewer primary care visits (Bosworth and Schaie, 1997). For unmarried individuals, lower perceived social environment was related to increased physician visits (Bosworth and Schaie, 1997).

Havens and Hall (1999) compare health utilization data to loneliness and social isolation[8] scores in their study. Findings showed higher levels of loneliness were more likely to be found among women who had more admissions to the hospital, longer stays in hospital, a greater number of physician visits, a higher number of pharmacare claims and used home care services (Havens and Hall, 1999). The study also attempted to predict the use of these services one year later based on loneliness and social isolation scores. After adjusting for age and gender, those who were lonely or had few social contacts, were more than one and a half times more likely to be using homecare services one year after the interview (Havens and Hall, 1999). However, loneliness and social isolation could not predict the use of the other services (Havens and Hall, 1999).

Another study that associates the use of homecare to social isolation is that of Wilkins and Beaudet (2000). They found that "a reduction in household size that resulted in a senior living alone -- which indicates a potential change in levels of social support -- was independently associated with entry into home care"[9] (Wilkins and Beaudet, 2000 p. 44). Individuals with a household change that resulted in living alone had over three times the odds of entering home care (Wilkins and Beaudet, 2000). Findings also indicated that individuals who reported an increase in perceived emotional support had "just over twice the odds of entering homecare as those who reported no change" (Wilkins and Beaudet, 2000 p.42)[10]. This somewhat anomalous finding may be explained by the increase in support given to a senior with a quickly worsening disability just prior to their entry into long-term care.

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[7] Perceived social environment is measured by a 90 item true of false "Family Environment Scale" constructed by Moos and Moos (as cited in Bosworth and Schaie) that measures 10 different dimensions of ones social environment.

[8] Measured social isolation with Life Space Score and loneliness with Loneliness Index as proxy measures

[9] Home care services are health care and homemaker services received at home with all or part of the cost being borne by govt. ex. Nursing care, respite, meal delivery

[10] Two points of measure in the NPHS

Russell et al (1997) found that extreme loneliness appears to be a predictor[11] for rural adults entering nursing homes. This study also found that those with higher incomes were less likely to be admitted to nursing homes (Russell et al, 1997). The study also notes that a greater number of prescription medications and a greater the number of doctor visits in the previous year were also significant predictors of nursing home admission (Russell et al, 1997). This is concurrent with the theory that past service use is the best predictor of future service use. Seniors who reported attending religious services more frequently were also less likely to be admitted to a nursing home (Russell et al, 1997). The study suggests that those who are extremely lonely may enter a nursing home to seek companionship with others. This may be a rural phenomenon because of the lack of resources to facilitate social contact for seniors and transportation issues in rural communities. Furthermore, because residents of rural communities have often lived in the same community for many years, they frequently know the other residents and the staff of the local nursing homes (Russell et al, 1997). For these reasons the findings may not generalize to urban settings.

Some of the variation in home care and nursing home usage may be explained by the degree of family support available to the senior. Freeman, (1996) conducted a study examining family structure and its impact on nursing home admittance. After controlling for demographic, economic and health factors it was found that married older persons had about half the probability of nursing home admission as unmarried persons (Freeman, 1996;Holden, McBride and Prozek, 1997). Furthermore, having at least one daughter or sibling reduces an older person's chances of nursing home admission by about one fourth (Freeman, 1996). Although having living sons did not initially affect the risk of nursing home entry appreciatively, when another analysis was done examining the role of gender and other characteristics, it was found that the presence of sons appears to decrease the risk of nursing home admission for mothers but not for fathers (Freeman, 1996). This may be due in part to the fact that sons typically do not supply direct care to a frail parent. They are more likely to offer financial assistance or handle bureaucratic tasks (Freeman, 1996). It may also be that father /son relationships are less conducive to these types of transfers than mother/ son relationships (Freeman, 1996). Finally, there is some evidence that persons in rural areas depend more on family and less on formal home care services than persons in urban areas (Freeman, 1996). These types of findings are important to note as they illustrate that kin can provide personal care directly to a relative often as part of a residential arrangement thereby directly substituting informal care services for institutional care.

[11] Independent of other demographic characteristics such as age, gender, income, education, mental status, physical health, morale etc

Kouzis and Eaton, (1998) proposes that the link between social support and health service usage may manifest itself in one of two ways. When assessing the impact of bodily deviations that could be attributed to illness, the presence of social supports may serve to normalize the issues and reduce help seeking for individuals. Conversely, social supports may guide an individual to appropriate medical care. It is simplistic to say that social support, in and of itself, leads to higher or lower rates of seeking medical care (Kouzis and Eaton, 1998). This study illustrates that it is the combination between high distress and the absence of a social network/ support that will lead to an especially high use of medical services[12] (also supported by Plouffe and Jomphe-Hill, 1996). This interaction is complex and the level of service use varies depending on the interaction of the two factors. For example, for those with high distress, the prevalence of social support lowers the degree of use. However, for those with low distress the presence of social support raises slightly the degree of service use. These findings support a buffering effect theory of social support on stress - that people who are distressed, or have trouble coping, deal with situations in part by seeking medical care (as those undergoing stress have a lower threshold for bodily aberrations) (Kouzis and Eaton, 1998).

3.2. Impacts on social service utilization

Coulton and Frost (1982) investigated different variables and their influence on health and social service utilization. Variables examined included: subjective[13] and objective[14] need for services; enabling factors such as knowledge of services, insurance services and transportation; and predisposing factors such as sex, ethnicity, level of social support[15] and psychological distress[16]. They found that predisposing factors had little bearing on service utilization when perceived need and evaluated need were taken into account (Coulton and Frost, 1982). Researchers hypothesize that these findings may be the product of an indirect influence of predisposing factors on perceived need (as little of the variance is explained by factors other than need) (Coulton and Frost, 1982). Need and predisposing factors are important in predicting the use of selected social services. The exception to this is recreational services – seniors who are rated as being more socially isolated have reduced usage of recreational services, and those who perceive a need for recreational services are among the less socially isolated (Coulton and Frost, 1982). Socially isolated elderly also seem to have minimal ties to community agencies as reflected by their lower utilization of services in general. The weak association of high social isolation with lower service usage “runs contrary to the theory that isolated individuals use more services as a substitute for social ties” (Coulton and Frost, 1982 p. 336).

[12] In this study (Kouzis and Eaton, 1998) those reporting high distress had 70% higher odds of seeing a physician. The group that had the highest odds of medical service use was the one with little social support and high distress (four times more likely to seek support than the reference group.

[13] As decided by individual (perceived)
[14] As decided by health professional (evaluated)
[15] As measured by and index of social contacts
[16] As measured by an index of the individuals overall feelings of dissatisfaction and emotional distress

Choi (1994) examines family support and its effect on social service use. In this study seniors were divided into three groups; those who lived with children, those whose children lived apart and those who were childless. It was found that “health status variables were the most important determinants of social service use” (Choi, 1994 p. 360). That said, there were differences in use among the groupings that appeared to be due to different levels of support. For example, services related to health care and caregiving were used significantly more by seniors residing with their children, whereas service involving activities and transportation, and home delivered meals and homecare, were used significantly more by childless seniors and those living apart from their children (Choi, 1994). It is theorized that children facilitated their parents access to these services by acquiring information and arranging service delivery (Choi, 1994). This study confirmed the importance of children as informal care providers to those elderly persons with the most functional and physical problems. It also noted the role of family members as enablers to service use. Finally, this study (Choi, 1994) presented a relationship between social service use and home ownership. Home ownership was found to be a predictor variable for social service use (Choi, 1994) possibly because those who own homes lived in their communities longer and consequently were more aware of local services (Choi, 1994).

In order to better understand the caregiving capacities of social networks Keating et al (2002) distinguishes between social networks of “social ties to others such as neighbors, friends and family members” and support (care) networks who are “subsets of these people who provide emotional and tangible assistance with everyday activities” (p. 1) and explores how social networks of the elderly have the capacity to evolve into care networks when needed. Although this study found that social network characteristics such as size and proximity were important predictors of the amount of care received[17], in general, the “assumption made by policymakers that seniors are surrounded by large networks of family, friends and neighbors who provide care if needed is not supported by our research” (Keating et al, 2002, p.3).

[17] As network size increased recipients received more hours of care, more care tasks and had a greater odds of receiving each task. Also seniors whose entire network lived in the same residence received about nine more hours of care per week than those with non-coresident caregivers.

3.3. Contradictory findings

Despite the general acceptance of the idea that social support has protective effects on health and moderating effects health services usage, there are several studies that do not observe this association. For example, Prince and Chappell (1994) found that none of the social support variables -network size, number of informal helpers, nor amount of contact with the network- were significantly related to the use of medical services[18]. The major predictor of these medical services is activity limitation and the ability to perform activities of daily living, accounting for 11.74% of the variance (Prince and Chappell, 1994).

Coulton and Frost (1982) actually found that isolated elders use fewer services (including physician and mental health professionals). This may be a function of the theory outlined earlier that isolated individuals do not use services unless they are under stress because they do not have the informational support to guide them to a particular service. This finding is supported by Choi (1994) who reported that " the low volume of social service utilization by elderly people, especially low-income minorities, was found to be due more to lack of knowledge, perceived availability (or unavailability) of social services, and restricted access, than to the abundance of informal support" (p. 354). Findings from Coulton and Frost also show that "being married is one of the strongest predictors of underutilization of health services- even for those health problems for which an individual should see a physician" (Coulton and Frost, 1982 p.331).

Although some studies report direct impacts on health from social support, the use of medical services among older adults is still primarily related to need (Kouzis and Eaton, 1998; Menec and Chipperfield, 2001). However, social support may also be exerting an indirect influence on health status and service use through need or perceived need (Penning, 1995). For example, social support may act as a buffer, modifying the impact of stress induced by illness and disability. Therefore as need increases the use of services may increase but at a different rate depending on the availability of support. Those with stronger support systems may make less use of health services during times of high need (stress) than those with weaker support systems (Penning, 1995). Conversely, those with more extensive support networks may utilize more services because network members provide health related information and assistance in utilizing health care resources. (Keating et al, 2002).

[18] The number of occasions the respondent saw or talked to a doctor, dentist, specialist or nurse about their health in the last 12 months

The complexity of interactions among the variables of social isolation, loneliness, health and healthcare usage make a difficult task of predicting usage patterns in certain populations. While some (Menec and Chipperfield, 2001) believe that "only self-rated health and prior healthcare use consistently predict later life health care service usage" (p. 303). Others present a myriad of interacting variables such as anxiety, place of residence and family structure among others as predictors. Some general themes that emerge are that "social networks can deter or encourage service utilization, preclude the need for services, substitute for them or serve as referral mechanisms for appropriate service utilization" (Litwin, 1997 p.277). Social support has a complex relationship with other variables that determine health care usage that is difficult to define and isolate.

3.4 Cautions when interpreting the literature

There are several important caveats to bear in mind when interpreting the results of the literature. Although the link is difficult, if not impossible, to define, it is generally accepted that social support does have a role in the link between stress, illness and health services usage- either by intervening to prevent stress, by reducing or eliminating distress or by acting as a guide toward or replacement for health services (Chappell and Prince, 1999; Kouzis and Eaton, 1998). The primary caution to be aware of around this literature is the circular nature of the impact of social isolation and loneliness on health and social service use. This issues is well documented and, almost without fail, studies that attempt to identify a relationship between the two disclose a "chicken and egg" issue with the direction of causation (Smith, Fernengel, Holcroft and Gerald, 1994;Hall and Havens, 1999; Bosworth and Schaie, 1997). Researchers struggle with whether social isolation and loneliness negatively influence health, or if conversely, declining health status leads to increased social isolation and loneliness (Hall and Havens, 2003). Another important issue to be aware of is that health status has been operationalized and measured in many different ways and the diversity among these measurements contributes to the difficulty in comparing findings from the studies of health and social relationships. Furthermore, physical health measures may overlap with measures of psychological functioning that, in turn may exaggerate the magnitude of the relationship between social relationships and physical health. Finally, few studies have looked at the negative side of social relationships For example, relationships that are characterized by negative patterns of critical and/or demanding interactions or those that are perceived negatively by the individual as creating a dependence relationship (Seeman, 2000). Measures of social support and isolation that quantify only the number and frequency of social contacts, and not the meaning individuals assign to those contacts, would not be able to identify these negative interactions or isolate their impacts.

4.0. Current trends that may interact with social isolation and loneliness

There are several demographic trends that may exacerbate social isolation and loneliness in the future. The family structure of the baby boom generation differs dramatically from the current generation of elderly people in many significant ways. The baby boomers have tended to marry later, have less children, have an increased divorce rate and increased longevity than previous generations (Choi, 1994; Lafreniere, Carriere, Martel and Belanger, 2003). This may lead to more single childless elderly people living alone. This is especially true for women because they are less likely to be remarried after a divorce and live longer than men (Choi, 1994). Furthermore, the trend toward smaller family sizes may reduce the capacity of kin networks to provide informal support to seniors (Lafreniere et al, 2003). Finally, this generation is highly mobile and it is rare to have all members of a family living in close proximity.

Resource limitations, in some cases, may have resulted in changes to the scope of services offered by community-based organizations that provide supportive services to seniors. A decline in these types of services may result in less interaction among seniors and a reduced feeling of connection to the community.

Conversely, communications technologies are more widely used than ever and may expand opportunities for seniors to communicate, therefore decreasing social isolation and loneliness. The internet provides an excellent tool to keep in touch with friends and family. Furthermore, through the internet seniors can also increase their awareness of services and participate in online communities that were previously inaccessible.

5.0. Volunteering

Volunteering encompasses many different types of activities and therefore has several different definitions. Volunteering can be defined as "unpaid work within the context of a formal organization or voluntary organization" (Cohen-Mansfield 1989 p.215). Within these parameters *informal volunteering* can be defined as "individuals helping individuals without going through a mediating institution" (Chappell 1999 p.4) and *formal volunteering* as "a volunteer activity with an organization, frequently with paid staff" (Chappell 1999 p.10). It is important to distinguish between the two because only recognizing formal volunteer work would result in a serious underestimation of seniors' contributions (Robb, Denton and Gafni, 1997).

5.1. Motivations For the Senior Population to Volunteer

According the literature seniors volunteer for many different, yet overlapping reasons. Some of these include altruism (Stoller et al as cited in Chappell 1999; Cohen-Mansfield, 1989; Lee and Burden, 1991), filling leisure time (Chappell, 1999; Cohen-Mansfield, 1989; Lee and Burden, 1991), enhancing social contacts (Chappell, 1999; Cohen-Mansfield, 1989; Lee and Burden , 1991), a need for affiliation (Hertzog and Morgan as cited in Chappell 1999), a sense of duty (Chappell, 1999), to feel productive and useful (Hertzog and Morgan as cited in Chappell, 1999), to feel competent (Hertzog and Morgan as cited in Chappell, 1999) or to contribute to the health and functioning of their communities (Okun, 1993). Unlike younger age groups, seniors do not volunteer to gain work experience or employment related contacts.

Many senior volunteers do not have paid employment and volunteer in order to enhance their social contacts. This motivation supports the notion of seniors volunteering as role substitution (Cohen-Mansfield, 1989). Also, most volunteers participate in their volunteer activities as a result of having been approached rather than initiating involvement themselves[19] (Chappell, 1999). Another external motivation for volunteering was identified by Okun (1993), apparently, high neighborhood satisfaction may be associated with an inclination to contribute to the quality of community life by volunteering. Seniors who did not volunteer stated poor health (Willigen, 2000; Lee and Burden, 1991), lack of free time (Cohen-Mansfield, 1989; Lee and Burden, 1991) , lack of information about volunteering opportunities, (Lee and Burden, 1991) and negative attitudes about volunteering (Lee and Burden, 1991) as reasons for not volunteering.

5.2. The Value of Volunteering

It is virtually impossible to quantify the extensive volunteer contributions that seniors make. However, as the importance of seniors volunteering increasingly becomes recognized as an integral part of the economy some attempts have been made to measure the value of their contributions. The studies presented below examine the contributions of senior volunteers in terms of volunteer activity, frequency and prevalence of volunteering, and value of the volunteer contributions.

[19] 75% who were involved in society and public benefit organizations were approached rather than self initiating their involvement (this has interesting implications for outreach programs)

5.2.1 Frequency and prevalence

It is estimated that about a quarter of Canadian seniors actively participated in volunteer activities (Chappell 1999; Division of Aging and Seniors (DAS), 1999). They contribute, on average, more hours per year than other age groups.[20] Cohen-Mansfield (1989) found that of those who volunteered 57.5% were involved in direct caregiving or helping individuals and 13.8% did organizational work in a volunteer organization. Most of the volunteers (80.8%) committed themselves at least once a week but only 15.4% volunteered every day (Cohen-Mansfield, 1989). These prevalence findings are generally supported by the Division of Aging and Seniors at Health Canada (1999) that reports "senior volunteers give help with such things as housework, meal preparation, groceries, transportation, babysitting[21], personal care, and money management" (p.6). DAS (1999) also found that about half of seniors surveyed also reported being recipients of help with chores, transportation and other tasks.

One study (Okun, 1993) tried to predict volunteer status and found that for every ten actual volunteers there are approximately 3.4 latent volunteers - not currently volunteering but would volunteer if asked - and 5.9 conditional volunteers - not currently volunteering but might volunteer under certain circumstances if asked (Okun, 1993). These findings indicate that there may be a substantial pool of potential volunteers, who are essentially untapped human resources, just waiting to be asked. Lee and Burden's (1991) work somewhat supports these conclusions as "Personal Request From Someone You Know" was given as the best communication approach to recruiting volunteers (Lee and Burden, 1991).

5.2.2 Value

Several attempts have been made to attach a monetary value to seniors' volunteer contributions. Gaskin and Dobson (1997), two British researchers built such a model and found that there is a return of two to eight pounds for every pound invested in volunteers by most organizations. Furthermore, if the contributions were extrapolated nationally, this economically invisible sector would appear as a key player in delivering care in the community (Gaskin and Dobson, 1997).

[20] 202 hours per year compared to the next largest group 160 hrs – age 55-64 (chappell, 1999)

[21] The general social survey 1995 notes significant levels unpaid of childcare and eldercare provided by seniors.

In Canada, Robb et al (1997) attempt to estimate the market value of seniors contributions using a market replacement cost calculated using hourly wage rates developed by Statistics Canada for each type of unpaid activity[22](p. 5). They found that seniors contribute a disproportionate and valuable amount of tangible volunteer labor to the economy. The highlights of these findings are as follows (Robb et al, 1997):

- Seniors (65 and over) provide 45.4% of all volunteer hours of the adult population over the age of 25 but make up only 30.6% of that population
- The average male senior contributes a value of $2073[23] per year in help activities and average female senior $1857 [24]per year.
- In 1992, the value of volunteer contributions by seniors age 55 and over was approximately ten and a half billion dollars (Canada)- for 65 and over it was 5.5 billion which represents about 25-30% of what this group received in public pensions
- Seniors' (age 65 and over) unpaid help constituted 1.5% of the 1992 GDP.

5.3. Socially isolated seniors: *Lost volunteer opportunities?*

Seniors who are socially isolated are disengaged from their communities. As mentioned, spending time alone can be by choice. However, seniors who are socially isolated are not participating in social activities with their peers and are likely not volunteering their time to contribute to their communities. When one examines seniors' social isolation from a 'lost opportunity' perspective it takes on additional meaning. From an individual health practice perspective, seniors who are socially isolated and are, therefore probably not volunteering, are not gaining the potential health benefits and boosts to their longevity that the research suggests accompany volunteer participation. From a societal perspective, when seniors are isolated and do not volunteer, the community is losing out on their valuable contributions. Considering the degree to which seniors volunteer, the negative impacts of seniors' social isolation should be seen as an issue for the entire community.

[22] They chose market replacement technique rather than opportunity cost because opportunity cost may present inaccuracies since the seniors were not in the formal labor market.
[23] 1992 Canadian dollars
[24] 1992 dollars. The differences in the amounts may reflect traditional devaluations of housework/ childcare of which forms a greater amount of the volunteer contributions of women.

6.0. Interventions for social isolation among seniors

Most interventions for socially isolated and lonely seniors presented in the literature are small program interventions that are population specific. The literature also cautions against implementing interventions without knowing the target population and assessing the possible negative consequences of the planned intervention.

6.1. Types of interventions

The most common type of program aimed at reducing social isolation and loneliness found in the literature was a type of peer (volunteer) helping/ visiting model.

A number of Canadian cities have established visiting programs for seniors[25]. These programs are usually managed through an existing service agency as part of an outreach component. Most of these programs provide friendship to seniors who are homebound or living alone. The program volunteers work on a one-to one basis in the homes of seniors or provide support by telephone. Typically, the volunteers talk, walk and shop with the seniors. In some cases the goal is to help the senior become part of the community again, to provide companionship to socially isolated people, and to act as their link to the community. [26]

There have been several pilot outreach projects involving attempts to reduce social isolation in seniors in BC. One project, "A Community Approach to Reaching and Providing Health Services for the Invisible Seniors", endeavored to improve the health of these seniors, improve their safety and functioning and reduce their inappropriate usage of health services[27]. This program targeted seniors who lack the personal resources or knowledge needed to appropriately access social and health services (due to fear, illiteracy, low socioeconomic status or the inability to speak English). This project endeavored to increase knowledge of services by providing regularly scheduled home visits, transportation assistance[28], drop-in socializing programs[29], and an outreach program in the form of a coffee wagon[30].

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[25] An example of this is the Isolated Elders Project in the Simon Fraser Health Region. This is a Seniors Visiting Seniors type program.

[26] Alcohol and Seniors: Social isolation and Visiting Programs, Aging in Canada. Accessed Dec, 23, 2003 at www.agingincanada.ca_%isolation.htm

[27] For example, community workers observed that ambulance services were often called when a trip to a community health centre physician would suffice.

[28] Accompanying seniors to appointments

[29] The drop-ins took place in three of the treatment buildings and were an attempt to provide an alternate setting for socialization other than bars. The drop-ins were well attended with over 40 participants per session. The drop-ins became a site for social networking, community development, health information teaching and blood pressure assessment.

[30] The coffee wagon was started in two of the treatment buildings to provide outreach to seniors who were isolated because of mobility problems or social discomfort.

Another outreach attempt, this time specifically targeted to the Japanese Canadian Senior population in Vancouver, was a volunteer visitor program that provided culturally and linguistically sensitive home visitation to an at-risk group. The goal of the program was to reduce social isolation and improve the health, quality of life and ability to remain independent of Japanese Canadian seniors (Kobayashi, Gee and Tasaka, 1997). This initiative, in cooperation with a local community center, represents an attempt to recognize through programming the diversity among seniors in the Lower Mainland.

Some program interventions involve seniors in the community by recruiting them to do volunteer work with children in childcare centers or with at-risk children[31] (Sherwin 1990). Seniors are also recruited to help out in seniors centers programs that include exercise programs, bible study, recreational opportunities, hobbies, health information and hot lunch gatherings (Skarupsi et al 2003; Adam et al 2000).These types of interventions were proposed to be especially helpful for those with cognitive difficulties related to dementia (Skarupsi et al 2003; Adam et al 2000).

One article (Stewart, Craig, MacPherson and Alexander, 2001) reviewed presented the program process and impact of a peer support group for widowed seniors. The program was designed to reduce loneliness and isolation. After weekly support groups for 20 weeks results showed that the intervention "enhanced support satisfaction, diminished support needs, and that there was a general trend towards decreased social isolation and loneliness" (Stewart et al, 2001 p.54). Programs such as this one may prevent seniors who have recently lost a partner from entering into a depression following their natural grieving period.

There are other programs offered to seniors that may help reduce isolation. For example, transportation programs that facilitate access to senior's centers and other activities, as well as meal delivery services, may provide or facilitate social contact for/with seniors. These types of programs are not included in this review as their primary focus is not reducing isolation. However, it is important to identify the opportunities these programs can provide to access target audiences for 'piggy back' programs specifically designed to address social isolation.

[31] An example of this type of program is the Volunteer Grand parent Society, mentioned earlier in this paper.

6.2. Cautions when planning interventions

When planning interventions for socially isolated and lonely seniors a good understanding of the target group, or individuals' need for acceptance and social support is necessary before employing the commonly recommended interventions such as self-help, bereavement, marital or family therapy groups (Smith et al, 1994). Likewise, requesting that seniors increase their social activities or obtain support from extended family may in fact have negative effects such as a feeling by the senior of invasion of privacy or over dependence (Smith et al, 1994). Also, it may be possible that feeling supported is in fact exclusively an outcome of caring interpersonal transactions among individuals who trust each other and not an intervention that can be implemented. (Smith et al,1994; Stewart et al 2001)

It is tempting to believe, when planning interventions for socially isolated seniors, that individuals who are less well integrated into society might benefit most from becoming involved in volunteer activities. However, one study reported that the "protective effect of volunteering was stronger for those that were living with others" (Musick et al, 1999 p.179). This is against the hypothesis that it would be more beneficial among respondents who were less socially integrated. (Musick et al, 1999)

Finally, there is some indication that seniors can suffer from role strain. Seniors often have multiple roles as parents, grandparents, spouses and caregivers, among others. Literature highlights the extensive caregiving contributions of seniors and the health benefits of altruism and helping activities. However, involving seniors in caregiving as an informal volunteer activity may be good for the caregiver's health only if the rewards of caregiving outweigh the stresses (Chappell, 1999).

7.0. Policy implications: Future work around social isolation and loneliness in seniors

Given the potential harmful effects of social isolation and loneliness in seniors, it is important to pursue this issue in order to reduce emotional damage to seniors and inappropriate health and social service usage. The policy implications of social isolation and loneliness among seniors can be separated into two categories, areas for further research and developing future interventions.

Recommendation: Future research directions

- *Exploring and documenting the experiences of different ethnicities with loneliness and social isolation.*
- *Exploring and documenting the interaction of loneliness with poverty.*
- *Exploring and documenting the experiences of individuals whose spouses have a disability or physical or cognitive decline.*
- *Explore and identify the direct links between social isolation and loneliness and service usage.*
- *Identifying the specific health enhancing elements of social support.*
- *Developing a discourse on best practices for addressing the adverse affects of social isolation and loneliness among seniors.*
- *Increasing the qualitative element in studies on social isolation and loneliness.*

Recommendation: Program development

- *Supporting transportation initiatives for seniors,*
- *Using remote communications to reduce isolation,*
- *Increasing community awareness of services for seniors,*
- *Supporting informal caregivers,*
- *Increasing the service delivery capacity of small community agencies,*
- *Supporting the development of volunteer based outreach programs.*

7.1. Areas for future research

Despite the vast amount of literature on social isolation, loneliness and related topics, several gaps were identified. It is recommended that future efforts should attempt to fill these gaps with research in the areas outlined below.

7.1.1. Exploring and documenting the experiences of different ethnicities with loneliness and social isolation

The literature does not often present studies on how seniors of different ethnicities experience loneliness and isolation and how the experience of being a minority interacts with that experience. An area of further research may then be to examine the experience of seniors of different ethnicities in Canada with an emphasis on First Nations elders and Asian Immigrants.

7.1.2. Exploring and documenting the interaction of loneliness with poverty

There appeared to be very little in the literature on the impact of poverty on the experience of loneliness and this relationship needs deeper examination. One article (Mullins, Elston an Gutowski, 1996) mentions the interaction of economic resources with loneliness and notes that reported loneliness has a stronger association with self-perceived poverty than actual poverty. One evaluation report of a pilot study (Tsang and Martini, 1994) that endeavored to reach "invisible seniors" reported that many seniors in their target population were comparatively quite isolated and consequently did not use health services appropriately. The target population was seniors living in Single Room Occupancy (SRO) hotel accommodation. This population is often socio-economically disadvantaged, has little formal education, has literacy issues, often speaks little English, and often has inadequate social skills to function in the community. The SRO population has traditionally been difficult to serve as the population is transient and often relies on a social support network that is difficult to define and "tends to be a frail and as ignorant or, or resistant to, formalized services that are available" as the individual (Tsang and Martini, 1997 p.14). More work could be done on best practices for serving this disadvantaged population.

One area that may be of particular interest is how poverty interacts with transportation issues to produce loneliness. Loneliness and isolation may occur when seniors do not have access to community resources or to transportation that facilitates access to those resources. Transportation appeared repeatedly in the literature and deserves to be a research focus. Transportation is a determinant of health because of the role it plays in providing access to health and human services. In some cases the lack or cost of transportation may present a prohibitive barrier to resources that would reduce social isolation and feelings of loneliness. For example, if the senior has no vehicle and the region is not well served by public transit this may present a barrier because the senior cannot always afford to take a taxi to a recreational or health service. Furthermore, a disability may prevent the use of public transit and if there is there is no handi-dart type service (or other low cost alternative) they may remain housebound- increasing isolation.

7.1.3. Exploring and documenting the experiences of individuals whose spouses have a disability or physical or cognitive decline

Some of the literature touches on this issue. Role strain and stresses involved in caring for a disabled loved one may have implications for loneliness and isolation. Furthermore, if one member of a couple has a disability that prevents out-of-home activities it follows that this restriction may also apply to the non-disabled spouse by proxy. This has the potential to isolate both members of the couple. Respite care, aid to a disabled partner to facilitate out-of-home activities, and supports for the caregiver may be helpful. Purely quantitative research may have difficulty examining the experiences of this somewhat hidden population.

7.1.4. Exploring and identifying the direct links between social isolation and loneliness and service usage

Although there were some valuable results around the impact of social isolation and loneliness on health service use - particularly Hall and Havens (1999) study illustrating a direct and predictive relationship of social isolation with home care services – many of the studies illustrated the links indirectly. The influence of social isolation and loneliness on health service use was usually examined as part of a larger study with many different outcome variables. They were usually seen as influencing health service use through perceived need or as a predisposing variable, rather than having a direct relationship. It may be helpful in the future to focus a study that examines the existence of a more direct relationship between social isolation, loneliness and specific health services (ie doctor visits). Furthermore, increased research effort may want to examine these relationships in a longitudinal way and include the outcome of an intervention once a target population has been identified.

7.1.5. Identifying the specific health enhancing elements of social support

Another research focus that may help improve the efficacy of programming designed to reduce harmful social isolation and loneliness is one that endeavors to identify the specific elements of social networks and support that influence service utilization (Kouzis et al, 1998). The literature offers a wide range of, often contradictory, results around the contributions of social support to health. The diversity of outcomes of these studies make it difficult to plan interventions. Litwin (1997) helped to demystify these divergent outcomes when he illustrated that different types of networks have different influences on a senior's use of health and social services. For example, those with very diverse networks may use more services because they have multiple, unrelated sources of information about services. Research around exactly what elements of social support enhance health would be helpful when designing policy and programs intended to increase social support and reduce isolation and loneliness.

7.1.6. Developing a discourse on best practices for addressing the adverse affects of social isolation and loneliness among seniors

Another area for possible research development that arose as a result of this research was the need for best practices literature around addressing the adverse affects of social isolation and loneliness for seniors. Although the literature cautioned against applying blanket "one size fits all" program solutions on this population it did not then carry on to provide guidance around specific methodologies that should be encouraged when working with this population. As the research focus on seniors and social isolation widens it is likely that this type of literature will increase accordingly. However, as practices are developed and implemented it is important to contribute to this growing body of literature by sharing program successes and lessons.

7.1.7. Increasing the qualitative element in studies on social isolation and loneliness

Much of the research is quantitative in nature and examines relationships between, for example, physician visits and loneliness. Many of these studies show the relative associations between variables and the strengths of the associations compared to other related variables. What these studies don't count is the meanings that people attach to their doctor visits, or the value and intricacies of certain social relationships. One researcher observed that many of the current studies placed an over-emphasis on enumerating rather than understanding (Victor et al, 2000).

The validity of a study is dependent on its sample size and measurement tools, among other things, and validity is important when using research to guide policy-making. However, it is also important, when researching a subjective topic like loneliness, that there is a balance of qualitative and quantitative studies to draw from. Hall and Havens (1999) do a good job of balancing the qualitative with the quantitative in their study on social isolation and women.

7.2 Developing program interventions for socially isolated and lonely seniors

Policy implications of social isolation also involve supporting the development of programs designed to reduce the negative impact of isolation and loneliness on the senior population. Before policy makers make decisions about how to support service delivery initiatives Keating et al (2002) offer the following caution:

> *"The one size fits all approach to policy and program design is contra-indicated by our findings. We found that care network type is strongly related to outcomes such as type and amount of care received, health and quality of life. This points to the importance of providing different types of supports to seniors depending on their care network type." (p.26)*

This quote highlights the importance of knowing the target population well before implementing any intervention and assessing the possible positive and negative impacts. Policy makers may want to support pilot projects as a tool to test the efficacy of an intervention on a certain population. Partnerships with non-profits and local community services can be beneficial as these types of organizations often have a good understanding of the needs and characteristics of the surrounding population and can facilitate access to that population in a way that may not otherwise be possible.[32]

[32] See Kobayashi et al, 1997 for an example of the use of a pre-existing community program infrastructure to gain access to an isolated population for a pilot project.

- ***Supporting transportation initiatives***

  It is important that all levels of government support and develop transportation accessibility initiatives targeted to seniors. Transportation is an ongoing theme in the literature. Several researchers (Hall and Havens, 1999; Spencer, 2000) suggest increasing the availability of transportation alternatives to seniors. This suggestion was particularly concerned with rural seniors, who may have farther to travel to population-based health and social services, and whose transportation difficulties may be exacerbated by adverse weather and road conditions. Lower income seniors, who have recently given up driving and are unaware of alternatives, may also be possible targets for transportation service initiatives.

- ***Exploring remote communications as tools to reduce isolation***

  It is important to explore the options for service delivery presented by new technology. As Victor et al (2000) note, contact through telephone and email has been largely disregarded by researchers as a means to provide social support. However, given the facts that internet use is on the rise by seniors, and that almost every household in Canada has a telephone, these modes of communication could be examined in further research as tools for maintaining beneficial connections between isolated seniors and their social networks or service providers.

- ***Increasing community awareness of services for seniors***

  If services are not promoted properly they may not be used as intended. It is important to improve information about available supports for seniors to the community at large. Spencer (2000) reports that “seniors who are willing to use a service often find out about it very late, because of lack of awareness of what is available in the community” (p. 10). Choi (1994) reports findings from research showing that “low volume of social service utilization by elderly people, especially low-income minorities, was found to be due more to lack of knowledge, perceived availability (or unavailability) of social services, and restricted access, than to the abundance of informal support” (p. 354). If seniors do in fact underutilize services they would otherwise make use of if not for lack of awareness this lack of knowledge may be exacerbated among those services that move frequently and therefore are unfamiliar with local services. Part of developing awareness of programs and services for seniors will require identifying which populations are underutilizing needed services and targeting those seniors (and their networks) specifically when promoting and marketing programs.

- ***Supporting informal caregivers***

  Policy and programs must support and collaborate with informal caregivers. Research has highlighted the importance of the role of informal caregivers and care networks in providing support for seniors and helping them maintain their independence. However, there are limitations to the amount of support those networks and individuals can provide, particularly due to the inability of informal caregivers to provide medical care and the role and financial strain of caring for the dependent elderly. The preference by receivers of care for caregivers appears to be informal support (family, friends) over formal agency services. Lafreniere et al (2003) hypothesize that many informal sources of care can directly replace formal sources and possibly delay or avoid entry of seniors into long term care. Based on this information, as well as current demographic trends, a wise policy direction may be to lend formal support to supplement informal caregiving networks as a cost avoidance measure.

- ***Increasing the capacity of small service organisations***

  Many programs for seniors are delivered by small non-profit service agencies indirectly funded through different levels of government. It is important that government support the capacity of these agencies to deliver their community-specific programming. The literature provides many suggestions for direct program interventions that may reduce social isolation in seniors. Although these program interventions are not policy implications per se they are worth mentioning under the umbrella of increasing the capacity of smaller service organizations so they can provide more locally relevant services to their surrounding populations. Suggestions for increasing opportunities for social interaction included offering local and low cost leisure and educational activities for seniors and congregate meals[33] (Hall and Havens, 1999). Whatever the program intervention may be, it is important that policy makers support the efforts of small and medium size local organizations in serving their populations as often these organizations have a unique familiarity with the population and its needs.

[33] Congregate meals were an example presented by Hall and Havens (1999) as an activity that initially brings people out of their houses into the community and then consequently breeds other activities. Tsang and Martini (1994) also involved food in their recommendations when they suggested developing a culturally-sensitive Meals on Wheels program.

- ***Developing volunteer based outreach programs***

  Peer counselor or volunteer visitor outreach programs appear to have had a fair amount of success in improving the health outcomes of seniors through the reduction of isolation. Government should support these types of partnerships with the volunteer sector. Programs that initiate and facilitate contact between seniors and health professionals (or other individuals who act as resource people) can serve to encourage the timely and appropriate usage of health services. Outreach programming can take a variety of formats. For example, the intervention could be a group activity, such as a drop-in blood pressure clinic or information session; an individual face-to-face effort such as a coffee cart or friendly visitor/helper; or a telephone or email check-in by a health professional. These types of outreach efforts to socially isolated seniors could be done within the context of small service agencies, as mentioned above, or could involve larger provincial or national efforts by government or other suitable organizations.

8.0 Conclusion

Although the relationship is complex and difficult to isolate, links are present between social isolation, loneliness and health and social service usage. Social isolation and loneliness can be associated with reduced service usage when seniors are unaware of services that they may use otherwise, or when seniors use services as a substitute for companionship. Either scenario is undesirable as it reflects either a potential danger to the senior or an unnecessary healthcare cost to the system. Conversely, healthy social networks appear to guide and facilitate appropriate health and social service use for seniors.

Social isolation and loneliness have many additive risk factors. Because of current social and demographic trends an increasing amount of seniors may be at risk of being socially isolated or lonely. Given the potential harmful effects of social isolation and loneliness in seniors it is recommended that governments at all levels work to reduce these deleterious effects. The policy implications of addressing the issue are numerous and involve both the development of interventions for this population and further research into social isolation and loneliness among seniors. A further understanding of social isolation and loneliness and its effects is needed in order to develop sensitive and effective ways to address it among the senior population.

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