Self-perceived Mental Health of Older Adults in Canada

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Abstract

Background: In the past decade, statistics indicate that over 80% of the six million Canadians aged 65 or older resided in non-institutional settings. To sustain their health in the community, there is national evidence about the interplay among alterations in physical, emotional, cognitive, social, cultural, and geographical factors. Although much is known about mental health challenges of this population, less is known about determinants of self-perceived mental health.

Aim: The primary aim of this study is to determine personal and external variables that are associated with self-perceived mental health in two groups of community dwelling Canadians aged 65 to 79 and those aged 80 and older.

Methods: The study design is a secondary analysis of Canadian Community Health Survey (2014) public use micro-data file. A sub-set of health, determinants of health, and health system utilization variables were extracted for 19,502 community-dwelling older adults residing in ten provinces and three territories.

Results: Self-perceived mental health was found to be significantly associated with several personal and external variables relative to age group. For both age groups, a positive perception of mental health was predicated on self-perceived physical health, emotional functioning, general life satisfaction, sense of belonging, and income.

Conclusion: Findings support the potential for innovative interdisciplinary models to optimize older adults' mental health for living independently.

Key words: Canadian, older adults, mental health, community

Résumé

Contexte: Au cours de la dernière décennie, les statistiques indiquent que plus de 80 % des six millions de Canadiens âgés de 65 ans et plus vivaient dans des milieux non institutionnels. À l'appui du maintien de leur santé dans la collectivité, il existe des données nationales sur l'interaction entre les altérations des facteurs physiques, émotionnels, cognitifs, sociaux, sociaux, culturels et géographiques. Toutefois, bien que l'on en sache beaucoup sur les problèmes de santé mentale au sein de cette population, on en sait moins sur les déterminants de la santé mentale telle qu'elle est perçue par la personne.

Objectif: L'objectif principal de cette étude consiste à déterminer les variables personnelles et externes associées à l'auto-perception de la santé mentale chez deux groupes de Canadiens vivant en résidence communautaire, âgés de 65 à 79 ans et de 80 ans ou plus.

Méthodes: Le plan d'étude est une analyse secondaire du fichier de micro-données à grande diffusion de l'Enquête sur la santé dans les collectivités canadiennes (2014). Un sous-ensemble de variables sur la santé, les déterminants de la santé et l'utilisation du système de santé a été extrait couvrant 19 502 personnes âgées vivant en résidence communautaire dans les dix provinces et les trois territoires.

Résultats: L'auto-perception de la santé mentale est associée de beaucoup à plusieurs variables personnelles et externes relativement au groupe d'âge. Pour les deux groupes d'âge, une perception positive de la santé mentale est fondée sur l'auto-perception de la santé physique, le fonctionnement émotionnel, la satisfaction générale à l'égard de la vie, le sentiment d'appartenance et le revenu.

Conclusion: Les résultats confirment le potentiel que revêtent des modèles interdisciplinaires innovateurs pour optimiser la santé mentale des personnes âgées afin qu'elles puissent vivre de façon autonome.

Mots-clés: Canadien, personnes âgées, santé mentale, communauté

Introduction

For the first time in documented Canadian history, the number of adults 65 years of age and older is greater than the number of children aged 14 years and under (Statistics Canada, 2015a). That is, one in six Canadians are at least 65 years of age. Within this cohort, nearly 770,800 adults were aged 85 and older (Statistics Canada, 2017a). Older Canadians, regardless of age, often express a desire to live healthy and independent lives in their own home. Census data shows that over 90% of all adults aged 65 and older, in 2011, resided in non-institutional or non-collective dwellings (Statistics Canada, 2015b). With advancing age, however, the proportion of adults living in private dwellings decreases. After age 85, 66% of adults reside in their private dwellings (Statistics Canada, 2017a).

For many older adults remaining at home for as long as possible represents comfort, security, connection to social supports, independence, personhood, autonomy, and control over lifestyle choices (Smith-Carrier et al., 2017; Wiles, Leibing, Guberman, Reeve & Allen, 2012). Even with advancing age, adults aspire to remain well, active, and live in their own homes with tailored supports. This nationally recognized phenomenon is referred to as 'aging at home,' or 'aging in place.' Success is predicated upon having accessible health and social services to optimize independent and safe living in one's desired setting (Government of Canada, 2016).

William and colleagues (2009) identify the merit of policies guiding cost-effective and sustainable tailored services in order to support growing old at home. At present, there is substantive dialogue with regards to planning for aging in place (Hale, Barret, & Gauld, 2010; Kloseck, Crilly, & Gutman, 2010; Lum & Aikens, 2009). Planning for aging in place is not only the responsibility of individual Canadians, but their communities, and those responsible for service design and provision (Ontario Health Coalition, 2015; Peckham, Williams, & Neysmith, 2014). This vision has spear-headed the development of practices and policy to promote physical, mental and social wellbeing such that individuals' autonomy, independence, and quality of life in their preferred residence is sustained. Although meritorious, aging at home practices must address the complex realities of older adults who live with variable social, physical, and mental vulnerabilities (Cattan, 2009; Chadwick & Collins, 2015; Donner et al., 2015; Dupuis-Blanchard et al. 2015; Kuluski, Williams, Berta, & Laporte, 2012; Naganathan et al., 2016). Individual and contextual vulnerabilities can threaten the overall well-being of older adults who desire to age in place.

According to the Canadian Mental Health Association (2007), sustaining positive mental health is an integral objective for older adults as they strive to stay in their homes as long as possible. This agency proposes a system level health promotion model, entitled A Framework for Seniors' Mental Health, to support older adults' dignity, independence, participation, and security while living in their communities. In this model, older adults' perception of their own mental health is shaped by the complex interactions between their personal and external characteristics. Personal characteristics are comprised of four main factors deemed to influence mental health. These include physical, emotional, social and spiritual attributes. Similarly, external characteristics are

comprised of four main factors including housing, transportation and mobility, services, and income. In this model, mental health is represented as a key determinant of overall well-being in the context of aging. It is important to identify those factors that impact the mental health of older Canadian adults as they age in place.

Purpose

The primary aim of this study is to determine personal and external variables that are associated with self-perceived mental health in two groups of community dwelling Canadians aged 65 to 79 and those aged 80 and older. The two research questions are:

1. With respect to selected personal and external variables, what are the differences in self-perceived mental health between the two groups of older adults?
2. What personal and external variables are predictive of self-perceived mental health in each of the two groups of older adults?

This study responds to the identified need to focus on mental health promotion in older adults-an understudied area public health (Chief Public Health Officer, 2010; Mental Health Commission of Canada, 2015). The capacity to age in place is dependent upon a balance between the individual's needs and preferences, and their built environment (Wahl et al., 2012).

Methods

Design

A secondary analysis was conducted using data reported in the Public Use Microdata File obtained from the 2014 Canadian Community Health Survey (CCHS) (Statistics Canada, 2014). This cross-sectional survey is one of the largest population-based repositories of accessible and reliable health data in the country. Use of this data yields reliable estimates about national as well as regional health indicators (Statistics Canada). Further, the reuse of well-prepared credible data fosters scientific progress (Corti et al., 2014). The publicly reported data in the CCHS includes a broad range of sociodemographic, health and social variables which allows for an examination of the personal and external variables deemed by the CHMA (2007) to influence mental health of older adults.

Setting and Sample

The survey uses a multi-staged probability sampling strategy for a selection of geographical areas, households, and respondents. The survey excludes: persons living on reserves and other Aboriginal settlements in the provinces; full-time members of the Canadian Forces; the institutionalized

population; and persons living in a few Quebec health regions (Statistics Canada, 2017b). Collectively, these exclusions represented less than 3% of the national population. A total of 61,707 Canadians, aged 12 years and older, living in private dwellings across ten provinces and three territories, responded to the survey. For this study, the sample of interest is older adults (N = 19,502). Within this sample, are two sub-groups: adults aged 65 to 79 years (n = 14,681, approximately 75%) and adults aged 80 years and older (n = 4,821). Subsequently, these sub-groups are referred to as the younger cohort and older cohort.

Data extraction

The data reported in the CCHS addresses multiple dimensions of mental health. To identify correlates of older adults' mental health, an extraction template was developed using the *Seniors' Mental Health* framework (CMHA, 2007). Table 1 presents the template used to extract socio-demographic, personal and external variables from the CCHS. Descriptive details about each of these variables is documented in a companion report authored by Statistics Canada (2017b). Self-perceived mental health is measured within the CCHS on a five-point Likert scale. Respondents are asked to rank their self-perceived mental health from 'excellent' to 'poor.' This single indicator of mental health has been widely used in international epidemiological surveys with diverse populations for more than two decades (Ahmad, Jhajj, Stewart, Burghardt & Biermann, 2014). Through a review of 37 studies that used this 'robust' measure, these authors summarized varied relationships between it and physical, psychological, social, and service utilization variables. Ahmad and associates recommend the need for additional research to understand this measure's potential with different cohorts

Table 1
Extraction template

Socio-demographic, personal and external variables	CCHS questions
Socio-demographic	
Age	What is your age?
Sex	Is respondent male or female?
Marital status	What is your marital status?
Education level	What is respondent's highest level of education?
Personal	
1. Physical	
1.1 Self-perceived physical health	In general, how would you say your health is now? Is it...?
1.2 Chronic illness	Do you have a chronic illness?
	What type of chronic illness(es) do you have: asthma, fibromyalgia, arthritis, back problem, high blood pressure, migraine, chronic obstructive pulmonary disease, diabetes, heart disease, cancer, stomach / intestinal ulcer, effects of a stroke, urinary incontinence, bowel disorder, scoliosis, chronic fatigue, chemical sensitivities, mood disorder and or anxiety disorder?
2. Emotional	
Emotion functioning*	What is respondent's degree of happiness?
3. Social	
Sense of belonging to local community	How would you describe your sense of belonging to your local community? Is it ...?
4. Spiritual	
Satisfaction with life in general	How do you feel about your life as a whole right now?
External	
1. Housing	
1.1 Type	Do you own or rent your current accommodation?
1.2 Cohabitants	What is your current living arrangement?
2. Transportation / mobility	
2.1 Physical activity index*	What is the respondent's degree of leisure physical activity?
2.2 Mobility*	What is respondent's degree of mobility functioning?
3. Services	
Unmet health care needs	During the past 12 months, was there ever a time when you felt that you needed health care but you didn't receive it?
4. Income	
Total personal income	What is your total personal income from all sources?

* Derived variables in CCHS (Statistics Canada, 2007)

Data analysis

The extracted data were analyzed using SPSS 24. To determine those variables associated with self-perceived mental health, data were initially grouped into younger (aged 65 to 79 years) and older (aged 80 years and over) cohorts. Using descriptive statistics, data were summarized in accordance with each personal and external variable relative to self-perceived mental health for each cohort. Chi-square statistics were used with unweighted values to examine differences in self-perceived mental health between the two cohorts ($p < .05$). Logistic regression was used to predict self-perceived excellent/very good mental health. One measure representing each personal and external concept was identified for inclusion in the logistic regression. These included four personal (self-perceived physical health, emotional functioning, sense of belonging, and general life satisfaction) and four external (living arrangement, mobility, unmet health care needs and personal income) variables. The categorization of excellent/very good mental health was derived by combining the two most positive Likert scale rankings of self-perceived mental health.

Results

Overall, the majority of community-dwelling Canadians perceived their mental health as excellent / very good. There was a reciprocal relation between aging and self-perceived mental health. With advancing age, there was decrease in perception of one's own mental health status. At least 70% of Canadians between ages 65 to 79 had excellent/very good self-perceived mental health. This percentage decreased to 63% for those respondents aged 80 years or older (Figure 1).

Variables associated with self-perceived mental health

In response to the first research question, there were differences in self-perceived mental health between the two groups of older adults. The weighted percentages of self-perceived mental health by socio-demographic, personal and external variables are presented in Table 2.

Figure 1. Self-perceived mental health of younger (65 to 79) and older (≥ 80 years) adults.

Socio-demographics. There were significant differences between the two age groups' perceived rankings of mental health relative to each of the three socio-demographic variables. These included sex, some categories of marital status and education. The proportion of both males and females between 65 to 79 years of age who perceived their mental health as excellent / very good was just over 70%. In contrast, within the older cohort, fewer males (60%) and females (65%) self-identified with the highest possible rankings of mental health. These lower rankings of self-perceived mental health in the older cohort were statistically significant at the level of $p < .001$. With respect to marital status, no statistically significant findings were found between the two age groups for single or never married respondents. There was, however, a significantly higher self-perceived mental health for the younger cohort who were not currently or previously married ($p < .001$). A statistically significant higher ranking of mental health as excellent / very good was found among the younger cohort who did not complete secondary education or who graduated from post-secondary programs ($p < .001$).

Personal variables. Significant differences were found between the two age groups' perceived rankings of mental health relative to each of the four personal variables. Regardless of self-perceived physical health, ranked from excellent to poor, there were statistically significant differences between the two age groups. Across all ranking of physical health, self-perceived mental health decreased with age. For example, 91% of the younger cohort reported excellent physical health and excellent/very good mental health in comparison to 86% of the older cohort with similar rankings ($p < .001$). A similar pattern was demonstrated for those older adults who reported poor physical health and excellent/very good mental health, 39% for the younger cohort and 33% for the older cohort. A statistically significant decline in positive mental health was

observed between the two groups for the following chronic illnesses: arthritis, health disease, and cancer. Perception of excellent/very good mental health declined with age even for those respondents who did not have a chronic illness.

For those respondents who reported the highest level of happiness and interest in life, there was a statistically significant difference between the younger and older cohorts: 77% and 68%, respectively. With respect to emotional functioning, no differences in self-perceived mental health were found between the two age groups relative to being 'somewhat happy.' All levels of sense of belonging were significantly associated with excellent/very good mental health by age. Between the two age groups, mental health was not significantly different for those who ranked their level of life satisfaction as neutral or 'very dissatisfied.'

Table 2

Self-rated mental health of Canadians aged 65 and older by personal and external variables

Personal and External Variables	Self-perceived mental health								
	Younger cohort (age 65 to 79) N = 14,681				Older cohort (age ≥ 80) N = 4,821				
	Excellent / Very Good	Good	Fair / Poor	n	Excellent / Very Good	Good	Fair / Poor	n	Chi-square <i>p</i>
Socio-demographic									
Sex									
Male	70.8	23.6	5.6	5997	59.8	33.3	6.9	1459	<.001
Female	70.2	24.0	5.8	8197	64.6	29.4	6.0	2821	<.001
Marital status									
Married / common- law	72.3	23.0	4.7	8014	61.4	32.8	5.8	1348	<.001
Widow / separate / divorce	66.9	25.5	7.5	5201	62.9	30.4	6.7	2731	<.001
Single / never married	65.2	26.6	8.3	952	74.5	17.3	8.3	194	.165
Education level									
Less than secondary	57.7	33.8	8.6	2873	54.6	34.7	10.6	1622	<.001
Secondary graduate	69.1	26.4	4.6	2263	61.9	33.0	5.1	693	.129
Some post-secondary	65.1	27.2	7.7	453	69.9	28.6	1.5	122	.174
Post-secondary graduate	74.1	20.5	5.1	8134	67.2	28.6	4.2	1697	<.001
Personal									
Self-perceived physical health									
Excellent	90.9	8.1	1.0	2163	86.4	12.9	0.7	493	<.001
Very good	84.6	13.9	1.4	4762	80.9	17.9	1.1	1237	.035
Good	60.4	35.5	4.1	4653	58.4	37.1	4.5	1487	.002
Fair	48.2	35.3	16.5	1908	40.8	43.2	15.9	798	.008
Poor	39.0	30.6	30.4	680	32.9	47.0	20.1	246	.004
Chronic illness									
Does not have a chronic illness	80.6	17.6	1.9	2322	73.6	23.3	3.2	467	<.001
Arthritis	65.5	26.2	8.3	6151	58.0	34.8	7.2	2232	<.001
COPD	64.5	25.4	10.0	1126	61.6	32.6	5.8	332	.064
Diabetes	65.1	28.3	6.6	2588	59.6	31.2	9.2	717	.343
Heart disease	63.8	26.6	9.7	2047	54.6	38.6	6.8	972	.001
Cancer	61.3	30.1	8.7	768	51.6	39.7	8.7	269	.008
Emotional functioning									
Happy and interested in life	77.2	20.2	2.7	11419	67.6	28.4	4.0	3364	<.001

Somewhat happy	47.9	39.8	12.3	2282	48.5	40.4	11.1	719	.397
Somewhat unhappy	19.3	32.8	47.8	296	32.6	38.3	29.1	111	.010
Very unhappy / life not worthwhile	19.4	22.3	58.3	96	53.1	13.1	33.7	39	.037
Sense of belonging									
Very strong	79.4	18.1	2.5	3689	74.2	21.8	3.9	1311	<.001
Somewhat strong	71.6	24.3	4.1	6995	62.8	32.8	4.4	1884	<.001
Somewhat weak	62.3	28.9	8.8	2355	51.6	37.3	11.1	623	<.001
Very weak	57.5	23.1	19.4	833	48.8	36.0	15.2	254	.014
Satisfaction with life									
Very satisfied	85.7	13.1	1.3	5898	78.7	19.0	2.2	1591	<.001
Satisfied	65.9	29.6	4.5	6746	59.8	35.9	4.4	1913	<.001
Neither satisfied nor dissatisfied	31.5	41.6	26.9	910	35.3	44.7	20.1	420	.107
Dissatisfied	32.6	34.1	33.3	297	36.9	40.5	22.5	120	.008
Very dissatisfied	43.5	22.6	33.9	119	25.8	25.5	48.6	40	.449
External									
Housing									
Owned	72.4	22.6	5.0	11068	63.7	30.9	5.4	2773	<.001
Rented	63.9	28.1	8.0	2691	61.2	30.2	8.5	1295	.002
Living arrangement									
Alone	67.3	25.6	7.0	6086	64.4	29.0	6.6	2866	<.001
Spouse/partner only	72.9	22.2	4.9	7345	62.0	32.7	5.3	1154	<.001
Family	68.8	27.3	3.9	496	60.9	27.8	11.3	197	.064
Other	64.1	26.3	9.6	233	56.1	39.5	4.4	61	.030
Physical activity index									
Active	77.3	19.2	3.5	3439	72.6	24.7	2.7	568	<.001
Moderate active	74.7	21.6	3.8	3633	66.3	30.0	3.7	853	<.001
Inactive	64.9	27.4	7.7	7107	59.5	32.5	8.0	2853	<.001
Mobility									
No problems	72.0	23.2	4.8	12662	66.9	28.6	4.5	2896	<.001
No aid required	59.3	28.0	12.8	339	60.4	33.9	5.6	130	.980
Need mechanical support	57.0	30.3	12.7	905	55.8	33.7	10.5	984	.001
Help/can't walk	54.4	26.9	18.7	239	46.1	41.8	12.2	244	.013
Unmet health care needs									
Yes	60.5	24.8	14.7	1104	54.7	29.1	16.2	265	.648
No	71.4	23.7	4.9	13055	63.4	31.0	5.6	4000	<.001
Total personal income									

< 20,000	62.7	28.2	9.1	3708	53.5	36.9	9.6	1241	<.001
20,000-39,999	70.2	25.1	4.8	4608	64.7	30.0	5.2	1668	<.001
40,000-59,999	76.0	19.8	4.2	2088	76.7	20.3	3.0	539	.130
≥ 60,000	82.2	16.0	1.8	1623	78.2	18.9	2.9	304	.280

Data Source: Statistics Canada (2014).

External variables. There were significant differences between the two age groups' perceived rankings of mental health relative to each of the four external variables including housing, mobility, services, and income. Home ownership and residing alone or with a significant other contributed to higher perceptions of excellent/very good mental health for the younger cohort ($p = .001$). The same level of statistically significant difference was found between the younger and older cohorts with respect to the three levels of physical activity and positive perception of mental health. In both age groups, older adults who had 'no problems' with mobility had better mental health than those who were unable to walk or require aids. Age differences were significant in all categories of mobility except for those who did not require help with mobility. When health care needs were perceived to be met, the proportion of adults in both groups with excellent/very good mental health increased. For those with personal income had an association with mental health. With income of \$40,000 or greater, there was no statistically significant difference in perceived mental health between the two cohorts. With personal income of less than \$40,000, there was a smaller proportion of the older cohort that ranked their mental health as excellent/very good.

Variables predictive of self-perceived mental health

In response to the second research question, Table 3 presents two models predictive of excellent/very good mental health for each of the two older adult groups. Categories of selected personal and external variables were combined to increase cell frequencies. The first model of self-perceived excellent/very good mental health, inclusive of 11,504 adults between 65 to 79 years of age, predicted 95.1% of cases correctly. The Nagelkerke R^2 was 0.329. In comparison to those who reported their physical health as excellent/very good, respondents with 'good' (Odds Ratio [OR] = 0.51) and 'fair/poor' physical health (OR = 0.13) were less likely to have the highest level of perceived mental health. Higher perceptions of emotional functioning were a predictor of excellent/very good mental health within the younger cohort. The odds of most positive mental health was 0.08 for adults who self-identified with the lowest levels of emotional functioning compared to those who reported the highest level of emotional functioning. Respondents who had a weaker sense of community belonging were less likely to have excellent/very good mental health in comparison to those with a stronger sense of belonging (OR = 0.66). Further, increased levels of life satisfaction were predictive of excellent/very good mental health. External variables, such as living arrangements and levels of mobility were not predictive of excellent/very good mental health in this younger cohort. Respondents whose health care needs were met were more likely to have excellent/very good mental health (OR = 1.42). Those who had personal incomes equal to or exceeding \$60,000 per year were more likely to have excellent/very good mental health as compared to those with an annual income up to \$20,000 (OR = 1.66).

The second model of self-perceived mental health, involving 3,396 adults aged 80 and older, predicted 94.3% cases correctly with Nagelkerke R^2 of 0.261. As in the first model, self-perceived physical health, emotional functioning, sense of belonging, life satisfaction, and personal income demonstrated a similar predictive effect on perceptions of excellent/very good

mental health. An added predictor in this model was mobility. In comparison to adults in this cohort with no mobility problems, those identifying the need for 'mechanical supports' (OR = 1.98) or an 'inability to walk' (OR = 3.20) were more likely to report excellent/very good mental health. In contrast to the first predictive model, met health care needs in adults greater than 80 years was not predictive of self-reported excellent/very good mental health.

Table 3

Predictors of self-perceived excellent / very good mental health of Canadians aged 65 and older

Variables	Younger cohort (65-79) n = 11,504		Older cohort (≥ 80 +) n = 3,396	
	Odds ratio	Confidence interval	Odds ratio	Confidence interval
Self-perceived physical health (Reference category = Excellent / Very Good)				
Good	.51***	.38-.70	.35***	.19-.62
Fair / poor	.13***	.10-.18	.10***	.06-.18
Emotional functioning (Reference category = Happy and interested in life)				
Somewhat happy	.39***	.31-.49	.61**	.42-.89
Somewhat unhappy	.11***	.08-.16	.41**	.23-.76
Very unhappy / life not worth living	.08***	.05-.14	.23**	.09-.56
Sense of belonging to local community (Reference category = Very strong / Somewhat strong)				
Somewhat weak/ Very weak	.66***	.54-.80	.68*	.48-.97
Satisfaction with life in general (Reference category = Very satisfied / Satisfied)				
Neither satisfied nor dissatisfied	.34***	.27-.44	.36***	.25-.53
Dissatisfied/ Very dissatisfied	.35***	.25-.49	.24***	.14-.40
Living arrangement (Reference category = Alone)				
Spouse/partner	1.05	.85-1.29	1.15	.77-1.70
Family	.81	.49-1.32	1.04	.44-2.45
Other	1.00	.43-2.33	1.89	.23-15.41
Mobility (Reference category = No problems)				
No aid required	1.20	.74-1.96	1.30	.58-2.90
Need mechanical support	1.07	.81-1.43	1.98**	1.34-2.92
Help needed / can't walk	1.33	.80-2.20	3.20***	1.71-5.98
Unmet health care needs (Reference category = Yes)				
No	1.42*	1.09-1.84	1.45	.89-2.37
Total personal income (Reference category = < 20,000)				
20,000 - 39,999	1.32*	1.06-1.64	1.47*	1.05-2.08
40,000 - 59,999	1.30	.95-1.77	1.80*	1.02-3.17
≥ 60,000	1.66*	1.13-2.44	2.53*	1.10-5.80

* $p < .05$ ** $p < .01$ *** $p < .001$

Data Source: Statistics Canada (2014).

Discussion and Conclusion

This secondary data analysis study examined the determinants of perceived mental health ranking in community-dwelling older adults. Similar to other authors (Gilmour, 2014; Mental Health Commission of Canada, 2015; Public Health Agency of Canada, 2010; Schüz, Wurm, Schöllgen, & Tesch-Römer, 2011), the findings of this study show variability in mental health between two

adult populations, those aged 65 to 79 and those aged 80 and older. Further, measures representing each of the four personal and four external concepts of the *Framework for Seniors' Mental Health* were found to impact self-perceived mental health rankings ranging from 'excellent/very good' to 'fair/poor.' Select features of each of these eight concepts account for differences in mental health rankings between the two cohorts of older adults.

Overall, the rankings of self-perceived mental health were found to decrease with age. The personal profile of both the younger and older cohort with excellent/very good mental health includes adults who are currently or formerly coupled, have completed post-secondary education, perceive their physical health as excellent, have no chronic illness, and have an extremely positive sense of belonging, and life satisfaction. In addition, there are significant differences between these two groups with respect to external factors. These include owning their own home, living with others, being active, having their health care needs met, and netting a personal income of at least \$60,000.

The multiple determinants of optimal mental health relative to age grouping reinforce the heterogeneity of older Canadians as well as a range of potential vulnerabilities with advancing age. Although social and physical vulnerabilities may collectively challenge independence with advancing age, their presence require policies and services to preserve and protect individuals' agency while mitigating social exclusion (Hale et al., 2010; Heatwole Shank, & Cutchin, 2016; Mental Health Commission of Canada, 2015).

Based on this study's findings regarding the pervasive impact of personal and external vulnerabilities on perceived mental-health, supported independence requires the availability of tailored inter-sectoral services that align with individuals' preferences and needs. If the ultimate goal is to have a population of older Canadian adults with excellent/very good self-perceived mental health, living within and contributing to their communities, services must embrace the interplay of health and social policy. In the absence of meaningful social involvement, physical and mental health has the potential to be threatened by actual and perceived loneliness (Holt-Lunstad, Smith, Baker, Harris, & Stephenson, 2015; Luo, Hawkley, Waite, & Cacioppo, 2012). Recently, policy makers have examined and are beginning to address basic infrastructure issues required to enhance meaningful social involvement as a determinant of mental health. For example, in early 2018, Britain created a dedicated ministerial role to address the phenomenon of loneliness as a public health concern. Similarly, two years earlier, the United Arab Emirates appointed a state minister to oversee plans, projects, and programs aimed at improving the country's mental well-being. In a recent editorial by a Canadian physician, health and social service providers are invited to consider what they can do to reduce and mitigate the adverse effects of loneliness among the elderly (Pimlott, 2018).

Strategic implementation of innovative interdisciplinary collaborations that address this study's findings have the potential to augment physiological functioning, financial supports, housing, built neighborhoods, and social connections for optimal self-perceived mental health inclusive of the most vulnerable of older Canadians who remain in their community.

The uniqueness of this study is the use of a national health promotion model specific to the population and phenomenon of interest combined with the use of a credible national database. A limitation of this study, however, is the challenge in capturing the complexity of self-perceived mental health in a heterogeneous population. Going forward, it is recommended that subsequent research focuses on sub-populations within Canada to examine the geographic and cultural attributes of perceived mental health.

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