

University of
Lethbridge



***Caring for Paid Professional Caregivers: Investigating the
Health Status of Long-Term Care and Assisted Living
Facilities Workers in Alberta***

PHASE 2



Study Report from the Five Alberta Health Services Zone, 2017-2019

SPONSORED by The Covenant Health Research Grant, University of Lethbridge Research Fund & Faculty of Health Sciences Research Support Fund.

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List of Acronyms

AMOS	Analysis of Moment Structures
CFI	Comparative Fit Index
CHA	Canadian Healthcare Association
GRA	Graduate Research Assistant
LTC	Long Term Care
AL	Assisted Living
RMSEA	Root-Mean-Square Error of Approximation
SPSS	Statistical Package for Social Sciences

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Acknowledgements

Covenant Health Research Grant, Alberta Health Services
University of Lethbridge Research Fund
Faculty of Health Sciences Research Support Fund

Ethics Approval

Human Subject Research Ethical Review and approval was obtained from the Health Research Ethic Board of Alberta (Study #1913, REB # Pro00072081, RA83256) via the University of Lethbridge and the University of Alberta Research Committees.

Executive Summary

By 2030, just ten years from now, Canada's aging population (aged 65 and over) is projected to total over 9.5 million people and represent 23% of all Canadians, an almost doubling since 2010 (Stats Canada, 2014). As the aging population grows, so too do the needs of aging peoples and the challenges faced by their caregivers. Research in diverse disciplines agrees on the importance of supporting employees to be effective in their jobs in ways that promote, not compromise, their own health. Patient's experience can be strengthened and expanded when their caregivers are consistent, healthy, and well. It is also important to individualize health care not only for recipients, but also for caregivers, including communication and collaboration (Kemp, Ball, & Perkins, 2019). For example, it is important to consider the biopsychosocial demands and work-health issues of a job we may not usually think of as 'heavy' or 'physically demanding,' such as caregiving.

This is a report on the health status of paid professional caregivers in long-term care (LTC) and Assisted Living (AL) Facilities that was carried out in Alberta Province between June 2017 and October 2019. Thirty-Nine LTC & AL Facilities (Table 21) participated in this study. This study adopted a questionnaire designed by Health Canada titled "Workplace Health and Risks Survey 2008" in addition to other survey questionnaires on Wellness and Quality of Life. Data collected from this survey instrument covered the following sections: Physical Health (PH); Health Condition (HC); Mental and Emotional Health (MEH); Stress; Quality of Life (QOL); Health Behaviour (HB); Turnover and Absenteeism (T&A); demographic information; and how your employer can help. Of the 1,385 questionnaires sent out to LTC & AL Facilities in Alberta Health Services Zones, 933 surveys (67.4%) were returned with completed responses. Participants received a \$5 gift card as honorarium. A proposed face-to-face qualitative interview aspect of this study was substituted with an email communication due to time constraints as voices of potential participants was not as strong as earlier indicated.

The sample was made up of Health Professionals (Registered Nurses (RN) 13.2%, Licensed Practical Nurses (LPN) 12.4%, Health Care Aids (HCA) 58.1%, and Allied Health Workers (16.3%) working in continuing care facilities across the Alberta province. Most of the participants fell within the age of 35+ years of age (73.6%) and a significant number of participants were (48.7%) above 45 years of age. Most participants mostly worked a combination of day, evening, and night shifts (59.3%), while only 32% worked regular day shifts. In addition, 67.3% worked on average 20-40 hours per week, while 22.4% worked between 41-60 hours per week. A majority (77.4%) of the caregivers reported that their health was in good condition, 68.1% reported being satisfied with their overall health conditions, and 11.8% of the respondents claimed otherwise.

Correlation results showed that there was a strong association between the physical health of caregivers and the following variables: health condition, mental and emotional health, and quality of life. The results also indicated a moderate relationship between physical health and measures of stress level, health behaviour, and turnover/absenteeism. We found that the health condition of caregivers was related to mental health and emotional health, quality of life, stress level, health behaviour, and turnover/absenteeism. Additionally, our analysis also revealed that LTC/AL facility managers are aware of the impact of stress on employees' health and are focused on ensuring that stress level is kept at minimum or controlled. This indicates that administrative managers have vested interest in the wellbeing of their workers.

Additionally, we found a strong association between stress level, quality of life, health behaviour, turnover/absenteeism and mental & emotional health of an average caregiver working in LTC/AL facilities in Alberta. We also found a direct link between stress and turnover/absenteeism among caregivers in LTC/AL facilities. Finally, our analysis indicated a moderate relationship between quality of life and health behaviour.

Result from the factor analysis revealed that 49.3% of the total variance was explained with a four factor model which encompassed the domains of emotional health (8 items), mental health (2 items), quality of life (3 items), and work fulfilment (9 items). A confirmatory factor analysis (CFA) revealed a 4-factor structure with fairly good fit statistics (Root Mean Square Error of Approximation = 0.08, Comparative Fit Index = 0.89). This new measure demonstrated good internal consistency with Cronbach's alpha values ranged between 0.77 and 0.93.

To reduce physical stress, caregivers require improved work schedules (reduced workloads and consistent shifts) and the availability of wellness programs such as a fitness room within each LTC/AL facility. In addition, employers can play a major role in ensuring the physical, emotional, and mental health of their caregiving employees by employing managers that have health education and who can complement staff on a job well done, providing logistical support to staff, regular on-the-job training/frequent workers' education, having the availability of the right equipment, respecting workers, showing appreciation for caregivers, and protecting caregivers from physical and verbal abuse by residents and their family members. These are some suggestions highlighted by respondents that may help to provide a better work environment for staff, hence better quality of care provided to residents in the facilities.

Our goal is to inform policy makers on the invaluable contributions paid professional caregivers in LTC/AL, and to add to the overall realization of set goals for Health of Albertans in Canada.

Introduction

There is a growing need for long-term care in Canada, including the services of long term care (LTC) and assisted living (AL) Facilities (Government of Canada—Action for Seniors Report, 2019). Here, we define long-term care (LTC) facilities as any facility providing living accommodations for individuals requiring round-the-clock supervised care,, including both professional and paraprofessional health services, as well as personal care and services within a more hospital-like model (Canadian Healthcare Association [CHA], 2009; Health Canada, 2013; Government of Alberta, 2010).

Despite the myriad of initiatives begun in Canada to address the growing need to take care of the increasing aging population, the needs of LTC and AL employees are rarely addressed in these initiative. For example, Canada’s “Action for Seniors” report does not discuss how to address the growing need for LTC/AL facilities, nor how they will be adequately staffed (Government of Canada—Action for Seniors Report, 2019). The National Seniors Strategy, a call for collaboration between government and private care to address the growing needs of the senior population, doesn’t mention any of the problems associated with retaining qualified LTC and AL providers despite a large discussion surrounding the needs and support for unpaid caregivers (Sinha et al., 2016).

There are numerous challenges facing LTC and AL facilities in Canada, and these challenges often relate to the labor needs of LTC and AL facilities and quality of care the can provide (Armstrong, 2009; CHA, 2009; CUPE, 2009). LTC/AL facilities are plagued by high turnover rates, stemming from problematic management styles, organizational policies, as well as personal factors, including personal health distress (Matthews, Carsten, Ayers, & Menachemi, 2018; CIHI, 2011; Larrabee et al., 2003). For example, AL caregivers earn low wages, face emotionally as well as physically demanding work, and have high turnover rates (Chou, 2012). Caregiving is a very demanding career, and understanding these demands has the potential to illuminate strategies to increase the quality of care clients receive. While management styles and organizational policies have received much attention in the literature, more research is need to understand the kinds of biopsychosocial demands placed on workers. For example, in 2011, 32% of caregivers who provided more than 21 hours of care per week reported personal health distress as a direct result of their caregiving role (CIHI, 2011).

Research in diverse disciplines agrees on the importance of supporting employees to be effective in their jobs in ways that promote, not compromise, their health (Andersen, Vinstrup, Villadsen, Jay, & Jakobsen, 2019; Andersen, Villadsen, & Clausen, 2019; Januario et al., 2019). Patient’s experience can be strengthened and expanded when their caregivers are consistent, healthy, and well. It is also important to consider the biopsychosocial demands and work-health issues in a job we may not usually think of as ‘heavy’ or ‘physically

demanding.’ There is also a strong association between the quality of care caregivers provide and their quality of life in LTC (Desimini, 2010). For example, quality of care has been found to associate with regular communication with managers for nurses in AL facilities, including meetings and feedback in order to avoid high turnover (Simmons, Coelho, Sandler, & Schnelle, 2018).

Based on evidence of high level of absence relating to the state of health of the health care workers in LTC/AL, it is important that we broaden our knowledge about what factors in the LTC/AL work environment contribute to this. Phase I and II of this research study explored the health status and quality of life of LTC/AL workers in Alberta Province. We found a strong association between staffing and quality of care and quality of life in LTC/AL (Desimini, 2010). We therefore identify and provide recommendations to stakeholders and policy makers on factors that may improve quality of care provided to residents, and reduce absenteeism and turnover in continuing care settings in Alberta Province. Doing so achieves our immediate goal of providing that same audience with evidence-based information relating to the health status of caregivers in Alberta, Canada.

Research Questions

This research answered the following questions:

1. What factors influence caregivers’ health status, quality of life, and dedication to quality care in continuing care settings in Alberta?
2. What are the feasible and relevant strategies that might improve caregivers’ state of health, quality of life, retention rate and reduce absenteeism in continuing care centres in Alberta?

Methods

After obtaining an ethics approval from the Human Subject Research Ethical Review and from the Health Research Ethic Board of Alberta (Study #1913, REB # Pro00072081, RA83256) via the University of Lethbridge and the University of Alberta Research Committees, the Principal Investigator (PI) held a web meeting with co-researchers to map out the plan for data collection. The PI contacted the Alberta Health Services Research Committee for approval of the list of continuing care centres identified as targets for the study across Alberta.

The PI contacted the sites’ administrator(s) and scheduled meetings in order to present oral presentations on the purpose/significance of the research project concerning how the research may affect their workplace. Researchers also distributed flyers/posters/letters of invitation to participate in the research exercise and recruitment ensued. In trying to save cost and to minimize traveling, we adopted telephone and email communications for further conversations when clarification was needed. Questionnaires were

printed/reproduced and copies dropped off at each Centre (in a sealed envelope with a return envelope) for the participants during our visit. The PI and the Graduate Research Assistant (GRA) administered the questionnaire to 1,385+ caregivers over an 8-month period. Prior to the collection of any data from participants, they were given opportunity to review the consent form for the appropriate phase and to ask researchers questions. A well-secured survey collection box was left onsite (inside the staff lounge) to maintain confidentiality of respondents and surveys were picked up every two months during a six month study period by research assistants, and a reminder letter was distributed during every follow-up visit/call. Participants were compensated with a \$5 gift card (attached to each anonymous survey) for completing survey questionnaire.

The information on the survey were entered into a Statistical Package for Social Sciences (SPSS) software (version 24). We computed the reliability and consistency of the survey instrument using Cronbach alpha based on the loading of questions via exploratory and confirmatory factor analysis technique. In-depth descriptive statistics combined with other univariate and multivariate statistics were adopted for data analysis. Appropriate parametric or non-parametric methods were used for the data analysis. Correlational statistics and regression models were completed on the data. The research obtained new psychometrics for this survey through exploratory factor analysis (Maximum Likelihood with Varimax-orthogonal rotation) procedure and confirmatory factor analysis (structural equation modeling using Analysis of Moment Structures (AMOS) was used to complete a path analysis of the dataset and to test the model). Maximum likelihood estimation procedures were used to estimate the coefficients. How well the model fit the data were assessed using a Chi-square goodness of fit test as well as the comparative fit index (CFI) and the root-mean-square error of approximation (RMSEA). Validity and reliability of the survey were completed through the use of Cronbach alpha and Intraclass correlational statistics. Descriptive analyses of the socio-demographic, health and work variables were undertaken using multivariate logistic regression for adjustment of association that may exist, in accordance with potential confounding variables with a 5% level of significance. The measurement of association used was odds ratio and confidence intervals of 95%. Homogeneity of the distribution of the proportions of the co-variables were analyzed using the Chi-Square test. Study variables include self-rated health (obtained from questions under physical health, health condition, mental and emotional health), Stress, quality of life, health behaviour, turnover and absenteeism. The co-variables were selected for the study based on literature concerning possible association between our variables of interest taking into account potential confounding factors.

Discussions and suggestions provided useful implications for Caregivers in LTC/AL facilities across the five Alberta Health Services zones in the province of Alberta, operators and policy makers. Qualitative analyses of interviews and open-ended questions were conducted in Nvivo 11 and 12.

Results

Demographic Characteristics of Participants

Key demographic characteristics of the respondents in our sample are identified in this section. Issues such as age, gender, educational levels, and English as a first language are discussed. This section also describes participant years of experience in LTC/AL, and the conditions of employment (whether they were employed for part- or full-time, and the shifts the worked).

Age and Gender of Participants

The ages and gender of participants are presented in Table 1. Most of the participants fell within the age of 35+ years (73.6%) and a significant number of participants (48.7%) above 45 years. This implies that there will be inadequate supply of staff for LTC/AL facilities within the next 15 to 20 years should those aged 45+ years decide to retire at the at the age of 65. With the number of seniors likely to double in Alberta within the same period, this will compound the problem of the staffing shortage in LTC/AL services (AHS, June 2015). There is the need to put in place measures that will ensure the supply of qualified staff to offset the anticipated potential staff deficit. Table 1 also shows a female dominance (90.7%) within the staff of LTC/AL facilities. This finding confirms that of Hussein (2017) which reveals the work of the long-term caregivers is considered highly feminine.

Table 1

Participant Age and Gender

a. Ages

Age Group	Frequency	Percentage
18-25	74	8.1
26-34	168	18.3
35-44	228	24.9
45-54	224	24.4
55	223	24.3
Total	917	100

b. *Gender*

Gender	Frequency	Percentage
Male	83	9.0
Female	833	90.7
Non-Binary	1	0.1
Unsure	1	0.1
Total	918	100

Source: Field Survey (2019)

Other Demographic Variables

In Table 2, we highlight the types of shift worked and hours worked per week by our participants; 59.3% of the workers were involved in all-round shifts (working day, evening, and night shifts), while only 32% worked only day shifts. In addition, 67.3% worked between 20-40 hours per week, while 22.4% of the participants worked between 41-60 hours per week. Table 3 and Table 4 highlight the nature of appointment and designation of the participants, and the length of time worked in an LTC/AL facility and highest education attainment of the participants, respectively. A majority (72.5%) of the respondents confirmed English as their first language.

Table 2

Participant Types of Shifts Worked and Hours Worked per Week

a. *Type of shifts worked*

Type of Shift	Frequency	Percentage
Day	293	32.0
Evening	49	5.3
Night	29	3.2
Unsure	2	0.2
Day/Evening/Night	544	59.3
Total	917	100

b. Hours worked per week

Hours Worked	Frequency	Percentage
< 20 hours	62	6.8
20-40 hours	615	67.3
41-60 hours	205	22.4
> 60 hours	32	3.5
Total	914	100

Source: Field Survey (2019)

Table 3

Participant Nature of Appointment and Designation

a. Nature of Appointment

Appointment	Frequency	Percentage
Full-time	328	35.4
Part-time	494	53.3
Casual	101	10.9
Unsure	4	0.4
Total	927	100

b. Designation

Designation	Frequency	Percentage
RN	121	13.2
LPN	114	12.4
HCA	534	58.1
Allied Staff	150	16.3
Total	919	100

Source: Field Survey (2019)

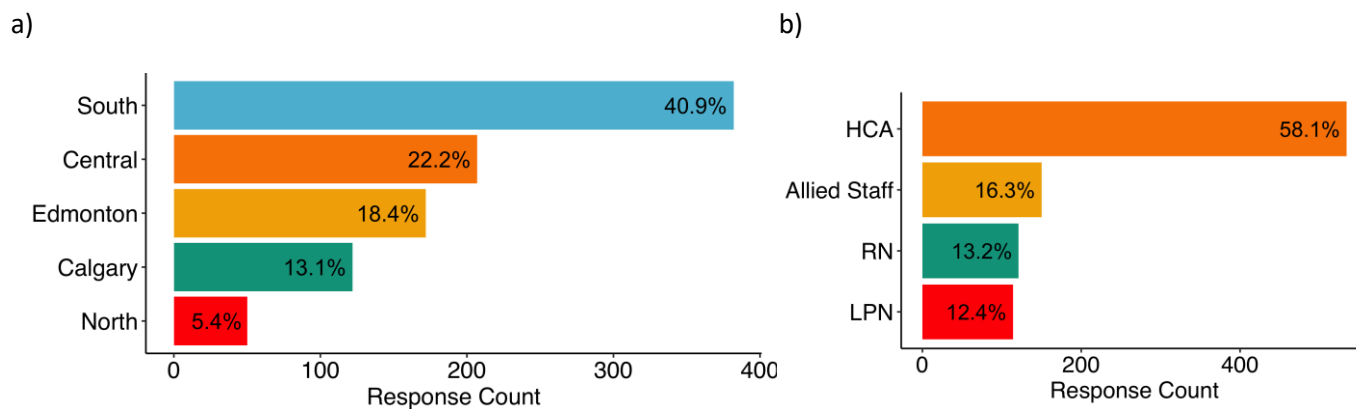


Figure 1: Participant a) Alberta Health Services Zone and b) Designation
Source: Field Survey (2019)

Table 4

Participant Years of Experience in LTC/AL and Highest Educational Attainment

a. Length of time worked in LTC/AL

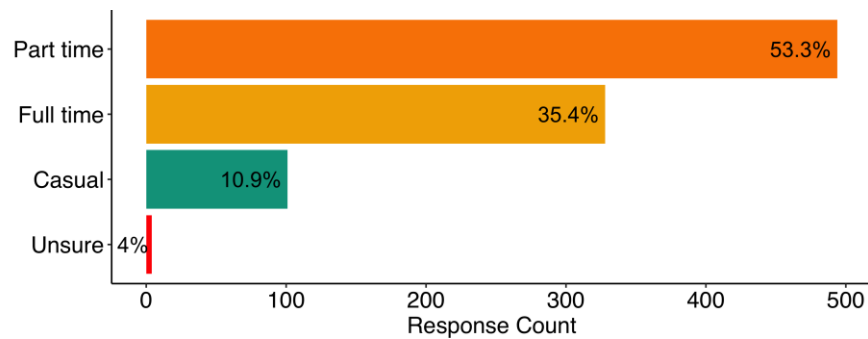
Years of Experience	Frequency	Percentage
0-2 years	129	14.1
2-5 years	201	22.0
5-10 years	218	23.9
10-20 years	218	23.9
20+ years	148	16.2
Total	914	100

b. Highest educational attainment

Education	Frequency	Percentage
Less than High School Diploma	27	3.0
High school diploma	161	17.6
College Diploma	421	46.1
Bachelor/Graduate Degree	252	27.6
Others	52	5.7
Total	913	100

Source: Field Survey (2019)

a)



b)

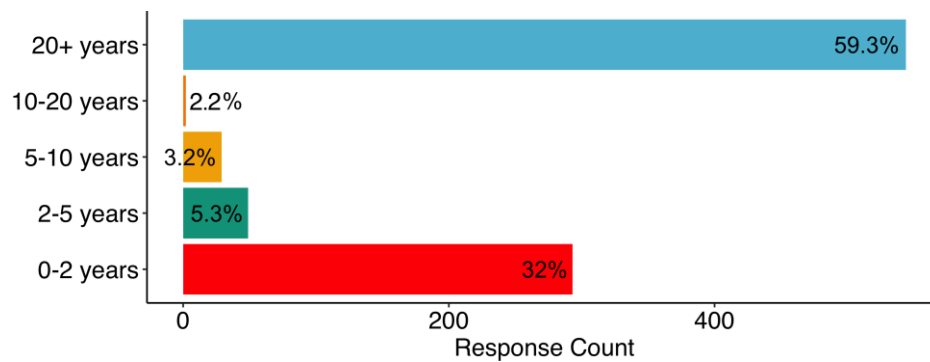


Figure 2: Participant a) Type of Appointment and b) Shifts worked

Source: Field Survey (2019)

For LTC/AL caregivers' education, most participants (73.7%) reported receiving education above obtaining a college diploma, and a majority of these workers (64.0%) had five or more years of experience. However, staff shortages and a lack of adequate training provided by employers were reported as some of the major problems that affect their work. As stated in the literature, one major challenge of LTC/AL facilities involves the dominance of service delivery from paraprofessional health care workers (HCA - Desimini, 2010), who often receive little or no training (CHA, 2009). This was confirmed by the results from the survey where, 74.4% (Table 3) of LTC/AL caregivers constitute health care aids (HCA) and intermittent health care professionals. Staff shortages are often associated with longer shifts (Desimini, 2010), and sometimes with workplace injury and possible violence from residents (CHA, 2009). Some of the comments stated that HCA's are treated like dirt- get hit, punched, kicked, strangled, screamed at, swore at, etc. resulting in injury from residents.

According to the respondents, filling the gaps associated with the staff shortage will not only make their work easier but also increase the efficiency of care delivery at the workplace (Appendix 1 - AHS, June 2019). Specifically, some of the respondents indicated that addressing the staffing shortage can result in:

- A reduced shift day per week. Some (19%) of the workers reported to have a six to seven day shift per week; having a five working days shift with two off days was suggested,
- An increase in the number of staff per shift, which can give room for breaks during shift hours;
- Effectively addressing the individual needs of residence of LTC/AL facilities (in terms of needed supply from family members); and
- A reduced workload per shift (e.g., Have more volunteers come in to do activities with staff and residents, more casual workers to assist with assignments during shift).

Table 5

Descriptive Statistics

Variable	Mean	Std. Deviation	Sample Size (n)
Physical Health	3.573	0.680	933
Health Condition	3.923	0.547	933
Mental & Emotional Health	3.563	0.580	933
Stress Level	3.781	0.662	933
Quality of Life	3.922	0.654	933
Health Behaviour	3.297	0.582	933
Turnover and Absenteeism	4.348	0.810	933

Note: Mean Score Rating is out of 5

Source: Authors' Construct (2019)

Physical Health

Physical health describes the physical health conditions of the LTC/AL givers. Responses from the caregivers are shown in Table 6. On average, 924 responded of 933 provided answers to the questions that were posed. From the responses in the table, it can be deduced that majority of the caregivers are in good condition (77.4%). These include 28.6% in a very good condition and 48.8% in good condition. Only 2.0 and 0.3% mentioned that have been in a poor and very poor physical condition respectively as compared with the people of their age. In addition, 77.1% of the caregivers are satisfied with their overall health conditions as compare to 11.8% of the respondents that are not.

Table 6

Physical Health of Caregivers

Statement	Very Good (%)	Good (%)	Moderate (%)	Poor (%)	Very Poor (%)
In comparison with people of your age, how would you rate your own state of health? (n = 868)	248 (28.6)	424 (48.8)	176 (20.3)	17 (2.0)	3 (0.3)

Statement	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
I feel I have a lot of energy (n = 927)	162 (17.5)	390 (42.1)	252 (27.2)	108 (11.7)	15 (1.6)
I am free of chronic disease (n = 924)	378 (40.9)	300 (32.5)	86 (9.3)	114 (12.3)	46 (5.0)
I expect my health to get better (n = 910)	152 (16.7)	377 (41.4)	280 (30.8)	81 (8.9)	20 (2.2)
I am healthy as anybody I know (n = 929)	179 (19.3)	414 (44.6)	209 (22.5)	110 (11.8)	17 (1.8)
I seem to get sick a little easier than other people (n = 916)	29 (3.2)	97 (10.6)	159 (17.4)	429 (46.8)	202 (22.1)
I am free of any physical pain (n = 922)	107 (11.6)	201 (21.8)	208 (22.6)	279 (30.3)	127 (13.8)
I feel good about my physical appearance (n = 928)	150 (16.2)	386 (41.6)	232 (25.0)	126 (13.6)	34 (3.7)
I feel my physical health limits me in my work (n = 918)	48 (5.2)	131 (14.3)	157 (17.1)	356 (38.8)	226 (24.6)
Overall, I am satisfied with my health (n = 924)	200 (21.6)	420 (45.5)	195 (21.1)	93 (10.1)	16 (1.7)

Source: Field Survey (2019)

Health Conditions

In this section, we assessed the overall health conditions of the caregivers. Respondents were asked on the incidence of body pains, colds/flu, fatigue or low energy, allergies, presence of sores and skin diseases. Between 922 and 930 caregivers responded to the questions which sought to find out about their health conditions. Majority of the caregivers mentioned having at least one of the following health conditions. This could occur sometimes, regularly and persistently.

- 78.0% of respondents reported having the presence of neck/back ache. This includes 44.7% of those who sometimes have such pains; 24.7% of those who have it regularly and 8.6% of those with persistent neck/back ache.
- 63.3% of respondents reported experiencing at least sore arms/legs; and
- 68.1% of respondents reported incidence of fatigue or low energy.

According to the respondents, to ensure that caregivers continue to have good physical health free from pain, stiffness, fatigue, or the incidence of accidents, there are certain factors that can contribute significantly to achieving this. These include the provision of:

- A fitness room or gym in the work environment;
- Accessories such as laundry baskets with wheels to reduce weight lifting;
- A safe working environment which enhances easy accessibility and reduce the incidence of tripping and accidents; and
- Support employees in participating in community fitness programs.

Table 7

Health Conditions

Statement	Never (%)	Infrequently (%)	Sometimes (%)	Regular/ Often (%)	Persistent (%)
Presence of neck /back ache (n = 930)	68 (7.3)	136 (14.6)	416 (44.7)	230 (24.7)	80 (8.6)
Presence of sore arms/legs (n = 930)	127 (13.7)	215 (23.0)	366 (39.4)	172 (18.5)	50 (5.4)
Presence of chest pain (n = 925)	654 (70.7)	165 (17.8)	90 (9.7)	12 (1.3)	4 (0.4)
Feeling of tension, stiffness, or lack of flexibility in your spine (n = 926)	226 (24.4)	176 (19.0)	306 (33.0)	162 (17.5)	56 (6.0)
Incidence of fatigue or low energy (n = 923)	78 (8.5)	217 (23.5)	415 (45.0)	169 (18.3)	44 (4.8)
Incidence of colds/flu or cough (n = 928)	91 (9.8)	467 (50.3)	325 (35.0)	39 (4.2)	6 (0.6)
Incidence of headaches (n = 920)	116 (12.6)	281 (30.5)	357 (38.8)	118 (12.8)	48 (5.2)

Incidence of breathless with slight exertion (n = 922)	467 (50.7)	269 (29.2)	147 (15.9)	33 (3.6)	6 (0.7)
Incidence of allergies or eczema or skin rash (n = 926)	481 (51.9)	166 (17.9)	160 (17.3)	73 (7.9)	46 (5.0)
Incidence of dizziness or light-headedness (n = 929)	351 (37.8)	292 (31.4)	234 (25.2)	44 (4.7)	8 (0.9)
Incidence of accidents or near accidents or falling or tripping (n = 925)	68 (7.3)	136 (14.6)	416 (44.7)	230 (24.7)	80 (8.6)
Incidence of nausea or abdominal discomfort (n = 927)	127 (13.7)	215 (23.0)	366 (39.4)	172 (18.5)	50 (5.4)
Presence of asthma (n = 926)	654 (70.7)	165 (17.8)	90 (9.7)	12 (1.3)	4 (0.4)
Presence of hypertension (n = 926)	226 (24.4)	176 (19.0)	306 (33.0)	162 (17.5)	56 (6.0)
Presence of diabetes (n = 926)	78 (8.5)	217 (23.5)	415 (45.0)	169 (18.3)	44 (4.8)
Presence of heart disease (n = 925)	91 (9.8)	467 (50.3)	325 (35.0)	39 (4.2)	6 (0.6)

Source: Field Survey (2019)

Mental and Emotional Health

Caregivers sometimes experience mental and emotional health issues. By responding to the statements given in Table 8 and 9, caregivers provided their agreement or disagreement with regards to having experienced any of the mental and emotional indicators. The following provide the significant responses from the caregivers:

- At least 73.4% respondents reported having high self-esteem or feeling happy with themselves and therefore considering themselves as happy people;
- 70.5% of the respondents reported feeling excited to be alive when they wake up in the morning;
- 78.3% of the respondents at least agreed having a good level of motivation;
- 79.0% caregivers find enjoyment and fulfillment in their work with 91.5% of them also feeling compassion for their work;
- 59.7% respondents are in agreement with having a good sleep free of disturbing dreams; and

- 71.9% of the sampled caregivers reported feeling safe and secure at work with 81.3% of them having a sense of belongingness in their work place.

In addition to these positive responses from the caregivers, the majority of the caregivers disagreed with having experienced the following mental and emotional health issues in the last six months.

- 58.6% of the respondents reported not feeling depressed or sad much of the time with only 21.3% experiencing vague fears or anxiety within the specified period;
- At least 64.7% of the sampled caregivers disagreed having difficulty thinking, concentrating or being decisive; and
- 66.0% of the respondents reported not experiencing recurring thoughts or dreams.

Table 8

Mental and Emotional Health of Caregivers

Statement	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
I have high self-esteem/feel happy with myself, I am a happy person (n = 932)	224 (24.0)	460 (49.4)	193 (20.7)	43 (4.6)	12 (1.3)
I am comfortable with 'negative' emotions (sadness, guilt, anger, envy) (n = 922)	84 (9.1)	404 (43.8)	267 (29.0)	129 (14.0)	38 (4.1)
I feel excited to be alive when I wake up in the morning (n = 930)	258 (27.7)	398 (42.8)	223 (24.0)	45 (4.8)	6 (0.6)
I have a good level of motivation (n = 930)	236 (25.4)	492 (52.9)	166 (17.8)	34 (3.7)	2 (0.2)
I find enjoyment and fulfillment in my work (n = 927)	272 (29.3)	461 (49.7)	144 (15.5)	35 (3.8)	15 (1.6)
My sleep is free of bad/disturbing dreams (n = 923)	195 (21.1)	356 (38.6)	199 (21.6)	140 (15.2)	33 (3.6)
I feel compassion for my work (n = 926)	426 (46.0)	421 (45.5)	63 (6.8)	12 (1.3)	4 (0.4)

I feel a sense of belonging with where I am (n = 921)	303 (32.9)	446 (48.4)	125 (13.6)	36 (3.9)	11 (1.2)
I feel safe and secure at work (n = 929)	270 (29.1)	398 (42.8)	170 (18.3)	69 (7.4)	22 (2.4)
I feel confident with actions I do at work to address my complaints and concerns (n = 925)	219 (23.7)	415 (44.9)	187 (20.2)	78 (8.4)	26 (2.8)
I would recommend working at LTC to others (n = 919)	200 (21.8)	403 (43.9)	217 (23.6)	65 (7.1)	34 (3.7)
I am free of stress (n = 925)	60 (6.5)	139 (15.0)	254 (27.5)	330 (35.7)	142 (15.4)
I am able to handle fear and anxiety (n = 927)	140 (15.1)	482 (52.0)	215 (23.2)	70 (7.6)	20 (2.2)
I feel I am calm and filled with inner peace, tranquility, and peace of mind (n = 929)	135 (14.5)	362 (39.0)	291 (31.3)	112 (12.1)	29 (3.1)

Source: Field Survey (2019)

Table 9

Mental and Emotional Health of Caregivers

Think about the last six months and answer the following questions:	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
I felt depressed or sad much of the time in last six months (n = 932)	37 (4.0)	160 (17.2)	189 (20.3)	356 (38.2)	190 (20.4)
I have negative or critical feelings about myself (n = 929)	22 (2.4)	164 (17.7)	198 (21.3)	364 (39.2)	181 (19.5)
In the last six months I experience moodiness, temper, or angry outbursts (n = 927)	41 (4.4)	252 (27.2)	174 (18.8)	320 (34.5)	140 (15.1)
In the last six months I experience depression or lack of interest (n = 930)	47 (5.1)	207 (22.3)	158 (17.0)	323 (34.7)	195 (21.0)
I am more worried about small things (n = 929)	28 (3.0)	187 (20.1)	215 (23.1)	354 (38.1)	145 (15.6)

I have difficulty thinking, concentrating, or indecisiveness (n = 928)	22 (2.4)	135 (14.5)	171 (18.4)	412 (44.4)	188 (20.3)
I experience vague fears or anxiety (n = 929)	29 (3.1)	169 (18.2)	180 (19.4)	360 (38.8)	191 (20.6)
I am fidgety or restless (n = 927)	21 (2.3)	110 (11.9)	164 (17.7)	412 (44.4)	220 (23.7)
I have difficulty falling or staying asleep (n = 927)	111 (12.0)	215 (23.2)	162 (17.5)	277 (29.9)	162 (17.5)
I experience recurring thoughts or dreams (n = 918)	24 (2.6)	130 (14.2)	158 (17.2)	380 (41.4)	226 (24.6)
I do not have time to do the work that must be done (n = 929)	99 (10.7)	181 (19.5)	183 (19.7)	324 (34.9)	142 (15.3)
I have no control over how I do my work (n = 925)	147 (15.9)	334 (36.1)	149 (16.1)	217 (23.5)	78 (8.4)
I feel depressed at work (n = 926)	20 (2.2)	71 (7.7)	155 (16.7)	418 (45.1)	262 (28.3)
I feel delight when I accomplish something at work (n = 929)	248 (26.7)	478 (51.5)	119 (12.8)	51 (5.5)	33 (3.6)
I feel burned out from my work (n = 928)	96 (10.3)	200 (21.6)	281 (30.3)	244 (26.3)	107 (11.5)
I am mentally healthy (n = 931)	237 (25.5)	395 (42.4)	197 (21.2)	59 (6.3)	43 (4.6)
I am emotionally healthy (n = 931)	219 (23.5)	393 (42.2)	207 (22.2)	73 (7.8)	39 (4.2)

Source: Field Survey (2019)

Stress

Caregivers were asked to evaluate their stress levels in relations to their families, work, relationships, finances, general status, etc. (Table 10). Majority (over 80%) of the caregivers reported having at least low, medium, high or very high stress levels with regards to their families (83.2%); work (93.8%); health (77.0%); finance (84.5%), and coping with daily problems (80.9%). Additionally, only 23.4% of the caregivers reported being stressed with school; 51.3% reported not having issues with stress in regards to their sex lives.

Table 10

Evaluation of the Stress Levels of Caregivers

Evaluate your stress relative to the following with:	None (%)	Low (%)	Medium (%)	High (%)	Very High (%)
Family (n = 928)	156 (16.8)	404 (43.5)	243 (26.2)	104 (11.2)	21 (2.3)
Work (n = 925)	57 (6.2)	267 (28.9)	354 (38.3)	156 (16.9)	91 (9.8)
Significant relationship/ spouse/ partner (n =916)	315 (34.4)	360 (39.3)	158 (17.2)	58 (6.3)	25 (2.7)
Health (n = 927)	213 (23.0)	421 (45.4)	222 (23.9)	55 (5.9)	16 (1.7)
Finance (n = 924)	143 (15.5)	283 (30.6)	283 (30.6)	131 (14.2)	84 (9.1)
Sex life (n = 916)	470 (51.3)	285 (31.1)	109 (11.9)	33 (3.6)	19 (2.1)
School (n = 897)	687 (76.6)	113 (12.6)	53 (5.9)	30 (3.3)	14 (1.6)
General status (n = 923)	292 (31.6)	402 (43.6)	203 (22.0)	19 (2.1)	7 (0.8)
Emotional status (n = 928)	228 (24.6)	415 (44.7)	226 (24.4)	48 (5.2)	11 (1.2)
Coping with daily problems (n = 931)	178 (19.1)	473 (50.8)	230 (24.7)	38 (4.1)	12 (1.3)

Source: Field Survey (2019)

Quality of Life

Respondents were asked to evaluate the quality of their lives with regards to the checklist as shown in Table 11.

- 77.0% respondents reported being at least satisfied with their life as a whole with none feeling terrible about their lives. In addition, 79.8% reported with being satisfied with their personal lives;
- 79.6% respondents reported feeling happy or satisfied with the lives with their significant others, partners or spouses. Only 9.3% are at least unhappy with their romantic lives;
- On the quality of life with the jobs and its relative issues, 77.7% and 71.5% respectively reported being at least satisfied with their jobs/the actual work they do and actually accomplishing;
- In terms of health, 68.4% reported feeling good quality lives with their health; and
- 68.7% respondents feeling good quality lives with regards to how they handle problems in their lives.

Table 11

Assessing the Quality of Life of Caregivers

Evaluate your feelings relative to the quality of your life with:	Happy	Satisfied	Mixed	Unhappy	Terrible
Your personal life (n = 930)	459 (49.4)	283 (30.4)	170 (18.3)	16 (1.7)	2 (0.2)
Your significant other /spouse /partner (n = 881)	503 (57.1)	198 (22.5)	136 (15.4)	29 (3.3)	15 (1.7)
Your romantic life (n = 900)	429 (47.7)	234 (26.0)	154 (17.1)	60 (6.7)	23 (2.6)
Your financial needs (n = 932)	202 (21.7)	334 (35.8)	257 (27.6)	108 (11.6)	31 (3.3)
Your co-workers (n = 929)	203 (21.9)	347 (37.4)	325 (35.0)	39 (4.2)	15 (1.6)
The actual work you do (Your job) (n = 930)	328 (35.3)	392 (42.2)	176 (18.9)	25 (2.7)	9 (1.0)
Your handling of problems in your life (n = 923)	179 (19.4)	455 (49.3)	256 (27.7)	29 (3.1)	4 (0.4)
What you are actually accomplishing (n = 929)	257 (27.7)	407 (43.8)	230 (24.8)	32 (3.4)	3 (0.3)
Your physical appearance (n = 932)	231 (24.8)	368 (39.5)	238 (25.5)	74 (7.9)	21 (2.3)
Your health (n = 929)	268 (28.8)	368 (39.6)	235 (25.3)	49 (5.3)	9 (1.0)
Your life as a whole (n = 931)	342 (36.7)	375 (40.3)	194 (20.8)	19 (2.0)	1 (0.1)

Source: Field Survey (2019)

Health Behavior

In this section, we assessed the health behavior of caregivers with regards to their diets, exercising, medical reviews, alcohol intake and smoking. The following presents the findings from the respondents as shown on Table 12.

At least 90.5% of the respondents reported having a healthy diet. This includes 37.2% of those who sometimes have healthy diets; 43.6% of those who regularly have healthy diets, and 9.7% of those who persistently ensure a healthy diet. In addition, 75.0% of the caregivers at least do follow the Canadian Food Guide (7-10 servings of vegetables and fruit, 2-3 servings of meat, and 2 servings of milk). For those who reported having a healthy diet:

- 85.7% of the respondents reported at least eating diets high in fibre while 4.5% of the respondents who are frequently eating fatty foods;

- 90.3% of the respondents reported drinking adequate amounts of fluids (1/2 ounce per pound body weight); and
- 77.8% respondents reported never smoking, and 44.8% consuming alcohol

In terms of routine exercising and medical reviews:

- 62.9% of the respondents reported engaging in exercise at least three times a week for at least 20 minutes each time with 35.5% respondents not having enough sleep at night (7-8 hours of sleep). 52.3% responses reported using relaxation techniques;
- Only 19.2% of the respondents reported never or infrequently visiting their doctors for medical reviews. Also 7.5% and 19.2% respective have never and infrequently examined themselves for warning signs of cancer (for example, breast testicles); and
- A whopping 97.5% respondents reporting trying to avoid acute health problems (colds, injuries, etc.)

Table 12

Health Behavior of Caregivers

Statement	Never	Infrequently	Sometimes	Regular/ Often	Persistent
I always eat a diet high in fiber (n = 929)	32 (3.4)	101 (10.9)	388 (41.8)	366 (39.4)	42 (4.5)
I try to avoid eating high fat foods (n = 931)	42 (4.5)	107 (11.5)	419 (45.0)	316 (33.9)	47 (5.0)
I do exercise three times a week for at least 20 minutes each time (n = 932)	94 (10.1)	231 (24.8)	266 (28.5)	198 (21.2)	143 (15.3)
I do examine myself for warning signs of cancer (for example, breast, testicles, skin) (n = 933)	85 (9.1)	161 (17.3)	262 (28.1)	344 (36.9)	81 (8.7)
I drink adequate amounts of fluids (1/2 ounce per pound body weight) (n = 929)	15 (1.6)	75 (8.1)	247 (26.6)	435 (46.8)	157 (16.9)
I follow the Canadian food guide (7-10 servings of vegetables and fruit, 2-3 servings of meat, and 2 servings of milk) (n = 930)	68 (7.3)	165 (17.7)	402 (43.2)	246 (26.5)	49 (5.3)
I try to avoid acute health problems (colds, injuries, etc.) (n = 930)	9 (1.0)	27 (2.9)	130 (14.0)	585 (62.9)	179 (19.2)

I am at the ideal body weight for someone my height (n = 924)	165 (17.9)	173 (18.7)	196 (21.1)	269 (29.1)	121 (13.1)
I get a good sleep at night (7-8 hours of sleep) (n = 928)	104 (11.2)	186 (20.0)	288 (31.0)	273 (29.4)	77 (8.3)
Overall, I have a healthy diet (n = 922)	21 (2.3)	67 (7.3)	343 (37.2)	402 (43.6)	89 (9.7)
I engage in meditation, contemplation, counseling, journaling, or other activities that help me to explore my thoughts and feelings (n = 924)	279 (30.2)	197 (21.3)	238 (25.8)	165 (17.9)	45 (4.9)
I use relaxation techniques (n = 922)	178 (19.3)	222 (24.1)	308 (33.4)	174 (18.9)	40 (4.3)
I visit my doctor for routine checkup (n = 930)	60 (6.5)	135 (14.5)	240 (25.8)	379 (40.8)	116 (12.5)
I drink alcohol (n = 926)	268 (28.9)	243 (26.2)	292 (31.5)	104 (11.2)	19 (2.1)
I smoke cigarettes (n = 926)	720 (77.8)	37 (4.0)	42 (4.5)	78 (8.4)	49 (5.3)
Statement	1 to 5	6 to 10	11 to 20	21 to 39	40 +
If you are a smoker, indicate number smoked per day (Option (0) = 719, n = 168)	49 (29.2)	52 (30.9)	49 (29.2)	18 (10.7)	0 (0)

Source: Field Survey (2019)

Absenteeism or Turnover

In the last six months, only 16.5% of the respondents absented themselves for six days or more due to ill health and 5.9% absented due to work-related injuries respectively. At least 46.5% responses indicate at least considering quitting the job or leaving the profession, and 51.1% reported having contemplated on changing their employment or work environment.

Table 13

Absenteeism and Turnover

Statement	Less than 5 days (%)	6-10 days (%)	11-15 days (%)	16-20 days (%)	More than 20 days (%)
In the last 6months, how many times were you absent due to ill-health? (n = 927)	774 (83.5)	94 (10.1)	25 (2.7)	10 (1.1)	24 (2.6)
In the last 6months, how many times were you absent due to work-related injury? (n = 880)	828 (94.1)	16 (1.8)	7 (0.8)	5 (0.6)	24 (2.7)

Statement	Never	Everyday	Once a week	Once a month	On Some Occasions
In the last 6months, how often have you planned of quitting your job or leaving the profession? (n = 924)	494 (53.5)	41 (4.4)	80 (8.7)	50 (5.4)	259 (28.0)
In the last 6months, how often have you planned of changing employer or work environment? (n = 913)	456 (49.9)	54 (5.9)	77 (8.4)	46 (5.0)	280 (30.7)

	Less than 20 Hours	20-40 Hours	41-60 Hours	More than 60 Hours
How many hours (on the average) do you work per week? (n = 914)	62 (6.8)	615 (67.3)	205 (22.4)	32 (3.5)

Source: Field Survey (2019)

Regression Models, Correlations, Reliability

Regression Models

This section assesses the effects of the overall predictors on the health of the caregivers. In terms of physical health, the results show that the predictors (Overall, I am satisfied with my health, I feel I have a lot of energy, I am healthy as anybody I know, I am free of chronic disease) as a group significantly ($p < 0.001$) explain the variance in physical health by about 58% (Adjusted $R^2 = 0.575$). The rest of the predictors as groups also significantly explain the variance on the caregivers overall satisfaction with their health; mental and emotional health and their lives as a whole.

Table 14

Regression Models

Model	DV	Predictors	R/R ²	Adjusted R ²	ANOVA	Significance
1	Physical health - In comparison with people of your age, how would you rate your own state of health	<i>(Constant), Overall, I am satisfied with my health, I feel I have a lot of energy, I am healthy as anybody I know, I am free of chronic disease, I expect my health to get better, I seem to get sick a little easier than other people</i>	.760/.578	0.575	F _(6,817) = 186.21	< .001
2	Overall, I am satisfied with my health	<i>(Constant), Incidence of fatigue or low energy, Feeling of tension, stiffness, or lack of flexibility in your spine, Incidence of breathless with slight exertion, Presence of Diabetes, Presence of sore arms/legs, Incidence of headaches, Health Conditions - Presence of neck /back ache, Incidence of colds/flu or cough, Presence of Hypertension</i>	.563/.317	0.310	F _(9,882) = 45.57	< .001
3	Mental and emotional health - I have high self-esteem/feel happy with myself, I am a happy person	<i>(Constant), I feel I am calm and filled with inner peace, tranquility, and peace of mind, I feel excited to be alive when I wake up in the morning, I am able to handle fear and anxiety, I am emotionally healthy, I am comfortable with 'negative' emotions (sadness, guilt, anger, envy), I have negative or critical feelings about myself, I have difficulty falling or staying asleep, I have a good level of motivation, I feel compassion for my work, I feel a sense of belonging with where I am, I experience recurring thoughts or dreams</i>	.756/.572	0.566	F _(11,871) = 105.73	< .001
4	Coping with daily problems	<i>(Constant), Stress with Emotional Status, Stress with Family, Stress with General Status, Stress with Work, Stress with Finance</i>	.739/.546	0.544	F _(5,903) = 217.28	< .001
5	Your life as a whole	<i>(Constant), Your handling of problems in your life, Your significant other /spouse /partner, Your personal life, Your co-workers, Your financial needs, What you are actually accomplishing, Your physical appearance, Your Health</i>	.804/.646	0.643	F _(8,851) = 194.13	< .001

6	Overall, I have a healthy diet	<i>(Constant), Health Behaviour - I always eat a diet high in fiber, I get a good sleep at night (7-8 hours of sleep), I follow the Canadian food guide (7-10 servings of vegetables and fruit, 2-3servings of meat, and 2 servings of milk), I am at the ideal body weight for someone my height, I try to avoid eating high fat foods, I do exercise three times a week for at least 20 minutes each time, I drink adequate amounts of fluids (1/2 ounce per pound body weight), I visit my doctor for routine check up</i>	.729/.531	0.527	F(8,898) = 126.98	< .001
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Source: Field Survey (2019)

Correlational Statistics

We obtained a statistically significant correlation with medium to strong effect size, between the responses to various sections of the survey questionnaires. The results show strong correlations among most of the variables including:

- Physical health and health condition;
- Health conditions and mental and emotional health;
- Mental and emotional health and stress level;
- Health condition and quality of life; and
- Mental and emotional health and quality of life.

There are however moderate correlations between variables such as turnover and absenteeism and physical health; health condition stress level; and healthy behavior.

Table 15

Correlations

Variable	Health condition	Mental & emotional health	Stress level	Quality of life	Health behaviour	Turnover and absenteeism
Physical health	.626**	.606**	.398**	.491**	.387**	.278**
Health condition		.541**	.394**	.382**	.306**	.269**
Mental & emotional health			.560**	.660**	.405**	.398**
Stress level				.578**	.349**	.251**
Quality of life					.434**	.308**
Health behaviour						.167**

Note: Correlation is significant at the 0.01 level (2-tailed). Source: Field Survey (2019)

Test of Reliability

We obtained an internal reliability with the survey variables towards the objectives of the survey. Overall, the survey items have acceptable internal reliability, with Cronbach’s Alpha scores ranging from 0.65 to 0.93.

Table 16

Test of Reliability

Survey section	Cronbach’s Alpha	Cronbach’s Alpha based on standardized items	n	Inter-Item Correlations (Mean, Single Measures)	Valid cases (%)
Physical health (PH)	0.833	0.842	10	.348, .333	811 (86.9%)
Health conditions (HC)	0.83	0.827	16	.230, .232	884 (94.7%)
Mental and emotional health (MEH)	0.93	0.93	31	.303, .295	833 (89.3%)
Stress	0.85	0.85	10	.360, .352	867 (92.9%)
Quality of life (QOL)	0.90	0.90	11	.444, .436	856 (91.7%)
Health behaviour (HB)	0.82	0.82	13	.265, .254	894 (95.8%)
Turnover and absenteeism (TA)	0.65	0.63	4	.295, .317	867 (92.9%)
Overall	0.96	0.96	95	.217, .213	581 (62.3%)

Source: Authors’ Construct (2019)

Table 17

Reliability (Reduced Version)

Survey Section	Cronbach's Alpha	Cronbach's Alpha based on standardized items	N items	Inter-Item Correlations (Mean, Single Measures)	Valid cases (%)
Mental and emotional health (MEH)	0.911	0.910	16	.387, .389	877 (94.0%)
Stress	0.853	0.853	3	.659, .660	919 (98.5%)
Quality of life (QOL)	0.771	0.765	4	.449, .457	873 (93.6%)
Health behaviour (HB)	0.770	0.782	5	.418, .400	918 (98.4%)
Turnover and absenteeism (TA)	0.880	0.880	2	.785, .785	913 (97.9%)
Overall	0.921	0.922	30	.283, .281	794 (85.1%)

Source: Authors' Construct (2019)

Qualitative Analyses of Open-ended and Interview Questions

Responses to open-ended/interview questions concerning the role of employee health on quality of caregiving fell mainly into two categories: *examples* concerning employee health and quality of life, and *suggestions* as to what could be done to improve employee health and quality of life. Table 21 provides a list of all codes, example participant responses, and the percentage of overall codes each code covered.

The top three codes comprising *examples* were examples related to workplace morale/interpersonal relations (5.81%), employee morale (4.35%), and workplace policy (4.35%). Below are representative responses from these codes:

- Workplace morale/interpersonal relations:
 - *"If we call in sick not only do we feel bad leaving our overworked coworkers stranded"*
 - *"Our nurse (RN) sometimes does not listen to what we suggest for our resident."*
 - *"Work better as a team. Huge gap between nursing and rehab."*
 - *"Have more volunteers come in to do activities with staff and residents, more casual workers"*
 - *"Physical + verbal abuse (residents towards staff) should not be tolerated by management, the HCA's are treated like dirt- get hit, punched, kicked, strangled, screamed at, swore at, and so much more"*

- *“Staff sitting on their phones on internet, reading [and] visiting instead of helping with residents”*
- Workplace policy
 - *“Many employees rarely take all their breaks, go home on time and get everything done that is expected to be done.*
 - *“I feel uncomfortable with telephone counselling. I am not good at speech, sometimes, I have difficulty expressing my feelings to others.”*
 - *“...LPN and HCAs work extremely hard. I find the overall health system keeps increasing expectations yet resources stay the same. It's taking a toll on the employees in the system.”*
- Employee morale
 - *“Over worked, under paid, under staffed”*
 - *“I am retiring soon because we cannot keep up with the work load. I work when it is already busy. Then we have people with behaviors like screaming because they want something...”*
 - *“Care provision is a physically and mentally demanding job. It is difficult for care staff who are not in good physical health and have a poor quality of life outside of work to give of themselves to others”*

The top three codes related to *suggestions* were suggestions related to workplace policy/scheduling practices (19.16 %), employer hiring practices (10.30%), and employer behaviour (9.29%). Below are representative responses from these codings:

- Workplace policy/scheduling practices
 - *“If our objective is to give quality care for all the patients/residents, we might want to consider increasing the staff to patient ratio (more power).”*
 - *“Shift schedules that work for employees. I know several employees who work two or three part-time jobs just to pay the bills. Other employees only want part-time work.”*
 - *“Existing policies need to be much stricter and enforced stronger in order to protect workers, residents, and other staff members in the building.”*
 - *“Improve work schedules, 7 night shifts in a row are not healthy and should not be scheduled, reduce workload, No one should work more than 5 days in a row, Staff not doing double shift”*

- *“Better staff to patient ratio. Manager per floor. Better on site education, Listen to staff concerns”*
- *“Employment of more casual staff to reduce shift hours”*
- *“We need a complete overhaul in the way our LTC/AL runs”*
- *“Rotations are antiquated and need to be addressed, change the rotations to be fair and effective for our units to be more effective, and productive”*
- *“Policy to have workers only work 5 days in a row with 2 days off”*
- Employer hiring practices
 - *“Hire more staff if the resident has more care needs. Lately this is always the case!”*
 - *“I wish we will get more staff and more help or money from the government so we can work in a comfortable place and take good care of the residents. We need more staff on board so we can help as soon as they call for, because the work load is too much then the care giver on the shift so feel helpless when we working.”*
 - *“Our employer could assist us much better if we had more staff, or at least consistently regular staff. We work short a lot. Have a lot of residents that need more care but do not receive it.”*
- Employer behavior
 - *“Let workers know their work is appreciated often.”*
 - *“Stop treating us like warm bodies to fill a work space and treat us like humans.”*
 - *“More positive feedback and acknowledgement would be great. Usually only hear negative feedback about my work and the work of my coworkers.”*
 - *“Management is not respectful”*
 - *“Better communication between employees and employers - Effective team work”*
 - *“Staff appreciation: give a pat on the back for a job well done”*
 - *“Need a supervisor/manager to monitor all employees as well as mediate the bickering and in fighting”*
 - *“Managers shouldn't be allowed to have family members in the facility they work in to "micro manage" their care”*
 - *“Providing training support, staff motivation and provision of logistical support, on the job training and frequent workers education”*
 - *“Compliment people on a job well done”*

These codes point to a few possible themes in participant responses. The most prominent of which is that caregivers report that they feel that their quality of life and health is largely associated with their social work environment. Understaffing leads to stress, and calls for more staff and support; when these requests are unmet, unaddressed, and when the difficulty of caregiving work goes unacknowledged by employers, caregivers feel undervalued and like “warm bodies” rather than “humans”.

Limitations

Participants’ recruitment was focused only on LTC/AL facilities owned by AHS and Covenant Health located in Alberta. Few private (for-profit/not-for-profit) LTC/AL providers and agencies were also included in this study. A proposed face-to-face qualitative interview aspect of this study was discontinued and replaced with email communication due to time constraints as voices of potential participants was not as strong as earlier indicated.

Conclusions

Overall, majority of the sampled caregivers for the survey reported being mentally (67.9%) and emotionally (65.7%) healthy. Despite these positive responses, there are still unresolved mental and emotional health issues that need to be looked at. For instance, only 31.6% of the respondents reported being free from stress (General status). Again, even though majority of the caregivers reported feeling safe and secure at work, the respondents expect management to deal with issues of security availability, bullying, and abuse by residents and their relatives. On the issues of having enough time and control on how they should perform, caregivers believe that having the time, resources, and trust from management will improve their working environment and quality of work life.

In the last six months, only 16.5% of the respondents absented themselves for six days or more due to ill health and 5.9% absented due to work-related injuries. Almost half of the respondents (46.5%) indicates that they are considering quitting the job or leaving the profession (full departure out of profession) at least once a month or on some occasion while 51.1% having contemplated on changing their employment or work environment (lateral movement within organization).

From the qualitative analysis, it appears that the LTC & AL caregivers in this sample are at risk of “burnout,” or a syndrome seen in individuals who do “people work” of some kind and characterized by cynicism and emotional exhaustion (Bamonti et al., 2019). According to Bamonti et al. (2019), “burnout is operationalized as three components: emotional exhaustion, depersonalization, and low personal accomplishment,” is also

associated with absenteeism and turnover (Bamonti et al., 2019). Additionally, it appears that these caregivers would benefit greatly from immediate supervisor support and social care, two interventions, when lacking, which have been found to be statistically significant predictors of staff turnover (Virido & Daly, 2019).

Recommendations

In general, complaints about the staff shortage stood out in all of the responses from participants, thus:

- Filling the gaps associated with the staff shortage will not only make caregiver's work easier but also increase the efficiency of service delivery at the workplace.

Specifically, addressing the staffing shortage can result in:

- A reduced shift day per week. Some (19%) of the workers reported to have a six to seven shifts per week;
- An increase in the number of staff per shift, which can give room for breaks during shift hours;
- Effectively addressing the individual needs of residents of LTC/AL facilities (in terms of supply);
- A reduced workload per shift;
- The provision of adequate training was mentioned as a major problem that affected their work;
- Care to reduce the amount of split shifts employees are scheduled.

To ensure that caregivers continue to have good physical health free from pain, stiffness, fatigue or incidence of work related accidents, there are certain factors that can contribute significantly to achieving this.

These include the provision of:

- A fitness room or gym in the work environment;
- Accessories such as laundry baskets with wheels to reduce weight lifting;
- A safe work environment which enhances promotes accessibility and reduces the incidence of tripping and accidents; and
- Providing supports to employees to engage in community fitness programs.

Finally, employers need to constantly acknowledge the hard work, dedication, and emotional labor that goes into caregiving. Suggestions related to employer behavior, hiring practices, and management behavior encompassed the largest portion of the qualitative data and make up 30.77% of participant responses to the open-ended/interview questions. Thus:

- Employers and management should acknowledge staff individually and as teams for their hard work;

- Caregivers need regular, actionable, and constructive feedback about their work;
- Employers should hire managers with exceptional interpersonal communication skills and with the ability to address the emotional needs of staff related to their caregiving work;
- Managers need to communicate and engage with caregivers to in developing workplace policies and procedures because they are the ones implementing them;
- Managers should make daily rounds to communicate with caregivers about concerns and provide acknowledgement of good work;
- Caregivers need to feel listened to and empathized by management.

Appreciation

We want to express our appreciation to the managers, owners, and staff of AHS, Covenant Health, & all privately owned (for-profit and not-for-profit) staff working in LTC/AL facilities in rural/urban areas across Alberta who participated in this study. Special thanks goes to the University of Lethbridge (Research fund), Covenant Health (Grant), Covenant Care, and the Faculty of Health Sciences (Research Support) for sponsoring this project.

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Appendices

Appendix A

Table 18

Rotated Factor Matrix

Item	Factor									
	1	2	3	4	5	6	7	8	9	10
Physical health - In comparison with people of your age, how would you rate your own state of health										
I am free of any physical pain					0.554					
I feel good about my physical appearance								0.622		
Health conditions - Presence of neck /back ache					0.774					
Presence of sore arms/legs					0.547					
Feeling of tension, stiffness, or lack of flexibility in your spine					0.590					
I find enjoyment and fulfillment in my work		0.740								
I feel compassion for my work		0.687								
I feel a sense of belonging with where I am		0.739								
I feel safe and secure at work		0.672								
I feel confident with actions I do at work to address my complaints and concerns		0.602								
I would recommend working at LTC/AL to others		0.615								
I felt depressed or sad much of the time in last six months	0.665									

I have negative or critical feelings about myself	0.680		
In the last six months I experience moodiness, temper, or angry outbursts	0.708		
In the last six months I experience depression or lack of interest	0.774		
I am more worried about small things	0.626		
I have difficulty thinking, concentrating, or indecisiveness	0.678		
I experience vague fears or anxiety	0.722		
I am fidgety or restless	0.635		
I am mentally healthy			0.817
I am emotionally healthy			0.918
Stress with general status		0.722	
Stress with emotional status		0.791	
Coping with daily problems		0.621	
Your personal life		0.607	
Your significant other /spouse /partner		0.887	
Your romantic life		0.820	
The actual work you do	0.546		
Your physical appearance			0.842
Health behaviour - I always eat a diet high in fiber		0.665	
I try to avoid eating high fat foods		0.589	
I do exercise three times a week for at least 20 minutes each time		0.549	

I follow the Canadian food guide (7-10 servings of vegetables and fruit, 2-3 servings of meat, and 2 servings of milk)	0.611	
Overall, I have a healthy diet	0.664	
I engage in meditation, contemplation, counseling, journaling, or other activities that help me to explore my thoughts and feelings		0.843
I use relaxation techniques		0.737

Note: Extraction Method: Maximum Likelihood; Rotation Method: Varimax with Kaiser Normalization; Rotation converged in 8 iterations
 Source: Authors' Construct (2019)

Appendix B

Table 19a

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.795	30.244	30.244	6.136	15.734	15.734	5.082	13.030	13.030
2	3.000	7.692	37.936	4.536	11.631	27.365	3.909	10.023	23.053
3	2.537	6.506	44.443	3.281	8.414	35.778	2.537	6.506	29.559
4	1.938	4.970	49.413	1.547	3.966	39.745	2.222	5.698	35.257
5	1.670	4.281	53.694	1.941	4.978	44.722	2.056	5.271	40.528
6	1.498	3.841	57.535	1.585	4.063	48.785	1.908	4.891	45.419
7	1.319	3.381	60.916	1.563	4.007	52.792	1.722	4.416	49.835
8	1.223	3.135	64.051	1.248	3.201	55.993	1.671	4.285	54.120
9	1.170	2.999	67.050	1.249	3.202	59.195	1.531	3.926	58.047
10	1.137	2.916	69.966	0.933	2.393	61.588	1.381	3.541	61.588

Note: Extraction Method: Maximum Likelihood

Source: Authors' Construct (2019)

Appendix B1

Table 19b

(Reduced) Rotated Factor Matrix

Item	Factor									
	1	2	3	4	5	6	7	8	9	10
I find enjoyment and fulfillment in my work		0.744							0.744	
I feel compassion for my work		0.669							0.669	
I feel a sense of belonging with where I am		0.742							0.742	
I feel safe and secure at work		0.679							0.679	
I feel confident with actions I do at work to address my complaints and concerns		0.623							0.623	
I would recommend working at LTC/AL to others		0.631							0.631	
I felt depressed or sad much of the time in last six months	0.669							0.669		
I have negative or critical feelings about myself	0.693							0.693		
In the last six months I experience moodiness, temper, or angry outbursts	0.721							0.721		
In the last six months I experience depression or lack of interest	0.779							0.779		
I am more worried about small things	0.633							0.633		
I have difficulty thinking, concentrating, or indecisiveness	0.686							0.686		
I experience vague fears or anxiety	0.732							0.732		
I am fidgety or restless	0.648							0.648		
I am mentally healthy						0.833				
I am emotionally healthy						0.931				
Stress with General Status					0.723					

Stress with Emotional Status		0.794	
Coping with daily problems		0.632	
Your personal life		0.624	
Your significant other /spouse /partner		0.883	
Your romantic life		0.839	
The actual work you do	0.561		0.561
Health Behaviour - I always eat a diet high in fiber		0.655	0.655
I try to avoid eating high fat foods		0.591	0.591
I do exercise three times a week for at least 20 minutes each time		0.556	0.556
I follow the Canadian food guide (7-10 servings of vegetables and fruit, 2-3servings of meat, and 2 servings of milk)		0.638	0.638
Overall, I have a healthy diet		0.695	0.695
I use relaxation techniques			
In the last 6months, how often have you planned of quitting your job or leaving the profession?		0.72	1

Note: Extraction Method: Maximum Likelihood. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 7 iterations

Source: Authors' Construct (2019)

Appendix B2

Table 19c

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.613	32.044	32.044	4.645	15.484	15.484	4.807	16.022	16.022
2	2.885	9.618	41.662	3.884	12.945	28.429	3.794	12.648	28.670
3	2.112	7.041	48.703	3.486	11.621	40.050	2.278	7.594	36.264
4	1.883	6.277	54.981	1.789	5.963	46.013	2.136	7.121	43.384
5	1.495	4.985	59.965	1.395	4.652	50.664	1.879	6.264	49.648
6	1.244	4.146	64.111	1.395	4.649	55.313	1.729	5.765	55.413
7	1.219	4.062	68.173	1.567	5.224	60.537	1.537	5.124	60.537

Note: Extraction Method: Maximum Likelihood

Source: Authors' Construct (2019)

Appendix B3

Table 19d

(Reduced) Rotated Factor Matrix

Item	Factor				
	1	2	3	4	5
I find enjoyment and fulfillment in my work		0.740			
I feel compassion for my work		0.608			
I feel a sense of belonging with where I am		0.703			
I feel safe and secure at work		0.709			
I feel confident with actions I do at work to address my complaints and concerns		0.663			
I would recommend working at LTC/AL to others		0.699			

I felt depressed or sad much of the time in last six months	0.685	
I have negative or critical feelings about myself	0.703	
In the last six months I experience moodiness, temper, or angry outbursts	0.714	
In the last six months I experience depression or lack of interest	0.781	
I am more worried about small things	0.638	
I have difficulty thinking, concentrating, or indecisiveness	0.689	
I experience vague fears or anxiety	0.739	
I am fidgety or restless	0.657	
I am mentally healthy		0.854
I am emotionally healthy		0.913
Your personal life		0.655
Your significant other /spouse /partner		0.876
Your romantic life		0.859
The actual work you do	0.585	
Health Behaviour - I always eat a diet high in fiber		0.658
I try to avoid eating high fat foods		0.594
I do exercise three times a week for at least 20 minutes each time		0.552
I follow the Canadian food guide (7-10 servings of vegetables and fruit, 2-3servings of meat, and 2 servings of milk)		0.633
Overall, I have a healthy diet		0.689
In the last 6months, how often have you planned of quitting your job or leaving the profession?	0.513	
In the last 6months, how often have you planned of changing employer or work environment?	0.534	

Note: Extraction Method: Maximum Likelihood; Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 6 iterations

Source: Authors' Construct (2019)

Appendix B4

Table 19e

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.613	32.044	32.044	6.953	23.175	23.175	5.151	17.171	17.171
2	2.885	9.618	41.662	3.363	11.208	34.384	4.311	14.371	31.542
3	2.112	7.041	48.703	2.112	7.041	41.425	2.414	8.045	39.588
4	1.883	6.277	54.981	1.923	6.411	47.836	2.279	7.597	47.185
5	1.495	4.985	59.965	1.571	5.237	53.073	1.766	5.888	53.073

Note: Extraction Method: Maximum Likelihood

Source: Authors' Construct (2019)

Appendix C

Table 20a

Rotated Factor Matrix

Item	Factor			
	1	2	3	4
I find enjoyment and fulfillment in my work		0.743		
I feel compassion for my work		0.610		
I feel a sense of belonging with where I am		0.707		
I feel safe and secure at work		0.714		
I feel confident with actions I do at work to address my complaints and concerns		0.667		
I would recommend working at LTC/AL to others		0.699		
I felt depressed or sad much of the time in last six months	0.702			
I have negative or critical feelings about myself	0.712			
In the last six months I experience moodiness, temper, or angry outbursts	0.733			
In the last six months I experience depression or lack of interest	0.795			

I am more worried about small things	0.645	
I have difficulty thinking, concentrating, or indecisiveness	0.695	
I experience vague fears or anxiety	0.730	
I am fidgety or restless	0.653	
I am mentally healthy		0.858
I am emotionally healthy		0.921
Your personal life		0.648
Your significant other /spouse /partner		0.884
Your romantic life		0.838
The actual work you do	0.585	
In the last 6months, how often have you planned of quitting your job or leaving the profession?	0.518	
In the last 6months, how often have you planned of changing employer or work environment?	0.536	

Note: Extraction Method: Maximum Likelihood

Source: Authors' Construct (2019)

Table 20b

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.741	32.373	32.373	5.844	21.644	21.644	5.083	18.826	18.826
2	2.799	10.366	42.738	3.532	13.081	34.726	4.316	15.985	34.812
3	2.068	7.660	50.399	2.072	7.674	42.399	2.142	7.934	42.746
4	1.774	6.569	56.968	1.849	6.848	49.247	1.755	6.501	49.247

Source: Authors' Construct (2019)

Appendix D

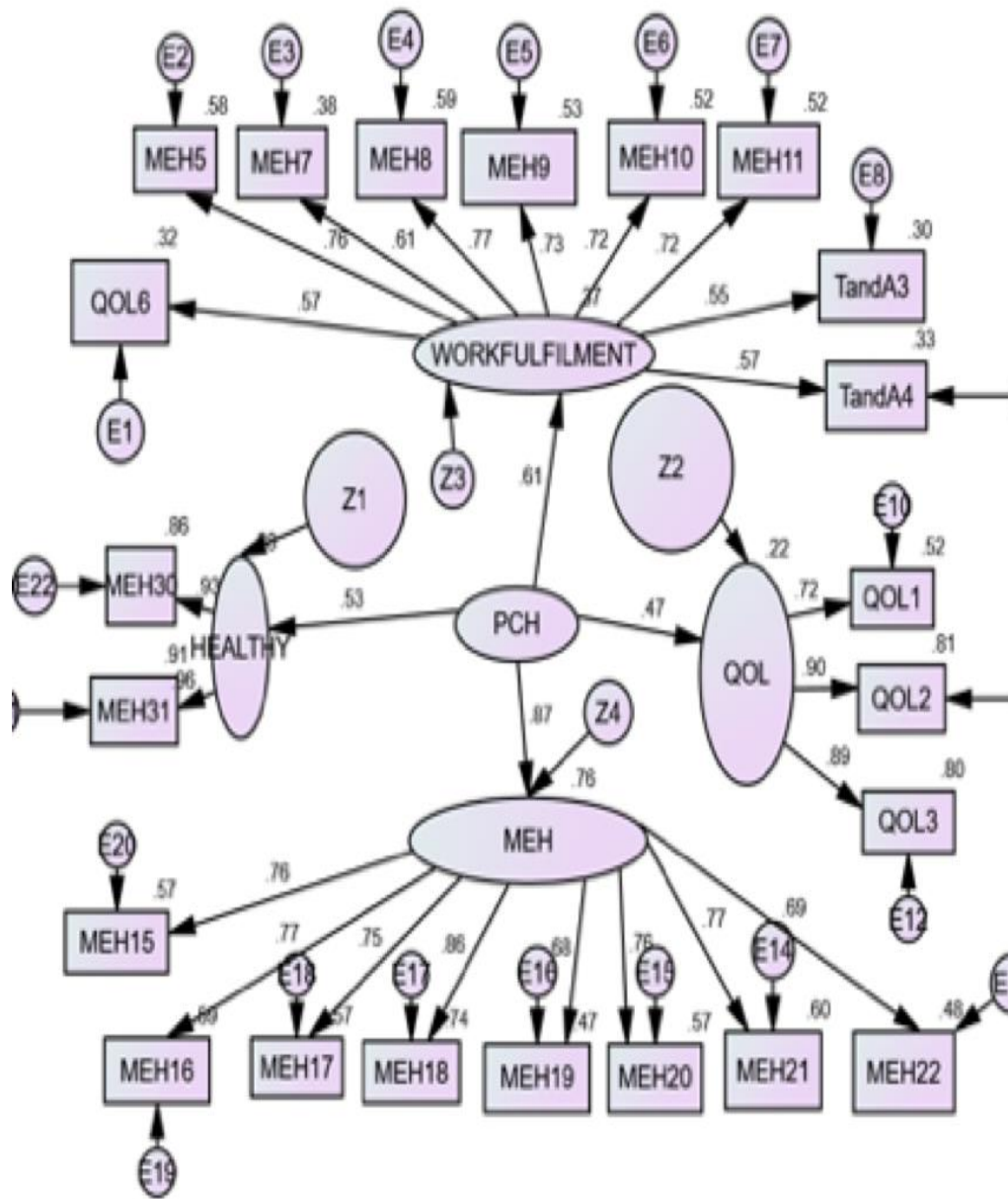


Figure 3: Four Factors Analysis

Source: Authors' Construct (2019)

Appendix D1

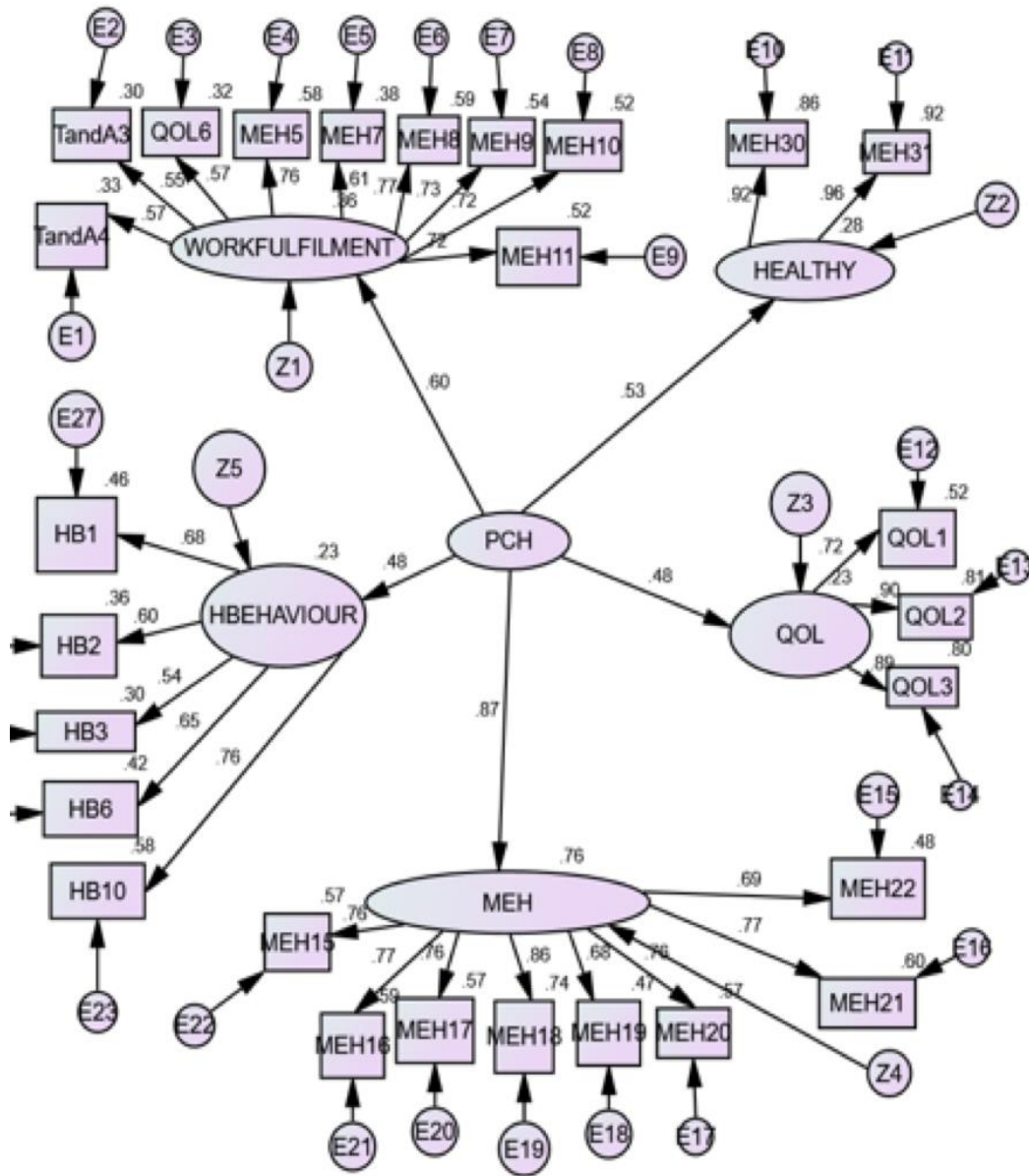


Figure 4: Five Factors Analysis

Source: Authors' Construct (2019)

Appendix E

Table 21

Codes, sub-codes from participant responses to the open-ended and interview questions

Category	Codes	Sub-codes	Examples from Participant Responses	Coverage*	
Examples	Compensation	Specific	<i>"we have to pick up so many shifts to pay our bills that we are exhausted daily"</i>	2.18%	
	Employee	Behaviour	<i>"Staff need to be reminded that the faster an employee you are does not mean better care is being provided"</i>	0.44%	
		Health	<i>"One factor being the heavy workloads, our job as care givers is physically and mentally exhausting and very hard on the body."</i>	3.63%	
		Morale	<i>"Covering for people off or sick often leads to more stress and a higher work load."</i>	4.35%	
		Motivation	<i>"I find it difficult to maintain any kind of relationship with one weekend off a month."</i>	0.87%	
		Quality of Life impacted by	<i>"If a worker is facing hardships in the home or in their personal health it can bleed over into the quality of care given in the workplace."</i>	1.45%	
		Quality of Life impacting	<i>"If a person is experiencing stressors at home, this can often impact our ability to do the best job possible."</i>	0.44%	
		Training	<i>"Support workers must actually support front line workers who give the care, not the other way around. E.g. sometimes it feels like we are supporting the IT people not them supporting us."</i>	1.74%	
		Employer	Behaviour	<i>"Job practices that are reported to management that staff are doing unsafe or improper treat[ment] of residents fall on deaf ears."</i>	0.58%
			Hiring Practices	<i>"Another factor I believe is contributing to the issues stated above is the lack of staff, far too often staff are having to work short, doubles or work overtime to make up for being understaffed."</i>	0.44%
		Management	Behaviour	<i>"Our manager is constantly angry. She has a high tone voice. I hear she is angry"</i>	1.45%
	Politics	—	<i>"My biggest issue is the lack of funding for healthcare in our province"</i>	0.15%	

	Scheduling Practices	Specific	<i>“Stop making us work short staffed. Short staffed means double the work which creates stress, chances of accidents”</i>	2.47%
	Workplace	Demand	<i>“Tell the truth: most job expectations are unrealistic. Expectations continue to increase and resources stay the same. Change the things you are able to change, and be honest with employees about the rest.”</i>	1.02%
		Environment	<i>“Many colleagues go to the gym, eat healthy... They find it is the work environment itself that is making them unhealthy.”</i>	3.05%
		Morale & Interpersonal Relations	<i>“If we call in sick not only do we feel bad leaving our overworked coworkers stranded”</i>	5.81%
		Policy	<i>“Processes with other parts of the health care team (e.g. pharmacy): make them safe, simple and efficient. We do not have time to be following up with pharmacy daily. Get employee input into this.”</i>	4.35%
Total:				34.42%
Suggestions	Compensation	Specific	<i>“Fair compensation and wage adjustments that reflect changes in costs of living”</i>	5.37%
	Employee	Behaviour	<i>“Learn how to be a team.”</i>	2.18%
		Health	<i>“Create exercise programs for employees</i>	2.61%
		Morale	<i>“More work/home life balance.</i>	0.15%
		Support	<i>“More support for staff dealing with difficult behaviours of residents.”</i>	1.89%
	Training		<i>“More training for staff to how to work with clients with dementia. All facilities should have LPN's/ RN's able to work full scope of practice.”</i>	3.48%
	Employer	Behaviour	<i>“We want our employer to hear our complaints and concerns because we are the front liner in the floor.”</i>	9.29%
		Hiring Practices	<i>“Employer should consider hiring more staff for LTC as it gets very busy, the demand from residents is very high like toileting plus if you work in secure unit (dementia) they wander, they have behaviours. It gets so hard at times.”</i>	10.30%
Management	Behaviour	<i>“I feel that if our managers/supervisors had more time to speak to their staff one on one management as a whole would have a better idea of what</i>	6.39%	

			<i>problems/challenges are faced when working the floor."</i>		
	Workplace	Environment	<i>"Better equipment to lift or help someone up after a fall like RAIZER. The med lift is [in]sufficient to maneuver. Also, it is hard on the back-causes back pain for staff. Continue having students- very big help."</i>	4.79%	
		Morale	<i>"It would be great to get back to real teamwork where each discipline was of equal value & all staff would do the best they are able to do for the benefit of the residents."</i>	4.35%	
		Policy, Scheduling Practices	<i>"When cuts happen they should not affect front line workers. The staffing ratios are historically and always are acknowledged by the management but it never change"</i>	19.16%	
				Total:	69.96%
How Related	—	Responses to the question, "How are health and quality of life related to quality of service?"	<i>"Physical and mental health are equally important in being able to complete your daily work duties."</i>	2.61%	
Comments	—	General Comments	<i>"I love working with the residents at both sites in LTC."</i>	1.16%	

Note: Codes are not mutually exclusive and participant responses sometimes received more than one coding; Coverage percentages calculated in Nvivo 12; Source: Authors' Construct (2019)

Appendix E1

Qualitative Analysis of transcript

We analyzed the interview and open-ended questions transcripts using NVivo 12 software to identify the most occurring themes from the participant responses. We read the transcripts several times to successfully obtain the final themes. Four major themes evolved, along with subthemes. The following categories show the resulting themes in participant responses concerning the health status of LTC/AL caregivers and how health status impacts their work, and what they believe can be done to improve it:

Section A: Themes and subthemes

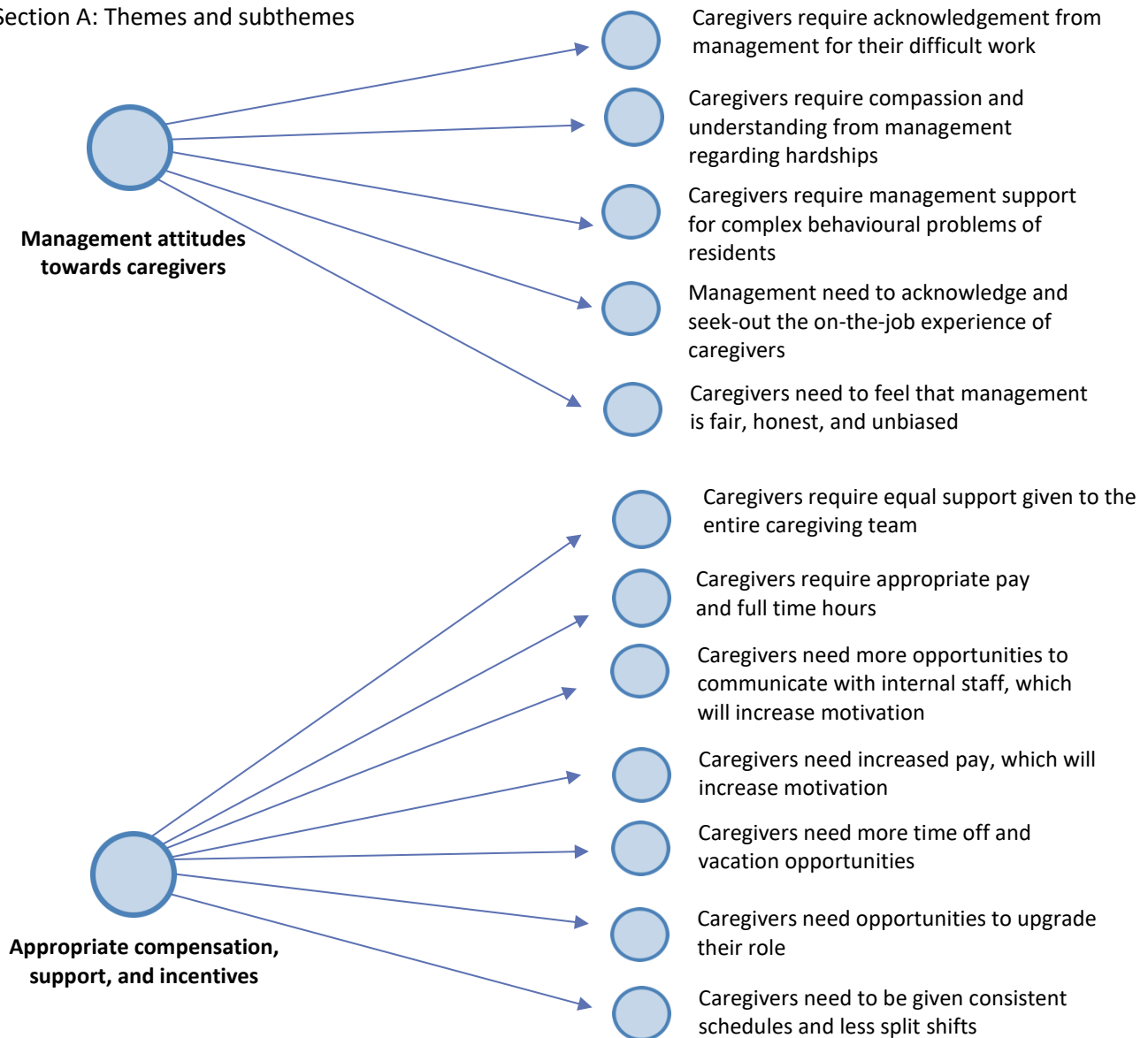


Figure 5a: Themes and subthemes from participant interview and open-ended responses

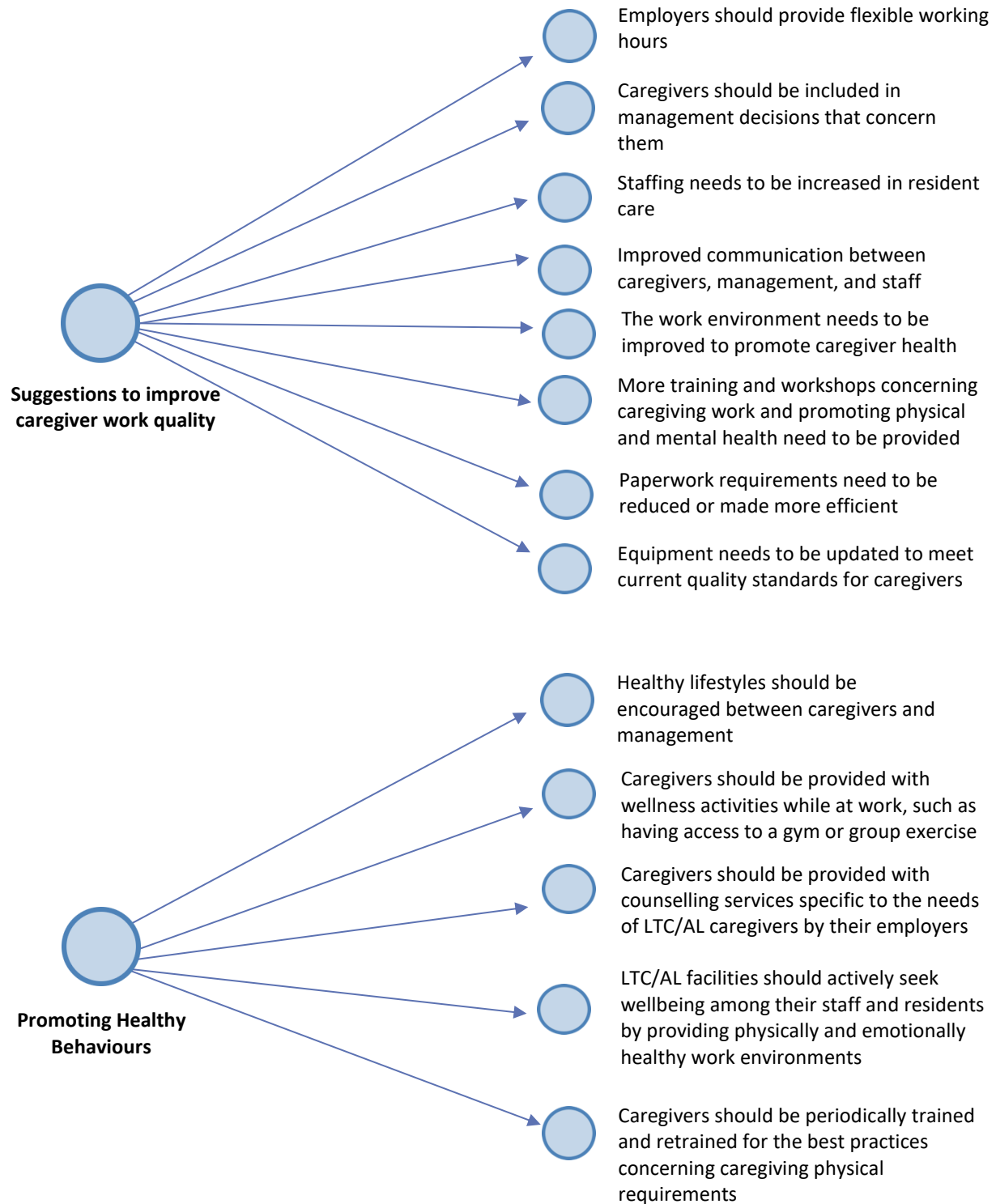


Figure 5b: Themes and subthemes from participant interview and open-ended responses

Source: Authors' Construct (2019)

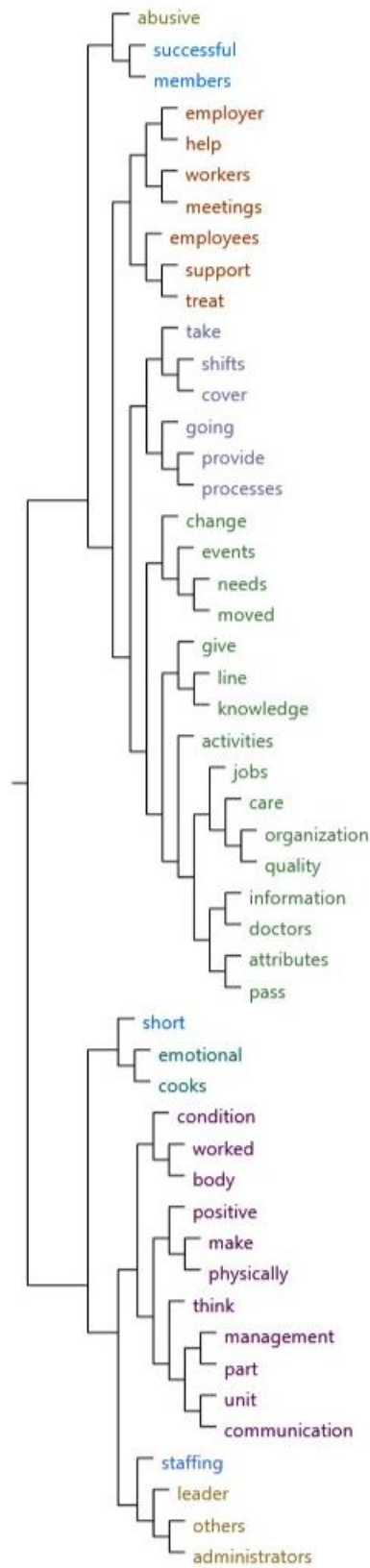


Figure 10: Clustered word frequencies from participant responses to open-ended and interview questions

Source: Authors' Construct (2019)

Appendix F

Table 22

Sample Representation (Distribution)

Alberta Health Services Zone	Frequency	Percent
North	50	5.4
Edmonton	172	18.4
Central	207	22.2
Calgary	122	13.1
South	382	40.9
Total	933	100.0

Source: Authors' Construct (2019)

Table 23

Location of Study Coverage

Location of Continuing Care (LTC/AL) Facilities	Frequency	Percent
Vulcan	9	1.0
Hanna	18	1.9
Wetaskiwin	9	1.0
Westlock	15	1.6
Edmonton General	59	6.3
St. Joseph's Auxiliary - Edmonton	63	6.8
Youville Auxiliary - St. Alberta	50	5.4
St. Martha's Place/Banff Mineral Spring	16	1.7
Trochu	10	1.1
Villa Marie - Red Deer	14	1.5
Bonnyville	18	1.9
DrumHeller	23	2.5
Innisfail	27	2.9
Lacombe	26	2.8
Rimbey	24	2.6

Elk Point	17	1.8
Mannville	8	.9
Bentley	7	.8
Good_Sam_Leth	18	1.9
Good_Sam_Park_Meadows	20	2.1
St. Theresa- Lethbridge	70	7.5
Oyen	9	1.0
Didsbury	10	1.1
Ponoka	13	1.4
High River	22	2.4
Coaldale	55	5.9
Taber	9	1.0
Willow Creek - Claresholm	65	7.0
Crowsness Pass	44	4.7
Saint Michael - Lethbridge	62	6.6
Cardston	19	2.0
Milk River	8	.9
Bow Island	19	2.0
Drayton Valley Hospital and Care Centre	7	.8
Provost	17	1.8
Breton	4	.4
Piyami Lodge/Place - Green Acres	13	1.4
Golden Acres Lodge - Green Acres	11	1.2
Sunny South Lodge - Manor & Villa - Green Acres	25	2.7
Total	933	100.0

Source: Authors' Construct (2019)