




Physical Activity and Social Interaction among Rural Older Adults in Saskatchewan during COVID-19

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Article

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Résumé

L'activité physique et l'interaction sociale chez les personnes âgées qui vivent en milieu rural sont des enjeux importants, et l'ont été en particulier pendant la pandémie de COVID-19 alors que des restrictions ont été imposées sur les rassemblements en personne. L'objectif de cette étude qualitative était de mieux comprendre le vécu des personnes âgées établies en milieu rural sur le plan de l'activité physique et de l'interaction sociale pendant la pandémie de COVID-19. Une approche phénoménologique interprétative a été utilisée pour explorer ce vécu chez dix personnes âgées de 67 à 82 ans, établies dans des communautés rurales de la Saskatchewan. Les résultats ont révélé que de nombreuses personnes âgées vivant en milieu rural reconnaissaient les bienfaits pour la santé des activités physiques et sociales, et avaient ressenti de la solitude lorsque les restrictions liées à la COVID-19 avaient été imposées, même si ces personnes vivaient avec un partenaire. Pour certains participants à l'étude, les restrictions imposées aux activités physiques et sociales avaient constitué une pause bienvenue dans les responsabilités quotidiennes. Les participants ont également perçu les communautés rurales, souvent désavantagées, comme constituant un facteur de protection contre la COVID-19. Les conclusions de l'étude mettent en évidence la résilience dont ont fait preuve les participants ruraux pour persévérer et s'adapter aux changements à leur environnement pendant la pandémie.

Abstract

Physical activity and social interaction among rural older adults are important, particularly during the COVID-19 pandemic when restrictions on physical gatherings were placed. The purpose of this qualitative study was to gain a deeper understanding of rural older adults' experience with physical activity and social interaction during the COVID-19 pandemic. An interpretative phenomenological approach was used to explore the experience of 10 older adults, 67–82 years of age, from rural communities throughout Saskatchewan. Findings revealed that many rural older adults acknowledged the health benefits of physical and social activities and experienced loneliness when COVID-19 restrictions were placed, even when living with a partner. For some, the restrictions placed on physical and social activity provided a welcome break from daily responsibilities. Rural communities, often at a disadvantage, were also perceived by participants as being protected against COVID-19. The resilience demonstrated among rural participants to persevere and adapt to their changing environment during the pandemic was evident in the findings.

Statistics Canada (2019) estimates that the number of older adults will increase from 15 per cent to more than 22 per cent of the population by 2031. With an increasing number of people aging, it is important to support health and well-being throughout the lifespan of the individual (Russell, 2017; Witcher, 2017). Regular physical activity has been shown to improve strength, balance, and flexibility as well as reducing the risk of chronic illness and frailty (Burton et al., 2019). Physical activity is broadly defined as any bodily movement including activities performed during work, play, transportation, or leisure, and includes planned, structured, and repetitive exercise performed to improve or maintain fitness (World Health Organization, 2018). As people age, they naturally become less physically active, with only 14 per cent of older adults achieving the recommended weekly amount of physical activity (Government of Canada, 2020). Less physical activity is related to declining health in terms of weakened muscles, cardiovascular decline, and increased risk of falling (Ory & Smith, 2020).

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Similar to physical activity, social interaction is also associated with numerous health benefits among older adults (Dionigi & Son, 2017; Liechty, Genoe, & Marston, 2017). Social interaction is broadly defined as a social exchange between two or more people, and research on social interaction involves exploring who is involved in an interaction and the closeness of that connection, how an interaction is taking place, barriers to and facilitators of the interaction, and why an interaction is occurring (Bacsu *et al.*, 2014; McIntosh, 2018). It also includes measurable factors such as the number of people involved in an interaction, frequency of interaction, number of social activities, and the types of social activities that individuals are participating in (Jeffery *et al.*, 2014). Social interaction is associated with positive health outcomes among older adults such as lower morbidity rates and longer survival rates (Vogelsang, 2016). It provides opportunities for meaningful life activities and for developing significant relationships and roles, including helping others (Levasseur *et al.*, 2010). Social interaction also has an influence on decreasing rates of depression and generalized anxiety disorder, and decreased risk of cognitive decline (Nemoto *et al.*, 2021). Additionally, social interaction is associated with reduced functional decline and increased levels of engagement in health-promoting behaviours such as physical activity (National Seniors Council, 2014). According to Lee, Jang, Lee, Cho, and Park (2008) social interaction is a critical component in supporting health and well-being among older adults; therefore, there is significant importance to further exploration of social interaction among older adults to support healthy aging.

In addition to health-promoting physical and social behaviour, there are notable differences in healthy aging depending on the context in which people live. According to Jeffery *et al.* (2014), people living in rural communities face some unique opportunities and challenges compared with their urban counterparts. Although there is no clear and concise definition of rural, the Saskatchewan Association of Rural Municipalities (SARM) classification system defines a “rural” community as one having a population of fewer than 5,000 people, including towns and villages (Saskatchewan Association of Rural Municipalities, 2021). In Saskatchewan, approximately 40 per cent of the population is considered rural (Olfert & Patrick, 2020). There are also health-related advantages to living in rural communities that are typically characterized by the opportunities to connect with the community through volunteering, local clubs, and organizations such as church groups, community centres, and service clubs (Kaye, 2017). Rural-dwelling adults often report a strong sense of trust and ownership in the community, where mutual support is key to healthy aging (Bacsu *et al.*, 2014; Witcher, 2017). Supporting social policies and advocating for age-appropriate opportunities for rural older adults to remain engaged in the community are very important to health and wellness (Novek *et al.*, 2013). Among older adults, the outdoors are often used for activities such as walking, which provides an opportunity to visit with people in their neighborhood (Keating, Swindle, & Fletcher, 2011; Schmidt, Rempel, Murray, McHugh, & Vallance, 2016); however, risk of injury is often amplified in rural communities by uneven or absent sidewalks, inadequate street lighting, snow build-up, and icy conditions that perpetuate the fear of falling, particularly among older adults, resulting in a reduced desire to engage in outdoor activity (Schmidt *et al.*, 2016). These barriers in the physical environment influence the opportunity and ability for older adults to engage in physical and social activity. Other challenges common in rural communities include lack of transportation, inadequate access to specialized health care services,

limited housing and home-care, and economic barriers related to lower income.

Additionally, the COVID-19 pandemic has created a challenging situation for the older adult population. At the onset of the global pandemic, public health experts identified older adults as being at higher risk of experiencing severe illness with COVID-19 (Tam, 2020); therefore, in an effort to protect this vulnerable population, public health measures were put in place that included physical distancing from others and temporarily closing non-essential businesses and services such as senior centres, libraries, recreation facilities, and coffee shops (Government of Canada, 2021). Many of these programs and services served as important avenues for older adults to engage in physical activity and interact socially with others in their community.

According to Ory and Smith (2020), the physical inactivity and social isolation experienced by older adults during the pandemic is having a detrimental effect on their physical and mental health. Even prior to the pandemic, many older adults were experiencing a certain level of social isolation and loneliness, but according to Dahlberg (2021), since the pandemic, this has increased. Although often studied interchangeably, loneliness typically refers to the subjective feelings of the individual, whereas social isolation involves the level and frequency of interaction with other people (Johnson, Bacsu, McIntosh, Jeffery, & Novik, 2021; Marston, Genoe, Freeman, Kulczycki, & Musselwhite, 2019). Franke *et al.* (2021) stated that an increased perception of loneliness often results in reduced physical activity participation. In an effort to help reduce some of the impact of social distancing measures, some organizations shifted their programs and services online to a virtual method of engaging with others; however, for many older adults, the accessibility and knowledge of current technology was limited or in some cases, not wanted (Marston *et al.*, 2019).

The ability for some people to engage in health-promoting behaviours are also influenced by multiple factors within individual, social, environmental, and socio-economic levels (Hill & Hymus, 2019; Nemoto *et al.*, 2021). According to Witcher (2017), considering a multiple range of influencing factors is essential in exploring physical activity among rural older adults; therefore, a social ecological model was used to guide the study. It is distinct in that it brings forward the influence that the environment has on health and health-promoting behaviour (Golden & Earp, 2012). This model is highly regarded in public health research for addressing physical and social conditions including individual behaviours (physical activity) and social factors (social interaction), as well as environmental factors (rural context) and policy influences (COVID-19 protocol), making it most suitable to guide this study.

Research Purpose

To inform practice and make a valuable contribution to rural research, there is a clear need to gain a better understanding of rural older adults' experiences with physical activity and social interaction during the global COVID-19 pandemic. This study sought to answer how rural older adults experience physical activity and social interaction during the COVID-19 global pandemic. More specifically, the research questions focus on:

1. What is the experience of physical activity among older adults living in a rural setting during the COVID-19 pandemic?
2. What is the experience of social interaction among older adults living in a rural setting during the COVID-19 pandemic?

- How has the COVID-19 pandemic impacted the opportunity for older adults to engage in physical activity and social interaction in the rural setting?

Methodology

To explore rural older adults' experience with physical activity and social interaction, an interpretative (hermeneutical) phenomenological approach was used. Phenomenology is a qualitative methodology aimed at understanding experiences that are common among a group of people, and gaining insight into how people experience the world around them (Giorgi, 2012; VanScoy & Evenstad, 2015). Interpretative phenomenology approaches the individual's experience within their own context (VanScoy & Evenstad, 2015). Researchers using interpretative phenomenology explore the personal experience of participants and the meaning of what is said to gain an understanding of the phenomenon being investigated within the context that the individual experiences it in (VanScoy & Evenstad, 2015). This research method was chosen as the most appropriate to explore physical activity and social interaction among rural older adults as, according to VanScoy and Evenstad, it is useful when seeking information particularly among underserved groups of people whose experience may differ from those of the general population and from others within their own group. Further, this research method focuses on the lived experiences and meanings situated within a social, cultural, and historic setting (Mustafa, Einstein, MacNeill, & Watt-Watson, 2020).

Upon receiving ethics approval, potential participants were informed of the study's purpose and procedures. The study involved minimal-to-low risk to participants. Confidentiality, retention, and storage of information was explained prior to participants' receiving informed consent forms to participate in the study. To ensure confidentiality, pseudonyms were used in place of participant's actual names.

Data Collection and Analysis

Purposive sampling was used to recruit older adults from rural communities throughout Saskatchewan (see Figure 1). This province was selected because rates of physical activity among older adults there are low. Physical activity rates are often lower among those with low income, less education, and poorer perceived health status, as well as those who are non-Caucasian or female (Government of Canada, 2021; Public Health Agency of Canada, 2017), often experienced in rural communities. A rural community was defined as one with a population of fewer than 5,000 people (Saskatchewan Association of Rural Municipalities, 2021). Recruitment occurred through various community contacts, including recreation organizations and provincial health promotion contacts, who shared the study information in rural communities throughout the province. Potential participants were screened for eligibility based on the following criteria: being community-dwelling adults, 65 years of age or older and residing in rural Saskatchewan. Recruitment began in July, 2020 and ended in December, 2020. Twelve potential participants expressed interest; however, two were age ineligible and excluded.

Data are often collected in phenomenological studies through individual interviews, which are key in gathering participants' experiences and providing them an opportunity to tell their story, speak freely, and express concerns (Creswell, 2013). This study consisted of data generated from 10 participants, recruited from the

southeast and south central area of the province, as well as the southwest, central east and west, and the far north east, who engaged in an individual, semi-structured, telephone interview. Each interview lasted between 45 and 60 minutes and was audio-recorded.

Data analysis was performed using an interpretative phenomenological analysis (IPA) method, which was chosen because it is a rigorous process, suitable for capturing the experience of a relatively small sample (Biggerstaff & Thompson, 2008). IPA is also useful for examining underserved populations (VanScoy & Evenstad, 2015), such as rural older adults.

IPA involves multiple stages of analysis that move from description to interpretation of data (VanScoy & Evenstad, 2015). After each interview was completed, reflexive notes were made consisting of initial impressions, self-reflection, possible connections, and questions arising. Data generated in the audio-recorded interviews were then transcribed and reviewed numerous times so that researchers could become familiar with the content. On each written transcription, comments were made along the margins each time the documents were reviewed. Key words and phrases were highlighted in each transcript. Through a process of manually reviewing each interview and creating reflexive notes, theme areas were devised that considered potential patterns, connections, and relationships. This process was repeated for each interview transcript to capture the individual perspective of each participant before considering the entire data set (VanScoy & Evenstad, 2015). Complete data analysis resulted in 429 themes, which were reviewed, sorted, re-sorted, and clustered into common patterns, connections, and differences. The remaining themes were written out in narrative form, adding direct quotes from participants to enhance the understanding.

Rigor

Rigor was ensured throughout the research process. The study employed a purposive sampling strategy to ensure that participants would have optimal experience to answer the research questions. The quantity and quality of information was consistently monitored throughout each of the interviews to adequately capture the experience by clarifying and verifying the meaning of participants' responses. Interviews were transcribed and manually reviewed with reflexive notes recorded after each transcription and throughout the analysis process. After the themes were sorted and re-sorted, data were shared with members of the research team for peer review. The results of the study were reported with clarity, completeness, and accuracy to ensure quality and credibility. To further validate and confirm the interpretations made, results were written with rich, thick description, using carefully selected quotes that related to the theme area.

Results

Of the 10 older adults interviewed, eight identified as female, and two as male. Participants ranged in age from 67 to 82. Seven were retired, two were semi-retired, and one was employed full time. Seven participants were married, two were widowed, and one had never been married and was living alone. Only one participant had less than a grade 12 education. Two had at least a high school diploma and seven had completed post-secondary education (see Table 1).

In terms of geographical location, ten participants were recruited from eight different communities throughout the

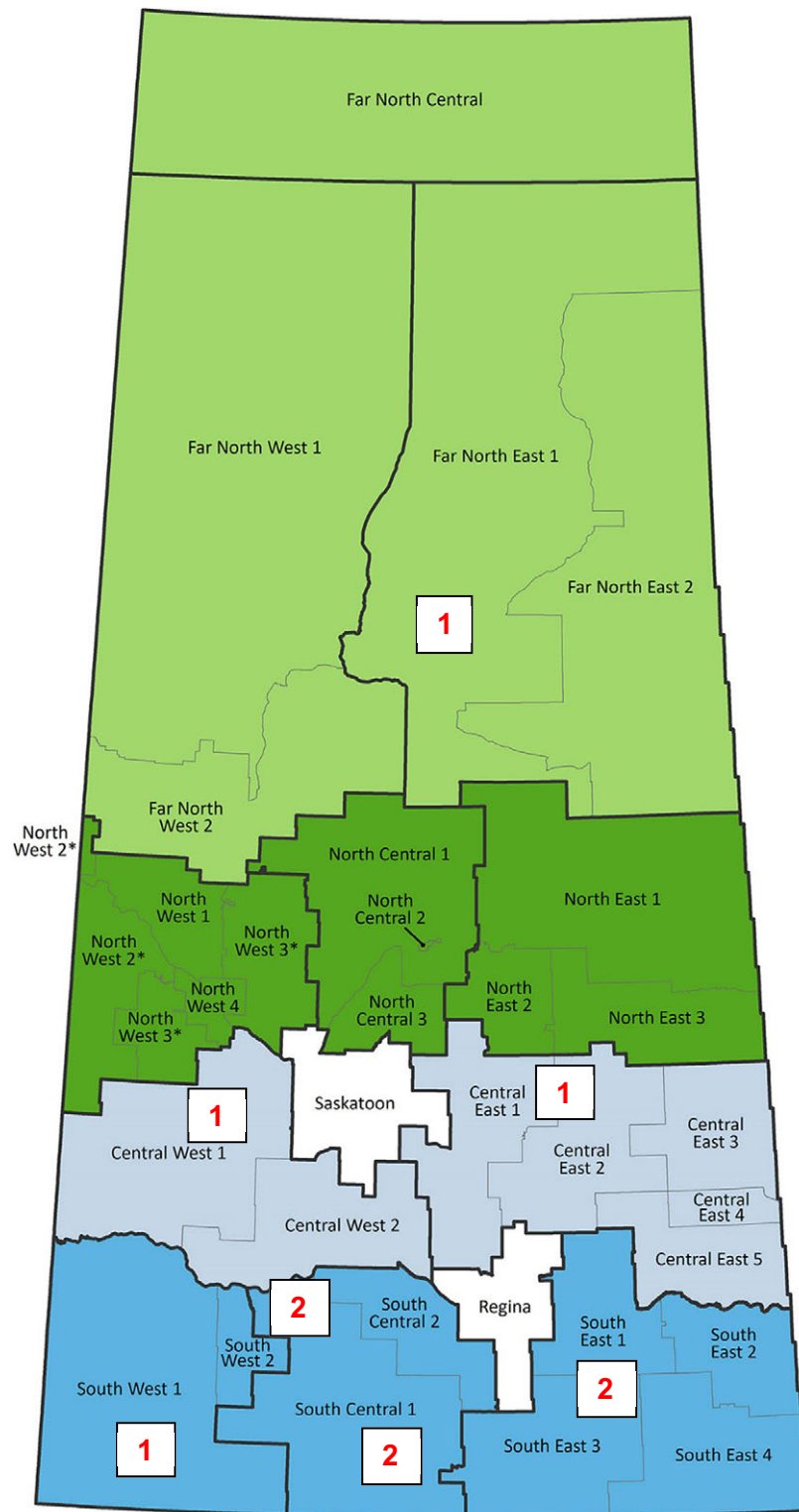


Figure 1. Map of Saskatchewan. From Index of Communities. <https://www.saskatchewan.ca/government/health-care-administration-and-provider-resources/treatment-procedures-and-guidelines/emerging-public-health-issues/2019-novel-coronavirus/cases-and-risk-of-covid-19-in-saskatchewan/index-of-communities>.

province of Saskatchewan. Two participants resided in towns with populations between 2,400 and 2,700 people. One participant resided in a town of just under 2,000 people, whereas the remaining participants were located in towns with populations of under 1,000 people. The least-populated community had just under 100 people,

with the other participants coming from towns and villages of between 300 and 650 people.

Using the IPA method of data analysis, levels of coding led to four superordinate themes: *They took our activities away, I've kind of backed off everything, I'm tired of it, and Sort of forgot about.* Each

Table 1. Participant demographics

Name	Age	Sex	Education	Marital Status	Occupation	Housing	Living Arrangements	Perceived Self-Reported Health Status	Rural Population
Mary	81	Female	University/College	Widow	Retired	Semi-detached	Alone	Very good	1900
Barbara	77	Female	Up to Grade 12	Married	Retired	Apartment	Spouse	Not the best	2451
Vincent	67	Male	University/College	Married	Retired	Homeowner	Spouse	Very good	385
Clifford	68	Male	University/College	Married	Full-time employed	Homeowner	Spouse	Good	2688
Linda	74	Female	University/College	Married	Retired	Homeowner	Spouse	Very healthy	490
Patricia	79	Female	High school diploma	Married	Retired	Homeowner	Spouse	Good-Excellent	643
Carol	77	Female	University/College	Married	Retired	Homeowner	Spouse	Good	994
Nancy	82	Female	Up to Grade 12	Widow	Semi-retired	Homeowner	Alone	Not good	643
Betty	74	Female	University/College	Married	Retired	Homeowner	Spouse	Quite good	91
Judith	80	Female	University/College	Single	Part-time	Renter	Alone	Okay	994

theme contained subordinate themes that provided deeper understanding of participants' experience with the phenomena.

They Took Our Activities Away

Participants were asked to describe their experience with physical activity before and during the pandemic. Most spoke positively about the health benefits of physical activity and about the types of activities that they were involved in as well as how that changed during the pandemic. Within this theme, three subordinate themes emerged: *I try to do a variety of things*, *Might give me a few more years*, and *We've been pretty restricted*. Participants recognized the role of physical activity in maintaining their health and mobility. This is especially important among rural adults who often place value on their independence, which enables them to age in place in their rural community for as long as possible. Participants noted the various opportunities for physical activity that they had engaged in prior to the pandemic; however, when asked about the impact of the pandemic on their physical activity, they reflected a deep sense of loss in terms of programs ending and facilities being temporarily forced to close. Many described their experience during the pandemic as "restricted" and "curtailed".

I try to do a variety of things. Prior to the pandemic, participants engaged in exercise programs and activities such as walking, dancing, golfing, or playing pickle ball, most of which were done with other people. There were a range of activities and programs offered in most of the rural communities that participants resided in. Many spoke fondly of the physical and recreational activities that they had been involved in and had enjoyed doing before the pandemic. For example, Linda (female, age 74) lived in a town of just under 500 people. She noted, "I walk quite a bit and do yoga". Betty (female, age 74) who lived in the smallest community of 91 residents, stated, "I used to walk two miles and now I walk one mile, or when it's windy, I don't do it." With restrictions on social gatherings and the closure of facilities, among those who were still engaging in physical activity, walking in the community was an activity that many participants had maintained.

Even though walking is a common physical activity reported among rural participants, some participants still felt there was not a

lot of opportunity available to them in their rural community, even prior to the pandemic restrictions and closures. For example, Patricia (female, age 79), who lived in a town of approximately 650 people, stated, "We don't have a whole lot going on here, definitely for seniors," even though the community had paved streets, recreation facilities, and numerous organizations, clubs, and festivals. In further prompting Patricia on her experience with the lack of physical activity opportunities, she revealed that she had fallen on the ice in the recent past, which left her feeling fearful of engaging in outdoor activity, particularly in the winter. She said after falling, "you get scared then to go".

Not all participants in the study related to the broader definition of physical activity. This is commonly reported among rural residents who often relate physical activity to work or productive activities versus leisure pursuits. This was demonstrated by Vincent, the youngest participant in the study (male, age 67), who shared that cutting grass and snow removal were considered work to him, rather than physical activity. He stated, "I don't classify that as physical activity, even though it is physical".

Might give me a few more years. Prior to COVID-19, older adults in this study had a variety of reasons for participating in physical activity. All participants spoke about the personal health benefits they received through participating in various forms of physical activity such as to "strengthen", to "feel better", or to "have good balance". Engaging in physical activity meant that participants were able to maintain mobility, flexibility, and improving mood and emotional well-being. The desire for maintaining mobility and independence is commonly reported among rural residents. Physical activity is a key factor in helping older adults perform daily activities such as housekeeping and chores, which help maintain independence. Patricia (female, age 79) shared:

When you're working out in your yard, you find if you get down on your hands and knees, it's a lot harder to get up. But if you're doing some sort of physical activity, and that's basically what most of us have found is, we're a lot more able to do that.

Betty (female, age 74), who was recently diagnosed with some health issues, stated that by exercising, "my muscles and my arthritis don't get tightened up", noting the important role that being active had for maintaining her health. Vincent (male, age 67),

who had a heart condition, added, “My doctor says what I do, being physically active and strong and all that really helps. Might give me a few more years.”

In addition to physical health benefits, Carol (female, age 77) noted the mental health benefits of physical activity by stating, “I feel that walking outside is an emotional health benefit. It just brings a feeling of, I don’t know, restful peace to be out in nature in the sky and do all that stuff.” A similar view was shared by Patricia (female, age 79) who added that, “Mentally, it just helps you to look at things a little bit differently.” Her town of just under 650 people was situated in a scenic community, located over 160 km away from an urban centre.

We’ve been pretty restricted. Among participants, COVID-19 restrictions had a negative impact on their experience of physical activity. Restrictions placed on physical activities meant that many things that were deemed important to them had to stop. Some described their experience in terms of “ceased” and “curtailed”. Mary (female, age 81), who was once very involved in a local, peer-led fitness program stated, “Where we do our exercise, we can’t, we can’t go into the building.” She went on to say, “As far as activities are concerned, I mean we can’t, we don’t play cards anymore and we don’t exercise anymore.” Many participants were often engaged in various activities and organizations within their community, but COVID-19 interrupted the ability to be as involved as they once were. For Mary, restrictions placed on her physical activity meant that “life was different” now. Most participants recognized the restrictions were in place to keep them safe, as older adults were considered a vulnerable population at higher risk for serious COVID-related illness. A similar experience was shared by Betty (female, age 74), a participant from the smallest community in the study. She walked regularly with family members before COVID-19. Betty said, “I would prefer to do it with somebody but nobody’s around,” highlighting the awareness of feeling alone during the pandemic. These restrictions on activity added to the existing disadvantage of living in a rural context.

I’ve Kind of Backed off Everything

This theme reflects participants’ experience with social interaction during the pandemic. When asked to describe their experience with social interaction before and during the pandemic, many participants spoke positively about the social aspects of their lives in their rural community prior to COVID-19 and the many benefits that they received in being engaged with other people in their community. This is very common among rural residents who often place a high value on connecting with others in the community. This is reflected in the first of two subordinate themes of *chuckles, laughter, and mostly catching up*. Participants recognized the support and companionship that social opportunities provided prior to the pandemic. When asked to describe their experience during pandemic, many participants expressed a deep sense of loss, fear, and reclusiveness in being separated from others. This was reflected in the second subordinate theme of: *I used to be quite social*. Here, participants expressed feelings of fear and sadness as they physically isolated themselves from other people to be safe from COVID-19. This experience brought forward feeling “afraid” and needing to be “careful”.

Chuckles, laughter and mostly catching up. Prior to the pandemic, participants spoke about the role and importance of social interaction in their lives. Interacting with others in rural communities is a way to connect with others and make activities more enjoyable. For Carol (female, age 77), the benefits of social

interaction were bountiful. She said, “The benefit is just being able to meet with people, to change to share bits of our lives, to socialize and share coffee.” Nancy (female, age 82) added, “The togetherness...was certainly just as beneficial to us health-wise.” When prompted to explain further what value the social interaction had, Barbara (female, age 77) identified, “it’s just a sociability of meeting with other people, I guess. It gives you something to do. The ladies gather and we have coffee every afternoon.” This was something she looked forward to every day.

Many participants noted the inter-related aspects between social interaction and physical activity. For example, participants related that social interaction was a facilitating factor for participating in physical activities. For example, Barbara (female, age 77) explained that she had numerous health and mobility issues. Even though physical activities were difficult for her, having the social interaction with others provided her with more motivation to engage in physical activity. She stated, “I think it’s better with other people. You’re more motivated to do it.” A similar experience was expressed by Clifford (male, age 68), who used physical activity as an opportunity to meet with other people. He stated, “I like to do things to meet other new people. It’s a good way to keep connected.” Being involved in physical activities with others gave him that opportunity.

I used to be quite social. Since COVID-19 restrictions were placed on physical gathering, reducing the opportunity for social interaction, life became different for many participants. This is particularly impactful in rural communities. Those who were once very active and engaged with others found themselves feeling alone and disengaged. Feelings of loss were evident among many participants in the study. Linda (female, age 74), who was once very engaged in community activities prior to the pandemic, reminisced that she “used to be quite social”. Losses were also expressed by Betty (female, age 74) who stated, “Every once in a while, you realize that you long to be with your kids or to talk to somebody else in person.” Rural residents are noted for the supportive environment they create within their communities. COVID-19 has challenged rural resident’s ability to connect with others and with the community. Clifford (male, age 68) expanded on the loss to the community, particularly in relation to supporting others during funerals or wakes. He stated, “Communities feel like they can’t provide as much support as they usually do.” This was important for him as is often the case in rural communities. He stated that these were times when the community would gather together to support one another. Betty described the feeling of loss as follows:

I don’t know, to me, I don’t feel lonely because I mean, I have a husband here and I can FaceTime my kids and stuff. But you still miss the human interaction. That’s by far the most significant thing for me. It’s a fatigue, the weariness of not being able to do what you love to do; and what I love is to be with other people all the time. I sure do miss being with people

I’m Tired of the Pandemic

This theme captured the changes and disruptions to participant’s daily lives which many described as “difficult” and “stressful”, citing feelings of “fatigue”, “longing”, and “weariness”, but also uncovered a resilience and ability to adjust and re-focus as they passed the pandemic. This resilience was reflected in two subordinate themes: *I don’t need somebody to do it with* and *I’m good with things*.

As restrictions were implemented during the pandemic, most participants identified their struggle to adapt to the changes. Carol

(female, age 77) shared that she felt living through the pandemic was “emotionally draining”. Betty (female, age 74) referred to feeling fatigue which she described as “weariness” stating, “I’m tired of it”. Nancy (female, age 82) spoke of a similar feeling of pandemic fatigue as she indicated, “COVID has certainly affected everything...I don’t go out, even in the community anymore because of COVID.”

I don’t need somebody to do it with. Although many participants initially struggled to adapt to the changes to their daily routine, when prompted to speak further about this experience, many demonstrated perseverance as they were accepting of the situation and made the best out of that, which was out of their control. This reflected the resilience that many rural people possess, in addition to the independent, resilient nature of many rural residents.

The independent nature of rural residents was evident even before the pandemic, when some quite simply preferred to do things on their own. Carol (female, age 77) spoke about her preference for walking on her own rather than with others. She stated, “I actually prefer going walking by myself.” She was very socially involved in the community prior to the pandemic, describing herself as “too busy” to do organized exercise programs with others. She indicated, “Being alone by myself doesn’t bother me that much.” Carol was also in a position to connect socially to others through technology such as using Zoom and Facebook; therefore, she was able to maintain some of the level of social interaction that she was accustomed to. A similar experience was conveyed by Mary (female, age 81) who stated, “I’m actually enjoying not having to go out to a lot of different things. I enjoy my space. I get more time to read my books and watch my programs on TV.” She further explained, “I don’t feel restricted.” She said, “It doesn’t matter so much because, I mean, I am quite happy with myself just doing things, yeah. I don’t need somebody to do it with.” Linda (female, age 74) explained:

I don’t like walking with other people because, I don’t know, it just ruins the peace and quiet that I like. And so often, if you want to walk with someone, it has to be at a certain time of the day or whatever. So yeah, I’m not good socially that way

For some participants, the physical distancing restrictions provided an advantage of having more time for solitary activities with less responsibility and commitment to other people. This was further reflected in the second subordinate theme: *I’m good with things.*

I’m good with things. Even though some participants spoke in detail of the hardships of living through the pandemic restrictions, many others were able to persevere and cope well within the given constraints. The resilient nature of participants, in the way that they accepted things that were out of their control and made the best of their situation, was reflected in this subordinate theme. Judith (female, age 80) shared her attitude of acceptance of the situation by stating, “The key is to readjust”, “go on with life”, and “work it out”. She stated, “You just adapt your living. So, how are you going to live and what are you going to do and you get on with it.”

Carol (female, age 77) added, “I don’t find it onerous. You know, it’s a bit of a nuisance but I mean, it’s fine. I’m willing to follow the regulations. It doesn’t bother us.” She added that she has learned some new things during the pandemic, such as how to use Zoom and Facebook. She said, “What COVID did was, it forced me to do some of those things.” It appeared that some participants were able to shift their situation to focus on the positive aspects of the

pandemic with relatively little impact, demonstrating a perseverance common among rural people.

Feeling Like We Are Sort of Forgotten About

This theme reflected on questions pertaining to the participants’ experience living in a rural community before and during the pandemic. Although some participants felt forgotten about, for others, living in a rural community provided them with a sense of security and protection from the outbreaks of COVID-19 that were occurring in other areas of the province. This was reflected through two subordinate themes of: *Everything is for the cities and nothing is for the country* and *We have deep roots here.*

Everything is for the cities and nothing is for the country. Some participants spoke about living in a rural community prior to the pandemic in terms of already feeling “displaced” and “isolated”. This experience was compounded during the pandemic. An example was shared by Nancy (female, age 82), who was forced to drive into the city for a medical emergency during the pandemic. She stated, “They shut our hospital here so we don’t have outpatient service or we don’t have a doctor; that is the big problem here.” The small population base in rural Saskatchewan further compounds the limited availability of services. Similar remarks came from Carol (female, age 77) who spoke of the loss of the public transportation service in her community, which was recently discontinued. She indicated:

We used to have a bus that went to the city every two weeks, but now they don’t go anymore and so, we’re missing the bus service. And now we don’t have that. They took that away from us. Everything is for the cities and nothing for the country

Nancy (female, age 74) also spoke strongly about the government cutbacks that had forced the closure of many rural services. She stated, “They’re always trying to save money from here and put it somewhere else.” Because of this, rural infrastructure was aging and there were limited financial incentives to update it. Aging infrastructure was a concern for some participants in rural communities who often preferred the outdoors for their physical activity. This concern was mentioned by Vincent (male, age 67), who often engaged in outdoor walking and biking. He stated, “This particular town has gravel streets. I find that a disadvantage; but on the other hand, I know that’s never going to change because to redo the underground work and pave the streets was just way too expensive.” For many participants, maintaining the infrastructure and standard of living in their community was very important, yet, with the lack of funding from the government, some felt that they were forgotten about in their communities. Even with existing programs and services still in place prior to the pandemic, Clifford (male, age 68) noted, “The challenge sometimes is being able to make it sustainable.”

Further, in terms of the personnel needed to sustain existing programs and services, the volunteer sector was a very important aspect within rural communities. Vincent said, there are “way more opportunities than there are people that are willing to participate”. Linda (female, age 74) added to this viewpoint by stating:

I think as long as the people in rural communities will support the stores that we have in these places, we’ll be okay, but there certainly is, on I would say, on government’s part, there’s not a lot of push to, you know, keep rural Saskatchewan open compared to the city. I just get that feeling.

For others, there were fewer recreational opportunities in their rural community than in urban centres. Patricia (female, age 79) said, “We live in a small community that there isn’t a lot for people to do.” Nancy (female, age 82), who lived in the same community as Patricia, expressed a strong perception that she felt “sort of forgot about”; yet, for others like Barbara (female, age 77), the impact was less. She said, “I’ve always lived in rural, so I don’t know what to compare it to. I guess I’m happy with it. That’s what we chose.”

We have deep roots here. For many of the participants, the advantages of living in a rural community, even during the pandemic, far outweighed the aforementioned disadvantages. Living in a rural setting had a protective factor in that it distanced many of the participants from the high number of COVID cases reported in the urban centres and provided a safe, serene environment to live in. This was reflected among many participants who described their community as “safe” and “calm”. Feeling safe in the community was a common sentiment and held different meanings among participants. For some, being safe in their community meant that they had a sense of personal security, whereas others felt sheltered from some of the effects of the pandemic going on around them. Safety also meant that participants such as Clifford (male, age 68) were able to maintain some level of physical activity during the pandemic. He explained, “We’re very free relative to others because we can go outside, go for a walk or swim... without being in contact with other people,” which is more difficult in an urban centre with a larger population living in closer proximity. Vincent (male, age 67) added, “When I’d go for a daily walk and I’d see other people and we’d just stay 6 feet apart and that part I’d say, I think felt odd, but it wasn’t hard to do.”

Further, acknowledging the low number of active COVID-19 cases in their community, participants felt sheltered from some of the fear of contracting the COVID-19 virus. This was reflected by Linda (female, age 79) and Patricia (female, age 79) respectively who said, “To my knowledge, there are no cases here at all” and “We’re very fortunate here. I don’t think we have any cases.” Linda summed it up by stating, “As far as having COVID anxiety... I really was saved from that.” Carol (female, age 77) indicated, “I did not feel that we were limited in any way by it.” The protective factors of the rural environment had beneficial effects among many of the participants during the COVID-19 pandemic.

Participants also expressed a general sense of trust among others in their rural setting prior to the pandemic and throughout. Carol (female, age 77) stated, “We have a trust in our community.” When asked what that meant to her, Carol added that it made her feel more comfortable and protected during the pandemic in that she knew most people in the community. Patricia (female, age 79), indicated, “Anywhere you go, you’re always stopping and talking to somebody in your community.” This connection to others was also important to Betty (female, age 74) who noted, “Neighbors that you know well have always been there.” When further prompted to explain the meaning of being known in the community, Betty stated, “Most of them would stand up for you, or you know, be there when you need them.” This sense of belonging or kinship in the community was also important to Judith (female, age 80) who conveyed her regard for what she referred to as, “the closeness of neighbors and the goodness of neighbors”, particularly as she lived alone with no family close by. The broader community was like family for her. Although living in a rural community had the disadvantages of limited services and aging populations, there were numerous protective factors that had participants feeling more safe and content in their community compared with in urban settings.

In conclusion, since COVID-19 restrictions were imposed, participants in this study described their experience of how their lives had been impacted. Even though health benefits of being physically active were acknowledged, some participants reduced or stopped engaging in physical activity altogether during the pandemic. Engaging in physical activity was viewed as a way that participants could interact at a social level with each other. COVID-19 restricted this interaction and further limited the opportunities for many participants, leaving many socially and physically distanced.

Despite feeling tired of the pandemic and the restrictions imposed on them, many participants expressed resilience and perseverance throughout the pandemic, which helped them cope with a different way of life. Resilience, in the rural context, was described in terms of the ability to adapt and make the best of the situation around them. With high regard for independence, many participants were able to shift their focus away from the losses and restrictions experienced through the pandemic toward taking advantage of new opportunities and experiences that enabled them to connect in new ways to the community and each other. For some participants, the pandemic provided a reason to engage more in solitary forms of physical activity such as walking or exercising alone, with some preferring this over being active with other people. Within their rural communities, participants spoke about the impact of the closure of local businesses and programs; yet, certain aspects of rural living were experienced as a protective force, such as the supportive and safe atmosphere.

Discussion

The purpose of this study was to explore the experience of physical activity and social interaction among rural older adults in Saskatchewan during the COVID-19 pandemic. After data analysis, four themes (“They took our activities away”, “I’ve kind of backed off everything”, “I’m tired of the pandemic”, and “Feeling like we are sort of forgot about”) emerged.

Although many aspects of our study results aligned with current research, there were three distinct findings that emerged that provide an added contribution to the existing literature. First, at a personal level, COVID-19’s impact on physical activity and social interaction led many participants to experience feelings of loneliness, especially those who lived alone; however, what was particularly insightful was that among participants who lived with a spouse, a similar experience of loneliness was also expressed. Feelings of loneliness among participants who lived alone align with findings from Son et al. (2021) who examined physical activity and social well-being during COVID-19 among older adults. They found that older adults who lived alone were at greatest risk for loneliness and depression during the pandemic because recreational opportunities were limited and stay at home orders were in place. Lebrasseur et al. (2021) reported that decreased social interaction during the COVID-19 pandemic resulted in reduced quality of life, increased depression, and reduced physical activity among older adults. Krendl and Perry (2021) found that older adults reported higher rates of depression and loneliness during the COVID-19 pandemic. According to Fingerman et al. (2021), in-person contact with others had health benefits that were not available through telephone contact. According to Carver, Beamish, Phillips, and Villeneuve (2018) successful aging is influenced by the opportunity for older adults to participate in social interactions with others. Social participation, which involved a reciprocal

relationship of being with others and having an attachment to the community, was positively associated with physical and mental health benefits among older adults. A key finding from the study by Carver et al. concluded that human infrastructure is what is required for successful aging. As such, enhancing social interaction opportunities is a valuable asset in maintaining health and wellness among older adults in rural communities (Douglas, Georgiou, & Westbrook, 2017). Our results went further to uncover that, even among those participants who lived with a partner, the loneliness experienced during the pandemic was evident. This calls for further supports to make social interaction accessible and available outside the immediate household for all older adults, and not to assume that living with a partner provides the necessary social interaction needed to avert feelings of loneliness.

Another distinct finding that emerged in our study was that some participants who were very physically and socially active prior to the pandemic, welcomed and appreciated a break from the responsibilities and activities that consumed much of their pre-pandemic days. Participants often noted the disadvantages that they were experiencing in their rural community, but some were able to adjust and make the best of the situation, as demonstrated in the ability to adapt their activities and find new things to do, even if it meant engaging in solitary activity. Although the preference for some older adults to engage in solitary physical activity versus social or group-based activity was uncovered by Schmidt, Johnson, Genoe, Jeffery, and Crawford (2021) in a pre-pandemic scoping review of physical activity and social interaction, the welcomed preference for solitary activity contradicts findings by Lam and Garcia-Roman (2020) who analyzed solitary activities among older adults using data from the American Time Use Survey, 2012–2013. They found that those who engaged in more solitary activities also reported lower levels of life satisfaction, particularly those who lived alone and were more isolated from others. Further, in a scoping review of the literature on physical activity in rural and remote communities, Pelletier et al. (2020) found that positive aspects of rural life, including social cohesion and willingness to share resources, are contributing factors to physical activity participation. This is further supported by Meisner, Hutchinson, Gallant, Lauckner, and Stilwell (2019) who stated that among rural older adults, physical activity programs should strive to promote physical and mental health in addition to promoting social participation and meaningful connection. Finding what older adults prefer in terms of individual versus group-based physical activity opportunities may help target specific interventions to support increased physical activity engagement.

Finally, having a deep-rooted connection and feeling of belonging to the community resulted in a sense of safety and protection from some of the effects of the pandemic and restrictions among participants. In terms of the rural environment, despite the common barriers that many rural residents experience, a strong perception of protection from the effects of the COVID-19 pandemic was expressed. This may be a result of being geographically distanced from urban centres where many major COVID-19 outbreaks were occurring. Other protective factors in rural communities that emerged were the smaller population and close-knit communities where participants were well-known and felt cared for by others. This may contribute to the resilient nature of participants to adapt to the changing way of life during the pandemic. This aligns with research by Zhang et al. (2021), who revealed that anxiety and depression among urban residents was more severe than among rural residents during the pandemic. Kirzinger, Munana, and Brodie (2021) also found that rural

residents perceived COVID-19 as less of a threat than urban residents did. Wu et al. (2020) reported that rural older adults coped differently during the pandemic based on rurality and size of the rural community they lived in. Pérès et al. (2021) added that health status, loneliness, and access to technology, as well as where people lived, also had an impact on health during the pandemic. Fearnbach et al. (2021) noted that social and demographic factors such as living alone and having a low income were related to decreases in physical activity levels. Similar decline in physical activity was reported by Wang et al. (2021), particularly among rural females, where the number of minutes of physical activity per week declined from 139 minutes to 120 minutes, 7 months into the pandemic.

Placing more focus on the community resources needed for healthy aging may assist older adults in rural communities to continue engaging in physical and social activities that promote and support health throughout the lifespan, during the pandemic and into the future.

Summary and Implications

Results of the qualitative study demonstrate intersecting relationships among individual, social, and environmental factors associated with physical activity and social interaction among older adults in rural Saskatchewan. Findings highlight some important considerations when promoting and supporting physical activity and social interaction opportunities among rural older adults. Although rural communities have some disadvantages in terms of socio-economic inequities, they also provide a protective and supportive environment where older adults are able to safely engage in a variety of recreational and social activities, connecting them to the community and creating a sense of purpose and meaning. Rural residents are resilient. Many are able to adapt to the changing environment around them; however, it is necessary to create social interaction opportunities in the community when examining interventions to counter loneliness and isolation among older adults. The research findings uncovered that not all older adults preferred continued engagement in physical and social activity; for some, the COVID-19 restrictions provided a break in the demands of engaging in ongoing activities. Despite the barriers, many participants persevered in finding other ways of living through the pandemic. Emphasis is often placed on interventions to increase physical activities among older adults; therefore, understanding the specific needs and desires of rural older adults is necessary to effectively support independence, health, and well-being throughout the lifespan.

Strengths and Limitations

The purpose of this study was to gain a better understanding of rural older adults' experiences throughout Saskatchewan within the context in which they were living. Each geographical area had an influence on the experiences and opportunities available. As such, experiences of those who lived in rural communities in close proximity to urban centres were captured, alongside experiences of those who lived in small or more remote locations farther from urban centres and amenities. Further, rural-based research focusing on the older adult population, impacted most by the pandemic, is of crucial importance, as COVID-19 remains prominent across the province (Government of Canada, 2021); therefore, this study was timely and relevant to the current COVID-19 pandemic

situation in raising awareness and gaining a better understanding of the experiences of the impact of COVID-19 on rural older adults' physical and social interaction.

This study was not without some limitations. There was a homogeneous sample of participants recruited. Many had high levels of education, most were white and with above average income, and most were healthy and independent, with good social connections within their community. These determinants all influence their experience of physical activity and the social interaction opportunities available to them. Themes may be different among minority populations and among those from various socio-economic backgrounds. The purposeful sampling strategy may better reflect those who are well connected socially and more physically active, excluding those who may be more isolated and sedentary.

In exploring the experiences of rural older adults during the COVID-19 pandemic, it is important to acknowledge that interviews occurred during the first and second wave of COVID-19 when, for many participants, rates of transmission were relatively low. Further, the COVID-19 pandemic continues to evolve, with new variants of concern impacting communities throughout the province. As a result, with greater transmission and infection rates, increased time spent living through the pandemic, and the availability and uptake of vaccinations, experiences of older adults in rural communities may be portrayed differently.

Future Research

With COVID-19 restrictions placed on physical and social interaction, more research into alternate ways of connecting to others is needed. For many older adults in our study, various forms of technology such as Facebook and Zoom were readily available and accessible to them, resulting in their ability to connect to others in a different way through the pandemic; however, this opportunity is not equally distributed among all geographical areas of the province, particularly in rural and remote communities. Many barriers exist for technology use among older adults that need to be considered, such as lack of knowledge among users and lack of technical supports, limited access to hardware and Internet connections, as well as the ongoing cost of connecting. This highlights the need for individualized and localized approaches to supporting the physical activity and social interaction needs of rural adults.

There is also a need for creative approaches to socially engage older adults, particularly during COVID-19. As such, consideration needs to be given to developing safe and accessible spaces where older adults can physically and socially engage with others in the community. Focusing on the rural outdoors where possible may further support continued physical and social interaction in a safe manner during the pandemic to foster continued engagement in the community.

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