

# Exploring the reasons for wanting a peer partner to be physically active among women living with and beyond a cancer diagnosis: A content analysis

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## Research Article

**Keywords:** physical activity, exercise, peer partnership, cancer

**Posted Date:** March 12th, 2024

**DOI:** <https://doi.org/10.21203/rs.3.rs-4018101/v1>

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**Additional Declarations:** No competing interests reported.

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# Abstract

**Background:** Initiating and maintaining exercise is challenging for women during and post-cancer treatment. Adopting a peer partner model to provide social support to be active may contribute to lasting behaviour change of both partners. Despite this, finding a 'like peer' can be challenging.

**Purpose:** To explore women's reasons for seeking an online exercise partner following a diagnosis with cancer (through [www.activematch.ca](http://www.activematch.ca)). We also examined women's potential socio-demographic and cancer-related differences by reported reasons for wanting an exercise partner.

**Methods:** Individuals creating an Active Match profile completed demographic and physical activity questions ( $N=199$ ,  $Age(SD)=51.9(10.8)$  years), including an open-ended question regarding their 'reason for wanting an exercise partner'. An inductive content analysis was completed focusing on the participants' peer exercise partner preferences. Additional chi-square tests were run to assess whether participants differed based on sociodemographic and cancer-related characteristics and their motivations to be active by category of 'reason for wanting an exercise partner' endorsed in the open-ended question.

**Results:** The participants' reasons for wanting an exercise partner were coded into seven categories, with most participants highlighting the reasons of: motivation (52.3%), social support (48.7%), and accountability and adherence (26.6%). Women <50 years of age were more likely to report accountability and adherence related preferences for a partner. Those reporting endorsing weight loss as their primary reason for becoming active were more likely to be categorized as wanting a peer partner for motivation.

**Conclusions:** While finding a peer partner can be challenging, matching women living with and beyond a cancer diagnosis based on their reason for wanting an exercise partner, as well as their reasons for wanting to be active, may be important to build successful peer exercise partnerships.

## Introduction

Exercise behaviours positively impact physical and psychological well-being [1,2], and are especially valuable to those experiencing chronic health conditions, such as cancer [3]. Despite the potential benefits of regular exercise, many living with and beyond cancer experience challenges initiating and adhering to levels of exercise that contribute to health benefits [4]. Individuals may experience many barriers to exercise, such as lack of knowledge, time, access, social support, and motivation [5]. These barriers may be more prominent for people going through or who have finished active cancer treatment [6,7]. As such, investigating approaches to support this ever-growing population in increasing and maintaining their exercise behaviour is imperative [8,9].

Social support is an important predictor of exercise [10]. Individuals have commonly reported wanting social support around exercise both during and after cancer treatment [11, 12]. Theoretically, the transtheoretical model, theory of planned behaviour, and self-determination theory, all highlight the importance of elements of social support for exercise initiation and maintenance [13, 14, 15]. Furthermore, the behaviour change technique taxonomy (BCTT [16]) emphasizes the importance of social support as a key 'ingredient' for exercise participation that has been documented within populations living with and beyond cancer [17]. Existing cancer-specific literature on the use of peer support in exercise programming has demonstrated both the participants and coaches benefit from the experience [18,19,20]. However, it has not been established how to optimally partner peers within cancer-specific exercise programs to ensure a successful partnership that may contribute to lasting behaviour change, which may be an important piece in supporting those beyond cancer to increase exercise levels.

Within the current societal context of navigating post-pandemic exercise behaviours, peer partner models (i.e., partnering participants with other like-participants in peer-to-peer pairs for the exercise program) may be a flexible method of targeting populations experiencing inequitable access to exercise programs through a more individualized design [21,22]. Specifically, using online platforms to increase exercise behaviour may be more relevant given barriers to accessing in-person programs during the pandemic [23,24]. Social support, however, is one aspect of online exercise participation that may need to be

intentionally considered. Successful examples of in-person peer partner models have been driven by clinical groups where peer-to-peer partnering has been cultivated through intentional, yet somewhat informal introductions [25,26]. While online or electronic platforms may allow for a greater number of participants to access or be introduced to peer partners, current online platforms mostly focus on creating a larger group online support community rather than matching like-individuals [25, 26]. Matching individuals based on preferences and shared characteristics may be important to consider for exercise behaviour change within groups of individuals living with and beyond cancer where exercise participation may require adaptations that individuals without cancer may not understand. Additionally, given the therapeutic literature [e.g., 27], individuals living with and beyond cancer may have other demographic characteristics beyond their cancer experience that they would value in a peer partner. It is unknown whether individuals seeking support through an online program will have different peer partner preferences as those participating in in-person programs. It would be beneficial to understand what individuals are looking for in a partner when signing up for an online program as this could lead to successful peer partnerships and long-term maintenance of exercise behaviours.

Given the potential benefits of fostering social support for successful exercise behaviours, there is a need, post-pandemic, to identify ways in which we can support people with exercise. Exploring why individuals are looking to be active and what they are wanting in a peer partner may be critical in addressing that need. From a translational behavioural medicine and person-centered perspective, we need to understand what individuals' needs are and reasons for wanting a partner if the goal is to provide individuals with a peer partner that can support lasting behavioural changes. This information is vital to consider within exercise interventions that incorporate peer or dyadic support.

Despite the potential benefit of successful peer partners within exercise programs, finding a 'similar other' can be challenging. Active Match ([www.activematch.ca](http://www.activematch.ca)) was created to solve this challenge. Active Match is an online service that helps women diagnosed with cancer find an exercise partner. Women diagnosed with cancer often experience barriers to being active after diagnosis. Compared to men, women report needing social support and value opportunities for learning from other women who have similar circumstances. Women generally cope with stress using social support as a form of emotion-focused coping, whereas men are prone to using social support for problem-focused coping, if at all. Men generally report not needing social support and have less interest in peer support initiatives compared to women. Furthermore, women tend to have different physical activity preferences compared to men, and generally report lower levels of health-enhancing physical activity compared to men. Women also report less enjoyment of higher-intensity exercise compared to men. Gender-specific peer mentoring programs are deemed more effective for most individuals living beyond cancer. In preliminary work, women also reported wanting to be paired with other women specifically for physical activity initiatives [28].

Individuals looking to use the Active Match are often in search of support or guidance to initiate, maintain, or alter current exercise behaviours. Intake questions center around describing the self and reasons for wanting a partner with the aim of partnering individuals that have similar preferences and needs [28]. While the focus is on an online exercise partnering service, from a translational behavioural medicine perspective, the peer partnering is applicable to broader clinical and exercise settings, such as gyms and rural settings where individuals may be looking for a partner to assist them in long-term exercise behaviour support. As such, the primary objective of this study was to explore the reasons for wanting an exercise partner as expressed by women registering for Active Match. Additionally, as a secondary exploratory objective that could have future programming interest, we examined the differences in socio-demographic and cancer-related characteristics of registrants by reported reasons for wanting an exercise partner.

## Methods

### Design

We used both a concurrent triangulation design and a sequential exploratory design for this study. The data was collected at one time point in a single phase in alignment with a concurrent triangulation design. For the analysis, however, in alignment

with the primary objective, we adopted a sequential exploratory design which allowed for a larger focus on the qualitative data. We first conducted the qualitative analysis which then informed the quantitative data analysis and final interpretation.

## Participants and Procedure

Women diagnosed with cancer who created an Active Match profile between June 2019 and June 2023 were included as the sample for the study. Active Match ([www.activematch.ca](http://www.activematch.ca)) is a free online Canadian service that helps women over age 18 years diagnosed with cancer find an exercise partner. Women first create a profile with personal and cancer-related information (e.g., age, location, cancer type). After creating a profile, they can browse other women's profiles to find an exercise partner, connect with them via internal private messaging system, and schedule connect for virtual support and exercise. In accordance with the Declaration of Helsinki, study procedures were approved by the University of Toronto Research Ethics Board (# [deidentified ethics number]) and participants completed informed consent.

## Measures

### Demographic Information

Participants responded to sociodemographic (e.g., age, gender, employment status) and cancer-related (e.g., cancer type, cancer treatments) questions. In addition, an open-ended question was asked: "*Tell us about yourself*" to provide further contextual information of participants.

### Physical Activity Information

Participants completed questions related to their physical activity preferences and motivation. Variables include describing current fitness level (i.e., never been active, used to be active but currently not active, a little active, quite active, very active), and physical activity location preference (i.e., home, gym, outdoors, no preference, other). Individuals were also explicitly asked to identify their top reasons for wanting to be active (i.e., weight loss, social support, reduce pain, reduce fatigue, emotional health, physical health, sense of accomplishment, other). Participants could select more than one option. All responses were included within the calculations.

### Reason for Wanting an Exercise Partner

Participants were asked a researcher-generated open-ended question: "*What is the main reason you want to be matched with an exercise partner?*". Participants were not given parameters as to the number of reasons that they could list as reasons for seeking a partner.

## Data Analysis

Data were screened for missing data, normality, and outliers using IBM Statistical Package for the Social Sciences (version 28). Descriptive statistics (means, standard deviations, frequencies) were computed to characterize the sample.

**Qualitative Analysis.** To address the primary objective, an inductive conventional content analysis [29] was used to explore the reasons women living with and beyond cancer wanted an online exercise partner. The following steps outline the inductive content analysis process followed for this study. First, a quality check of the data was conducted to remove irrelevant responses (e.g., 'tell you later'). Initially, 359 profiles were downloaded, but given the missing data and irrelevant responses, the final sample size for this study was  $N = 199$ . Three members of the research team (deidentified) immersed themselves in the data by reading and re-reading the responses. The three members then independently coded each response by highlighting words that appeared to represent key concepts or thoughts. A fourth team member (deidentified) read the self-descriptions (i.e., responses to "*tell us about yourself*") to gain further insights into the women and acted as a critical friend when the authors reviewed the initial coding. Specifically, (deidentified) offered alternative perspectives based on the added context from the self-descriptions when the other three team members were discussing their initial codes.

The four members (deidentified) then compiled individual codes into categories by looking at the similarities and differences across initial codes. Once categories were developed, the entire research team met to discuss the categories, codes, and

reasoning for linking codes into categories. Further edits were made to the categories by combining additional similar codes. A list of categories was then finalized, and all team members contributed to developing definitions that captured the essence of the combined codes. Four team members (deidentified) re-coded the responses based on the developed definitions. Conflicts were resolved by a fifth team member (deidentified). At this time, the team members also identified relationships between categories. Categories were quantified using frequency counts and were also reported descriptively using exemplar quotes. Given participants were not given parameters as to the number of reasons they could list for seeking a partner, many responses had multiple components and were therefore coded into multiple categories according to the descriptions of each category.

**Quantitative Analysis.** To examine differences in the qualitative categories by sociodemographic or physical activity variables, demographics that have been previously shown to impact physical activity behaviours or the cancer experience were selected, including age, employment, current fitness level and current treatment status. To address the secondary exploratory objective, dichotomous variables were created based on whether participants endorsed each category (yes, no) from the content analysis. Chi-square tests were used to assess whether participants' endorsement of a category (yes, no) differed based on self-reported sociodemographic and cancer-related characteristics and their motivations to be active. The results are reported for the three most common codes (i.e., social support, motivation, and accountability and adherence) given the small sample sizes of the remaining codes (i.e., motivation for others, health, weight loss, increase activity).

## Results

### Descriptive Data

Missing data accounts for the totals not equaling 100% or endorsing more than one category for "check all that apply" responses. See Table 1 for sociodemographic, physical activity, and clinical characteristics.

Table 1

Selected sociodemographic, health and cancer-related and PA characteristics of participants, Active Match, 2019-23

	N	Frequency (%)
Sociodemographic characteristics		
Age (M(SD)) <sup>a</sup>	198	51.9(10.8)
Missing (% yes)	1	
Employment situation, (% yes)	49	24.6
Full-time	42	21.1
Part-time	100	50.3
Currently not working	8	4.0
Missing		
Canadian province location, (% yes)	150	75.4
Ontario	44	22.1
Other	5	2.5
Missing		
Learn about active match, (% yes)	125	62.8
Flyer	10	5.0
Facebook/social media	11	5.5
News media	3	1.5
Word of mouth	4	2.0
Web search	18	9.0
Event/conference/symposium	6	3.0
Cancer support organization	6	3.0
Provider (physician, nurse, nutritionist)	16	8.0
Other		
Self-description, (% yes)	117	58.8
Extroverted/open to new experiences	81	40.7
Calm, emotionally stable/reserved, quiet	1	0.5
Missing		
Health and cancer-related characteristics		
Primary cancer location, (% yes)	94	47.2
Breast	13	6.0
Lymphoma	10	5.0
Cervical	34	16.1
Other <sup>b</sup>	51	25.6
Missing		

	N	Frequency (%)
Currently in treatment	136	68.3
No	47	23.6
Yes	16	8.0
Missing/other <sup>c</sup>		
PA Variables		
Current Fitness level, (% yes)	63	31.7
Never been active/used to be active but not currently	91	45.7
A little active	42	21.1
Quite active/very active	3	1.5
Missing		
Preferred location for PA, (% yes)	11	5.5
Home	11	5.5
Gym	90	45.2
Outdoors	81	40.7
No preference	6	3.0
Other	0	0.0
Missing		
Preferred time of day for PA, (% yes)	83	41.7
Morning	37	19.6
Mid-day	28	14.1
Afternoon	44	22.1
Evening	7	3.5
Missing		
Top reasons for wanting to become active, (% yes)	118	59.3
Weight loss	75	37.7
Social support	41	20.6
Reduce pain	90	45.2
Reduce fatigue	130	65.3
Emotional health	168	84.4
Physical health	63	31.7
Sense of accomplishment	11	5.5
Other		

	N	Frequency (%)
<i>Note.</i> PA: Physical activity		
<sup>a</sup> Range 23–81		
<sup>b</sup> Other cancers include bone, uterine, thyroid, skin, pelvic, liver, kidney, colorectal, endometrial, fallopian, brain and lung		
<sup>c</sup> Other includes: have not undergone any treatment and have had surgery only		

**Table 2.** Selected PA characteristics of participants by over and under 50 years of age, Active Match, 2019-23

PA Variables	Age	
	<50, % yes	≥50, %yes
Current Fitness level, (% yes)		
Never been active/used to be active but not currently	<b>32.4</b>	<b>31.7</b>
A little active	<b>35.1</b>	<b>53.3</b>
Quite active/very active	<b>32.4</b>	<b>15.0</b>
Preferred location for PA, (% yes)	6.7	4.9
Home	5.3	5.7
Gym	42.7	46.7
Outdoors	45.3	57.5
No preference		
Preferred time of day for PA, (% yes)	38.4	46.2
Morning	21.9	17.1
Mid-day	17.8	12.8
Afternoon	21.9	23.9
Evening		
Top reasons for wanting to become active, (% yes)	61.3	58.2
Weight loss	<b>28.0</b>	<b>42.6</b>
Social support	16.0	22.1
Reduce pain	44.0	45.9
Reduce fatigue	<b>76.0</b>	<b>58.2</b>
Emotional health	85.3	84.4
Physical health	29.3	32.8
Sense of accomplishment		
<i>Note.</i> Estimates in <b>bold type</b> are significantly different at $p < 0.05$ after chi-square test.		
PA: Physical activity		

**Sociodemographic characteristics.** The age of the 199 participants retained for analysis was  $M_{\text{age}} \pm SD = 51.9 \pm 10.8$  years and most (75.4%) reported living in the province of Ontario, Canada. Participants reported being employed full-time (24.6%), part-



time (21.1%), and 50.3% reported not currently working. Most participants learned about Active Match through a flyer (62.8%).

**Health and cancer-related characteristics.** Almost half of the participants reported living with breast cancer (47.2%), lymphoma (6.0%), and cervical cancer (5.0%), and 23.6% were undergoing active treatment.

**Physical activity variables.** Just over two-thirds of participants (69.8%) reported being physically ready to exercise, and almost half reported currently being “a little active” (45.7%). Those over 50 years of age were more likely to report being a little active compared to those under 50 years of age, and those under 50 years of age were more likely to report being quite/very active (Table 2). Most preferred to exercise outdoors (45.2%) or had no preference for where they exercise (40.7%) and many preferred to exercise in the morning (41.7%). The top three reasons cited for wanting to become active included physical health (84.4%), emotional health (65.3%), and weight loss (59.3%). Those over 50 years of age were more likely to report social support as a reason to be active and less likely to report emotional health as a reason to be active (Table 2).

## Reasons for Wanting a Partner

Through the content analysis, participant responses were organized into seven categories. The categories are presented below with illustrative quotes. The total percentage of all categories listed below does not total to 100%, given participants were coded within multiple categories.

**Social support.** The category of social support was developed to capture responses from participants who were seeking to give and/or receive social support to and/or from their potential partner through making meaningful connections and sharing in physical activity experiences together. Social support was frequently reported by participants as a key reason for wanting to be matched with a partner and was identified among 48.7% of the responses from participants. While some responses were brief where the participants simply indicated “social support” as their partner preference, many participants provided more detailed responses that were aligned with different forms of social support (i.e., emotional support, esteem support, and tangible support). The responses mentioning social support often referred to social support within the context of physical activity. For example, one participant indicated they wanted a peer partner to “*commiserate with...share success & failures...even buddy up with for some activities*”. Others within this category described an interest in a partner for social support extending beyond physical activity contexts. For instance, one participant indicated they wanted a peer partner to have “*someone to support me both emotionally and physically during this time of my life and onward*”.

**Motivation.** Motivation was defined by the researchers as those who sought a partner to provide them with internal and/or external factors to drive them to engage in exercise. This was the most frequently occurring category, as 52.3% of participant responses pertained to motivation. Similar to social support, some participants simply indicated ‘motivation’ as their reason for wanting a peer partner, however, many individuals provided more context surrounding why they need a peer partner to motivate their exercise. Specifically, some participants reported a dislike for their current perception of exercise and a lack of self-motivation, along with the hope that a peer partner would improve their motivation by positively influencing those current exercise perceptions to make exercise more enjoyable. Examples of responses within this category include, “*because I hate sweating and exercising and hope company will give me motivation*,” “*lacking in self-motivation right now*,” “*to stay motivated to exercise and to make it more enjoyable*,” and “*motivation. I'd like to run more, but it's hard to get myself to get out there!*” Despite some of the obstacles challenging the participants’ current engagement in exercise, these individuals described wanting a partner to help make exercising more pleasant thereby helping women to feel more motivated to take part in it.

**Motivation for others.** The category of motivation for others describes participants who are seeking to provide motivation to their partner exclusively and was mentioned in 4.5% of participant responses. The participants whose responses fit into this category differed from the “motivation” code because they had an interest in providing motivation to a partner without necessarily emphasizing a need for external motivation. Examples of responses with this category of “motivation for others”, are a desire to “*help others be motivated*” and “*motivate someone else.*” Another participant expressed that “*I am trying to stick to a light regular exercise routine, and I think it will be easier if I have the encouragement of a partner, and I can also encourage my partner!*”

**Accountability and adherence.** This multi-component category was developed to capture responses from participants who wanted a partner for mutual responsibility and commitment to set, achieve and maintain their fitness or exercise goals. An additional facet of the category was participants seeking a partner to help them not only commit to their goals, but also to avoid setbacks in their physical activity. Accountability and adherence facets were present among 26.6% of responses. Participants described their interests in establishing exercise as a part of their daily lives and a desire for a partner who would be willing to connect with the aim of sharing a sense of consistency and structure as they integrate routine exercise. Responses within this category included: *“To keep up with the motivation and avoid setback,” “try a new form of accountability,” “It brings some structure and discipline to a daily routine,”* and *“So I can be held accountable to my goals and a schedule, and to have social support from someone who understands the struggle of exercise after illness.”*

**Health.** The “health” category refers to participants who described wanting a partner who could help with their physical and/or mental health through performing more physical activity. Just over 3% of participants mentioned characteristics of health that were discussed more globally or specifically in relation to the participants’ experience of cancer. For example, some of the non-cancer related responses provided by participants included language such as *“improve my health”* and *“health.”* Meanwhile, cancer-related health reasons were demonstrated through responses such as *“prevent recurrence”* and *“motivation and support and trying to get back to normal.”*

**Weight loss.** A “weight loss” code was organized to denote participant reasons for wanting a partner that were in reference to a goal of losing weight. Weight loss was described by two participants (1.0% of responses). Both of the participants who desired a partner help them lose weight simply wrote *“weight loss.”*

**Increase activity.** The category “increase activity” was termed to encapsulate responses from participants seeking partners who would help them to engage in more exercise. This category pertained to 2.5% of total responses. Some responses within this category were somewhat broad; for example, *“to try and be more active,” “incentive to exercise more regularly,”* and, *“for motivation to become more active.”* Other participants whose responses were coded here included more detail; for instance, *“I am recovering from breast cancer surgeries and want to get back into exercising.”*

## Demographic Differences

No sociodemographic or physical activity variables differed by qualitative category ( $p > .05$ ) except for those who reported being younger (< 50 years of age) were more likely to be included in the accountability and adherence category  $\chi^2 (1, N = 197) = 11.6, p = 0.001$  than those who reported being older than 50 years of age (Table 3). For reasons to be active, those who reported wanting to be active for weight loss were more likely to endorse the motivation category  $\chi^2 (1, N = 199) = 4.5, p = 0.034$ , and less likely to be in the social support category  $\chi^2 (1, N = 199) = 6.1, p = 0.014$  than those who did not report weight loss as a primary reason to become active. Those reporting social support as their reason for wanting to become more active were less likely to endorse the motivation category  $\chi^2 (1, N = 199) = 4.4, p = 0.035$ , and accountability and adherence category  $\chi^2 (1, N = 199) = 3.9, p = 0.048$  than those not reporting social support as a reason to become more active (Table 3). No other reasons to be active differed by qualitative category ( $p > .05$ ).

Table 3

Selected sociodemographic, health and cancer-related, and PA characteristics of participants by selected researcher-developed categories, Active Match, 2017-23

	Social support, %yes	Motivation, %yes	Accountability and adherence, %yes
Age	46.7	49.3	<b>40.0</b>
<50	50.0	54.9	<b>18.0</b>
≥50			
Employment situation, (% yes)	49.0	51.0	22.4
Full-time	40.5	61.9	35.7
Part-time	54.0	47.0	25.0
Currently not working			
Self-description, (% yes)	50.4	53.0	23.9
Extroverted/open to new experiences	46.9	50.6	30.9
Calm, emotionally stable/reserved, quiet			
Physically ready to exercise	51.7	56.1	28.8
No	47.5	43.3	21.7
Yes			
Current Fitness level, (% yes)	57.1	44.4	30.2
Never been active/ used to be active but not currently	41.8	57.1	24.2
A little active	52.4	54.7	26.2
Quite active/ very active			
Currently in treatments	47.1	53.7	26.5
No	55.3	46.8	29.8
Yes			

*Note.* Estimates in **bold type** are significantly different at  $p < 0.05$  after chi-square test.

	Social support, %yes	Motivation, %yes	Accountability and adherence, %yes
Top reasons for wanting to become active	<b>59.3</b>	<b>43.2</b>	22.2
Weight loss	<b>41.5</b>	<b>58.5</b>	29.7
No	46.0	<b>58.1</b>	<b>31.5</b>
Yes	53.3	<b>42.7</b>	<b>18.7</b>
Social support	49.4	53.2	27.2
No	46.3	48.8	24.4
Yes	49.5	50.5	22.0
Reduce pain	47.8	54.4	32.2
No	43.5	53.6	27.5
Yes	51.5	51.5	26.2
Reduce fatigue	58.1	41.9	16.1
No	47.0	54.2	28.6
Yes	52.9	48.5	28.7
Emotional health	39.7	60.3	22.2
No			
Yes			
Physical health			
No			
Yes			
Sense of accomplishment			
No			
Yes			

*Note.* Estimates in **bold type** are significantly different at  $p < 0.05$  after chi-square test.

### Correlations between 'Top Reasons for Wanting to be Active' and the Reasons for Wanting a Partner

Spearman correlations of reasons wanting to be active and the largest endorsed researcher-developed categories are in Table 4. Notably, motivation was negatively correlated with social support ( $r = -.38, p < .005$ ) and accountability, adherence and commitment was negatively correlated with motivation ( $r = -.156, p < .005$ ) and social support ( $r = -.176, p < .005$ ). While not calculated due to low sample size, both women who expressed wanting to be active for weight loss also expressed wanting a partner to help with weight loss.

Table 4

Spearman correlations among 'top reasons for wanting to be active' and selected researcher-developed categories, Active Match, 2017-23 (n = 199).

	1	2	3	4	5	6	7	8	9	10	11
Top reasons for wanting to be active											
1. Weight loss	-										
2. Social support	-0.052	-									
3. Reduce pain	0.093	0.117	-								
4. Reduce fatigue	-0.049	0.085	0.086	-							
5. Emotional health	-.281**	0.044	-0.073	0.068	-						
6. Physical health	-0.130	-.152*	0.013	0.028	0.066	-					
7. Sense of accomplishment	-0.118	0.073	0.081	0.076	.178*	.173*	-				
8. Other	-0.068	-0.097	-0.014	0.045	-0.009	-0.078	.166*	-			
Researcher-developed categories											
9. Social support category	-.169*	.065	-.035	-.013	.073	-.069	-.120	-.015	-		
10. Motivation category	.145*	-.144*	-.025	.035	-.016	.078	.107	.142*	-.373*	-	
11. Accountability, Adherence and commitment category	.079	-.137	-.020	.112	-.013	.096	-.070	-.047	-.176*	-.156*	-
<i>Note.</i> 9–11 are reasons for wanting a partner and derived from the Qualitative analysis. * $p < .05$ ; ** $p < .01$ .											

## Discussion

The purpose of this study was to explore individuals' reasons for wanting an exercise partner, and to examine whether the reasons for wanting a partner differed based on individual characteristics. The most common categories that women reported looking for in an exercise partner were motivation, social support, and accountability and adherence to exercise. There were no significant differences in endorsement of these categories by socio-demographic and cancer-related characteristics, except for age. Ultimately, the inductively-coded categories align with overcoming common barriers to exercise within populations with cancer, but also populations of healthy women [30]. These barriers identified within this online physical activity support program also align with previous literature on in-person physical activity barriers [31, 32].

Social support was a primary reason for wanting an exercise partner. Various aspects of social support were acknowledged by participants, including having similar goals or a desire for companionship. Given the individuals seeking out a partner for exercise were signing up for a peer partner exercise platform, it is not surprising that social support was a main reason for wanting an exercise partner [33]. As such, social support is perceived to be an inherent feature of the Active Match platform.

Given the complex nature of social support, it is important to consider the various forms of social support and how satisfying different social support needs may impact long-term exercise behaviour change. A recent study by Peck and colleagues [34] highlighted that a 'good match' of peer partners living with and beyond cancer resulted in greater perceived social support and exercise, as well as an increased likelihood of long-term communication with the peer partner. Given the need for social support as a key motivator for women signing up for a peer exercise partner program, it may be important to consider specific elements around social support preferences (e.g., emotional support vs. informational support, See Table 1 for definitions) within the program registration that can be used to partner like-peers in 'good matches' for improved long-term health outcomes. These findings are generally consistent with the theoretical [13, 15, 35] and empirical [36, 37] literature showcasing the importance of social support, especially for women.

Motivation is a commonly expressed barrier to exercise amongst inactive individuals [38] and was also a primary reason for wanting an exercise partner. Interestingly, participants seemed to associate the concept of having a peer partner as a source of motivation. This is in line with previous literature on group exercise programming dynamics [39]. It is essential to consider how a peer partner can motivate their partner to be active. Are there specific actions or behaviours that the peer requires in order to help provide that motivation? Given the spectrum of motivation (i.e., ranging from intrinsic to external regulation [40]), there may be additional factors to consider beyond simply providing a peer partner to be active. In line with the BCTT [16], an understanding of what type of motivational style each individual prefers and perhaps motivational techniques that align with those styles may help build successful peer partnerships that can motivate one another. Contrastingly, motivation for others was a unique element expressed by some women in this study by reporting a desire to help others and contribute to others' exercise journeys. Previous research on peer mentors delivering exercise interventions for individuals living with and beyond cancer has focused on the coaches' motivational readiness for exercise, as well as the benefits for the coaches throughout the delivery of the program [20]. However, the motivation to help others in a peer-based (rather than coach-based) setting has not been leveraged. Considerations for partnering based on motivation to be active could help provide both partners with the foundation to increase activity and help others be active simultaneously (e.g., partnering a peer who expresses a motivation to help others with a peer who expresses the need for motivation to be active). It also may be warranted to understand participants' interest in leading peer matches or a peer group for those who wish to take more initiative or a leadership role in the pairing. Ultimately, an understanding of shared goals and goal congruency when pairing peers may result in more successful partnerships [41, 42].

Lastly, while signing up for Active Match is the 'start' of an individual's engagement in peer-partnered exercise, approximately one quarter of the sample was actively considering maintenance of activity levels, categorized as accountability and adherence. This finding demonstrates that the women signing up for the program were not solely considering the initial phase of initiating exercise engagement but were actively considering the long-term investment of being active. This may be a nuanced element of the peer-partner approach, where knowing they are being partnered with a peer prompts individuals to consider their long-term needs given that they will be partnered for an indeterminate period of time. This is an important factor to consider within a peer-partner design to ensure that women's long-term needs are being captured within the program sign-up phase. As such, practitioners may encourage both short- and long-term goal settings of those being partnered within a peer partner program. Participants may be factoring in the long-term investment of being active when registering for a peer-partner program. While a focus on how the peer partners can support each other immediately should be prioritized, partners should be encouraged by practitioners or program leads to consider how they can support each other's goals over time. In addition, investigating how to support successful peer matches long term within services such as Active Match is warranted, as well as the implementation of mitigation strategies when peer partnerships are not successful [43].

Taken together, individuals' preferences for an exercise partner align with a desire to overcome common barriers to exercise. This connection could indicate that the individuals signing up for a partner may feel as though simply having the peer partner may eliminate or reduce their existing exercise barriers. While having other individuals to engage in exercise with can help to reduce common exercise barriers, peer partners may not be, in isolation, a long-term solution to eliminating all exercise barriers. Existing literature highlights other barriers to exercise that extend beyond the need for social support including negative self-perceptions and inaccessible spaces [44, 45]. Researchers may need to test ways of addressing barriers once a partnership is

established. Additionally, if individuals registering for a peer partner program believe that having a peer partner will be the ultimate 'fix' leading to exercise behaviour change, it is essential to consider strategies to further support these women to have realistic expectations for a peer partner. Initiatives may need to involve collaborative activities, engaging with motivational interviewing and BCT training, intentional feedback, shared goals and achievements, and general mentoring strategies [46, 47].

Specific to the quantitative findings, the reasons for wanting a partner did not differ based on sociodemographic or cancer-specific demographic factors, except for age. This is important as it may demonstrate that women are expressing similar needs and reasons for seeking exercise partners. Nonetheless, women younger than 50 years of age were more likely to be categorized within the adherence and accountability category. While more women < 50 years of age reported being quite active/very active (32.4%) compared to women > 50 years of age (15.0%) within this sample, similar percentages of women < 50 years of age and > 50 years of age reported never been active/not currently active (32.4% and 31.7%, respectively, See Table 2). Future research may explore why younger participants may be more likely to feel a peer partner may help with adherence and accountability compared to older individuals. Potential reasons may include greater home, family, and childcare responsibilities that are well-documented interferences for exercise [48].

The findings do suggest that reasons to start being active may be an important variable to consider in pairing peer partners. Women reporting wanting to be active for weight loss were more likely to be included within the motivation category and less likely to be included within the social support category. While most women did not indicate that their reason for wanting a partner was tied to weight loss, many women reported weight loss as their reason for wanting to be active. As such, while women expressed other reasons for wanting an exercise partner (e.g., motivation), for many, their desire to be active is tied to weight loss which is an extrinsic motive [49]. Given that the motivation to be active may be tied to weight loss, this highlights the importance of establishing and outlining realistic and achievable goals to be active when beginning an exercise program and prior to the formation of peer partners to ensure mutual goals are being met. If peers are matched based on their reasons for wanting a partner, but their goals are not considered, the partnership may not be a 'good match'. Asking individuals their reasons for wanting a partner alongside their reasons for wanting to be active may provide greater context to help form successful peer partners.

While this study added to the peer partner literature demonstrating key elements to consider within designing and implementing peer partnership models of exercise programs, a key limitation to address is that the subsequent behaviour change of the individuals being partnered is unknown. As such, we cannot comment on the success rate of the partnerships and the long-term exercise behaviors of the sample. Despite this, a better understanding of the participants' preferences for wanting a partner was a key focus of this study with the hopes of developing successful peer partner models in future exercise programs that contribute to maintained behaviour change. Additionally, given Active Match is a peer partner physical activity program and the sign-up for Active Match is voluntary, it is assumed that the individuals within this sample had the intention to exercise with a peer partner. The findings, therefore, may not be generalizable to individuals who do not yet have the intention to be active. Lastly, this study only included women participants. Men living with and beyond cancer have unique support needs that need to be explored [50]. Recent qualitative work has begun to address social support needs of men diagnosed and treated with cancer [51, 52]. Future work should continue to explore gender-sensitized programming that is built with the participants' health and preferences at the forefront of the design and implementation. Ultimately, matching individuals living with and beyond cancer based on their reasons for wanting an exercise partner may contribute to improved peer 'partner matches'. Exercise programs that prioritize matching peers based on their exercise goals and preferences for a peer may lead to improved behaviour change outcomes given the exercise and social support literature highlights that successful matches are more likely to lead to improved exercise behaviours as well as long-term peer partner communication [34].

## Conclusion

Women living with and beyond cancer experience barriers to physical activity. Having a peer partner can help facilitate physical activity engagement for women during and post-cancer treatment. The findings highlight that matching women based on their

preferred reasons for wanting a peer partner to engage in physical activity may be important to ensure successful and lasting peer exercise partnerships.

## Declarations

### Ethical Approval

Ethical approval was obtained by the University of Toronto Research Ethics Board ([deidentified ethics number]), and informed consent was obtained from all individual participants included in the study.

### Funding

[initials removed for review] is supported by a Social Sciences and Humanities Research Council Doctoral Fellowship, and a Sport Participation Research Initiative supplement. [initials removed for review] is supported by Social Sciences and Humanities Research Council and MITACS Accelerate Postdoctoral Fellowships, and a Sport Participation Research Initiative supplement. [initials removed for review] holds a post-doctoral salary award from the FRQ-S.

### Data Availability

De-identified data from this study are not available in a public archive.

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