Supportive Movement: Tackling Barriers to Physical Activity for Pregnant and Parenting Individuals who have Experienced Trauma

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ABSTRACT

The purpose of this study was to understand physical activity experiences of pregnant and/or parenting individuals (PPI) who have histories of trauma. Utilizing feminist participatory action research, we conducted five focus groups (n = 37) with PPI and semi-structured interviews (n = 10) with service providers. Three themes were generated: (1) poverty and impoverished neighbourhoods limit availability of/access to physical activity programs; (2) existing physical activity programs are not appropriate/appealing to PPI in this community; and (3) PPI live with multiple fears and judgment that impedes their physical activity. To adequately tackle health inequities, we propose a shift towards trauma- and violence-informed physical activity programming.

Keywords: trauma- and violence-informed activity, physical activity, pregnancy/parenting, feminist participatory action research

RÉSUMÉ

L'objectif de cette étude était de comprendre les expériences concernant l'activité physique de femmes enceintes et/ou de mères ayant des antécédents de traumatisme. En nous basant sur les principes de la recherche-action participative féministe, nous avons constitué cinq groupes de discussion (n = 37) avec ces deux types de femmes ainsi que des entrevues semi-structurées auprès de prestataires de services (n = 10). Trois points importants sont ressortis : (1) La pauvreté et les milieux défavorisés limitent la disponibilité/l'accès aux programmes d'activité physique ; (2) Les programmes d'activité physique actuels ne sont ni appropriés ni attrayants pour toutes ces femmes ; (3) Ces mêmes femmes, craignant d'être jugées, préfèrent renoncer à l'activité physique. Pour résoudre les problèmes d'inégalités en matière de santé, nous suggérons d'orienter ces femmes vers des programmes d'activité physique prenant en compte traumatisme et violence.

Mots clés : prise en compte traumatisme violence, activité physique, femmes enceintes, mères, recherche-action participative féministe

MARGINALIZATION, MENTAL HEALTH, AND PHYSICAL ACTIVITY

Women who live in marginalizing conditions, identified as the experience of being denied access to rights and opportunities based on their gender, race, culture, and/or economic status (Hall et al., 1994), are at greater risk of physical inactivity and poor mental and physical health outcomes than women in the general population. Specifically, women marginalized by poverty, racism, and experiences of trauma and/or violence have lower levels of leisure time physical activity (Abichahine & Veenstra, 2017), as well as above-average rates of diagnoses pertaining to post-traumatic stress disorder (PTSD), symptoms of depression and anxiety, and other adverse health outcomes (Duke & Searby, 2019). The reciprocal relationship between mental health and physical activity participation has been explored through multiple studies (Marashi et al., 2021; Teychenne et al., 2020; White et al., 2017). A systematic review and meta-analysis on physical activity and the treatment of PTSD, although not specifically for marginalized women, revealed that physical activity decreased PTSD and reduced depressive symptoms (Rosenbaum et al., 2015). The researchers concluded that physical activity "may be a useful adjunct to usual care to improve the health of people with PTSD" (Rosenbaum et al., 2015, p. 130). These findings were supported by van der Kolk and colleagues (2014) in

a randomized controlled trial in which 64 women with chronic PTSD, not specifically pregnant or parenting, were randomly assigned to either weekly trauma-informed yoga or a supportive women's health education session for 10 weeks. The researchers found that, post-intervention, 52% of the yoga group no longer met the criteria to be diagnosed with PTSD according to the Clinician Administered PTSD Scale, compared to 21% in the control group.

While the benefits of physical activity are well documented, women living in marginalizing circumstances face a significant number of barriers to physical activity (Chang et al., 2018). Despite the acknowledgement of both the mental health benefits of physical activity engagement and the barriers that certain populations endure, there have been a limited number of studies that have explored the relationship between physical activity and marginalizing characteristics (Attwood et al., 2016). In a systematic review examining equity in physical activity interventions, researchers found that very few studies reported "which population subgroups may stand to benefit or be further disadvantaged by intervention efforts" (Attwood et al., 2016, p. 74). Thus, the researchers determined that it was unclear, based on existing research, whether physical activity interventions with highly marginalized women are effective. Indeed, the nature and extent of barriers to physical activity are not well documented, and do not explicitly explore the unique experiences of women who are concurrently pregnant or parenting alongside living in marginalization.

MARGINALIZATION, MENTAL HEALTH, AND PREGNANCY

Pregnancy and postpartum are periods of time where individuals' lives can be fraught with emotional, physical, mental, and spiritual changes. Unfortunately, these shifts can exacerbate stressors as this is a time during which individuals continue to experience trauma, violence, and other inequities (Kendall-Tackett, 2007). The intersecting social locations related to ethnicity, sexuality, geography, income, and education may each compound the effects of the next; in turn, increasing negative physical and mental health outcomes for pregnant and parenting women. For example, Bloom and colleagues (2012) examined maternal stress exposure among a small urban sample of women in the US and found the most common stressors were financial strain, exposure to violence, isolation and loneliness, and that these stressors worked synergistically to shape women's experiences of pregnancy and mothering. Importantly, intimate partner violence can begin or escalate during pregnancy, particularly for Indigenous[1] women and for women living in poverty (Daoud et al., 2012; Stockman et al., 2015). A study conducted in Toronto with 332 postpartum women found that 13% reported adult sexual abuse, 7% reported adult physical abuse, and 30% reported adult emotional abuse in their lifetime (Ansara et al., 2005). The researchers demonstrated that a history of depression and violence influence women throughout the childbearing cycle and are significant risk factors for some postpartum health problems.

There is clear evidence that pregnant and parenting individuals (PPI) who have experienced violence, trauma, and other forms of marginalization are at increased risk for depression, PTSD, and physical health problems both during pregnancy and postpartum (Kendall-Tackett, 2007). Exposure to trauma is associated with a wide range of negative outcomes affecting mental and physical health (Anda et al., 2007; Corso et al., 2008). These include, but are not limited to, historical trauma, ongoing violence, childhood neglect or

1. In this article, the term Indigenous refers to First Nations, Métis, and Inuit; the original inhabitants of the land that is now Canada.

abuse, and sexual exploitation (Browne et al., 2012). Researchers have demonstrated that trauma histories are highly prevalent among populations marginalized by poverty, racism, and other structural forms of inequity (Ansara et al., 2005; Browne et al., 2012). As rates of physical activity are known to decline during pregnancy and postpartum (Behrens et al., 2012; Perales et al., 2015), PPI experiencing marginalization may be at increased risk for poor health outcomes including overweight/obesity, anxiety, depression, low self-esteem, and PTSD compared to individuals who are not at risk (Chasey et al., 2009). As such, in this study there are two main objectives: (1) to understand the experiences of, and barriers to, physical activity for PPI living in highly marginalizing conditions, and (2) to explore strategies to mobilize the mental health benefits of physical activity and to develop effective and appropriate physical activity programs to ensure equitable and inclusive access.

To explore PPI living in marginalizing conditions experiences with physical activity, we conducted five focus groups with PPI (n = 37) and semi-structured interviews with service providers (n = 10), while employing feminist participatory action research (FPAR) and intersectionality theory. Taken together, our choice of theory, methodology, and methods also creates space for participants to discuss shared experiences, but also to disrupt the idea that trauma, womanhood, or parenthood manifest the same way for each participant. We then analyzed the transcripts using thematic analysis and generated the following themes: (1) poverty and impoverished neighbourhoods limit availability/access to physical activity programs, (2) existing physical activity programs are not appropriate/appealing to PPI in this community, and (3) PPI live with multiple fears and judgment that impedes their physical activity.

THEORETICAL FRAMEWORK AND METHODOLOGY

We drew on intersectionality theory to understand the complexity of issues that shape the experiences of PPI living in marginalizing conditions. A leader of intersectional feminist thought, Crenshaw (1991) coined *intersectionality* to identify and negotiate the overlapping vectors and power, privilege, and marginalization that comprise identities. Intersectionality is an analytical framework that addresses structural, positional, and discursive factors (Choo & Feree, 2010). This theory examines the ways in which privilege, or lack thereof, is linked with the intersecting identities of gender, race, class, and sexuality, and others (Hills Collins & Bilge, 2016). Within this theorization, social structures are interlocking, and each interacts with the next, rendering them inextricably linked (Crenshaw, 1991). Intersectionality is an important paradigm, which is often used in health research to address the complexity of women's lives and the complex social factors that shape health outcomes and the impact of structural violence (Abrams et al., 2020; Cho et al., 2013).

We used FPAR in conjunction with intersectional feminist thought to focus on experiences of parenthood while considering the complexity of women's lives and identities. FPAR is recognized as both a conceptual and methodological framework that establishes the study of women's health within the larger social justice agenda (Reid, 2004). It is also recognized as a legitimate tool for amplifying the voices that are often marginalized or silenced by including participants in the research process (Ponic et al., 2011). The tenets of FPAR provide opportunities for participants to continuously revisit their suggestions and subsequent programming so that their needs are met (Singh et al., 2013). These strategies are particularly effective and important for addressing problematic power differentials between researchers and participants who experience marginalization. Indeed, many marginalized groups including Indigenous people, have been silenced

through traditional research methods, whereas the use of FPAR uses participatory elements to leverage Indigenous ways of knowing and other subjugated knowledge (Hayhurst et al., 2015).

Taken together, this theory and methodology are ideally situated to develop trauma- and violence-informed programming because they share a commitment to centralizing participants' voices to discuss how parenthood works in concert with other vectors of power/marginalization in their own lives, and to connect these to larger social structures. As a result, FPAR and intersectionality establish the foundation for the multiple and competing experiences respondents have of these phenomena. Furthermore, this theory and methodology will help programmers leverage the voices of highly marginalized women, and work with them to develop programs that meet their needs and interests, and review/revise these programs as their needs shift and change.

METHODS

Every aspect of this research was directed by a community advisory board of six PPI with lived experience of trauma, three service providers, and two researchers. This research was approved by the Research Ethics Board at the University of British Columbia. This study is part of a larger, mixed methods research project to conceptualize and implement physical activity programs and resources *with/for* PPI in the Downtown Eastside (DTES) of Vancouver. The DTES is a small geographical area within Vancouver of approximately 19,960 residents (Statistics Canada, 2017) who experience a disproportionate amount of marginalization. This neighbourhood is found to demonstrate high rates of homelessness, mental illness, substance use, and street-based survival sex work (Shannon et al., 2008). Several researchers have recognized the diversity of health needs for women in the DTES but indicate telling trends of the population including trauma, untreated mental illness with high rates of depression, anxiety, and PTSD (Pierce et al., 2015; Puri et al., 2016; Vancouver Coastal Health, 2016). Past research has examined physical activity for marginalized women in Vancouver from the perspective of women-serving organizations (Ponic et al., 2011); we built on this work to include the perspectives of PPI in the DTES to determine how to meet their needs.

Data was collected between May 2016 and May 2017. PPI and service providers from women-focused organizations in the DTES were recruited through flyers posted at various organizations to discuss their experiences and knowledge of physical activity programming in their community. Eligible individuals were 18 years or older and were required to understand English, to be pregnant or within five years postpartum, and live or access services in the DTES. Despite reaching data saturation (Creswell, 2013) after three focus groups and four interviews, we conducted additional sessions to ensure all individuals who expressed interest in participating were able to, and to ensure a diverse sample of service providers. Our study sample consisted of 37 PPI who attended one of five focus groups, and we then conducted 10 semi-structured interviews with service providers. Focus groups were recommended by the community advisory board and were selected because they facilitate opportunities for participants to direct the conversation and build upon each other's ideas, which is compatible with a FPAR approach (Ewan, 2019). The focus groups were co-facilitated by the first author and a community research assistant, who also contributed her own lived experience. Prior to participating in the focus groups, participants were invited to complete a short demographic questionnaire. All participants provided informed consent prior to the focus group or semi-structured interviews and were provided with a $30 honorarium, childcare during the focus groups, and bus fare. The focus groups

and semi-structured interviews were directed by interview guides that included open-ended questions such as: What are some barriers to being physically active? Are there any programs or resources that encourage physical activity in your community? We know many women have experienced trauma or other kinds of challenges in their lives—how can life circumstances of women be considered to inform the creation of programs or resources? Overall, the interview guides were created with our community advisory board to explore women's perceptions of, and participation in, physical activity using an intersectional lens. The focus groups lasted between 60–130 minutes and the semi-structured interviews between 35–75 minutes; all were recorded with participant permission. The recordings were then transcribed, and the research team engaged in thematic analysis of the data using the six steps of Braun and Clarke's (2006) analysis: (1) independently familiarized themselves with the data; (2) produced initial codes and met to discuss the codes; (3) collectively collated relevant data into potential themes; (4) generated a thematic "map" to examine the coded extracts; (5) defined and named themes and generated three final themes; and (6) produced a report and through an iterative research process, reviewed and discussed the results with the community advisory board, and presented a final report at a session open to the public. The analysis was supported by NVivo10™ qualitative data software. Triangulation of the focus groups and semi-structured interviews was used to enhance data richness and reduce bias.

RESULTS

Participants

The individuals ranged in age from 19–47 (average 31 years). 76% of participants identified as Indigenous and the vast majority reported feeling discriminated against in the past six months. All the women were either pregnant at the time ($n = 3$) and/or parenting children under the age of five. The women had given birth to an average of 3.1 children, but currently were providing direct care to an average of 1.5 children. This reflects the trend where the Canadian state is over-involved in Indigenous peoples' parenting (Fallon et al., 2013; McKenzie et al., 2016). As described by McKenzie and colleagues (2016), Indigenous families are investigated by child welfare at 4.2 times the rate of non-Indigenous families. Over 90% of the women were unemployed and living on social assistance, and social assistance rates vary based on family size. A single parent with one child can receive up to $977.22 with the possibility of an additional monthly Child Top-Up Supplement of $195.02 (Province of British Columbia, 2017; 2018). To avoid the possibility of re-traumatizing the women, we did not collect violence histories; however, through the interviews and informal conversations, we learned that all of the women had histories of trauma. Further participant demographic characteristics are included in Table 1.

Themes

Three key themes were constructed from these interviews and focus groups: (1) poverty and impoverished neighbourhoods limit availability and access to physical activity programs; (2) existing physical activity programs are not appropriate/appealing to PPI in the DTES; and (3) PPI in the DTES live with fear, anxiety, and shame that impede them from participating in physical activity programs.

Table 1

Characteristics of Focus Group Participants

	Mean	Range
Age	31	19–47
Number of children given birth to	3.1	0–8
How many children live with you	1.5	1–5
	N (37)	**%**
Ethnicity		
Indigenous	28	75.7
Non-Indigenous	9	24.3
Marital Status		
Single (never married)	27	73
Living with partner	4	10.8
Separated	3	8.1
Widowed	1	2.7
Prefer not to answer	2	5.4
Education		
Never attended school	1	2.7
Grades 1–8	9	24.3
Grades 9–11	16	43.2
Grade 12 or GED	5	13.5
College	5	13.5
Not reported	1	2.7
Primary Work Status		
Unemployed	31	83.8
Part-time/Seasonal	2	5.4
Disability	3	8.1
Not reported	1	2.7
Living Status		
Public, social, supportive housing	23	62.1
Homeless	1	2.7
Transition Housing	4	10.8
Private apartment/condo/house (with government support)	8	21.6

Poverty and impoverished neighbourhoods limit availability and access. The focus group participants and service providers identified a dearth of accessible physical activity programming for PPI in the DTES. Indeed, not one participant in the study was aware of any physical activity programs tailored for PPI. Despite knowing of the important role physical activity plays in overall health, a service provider with more than 20 year's experience in the DTES discussed the relationship to social class and physical activity programs in the DTES:

> I consider it [physical activity] the first line of treatment for anxiety, depression, all sorts of things. Physical fitness is really important, but I think in our community it is kind of a leisure activity, a luxury that people who live in poverty usually don't get to access because of many barriers. (Interview, Participant 1)

This points to a disconnect between the promotion of leisure-time physical activities and the realities of women living with multiple barriers to participation. As the following excerpt highlights, the struggle to access opportunities to be physically active are complex. An Indigenous mother of two explained one of the central barriers that she experiences:

> I feel there are not enough resources around my community. There is probably maybe one that is walking distance. Every other one is probably about a half an hour to a ways from where I live, so again having a financial issue with transit because I'd rather use that on something else. It limits the places where I can go. Also, I find it very expensive [...]$8 to $10 each session. (Focus Group 3, Participant 14)

The focus group data also supported this trend, and participants shared specific examples of ways in which they tried to be physically active but were met with barriers beyond their control. As a mother of one described her experiences with financial barriers:

> Because I don't have money I have to look for things that are free, like I can't go join hot yoga. I could go to the first class free and if I like it, then I don't have the $100 or $200 that you have to spend on it. (Focus Group 1, Participant 2)

In addition to the financial barriers to participate, the inability to cover the additional costs of appropriate clothing were associated with feelings of stigma and judgment. Participants felt out of place, and this became a marker of their social location. This furthers perceptions of physical activity as being exclusive, or as a luxury that they cannot rightfully access. A mother of three stated,

> People get looked at like if they don't belong there, like they don't look financially rich or have like the nice up to date wear and stuff like that, or big people or handicapped people that have issues, like there is always discrimination I see and hear about. (Focus Group 2, Participant 6)

Another participant in the same focus group stated, "if you don't have the proper gear, yeah you're going to be embarrassed […] Also I would have to have childcare, and the right shoes and equipment and stuff like that (Focus Group 2, Participant 9)." Access to childcare was identified as a persistent barrier to participating in physical activities, as one woman explained,

> After I had my son I really tried to start going to the gym but again, the barrier for me was I can't afford it, or not being able to access certain centers that are by my house; again, because of childcare or I didn't have babysitters or things like that. Those are huge for me. (Focus Group 1, Participant 3)

Another woman concurred that access to childcare would significantly impact her ability to engage in physical activities. She explained, "being able to have at least two or three days a week somewhere in

the community that is free for women and children to go and have some physical activity" (Focus Group 5, Participant 33). The participants in this study emphasize how abilities of PPI in the DTES to participate in structured physical activities are hindered and often overshadowed by the necessary daily activities of survival.

Existing physical activity programs are not appropriate/appealing. The service providers and focus group participants believed that existing programs and resources do not meet the unique needs of PPI in the DTES. One service provider stated that in her experience with her clients,

> The physical activity has to be tailored to their abilities and their starting points … some of the women are quite immobile and then there are the effects of stress and trauma and substance use and malnutrition on the women. I feel like if there was something there for them to access that they felt comfortable with, they felt matched their abilities, didn't make them feel self-conscious… I think more people would be interested in doing it. (Interview, Participant 1)

Gendered trauma, violence, and/or discrimination were identified as a large contributing factor to experiencing barriers to physical activity engagement. Women in the community have identified that co-ed programs and organizations prevent them from participating, as described by one participant, "I've been hurt a lot by a lot of guys and stuff so like when there are lots of guys around, I don't like doing much, like I try to get myself away from there (Focus Group 4, Participant, 23)." Additionally, a service provider explained,

> Working out in a co-ed environment isn't the best. They don't feel safe. If you are going through changes in your body or are recovering from a pregnancy, or you are pregnant, or dealing with trauma, sometimes you just want to be in your own space, like a female friendly space. (Interview, Participant 7)

Experiences of trauma and/or violence point to a need for tailored services designed to support women's specific concerns. This perspective was shared by a participant who has struggled with mental health issues and suggested that physical activity programs should specifically support the needs of women who have "health issues like depression and anxiety (Focus Group 1, Participant 5)." She further suggested, based on some negative experiences, that program designers "need to understand that some people feel like they don't belong, or know how to get started, and they need to have that understanding, talk to the person so they don't just quit." Participants indicated the programming would be more appealing if they could relate to the other attendees. As one participant emphasized that participating in activities with attendees that shared similar life experiences could improve the accessibility of programs, as well as build valuable social connections. As she described,

> It's being able to relate to each other, [to] have a non-judgmental environment with each other and just share our stories together and really support each other and come together and being able to be there and support each other and help each other through these tough times. (Focus 4, Participant 20)

The prior comments illustrate the need for accessible and appropriate programming and resources with staff with whom the women can relate and preferably with whom they have pre-existing relationships.

Focus group participants noted that it was important that the creation of programming involve staff members from the organizations they already attend. A participant who was born and raised in the DTES cautioned that outsiders must be aware and prepared if they are implementing physical activity programming. She laughed, responding to a suggestion from another participant of a walking group, as she tried to explain the complexity of the culture in the DTES:

> Like for us as a community, this is culture, which is like the 'hood. That's our culture because we're so used to seeing so many different walks of life. I think having somebody come and produce one of our walking groups, they need to be prepared. (Focus Group 5, Participant 36)

In an interview, one woman expanded on the need for service providers to have a strong awareness of the complex factors that can impact women's experiences of physical activity programs.

> I've noticed that for a lot of us there's triggers that you wouldn't think about until you're in the situation … That is something that is pretty important to make the people who are running the program facilitating them to really be aware of… What might not bother one participant is going to be completely enough to ruin that activity for [another] person. (Focus Group 3, Participant 17)

Given the women's histories of trauma and the context of their lives they build trust carefully and want to know that those involved would be safe and non-judgmental.

Fear and judgment impede physical activity participation for women in the DTES. PPI in the DTES live with multiple fears that impede them from taking part in physical activity programs. The participants discussed several ways in which fear shaped their ability or desire to attend programs. For instance, fear of judgment impedes engagement in physical activity for PPI in the DTES. Over 80% of the women reported that they felt discriminated against in the past six months. The judgments women anticipated, based on their experiences, were variously related to poverty-related stigma, racism, their number of children, education or income level, suspected substance use, and other forms of discrimination. When questioned about barriers to engaging in physical activity one mother of two children succinctly stated, "I think depression and fear hold us back from getting up and getting out the door" (Focus Group 1, Participant 2). The participants discussed how vulnerability and fear of judgment contributed to their ability to access resources and engage in programming. One participant revealed, "we're carrying so much shame and guilt, like it's our fault, because there is so many presumptions out there, it's hard to convince somebody that it's okay, that it's not your fault" (Focus Group 4, Participant 25). Women commonly discussed feelings of isolation and a desire for positive social networks where they would not experience judgment or discrimination about their positions in life. Some women talked about their perceptions of judgment due to their ethnicity. As an Indigenous mother of three shared,

> When I was pregnant with my first one, I walked, and I was proud. I would walk all over the place. Second one [child] I was like yeah; I am good with this. Third one, oh, in my head there is that native girl with a bunch of kids. (Focus Group 2, Participant 8)

The experiences of stigmatization of women in healthcare and social systems increases the likelihood that women will internalize the negative self-judgment, which has many detrimental physical and mental health effects, including deterring participation in physical activity.

Women's life experiences shaped their interest and ability to participate in programs. In one focus group, a participant shared that she was "thinking how much trauma plays a part in what holds us back (Focus Group 1, Participant 3)." Another participant expands on this, saying,

> I think that sometimes violence or trauma sort of creates situations where you don't engage so much with people, like you kind of close yourself off. I usually do most of my exercise on my own anyways, which makes it a lot harder though to keep doing it. (Focus Group 1, Participant 4)

With regard to attending programming another participant explained, "there is definitely anxiety and probably a fear of being vulnerable and trusting people, especially as a parent when you're parenting" (Focus Group 4, Participant 20). Another individual explained how her struggles with substance abuse and mental health issues left her feeling too visible to be physically active as she feared facing physical activity alone,

> I feel too exposed. When I first came into recovery, I wouldn't dance in a recovery dance hall because everyone is looking at me and you just feel like I should have just stayed at home, like what am I doing here? But yeah, if I had somebody to go with and resources and people weren't abusing them and they were there for people that were taking them seriously, I'd probably get out more. I wouldn't feel so alone, I guess. But how do you get connected to people like that? (Focus Group 2, Participant 7)

A second participant in the same focus group added, "sometimes when women are abused and stuff, they don't want to work out with men, so they should take that into mind…like maybe they have certain groups for traumatized moms" (Focus Group 2, Participant 10). In response, a mother of three suggested the ideal goal would be the following, "yeah, let's un-program everyone. Un-program the judgment and the stereotypes, because why should we change when we haven't done anything wrong… I mean part of decolonization is taking all the assumptions away" (Focus Group 2, Participant 8).

This participant made the broader connection of fear of judgment to structural and systemic barriers that impact the daily lives of women experiencing trauma and violence and the complex ways in which women experience racism. These ideas are the underpinnings of how women come to experience marginalization and how these broad social concepts impact everyday life.

The geographic locations and lived experiences of participants further complicated their ability to engage in physical activity. One service provider explained,

> In the DTES, some of the women aren't comfortable with going around on their own because of triggers and because of past bad experiences or people they might run into, that the idea of safety in numbers would be very appealing to some of them because they often tell us "I don't feel safe going on my own" […] because a lot of the [drug] dealers are still down there that these women might have had interaction with in the past and want to stay away from them, especially if they're feeling vulnerable. (Interview, Participant 4)

These geographical triggers of certain lived experiences highlight the pervasive impacts of trauma and the many factors to take into consideration. One participant pointed out that service providers need to "consider each place that they're going to, like each spot where they're going to have an activity. There may be things that would trigger trauma or different things for people when they're out in the community" (Focus Group 2, Participant 8).

The women made it clear that existing physical activity options and programs did not account for or address the fears that deter them from participating. One participant explained that attending a gym with the general population was not an option for women in the DTES: "A lot of single moms feel vulnerable when you have a new kid and you just got out of your lifestyle [referring to street involvement, substance use, etc.] and it's like you want to feel like you're self-sufficient" (Focus Group 4, Participant 20).

A director of one of the centres that serves women in the DTES noted the importance of meeting women where they are:

> I think that's the thing of the Downtown Eastside, I think if we actually stop judging everyone there and just help them where they're at […] that's the way to do it. That's how I'd want it to happen if I was using or if I was on the streets. (Interview, Participant 3)

In line with this sentiment, a participant suggested that women may be more willing to engage in services and programs if providers improved their interactions with clients. She stated, "don't listen with this [pointing to head], listen with this [pointing to heart], because you'll get more if you listen down here [pointing to heart]." (Focus Group 3, Participant 15)

Women noted that they need to feel supported to start a physical activity program. One woman pointed out that it is important,

> Getting through the initial scared part and doing it and changing the circumstances surrounding the trauma. Realizing that you can get through it [a new activity effort] and then that builds up your confidence and then it's not so daunting. (Focus Group 2, Participant 8)

When asked if physical activity can act as support through the healing process the same participant responded,

> I think it helps out a lot with everything, like stress and just the way you think about yourself…when I first moved here [DTES] I went through a lot. I just felt like giving up on everything, but a yoga class, it just pretty much brought me back to life.

In identifying the positive relationship between physical activity and overall well-being, participants expressed their desires to engage in programs as an approach to improving physical and mental health. One woman identified the ways in which physical activity was beneficial for her own mental well-being:

> As women I think when we face those things [trauma], it helps us really, whether it is yoga or exercising, meditation, you know, kicking the ball around, running. I think those are some of the things that help us with our bodies, mind, and soul, and I think it's important for us to have those in place in order for us to help through our journey. (Focus Group 4, Participant 27)

Another participant expressed her personal intentions in utilizing physical activity for mental wellness:

> It helps get your endorphins going, it helps get you more grounded, get you more, you know, setting goals and reaching goals and just feeling a lot better overall, that it's not worth it to stay in that blocked place. (Focus Group 5, Participant 31)

The women in this study understood the benefits of physical activity but experience several barriers that prevent them from engaging in or sustaining physical activity participation.

DISCUSSION

The findings from this research highlighted three key outcomes: First, participants *wanted* to engage in physical activity. However, they lacked opportunity and access to appropriate and safe physical activity programs. Second, and related, the study points to the importance of tailoring activity programs to the specific contexts of the women's lives in ways that account for the conditions which attribute to their marginalization. Third, the findings underscore the importance of physical activity programs that are trauma- and violence-informed. Below, we situate our findings within broader literature and explore an approach to improve support and access to physical activity programming to improve mental health and well-being.

The results from this study exemplify the complexities of participants' lives, showing that multiple intersectional factors affect accessibility to, and engagement with, physical activity programming, thus addressing Attwood et al.'s (2016) call for further research in this area. The findings also elucidate that current physical activity promotion strategies are not effective, and due to the circumstances of their lives and their communities, PPI need different supports in order to participate in physical activity. These findings align with results from other scholars who identified similar barriers for various marginalized groups (Chang et al., 2018; Ponic et al., 2011). There was widespread agreement amongst participants that women who live in the DTES require greater support in the community to be physically active. As a result, physical activity interventions must "start from where the women are at"—that is, consider the complexity of lived experiences, identities, and various physical and social locations. We draw on van Ingen et al.'s, (2018) research to ensure a focus on understanding the communities in which people reside, powerfully shape individual lives and activities. As a result, service providers are encouraged to take an intersectional approach, appraise the acceptability and suitability of physical activity programs and resources for individuals and communities who experience a disproportionate burden of trauma, violence, and or marginalization.

The research findings highlight significant barriers to participation in physical activity, and are related to experiences of discrimination, stigma, and histories and ongoing experiences of trauma and/or violence. Indeed, 76% of the participants in this study identify as Indigenous; as such, recognition that this population in Canada experiences health inequities that are directly linked to historical and ongoing colonization (Mitchell et al., 2019). As such, central to the development of physical activity programming for PPI, is to examine, understand, and address structural inequities. The scarcity of physical activity programming available to PPI in the DTES reflects the socio-historical and political contexts in which individuals reside (Argento et al., 2011). Service providers described a lack of funding for the implementation and maintenance of physical activity programs for their clients. Lack of funding for programs and resources is one way in which inequities are perpetuated by structural forces. On the individual level, Kendall-Tackett (2007) found that lack of support and social isolation can increase the risk of depression and can negatively impact parent-child relationships. We would add that existing programs designed for non-marginalized PPI in Vancouver exclude these vulnerable women and potentially cause further isolation. Gentrification of the DTES, the close proximity of privileged women with whom the women compare themselves (their clothing, haircuts, strollers, and so on) and the skyrocketing cost of living in Vancouver create a particularly challenging set of barriers to the participation of women living in poverty.

In the primary healthcare context, Browne et al. (2012) have called for trauma-and violence-informed care (TVIC) which calls for providers to account for the intersecting effects of systemic and interpersonal violence. The researchers have further stressed that integrating "violence" in trauma-informed care maintains a focus on both historic and ongoing violence and addresses "structural violence and the conditions that support it" (Browne et al., 2016, p. 544). While trauma-informed care has shown potential in healthcare fields, there has been limited uptake in the field of physical activity (Darroch et al., 2020; Pederson & Liwander, 2013), specifically to address marginalized PPI's physical activity and wellness behaviours. Our results suggest that adopting this approach may significantly improve marginalized women's access to physical activity programs.

Trauma- and violence-informed physical activity (TVIPA) has been proposed as an effective approach to support individuals with histories of trauma as an adjunctive treatment to usual care (Darroch et al., 2020; Darroch et al., in press). TVIPA is not trauma treatment, but rather an approach that considers the intersecting effects of systemic, structural, and interpersonal violence in the development, implementation, and delivery of physical activity programs (Darroch et al., in press). This approach is person-centred, contextually specific, and follows four key tenets which have been adapted from existing theories of trauma- and violence-informed healthcare: trauma awareness, safety and trustworthiness, choice and collaboration, and strengths-based and capacity-building (Covington, 2008). Briefly, in the physical activity context, these key tenets have been adapted as the following: trauma awareness refers to the ability to build trauma- and violence awareness into all aspects of an organization and ensuring policies and practices philosophically and practically align with this approach. Safety and trustworthiness denote the importance of welcoming, and confidential spaces that are physically, emotionally, and culturally safe as identified by participants. Choice and collaboration reference the importance of involving participants, where possible, in identifying physical activities, determining strategies for engagement, and providing supportive decision-making, and clear information and expectations of physical activity programming. Finally, strengths-based and capacity-building emphasizes individually tailored programming to needs, strengths, and contexts to reinforce self-care, confidence, and social connections (Ammann & Matuska, 2014; Darroch et al., in press). As evidenced by both service providers and participants in this program of research, solutions to physical inactivity need to be tailored to the specific needs of PPI within the realities of their lives, as such, a TVIPA approach should be considered.

The limitations in this study provide guidance for future work. Admittedly, the small sample size may not reflect the diversity or needs of all PPI in the DTES, nor do we purport to. Although this study was conducted with PPI living in a specific neighbourhood in a single city, and involved predominantly Indigenous women, the experiences of marginalization that participants in this study experience may be typical for PPI who have experienced a traumatic event and/or ongoing trauma and are living in absolute or relative poverty. Thus, the findings may have relevance for research directions with other communities, and organizations serving women to support physical activity uptake for improved mental health and well-being. Furthermore, future research should extend beyond a Western paradigm of research and practice and examine TVIPA from Indigenous perspectives. We suggest that organizations foster the engagement of the most difficult to reach participants in all aspects of program development and initiation. As such, we urge a FPAR approach to ensure TVIPA programming is created to support the target population. We recommend the development and implementation of community-created and woman-led TVIPA programming to support PPI.

CONCLUSION

The experiences shared in this article offer some valuable insights into the lived realities of pregnancy and parenting and the importance for appropriately designed physical activity programming that is trauma- and violence-informed. The findings from this research point to the need for improved acceptability and accessibility to physical activity programs for PPI. We urge further development of TVIPA programming to support PPI in the community to be more physically active. Mental health practitioners and community organizers should further explore the integration and/or development of TVIPA approaches into existing

programs to examine the therapeutic value. We suggest that TVIPA programming specifically tailored to PPI, may be a vehicle for social inclusion and improved physical, mental and social well-being.

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