



RESEARCH ARTICLE

Open Access

## The Perspectives and Experiences of Women Who Attend a Mind-Body Dance Fitness Program: A Qualitative Descriptive Study

Tracy Hellem<sup>1\*</sup>, Hanne Dolan<sup>2</sup>, Megan Parker<sup>3</sup> and Ruth Taylor-Piliae<sup>4</sup>

<sup>1</sup>Associate Professor, College of Nursing, Montana State University; 32 Campus Drive #7416, N. Corbin Hall, Room 123, Missoula, MT, USA.

<sup>2</sup>Postdoctoral Scholar, Edson College of Nursing and Health Innovation, Arizona State University; 550 N 3rd Street; Phoenix, AZ, USA.

<sup>3</sup>College of Nursing, Montana State University; 32 Campus Drive #7416; Missoula, MT, USA.

<sup>4</sup>Professor, College of Nursing, University of Arizona; College of Nursing, University of Arizona; 1305 N. Martin Avenue, Tucson, AZ, USA.

### ABSTRACT

Physical inactivity is a growing concern among women across the world. OULA is a dance fitness format that includes a high-energy dance workout with intentional choreography to combine the therapeutic use of dance to promote emotional expression with physical activity. Qualitative methods were used to explore the experiences and perspectives of OULA among women. Semi-structured interviews were conducted with women, and content analysis of transcripts was completed. Themes identified were emotional expression; life management; community / social connections; judgement-free; and life skills. OULA appears to be a format that incorporates physical, psychological, and social health in a judgement-free atmosphere.

### ARTICLE HISTORY

Received Date: 11 Apr 2023

Accepted Date: 17 May 2023

Published Date: 21 May 2023

### KEYWORDS

Dance fitness, Physical activity, Psychological health, Qualitative research, Women's health.

### Introduction

It is well documented that individuals across the globe do not consistently engage in an adequate amount of physical activity despite the numerous benefits to physical activity. Women participate in less physical activity than men, and, interestingly, rates of mental illness and chronic diseases are higher in women than men across many cultures. There are many barriers to women engaging in physical activity. This study explored dance fitness, a type of physical activity, to learn about perspectives and experiences of dance fitness to potentially identify barriers and facilitators to women engaging in physical activity.

### Background

There are well established physical and psychological benefits to engaging in physical activity (PA) [1,2]. Yet, 28% (1.9 billion) of adults across the world do not meet PA recommendations (i.e., 2.5 hours per week of moderate to robust PA), and evidence shows that worldwide women are less active than men [3]. The physical and psychological health implications related to physical inactivity for women are far-reaching, with the top two leading causes of mortality being cardiovascular disease and cancer among women across all ages [4], and both of these are strongly related to physical inactivity [5,6]. Moreover, physical inactivity appears to be strongly associated with mental health concerns. While this association exists for both men and women, one of the most well documented aspects of some mental illness diagnoses, such as depression, is greater prevalence of chronic illness in women across many cultures compared to men [7,8]. As a result, approaches to improving engagement in PA that consider the gender gap in

PA are needed.

Mounting research evidence demonstrates that the chances of a person engaging in PA is contingent on both perceived barriers and benefits of PA. Perceived barriers to participating in PA relate to multifaceted (i.e., personal, social and environmental) reasons that avert an individual from taking part in PA, whereas perceived benefits refer to factors that encourage a person to engage in PA. Documented perceived barriers to engaging in PA that are specific to women include lack of time and/or interest, lack of motivation, concerns with physical appearance and lack of community or social support [9-11]. On the other hand, improved physical and mental health, as well as social connections and enhanced psychological outlook (e.g., feeling better with respect to psychological health) are reported as perceived benefits of PA by women [11,12].

Dance is a form of PA that appears to be attractive to women [13] as a universal form of self-expression, potentially because it addresses some barriers, as well as facilitates benefits, related to participating in PA. For example, dance is commonly associated with music, which has been shown to enhance interest in and adherence to PA [14], and it often occurs in-group settings, offering community or social support. Dance also provides an opportunity to engage in PA that is beneficial for both the mind [15] and body (i.e., mind-body activity). Over the last decade, fitness trends include a variety of dance fitness formats offered in both traditional gyms and dance studios. To this end, in recent years, there has been increased research interests in the health benefits related to dance fitness [16-19]. However, while dance fitness has steadily been gaining popularity as a form of

**Contact:** Tracy Hellem Associate Professor, College of Nursing, Montana State University; 32 Campus Drive #7416, N. Corbin Hall, Room 123, Missoula, MT, USA; Tel: 406-243-2110; fax: 406-243-5745.

© 2023 The Authors. This is an open access article under the terms of the Creative Commons Attribution NonCommercial ShareAlike 4.0 (<https://creativecommons.org/licenses/by-nc-sa/4.0/>).

PA, there is little know about the experiences of dance fitness among women.

A format of dance fitness that is available in-person in some countries across the globe and remotely is OULA (named after MissOULA, Montana), which is a high-energy dance workout that uses intentional choreography to combine the therapeutic use of dance to promote emotional expression with PA. OULA has a strong emphasis on how a person feels rather than how they look, as well as connecting with others through music-based movement [17]. Further, singing or shouting to lyrics is encouraged in OULA to create a collective voice to release tension or stress in a supportive community. Research involving OULA shows that reasons for attending OULA are exercise, improved mood, and fun [17], and that 12-weeks of OULA participation is associated with a decrease in depression and anxiety in women diagnosed with depression [18]. However, there is a gap in knowledge regarding how individuals perceive or experience OULA, which is important information to gain specific to how dance fitness might be used to improve PA levels in women. Therefore, the aim of this study was to explore the perspectives and experiences of the dance fitness format, OULA, for women who were currently active in OULA.

## Methods

To address the research question, a qualitative descriptive design [20] was employed to allow for description of individual experiences with OULA. The intent of a qualitative descriptive design is to capture rich descriptions of a particular phenomenon and interpret findings within the context of the data [21], to allow for a comprehensive summary of who, what, and where [20]. As such, a qualitative descriptive design aligns with the aim of this project to learn about the perspectives and experiences of OULA in women currently participating in OULA. This study is reported in accordance with the Consolidated Criteria for Reporting Qualitative Research (COREQ) [22] and conforms to the principles outlined in the Declaration of Helsinki. The Institutional Review Board (IRB) at Montana State University reviewed this study and provided approval prior to study initiation.

## Setting and Participants

This study was conducted primarily using the videoconferencing platform, WebEx. Given that OULA is available across the world [17], the rationale for conducting videoconferencing interviews was to allow for a more representative sample of OULA participants. Purposive and snowball sampling techniques were used to identify participants, and inclusion criteria consisted of a) self-identification of participating in OULA at least once in the past 3 months; b) willingness to talk with the researchers about their OULA experiences; c) ability to speak and understand English; d) age 18 years of age or older; e) access to a computer; and f) ability to send informed consent via email or postal mail. Recruitment occurred using social media, as well as word of mouth. The sample size was guided by thematic saturation [23].

## Data Collection

Prior to conducting interviews, an informed consent process

was completed, and participants provided written informed consent using a consent form approved by the IRB. Next, guided by Streubert and Carpenter [24], semi-structured interviews were used for data collection with interview questions designed to obtain experiences relevant to OULA (see Table 1).

**Table 1:** Semi-Structured Interview Questions.

<b>Please share what OULA means to you?</b>
- How do you feel when you are doing OULA (either participating or instructing)?
- How do you describe OULA to people when they ask about OULA?
<b>What role has OULA had in your life?</b>
<b>Can you describe how OULA has helped you through any life challenges?</b>
<b>Can you describe why you started OULA?</b>
- What is it that you like about OULA?
- Describe how you felt about OULA when you initially started compared to now.
<b>Based on your experience with OULA, what (if any) recommendations do you have for someone who is new to OULA?</b>
- What suggestions might you give to someone else who is considering starting OULA?
<b>Is there anything else you would like to share that we haven't talked about...</b>
- Any other thoughts you would like to share about OULA?

Interviews started with queries related to demographics and characteristics specific to OULA (e.g., role in OULA [i.e., participant, instructor, or both], length of time participating in OULA, and frequency of attending OULA). One researcher (REDACTED FOR REVIEW) conducted interviews from March 2019 through February 2020 and digitally recorded them. Participants were encouraged to talk freely and tell experiences of OULA using their own voice.

## Data Analysis

First, interviews were transcribed verbatim using an online transcription service. Second, transcripts were read multiple times to better familiarize research personnel with the interview data. Third, verification of transcription accuracy was conducted prior to uploading de-identified transcriptions to Dedoose, a qualitative web-based analysis program. Fourth, a thematically based content analysis was conducted [25]. Transcriptions were coded using a two-step open coding process with deductive codes and inductive codes (when new themes emerged). Two research team members coded the data in Dedoose by tagging segments of text in the transcripts to a concept, then expanded, refined, and reduced the concepts, and discussed findings in detail to allow for cross-validation. Finally, similar codes were combined to create subthemes, and then these subthemes were re-reviewed to develop broad themes.

Trustworthiness of the findings were ensured using established criteria for evaluating qualitative research [26]. Credibility was established through peer debriefing within the research team during the analysis process and member checking with the last three participants. Confirmability and transferability were established using an audit trail to keep track of the step-by-step

process of data analysis, and further, rich descriptions allowed research personnel to reach consensus about the findings. Dependability was ensured through external auditing of the data and preliminary results from an outside researcher with expertise in qualitative research related to physical activity. This outside person was not involved in the research process (i.e., data collection or data analysis).

## Results

A total of 20 women were screened, enrolled, and completed an interview. There were no new inductive codes after 14 transcripts; however, to ensure saturation had been achieved, we coded all 20 transcripts. The length of the interviews ranged from 9.0 to 33.0 minutes (mean = 20.5 minutes with a standard deviation [SD] of 6.9 minutes). The mean age of the sample was 38.2 years (SD = 7.8) and 90% (n=18) of the women were Caucasian, whereas n=1 (5%) was Asian and n=1 (5%) was Black. Furthermore, 90% (n=18) of the women were not Hispanic or Latino. On average, the women participated in OULA for 4.0 (SD = 3.2) years and engaged in OULA 3.6 (SD = 1.5) times per week. Most of the sample (60%, n=12) participated in OULA as both a class participant and instructor. Predominantly, women lived in Minnesota (40%, n=8) (Table 2).

**Table 2:** Baseline Characteristics (N=20).

Characteristic	
Mean age, in years (SD)	38.2 (7.8)
<b>Race, N (%)</b>	
Asian	1 (5.0)
Black	1 (5.0)
Caucasian	18 (90.0)
<b>Ethnicity, n (%)</b>	
Hispanic or Latino	2 (10.0)
<b>State of Residence, n (%)</b>	
California	2 (10.0)
Idaho	2 (10.0)
Maine	1 (5.0)
Minnesota	8 (40.0)
Montana	6 (30.0)
Wyoming	1 (5.0)
<b>Role in OULA, n (%)</b>	
Instructor	1 (5.0)
Participant	7 (35.0)
Both	12 (60.0)
Mean duration of OULA participation, in years (SD)	4.0 (3.2)
Mean weekly frequency of OULA participation, per week (SD)	3.6 (1.5)

The five identified themes were: 1) emotional expression; 2) life management; 3) community / social connections; 4) judgement-free; and 5) life skills. Each theme is described in the section below, with supportive quotes associated with each theme (see Table 3).

### Emotional Expression

Women described OULA as an activity that provided them with a space to feel and express a range of emotions, such as feeling happy, sexy, sad, playful, and angry. Women highlighted that

the chance to feel and express emotions during physical activity was unique to OULA and something they did not experience with other forms of dance fitness. *I feel like Zumba is more of like an aerobics class, and it's not as much fun. I didn't get as much out of it ... but I definitely didn't have the emotional, um, relief that I have with OULA.* Also, women talked about OULA providing them with the opportunity to experience benefits of OULA outside of an OULA class. For example, hearing a song used in OULA at a store and beginning to dance and/or sing loudly, or dancing to an "OULA song" while encountering a stressful circumstance. The ability to feel while participating in OULA gave women an opening to connect with themselves, specifically their physical body. For example, women described feeling comfortable seeing their bodies in an OULA class when usually they did not, as well as connecting to their bodies through OULA. *Um, I feel more connected than I usually am with myself and with others. Um, and my body, I am not, I'm disassociated a lot. Um, and when I do OULA, I have to be in my body.*

Women also explained that OULA allowed for "letting go" or releasing emotions, feelings and/or experiences, and the choreographed movements in OULA were described as facilitating processing emotions and/or loss. *I lost my son two years ago on Sunday and um, the minute I found out he was gone, my bottom of my world fell out, and I had a space where I could go, and I could move through that piece. Um, my body could move through it.* Women perceived connecting with the music as a vehicle that allowed for feeling, expressing, releasing, and processing emotions while participating in OULA, even if the genre of the music was not typically what they preferred. The intentional choreography was believed to provide a deeper connection to the music that, in turn, allowed for an emotional release.

### Life Management

Women in this study expressed that OULA was utilized for coping with both daily life management and as a therapeutic modality for managing mental health, such as depression, anxiety, and stress. Similarly, OULA was described as an approach utilized for coping with stress and as an activity used at the beginning of the day to encourage the employment of positive coping strategies throughout the day. Some women perceived that OULA augmented their progress in psychotherapy, and others believed that participating in OULA helped them discontinue the use of psychotropic medications... *and, finally, I don't need to be on antidepressants anymore.*

OULA was viewed as being a form of self-care, particularly for women with families. *It's [OULA] like one of the things I do for me and it's just for me because so much of my life, I'm married, I have kids, my son is special needs. So, there's just a whole lot. And I think probably the entire time I've done OULA, it's the thing I do that is for me, um, to find me, have time for me, sort of self-care for me.* Using OULA as a self-care activity helped women improve other aspects of life, such as eating healthier and drinking less alcohol. Additionally, women described participating in OULA to be better mentally prepared to handle household and other life responsibilities.

**Table 3:** Supportive Quotes.**Emotional Expression**

*We get to be happy and sexy and sad and angry and take whatever's going on in your life and you can bring it into the room and it's okay.*

*OULA is ... very personal, emotional and, um, just joyful.*

*Worst traffic I've been in for years on the way there and I was just like, I'm clearly going to be late ... So, I started to scream in the car, Lash Out [song used in OULA], and I was like screaming Lash Out and like screaming. But I was like, it was only because of OULA that I even had the thought to do that other than to just get really like upset at myself or just be really like depressed and worried.*

*I feel a release of sorts [when participating in OULA]. Like I'm purposefully releasing different emotions or experiences or trauma.*

*And when certain songs or whatever are playing, it helps me to tap into that feeling or that emotion that I don't know how to describe with words and just gives me a way to kind of feel that and express that in a way that um, I can't just by talking.*

*...as the choreography has gotten easier, I can connect more to the lyrics of the song...it gets to a deeper level ... let the music in and really like let go of what it looks like ... it allowed me to have a look, become more of an emotional release ...*

**Life Management**

*It [OULA] helps me, in my day-to-day life helps me think about things clearer.*

*I feel like, OULA has very much been part of like my therapeutic experience of like just dealing with stuff that I've dealt with some like, um, I have an eating disorder background and like depression and anxiety.*

*The last like several months have actually been incredibly hard and really stressful, and I've been able to kind of work through all of the things that I'm feeling in a really productive way through OULA ... Um, it's kind of allowed me to maintain a level of sanity that I probably wouldn't have if I didn't have that.*

*I got a therapist ... I'm doing this work and I feel like all aspects of my life are much better now and OULA was kind of a catalyst for me to be able to explore these other things.*

*And I know if I have it [OULA] as an opportunity to go, that means I'm not going to overeat at dinner. I'm not gonna, you know, want to drink [alcohol].*

*...come home [from an OULA class] and then feel like, okay, I'm taken care of, I need to take care of myself well and I need a place to feel safe and be able to express this ... so that I can come home and support the people I have at home who need me.*

**Community / Social Connections**

*Even though we're all dancing kind of separately, there's still a dialogue that goes on between participants and the teacher or the participants themselves.*

*It was like the 'OULA way,' like everybody connected. Everybody was kind to one another, very inclusive.*

*...it's like there's just an energy in the room where you can tell everyone's just kind of like in sync with each other and the energy level is just through the roof and afterwards, that's when some of the greatest conversations happen, I think.*

*I felt like more of a community. It felt like I was just contributing positive energy in a way that I haven't been for many years. You know, I'm actually connecting with other people.*

*But I feel like with OULA, you kind of get that community vibe that you kind of longed for, and it's hard to find as an adult, and so it gives you a good reason to keep coming back, and you feel like you're part of something.*

**Judgement-Free Environment**

*I think that it's a place where it doesn't matter what you look like, nobody cares what direction you are moving or if your body looks like your neighbors. You can just come and in a way that feels good to you.*

*... letting go of your judgments, asking yourself when you, when you notice that you're being judgmental ... tune into the music. Like use the music as a way to, um, override. You know, those, those judges that we have about ourselves if we're not getting things right.*

*It [OULA] is a safe space to explore what these moves feel like in your body without being looked at. Um, and also without feeling judgment about what it might look like in your body and how that can be different from someone else's. Um, so there was a freedom that it brought me that I, I've never felt before.*

*And it [OULA] was something where I could be real with myself.*

*I feel like I have permission to be... Big and loud and authentic and um, I feel free. Um, yeah, I heard and seen and, um, safe.*

*When you come to OULA, you can make as many mistakes as you want, and they don't really mean anything, and you just have a lot of opportunities to learn how to forgive yourself.*

**Life Skills**

*It's [OULA] pushed me and pushed my boundaries a lot with having to get up in front of people and be vulnerable in front of people. And, um, I think it's really helped a lot in my people skills, and I think it's actually been even like professional development as well ... I don't think I would have been as confident to get up, do these research presentations and admissions presentations if I wasn't getting in front of people every Friday night and teaching [OULA].*

*... whether it's about my body, whether it's about how I move, or how I can own some of my own sexuality and confidence when it comes to interacting with my husband. And then also that confidence and willingness to do different, new things in my work, as well.*

*I just kind of started to notice that I was tapping more into my emotions and that I was feeling a little bit more open about them when I was in class and stuff. And I'm a little bit more willing to talk about stuff that was going on.*

*So, it's [OULA] kind of allowed me to access, um, more physical fitness and wellness that I wouldn't have tried to access before.*

*It's helped me .... the things that we do in class. Um, it's allowed me to embrace being sexy. It's allowed me to feel confident. Um, okay, I can take my shirt off in OULA and it's judgment free. Maybe I can walk a little taller down the street when I'm wearing jeans and I don't feel comfortable.*

*It allows me to be more silly at home cause I have got to almost practice the feelings in a safe environment. And then it's like my body allows me to actually use them outside of the studio because I know it's safe.*



### Community / Social Connections

The community aspect of OULA was consistently mentioned during interviews. Women described the greater OULA community, in addition to individual connections that they experienced. The individuals who engage in OULA were perceived as being a significant contribution to what OULA is. *I think it [OULA] really brings the community together of people that are dancing. And, um, I think that it really, I think it stands out because of that spark that people bring to it.* Women further discussed that the OULA community felt inclusive, and the inclusivity helped foster social connections. The OULA community was also described as an activity that brought people together that extends beyond attending OULA classes to developing deep friendships, *none of them knew each other before they started taking OULA and now like best friends have happened.* Moreover, women explained that everyone following the choreography together created an energy in the class that promoted positive discussions after the class ended.

Some women also explained that the OULA community, both the community at large and individual connections, allowed for opportunities to offer optimism. This was perceived as connecting with other OULA participants facilitates the desire to contribute positive energy. Finally, the OULA community was viewed as a reason to continue attending OULA classes. This belief was consistent whether women believed they were actively involved in the community or observed the community, as the community itself filled a need by providing a sense of belonging to something.

### Judgement-Free Environment

Women discussed that OULA offers a safe place to connect with themselves and others in a judgement-free environment, particularly a fitness environment given that the traditional fitness industry, as well as the dance industry, tends to focus on appearance. Women consistently mentioned an OULA tagline, “it’s not about how it looks but about how it feels,” during interviews. Similar to how women described feeling OULA, women explained that connecting with the music facilitates eliminating judgement, particularly related to self-judgment. Women also believed that dancing in an environment that seemed to be without judgement felt liberating and described this as another unique aspect of OULA. The judgement-free OULA environment was commonly referred to as a safe space, meaning the women felt safe with themselves, as well as with other OULA participants. A safe space may have contributed to experiencing the “authentic self,” as described by some of the women.

The freedom from self-judgement experienced while participating in OULA was described as felt deeply, as well as fun. *... you're so free when you dance. And that really resonated with me because that's how I feel. I just feel like I don't care who's watching me. I'm just, sometimes, I'm having my own little dance party in the corner, you know, just having a ball.* A judgement-free environment also offered women the chance to make mistakes and practice self-forgiveness. Finally, once judgement about the self was released, women perceived the experience of OULA to be like mindful meditation. *When I first*

*started dancing, I had a lot of embarrassment and awkwardness about my body ... but then it became a very freeing, sort of really like a moving meditation sort of feeling where I could be very mindful about what I'm seeing, what I'm hearing, what I'm feeling, um, where it was, wasn't so stuck in my body.*

### Life Skills

Women believed that they transferred skills learned in OULA to other areas of life, both in professional and personal development. *In OULA, I sing, I scream, I do all of that and it feels so good and I realized I was missing that in my life and then I can apply it outside of the studio when I'm in my daily life.* Moreover, the occasion to express emotions during an OULA class allowed some women to discuss difficult emotions outside of an OULA class. In addition, being active in OULA provided women with the opportunity to attempt other forms of health improvement that they might not have otherwise. Women also discussed that they were able to practice different emotions, as well as feeling silly, sexy, and confident, and in turn, exhibit those emotions and behaviors in settings outside of OULA because they felt safer after practicing them. Consequently, women perceived that their emotional intelligence and confidence matured through participating in OULA.

### Discussion

The aim of this study was to explore perspectives and experiences of the dance fitness format, OULA, for individuals who were currently participating in OULA. Our study findings highlight five key themes, which encompass emotional expression, life management, social connections with individuals and the larger OULA community, a judgement-free environment, and transferrable life skills. These findings may provide insight when developing interventions and/or fitness programs to improve PA among women by potentially addressing some of the perceived barriers to physical inactivity.

The perceptions of the women interviewed were that OULA offers a holistic PA that incorporates aspects of mental health management and social connections. While, to our knowledge, there are no published studies on the experiences of women engaging in dance fitness formats, these findings are consistent with qualitative studies of dance. For example, dance is consistently described by users as an activity that provides physical, psychological, and social benefits [27-30]. The belief that OULA offers a chance for emotional expression is also in agreement with other studies of dance [29], albeit, experiencing a range of emotions (e.g., happy, sexy, sad, and angry) has not previously been reported. Indeed, evidence indicates experiencing happiness [29,30] and sadness [29] when participating in dance, but the opportunity to feel angry or sexy has not previously been reported.

Research demonstrates that women are penalized for expressing both anger [31] and sexiness [32] in particular settings. Specific to anger, a woman expressing anger is often attributed to the woman being “emotional,” whereas when a man expresses anger, this is viewed as being more competent [33]. Further, it has been documented that women may feel ashamed when they express anger, resulting in women potentially repressing,

re-routing or diverting feelings of anger, leading to increased risk of depression, anxiety, and somatization [34]. Similarly, the topic of women feeling sexy is commonly masked in secrecy or taboo; however, it is a key aspect of life with data showing the important role sexuality plays across the lifespan [35]. The chance to express anger and feel sexy during OULA may partially explain why women described utilizing OULA as a therapeutic modality in this project.

The community aspect of OULA may also contribute to women perceiving OULA as a PA that helps improve psychological health. Given that in-person OULA classes have expanded across the United States and to additional countries [17], as well as remote access to on-line classes, it offers a sense of belonging to both an extensive and local community. Further, being part of a community allows for social connections. Women in this project emphasized that social connections occurred at the individual level, as well as group social connections while dancing with the entire OULA class. Research findings indicate that a sense of belonging and social connections are associated with overall improved health [36,37]. The community and social connection component of group dance appear to be consistent among other studies of dance [27-30], and may be an attractive motivator to enhance PA among women who are seeking a community to belong to.

Along those same lines, the judgement-free atmosphere that women described in this project relative to OULA could potentially address a common perceived barrier to PA for women. Albeit women highlighted that they had to release or let go of judgement (notably, self-judgement), which may also contribute to the therapeutic benefits of OULA, before they realized that the OULA atmosphere felt like a safe space. The findings relevant to potential therapeutic benefits of OULA from this study align with previous studies of OULA. Namely, in a survey study of OULA, participant indicated that they utilized OULA to improve mood [17]. Also, in a longitudinal investigation of OULA, depression and anxiety severity were significantly reduced with 12-weeks of OULA participation [18].

Connecting with music appears to be a facilitator to women in this study for expressing emotions, as well as letting go of judgements. The utilization of music by individuals who participate in PA, in addition to fitness facilities, has become normal practice and is associated with a documented range of benefits [38]. Relevant to the findings from the current study, evidence supports that music enhances emotional responses in the context of exercise [39]. Research also shows that the positive influence of music on mood during PA engagement increases adherence to participating in PA [39,40].

One of the most interesting findings in this study was that women described that they transferred skills learned in OULA to other areas of life. To our knowledge, this is not a ubiquitous finding reported in the dance or fitness literature. Because women believed OULA to be a safe space, perhaps they felt comfortable expressing emotions (e.g., sexy, playful, happy, angry) and then after practicing those emotions in an OULA class, they were able to transfer them to other areas of life. Given that this finding appears to be new in the dance and

fitness literature, more research on the idea of transferring skills learned from a dance fitness program warrants further investigation.

Engaging in physical activity can improve both physical and mental health [1,2], yet common barriers to engaging in PA among women are lack of time, motivation, and support, as well as concerns about physical appearance [9-11]. The Health Self-Empowerment Theory (HSET) developed by Tucker and colleagues posits that health promotion behaviors, including PA, are influenced by psychological self-empowerment variables [41]. These include health motivation, health self-praise, an adaptive coping style/skill, health responsibility and knowledge, and health self-efficacy. Understanding these self-empowerment variables is paramount when developing interventions to increase health promotion behaviors especially among women [41,42]. With respect to HSET, health motivation is understood as an individual's level of commitment to health-related goals [42]. While the women in our study did not describe their specific health-related goals, they described the desire for being active in their everyday lives. However, the PA had to be fun and provide emotional relief in addition to the physical conditioning. The importance of emotional expression as motivation for PA and health promoting behavior in women warrants further investigation. Health self-praise is defined as the verbal or nonverbal messages of self-affirmation used in association with health-promoting behaviors [41,42]. The theme of "judgement-free environment" described how the OULA participants felt liberated by having a safe place to experience and express their authentic self. The judgement-free environment may have provided these women with space for self-affirmation, which in turn increased their motivation for participating in PA.

In HSET, an adaptive coping style/skill is understood as the use of instrumental social support to manage emotions that often negatively impact engagement in health-promoting behaviors [40]. The women in our study described how OULA created an outlet to process emotions and stress from their everyday lives in a supportive group environment. The influence and benefits of social support in PA in women may be a central aspect in increasing PA and thereby health promoting behavior in women. The concepts of health responsibility and knowledge [41] were not immediately evident in these participants' descriptions of their experiences, yet this may be an underlying motivation for these women's engagement in OULA and should be explored further. Lastly, health self-efficacy is understood as an individual's perceived capability to engage in mental health and physical health promoting behaviors and the expectation that the behaviors require personal effort [43]. Health self-efficacy was evident in this group of participants. By participating in OULA, the women gained confidence in themselves and their ability to be physically active. The variables in HSET provide additional depth to the findings of our study, which may be foundational in developing interventions to increase PA in women and improve both physical and mental health outcomes in this population.

This study has limitations that merit consideration. First, the semi-structured interviews were relatively short, as the questions were designed to answer specific questions. However, perhaps unstructured interviews would enable a

deeper understanding of experiences of OULA. Second, data were not collected with respect to perceived benefits and barriers to participating in OULA and/or other forms of PA, which would have potentially added a useful dimension to this project. Third, women active in OULA were recruited for this study, and generally, their OULA experiences were all positive. It would be interesting to interview women who discontinued their OULA practice to explore reasons for not continuing OULA. It would also be interesting to learn about how genders other than women experience OULA. Finally, while we reached data saturation, generalizability of the study findings is limited to the sample we recruited, i.e., primarily Caucasian women.

Regardless of the limitations, this study helps fill gaps in knowledge related to women's experiences of participating in dance fitness to potentially eliminate some of the common barriers to physical inactivity specific to women. The findings from this project might be used by clinicians and community workers working with women who are physically inactive by encouraging women to engage in dance and/or dance fitness programs.

## Declarations

### Funding

Mark and Robyn Jones College of Nursing at Montana State University.

## References

- Pedersen BK, Saltin B. Exercise as medicine – Evidence for prescribing exercise as therapy in 26 different chronic disease. *Scandinavian Journal of Medicine & Science in Sports*. 2015; 25: 1-72.
- Swift DL, Johannsen NM, Lavie CJ, Earnest CP, Church TS. The role of exercise and physical activity in weight loss and maintenance. *Progress in Cardiovascular Disease*. 2014; 56: 441-447.
- Guthold R, Stevens GA, Riley LM, Bull FC. Worldwide trends in insufficient physical activity from 2001 to 2016: A pooled analysis of 358 population-based surveys with 1.9 million participants. *Lancet Glob Health*. 2018; 6: e1077-e1086.
- Warburton DE, Nicol CW, Bredin SS. Health benefits of physical activity: The evidence. *Canadian Medical Association Journal*. 2006; 174: 801-809.
- Lanier JB, Bury DC, Richardson SW. Diet and Physical Activity for Cardiovascular Disease Prevention. *American Family Physician*. 2016; 93: 919-924.
- McTiernan A, Friedenreich CM, Katzmarzyk PT, Powell KE, Macko R, et al. Physical activity in cancer prevention and survival: A systematic review. *Medicine & Science in Sports Exercise*. 2019; 51: 1252-1261.
- Nolen-Hoeksema S. Gender differences in depression. *Current Directions in Psychological Science*. 2001; 10: 173-176.
- Parker G, Brotchie H. Gender differences in depression. *International Review of Psychiatry*. 2010; 22: 429-436.
- Ali HI, Baynuna LM, Bernsen RM. Barriers and facilitators of weight management: Perspectives of Arab women at risk for type 2 diabetes. *Health Social & Care Community*. 2019; 18: 219-228.
- Dikareva A, Harvey WJ, Cicchillitti MA, Bartlett SJ, Andersen RE. Exploring perceptions of barriers, facilitators, and motivators to physical activity among female bariatric patients: Implications for physical activity programming. *American Journal of Health Promotion*. 2016; 30: 536-544.
- Mathews E, Lakshmi JK, Ravindran TK, Pratt M, Thankappan KR. Perceptions of barriers and facilitators in physical activity participation among women in Thiruvananthapuram City, India. *Global Health Promotion*. 2016; 23: 27-36.
- Lovell GP, El Ansari W, Parker JK. Perceived exercise benefits and barriers of non-exercising female university students in the United Kingdom. *International Journal of Environmental Research and Public Health*. 2010; 7: 784-798.
- Fan JX, Kowaleski-Jones L, Wen M. Walking or dancing: patterns of physical activity by cross-sectional age among U.S. women. *Journal of Aging & Health*. 2013; 25: 1182-1203.
- Karageorghis CI, Priest DL. Music in the exercise domain: A review and synthesis (Part II). *International Review of Sport and Exercise Psychology*. 2012; 5: 67-84.
- Karpati FJ, Giacosa C, Foster NE, Penhune VB, Hyde KL. Dance and the brain: A review. *Annals of the New York Academy of Sciences*. 2015; 1337: 140-146.
- Anjana RM, Nitika S, Sinha S, Kuriyan R, Pradeepa R, et al. A novel high-intensity short interval dance Intervention (THANDAV) to improve physical fitness in Asian Indian adolescent girls. *Diabetes Technology & Therapeutics*. 2021; 23: 623-631.
- Hellem T, Ferguson H. An Internet-based survey of the dance fitness program OULA. *SAGE Open Med*. 2018; 6: 2050312118790426.
- Hellem TL, Sung YH, Ferguson H, Hildreth L. The emotional dance with depression: A longitudinal investigation of OULA for depression in women. *Journal of Bodywork and Movement Therapy*. 2020; 24: 413-422.
- Vendramin B, Bergamin M, Gobbo S, Cugusi L, Duregon F, et al. Health benefits of Zumba fitness training: A systematic review. *Analytic Review*. 2016; 8: 1181-1200.
- Sandelowski M. Whatever happened to qualitative description? *Research in Nursing & Health*. 2000; 23: 334-340.
- Daly J, Willis K, Small R, Green J, Welch N, et al. A hierarchy of evidence for assessing qualitative health research. *Journal of Clinical Epidemiology*. 2007; 60: 43-49.
- Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal of Qualitative Health Care*. 2007; 19: 349-357.
- Guest G, Bunce A, Johnson L. How many interviews are enough? An experiment with data saturation and variability. *Field Methods*. 2006; 18: 59-82.
- Streubert HJ, Carpenter DR. Qualitative research in nursing: Advancing the humanistic imperative (5th ed.). Wolters Kluwer | Lippincott Williams & Wilkins. 2011.
- Elo S, Kyngäs H. The qualitative content analysis process. *Journal of Advanced Nursing*. 2008; 62: 107-115.
- Lincoln YS, Guba EG. *Naturalistic inquiry* (9th ed.). Sage. 1985.
- Atkins R, Deatrick JA, Gage GS, Earley S, Earley D, et al. Partnerships to evaluate the social impact of dance for health: A qualitative inquiry. *Journal of Community Health Nurse*. 2019; 36: 124-138.
- Bognar S, DeFaria AM, O'Dwyer C, Pankiw E, Simic Bogler J, et al. More than just dancing: experiences of people with Parkinson's disease in a therapeutic dance program. *Disability & Rehabilitation*. 2017; 39: 1073-1078.
- Bungay H, Hughes S. Older people's perceptions of the impact of Dance for Health sessions in an acute hospital setting: A qualitative study. *BMJ Open*. 2021; 11: e044027.
- Philip KEJ, Lewis A, Williams S, BATTERY SC, Polkey MI, et al. Dance for people with chronic respiratory disease: A qualitative study. *BMJ Open*. 2020; 10: e038719.

31. Marshburn CK, Cochran KJ, Flynn E, Levine LJ. Workplace anger costs women irrespective of race. *Frontiers in Psychology*. 2020; 11: 579884.
32. Wookey ML, Graves NA, Butler JC. Effects of a sexy appearance on perceived competence of women. *Journal of Social Psychology*. 2009; 149: 116-118.
33. Salerno JM, Peter-Hagene LC. One angry woman: Anger expression increases influence for men, but decreases influence for women, during group deliberation. *Law and Human Behavior*. 2015; 39: 581-592.
34. Cox DL, Van Velsor P, Hulgus JF. Who me, angry? Patterns of anger diversion in women. *Health Care for Women International*. 2004; 25: 872-893.
35. Syme ML, Cohn TJ. Examining aging sexual stigma attitudes among adults by gender, age, and generational status. *Aging Mental Health*. 2016; 20: 36-45.
36. de Moor EL, Denollet J, Laceulle OM. Social inhibition, sense of belonging and vulnerability to internalizing problems. *Journal of Affective Disorders*. 2018; 225: 207-213.
37. Holt-Lunstad J. Why social relationships are important for physical health: A systems approach to understanding and modifying risk and protection. *Annual Review of Psychology*. 2018; 69: 437-458.
38. Karageorghis CI, Terry PC, Lane AM, Bishop DT, Priest DL. The BASES Expert Statement on use of music in exercise. *Journal of Sports Science*. 2012; 30: 953-956.
39. Terry PC, Karageorghis CI, Saha AM, D'Auria S. Effects of synchronous music on treadmill running among elite triathletes. *Journal of Science and Medicine in Sport*. 2012; 15: 52-57.
40. Annesi JJ. Effects of music, television, and a combination entertainment system on distraction, exercise adherence, and physical output in adults. *Canadian Journal of Behavioral Science*. 2001; 33: 193-202.
41. Tucker CM, Butler A, Kaye LB, Nolan SE, Flenar DJ, et al. Impact of a culturally sensitive health self-empowerment workshop series on health behaviors/lifestyles, BMI, and blood pressure of culturally diverse overweight/obese adults. *American Journal of Lifestyle Medicine*. 2014; 8: 122-132.
42. Tucker CM, Smith TM, Wippold GM, Whitehead NE, Morrisette TA, et al. Impact of a university-community partnership approach to improving health behaviors and outcomes among overweight/obese Hispanic adults. *American Journal of Lifestyle Medicine*. 2017; 11: 479-488.
43. Tucker CM, Butler AM, Loyuk IS, Desmond FF, Surrency SL. Predictors of a health-promoting lifestyle and behaviors among low-income African American mothers and white mothers of chronically ill children. *Journal of the National Medical Association*. 2009; 101: 103-110.