

Ballet for Brain Injury

Summary of 2021 Pilot Program Evaluation

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Queensland
Ballet

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Acknowledgements

Project acknowledgements

This pilot evaluation project is part of a larger research agenda consisting of a series of projects focused on ballet and its social, cultural, physical, emotional, and cognitive benefits for brain recovery. The broader team includes Belinda Adams and researchers and facilitators from Griffith University and Queensland Ballet.

The Queensland Ballet teaching artist team was led by and Martha Godber, with thanks to teaching artists Lily Spencer and Joseph Stewart and pianist Robert Manley.

The Griffith University team includes (in no particular order) Belinda Adams, Joel Spence, Naomi Sunderland, Elizabeth Kendall, Danielle Pretty, Sharon Dawe, Bronwyn Theroux, and Tamara Ownsworth.

Clinical assistance was provided by Pete Irving, Lucy Taylor, Kerry Reid, Rachel Gregory, and Amy Harrison.

Traditional custodian acknowledgements

Queensland Ballet acknowledges the traditional custodians of the land on which we gather to create, share and learn. Long before we created and danced on this land, it played host to the dance expression of our First Peoples. We pay our respects to their Elders – past, present and emerging – and acknowledge the valuable contribution they have made and continue to make to the cultural landscape of this country.

Overview



This document summarises outcomes from evaluative feedback by participants and facilitators involved in the Ballet For Brain Injury (BFBI) Pilot Program in 2021. This report makes recommendations for strengthening future iterations of the program and avenues for further research. The BFBI pilot program was a collaborative project between project visionary, film producer, and Traumatic Brain Injury (TBI) carer and advocate Belinda Adams, Queensland Ballet (QB), and researchers at the Griffith University Hopkins Institute, School of Health Sciences and Social Work, and Queensland Conservatorium Research Centre (QCRC).

The pilot program was informed by existing dance-health knowledge and practice at QB, consulting health professionals, and lived experiences of TBI survivors and their carers. The program was also shaped by a QCRC funded literature review by Joel Spence and Belinda Adams and participatory design research conducted by Griffith University Bachelor of Social Work student Mr Joel Spence under the supervision of Associate Professor Naomi Sunderland. Mr Spence's honours research answered the following research question: *what are the enablers and barriers that prevent or encourage people living with TBI, and their carers to participate in ballet as a Dance Movement Therapy (DMT)* (Spence, 2021). The results of that research were fed back to QB teaching artists and BFBI participants prior to commencing the pilot program in 2021.

The data enclosed in this report was collected in two parts following conclusion of the program:

1. A focus group of seven program facilitators, including teaching artists (Lily, Joe, and Martha), administration staff (Martha) and musician (Rob) from Queensland Ballet, program occupational therapist (Peter) and Griffith researcher (Joel). Focus group questions covered staff expectations of the pilot programs, outcomes they had observed, and reflections on environments that had affected the program.
2. An online survey of eight BFBI participants, including survivors of TBI and their carers or support people. The survey included closed and open-ended questions shaped by the literature review, Joel Spence's honours research findings, and the program facilitators' focus group outcomes. A copy of that survey is attached to this report.

The data was coded using NVivo software, identifying significant outcomes and prominent themes in the feedback.

Survey participants

The eight survey participants included six people who had experienced TBI and two carers or support people. Participants identified themselves culturally as “being of both Aboriginal and Torres Strait Islander” (n=1), “Australian” (n=3), “Don’t fit a cultural group” (n=1), and “none” (n=3). All participants spoke English as a first language. Five identified as female and three as male. No participants identified as gender diverse or non-binary. Most participants (n=6) attended for 9 or 10 weeks of the program. One participant attended for 7-8 weeks and another for 5-6 weeks.

Figure 1 below summarises survey participants’ descriptions of the level of their impairment.

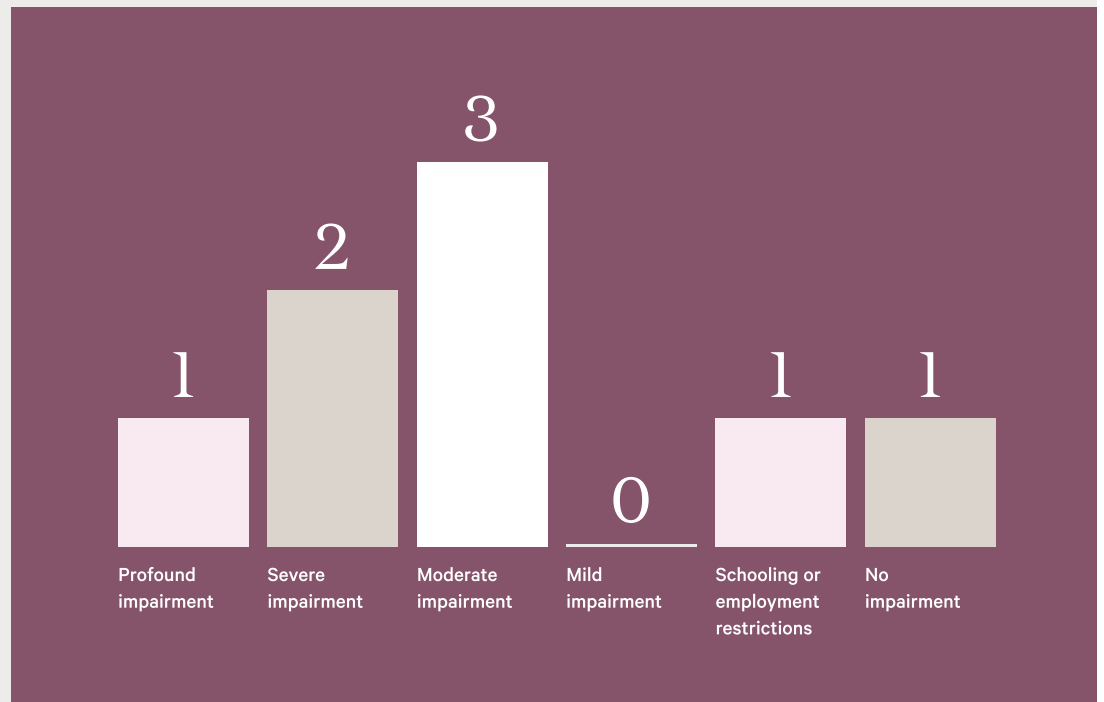


Figure 1. – Participants’ descriptions of the level of their impairment.

Reported outcomes from the BFBI Pilot Program

Overall outcomes

Significant overall positive outcomes reported across the facilitator focus group and survey participants' open-ended responses include:

- Collaboration between QB teaching artists and rehabilitation therapies created new, inclusive styles of community fitness that also allow artistic expression.
- The program created a sense of community and identity for TBI survivors.
- The program offered opportunities for creative expression for people with TBI and the opportunity to identify as dancers, artists, and creatives.
- The program fostered feelings of pride for people with TBI for example in working with prestigious cultural organisations such as QB.
- The program provided fun and enjoyment for patients and carers.
- The program adapted traditional, structured artforms such as ballet and classical music to promote accessibility for people with a variety of needs and ability levels.
- Collaboration and synergy between professionals from disparate fields of ballet, music, and physical therapy supported the program processes and outcomes.



Short-, mid-, and long-term participant outcomes

Facilitators and participants were asked to comment on short-term (within 1-2 weeks of attending), mid-term (after 5-6 weeks) and full-term (after 10 weeks) outcomes of the program. Responses were encouraged to consider a range of physical, cognitive, emotional, relational and social outcomes. Facilitators also commented on how the program impacted their professional or artistic practices.

Short-term outcomes

- Two participants noticed improvements in balance in the first weeks of the program.
- Six participants identified making social connections and relationships with other TBI survivors as a significant short-term outcome.



“Relationship with others hearing their struggles and how [they] were managing them.”

– Participant 2



“Emotionally it was good because I was very happy during the class and the chance to meet and talk to people living with a disability the same as me.”

– Participant 4



“[It was] great for social connections and therefore positive emotions for myself.”

– Participant 5



“I feel relatable for other survivors who understand the impact of brain injuries.”

– Participant 6

- Two described enjoying participating in physical activity:



“Physically it felt great to be moving my body.”

– Participant 4



“I am determined to be active in ballet.”

– Participant 6

- Facilitators described “destigmatising” ballet and dance as an important short-term objective:



“I think as an umbrella, the objectives for me as teaching artists and particularly in that immediate context was around destigmatising ballet, destigmatising dance, what that looks like, what that feels like, what that sounds like even.”

– Joe, teaching artist



“I went in thinking that there might be a stigma around ballet just being feministic and stuff like that. And I was wondering how that was going to be approached, especially with TBI mainly being younger males that experienced that.”

– **Joel, researcher**

This appears to be important as many patients and carers held views of ballet as a stereotypically ‘feminine’ activity, which may have contributed to male participants feeling apprehensive at the start of the program. However, the facilitators noted that the male participants were quick to make light of this stereotype and enjoy themselves.



“[I went in] pre-interviews thinking that might be a hard sell to convince people, but in saying that, it was mentioned by every single person as carrying some sort of a stigma [...] both carers and participants. But I quickly learned, I guess, from that first session that [participants] socially just accept it and make fun of it. And I guess it ... answered, I guess for me the assumption, in the last [class] where the blokes just dressed up with tutus and just made fun of it.”

– **Facilitator**

- Facilitators were impressed by the fast progress of the participants early in the program, challenging their assumptions and expectations of the TBI survivors’ abilities:



“I only taught every second week ... and there would already be such big steps from the week before. And actually, something that they kept building on really well was their memory and retaining the steps that we did do. And that really surprised me pleasantly. So I think that was an assumption I had, was that it was going to be very one level for most of the 10 weeks, but it wasn't at all. It was really excellent.”

– **Lily, teaching artist**

Mid-term outcomes

Participants noted increased social confidence and improvements in their balance and coordination.

- Participant 4 felt more confident engaging with people as they were better able to remember people’s names:



“I felt more relaxed each time I went to class as I was remembering people's names (problem for me with my TBI) and able to better engage with people. I challenged myself try to talk to everybody in the class at some point.”

– **Participant 4**

- Participant 7 did not feel any improvement, but their support person made note of increased flexibility and improved memory of routines after 5-6 weeks. At this point, the participant was also more socially engaged with others in the group:

“After 5-6 weeks I saw that [he] could bend better. The repetitive movements were good as he then could remember them and was able to do them more effectively. It took him at least 5 weeks to get the hang of the movements. He also started engaging and joking with others in the group which was good. I feel that it helped him to engage with others.”

– Participant 8

Full-term outcomes

- Facilitators commented on the improved coordination and movement by the end of the BFBI program, as well as greater social confidence. This allowed the participants to express themselves creatively through ballet:

“In the last session, I could see their personalities coming through and I could see all that expression that comes through the expressive sense of ballet.”

– Joel, researcher



Participant spotlight

“I danced when I was little. Not professionally or anything like that, but I really enjoyed going off to ballet class and showing off to mum when she picked me up. I was always dancing when I went out with my friends on the weekends. A few years into my recovery, I tried dancing again. It’s something that always brings me joy and I love the music. I took an adults ballet class for a while before BFBI, but I’m a bit slower and less balanced than everyone else. I tend to hang back or sit out a lot – I don’t want to slow everyone else down or get singled out when I’m out of rhythm or forget the steps. I don’t talk to the others as much because I often forget their names.”

– Annie

“I noticed the social confidence grew, so that they were more likely by the end to have a joke and to speak up. And so you did get a bit of a better glimpse of who they were as people.”

– Peter, OT

- Teaching artist Joe described the full-term objective of emphasising participants’ appreciation of ballet as an artform as well as their successes and progression throughout the program:

“Ultimately in that full-term, last week or so was really definitely about trying to hone in on the appreciation and understanding not only of the art form, but then also the appreciation and understanding of the impact of them turning up for 10 weeks and how that’s impacted their growth through movement, but also emotionally throughout that term.”

– Joe, teaching artist

Negative or no outcomes

- Participant 7, a TBI survivor, did not feel they improved at all at short-, mid- or full-term points in the program. The support person for Participant 7 (Participant 8) observed that although Participant 7 answered the survey questions that way, he

“actually enjoyed the social interaction with others and that he did become slightly more flexible from doing the different positions. The program challenged him which was good for the brain.”

– Participant 8

Professional outcomes

- Facilitators frequently reflected on feelings of excitement, inspiration and reward that came with creating a new program and facing new challenges. Occupational therapist Peter felt “proud to be invited, to be part of it for myself” regarding the opportunity to work with QB as a prestigious organisation.
- The musical accompanist reflected on the ways performing with the TBI dancers allowed him to

“bring my musical skills into a sort of new community engagement area or with a therapeutic tilt and really allow those bendable boundaries of the music to be able to facilitate that true performance happening at the end, finding where those fine lines were, as I mentioned earlier between repertoire and improvisation, was a critical component I think of my contribution.”

– Rob, musician

- Teaching artists frequently reflected on adapting their usual ballet teaching practices and perspectives in the BFBI program.

“I had a strong assumption that we were viewing these people as people that didn't have ability to move or dance. And as from a teaching perspective, that shifted very quickly to not treating or teaching them as a person with restriction in what they could do, but just treating them as a standard human as I would with anyone in the studio space. So my assumptions around their ability were quickly eradicated.”

– Joe, teaching artist

- Teachers were challenged to become flexible and reactive in the delivery and design of the program:

“We did react a lot to who was in the room and how they were progressing each week, which I think is something we really want to pass on to the next teaching artists and as part of teaching artistry within itself.”

– Martha, teaching artist



Participant spotlight

“Since his accident, I’ve been trying to get Dan to be more physically active but he’s pretty stubborn. He likes his routines and things he’s used to.

Originally he didn’t want me signing him up for ballet. Thought it was a bit silly and he’d be the only bloke in the room, or he’d say “what am I going to do in wheelchair?”. I wanted him to be a bit more outgoing and maybe he would meet some other people in his situation. He’s still stubborn and he won’t admit it, but I think he liked going and playing class clown.

Maybe if he kept going he would get a bit fitter, but it was nice to see him challenge himself and do something different.

After class I’d have a coffee with the other carers, and we could talk about ballet – we didn’t have to talk about caring for a while.”

– Judy

Personal, emotional, and creative outcomes

- Many participants felt pride and accomplishment having taken on new challenges in ballet. Teachers also found it rewarding to see them recognise their accomplishments by performing at the end of the program:



“One big observation I found was pride with the participants. And there was a lot of pride in their work. And I noticed and observed that particularly with sharing what they had learned. And by seeing that, was quite a humbling experience, but also a real validating moment that they've taken stuff away from ballet steps or approaches to movement that obviously had an impact and it was so important to share with others. Yeah, having pride, I think was a big thing, particularly in that last class. You could see the pride in that they've come a long way in that 10 weeks and being able to share that was a big deal.”

– Joe, teaching artist

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- Creativity and artistry, self-expression as important for people with TBI:



“A lot of people think of ... one artistic [aspect] of ballet, which is what we might see on stage. And then there's still an artistic element of what we were doing, a creative and artistic element as well and that's just as valuable to those dancers who were in the studio with us.”

– Martha, teaching artist

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- Facilitators and participants discussed growing self-esteem and self-confidence during the program, particularly on occasions involving performance or improvisation:



“I know some of the participants did say how they found that probably some of the most challenging where they had to go in front of the group, create something and present something to everyone. I think for most people that can be quite confronting, let alone in a new space with a new vocabulary of movement.”

– Martha, teaching artist

Social and relational outcomes

- Community and connection among TBI survivors and their carers were highly significant themes throughout the BFBI evaluation.

“There was just a really big motivation because of community value and community spirit to participate in something like this. Hearing some of the stories and narratives of people going through their challenges pre- to post-injury and not being able to find things that would accommodate them was a really big thing.”

– Joel, researcher

- The teaching artists described the ballet studio as a “sacred space”, in which TBI survivors and their carers they could feel comfortable among people who have lived through shared experiences.
- The group class, as both a physical and artistic activity, allowed participants to feel supported and safe to take creative risks and improve their fitness together:

“This ballet, unlike the one I have been attending, is specifically created for people with brain injury and attended by people with similar cognitive difficulties to me so I feel able to be a little more outgoing without fear of being judged.”

– Participant 4



Participant spotlight

“I guess I still see all my family and friends a lot, but I don’t get a chance to meet new people much since being in my chair. I’m more independent than I was, but I still need help getting up steps, driving, things like that. Doing something new and different, getting to dance with professionals, I felt proud to be there at the final concert. I certainly don’t get a chance to meet so many people with similar injuries to me and understanding each other’s challenges – how the little improvements mean a lot to us.”

– Jim

- Partners and spouses in a caring role enjoyed taking part in the program as a shared activity. Participant 1, a support person, commented that BFBI was “rewarding to do something different together”. Facilitators also observed moments of affection and pride among couples as a positive outcome of the program:



“I saw this connection between the two of them while they were helping each other, and these sweet little moments. I remember one of the participants just gave her husband a hug and a little kiss when he did something great. I thought that's so sweet. They're experiencing this together for the first time. She's supporting him. She's proud of him, he's enjoying it. I really enjoyed seeing that, as standing back out of it, I thought that was really nice.”

– Lily

- Participant 1 also commented that BFBI was “something fun we did together. A creative approach”. This suggests that being able to participate together as a couple, in an artistic setting, sets this program apart from other rehabilitation therapies which focus on the individual's healing.

Physical, therapeutic outcomes

- Participants described a variety of physical improvements throughout all stages of the program, including balance, coordination, memory.
- Most participants believed the program complemented their other rehabilitation therapies, including physiotherapy, occupational therapy and speech therapy:



“I use the things I've learned at ballet (core, balance) in my physio sessions; if I'm struggling with an exercise I will apply ballet to it and then have better outcomes.”

– Participant 4



“I am at the stage where I only partake in maintenance rehab activities and I found this very complimentary . I also found it very useful for looking after my general fitness, which I find difficult to squeeze in time wise.”

– Participant 5



“It has helped as his physio incorporated some of the harder exercises into his physio sessions. It highlighted areas that I spoke to the physio about and he could then edit his program to work on these as well.”

– Participant 8

- Facilitators commented that there were benefits to participating in an activity that 'distracted' from the physical elements:

“Although they gained therapeutic and social and esteem and identity benefits from participating, it felt like a ballet class [...] I think they lost themselves in a process that was so dissimilar to pure physio or therapy work that could have been a distraction. So I think the calibration of therapy was a strength.”

– Peter

“Whilst it was an adapted ballet class in a sense, and there was that creative aspect, I still probably, for me, approached it as a ballet class, but underlined by the health and wellbeing aspects.”

– Martha, teaching artist



Participant spotlight

“I was a little nervous about the times we had to get up and perform in front of everyone or improvise a dance, but by the end I felt like I could be myself and enjoy it. The music was so beautiful and the pianist seemed to match my movements so well, even when I thought I was a bit shaky. I get to be creative. My physio is all about improving my flexibility or muscle strength, which is important, but ballet is just for me. I can express myself and move my body at the same time.”

– Caitlyn

Reflections from consulting physiotherapist Kerry Read



During the typical rehabilitation process for TBI, movement is oriented towards function. There's a prescribed norm, it's measured in degrees, and reaching goals often involves pain and frustration. The goal is to move like you did before and to look 'normal'. In BFBI we challenged ourselves to shed 'normal' and explore our emotions. Swept along by music, we experimented with novel movements and used it to convey meaning. We were then able to connect with others to create resonance and beauty, as we told our stories with our bodies. Each of our bodies and their movements became perfect in that creation. Participants became aware that they can still convey beauty and meaning with their body. They can move harmoniously as an important part of a group. They still have a place in the rhythm of life.

I noticed how much the participants' facial tone and expressive facility developed over the program. Facial muscles are hard-wired to convey and interpret emotion over and above their functional role, so tapping into emotions and driving it with music, added a unique benefit. Some participants used this chance to express negative emotions as a safe opportunity to vent. Having a pianist or cellist who was able to adjust the tempo and mood of the music was key to this. He worked collaboratively with the teaching artists and sometimes intuitively, to enrich the experience of the program. Live music certainly provides physical vibration to muscle spindles and the sprung floor also assisted in this stimulation. The environment provided at Queensland Ballet definitely enriched the physical benefits of the program.

Improvements in participants' weight transfer and balance were evident early in the program. Confidence in their physical capabilities grew as the weeks progressed, as did their social interaction and sense of fun. Dancers who were gripping grimly onto the bar with one hand, and the opposite side turned away in inattention, soon became able to stand safely facing the bar and raise both hands above their heads. This was remarkable progress.

Belonging to a group, actively involved in a purportedly elite physical art-form had a distinctly positive effect on the self-esteem of both participants and their carers. It was a world away from their other disability-centred activities and doing something totally new to them was a major advantage.

Program quality

Survey participants were asked to rank the quality of the program across areas such as registration and enrolment and weekly dance activities in class. Responses are shown in Figure 2 below.



Figure 2. – How would you describe the quality of the program in the following areas?

Highlight of the program

In response to the question, “what was the highlight of the program for you?” survey participants responded as follows:

- Seeing improvements in [Participant 7]’s engagement and coordination
- Meeting other survivors
- The music
- Meeting Belinda who created the program :) I'd been so excited for a year waiting for the chance to meet the lady whose vision the program was.
- The highlight was surprising myself with what I could manage to do.

Suggested improvements

In response to the question “what could be improved in the program?” survey participants responded as follows:

- Have options from the get go that enable all levels of capacity
- NA
- Was very good
- Perhaps being offered during the week
- The program doesn't need any improvement
- Nothing
- Nothing
- I'm not sure



Participant wellbeing and engagement

Figure 3 illustrates survey participants' level of agreement

Figure 3. – Participant wellbeing and engagement responses

Outside of this ballet program, I generally have enough opportunities to engage socially with others outside of my family

Participating in arts and cultural activities such as the Ballet for Brain Injury Program is an important human right for people experiencing disability

I believe that ballet aids my physical wellbeing

I believe that ballet aids my emotional and mental wellbeing

I believe that ballet aids my social and cultural wellbeing

I believe that programs such as Ballet for Brain Injury promote social participation for people with acquired brain injury

I believe that programs such as Ballet for Brain Injury promote social participation for carers

I experienced social stigma (e.g. in relation to gender) in relation to participating in this program

I was able to overcome social stigma and enjoy the program

Participating in this program has improved my quality of life

Participating in this program has improved my overall happiness

Participating in this program has improved my overall wellbeing

I found that the live musical accompaniment helped my progress in this ballet program

I liked the way music was played during our ballet classes

Programs such as Ballet for Brain Injury can be an important addition to existing rehabilitation options for people with acquired brain injury

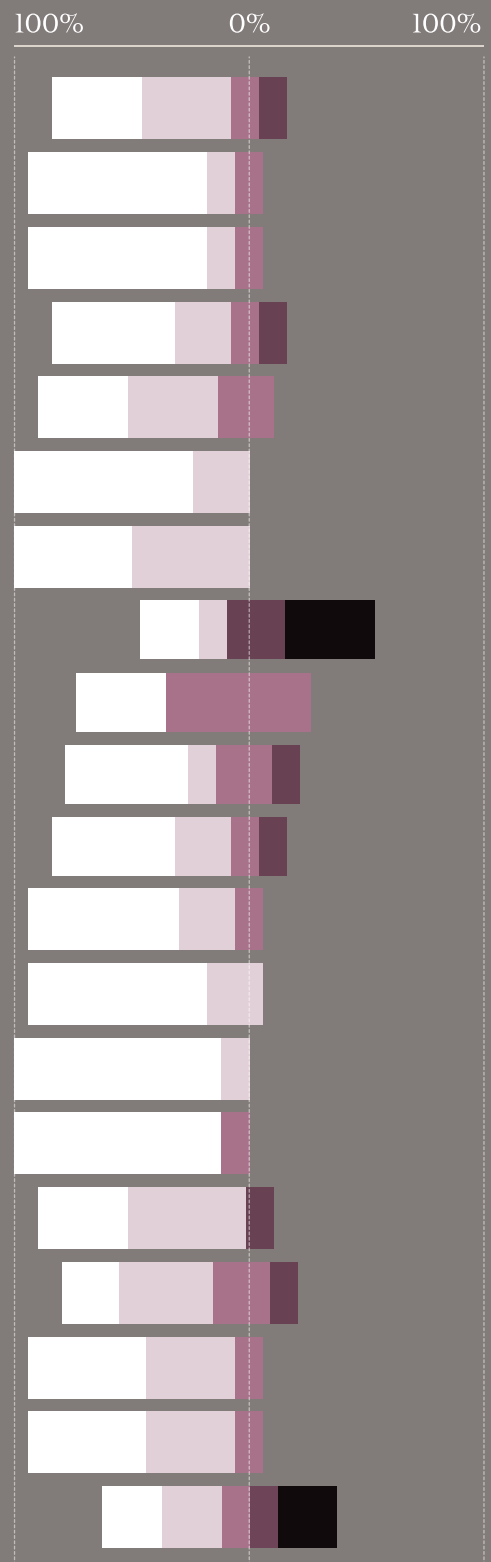
Outside of this ballet program, I generally feel that I have enough opportunities to exercise my body in ways that make me feel good

I feel that participating in the program with my carer or support person (or my partner who is recovering from brain injury) had positive effects for our relationship

I found that my ability to move my body fluently improved over the course of the ballet program

I found that my ability to move in time with the music improved over the course of the ballet program

I could already move fluently and in time with music before I started this ballet program



Strongly agree Agree Neutral Disagree Strongly disagree

Program strengths and lessons

- Participants were generally satisfied with the organisation and teaching of the program. Participant 8 felt they needed more time to have their expectations of progress during program met. Some preferred to have more consistency and repetition reinforce routines they previously learnt.
- Participants enjoyed the live music accompaniment and saw this as a program strength.
- Mixed results from participants regarding if the class suited their level, some thought it was widely suitable and some felt the routines progressed too quickly, or required more repetition each week. Teachers working in teams meant that people at lower levels could access more instruction.
- Participants enjoyed the social catch-ups around the class and some would have preferred more time here.



“I think that it would be good for the group to meet outside of the QB kitchen to encourage talking as it was a little rushed and not the best set up. Maybe doing it once or twice during the term and meet at the West End Markets or something like that.”

– Participant 8

-
- Community benefit as a driver, selling-point or advantage of promoting BFBI in the future:



“Going forward or if it was to branch off into different locations, I think that's probably going to be a really big, big marketing point or selling point for conversation with people to engage in a program like this [...] that they can feel that community value and that community spirit to come in and find themselves through participating in ballet. [...] And I just wondered how that could be captured going forward just so people would, A, know it's there, [and also] feel confident in engaging in this community.”

– Joel, researcher

Recommendations for future research

- Collaborative creativity (see Miell & Littleton, 2004; John-Steiner, 2005): combining expertise from professional ballet artists and physical rehabilitation therapies to innovate new types of therapies and artforms that are accessible to marginalised groups.
- Establishing communities among TBI survivors and their carers through fitness and cultural activities.
- Using DMT to explore perceptions and stereotypes of gender in ballet (stereotypically 'feminine' artform) and TBI patients (largely male population).



“And I guess the question mark for me was, is that probably just a maturity thing of the age bracket as well, that they could have fun with it, and it wasn't going to be a deterrent for them. And I guess I still just had that question mark, how would that translate to a younger person coming out of the hospital setting who's just experienced TBI for the first time?”

– Joel, researcher

- Artistic expression, identity, creativity, improvisation and access to culture in people with TBI.
- Performative research and narrative inquiry methodologies (see Ylönen, 2003): using dance as a method of storytelling and inquiry into experiences of TBI survivors.



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