Article

Flow as a mechanism of change in music therapy: Applications to clinical practice

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ABSTRACT

Due to the creative and purposeful applications of music in a therapeutic context, music therapists may be uniquely able to foster flow-based experiences for the people who access their services – herein "users". As flow has been linked with a number of positive factors, it may be ideal for encouraging and enhancing learning and therapeutic encounters during music therapy. The purpose of this paper is to describe flow and provide contextualisation of flow in music therapy clinical practice and as a possible mechanism of change that might explain outcomes observed in research with users. To integrate the flow-based literature into music therapy research, we discuss flow in receptive and active music therapy interventions and applications of flow in clinical practice and research. We propose flow as a bi-directional construct in music therapy and, based upon the person-activity fit model, offer a figure integrating skill of the therapist with the challenge of the intervention in an attempt to enhance music therapy education and clinical practice. Moreover, flow may represent a positively framed and less invasive method for measuring users' perceptions of the therapeutic outcomes. Future research utilising all paradigms is warranted to best understand this concept and resultant therapeutic implications.

KEYWORDS

flow, music therapy, optimal experiences, person-activity fit, songwriting; mechanism, change

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INTRODUCTION

In an attempt to understand optimal experiences in human behaviour, Csikszentmihalyi (1975) developed the concept of consciousness where people are powerfully engaged in a gratifying activity. This optimal experience is often referred to as flow. While experiencing flow, a person is highly focused and completely immersed in an innately rewarding task while able to completely ignore distractions. The difficulty of that task is enough to warrant intense focus without boredom or anxiety. This highly engaged and intrinsically motivating state results in an experience where it seems that nothing else matters (Csikszentmihalyi 1990; Jackson & Csikszentmihalyi 1999). During the time of its theoretical development, flow was conceptualised as an alternative to psychoanalytic explanations of the dynamic interaction between the challenge of a task and the person's skills and

abilities (Jonsson & Persson 2006). Flow theory has guided researchers' understanding of the relationships and connections between various tasks, occupations, wellbeing, and life satisfaction. Due to these intersections, it would seem appropriate to apply flow theory to music therapy clinical practice. The purpose of this paper is to describe flow and provide contextualisation of flow in music therapy clinical practice and as a possible mechanism of change that might explain outcomes observed in research with users. To integrate the flow-based literature into music therapy research, we discuss flow in receptive and active music therapy interventions and applications of flow in clinical practice and research. We propose flow as a bi-directional construct in music therapy and, based upon the person-activity fit model, offer a figure integrating skill of the therapist with the challenge of the intervention in an attempt to enhance music therapy education and clinical practice. However, it is first necessary to understand some of the underlying assumptions concerning flow and its relevance in the psychological literature as a positive construct.

FLOW DIMENSIONS

Csikszentmihalyi (1990) noted that flow experiences are characterised by nine dimensions, but that each dimension represents a separate conceptual element of flow. Other researchers have confirmed the nine flow dimensions (Csikszentmihalyi 1993; Jackson 1996; Jackson & Marsh 1996; Martin & Cutler 2002) as well as their construct validity (Jackson & Marsh 1996). These dimensions are as follows:

1. *Challenge-skill balance:* To experience flow, there should be an ideal balance between the challenge of the task and the individual's ability to complete the task.
2. *Action-awareness merging:* When a person is in a state of flow, the person experiences ecstasy and is fully engaged and merged with the task.
3. *Clear goals:* To experience flow, a person must have clear knowledge of the objectives of the task and know exactly what to do. Clarity of purpose functions to keep the person engaged and motivated to complete the challenging task.
4. *Unambiguous and immediate feedback:* To experience flow, a person must receive internal or external feedback that s/he is progressing towards task completion.
5. *Concentration on the task:* While in flow, a person is totally immersed in and focused on the task and extraneous thoughts and distractions are absent.
6. *Sense of control:* During flow, a person has a sense of control over the task at hand, but that control is not absolute.
7. *Loss of self-consciousness:* During flow, a person is freed from her or his inner voice and is thus unconcerned with others' perceptions, fulfilment of others' expectations, and satisfying others' accepted rules.
8. *Time transformation:* During flow, the person's perception of time is somehow altered. Some people report that time seems to stop while others experience time as slowing down or speeding up.
9. *Autotelic experience:* The task a person engages in functions as a reward in and of itself rather than with an expectation of extrinsic gain. After the task is completed, the person feels immense pleasure as all energy during the completion of the task was focused on the task.

THERAPEUTIC IMPLICATIONS OF FLOW

Due to the concept of optimal human experience as it relates to core motivation, Maslow's theory of self-actualisation (Maslow 1968, 1970) was partially responsible for providing the theoretical bases of flow. Self-actualisation can be facilitated by moments when a person is fully engaged in an activity that is intrinsically rewarding. Maslow (1970: 97) proposed that peoples' "healthiest moments" occurred when they fully utilised their abilities, which seems to provide an initial rationale for the exploration of flow as a therapeutic agent. Thus, it seems that flow theory may have implications for health, therapy, and music therapy. Due to the nature of music therapy interventions, it would seem that many users – and therapists – may experience flow within the music therapy experience. However, despite its potential implications and applicability, there is a lack of research literature systematically investigating flow within music therapy settings.

Various researchers have found that flow may be associated with a plethora of therapeutic benefits as a type of peak or optimal experience. For example, Emerson (1998) noted that when a person is in a state of flow, she or he might also experience other beneficial states, including: positive affect, motivation, enhanced cognitive efficiency, and high activation. Increased activation

involves positive aspects that may be conducive to therapy and learning, including energy, interest, alertness, and arousal (Csikszentmihalyi & Larson 1987; Csikszentmihalyi & Mei-Ha Wong 1991). Other authors have articulated that flow may also be related to wellbeing, performance, skill development, quality of life, self-esteem, happiness, leisure, personal growth, life satisfaction, the opportunity of self-actualisation, and other aspects conducive to counselling, health, wellness, and therapeutic experiences (Asakawa 2004; Carlson & Clark 1991; Csikszentmihalyi 1990; Han 1988). In a study examining the relationship between flow and subjective wellbeing in music students, Fritz and Avsec (2007) found several aspects of flow that positively related to measures of wellbeing. The authors therefore concluded that flow was more related to *emotional* wellbeing than to *cognitive* wellbeing. Additionally, due to potential implications for flow in a person's occupational setting, a number of researchers noted that flow theory could be an important therapeutic element in the occupational therapy literature base (Christiansen & Baum 2004; Emerson 1998; Neistadt & Crepeau 1998; Wright 2004).

Rogatko (2009) investigated if engaging in flow promoting activities increased positive affect in university students and found participants in the high flow condition had higher increases in positive affect than participants in the low flow condition. Participants who experienced a greater flow increase also experienced a greater increase in positive affect. Asakawa (2004) also found that flow was related to positive affect in college students. This may result from engagement: As a person is totally engrossed in the task at hand during flow, the person does not have enough attention to be cognizant of anything else (Csikszentmihalyi 1975). During this highly focused state, a person may temporarily be unable to cognize about her or his problems. Thus, the all-encompassing focused attention devoted to intrinsically motivating tasks may offer people a temporary relief from the negative affective state resultant of their problems (or their interpretations of their problems). From a behavioural perspective, a person will desire to return to flow experiences as flow – as well as a temporary inability to be cognizant of problems – is perceived as reinforcing and enjoyable (Csikszentmihalyi 1988).

Warren (2006) noted that Csikszentmihalyi's work concerning flow, despite its congruent intersections and potential applications with art and health, had not been applied to art therapy. Through a case study, Warren observed that art therapy experiences could induce flow as users can fully engage in an intrinsically motivating and rewarding creative experience. The resultant flow can reinforce the self, reduce stress, and provide meaning. Thus, Warren recommended that being aware of flow in the therapeutic context would be helpful to both the user and therapist. Warren indicated that after a person experiences flow, the person has heightened organisation of the self and there is potential for growth. Activities and interventions that result in flow experiences can also provide for a sense of creative discovery. This may result in opportunities for users to engage in risk taking within a safe environment. Warren (2006: 107) noted that the "art therapeutic relationship is also conducive to the occurrence of flow'", which – due to the nature of the creative therapeutic medium – may be congruent with client-therapist relationships formed during music therapy. In a related arts-based investigation studying improvisation and jazz ensembles, Sawyer (2007) explored group-based flow while presenting a model for explaining and fostering creativity in a group setting. In this concept, the group is able to act without thinking and activity is spontaneous. As many music therapists work in group-based settings (Cho 2013; Short 2014), flow theory concept may also be applicable in group-based music therapy clinical practice.

Bakker (2005) investigated whether music teachers' job resources facilitated flow at work and if the flow experienced by music teachers crossed over – via emotional contagion – to their music students. Results indicated that job resources, including autonomy, supervision, social support for colleagues, and performance feedback, were positively related to the balance between skills and challenges music teachers faced. The balance was predictive of the frequency of flow among music teachers. Bakker then found a positive relationship between music teacher flow experiences and student flow experiences, potentially indicating emotional contagion (Hatfield, Cacioppo & Rapson 1994). As Fritz and Avsec (2007) concluded that flow was more related to affective components rather than cognitive components, perhaps music therapists' flow could also be measured. Conceivably due to emotional contagion, flow may be transferred to the users, and flow might then be predictive of therapeutic outcome. Thus, flow may have important ramifications for therapeutic outcome, but additional research is needed. Bakker's results may also have implications for work environments, supervision, social support

from colleagues, and other aspects concerning the self-care of music therapists.

IMPLICATIONS OF FLOW IN MENTAL HEALTH

Implications for the utilisation of flow within various mental health settings are considerable. Csikszentmihalyi (1990) noted that for people who have stimulus over inclusion problems – such as attention deficit disorder (ADD) and schizophrenia – it could be difficult to engage in and focus on a task, which may prohibit flow. Suggesting a potential relationship between flow and psychopathology, Graef (1975) identified similarities between a deprivation of flow and the cognitive disorganisation reported by people with schizophrenia. Massimini, Csikszentmihalyi and Carli (1987) suggested flow might be applicable to psychiatric rehabilitation by including mental health patients in activities that were challenging but not overwhelming.

As there is currently a dearth of psychotherapeutic research as it relates to flow, there are numerous possibilities for future investigations. If therapeutic competence and flow are interrelated, it thus may be interesting to study therapists with less skill and competence and compare them with therapists who are more skilled and competent. Interviews with users receiving psychosocial treatments – including music therapy – may identify differences in skill levels that clinical training directors and educators could use to increase competencies.

FLOW AND MUSIC THERAPY

Various scholars have articulated flow – and concepts congruent with flow – in music therapy. For example, Grocke (1999) wrote about pivotal moments in music therapy while Nilsen (2010) discussed optimal experiences as they may relate to music therapy. Nilsen further noted that music therapy is conducive to flow theory and thus might have the capability to support client health. Fidelibus (2004) completed a dissertation concerning the relevance of flow specific to the clinical improvisation process. During the literature review of her doctoral dissertation concerning flow and music therapy improvisation, Wilhelmsen (2012) articulated the link between empowerment theory and resource oriented music therapy (Rolvsjord 2010). Moreover, Wilhelmsen noted that flow might function as a way to articulate experiences within music therapy and to help understand why these experiences can be meaningful. She concluded that flow might serve as an experience in music that can facilitate health as well as action. Additionally, specific to improvisational music therapy, Wilhelmsen (2012) noted that improvisation could be conceptualised as either active (i.e. wherein the client and therapist are actively taking part in the making of music) or passive (i.e. wherein a client or therapist may be listening to the other and not necessarily making music [Bruscia 1987]). Thus, improvisational music therapy can be categorised as either active or passive and thus could be in either of the following sections.

Flow in receptive music therapy interventions

Csikszentmihalyi (1990) noted that when a person is totally emerged in music *listening*, flow could result. Thus, it would seem that people can experience flow during receptive music experiences such as in music medicine or user-preferred live music (Silverman, Letwin & Nuehring 2016). As it is likely that the song or genre may be the flow-inducing mechanism in receptive music therapy due to the lack of interactive or active therapeutic techniques, this highlights the prominence of the music therapy assessment to determine music preferences to enhance the likelihood of experiencing flow. During receptive music therapy interventions such as listening or improvisation, users may also be cognitively active and engaged with the music experience – and thus in a flow state – despite a lack of overt behavioural indicators that they are actually engaged.

Flow in active music therapy interventions

Due to the nature of flow, active music therapy interventions may sometimes be more applicable than receptive interventions for promoting optimal experiences. Songwriting is an active music therapy intervention commonly utilised in clinical work with a variety of therapeutic settings (Baker 2015). In a non-clinical study by Baker and MacDonald (2013), the researchers found that creating lyrics during a songwriting intervention with university students and retirees did induce flow, but it was stronger when music was also created. Thus, when greater degrees of creativity may be necessary – for example, when users are responsible for composing both lyrics and music – there may be a stronger experience of flow.

Since this first exploration of quasi-therapeutic

songwriting experiences captured measurements of flow, flow as an important mechanism of change in music therapy has begun to enter the music therapy literature. Tamplin et al. (2015) proposed flow and meaningfulness in songwriting approaches could, in their theoretical framework, contribute to wellbeing and a more integrated sense of self in people with acquired brain (ABI) or spinal cord (SCI) injury. Meaningfulness was defined in terms of the users' perceived value of both the process and product of the songwriting and measured using the Meaningfulness of Songwriting Scale (MSS; Baker, Silverman & MacDonald 2016). In their follow-up study measuring the mechanisms of change active in a songwriting program with people with ABI and SCI, strong feelings of flow were reported (Baker, Rickard, Tamplin & Roddy 2015). However, strong feelings of flow did not have a significant correlation with the positive changes in self-concept, flourishing, satisfaction with life, positive affect, reduced negative affect and reduced symptoms of depression and anxiety that were measured. While flow is typically related to positive affective variables, perhaps these constructs are not related in this particular clinical population. However, the degree of meaning experienced by the songwriting process was significantly correlated with negative wellbeing indicators suggesting that songwriting led people with ABI and SCI to reflect on their circumstances which in the short-term led to heightened negative emotions but in the long-term were correlated with positive wellbeing indicators. Perhaps in the case of enduring wellbeing challenges, the impact of positive flow may have had momentary or short-term value and not linked to enduring wellbeing issues.

Flow theory was used to explain why children who had experienced homelessness responded positively to participating in a music performance following their participation in a music therapy program (Fairchild, Thompson & McFerran 2016). Qualitative analysis of brief interview data indicated that children experienced feelings of ownership and empowerment through the performance, pride over the group's achievement, and a connection to audience members (family and friends). Taking flow theory as their point of departure, the authors suggested that children experienced flow through a sense of control, empowerment, and achievement during the performance. They extended these ideas by suggesting that the children's capacity to experience flow was impacted by their availability of coping styles, psychological resources, and external supports. Further investigation is needed, however, before flow can be confirmed as the transformative mechanisms underpinning the children's transformation.

Silverman, Baker and MacDonald (2016) analysed data from two related music therapy studies to determine if flow and meaningfulness of songwriting were related to and functioned as predictors of therapeutic outcome within songwriting interventions for adults on an acute care mental health unit (study 1) and adult inpatients on a detoxification unit (study 2). Correlational and multiple regression analyses were conducted on data with inpatients who had participated in a single-session highly structured blues songwriting intervention with a music therapist. Therapeutic outcomes were state indices of hope (study 1; N = 54 adults on an acute care mental health unit) and readiness to change (study 2; N = 170 adults on a detoxification unit). In both studies, there tended to be positive and significant correlations between flow and meaningfulness of songwriting and therapeutic outcomes, which is congruent with data from Baker and MacDonald (2013). Multiple regression analyses indicated that flow was a significant predictor of therapeutic outcome but that meaningfulness of songwriting was not a significant predictor of therapeutic outcome during both studies. The authors concluded that flow may represent a positively framed and less invasive method for measuring patients' perceptions of the therapeutic outcomes.

Flow as a bi-directional therapeutic construct in music therapy

Anecdotally, it seems that many music therapy users experience flow. They often articulate that music therapy was enjoyable and that time seemed to pass quickly. However, as music therapists, we contend that we frequently experience flow ourselves while providing music therapy. As researchers have frequently studied flow from an occupational perspective (Carlson & Clark 1991; Emerson 1998; Jonsson & Persson 2006; Wright 2004) and our occupations are as music therapists, this generalisation seems appropriate. Thus, as both music therapy users and the music therapist can simultaneously experience flow and it can be predictive of therapeutic outcome (Silverman, Baker & MacDonald 2016), perhaps flow is a construct that is related to working alliance in that it can be bi-directional (i.e. experienced by either the client *or* the therapist or the client *and* the therapist). This concept warrants research attention from a variety of paradigms to better understand and utilise flow and ultimately enhance user experiences.

PERSON-ACTIVITY FIT FLOW MODEL AS IT RELATES TO MUSIC THERAPY EDUCATION AND CLINICAL PRACTICE

The person-activity fit represents an integral component of flow and refers to the compatibility of a person's skill level in the execution of a task and the level of skill demands that the person experiences during task engagement (Nakamura & Csikszentmihalyi 2002). Skill-demand compatibility is most likely to result in deep task involvement that is intrinsically rewarding that, in turn, promotes a condition optional for experiencing flow. Researchers have found that the compatibility of task demands and a person's skill set is a "crucial causal factor that determines the level of enjoyment and involvement" (Keller & Blomann 2008: 601). If a task is too difficult or too easy, a person can lose motivation, become frustrated, disengaged, and therefore hinder the possibility of flow. In other words, the music therapy interventions need to be sufficiently challenging – but not overly challenging – to engage the user and the music therapist.

Allison and Carlisle Duncan (1988) noted that tasks that a person perceives as repetitive, simple, or tedious can hinder flow and categorised these tasks as anti-flow. Similarly, activities not providing flow may not have meaning or purpose (Rebeiro & Polgar 1999). According to the theory of optimal experience, a person will experience anxiety if she or he does not have the skills necessary to meet the challenge of the task. Conversely, boredom will ensue if the person has greater skills than those required of the task (Csikszentmihalyi 1998). However, if the person-activity fit is "just right" or balanced, then it can result in a person being engaged, motivated, highly on task, and personally invested in the task for intrinsic reasons. Csikszentmihalyi and Csikszentmihalyi (1988: 261) referred to this as the "flow channel". Thus, the balance or fit of the task demands with a person's skill set is a critical factor. Musicians can likely relate to this idea during the longitudinal study of their primary instrument or voice. The music to be learned should be *just difficult enough* to challenge and engage the musician, but the degree of difficulty should be attainable.

The person-activity fit theory may relate well to designing and implementing music therapy interventions in a clinical context. For example, if the music therapist's task for the users is too difficult, the users (and music therapist) may experience heightened anxiety as they are unable to complete the task. Conversely, if the music therapist's task for the users is too simplistic, the users (and music therapist) may experience boredom as the task is too easily completed. Applying the person-activity fit model to the design and implementation of interventions may provide less experienced music therapists with enough structure and guidance to appropriately challenge their users in an ideal manner to engage and motivate them to participate in the intervention.

Relating the person-activity fit theory to therapeutic encounters, Rubeiro and Polgar (1999) articulated that the user – not the therapist – must be the person to define the experience that results in flow. This is congruent with theories involving the therapeutic alliance, in that the client's perception of the relationship is more important than that of the therapist (Busseri & Tyler 2004).

Four- and eight-channel models

The four- and eight-channel flow models were derived from the person-activity fit concept. As this aspect of flow may be considered an abstract concept, it is often depicted using a visual model. In an attempt to categorise the challenge and skill levels required for everyday occupational experiences, researchers conducting studies using experience sampling methodologies identified a four-channel flow model. This model consisted of flow, boredom, apathy, and anxiety depicted in four quadrants. Noting the limitations of a four-channel model, researchers later developed an eight-channel model by adding control, relaxation, worry, and arousal (Jonsson & Persson 2006).

In an attempt to visually depict the person-activity fit model as it relates to creating and refining music therapy experiences, we designed the model in Figure 1. The optimal balance between high skills and high challenges is referred to as "the flow channel" as explained earlier on(Csikszentmihalyi & Csikszentmihalyi 1988: 261.). We developed this figure in an attempt to help music therapists design appropriate and flow-inducing interventions for their service users. Perhaps appropriately including users – who are able to contribute – in the development of interventions may facilitate flow as the interventions can be specifically tailored to meet the users wherever they are. As music therapists are often familiar with the iso-principle (to best meet users where they are *musically*), this concept may generalise to *interventions* including clinical improvisation, therapeutic songwriting, and lyric analysis. It is hoped that music therapists can utilise this model to facilitate flow-inducing interventions for their users and themselves.

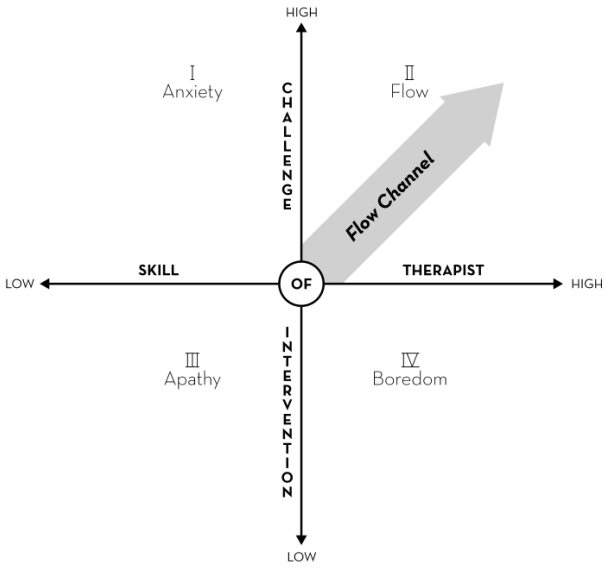

Figure 1: Application of the person-activity fit concept within music therapy

LIMITATIONS OF FLOW THEORIES

While flow experiences can be perceived as a way to improve wellbeing, there can also be "bad flow" (Jonsson & Persson 2006: 63) when flow is addictive. Jonsson and Persson (2006) noted that experiencing too much flow might actually be detrimental to health in that when people organise their consciousness to continually experience flow, important day-to-day tasks and experiences may be inadvertently limited. Jonsson and Persson (2006) therefore articulated the importance of the balance between experiences and occupations, noting that occasional boredom may in fact be a consequential prerequisite for experiencing an altered state such as flow. From this perspective, high challenge tasks should be balanced with low challenge tasks, such as recreation, relaxation, and leisure. Implications for music therapy clinical practice include educating users about engaging in both high challenge and low challenge experiences and tasks so that users are both engaged in challenging and motivating tasks but also not overwhelmed by these as they still engage in tasks that are less challenging.

Another potential limitation is that flow theory does not provide adequate attention to human individuality. Arguing that not all people need to be creative to enjoy the benefits of flow, Reiss (2000) asked if people with cognitive impairments could experience flow. As many music therapists work with people who have some type of limitation or disability, this question and argument may be particularly relevant for music therapists and the appropriate implementation of the person-activity fit model in Figure 1 may be especially relevant. Recent studies indicate that people with cognitive impairments can experience flow (i.e. Baker et al.'s [2015] study of people with moderate ABI and SCI). The question of whether people with significant cognitive impairments can experience flow is an important one. At present, identifying flow in people with significant cognitive impairments is not possible as flow is currently measured by self-report. Therefore, researchers investigating users who are unable to complete self-report instruments due to cognitive impairments are unable to provide data necessary to determine flow as an outcome or predictor of change.

Preliminary neuroscience studies, however, may provide data concerning flow with people with cognitive impairments in the future (Croom 2012; Diaz 2011; Dietrich 2004). For example, it has been suggested that flow may reflect a reduction in brain metabolism (Goleman 1995). Other explanations include neurochemical processes that enable alternation of elation and satisfaction, which also affect cognitive efficiency and creativity (Asby, Isen & Turkel 1999). There is also the suggestion that mesolimbic dopamine activity may also be activated during flow – which provides advance reward information before the user performs the task (Schultz 1998). As neuroscience identifies flow pathways in well populations, we have future possibilities of examining pathways in moderately cognitively impaired people who experience flow (who can self-report their experiences of flow), and then later, with people who are more significantly impaired to determine whether similar pathways are activated during musical experiences.

Finally, Keller and Blomann (2008) found that people with strong internal locus of control experienced flow more than people with a weak internal locus of control. The authors suggested that distinct personality traits and attributes may impact people's ability to experience flow, which is typically characterised with positive affective states. Therefore, this highlights the relevance of the music therapy assessment to screen patients for potential personality characteristics that may impact flow and therapeutic outcome.

CONCLUSION

Although flow may be considered an abstract concept that is difficult to purposely engage in, flow remains a relevant construct that relates to wellbeing, health, and therapeutic encounters. Due to the creative applications of music in a therapeutic context and relationship, music therapists may be uniquely equipped to provide

flow-based experiences for their users. In an attempt to visually depict the person-activity fit model as it relates to creating and refining music therapy experiences, we developed a figure depicting the optimal balance between the therapist's skills set and the challenge of the intervention to facilitate flow from the perspective of the music therapist. As such, flow may represent a highly relevant bi-directional therapeutic construct in music therapy. Additional investigations concerning fostering the flow experience and its applications may be a way to conceptualise mechanisms of change in music therapy, as well as other creative arts therapies. Future research using various data types and paradigms is warranted to better understand this concept and resultant therapeutic implications to best meet the needs of music therapy users.

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