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**Influence of Dance on Embodied Self-Awareness and Well-Being:  
An Interpretative Phenomenological Exploration**

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## **Influence of Dance on Embodied Self-Awareness and Well-Being:**

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#### **Abstract**

This qualitative research aimed at exploring personal dance experience and influence of dancing on the evolution of embodied self-awareness and well-being.

Semi-structured interviews were conducted with three participants (one female, two males), and the data were evaluated using Interpretative Phenomenological Analysis.

Six themes were identified: (a) freedom of expression through dance, (b) perceptions of fun and partner dance vs. dancing alone, (c) flow in dance, (d) sensations and sexuality in dance, (e) music and rhythm in dance, and (f) impact of dance on life and the self. Participants reported that dance led to higher embodied self-awareness and creative self-expression and was deemed to improve health and well-being.

Our findings help increase the utility of dance as a well-being approach, stress coping intervention and countermeasure to depression and loneliness. They make aware of the use of dance as a creative tool in inducing positive transformations on individual and societal levels.

*Keywords:* embodied self-awareness; dance and well-being; dance and sexuality; creativity; Gestalt; Interpretative Phenomenological Analysis

## Introduction

This study investigated the influence of dance on the phenomena of embodied self-awareness and well-being with the objective to explore personal dance experience and influence of dance on the evolution of embodied self-awareness and well-being. In spite of the growing number of studies on dance and the self, evidence of various aspects of the effects of dance as a holistic phenomenon is still insufficient (Schwender et al., 2018). In addition, there have been few studies regarding the impact of dance on health and well-being (Marquez et al., 2017). This study holistically appraised dance and its influence on well-being and embodied self-awareness.

Well-being is a perceived satisfaction with mental and physical health and social interactions (Hanna, 2017). Contrary to the commonplace cognitive understanding of self-awareness, embodied self-awareness is non-judgemental bodily “awareness of moving, sensing, and emotions” (Fogel, 2013, p. 11), therefore critical to mental and physical well-being. Loss or suppression of embodied self-awareness or its somatisation due to distress, trauma or threat, can result in diverse conditions including depression, anxiety, impairment of the immune and endocrine systems, sexual disorders as well as problems with interpersonal relationships (Fogel, 2013). Embodiment practices such as dance can help access the needed insights and restore embodied self-awareness (Panhofer, 2017). Despite the importance of the body-mind connection to our well-being, qualitative research that examines related personal experience has been limited.

Dance is “one of the most ancient forms of healing” (Koch et al., 2014, p. 46). Indigenous cultures in North and South America, Australia, Middle East, Asia, and Africa have a long history of using dance as the means of healing through approaching a person in a holistic way and involving the community to overcome helplessness (Hanna, 1995). This research addressed healing power of dance as a holistic well-being approach and a countermeasure to loneliness.

Positive influence of dance on human beings is diverse and involves different facets, namely psychological, physiological, cognitive, spiritual, and social (Hanna, 1998). Dance helps reduce affective disorders, neurodegenerative diseases and pain, and has positive impact on the immune

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system, metabolic and cardiovascular health. Moreover, dance also positively influences body perception and contributes to well-being and experiencing joy (Hanna, 1995; Hanna, 2017; Koch et al., 2014; Lovatt, 2018). While these studies reported positive end-results of dance, lived experience of dance practitioners and how dance impacts on their well-being have not been explored in-depth to date.

This study added on the positive influence of dance on well-being particularly against stress and its contemporary epidemic dimensions (Abraham et al., 2016; Braun, 2019; Hanna, 2017). Although dance as a stress coping intervention is becoming increasingly supported by evidence, it still remains to be further appraised. In spite of being an effective and inexpensive method without any side effects, dance has not become a widespread prescribed practice yet (Murcia et al., 2010). There are just a few precedents of prescribing dance by health care practitioners, where patients' insurances cover the costs of dance classes such as social prescribing of dance classes to people suffering from loneliness in the United Kingdom (Alberti, 2018). The integrative science discipline of psychoneuroimmunology, which provides holistic root cause analysis of stress, supports multilevel positive effect of dance as an integrated mind-body intervention on physical and psychological functioning (Bauer-Wu, 2002). Our findings provided further evidence on dance as a stress coping intervention.

Another aspect of dance as a relational practice that can contribute to our well-being is touch, which is a fundamental element of dance (Block & Kissel, 2001; Brandstetter et al., 2013; Poikonen, 2017). In the current age of loneliness affecting the neglected body as much as the mind, dance provides a natural way of social relationships, particularly for those living alone (Alberti, 2018; Monbiot, 2014). Touch deprivation results in negative health impairment and abnormal behaviour (Harlow et al., 1965; Montagu, 1986). Touching and being touched strengthens immune system, contributes to positive emotions and relieving from stress and anxiety through releasing oxytocin, raising levels of dopamine and serotonin, and increasing parasympathetic relaxation (Fogel, 2013;

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Kalat, 2013). Beyond that, touch and dance enhance embodied self-awareness and leverage mindful presence, which our research refers to (Bacon, 2017; Fogel, 2013).

Mindful presence, awareness, creativity, and experiential engagement are essential to dance and have a strong analogy to the relational Gestalt therapy addressed in this research. Awareness is determined by connection, sensitisation (setting all senses into motion) and energetic culmination, leading to the creation of a whole experience or a gestalt (Chaiklin & Wengrower, 2009; Perls et al., 1951). This whole experience is the flow that accompanies the best moments of dance, a state of complete absorption by an activity (Csíkszentmihályi, 1990). According to Poikonen (2017), dance and flow enable an intuitive neural network, which leverages creativity. Given this close linkage between creativity, dance and well-being, it is worthwhile to explore embodied self-awareness manifested in dance. Accordingly, this research aimed at exploring how people experience the influence of dancing on the evolution of their embodied self-awareness and well-being.

## **Methods**

### **Analytic Procedure**

Creativity and experiential engagement are distinctive for the qualitative research method of Interpretative Phenomenological Analysis (IPA) chosen for this study (Smith et al., 2009). The analytic process of this method “involves flexible thinking, [...] creativity and innovation” and “is open to change” (Smith et al., 2009, p. 81). Since this research explored lived experience with dance, embodied self-awareness and well-being, its interpretation and analysis, IPA was applied because of its focus on phenomenology, hermeneutics and idiography (Smith et al., 2009). Phenomenology studies subjective, lived experience, a phenomenon, in a non-judgmental way. Hermeneutics interprets this lived experience. Idiography deals with deep analysis of an experiential phenomenon from the perspective of a particular person, who went through this experience. This researcher’s making sense of how participants make sense of their lived experience is also called double hermeneutics (Smith et al., 2009). Embodiment, which is a pivotal concept in this study, is of utmost importance to phenomenologists. Embodied awareness and embodied experience play a central role

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in the IPA research (Smith et al., 2009), contributing to the neuroscience of interconnectedness between mind and body (Fogel, 2013).

Gaining subjective, particular knowledge, reflecting and making sense of it is central in the given analysis (Smith et al., 2009). Idiography differs from the nomothetic approach of mainstream psychology, where data are generalised preventing the focus on the individuals, their unique experiences, feelings and thoughts (Pietkiewicz & Smith, 2014; Smith et al., 2009). Gaining the knowledge of how people make sense of a specific experience, encouraging transferability of the findings and applying their implications in another context enables significant social change (Copteros et al., 2017; Smith et al., 2009).

### **Reflexivity**

As IPA involves reflective engagement with the participants' narratives and their interpretation (Smith et al., 2009), the influence of the lead researcher's perspective and experience on that is acknowledged. This included personal experience with various dances and other embodiment practices, phenomenology, Gestalt therapy, counselling, and critical psychology.

### **Data Collection and Participants**

Data collection was conducted following at all times the British Psychological Society (BPS) Code of Ethics and Conduct (BPS, 2018) and the BPS Code of Human Research Ethics (BPS, 2014), ensuring privacy and anonymity of study participants.

The study represents a case study of three middle-aged participants (Table 1) from different European countries and backgrounds, exploring their lived experience with the phenomenon of dance. We chose a case study as the study design because it provides rich qualitative data, in-depth insights into the unique lived experience, interconnections between different parts of a narrative, and encouragement of further research (Eatough & Smith, 2008; McLeod, 2019). Mental health professionals prefer application of case studies in research, particularly within holistic humanistic approach, which phenomenology belongs to (Eatough & Smith, 2008; McLeod, 2019). IPA is suited in an excellent way for a case study to provide the depth and richness of the individual lived experience

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as it is committed to the idiographic case analysis of a specific phenomenon explored (Eatough & Smith, 2006; Eatough & Smith, 2008; Smith et al., 2009). Sample size is contextual in IPA, which encourages a “less is more” approach as an enabler of an in-depth analysis of individual cases and development of idiographic case studies of meaning making (Eatough & Smith, 2006; Eatough & Smith, 2008; Pietkiewicz & Smith, 2014; Reid et al., 2005; Smith et al., 2009). In IPA, generalisation is established by enabling theoretical transferability: the readers of the research translate its findings and possible implications to their own context and experience (Smith et al., 2009).

### Table 1

#### *Participants of the study*

Participant	Pseudonym <sup>1</sup>	Gender	Country of origin	Education level
Participant 1	Samuel	Male	Great Britain	Tertiary
Participant 2	Algo	Male	Switzerland	Tertiary
Participant 3	Mariposa	Female	Italy	Tertiary

<sup>1</sup> All pseudonyms were determined by the participants themselves.

Participants were recruited from authors’ networks. Neither intimate friends nor relatives were included in order to avoid bias and ensure authentic responses (BPS, 2014). An informed consent was obtained from each participant. All study participants were adults with no diagnosed mental health illnesses within the last six months prior to interviewing, involved in different kinds of partner dancing and at least six months of regular, at least one-hour weekly, dance practice.

The participants were given a choice to provide data of their lived experience with dance either in interviews or in writing. Samuel and Mariposa chose to be interviewed via video-conferencing, as they lived far from the interviewer, the lead researcher. Their video-conference interviews were done once and lasted for at least 60 minutes each. Data were transcribed verbatim by the lead researcher. Algo chose to respond to a written interview as he preferred to slowly reflect

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on each question on his own. Follow-up emails were exchanged to clarify his responses until he confirmed the accuracy of data. The same ten open-ended, non-directive questions and subquestions (see Appendix) were asked to all participants.

Neither payments, rewards nor incentives were made to the participants. No deception was involved: participants were fully informed about the purpose of the study. As some people might feel uncomfortable when talking about their personal bodily experience, the lead researcher made sure the participants were informed about available mental health support addresses should they experience any kind of discomfort.

### **Analysis**

The analysis was conducted systematically and in detail, in accordance with the IPA criteria. This included a strong idiographic component, which ensured that the analysis is not just descriptive but interpretative providing insights about the participants and their stories (Smith et al., 2009).

First, each participants' case was analysed individually. The interviews were listened to carefully and the written transcripts were read and re-read. This allowed for a deep immersion into the story of each participant with valuable insights that often were not obvious during the initial examination. These exploratory interpretative insights were noted in a free text, keywords and phrases in a creative process, which could be best described as the flow. Particular attention was paid to the language the participants used that included various metaphors. This facilitated a deeper understanding of the meaning of the participants' accounts. The initial notes were transformed into the conceptual and more interpretative comments and subsequently led to the development of the emergent themes (Smith et al., 2009).

For the identification of the emergent themes of each case, the analysis continued on the basis of the initial exploratory noting. Moving from the whole to the parts, the rich participants' data were structured and compressed while keeping the complexity of the content. The level of interpretation was deepened on this stage merging with a descriptive level. The themes were first identified in the same sequence as they emerged throughout the case and then connected and

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clustered into sub-ordinate themes allowing the researcher identify common patterns between the themes and merge the most important of them together. The choice of the themes was focused on the research objective. The identification of common patterns was facilitated by the means of the creative subsumption and abstraction processes, summarising and subordinating several themes under a common one and reframing several related themes into sub-ordinate (Smith et al., 2009).

Following this, the next layer of the creative process of search, identification and the analysis of common patterns across all the cases commenced. The most characteristic themes were crystallised out of all the sub-ordinate themes, embodying patterns common to all the cases but at the same time maintaining unique features of the individual cases. This resulted into the individual sub-ordinate themes being clustered into super-ordinate themes (Smith et al., 2009).

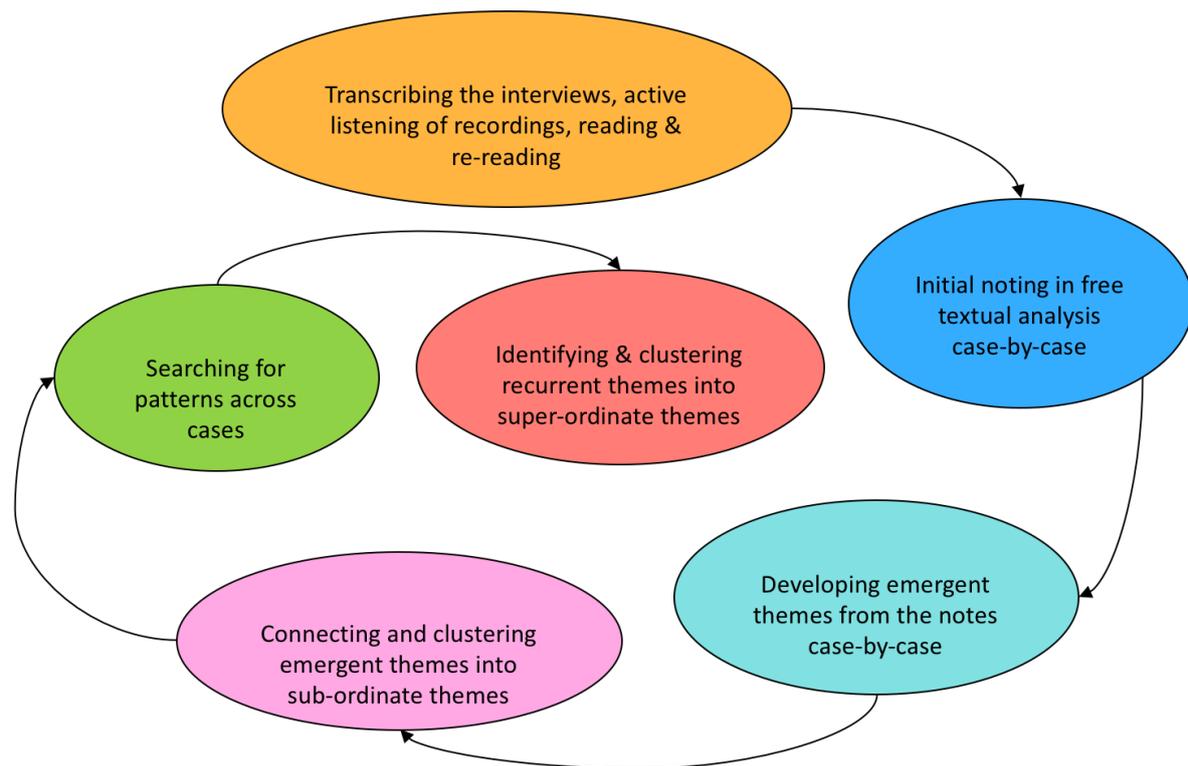
Credibility was ensured by the means of the richness of the data gathered and produced, traceable filing of the data, their availability and a systematic analysis, and an independent audit (Smith et al., 2009). The independent audit was conducted by the second researcher, who agreed with coherence and legitimacy of data interpretation.

Researches gained insights on the subjective lived experience of the participants with dance and its influence on their embodied self-awareness and well-being. It required reflective engagement with the participants' accounts and involved a serendipitous process of the interpretation. The analytic process is graphically summarised in the Figure 1.

### **Figure 1**

*Reflective engagement with the participants' narratives of their lived experience is at the core of the analytic process of IPA.*

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## Results

Although all three participants had diverse backgrounds and personalities, six common super-ordinate themes were identified and built an insightful co-created case study of the influence of dance on the participants' embodied self-awareness and well-being.

### Theme 1: Freedom of Expression Through Dance

One of the themes that emerged among participants while thinking about dance was expressing themselves.

Samuel stated spontaneously straight away his life-long interest in dancing: "I've always loved dancing" and its connection with self-expression: "It's about expressing yourself."

Movement played a central role in his account and flowed seamlessly into his professional choice that has a strong connection to the bodily expression: "So I've always enjoyed moving, and part of my Gestalt training was about how to use your body." Samuel seemed to be a highly tactile person, who embodied his emotions.

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This was echoed in the narrative of Mariposa, who stated her innate love for dance: “Dance helped me a lot with the body [...] to be very creative in my movements and really embody the emotions and the sensations.” Mariposa added an aspect of creativity to her self-expression. It seemed to have helped her much in bringing variety in how she moved in relation to what she felt.

Algo made his emphasis of self-expression on freedom: “Generally gives a liberating feeling. [...] The more the music motivates, the more liberating the feeling becomes.” Freedom of expression became expression of freedom for Algo. What did he want to liberate himself from? It could be stress, and it could also be any social restrictions.

## **Theme 2: Perceptions of Fun and Partner Dance vs. Dancing Alone**

A new complexity was put on the aspect of fun in connection with dance, the next theme that stood out in all three accounts. Participants put different emphases to the meaning of fun.

For Samuel, fun seemed to be not a self-purpose but rather a nice-to-have, since he experienced dance as a form of connection on a deeper level. He seemed to perceive fun as opposed to deep satisfaction: “I don't find it particularly deep or profound, or deeply satisfying but it's fun.” A slight tone of a derogatory attitude was felt in the word fun, which was associated for him with something superficial (“lightweight”). This was not associated for Samuel with dancing on his own: “I'm never really satisfied with dancing on my own now, [...] I want it by sharing.”

On the contrary, Algo used fun in purely positive relation. Fun was one of the main reasons to be involved in dance and a way to escape boredom. Differently to Samuel, Algo seemed to enjoy dancing alone more than dancing with a partner because he experienced partner dance as restrictive and not allowing a total letting go: “Dancing alone in general is freer, as I can do whatever comes to my mind without leading my partner.”

For Mariposa, fun was related to joy: “[I] feel the joy in myself through the dance.” Still, an interesting polarity was reflected in her narrative in relation to fun as opposed to seriousness. The implications of her family perception of the arts as “a waste of time” and conditioning for “work” and achievement in childhood played a significant role in forming Mariposa as a person, who

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obviously felt differently in her heart. Being controlled by family expectations triggered her need to control herself and to achieve results measurable in the eyes of the society. She further suppressed her self-realisation and adjusted it to the assumed external expectations when she moved abroad: "I was so different from the people here that I've started feeling that I was not good." Being different but having learned to adjust and control herself led Mariposa to self-suppression. As the analysis of the Theme 6 will show, this had negative consequences for her health.

### **Theme 3: Flow in Dance**

The next theme stepped deeper into the essence of dance and movement, which could be described as flow.

Samuel, who practices tango, mentioned flow in his narrative and put it nicely in relation to dance calling it "magic moments": "This is what I spend all of this time learning this stuff that when it works it's lovely!" Passion came through Samuel's words, when he spoke about tango and the connection that was key to developing the magic of flow for him: "It was always on my mind that the essence of tango is very similar to that of Gestalt in the quality of the connection." Samuel explained this connection with another metaphoric word "chemistry", which was a prerequisite to developing a deeper connection. Literally, it needs two to tango.

What could else enable establishing flow in dance? It might be experience but Samuel debunked this myth. "Quality" came before quantity in establishing connection and flow in dance.

Presence was one of the main prerequisites of entering the state of flow, and it appeared prominently in the narrative of Mariposa, who practices therapeutic dance: "If you want to create presence, it's important also that the person is aware of where he is, in which space." Spatial awareness was a reflection of Mariposa's sensitivity, which she mentioned in another part of her narrative: "I'm sensitive". Spatial awareness is an important indicator of presence and how space is used (Chaiklin & Wengrower, 2009; Ho, 2019).

Algo, who practices various social dances, experienced the moments of flow or "the floating state" as he called it while dancing alone. He seemed to associate the flow mainly with music rather

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than connection. His striving for freedom and liberation seemed to play an equally significant role in relation to whether he could “float” or not. Comparing seamless movements to the “instinct” indicated unconditional freedom of constraints. The wildly dancing bird from a movie Algo chose as a comparison reminded of the metaphor ‘free like a bird’, pointing again to Algo’s drive for freedom.

#### **Theme 4: Sensations and Sexuality in Dance**

Participants experienced a wide range of sensations in dance. When asked about his sensations while dancing, Samuel answered expressively: “There’s a whole massive range.” This evoked a picture of a volcano eruption and a comparison of dance to a powerful valve of releasing emotions, a way of cathartic ventilation. But Samuel’s sensations were not only joyful as he mentioned “a huge amount of frustration”. Becoming an expert dancer sharpened his senses and increased his expectations towards himself, which is positive on the one hand: like in the Socratic paradox, the more an expert knows, the more they realise the huge realm of improvement. On the other hand, this meant a constant inner conversation and perpetual underlying fears of not being good enough, as Samuel confirmed: “[It is] embarrassing, anxiety-provoking, when I have a partner, who’s better than me”. When experienced, these sensations could stay in the way of entering the state of flow and those “magic moments” Samuel cherished so much.

Algo’s sensations were focused on “relaxation” and a “deeper satisfaction”, which he compared to the sensations “like after meditation.” This might also be a way to escape stress.

Dance seemed to be a valve of emotional release for Mariposa as well: “[It is] the opportunity to allow anything to come out.” Further sensation mentioned by Mariposa was related to dancing barefoot. Two notions mentioned were central there: “block” and “contact”. Blocking the toes might have been a form of suppression and limitation of freedom for Mariposa. Due to her sensitivity, contact with the floor while dancing was important to Mariposa. Dancing barefoot increases sensitisation, leverages balance, and is believed in indigenous cultures to evoke energetic connection with the earth and ancestors. This is comprehensible also from the anatomic angle as feet contain thousands of nerve endings, which make them extremely sensitive.

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Sensations of sensuousness and sexuality in dance built another prominent aspect in this theme. Samuel elaborated on that on the example of tango:

So one interesting thing is the sexuality in it. [...] On the outside, it looks very sexual. On the inside, it doesn't really have that flavour much at all. Because it's more about how do we work together [...] It's making it look good.

Samuel reflected on the sensations of sensuousness in dance holistically, both as an observer, from the perspective of the audience, and as a dance practitioner, from the perspective of a performer. From the angle of a performer, the objective might be exactly in transmitting the sensations of sexuality and sensuousness to the audience. Interestingly, Samuel's embodied experience contradicted some research related to dance and sexuality, specifically with regard to tango: "The Argentine tango is filled with latent and ambiguous sexuality" (Hanna, 2010, p. 228).

Mariposa elaborated on sexuality from a different angle recalling her sensations of menstrual pain relief through dance: "After half an hour [of dancing], I didn't feel anything."

### **Theme 5: Music and Rhythm in Dance**

The next theme, which was distinguishing among all study participants, related to music and rhythm as drivers to dance. Music was a source of enjoyment and emotional expressiveness, which all study participants reported in their narratives. Samuel described deep emotional background that tango music has inherited from its historic development: "It has that sensuous feeling as you shift between one rhythm and another, so this [is an] incredibly dramatic music." He talked about tango music in a picturesque language and masterfully transferred the feeling between "a huge emotional drama" and "sensuousness" in each rhythm that he was able to distinguish.

The passion for music seemed to be the trigger to dancing for Algo, and reminded of a strong instinct that needed to be gratified immediately like one's inner child:

[N]ot being able to simply start dancing, and let yourself [be] guided by the music, is like watching a box of candy and not being able to get one.

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Mariposa seemed to be similarly passionate about music and able to stay in the here-and-now with it. Staying present required a non-judgmental attitude and self-sufficiency. Mariposa has obviously come a long way to develop this kind of maturity compared to her experience in the past.

I don't dance in order to get thinner or get less weight [...] My intention is to purely enjoy the dance and the music. [...] If I hear a nice song in a supermarket, [I] start dancing, I don't care that much [about] these judgmental people.

### **Theme 6: Impact of Dance on Life and the Self**

In the last theme, participants reflected on the impact dance had on them, their life and well-being. Samuel said: "Physically, I've developed a much better posture, [I'm] much more aware of my body, especially my openness in my chest." Samuel seemed to put it on the equal level with the awareness of his body. Dance seemed to have contributed to Samuel's embodied self-awareness.

Regarding the overall impact of dance on his life, Samuel shared his insight: "My life has impacted my dancing more." Samuel reversed the sequence of influence by saying that life has impacted the way he danced and dance has been "a mirror" of his life. Holistic and creative thinking of Samuel could be derived from this thoughtful statement. How he danced and what he experienced while dancing has evolved and changed during different life events.

The aspects of recreation and freedom were the main outcomes of the impact of dance Algo has experienced. The level of "liberation and relaxation" became significantly higher than prior to Algo's experience with dance. Dance was also a stress coping mechanism for him:

During stress periods, it has a similar effect like a good movie or a day off: you can completely detach from all the worries and thus give the mind (and soul) a break.

Mariposa mentioned several difficult life events, where dance had a positive effect on her mental health: a burnout and her father's death. She referred to the lack of contact to her body as a reason for developing a burnout: "[...] because I had no contact with my body". This led her to a career change into a profession connected with body work: "[...] and then a new world opened up". This might have increased her embodied self-awareness and well-being.

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Mariposa experienced the loss of her father, who seemed to have played an important role in her life. She mentioned pain she had sensed in connection with that: "It was a way of get[ting] in touch with the pain and just allow the pain to be there." Dance was a catalyst of learning to stay with painful sensations instead of trying to suppress them, which led to a more mindful and sustainable processing of pain and grief.

At the end, Mariposa rounded up the impact of dance and looked back at her life experience: "I'm very happy with the full package of pain and joy the life brought." She seemed to sincerely appreciate all life experiences she had and not judge herself by her achievements anymore. She said this as a reflection at the end of the interview, after a moment of silence and with an obvious tone of satisfaction. Transformative impact was what Mariposa seemed to highlight with regard to dance and its influence. It led her to a deeper connection to her body and mind, and thus to the increased embodied self-awareness, which in turn led to positive life transformations: "When you start being aware of the body and how the body responds to [a] situation [...] then the transformation begins."

### **Discussion**

This research followed the purpose to explore personal experiences of the influence of dance on the evolution of embodied self-awareness and well-being. Three dance practitioners were interviewed semi-structurally, and the data were examined through IPA assessing lived experience of the participants in a case study. Six common themes were identified: (a) freedom of expression through dance, (b) perceptions of fun and partner dance vs. dancing alone, (c) flow in dance, (d) sensations and sexuality in dance, (e) music and rhythm in dance, and (f) impact of dance on life and the self. These findings provided further evidence for positive influence of dance on embodied self-awareness and well-being.

This study strengthens the evidence that dance improves embodied self-awareness and is a powerful mean of self-expression (Panhofer, 2017; Sheets-Johnstone, 2019). It provides meaningful insights for the considerable and reciprocal impact of dance on life and the self. It adds on the evidence that the mind is embodied (Fogel, 2013), that the holistic perception of body and mind

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contributes to the healing state of flow and intensifies mindful experience of sensations. Human visceral desire to dance as an original way to express oneself has been suppressed as modern Western society has increasingly developed towards individualism and compartmentalisation or separation of body and mind (Pratt, 2017), whereas our body plays a central role in our cognitive and emotional processes (Nummenmaa et al., 2018).

This study provides the insight of the richness of dance modalities including partner dance and dancing alone increasing the awareness of collaborative experience as opposite to the unrestricted self-expression. It made aware of the diversity of perception of various dance practices and the fact that fun is not necessarily something positive per se. Perception matters and nothing can be taken for granted, otherwise it fosters judgmental attitude and may lead to bias and stigmatisation.

This research adds on the evidence of positive impact of dance on female sexuality contributing to the relief of non-pathological menstrual pain or primary dysmenorrhea. It provides further evidence that dance is a major medium of sexual expression (Hanna, 2010). Manifestation of sexuality in dance is influenced by religious beliefs and societal norms (Hanna, 2010): dance mirrors development of society and has played a revolutionary role in its transformations. While the body as an instrument of sex and source of passion is being feared in Christianity, which accepts mind-body dualism, indigenous religions like African and their Caribbean voodoo descendants strongly involve body and spirit into their religious practices (Hanna, 2005). The deities or orishas of the related Cuban Yoruba Santería religion have each their own spiritual meanings and specific ritual dances embodying their aché or energy (Bolívar, 2005). Rwandan traumatised by genocide maintained a healing practice of getting the community together out into the sun, music and drumming. They could not understand Western mental health aid workers taking traumatised people one by one to a gloomy room and talking to them as it made the gloom just gloomier and increased suicidality (Solomon, 2008). Our findings encourage diversity and inclusiveness of healing practices and strengthen the evidence that people can heal, creatively embody and communicate their feelings through dance, music and rhythm.

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Music and rhythm were identified as drivers to dance and boosts of well-being. Dance and music combine leveraging of embodied self-awareness with creative expression and sensibility (Fogel, 2013). Compared to other stimuli, music generates emotional reaction in a particularly intense way: pleasure caused by music activates brain networks, dopamine circuitry, which are included into the reward system (Brodal et al., 2017). Rhythmic music stimulates basal ganglia, the part of the brain connected with music and dance, and provokes spontaneous movements (Brodal et al., 2017). Listening to music heightens peripheral levels of oxytocin, rhythmic music benefits increase of cortisol, whereas relaxing music leads to its decrease (Miani, 2016). Increase in oxytocin contributes to the reduction of anxiety and increased feelings of relaxation, whilst decrease of cortisol indicates lower levels of stress (Kalat, 2013). Thus, music enhances well-being.

Our research addresses the gap in the literature related to the sparse evidence of various aspects of the effects of dance as a holistic phenomenon from the perspective of subjective lived experience, scarce research on the impact of dance on well-being along with the shortage of idiographic case studies on these topics (Marquez et al., 2017; Schwender et al., 2018).

### **Implications for Mental Health Professionals**

There are practical implications for mental health professionals based on our findings. They suggest that dance leads to higher embodied self-awareness and self-expression inducing life-changing transformations. They exemplify the contribution of partner dance to the increased ability to collaborate bringing about the sensation of flow and countering loneliness through social interaction and tactile experience. The diversity of possibilities of dance practice that includes dancing alone is particularly advantageous for the challenging time of the pandemic and physical distancing it requires. Dancing alone does not have to be a lonely practice and could be done in a community using online technologies.

Our findings indicate the impact of dance on the expression and perception of sexuality and suggest that dance is a creative tool in inducing societal transformations and destigmatisation of body and sexuality. They reinforce the evidence of the influence music and rhythm have on the way

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people dance and their drive to move boosting their well-being. They provide further evidence of mutual influence of dance and life on each other, the ability of dance to improve well-being and to be an effective stress coping mechanism. Dance has a nonverbal cathartic ventilation effect, which could be particularly healing after a traumatic event (Everly & Lating, 2017). That could be especially topical in the current realities of the pandemic that qualifies as a disaster and holds a strong risk of inducing a collective trauma.

Our findings support the importance of the holistic perception of human being and the advantages of body-mind integration for mental health (Lee & Irwin, 2018). Moreover, they add on the evidence that dance is a catalyst of embodied self-awareness as it unites music, movement, touch and conversation (Fogel, 2013). Based on our findings, music and rhythm should be increasingly used as therapeutic instruments and conscious motivation tools to dance and movement contributing to the improvement of both mental and physical health.

#### **Limitations and Recommendations for Future Research**

The lead researcher is an experienced dance practitioner therefore interpretation of data might have been biased. This was addressed by the second author reviewing the research process including data interpretation and reporting.

More studies with further practitioners of different dance styles would be helpful to support transferability of the findings and gain more diverse perspectives. Based on our study, further cross-functional phenomenological and field research involving dance practitioners and social scientists would be of great advantage for a deeper understanding of embodied social practices and leveraging needed societal transformations (Hanna, 2010). It is recommended to start with dance classes early at school and to introduce them as one of the major subjects to address body esteem early enough and to develop naturalness and destigmatisation of dance and body in society (Nielsen & Burrige, 2015; Robinson & Aronica, 2018). This would contribute to the release of dance from the flavour of oversexualisation and to the acceptance of the own body. It would imply the balance between the

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extremes of prudishness and depravity and decrease the danger of assaults in places of social gatherings.

Based on our findings, a significant contribution could be achieved by further research on the relieving influence of dance on primary dysmenorrhea. This would improve the quality of life of affected women and decrease consumption of pain medication along with its adverse effects. There are just a few research attempts dedicated to primary dysmenorrhea in relation to dance investigating its obviously positive influence on pain relief. For example, in her book about belly dance, Hobin (2015) touches on her observations of menstrual pain relief her clients reported after having attended her dance classes. In another research related to aerobics and primary dysmenorrhea, Sutar et al. (2016) state that although exercise is often mentioned to have an effect of pain relief, there are only a few research studies on that.

## **Conclusion**

Although the advantages of dance for well-being have been reported statistically, the impact of dance on embodied self-awareness and well-being has not been investigated from the perspective of dance practitioners. Our analysis identified that dance led to higher embodied self-awareness and creative self-expression influenced by life events. Moreover, dance was deemed to improve health and well-being through experience of flow, fun and sexuality. Our findings help increase the utility of dance as a well-being approach, stress coping intervention and countermeasure to depression and loneliness. Furthermore, they are useful in reducing stigma and critical views on body in society. Lastly, our findings make aware of the use of dance as a creative tool in inducing positive transformations on individual and societal levels.

People from traditional cultures have been using dance as something natural and indispensable in many areas of their lives, from daily customs to healing. It might be wise to finally let go of neo-colonial hubris towards the indigenous cultures, where original connectedness to the nature and thus to the body has been kept alive. It could be learned a lot from reconnecting to ourselves. Maybe we should talk less and dance more to make this world a better place.

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The authors state that they have no conflicts of interest.

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## Appendix

### Questions of semi-structured interviews

1. Please tell me about your experience with dance.
  - 1.1. When did you start dancing?
  - 1.2. What did lead you to partner dance? / Why did you start partner dancing?
  - 1.3. What kind of dances are you practicing?
  - 1.4. How often are you dancing?
2. How does it feel for you to dance?
  - 2.1. How does it feel for you to dance with a partner compared to dancing alone?
3. What do you feel you are gaining from dancing?
4. How are you experiencing yourself while dancing?
  - 4.1. Please tell me what comes first to your mind. If you wish, you can use metaphors or pictures to help you to express that.
  - 4.2. Specifically, how are you experiencing your body senses, movements, emotions, thoughts?
5. How were you experiencing yourself before you started dancing?
  - 5.1. Please tell me what you remember from that time and what comes first to your mind
  - 5.2. Specifically, how were you experiencing your body senses, your movements, your emotions, your thoughts before you started dancing?
6. What can you reflect upon if you compare yourself now and before you started dancing?
7. What do you feel and think dance contributed to your life?
  - 7.1. If applicable, what life changes did you experience, which were linked to dancing?
8. How would you be and feel yourself if you imagine you'd have never started dancing?
9. How did dancing impacted your health and well-being?
10. Please reflect on each question and your answers and think about anything else, which may come to your mind. Do you want to add or elaborate on something?