

Holistic Movement Practices – An Emerging Category of Physical Activity for
Exercise Psychology

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Highlights

1. Modern-day physical activity increasingly includes holistic movement practices (HMPs)
2. HMPs are physical practices embedded in holistic philosophies of well-being
3. Treating HMPs as a category of physical activity should encourage systematic study
4. HMPs' holistic nature will affect issues of participation, delivery, and outcomes
5. The multicomponent nature of HMPs offers unique challenges to exercise psychology

Abstract

Background: Exercise psychology has an interest in physical activity behaviour and the psychological dimensions of physical activity delivery and outcomes. Holistic movement practices (HMPs) can be defined as physical practices embedded in holistic philosophies of well-being. As such, they go beyond what is typically offered in exercise contexts to purposefully include mental, emotional, social and/or spiritual components. Traditional Eastern movement practices (e.g., Yoga, Tai Chi, Qigong) are examples of HMPs, but a range of lesser known “Western-born” HMPs (e.g., 5Rhythms, Biodanza) also exist. HMPs have not yet received much structured attention within exercise psychology.

Objective: to analyse the nature of HMPs and discuss their relevance to the field of exercise psychology, with a view to raising awareness of HMPs within exercise psychology as well as encouraging and supporting future research.

Content: We discuss what we see as commonalities among HMPs and argue that it is useful to treat HMPs as a category of physical activity for exercise psychology, not only because they are forms of physical activity but also because psychological dimensions are an integral and purposeful part of these practices. We provide a tentative conceptualization of HMP philosophies, with brief examples, and consider how exercise psychology’s subfields of participation behaviour, delivery parameters, outcomes, and mechanisms are applicable to the study of HMPs. Last, we briefly explore research issues, including HMPs’ multicomponent nature, selected potential mechanisms, and methodologies.

Conclusion: HMPs are part of the leisure-based physical activities landscape in many modern societies, and deserve attention by exercise psychologists. Their embeddedness in holistic philosophies and multicomponent nature provide unique opportunities and challenges for research in exercise psychology.

Key words: mind-body; conscious dance; mindful movement; physically active leisure;
spirituality; Eastern movement

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Psychology

Exercise psychology¹ is about the psychology of health-related physical activity behaviours (Biddle & Vergeer, 2019), with a particular focus on the psychological factors affecting adoption and maintenance of physical activities, and the psychological outcomes of physical activity involvement. Attention is typically directed at physical fitness-oriented movement activities in various structured and non-structured contexts, such as fitness classes, gym workouts, running, cycling, swimming, walking, etc. (Biddle, Mutrie, & Gorely, 2015). While the main focus of these activities lies in providing a form of physical exercise, for some time now, the physical activity field has also included a range of practices that have aims beyond the physical. Incorporating a variety of additional components, these practices go beyond typical fitness goals to include mental, emotional, social, and/or spiritual aspects of well-being. Because of these more holistic aims, we refer to them as *holistic movement practices* (HMPs). Yoga and Tai Chi are prime examples of HMPs but there are also a number of lesser-known HMPs, and they have not yet received much attention within the field of exercise psychology.

As exercise psychologists, we believe that HMPs deserve our attention and that we need to have a better understanding of these practices in order to study the role they play in health-related physical activity behaviour. Such understanding may also benefit fields and professionals with overlapping interests to exercise psychology, for example, health psychology, occupational therapy, physical therapy. This paper, therefore, is intended to create awareness of HMPs and point out their relevance to research in exercise psychology. We aim to outline what HMPs are, discuss why we believe it is useful to treat HMPs as a

¹ We will use the term “exercise psychology” in its broad sense to refer to the psychology of physical activity in general.

category of physical activities, and why we think they are of interest to the field of exercise psychology. We also propose a number of potential research directions and questions.

What are Holistic Movement Practices?

HMPs can be defined as physical practices embedded in holistic philosophies of well-being. The term “holistic” in this context refers to notions that a) well-being concerns the whole person and not just their physical health (practically, this means including aspects like mental, emotional, social, spiritual, and/or cultural dimensions), and that b) the whole is more than the sum of its parts – individuals are made up of many dimensions which function inter-dependently (<https://www.lexico.com/definition/holistic>). Accordingly, physical movement can play an integral role in affecting other aspects of well-being and vice versa.

Types and Histories of HMPs

HMPs themselves can vary greatly in age, and spread, as well as content and comprehensiveness of philosophy. A distinction can be made between “traditional Eastern movement practices”, in particular, Yoga, Tai Chi and Qigong, and what might be termed “Western-born movement practices”. The former have very long histories (Feuerstein, 2008; Ng, 1999), have spread beyond their countries of origin, and have become relatively well-known in Western cultures (Deadman, 2014; Goldberg, 2016; Newcombe, 2009; Vergeer et al., 2017; Wang, Li, Choudhury, & Gaylord, 2019). They are offered in a wide range of forms, varying from highly traditional to highly adapted to Western culture. Western-born HMPs tend to be much newer, having arisen within the last century or in recent decades, and their philosophies have been developed within Western culture, although they might draw on traditional Eastern concepts. Not all HMPs have been designed with physical movement as the primary ingredient (e.g., Yoga), but for our purposes, the physical component is a dominant and clearly identifiable part of the practice through which holistic aims are thought to be achieved. It is impossible to provide an exhaustive list of HMPs, but examples include

5Rhythms, Biodanza, Chakradance, Dancing Mindfulness, Eutony, the Feldenkrais Method, Pilates, PraiseMoves, Sign Chi Do, Movement Medicine, NIA, Open Floor, PanEurythmy, Tensegrity. A longer and more detailed list of practices that might be considered HMPs is provided as an online supplement (Supplementary file 1).

Categorizations and Labels

In the existing literature, HMPs (in particular the traditional Eastern practices of Yoga, Tai Chi, and Qigong) have been viewed through a variety of disciplinary lenses. As a result, an assortment of variously-labelled categorizations can be found, representing different groupings of practices. For example, the field of complementary medicine includes Yoga, Tai Chi, and Qigong in the wider category of “mind-body medicine”, and refers to them as “mind-body” practices, exercises, or therapies (Browning, Kue, Lyons, & Overcash, 2017; Leung, Grewal, Stewart, & Grace, 2008; Wang, Huang, Duke, & Yang, 2017). In counselling contexts, Yoga, Tai Chi, and Qigong have been described as “self-care practices” (Christopher, Christopher, Dunnagan, & Schure, 2006) and “mindfulness practices” (Olano et al., 2015), while social science disciplines have referred to them as “Eastern Arts” (Waechter & Wekerle, 2014) and “Adopted Eastern cultural practices” (Brown & Leledaki, 2010). The latter reflect socio-cultural perspectives that acknowledge that these practices were developed in Asian cultures (India and China in particular) and have been, and still are, subject to changes inherent in the exposure to and adoption by Western cultures. In dance circles, holistic dance forms are sometimes referred to as “conscious” dance or movement disciplines (<https://onedancetribe.com/>), “somatic dance practices” (Saumaa, 2019), or “holistic healing modalities” (Moe, 2014).

Some authors have highlighted psychological commonalities between various HMPs, mostly Yoga, Tai Chi, and Qigong but also some lesser-known practices, such as Sign-Chi-Do, Eurythmy, and Neuromuscular Integrative Action (NIA). Specifically, the closely related

concepts of meditation, mindfulness and contemplation have been emphasized, leading to labels such as “mindful exercise disciplines” (La Forge, 2005), “meditative movement” (Larkey, Jahnke, Etnier, & Gonzalez, 2009), and “movement-based embodied contemplative practices” (Schmalzl, Crane-Godreau, & Payne, 2014). Meditation, mindfulness and embodied contemplation are important components in many HMPs. Because the above-mentioned practices also contain additional components, however (for example, Tai chi also involves an alternative health perspective, visualization, and psychosocial dimensions, Wayne & Kaptchuk, 2008a), we believe that there is merit in categorizing them as HMPs. At the same time, meditative, mindful, and contemplative components in themselves can be a valuable focus for research, and useful subcategorizations of HMPs may be defined where specific HMPs are grouped according to a particular shared quality of interest.

Thus, within different fields, some of these practices have received different labels and classifications depending on the focus and perception of the field. We prefer the term “holistic movement practices” for the field of exercise psychology, because there is an emphasis on holistic well-being built into the philosophy, structure, and delivery of the practices. Effects on mood, mental health, and meaning are thus not just unplanned and fortunate by-products of the physical exercise – as they tend to be regarded in traditional exercise contexts – but are purposefully supported through the structure, content, and delivery of these practices.

The Nature of HMP Philosophies

HMP philosophies are often presented via *organising concepts* representing underlying ideas. For example, the philosophy of Yoga is often depicted as consisting of eight limbs: *yamas* (moral values), *niyamas* (ethical observances), *asanas* (postures), *pranayama* (breath regulation), *pratyahara* (sense withdrawal), *dharana* (concentration), *dhyana* (meditation), and *samadhi* (higher consciousness or bliss) (Feuerstein, 2008). The

organising concepts may be depicted in the form of a model or diagram. The underlying ideas may be based on traditional non-Western philosophical, religious/spiritual, or health-related theories, on scientific theories, on lay theories, or on any combination of these. Philosophies constitute the sense-making of the founders and subsequent master teachers of HMPs. As such, the underlying ideas may not necessarily be correct or accurate in a scientific sense, but this is not the point here. The fact that these ideas exist and have led to structured physical activities in which people participate should make them of interest to the field of exercise psychology. Research may show the ideas to be correct, or not, and other mechanisms than the ones proposed may also turn out to be important.

Explicitly or implicitly, HMP philosophies include a notion of what constitutes well-being, as well as non-well-being, from a holistic perspective. This can incorporate physical, mental, emotional, spiritual, and/or social aspects of well-being. The basic structure of an HMP philosophy can thus be seen as presenting ideas about what is not right (i.e., non-well-being), what would be right (i.e., holistic well-being, the aim of the HMP), and how the HMP could support a person in moving from non-well-being to well-being. In addressing the latter, HMP philosophies usually formulate both *pathways* (i.e., what processes, mechanisms, or strategies could move a person from being less well to being more well?), and *ingredients* (i.e., what are the ingredients of the practice that should support these pathways?). HMP philosophies can vary widely in comprehensiveness and depth, but these elements (notions of (non)-well-being, pathways, and ingredients) should be identifiable in some way. Box 1 provides three examples of HMP philosophies, by necessity considerably simplified but described according to the above structure.

[Include Box 1 about here]

Physical movement is by definition a fundamental ingredient of HMPs, although HMPs will vary in the nature and forms of the physical components of the practices. It may be useful to distinguish between three types of movement forms: a) *structured movement*, where the movement forms (e.g., poses, steps, techniques) are prescribed and there is thus an external, “ideal” movement standard to emulate or strive for, b) *guided movement*, where suggestions for movement are given but no external standard is provided, and c) *free movement*, where there are no prescribed or guided movement forms and the invitation often is to let the movement come from within; participants can interpret this as “I can move in any way I want”. As an example, HMPs like Yoga and Tai Chi predominantly use structured movement, while in 5Rhythms the emphasis is mostly on free movement, and Biodanza uses a combination of guided and free movement.

In addition to physical movement, HMPs contain a variety of holistic ingredients. Common elements can be recognized, although in different amounts and combinations for different practices. These elements all have psychological implications and include, for example, a focus on the self – self-discovery, self-knowledge, personal growth – , mindful attention, being in the moment, non-judgment, subtle body awareness, openness to emotions, authentic communication, meditation, contemplation, and spiritual aspects (e.g., Larkey et al., 2009; Park et al., 2018; Schmalzl et al., 2014; Vergeer, 2018; Wayne & Kaptchuk, 2008a).

The Articulation, Communication, and Spread of HMP Philosophies

Given HMPs’ embeddedness in holistic philosophies, the dispersion of these philosophies is an important dynamic in the spread of these practices. When studying HMPs from an exercise psychology perspective, it is important to have an awareness of this dynamic because it will affect the quality and quantity of the holistic elements present in different contexts, and thereby, ultimately, participant experiences and outcomes. All teachers of physical activities will have their own personal philosophies and pedagogical objectives

guiding the delivery of their programmes. Founders of HMPs, particularly the Western-born HMPs, however, will have gone further than this: they have developed and articulated their philosophies and associated practices to an extent that others can, and want to, emulate them. Their original ideas may be expressed explicitly and spread through various means (e.g., books, articles, websites, videos/DVDs/Youtube, teaching materials, teacher training materials, etc). A philosophy will also be dispersed more implicitly, however, through the psychosocial climate created in the teaching environment, via such factors as verbal explanations of (parts of) the philosophy, the content of the instructions, attentional focus, values emphasized, explicit and implicit norms, and attitudes encouraged.

Through their long and complex histories, traditional Eastern HMPs have been subject to many adaptations, refinements, and re-interpretations of philosophies and ingredients, (Brown & Leledaki, 2010; Deadman, 2014; Goldberg, 2016). As a result, lineages, schools, styles and forms, represent a wide variety of different emphases and renderings of the practices' components (Park et al., 2018; Wayne & Kaptchuk, 2008a, 2008b). The Western-born HMPs have much shorter histories, and their lineages may go back only one generation (e.g., Gabrielle Roth, 1943-2012; Rolando Toro, 1924-2010). Even then, differentiation is noticeable, when, through personal life experiences and training in other modalities, teachers initially trained in one HMP go on to develop their own HMPs with associated philosophies, schools, and teacher training systems (e.g., Darling Khan & Darling Khan, 2009). Furthermore, the expression of philosophies will be flavoured through individual teachers' personal interests (see, for example, Tjersland, 2019).

The manifestation of HMP philosophies can thus be found at different levels: 1) philosophy as expressed by the founder, 2) philosophy as expressed by subsequent (master) teachers, 3) philosophy as internalised and expressed by individual teachers, 4) philosophy as perceived and experienced by HMP participants or practitioners. It is useful to realize that the

philosophy at levels 2, 3, and 4 may differ to some extent from the philosophy at level 1 as well as from each other, and that this may have consequences for the ingredients found in the delivery of the HMP. We cannot necessarily assume that the full nature of the philosophy will be embodied and transferred by a teacher, and thus available to the participant. Generally, the structuring properties envisioned in the philosophy and co-shaped by the physical elements of the practice will serve as a fundamental skeleton for teaching sessions, providing a recognizable practice. However, the holistic elements may be ‘watered down’. This can be seen, for example, in the diversification of Yoga styles and delivery contexts (Park, Quinker, Dobos, & Cramer, 2019), modifications made for clinical intervention studies (Middleton, Andrade, Haaz Moonaz, Muhammad, & Wallen, 2015; Wayne & Kaptchuk, 2008b), and teachers' adaptations in response to participant expectations and reactions (Vergeer, 2019). Elements that may be particularly prone to dilution include spiritual components (e.g., chanting in Yoga), ethical and lifestyle guidelines, references to alternative health or esoteric concepts, and instructions that encourage (non-judgmental) self-observation and reflection. The possibility of dilution (or "thinning"; Douglass & Tiwari, 2006) of holistic components is an inherent and complicated characteristic of HMPs that needs to be borne in mind when studying these practices as it will impact participant experiences and outcomes.

Communication of philosophies may also be affected by HMP delivery contexts, as, in addition to regular (often weekly) classes, HMPs may also be offered in the form of workshops, seminars or retreats of shorter or longer duration. Often centred on a theme, these delivery formats provide opportunities to engage deeper with the content and philosophy of a practice. This is an important feature of HMPs to be aware of, as different contexts may provide different degrees of engagement with holistic components.

Reasons for Treating HMPs as a Category of Physical Activity for Exercise Psychology

In our definition of what HMPs are, we recognise that there will be grey areas and questions about whether or not a particular practice should be considered an HMP. Despite this, we believe it is useful to adopt a common label for these practices and treat HMPs as a category of physical practices. There are several reasons for this. First, participation in traditional Eastern HMPs is increasing (e.g., Wang et al., 2019), and Western-born HMPs appear to be spreading through an increase in accredited teachers, and developments of new HMPs². HMPs are physical practices (Larkey et al., 2009), and it is important to understand the place of HMPs in the landscape of physical activities on offer in modern societies. Second, the existence and nature of many HMPs is relatively unknown to professionals in the field of physical activity. Much of the research on traditional Eastern HMPs has been conducted in the field of complementary medicine, and may therefore fall outside of the scope of knowledge considered and taught within the field of physical activity (e.g., in sport and exercise science, kinesiology, etc). Attention to HMPs within the latter field will help put HMPs on the educational agenda of physical activity students, many of whom will go on to be physical activity professionals working in the community, where awareness of these practices is important. Third, being ‘on the map’ in the field of physical activity – like, for example, martial arts³ are – may give structure to the attention these practices receive and the way they are studied. Attention can be drawn to issues that are unique to HMPs compared to traditional exercise or physical activity practices. Furthermore, looking across HMPs will

² Since there are no surveillance data on these practices yet, this is based on our personal impressions gained through involvement in several Western-born HMPs, as well as following teacher training offerings via HMP websites and email newsletters. For example, the 5Rhythms® Global website currently lists 429 accredited teachers across the world; according to the first author’s notes, this number was 236 in 2015.

³ There could be debate as to the extent that some martial arts practices would fit the definition of HMP; we have chosen not to include these because ‘martial arts’ is already a well-established area of practice and enquiry. However, distinctions will not necessarily be clear-cut (e.g, Tai chi can also have a martial arts focus), and some participation issues found among HMPs may also apply to martial arts practices.

help to ascertain similarities and differences among these practices and how they operate. This would allow better insights into issues that are typical or common among HMPs as a category. For example, we may be able to identify issues that form typical facilitators or barriers for HMPs that may not exist in regular exercise or physical activity contexts. Additionally, we may establish if and how various holistic ingredients have effects on psychological outcomes (e.g., self-esteem, anxiety, depression, stress, body image) beyond those offered by exercise alone. The dispersion of philosophy and a multi-component nature are also important features common across HMPs. Treating HMPs as one category will allow more systematic approaches to research, as well as the possibility of reciprocal learning between HMPs. In this way, the physical activity field's focus and expertise may complement and/or refine the therapeutic focus that dominates the complementary medicine field. HMPs constitute forms of physical activity, and as such should be of interest to researchers and practitioners working in the psychology of physical activity. Moreover, we believe that the fact that HMPs purposefully and integrally include psychological components make them especially worthy of investigation, particularly in relation to their potential role in psychological well-being, mental health enhancement and quality of life. This is a call for more research on HMPs from the perspective of exercise psychology.

HMPs and Exercise Psychology: Areas of Interest and Potential Research Questions

The scope of the field of exercise psychology broadly encompasses such issues as a) psychological processes associated with adoption, maintenance, and drop-out of physical activity, b) psychological processes involved in the delivery of physical activity sessions, and the experience of participants in those sessions, and c) psychological outcomes and mechanisms of physical activity, with all three of these areas applying to both healthy and clinical populations (Biddle & Vergeer, 2019). We argue that all of these issues are relevant

to the study of HMPs. Below we share a number of reflections on potential research questions and issues related to HMPs for each of these areas.

Participation Behaviour: Adoption, Maintenance, Drop-Out

Factors affecting physical activity behaviour form a significant area of inquiry in exercise psychology. Given their embeddedness in holistic philosophies, HMPs can expand this area of inquiry by examining to what extent holistic elements act as facilitators or barriers to participation, and for whom. The holistic elements of HMPs may be an attraction to some (e.g., Vergeer, 2018) but a deterrent for others (e.g., Tenfelde, Hatchett, & Saban, 2018). A potential barrier common to all HMPs might be a misfit between one's own beliefs and those inherent in the HMP philosophy. Such a barrier has been found with respect to recruitment of participants for a Yoga intervention study, for example (Middleton et al., 2015). On the other hand, an HMP may be attractive to people with needs or interests that match its holistic components. It is worth considering who might be the people who are most receptive to these practices (and perhaps may benefit more). We reflect on some possibilities below.

Alternative ideologies. Some HMP philosophies include notions of alternative or complementary theories of health, and/or of theories of alternative spirituality (Douglass & Tiwari, 2006; Kieft, 2014; Wayne & Kaptchuk, 2008a). Such HMPs may therefore appeal (more) to people who struggle with meaning making in their everyday life or who are actively seeking alternative philosophies (e.g., Danell, 2015; Hasselle-Newcombe, 2005). Individuals searching for meaning may be more open to engage with practices that might offer them new perspectives and tools to deal with life (Garland, Stainken, Ahluwalia, Vapiwala, & Mao, 2015).

Internal experiences. It is plausible that HMPs that emphasize internal experiences may appeal more to individuals with personality traits that facilitate such inward orientation,

for example, high levels of absorption (cognitive capacity for fully involving oneself in sensory and imaginative experiences; Menzies, Taylor, & Bourguignon, 2008) or sensory-processing sensitivity (heightened sensitivity to, and deeper processing of, external and internal stimuli; Aron, Aron, & Jagiellowicz, 2012).

Emotions. Some free-movement-based HMPs (e.g., 5Rhythms, Biodanza) include the invitation for emotional exploration and expression through movement. This feature was highly appreciated by 5Rhythms participants (Vergeer, 2018), while a study on Biodanza reported that people starting a yearlong course had higher levels of alexithymia (difficulty with recognizing and discriminating emotions) than those enrolled in other dance courses (Giannelli, Giannino, & Mingarelli, 2015). It is possible that the opportunity to engage with one's emotions makes such HMPs attractive to people with higher needs to process their emotions, perhaps those going through emotional upheaval, or those with stronger emotion sensitivity (Koole, 2009), need for affect (Maio & Esses, 2001), or alexithymia (Giannelli et al., 2015). Individuals who tend towards rumination as an emotion regulation strategy (Hughes, Kratsiotis, Niven, & Holman, 2020) may also welcome an opportunity to use bodily exploration of emotion through movement.

Life paths. In addition to differing in degrees of attraction, it is also conceivable that people with different needs or interests *engage differently* with the various components of an HMP. It is quite possible to partake in HMPs without fully subscribing to, or even being aware of, the underlying philosophy. Drawing from a qualitative study among Yoga practitioners in Germany, Henrichsen-Schrembs and Versteeg (2011) outlined a typology of four different types of Yoga engagement, reflecting different participation motives and different ways of "going inward". Furthermore, they explicitly linked these types with differences in participants' life course, proposing that people with more challenging life paths were more likely than those with smooth life paths to embrace the self-reflection and spiritual

growth potential of the Yoga practice. Along these lines, Vergeer (2018) found that experience with counselling or psychotherapy appeared common among the 5Rhythms participants in her study, and Giannelli et al. (2015) found lower levels of self-acceptance and higher levels of stress among Biodanza participants. These findings raise two questions: 1) are HMPs more attractive to people with more challenging life paths (involving, for example, stressful life events, traumatic childhoods, insecure attachment styles, problems with emotion regulation)? 2) are those with challenging life paths more likely to engage more fully with the holistic elements of HMPs? One of the typologies identified by Henrichsen-Schrembs and Versteeg (2011) was labelled “self-helper”, and it is possible that some people may feel attracted to, and engage more fully with, an HMP because it offers an empowered and leisure-based, rather than medical or clinical, way of working on their life issues. People with no perceived psychological or spiritual issues, on the other hand, may mainly feel attracted to the physical practice aspects of an HMP and engage with it as a form of physical activity. At the same time, it is important to acknowledge that not all people with challenging life paths may be open to HMPs holistic components. For example, focusing on internal body sensations, which is a common feature in various HMPs, may be threatening to people who routinely suppress these sensations, a tendency which is reportedly common among people with high stress, chronic pain, and trauma histories (Price & Hooven, 2018). Exploring the role of life paths in the attraction to, engagement with, or barriers towards HMPs will be a useful avenue of future research.

Change over time. Engagement with holistic elements may also shift over time. Because HMPs involve physical movement, the physical nature may play a strong part in the initial attraction. Many people may not be aware of the deeper philosophy when they first encounter an HMP, and discover only gradually that there is more to the practice than just the physical. Several studies on Yoga, for example, have suggested that exercise, relaxation, and

ill-health prevention are common motives for starting a Yoga practice, but that over time, dominant motives often change, and spirituality in particular becomes more important as a motive (Park et al., 2019; Park, Riley, Bedesin, & Stewart, 2016). A qualitative study of a 6-month Tai Chi intervention with older adults (Yang et al., 2011) found that by experiencing the practice, motivations shifted over time from initial desires to overcome physical and functional problems to desires to continue experiencing the complex mind-body or mind-body-spirit benefits that Tai Chi provided. However, the interviewed participants were chosen because they were the most enthusiastic in the intervention, and we do not know what happened to the motives of other participants. Spirituality is a complex issue, as it can mean many things to many people (Cook, 2004). To what extent it is a factor in attracting people to HMPs who already have an interest in spirituality (e.g., Hasselle-Newcombe, 2005) and to what extent HMPs open people to spiritual experiences deserves attention in future research.

In general, we believe that when examining psychological barriers and facilitators (including motives) to HMP participation, it is of particular importance to ask: for whom do specific holistic aspects act as facilitator or barrier? When considering the “whom”, it is important, in addition to examining sociodemographic and health characteristics of population subgroups, to consider psychological characteristics of participants and non-participants. These could involve factors associated with personality, beliefs, values, interests, goals, needs, coping style, stress, trauma history, attachment style, etc. We believe exercise psychology is ideally positioned to pay attention to these psychological factors.

Delivery, Participant Perceptions and Experiences

The extent to which a teaching practice does justice to the full philosophy is a controversial issue within HMP communities, especially within traditional Eastern HMPs with a long history (e.g., Davies, 2016; Douglass & Tiwari, 2006). Dilution of philosophical components could lead to a situation where the practice is no longer holistic but merely a

physical practice. This issue is of particular importance in light of possible adaptations to delivery in order to attract a wider range of participants or appeal to specific subpopulations. Additionally, intervention studies, which are by necessity relatively short term, often include only selected elements of a practice, adapted to the needs of a target population and/or intervention restrictions. From the perspective of physical activity for health promotion, the dynamics of such shifts and adaptations are important to investigate. Questions concerning the extent to which a philosophy is recognisable in the actual teaching, what factors impact on the delivery of the philosophical components of the practices, and what the effects are on participant experiences and outcomes are of relevance here. The role and perspectives of teachers should also be part of such inquiries.

In-depth studies of the holistic ingredients across HMPs may also reveal similarities and differences in how these elements take shape and affect participant experiences in different HMPs. For example, the training of mindful attention in a structured-movement-based HMP like Yoga may contain similar but also different aspects to the training of mindful awareness in a free-movement-based HMP like 5Rhythms, partly through differences in the physical nature of the practices and partly through psychosocial and instructional differences.

An important aspect of delivery concerns the psychosocial climate created in the sessions by teachers and peers. Such climates have received extensive attention in sport and exercise psychology, particularly in the form of motivational climate, where constructs from predominantly achievement goal theory and self-determination theory have been used to investigate elements in the psychosocial climate that affect participants' motivational orientation and autonomous functioning (Duda, 2013; Harwood, Keegan, Smith, & Raine, 2015; Moore & Fry, 2017). While investigating these climate-related concepts, and the form they take within HMPs, will be useful, there may also be other aspects of psychosocial

climates that have specific relevance to HMPs. For example, Vergeer (2018) found that for 5Rhythms participants, emotional safety and authentic relating were important elements of the practice. Not commonly studied within exercise settings but known from the counselling field (e.g., Crisp, 2011), these constructs may be particularly germane to the holistic emphasis of HMPs and could use further exploration to elucidate how they take shape in the often leisure-based contexts of HMPs. We know very little about how teachers manage issues around emotional safety, for example. Furthermore, if HMPs include possibilities for self-discovery, mindfulness, emotional exploration, personal and spiritual growth (including getting to know one's darker, undesirable, side; Vergeer, 2018), it is important that teachers can act as models and provide safe containers for participants' experiences. This is especially relevant for individuals with trauma histories (see for example Emerson, Sharma, Chaudhry, & Turner, 2009). Thus, there is space for investigating psychological and psychosocial climate dynamics within HMPs, both with respect to concepts already commonly studied within exercise psychology, and with respect to concepts with specific relevance to the holistic components of HMPs.

Relatedly, distinctions in delivery format are important to be aware of when researching the role and impact of HMPs. Participants who have taken part in workshops, for example, may have experienced more intense or different benefits than participants who have only taken weekly classes. Furthermore, classes can be open (i.e., anyone is welcome) or closed (i.e., access is restricted to the people who have signed up for a set number of classes), which may have an impact on the psychosocial climate created for and by the participants. Emotional safety and sense of belonging may be created more easily in closed than open classes. Additionally, individuals may practice an HMP at home (e.g., Ayala, Wallson, & Birdee, 2018), with or without pre-recorded (e.g., DVDs, Youtube videos, phone Apps) or live-online (this has become particularly salient during the recent Covid-19 pandemic) audio-

visual guidance. Home practice may be beneficial for some aspects (e.g., mindful attention) but not others (e.g., connecting with others). It is important to study the dynamics of various engagement options and the role of different delivery formats with regard to participant experiences and outcomes.

Outcomes and Mechanisms

Outcomes. To our knowledge, outcome studies regarding Westernborn HMPs are extremely limited. We are only aware of a handful of Biodanza studies evaluating stress and well-being related outcomes (Giannelli et al., 2015; Stueck & Tofts, 2016), showing some promising effects. Conversely, a considerable body of knowledge regarding the benefits of the traditional Eastern HMPs has been amassed within the complementary medicine field, in particular in relation to their role as therapeutic modalities in various populations. A wide range of conditions and populations have been studied, including chronic diseases, mental health, and aging-related conditions, indicating a variety of physical and psychological benefits (Field, 2016; Lee & Ernst, 2012). Although calls for further and more rigorously conducted studies are common (e.g., Zhang, Layne, Lowder, & Liu, 2012), reviews suggest beneficial outcomes for a range of psychological aspects, including reductions in distress, anxiety, and depression, and improvements in emotional functioning, social relationships, self-esteem, mood, and spirituality, in both healthy and clinical populations, as well as in children, adults, and elderly (Culos-Reed et al., 2012; Menezes et al., 2015; Wang et al., 2010). Exercise psychology can benefit from the amount of work already done in this area but it also can add its own expertise and perspective, particularly by focusing on the role and place of HMPs in relation to other types of physical activity.

Given their embedment in holistic philosophies of well-being and deliberate inclusion of psychological elements, a key question is to what extent and in what way HMPs offer mental health benefits, and whether these can go beyond those offered by exercise alone. This

may also include considering the interplay of physical, social, and spiritual effects with mental health outcomes. Some early work has started to look at this question. Smith, Greer, Sheets, and Watson (2011) showed beneficial effects on anxiety and salivary cortisol of a Yoga intervention that integrated philosophical and ethical components compared to a Yoga program merely focused on the physical. In a systematic review of Yoga among older adults, Sivaramakrishnan et al. (2019) compared Yoga interventions to active control groups and found a stronger effect for Yoga on depression, perceived mental and physical health, and vitality. A meta-analytic review by Yin and Dishman (2014) concluded that Tai Chi and Qigong had favourable small-to-moderate effect sizes on anxiety and depression similar in size to other exercise modes. They noted, however, that due to a lack of relevant studies, they could not examine whether Tai Chi and Qigong with more explicit inclusion of mindfulness elements would have additional benefits. A focus on, and clear documentation of, holistic elements in HMPs in future studies may help elucidate to what extent these elements offer mental health benefits beyond those found in other physical activity contexts. In addition to concepts typically included in mental health, such as anxiety, depression, and self-esteem (e.g., Biddle, Ciaccioni, Thomas, & Vergeer, 2019), attention may extend to more positive interpretations of mental health, such as resilience, eudaimonic well-being, and flourishing (Keyes, 2002; Ryff, 2014). In this respect, the holistic components of HMPs also call attention to the role of psychological constructs embedded in the practices, such as meaning in life, spirituality, body awareness, body experience, mind-body integration, emotion processing, mindfulness, authentic relating, self-cultivation, non-judgment, compassion, and personal growth (Brown & Leledaki, 2010; Tjersland, 2019; Vergeer, 2018). Early studies show self-reported beneficial effects for several of these constructs (e.g., Bolton, Fix, VanDeusen Lukas, Elwy, & Bokhour, 2020; Vergeer, 2018; Yang et al., 2011), but there is ample scope to further investigate perceptions, outcomes, and mechanisms of these concepts

within HMP contexts. Moreover, as these elements are often closely intertwined during HMP sessions, the interplay of these factors also warrants consideration (e.g., Büssing, Hedtstück, Khalsa, Ostermann, & Heusser, 2012).

The transferability of what is learned in HMP sessions also deserves attention. To what extent and in what way can HMP practitioners use what they have learned in HMP sessions in their daily life? There may be ‘effortless’ effects, where engaging in the practice (which in itself may have to be physically and mentally effortful) will automatically or subconsciously lead to experienced improvements in daily life, and effects that require a more conscious effort in applying what is learned within the HMP context to one’s functioning in everyday life. (There may be some parallels here with literature on acquiring life skills through sport, in particular issues around implicit/explicit learning, and the roles of teacher/coach philosophy and modelling behaviours (Chinkov & Holt, 2016; Pierce, Gould, & Camiré, 2017)). As HMP philosophies may emphasize lifestyle values (e.g., ethical and moral guidelines, self-discipline, social and environmental consciousness), it is plausible that engagement in HMPs can impact other lifestyle behaviours. A few studies have shown positive correlations of participation in Yoga, Tai Chi and Qigong with levels of physical activity, non-smoking, and vegetarianism (Birdee et al., 2008; Birdee, Wayne, Davis, Phillips, & Yeh, 2009; Cramer, Sundberg, Schumann, Leach, & Lauche, 2018; Lauche, Wayne, Dobos, & Cramer, 2016; Vergeer et al., 2018). However, these correlations could be a function of self-selection or natural clustering of similar behaviours. Not much is known about changes in other life style behaviours as a consequence of taking up an HMP. Some self-report data suggest that Yoga participation may motivate people to eat healthier, exercise more, and reduce smoking and alcohol consumption (Cramer et al., 2018), but longitudinal and experimental studies would need to investigate actual changes. Some studies also suggest that engagement in an HMP can lead to improved social functioning (Bolton et al., 2020;

Ross, Bevans, Friedmann, Williams, & Thomas, 2014). Thus, extended effects beyond the participants themselves are also worth investigating.

Finally, the issue “for whom?” also applies to outcome studies. The question can be asked whether different populations might draw different benefits from HMP participation. For example, are the outcomes of participation different for people with more challenging life paths compared to those with easier life paths? While HMPs may be attractive to people with certain mental health characteristics (e.g., Giannelli et al., 2015), it is also plausible that such individuals may benefit more from what HMPs offer, while there may be a ceiling effect for others. Equally, it is important to consider whether there may be psychological risks associated with participation for certain populations. Psychiatric episodes triggered by Yoga practice have been occasionally reported (Cramer, Krucoff, & Dobos, 2013), and the possibility of psychotic symptoms (e.g., hallucinations, delusions) brought on by (improper) Qigong practice is recognized among Chinese psychiatrists (Ng, 1999). It is essential to investigate if there are populations and/or circumstances that increase the risk of adverse events from participating in HMPs. Thus, both benefits and risks need to be examined in relation to specific subpopulations.

Examples of potential mechanisms. Mechanisms involved in HMPs that might explain possible effects on well-being could be varied and complex, as well as representing different disciplinary perspectives (e.g., Gard, Noggle, Park, Vago, & Wilson, 2014). We briefly focus here on some psychological mechanisms that have particular relevance to emotion regulation and sense of self.

Emotion-regulation functions. The association with emotions found for 5Rhythms (Vergeer, 2018), Biodanza (Giannelli et al., 2015), Qigong (Johansson & Hassmén, 2013), and Yoga (Menezes et al., 2015), brings up the question in what way different physical activities provide emotion regulation opportunities. In this respect, it may be helpful to

differentiate between opportunities that arise from engaging in a physical practice itself, and opportunities within a practice that enhance emotion regulation *capacity*, by providing tools, skills, and/or knowledge that can be applied in situations outside of the direct practice.

Engaging in a practice itself can serve as a way of emotion regulation, and the affect-enhancing function of physical activity in general (Biddle et al., 2015) is probably based on this premise. Physical activity generally may provide a stimulus that changes or overrides the bodily symptoms of emotions. Physical activity contexts that draw attention away from the self through an external focus (e.g., technical performance, competition, social interaction), may additionally provide a cognitive distraction. These forms of emotion regulation would seem to serve a need-oriented emotion regulation function (Koole, 2009), aimed towards reducing negative and increasing positive emotions. However, emotion regulation can also have a person-oriented function (Koole, 2009), which is geared towards integrating different aspects of emotional experiences into the whole person. This requires behaviours and experiences that enable self-reflection and opportunities to improve one's sensitivity to different emotions or increase one's self-knowledge about emotional triggers and reactions. By drawing attention to the self rather than away from it, as many HMPs do, practices may (also) serve this function. Embodied self-reflection may help create mind-body-integrated emotion-relevant knowledge (Vergeer, 2018). In addition, HMPs' philosophies may provide new concepts and vocabulary to give meaning to these experiences (Smith & Sparkes, 2009). Thus, besides comparing acute affect modulation effects of HMPs with other forms of physical activity, examining the extent and ways in which HMPs can enhance emotion regulation *capacity* is an important research direction.

Mindfulness and body awareness. In various ways, different HMPs may encourage the development of what are considered mindfulness skills, that is, the ability to keep attentional focus in the present; the ability to observe and monitor bodily sensations,

thoughts, and emotions; and the ability to do this in a non-reactive, non-judgmental, and accepting way (e.g., Baer, Smith, & Allen, 2004). Yoga's philosophy in particular emphasizes the development of these skills, but elements can also be seen, for example, in 5Rhythms' encouragement of non-judgmental observing what is present. Mindfulness skills are thought to enhance psychological well-being through modifying attention and expanding metacognitive awareness, thereby enabling more flexible reappraisals of adversity and the savouring of positive experiences (Garland, Farb, Goldin, & Fredrickson, 2015). In Yoga, for example, it has been suggested that bringing attention to the physical tension at the endpoint of a stretching position with instructions to not push but breath into the tension, can train the psychological ability to stay with and experience a difficult sensation rather than avoid or suppress it (Schmalzl, Powers, & Blom, 2015). In this case, the HMP provides a body-based tool (breathing into physical tension) accompanied by the encouragement of a certain attitude, which can support enhanced emotion regulation capacity. Directing attention inward towards bodily sensations is thought to enhance body awareness (Schmalzl et al., 2015). As high body awareness in itself can be maladaptive when it leads to worry, hypervigilance, and negative ruminations (Mehling et al., 2012), instructional contexts that encourage a non-reactive, non-judgmental, and/or curious attitude towards one's observations are important to enable healthy, adaptive forms of body awareness, where the information is treated as informative or simply experienced in the moment. In this way, enhanced body awareness can support a more integrated sense of self. Healthy, adaptive forms of body awareness are thought to contribute to well-being in various ways. These include increasing the ability to discern and respond to bodily sensations, enhancing a sense of 'oneness' with the body, improving body acceptance and appreciation, and reducing the process of self-objectification – the tendency to judgmentally perceive one's body from an outside perspective (Cox, Ullrich-French, Cole, & D'Hondt-Taylor, 2016; Impett, Daubenmier, & Hirschman, 2006;

Mahlo & Tiggemann, 2016). How body awareness and other facets of mindfulness are encouraged and facilitated within different HMPs is an important question for future research.

Early life experiences. For a link between movement experiences and embodied changes to the sense of self, some possible mechanisms may be found in theories of movement in early life. Movement is thought to be integral to the development of a sense of self and identity (Haselager, Broens, & Gonzalez, 2012; Sheets-Johnstone, 2010). In early stages of motor development, infants experience spontaneous movement through which they interact with the world; from there they gradually develop a sense of themselves and a sense of agency (Haselager et al., 2012; Sheets-Johnstone, 2010). Additionally, these processes do not occur in an existential vacuum, but are strongly influenced by parenting behaviours, the quality of which has considerable consequences for adult psychological functioning (Gerhardt, 2004; Haselager et al., 2012; Shahar-Levy, 2001). HMPs that involve free movement may lead to experiences that tap into these early life experiences of movement. Furthermore, they may allow the triggering of memories and emotions of early childhood encoded in the motor system (Shahar-Levy, 2001). Such experiences might open the possibility for “emotive-motor-reminiscing” (Shahar-Levy, 2001) through movement exploration and conscious reflection, which would present an opportunity to integrate these experiences at a conscious level. It is thus possible that free-movement-based HMPs may enable revisiting developmental tasks that were thwarted in some way, and thereby support the development of a more adaptive sense of self, with beneficial effects on socio-emotional functioning. To what extent, under what conditions, and with what effect such “emotive-motor-reminiscing” actually takes place is for empirical research to examine. An example of a theoretical application can be seen in Haramati (2008)’s work on 5Rhythms.

In summary, HMPs might increase emotion regulation capacity through various mechanisms. These may include training attention deployment in a mindfulness-based way, creating integrated mind-body emotion-relevant knowledge through various forms of embodied self-reflection, providing potentially alternative reappraisals via the practice's philosophical context, and increased awareness and regulation (through breathing, posture, or movement) of bodily reactions. All these potential mechanisms deserve further exploration.

Research Considerations and Methods

Drawing on van Strien's (1986) conceptualisation of a comprehensive body of knowledge as being made up of both quantitatively and qualitatively derived insights and different levels of generalization and application (van Strien, 1986; Vergeer, 2000), we believe that there is scope for a broad range of research approaches in the study of HMPs, as different methods allow us to answer different questions. Below we will briefly consider some relevant issues, in particular a) HMPs as multi-component practices, b) inventories, and c) qualitative research.

HMPs as Multi-component Practices

A key feature of HMPs is that they are complex and multi-component practices (Park et al., 2018; Stück et al., 2009; Wayne & Kaptchuk, 2008a), and this should be taken into consideration when studying them, whether it is in relation to (measured or perceived) health outcomes, participation motives and behaviour, or delivery factors. An important challenge for researching HMPs thus lies in identifying and measuring different components of these practices (in this respect, Kerr, 2002, emphasized the importance of dialogue between researchers and HMP experts to avoid misinterpretations). HMP philosophies can act as guidance for identifying different ingredients and the shapes they can take. Identifying ingredients helps to make them explicit, allowing them to become subject of study. At the

same time, it is important to realise that teacher-related factors and local adaptations may affect to what degree the philosophy is actually present in the teaching sessions.

Sport and exercise psychology is not unfamiliar with the notion of distinguishing and assessing different components of a teaching environment. In particular, work on motivational climate and coach behaviours has included the development of measurement instruments that either assess participants' perceptions of the climate or leader behaviour (e.g., Brown, Fry, & Little, 2013), or directly observe these elements and behaviours (e.g., Erickson & Côté, 2015; Harwood et al., 2015; Smith et al., 2015). In a similar way, instruments assessing psychosocial climate and teacher behaviours could be created where the focus would be on holistic aspects of HMPs. Rather than focusing on motivational components or skill-learning-related pedagogical content, such assessment instruments could, for example, focus on pedagogical content affecting participants' self-related processes. A common complaint about intervention studies in Yoga, Tai Chi and Qigong is that components of the intervention are not clearly or sufficiently described, thus preventing replication, as well as identification of active ingredients and potential mechanisms (Larkey et al., 2009; Park et al., 2018; Schmalzl et al., 2015; Wayne & Kaptchuk, 2008a, 2008b). In any intervention study, it is important that the ingredients of the practice as delivered are documented in detail, including holistic elements and the expertise, background and pedagogical goals of the teacher. Some authors have also proposed approaches that reduce the complexity of HMPs by breaking them down into more limited, discrete components that can be more easily defined and measured (e.g., "pragmatic and fixed protocols", Wayne & Kaptchuk 2008b, and "evidence-based kernels", Smith, Lyons, & Esat, 2019). Such approaches can be valuable in generating evidence-based knowledge about outcomes. However, our aim in this paper is to outline the complex nature of HMPs, and we thus like to

emphasize that this might constitute a ‘watering down’ of the practices, which should be kept in mind when interpreting such studies.

Inventories

Measuring psychological constructs via self-report questionnaires is a popular research approach within exercise psychology, and psychology in general. Recently, several inventories have been developed that could be used to assess psychological constructs relevant to HMPs. These include interoceptive awareness (Mehling, Acree, Stewart, Silas, & Jones, 2018; Mehling et al., 2012), meditative movement (Larkey et al., 2009; Larkey, Szalacha, Rogers, Jahnke, & Ainsworth, 2012), beliefs (Sohl, Schnur, Daly, Suslov, & Montgomery, 2011), and self-efficacy (Birdee, Sohl, & Wallston, 2016). A wide range of instruments assessing dimensions of spirituality also exist which could be used in research on HMPs (e.g., Büssing, 2017; MacDonald, 2009; Zwingmann, Klein, & Büssing, 2011). However, there is also ample scope for the development of new psychometric instruments to capture constructs relevant to HMPs. These could be specific to certain (types of) HMPs, or more generally aimed for use across a range of HMPs. Such measures could focus on, for example, perceived psychological climate, holistic participation motives, personal growth, beliefs, attitudes, and perceptions of holistic philosophies.

Qualitative Inquiry

Given HMPs complex multicomponent nature and their relative newness to the field of exercise psychology, qualitative inquiry will be particularly useful in developing a body of knowledge about HMPs. For many of the questions raised above, qualitative research approaches may engender valuable insights. Qualitative research designs are especially suitable for studying the rich and complex nature of HMPs. They may be able to capture holistic elements in a way that is not possible when the elements are isolated for focused investigation, thereby providing more integrative perspectives. As qualitative inquiry comes

in various forms and traditions (Sparkes & Smith, 2014; Streat, 1998), different approaches can be used to portray both intra-individual and contextual processes encountered within HMP environments. For example, in HMPs, individuals may start to experience their bodies and themselves differently. Qualitative designs that focus on describing such changes (e.g., phenomenology, grounded theory, autoethnography) could provide useful insights into how HMPs impact on body- and self-awareness (e.g., Posadzki, 2010; Yang et al., 2011).

Narrative inquiry could capture the development of personal identity and growth over time, while ethnographic approaches could capture the context, norms, values and interactions of how HMP philosophies are conveyed (or not) in teaching sessions. The Yoga typology study by Henrichsen-Schrembs (2008) is a good example of using grounded theory to shed light on different ways of engaging with what is offered in an HMP.

Conclusion

The purpose of this paper was to discuss the nature of HMPs with a view to increasing awareness, and encouraging and supporting future research of these practices within exercise psychology. We have defined HMPs as physical practices embedded in holistic philosophies of well-being, and we have argued that the holistic components of HMPs contain many psychological dimensions and implications, which should make them of particular interest to exercise psychologists. We have further argued that by classifying them together, their similarities and differences can be studied more systematically. HMPs are complex practices in themselves, and suggesting to treat them as a category and to study issues across HMPs will add another layer of complexity. Nevertheless, we believe that there are commonalities across these practices that are worth studying, and that this may provide a more structured lens through which to approach these practices. This will also provide a framework for appraising new and emerging Westernborn HMPs that have not yet received much research attention.

Recognizing that the embeddedness in holistic philosophies as well as the multicomponent nature of HMPs provide unique opportunities and challenges for exercise psychology researchers, this paper is a call for more research on HMPs within exercise psychology. We believe that more in-depth and extensive study of HMPs would allow the building of a body of knowledge on HMPs from an exercise psychology perspective, with particular focus on such subjects as barriers, facilitators, delivery, experiences, outcomes, correlates, and mechanisms. Furthermore, improved knowledge of similarities and differences between HMPs and their associated psychological outcomes for different subpopulations, will help to establish recommendations for use.

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Box 1: Brief descriptions of the main elements in the philosophies of three HMPs.

Qigong

For the practice of Qigong, which has its roots in ancient China, Taoist philosophies, and theories of Traditional Chinese Medicine (Ospina et al., 2007), the nature of well-being and non-well-being is defined around the concept of *qi*, which is usually translated into English as “life energy”. For a person to be well, *qi* needs to be sufficient, balanced, and able to flow freely through the body. A lack of wellness is thought to be caused by insufficient, unbalanced, or blocked *qi* (Clarke, 2001). The *pathways* to wellness are thus focused on improving the quantity, quality, and flow of *qi*. Qigong is described as “the art of using and controlling qi” (Clarke, 2001, p.22). While this may sound simple, Qigong is underpinned by a highly comprehensive and elaborate system of thought outlining the nature and structures of *qi* and the laws and principles that affect it (MacRitchie, 1993). Qigong’s *ingredients* include slow structured movements, breathing, intention, visualizations, and meditation (Ospina et al., 2007)

Biodanza

Biodanza is a Western-born HMP, developed by Chilean psychologist and medical anthropologist Rolando Toro (1924-2010) (Kubo, 2012). Initially formulated in the late 1960s, by the end of Toro’s life, Biodanza’s philosophy had become highly comprehensive (Kubo, 2012; Toro, 2007). For Toro, the nature of well-being and non-well-being centres around the expression of one’s full, genetically-determined potential (Stück et al., 2009). Western culture is seen to encompass factors (“negative eco-factors”) that inhibit the development and expression of this potential, leading to individuals who are alienated from themselves as well as from others, the environment, the eco-system and the wider universe. Holistic well-being involves human beings who are integrated, both within and beyond themselves, and who are able to fully and authentically express their genetically-determined

potential. As eco-factors can both nourish and inhibit the development of this ability, the main *pathway* towards well-being is seen as the provision of nourishing eco-factors. This is a highly simplified description, however, as the pathways theorized by Toro are many, complex, and comprehensive, as well as grounded in psychological (developmental, psycho-physiological and psycho-dynamic) theories. *Ingredients* of Biodanza include guided and free movement, music, movement-based encounter situations in a group, touching, singing, intensely experiencing the moment (“Vivencias”) (Giannelli et al., 2015).

5Rhythms

For the founder of 5Rhythms, American dance-movement teacher Gabrielle Roth (1941-2012), the source of non-well-being lies in Western society’s lack of physical movement and alienation from the body. Well-being is defined as being able to live from *ecstasy*, a “state of total alignment and unity. Unity of body, heart, mind, soul, and spirit” (Roth, 1998, p.2). Roth’s most well-known quote is “Put the psyche in motion and it will heal itself” (Roth, 1989, p.173), suggesting that movement is the main *pathway* in 5Rhythms, although the philosophy of 5Rhythms is much more comprehensive than this quote suggests. The practice is structured around five rhythms that have musical, movement, and metaphorical qualities (Vergeer, 2018), and its main *ingredients* are free movement and music, accompanied by invitations for self-observation and reflection, non-judgment, interactions, and being-in-the-moment. The practice may be complemented by ritual or theatre.

Supplementary file 1.

Practices that may be considered HMPs.

Name	Founder	Founded in	Movement type	Associated Website
Traditional Eastern HMPs				
Qigong		China	structured movement	
Tai Chi		China	structured movement	
Yoga		India	structured movement (postures)	
Western-born HMPs				
5Rhythms®	Gabrielle Roth (1941-2012)	USA	free movement	https://www.5rhythms.com/
Ageless Grace™	Denise Medved	USA	structured movement	https://www.agelessgrace.com.au/
Authentic Movement	Mary Whitehouse, Janet Adler	USA	free movement	http://authenticmovementcommunity.org/home https://www.authenticmovementaustralia.com/
Azul	Amanda Pagano	USA	free movement	https://pathofazul.com/
Biodanza	Rolando Toro Araneda (1924-2010)	Chile	free & guided movement	https://www.biodanza.org/en/ http://www.biodanzarolandotoro.com/en/
Chakradance	Natalie Southgate	UK / Australia	guided movement	www.chakradance.com
Chi Ball	Monica Linford	Australia / UK	structured movement	https://www.chiball.com.au/
Dance of Liberation®	Parashakti Sigalit Bat-Haim	USA	free movement	https://parashakti.org/dance-of-liberation/
Dances of Universal Peace	Samuel L. Lewis (1896-1971)	USA	structured movement	https://www.dancesofuniversalpeace.org/
Dancing Freedom	Samantha Sweetwater	USA	free movement	https://www.dancingfreedom.com/

Name	Founder	Founded in	Movement type	Associated Website
Dancing Mindfulness	Jamie Marich	USA	guided & free movement	https://www.dancingmindfulness.com/
Ecstatic Awakening Dance™	Amoda Maa Jeevan	UK	free movement (eyes closed or blindfolded)	https://www.schoolofecstaticmovement.com/
Eurythmy	Rudolf Steiner	Germany / Switzerland	structured / guided movement	http://www.eurythmy.org.uk/ https://www.rudolfsteinrweb.com/
Eutony	Gerda Alexander	Denmark / Germany	guided movement	http://eutonie-franco.de/
The Feldenkrais Method®	Moshé Feldenkrais (1904-1984)	Israel / England	guided movement	https://feldenkrais-method.org/
Freeing Dance in mindfulness (Frigörande Dans)	Anne Grundel	Sweden	free movement	https://fridans.nu/?lang=en
Gyrotonics & Gyrokinesis	Juliu Horvath	USA	structured movement	https://www.gyrotonic.com/
JourneyDance™	Toni Bergins	USA	free movement	http://journeydance.com/
Kundalini Dance™	Leyolah Antara	Australia	free movement	https://www.kundalinidance.com/
Lifedancing	Carina-Maria Möller	Sweden / Germany	free & guided movement	http://lifedancing.se/lifedancing/
Movement Medicine	Susannah Darling Khan, Ya'Acov Darling Khan	UK	free movement	https://www.schoolofmovementmedicine.com/
NIA (Neuromuscular Integrative Action)	Debbie Rosas, Carlos AyaRosas	USA	structured movement	https://nianow.com/about-nia
Open Floor	Andrea Juhan, Kathy Altman, Lori Saltzman, Vic Cooper	USA	free movement	https://openfloor.org/
PanEurythmy	Peter Deunov (Beinsa Douno) (1864-1944)	Bulgaria	structured movement	http://www.panevritmia.info/?lang=en

Name	Founder	Founded in	Movement type	Associated Website
Pilates	Joseph Pilates (1883-1967)	USA	structured movement	https://www.pilatesfoundation.com/ https://www.pilates.com/
PraiseMoves	Laurette Willis	USA	structured movement	https://praisemoves.com/
Sacred Circle Dance	Bernhard Wosien (1908-1986)	Germany / Scotland	structured movement	http://www.sacreddance-wosien.net/
Sign Chi Do	Anne Borik	USA	structured movement	http://www.signchido.com/
Soul Motion®	Vinn Arjuna Martí	USA	free & guided movement	https://soulmotion.com/
SuryaSoul®	Philippe Beaufort, Sabine Zweig	Germany / India	structured, guided & free movement	https://www.suryasoul.com/
Tacoyo	Taco Veldstra	The Netherlands	structured movement	https://www.tacoyo.nl/english/
Tensegrity®	[Don Juan Matus] Carlos Castaneda (1925-1998)	Mexico / USA	structured movement	https://www.tensegrityonline.com/ https://castaneda.com/
Trance Dance Experience™	Wilbert Alix	USA	free movement, (blindfolded)	https://trancedance.com/about-trance-dance/

N.B. This is not an exhaustive list of HMPs. It includes practices the authors are personally familiar with as well as practices they have read or heard about and that they believe may fit the definition of HMP. There are likely to be other practices that they have not heard about that also fit the definition of HMP.