



Review Article

'Pilates' in 2024: Useful Clinical Tool or Commercial Catchphrase?

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Abstract

The system of exercise created by Joseph Pilates is practiced as Comprehensive Pilates today. The original method involved specifically designed exercises, most of which required access to a range of apparatus. Today, practices that are unrecognisable as Pilates' original method now dominate the fitness industry, with substantially modified exercises and an emphasis on matwork. While the number of health publications reporting the use of Pilates is increasing exponentially, there is lack of clarity as to which exercises and pieces of apparatus are used in each study. The changing landscape of Pilates, that includes the introduction of Reformer-only classes, adds complexity. In this article, we describe the spectrum of Pilates-related practice and describe an approach to more clearly define the terms for professionals, practitioners and researchers, and for the public. We recommend that, in addition to the term Comprehensive Pilates, Pilates-based matwork is reserved for programmes that do not use apparatus but employ a variety of mat exercises, based on those originally developed by Joseph Pilates. If the exercises are not close to those originally described Pilates, whether or not apparatus is used, the term Pilates should not be used as a label, particularly in the context of alternative, complementary and integrative medicine.

Keywords: Health promotion; Movement therapy; Pilates; Pilates-based apparatus; Pilates-based matwork

Introduction

Pilates is used increasingly to complement medical care. Its practice today, however, often differs from the original repertoire and is delivered by variously skilled occupational groups. Furthermore, there is lack of clarity around what is meant by the term 'Pilates'. Recent trends, for example, include the use of Pilates-based apparatus

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outside of the context of Comprehensive Pilates studios. The aim of this article is to explore the spectrum of activities currently bearing the name Pilates, clarify the evidence base and make recommendations in relation to its role in alternative, complementary and integrative medicine.

What is Pilates?

The Pilates Method, created by Joseph Pilates (b.1883 – d.1967), was a system, originally termed 'Contrology' [1]. Pilates designed and patented several pieces of apparatus including the Reformer, Wunda Chair and Spine Corrector, and developed and documented more than 500 separate exercises for the apparatus, along with 34 exercises designed for matwork [2]. Individuals who trained with Joseph Pilates continued this practice. Today, application of the Method using the range of Pilates-designed apparatus and exercises is known as Comprehensive Pilates. However, the practice of Pilates has changed substantially.

The term 'Pilates' has not been without controversy. In 2000, following a trademark dispute, it was the opinion of a New York Court that, while the equipment designed by Pilates was integral to the exercise system bearing his name, the term 'Pilates' was a generic exercise term [3]. Up until this time, Pilates was a Comprehensive practice; but after the court case matwork-only group classes became popular. This focus was not the original intention of Joseph Pilates who encouraged individual practice, facilitated by "highly trained instructors" and using "several other apparatuses as well as the mat" [1]. He also encouraged individuals to master each mat exercise before moving to the next [4]. There was an explosion in how the label was applied, to include a range of exercise activities.

Recently, we explored the meaning of the term Pilates with an international survey of practitioners who use apparatus based on Pilates' designs, and/or Pilates mat exercises [5]. The Comprehensive Pilates teachers identified their practice as either 'Contemporary' or 'Classical' and related their identity to their training lineage, tracing back to the 'first-generation' teachers who learned from Joseph Pilates himself. Classical Pilates is defined by both groups as teaching practice that is close to the original Method, draws on a range of original apparatus and exercises, with exercises executed in their original order. Both groups agreed that Contemporary Pilates is also based on the original Method, however the exercise and apparatus may be modified and there is greater flexibility in the order of exercises. As an outcome of this work, based on the views and practice across the sector, we developed a framework of Pilates teaching and proposed that this might be used to describe teaching practice in a way that can be used by teachers, researchers and the public. In this framework, Contemporary and Classical Comprehensive teaching is distinguished from Pilates-based matwork and other Pilates-based exercise.

Today, Comprehensive Pilates represents a small proportion of teaching under the label 'Pilates'. Instead, matwork instruction is the prevalent practice. In addition to Pilates-based matwork, there is a plethora of mat-based exercises and small equipment e.g., massage

balls, and rationales for practice e.g., 'the Six Principles' [6] that were not part of Pilates original work but nevertheless are made commercially available under the label 'Pilates'. There are further developments, with a trend to fitness studios teaching large groups on Pilates-based apparatus, particularly the Reformer, alone i.e., without other apparatus or complementary matwork. In addition, Pilates appears to be a branding catchphrase, used to differentiate forms that are hybrid with other exercise trends, e.g., High Intensity Pilates and Wall Pilates, or for use in particular clinical settings e.g., Pregnancy Pilates. Such approaches may mislead the public for whom the term Pilates is associated with certain expectations, including the expertise of the provider. Some fitness professionals, for example, advertise products under the name 'Clinical Pilates'. Joseph Pilates was himself concerned that complementary practices, including "various forms of mechanical apparatus" might be promoted for profit by "so-called health specialists" [4]. The label has the potential to also mislead healthcare practitioners. The label 'Clinical Pilates' is sometimes used within therapeutic contexts. In physical therapy for example, it has been used to describe a hybrid of 'general' Pilates within the McKenzie Method [7]. However, there are a variety of definitions in therapeutic practice raising the question, is 'Clinical Pilates' also a catchphrase?

Use of Pilates in Integrative Approaches to Health

In our publication in 2019, we documented an explosion of health publications that refer to the use of Pilates [5]. This exponential growth continues in 2024. The generic use of the term 'Pilates' continues to be a challenge when trying to interpret the method used in clinical interventions: most publications do not specify which exercises nor the technical specifications of apparatus that were used, with occasional exceptions. For example, Lee described the use of 'the knee stretch', as a Pilates-based stabilization exercise using a Reformer, specifying details of the exercises and the apparatus, including the brand [8]. In our study of the effect a Pilates-based matwork programme on height and waist circumference, we specified the exercises, the order of their execution and the expertise of the teacher [9].

In the wider literature, it may be that many clinical interventions labelled as Pilates do not approximate our definitions. Indeed, systematic reviews report approaches that incorporate elastic bands or balls, or that work isolated muscle groups as typical in weight training such lower limbs repetitions [6,10,11]. These practices are not based on the system that Pilates described [1]. Therefore, it remains difficult to examine the evidence that might determine the effectiveness of Pilates over other fitness interventions or clarify its role in health promotion and care. It can also be speculated that 'Clinical Pilates' might sometimes be used as a catchphrase for insurance and taxation purposes.

It is important that health care practitioners and users are clear about what an exercise intervention entails and the expertise of those delivering the service. As with any exercise modality, particularly those that involve apparatus, there are risks. Self-reported back injuries are associated with 'Pilates' [12]. Use of the Pilates Reformer has been associated with significant injuries, with the scientific literature including a spontaneous cerebrospinal fluid leak [13] and bilateral simultaneous shoulder dislocation [14]. A recently publicised court case in the UK of injuries from a fall doing a non-Pilates exercise on apparatus based on the Reformer design, resulted in the award of significant financial compensation [15]. There is call for the public to be more aware of the risks in an environment where the focus is on apparatus, and gyms and fitness instructors "cutting corners" [16].

The United Kingdom Government has, for example, called for greater workforce governance including standards of practice and adherence to professional standards that includes Pilates [17]. Comprehensive Pilates teachers consider development of clear standards as important for maintaining quality, creating professional identity and increasing public confidence [5]. Development of those standards, supported by occupational codes that recognise appropriate training and credentials at national level, would also allow international comparisons.

Worldwide, there are organisations that seek to establish standards for the industry. These include The Global Pilates Association (<https://globalpilatesassociation.com>) and The Pilates Method Alliance (<https://www.pilatesmethodalliance.org/>) in the USA, Pilates Association Australia (<https://www.pilates.org.au>) and Fédération des Professionnels de la Méthode Pilates in France (<https://www.fmpm.fr/en/>). However, national regulatory frameworks are generally lacking. While there is agreement that standards for Pilates teaching are needed, the tensions within the community have led to a perception that it would be difficult to establish a regulatory framework in an unbiased way [5]. There are commercial interests of those promoting exercises using the label 'Pilates', including manufacturers of apparatus e.g., the Reformer, and these companies also sponsor organisations recognising Pilates practitioners. Furthermore, some organisations recognising the credential of their members also provide training on a commercial basis: there may be a conflict of interest.

Conclusions and Recommendations

Exercises labelled as Pilates are used as a medical adjunct in a variety of contexts. While Joseph Pilates encouraged use of his Method to promote health, he did not regard it as a therapeutic tool, emphasising that "Contrology is not medicine or even physical therapy" [1]. Aligning with this, Comprehensive Pilates teachers are of the view that Pilates is not a replacement for rehabilitation and for most, they are neither trained nor qualified to diagnose or treat clinical conditions [5].

Pilates practice is a changing landscape. Originally, Comprehensive Pilates, using a variety apparatus for individual work, was the dominant form of teaching and practice. Today, activities that are labelled Pilates are mostly matwork; and single items of apparatus are being introduced as the focus for large-group classes. While exercises that are labelled 'Pilates' have been found to be useful adjuncts in healthcare, there remains a lack of clarity in the literature as to which exercises and which apparatus, precisely, are being used in each study. Clear definitions are key in this shifting landscape and until the terminology is standardised it is not possible to delineate the role of Pilates as an adjunct in alternative, complementary and integrative medicine, compared to other exercise modalities and therapeutic approaches.

We suggest that practitioners, researchers and the public, when confronted with an exercise modality that bears the label 'Pilates', should ask two questions, as outlined in figure 1. Firstly, are the exercises Pilates-based i.e., are they close, or similar to, those depicted in Joseph Pilates published works? If not, then the exercise is not Pilates and should not be labelled Pilates. If the answer is yes, the next question is, does the exercise involve the use of a piece of large apparatus e.g., the Reformer? Where only small apparatus e.g., the Magic Circle is used, the answer to this question is 'no'.

If the exercises are based on the original on Pilates' 34 matwork exercises, and apparatus is not employed, the term Pilates-based

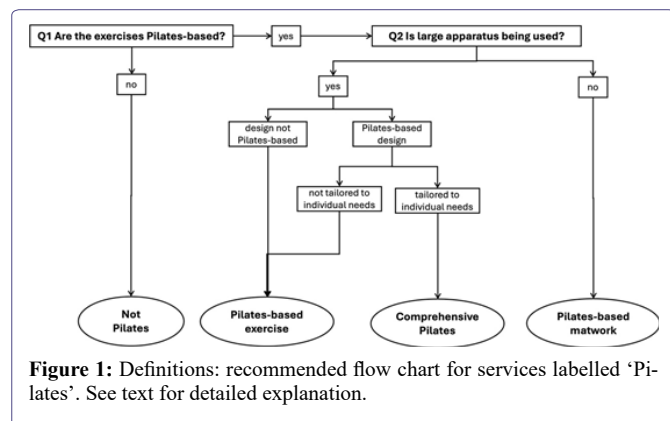


Figure 1: Definitions: recommended flow chart for services labelled 'Pilates'. See text for detailed explanation.

matwork should generally be used. However, if the exercises are very close to the original descriptions and the teacher tailors those exercises to individual needs, then 'Pilates matwork' may be preferred. If apparatus based on the original designs of Joseph Pilates is being used, it is important to clarify how the exercises are facilitated. Comprehensive Pilates requires an individually tailored approach, which is linked to the lineage of the practitioner. In the absence of a focus on the needs of the individual, or if the apparatus is not based on original Pilates' design, then we recommend the term Pilates-based exercise. Pilates-based exercises are often used in combination with non-Pilates exercises.

In conclusion, we recommend caution in interpreting studies that report the use of 'Pilates' in clinical settings. We suggest use of the above terminology to clarify how the exercises offered in health and well-being settings align to the original exercises, apparatus and person-centered approach of Joseph Pilates. In order to prioritise the interests of the public, we strongly encourage further work to develop clear standards and mechanisms for recognising the practice of Comprehensive Pilates and those claiming to use Pilates-based approaches in clinical settings.

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