

Is There a Place for Yoga in Physical Education?

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Introduction

Teaching physical education in a small rural primary school with no indoor hall in the west of Ireland compelled me to maximise opportunities for physical activity within my classroom space. Being a primary generalist teacher and a keen practitioner of yoga, and having just qualified as a yoga instructor, I decided to use yoga to complement my physical education programme. In my multi-grade classroom 22 children (ranging in age from four years to nine years old and including children with a special need) were able to engage in the yoga activities I planned as I could adapt the practice to suit individual needs. This prompted me to question if yoga could be a beneficial addition to the Irish Primary Physical Education Curriculum as a kinetic learning experience within a physically active classroom setting or as part of a physical education programme. As part of my Post-Graduate Diploma in Physical Education at St. Patrick's College, Dublin, I decided to undertake a small-scale research study to investigate the following research question: does a sample of primary teachers in Ireland believe there is a place for yoga in physical education?

This article outlines the background, setting, research design and results of the study. Ultimately, a discussion of the results leads to the formulation of conclusions and recommendations in relation to the place of yoga in physical education.

Background

Yoga for physical education

Yoga and physical education share some similar objectives. The Irish Primary Physical Education Curriculum takes a holistic approach towards ensuring that "the balanced and harmonious development and general well-being of the child is fostered" (Government of Ireland, 1999a, p.2). Similarly, yoga practices for children are designed to integrate body and mind in order to improve health, happiness and quality of life (Kaley-Isley, Peterson, Fischer and Peterson, 2010; Toscano and Clemente, 2008). The content of the Irish Primary Physical Education Curriculum is divided into six movement areas called strands: *athletics, dance, gymnastics, games, outdoor and adventure activities and aquatics*. Schools are encouraged to implement a broad and balanced programme of activities that includes all strands of the curriculum to meet the physical, social, emotional and intellectual needs of the individual child. Research shows that yoga could have implications for these four key areas of children's development.

Physical and motor development

Physical education is distinguished from other curricular areas by its primary focus on the body. The Irish Primary Physical Education Curriculum aims to "help in the acquisition of an appropriate range of movement skills and to promote understanding and knowledge of the various aspects of movement" (Government of Ireland, 1999a, p.10). The broad objectives of the curriculum for physical and motor development include developing strength, endurance, flexibility, agility, alertness, control, balance, co-ordination and good posture, as well as maintaining and enhancing health-related fitness and promoting a healthy lifestyle. Practising physical postures

is a feature of all yoga programmes which has been shown to strengthen, stretch, align, tone and condition the body (Berger, Johnson Silver and Stein, 2009; Toscano and Clemente, 2008). Gains in musculoskeletal strength, endurance, co-ordination, flexibility and aerobic capacity have been shown in schoolchildren who participated in yoga programmes (Augenstein, 2003; Slovacek, Tucker and Pantoja, 2003). In particular, yoga has been identified as a gateway for adopting a healthy lifestyle for children who might be intimidated by traditional competitive sports or vigorous forms of exercise (Birdee, *et al*, 2009; Benavides and Caballero, 2009; Kaley-Isley *et al*, 2010; Toscano and Clemente, 2008). The individualistic, non-threatening, self-accepting and non-judgemental nature of yoga appears to appeal to children with physical limitations, body dissatisfaction and emotional insecurities (Augenstein, 2008; Benavides and Caballero, 2009; Kaley-Isley *et al*, 2010) and is recommended as a therapeutic intervention for children with health problems such as asthma, obesity, irritable bowel syndrome, eating disorders, pain, injury and terminal illness (Galantino, Galbavy and Quinn, 2008; Kaley-Isley *et al*., 2010).

Social and personal development

The Irish Primary Physical Education Curriculum aims to promote positive attitudes towards physical activity by enabling children to interact and co-operate with others and to experience success through effort and challenge. Ehleringer (2010) defines yoga as a "powerful tool that can teach children how to connect with their bodies, tap into their own personal strength, better deal with life's challenges and build connections with the outside world" (p.131). Her study shows that children with Autism Spectrum Disorders (ASD) can use yoga to improve focus and attention, sensory information processing, communication and self-regulation, ultimately allowing them to lead more balanced, socially integrated and independent lives. Other studies show that participation in yoga interventions can improve children's levels of social confidence, communication, contributions in the classroom and behaviour at school (Case-Smith, Shupe Sines and Klatt, 2010; Kenny, 2002; Powell, Gilchreest and Stapely, 2008; Slovacek *et al*., 2003). Furthermore, yoga teaches children strategies for emotional control in order to deal with stressful situations. Increased internal control of emotions such as anger and agitation may increase the likelihood of children experiencing positive interactions with their peers and lead to a more positive sense of self (Case-Smith *et al*, 2010).

Emotional health and well-being

Enhancing emotional health and well-being through movement is a cornerstone of the Irish Primary Physical Education Curriculum. Maintaining a positive attitude to physical education is central to the child's progress as it fosters a desire for physical activity, encourages constructive use of free time and lays the foundation for participation in physical activity in adult life (Government of Ireland, 1999a). School-based yoga programmes can enhance emotional and psychological well-being by increasing self-awareness, self-confidence and self-esteem (Powell *et al*., 2008; Slovacek *et al*., 2003; Tummers, 2005; White, 2009). Yoga is an individual progression, where success is defined through improvement and participation (Stewart Stanec, Fomeris and Theuerkauf, 2010; Flynn, 2013; Rawlinson, 2013). Teachers can modify the instruction to meet the needs of each child. This correlates with the aims of the Irish Primary Physical Education Curriculum, which specify that children should be enabled to experience the enjoyment of participation and progression according to their own ability and development is focused on "individual improvement and not on winning or being the best" (Government of Ireland, 1999a, p.6). Furthermore, studies have shown that children who practised physical yoga postures using particular breathing techniques learned to cope better with stress, anxiety and depression as they facilitate the development of core qualities such as self-acceptance and self-regulation (Benson, Wilcher, Greenberg, Huggins, Ennis, Zuttermeister, Myers and Friedman, 2000; Khalsa, Shorter, Cope, Wyshak and Skylar, 2009; Stueck and Gloeckner, 2005).

Intellectual and creative development

The Irish Primary Physical Education Curriculum advocates the establishment of a stimulating environment in which the child can develop imagination and creativity, and where objectives across a variety of curricular areas, particularly literacy and numeracy, can be achieved and consolidated through movement activities (Government of Ireland, 1999b). Teachers can stimulate the teaching and learning of language by inviting children to explain, discuss, describe and express ideas about yoga activities, or by bringing a yoga lesson to life through the construction or use of stories based on the yoga poses (Flynn, 2013; Freeman, 2009; Rawlinson, 2013; Solis, 2006; Tummers, 2005). Mathematical concepts such as geometry, linear alignment, doubles, opposites, triangles, circles, arcs, shape, space, symmetry, number, pattern and angles can also be explored through thematic yoga sequences (Calhoun and Calhoun, 2006). Furthermore, yoga interventions have been shown to improve independent, productive, working efficiency, overall ability to concentrate, academic performance and enthusiasm for learning (Augenstein, 2003; Cohen-Harper, 2010; Galantino *et al*, 2008; Peck, Bray and Theodore, 2005; Tummers, 2005). The unification of physical exercises with an emphasis on controlled breathing and periods of relaxation in a yoga practice can bring about calmness and augment mental clarity (Toscano and Clement, 2008; Tummers, 2005). School-based studies have found that yoga interventions improved time on task in children evidencing attention problems (Peck *et al*., 2005) and enhanced academic learning by improving memory (Manjunath and Telles, 2004). In summary, it would appear from the literature that yoga activities have the potential to improve motor development, enhance confidence, enrich emotional well-being and support learning in physical education.

Setting

The participants

I decided to focus my research on investigating the views of a sample of primary teachers in Ireland who were members of physical education Communities of Practice and who had attended a workshop on yoga for physical education. Communities of Practice for primary teachers with a keen interest in physical education are facilitated and promoted by the Irish Primary Physical Education Association (IPPEA) in partnership with Professional Development Service for Teachers (PDST). The Communities of Practice come together regularly to build on, share and exchange knowledge and expertise with a view to improving practice. Parker, Patton and Tannehill (2012) believe that Communities of Practice are a valuable form of professional development for primary teachers in Ireland as they allow teachers opportunities to work together in a supportive environment.

Having known about the provision of Communities of Practice in the subject area of physical education, I contacted the IPPEA to express an interest in presenting yoga workshops. The workshops were approved by the IPPEA and scheduled for spring 2012, and were promoted on the IPPEA website and in local education centres (regional venues financed by the Department of Education and Skills in Ireland which provide support for teachers). Participants were invited to sign up to the workshops in advance through these centres. I based the primarily quantitative study on the perceptions of teachers following participation in the workshops described here.



Research design

The workshop

The 90-minute workshops were designed and presented by the researcher in February 2012. The workshops aimed to introduce primary teachers to elements of yoga that would be suitable for children in a primary school physical education context. The first workshop was held in Dublin (east of Ireland) and the second workshop was held in Galway (west of Ireland). An 11-page resource booklet, designed by the researcher, containing illustrations, specific yoga content, advice for incorporating yoga into a physical education programme and suggestions for integration with other curricular subjects, was provided to each participant.

The researcher welcomed the participants to the workshop by outlining its focus and objectives. Participants were then guided through a practical warm-up sequence (a traditional yoga warm-up exercise entitled the *Sun Salutation*) and a series of poses suitable for children. Within the theme of 'The Zoo' the teachers were actively guided to move into yoga poses that incorporated environmental and animal themes such as tree, flower, butterfly, river, rainbow, rock, lion and eagle. Suggestions for integration with other curricular subjects, particularly literacy and numeracy, were explored through story-time yoga activities and thematic sequences. This was followed by a short period of guided relaxation with music.

The questionnaire

I used a questionnaire to ascertain teachers' views on the place of yoga in the Irish Primary Physical Education Curriculum. The questionnaire contained 23 closed questions and one open-ended question. Teachers were asked if they feel there is a place for yoga in their physical education programme and if they would consider including elements of yoga in their physical education programme after engaging in the workshop. A total of 53 primary teachers attended the workshops, 24 attending in Galway and 29 attending in Dublin (n=53). The participants were informed that the study had ethical approval from St. Patrick's College and that completion of the questionnaire was voluntary. Questionnaires were administered immediately after the workshops, and participants were engaged with the questionnaires for approximately 10-15 minutes. Each respondent was assigned a label e.g. T.1 (Teacher 1). The questionnaires were collected by the researcher upon completion and numbered T.1-T.53. A 100 per cent response rate was recorded.

The data was analysed using Microsoft Office (Version 12). Dichotomous questions and questions with pre-set responses related to gender, age group, number of years teaching and type of school were coded. Categories which emerged in responses to the open-ended question were used to help identify the most useful aspects of the workshop that teachers reported.

Results

The participants came from a variety of school types. Eighty five per cent (n= 45) were teaching in a co-educational setting, with single-gender girls' schools and single-gender boys' schools also represented. Seventeen per cent (n=9) of respondents were male. Less than half (44 per cent, n=23) of the participants had previously attended a yoga class for their own personal fulfilment, yet all teachers agreed that there is a place for yoga in their physical education programme. Twenty six per cent (n=12) of teachers reported having used 'yoga adapted activities' as part of a physical education lesson previously. Twenty nine per cent (n=15) revealed that yoga had been taught in their school before. They all identified gymnastics as the strand most closely aligned with yoga while dance, athletics, games, aquatics and outdoor and adventure activities were also identified as areas in which aspects of yoga could be utilised (see Table 1).

Ninety two per cent (n=49) of the participating teachers agreed that yoga could be used to promote the social, emotional and intellectual development of the child. Over 90 per cent (n=48) agreed that yoga activities could help in the acquisition of an appropriate range of movement skills and to develop an understanding and appreciation of movement and of the use of the body as an instrument of expression and creativity. Eighty-three per cent (n=44) of teachers felt that yoga could be used as part of a physical education

Table 1: Application of yoga to the strands of the curriculum: Teachers' views (n=53)

What strands of the physical education curriculum do you think yoga is most applicable to?	
Strand	**% of teachers**
Athletics	55
Games	41.5
Dance	87
Gymnastics	100
Outdoor & Adventure	1.8
Aquatics	20.7

Table 2: Resources to support yoga teaching identified by teachers (n=53)

What resources would assist your delivery of yoga as part of your PE programme?	
Reource required	**% of teachers**
Activity cards	75
Posture cards	59
Lesson plans	53
Music CD	49
Teacher's guide	43
Posters	38
DVD	38
Story cards	34

programme to develop positive personal qualities, which are specified in the Irish Primary Physical Education Curriculum as "self-esteem, self-awareness, confidence, initiative and leadership through movement" (Government of Ireland, 1999a, p.11). When asked a closed question using the language of the curriculum, all teachers believed that yoga could be used to "promote enjoyment of and positive attitudes towards physical activity and its contribution to lifelong health-related fitness, thus preparing the child for the active and purposeful use of leisure time" (Government of Ireland, 1999a, p.10).

In relation to the workshop as a model for continuing professional development, over 50 per cent (n=27) of teachers agreed that active participation in the workshop combined with the presentation of a comprehensive resource pack of child-friendly yoga activities made the workshops useful, enjoyable and memorable.

Fifty eight per cent of teachers (n=28) specifically highlighted the value of "full and active participation" (T.23) in "doing the sequences" (T.21). Forty two per cent (n=20) commented on the quality and suitability of the "comprehensive hand-out" (T.16). Thirty five per cent of teachers attributed value to the integrative aspects of the workshop, particularly the "linkage with literacy" (T.51 and T.17) and "how to build poses into stories" (T.32). All participants stated that they found the workshop useful, and that, having participated in it, they would feel confident to include elements of the yoga workshop in aspects of their physical education programme. Ninety eight per cent (n=52) of teachers said they would be interested in a further workshop, while 75 per cent (n=40) reported the need for further resources that would assist their delivery of yoga as part of their physical education programme. Details of the suggested resources are listed in Table 2.



Discussion and conclusion

The purpose of this study was to investigate whether a sample of primary teachers in Ireland believes there is a place for yoga in physical education. Firstly, the teachers agreed that yoga could meet the aims of the Irish Primary Physical Education Curriculum related to movement and health related fitness. Secondly, the teachers agreed that, despite being potentially applicable to all of the physical education strands, yoga could be most closely linked to the gymnastics strand. This finding could be particularly beneficial to teachers who feel restricted in their teaching of this strand by a shortage of space or equipment as yoga can be adapted to suit small spaces such as classrooms and requires little or no equipment (Cohen-Harper, 2010; Kaley-Isley *et al.*, 2010; Toscano and Clemente, 2008; Tummers, 2005; White, 2009). Another result of the study is interesting in light of the current debate on the physical activity levels of children. The entire sample of teachers believed that yoga could "promote enjoyment of and positive attitudes towards physical activity and its contribution to lifelong health-related fitness" (Government of Ireland, 1999a, p.10). This suggests that teachers believe that the inclusion of yoga activities in physical education programmes and during the school day could have long-term positive implications for the child's quality of life. This is consistent with previous research which has documented that children who experience joy and success during physical activity at school are more likely to continue to be active throughout their lives (Kaley-Isley *et al.*, 2010; Toscano and Clemente, 2008; Tummers, 2005).

Finally, it is interesting that all participants in this study expressed an interest in attending further workshops on the topic of yoga in physical education. This trend highlights two important points. Firstly, it underlines the value of the Communities of Practice model of professional development as an effective means of sharing and developing skills, expertise and emergent theories of education, in line with current research (Parker *et al.*, 2012; Tannehill, 2011; Wenger and Snyder, 2000). Secondly, this sample of teachers would appear to be particularly interested in the application of yoga to the Irish Primary Physical Education Curriculum. They expressed a positive response to active participation in the workshop and the provision of practical resources and were keen to put their learning into practice in their own classrooms. Research suggests that continuous professional development is most effective when it emphasises active participation (Armour, 2011) and where resources are provided to support learning

(Marron, Murphy and Coulter, 2011). This particular finding was further consolidated since completing this study, as I was invited to present 15 more workshops for primary teachers in Dublin, Galway, Limerick, Westmeath and Louth, which drew a combined attendance of 385 teachers.

Recommendations

The findings of this study provide a basis for a number of key recommendations.

1. Teachers should be encouraged to utilise elements of yoga to complement their physical education programme and perhaps to explore how yoga might be used where space is restricted and at other times in the school day.

2. Teachers should be supported in the implementation of a yoga programme in their schools with training and resources provided through agencies such as the IPPEA and the PDST.

3. The incorporation of yoga activities into pre-service physical education programmes for teachers should be considered.

4. It would be valuable to explore this topic further by carrying out further research into the views of children, teachers and parents after the implementation of yoga-based physical education programmes in their schools, and to track the impact of yoga-based Communities of Practice workshops in the future.

I believe that if we envision a physical education programme for our children that can be enhanced through incorporating elements of yoga, taught by teachers who have explored such practice, we will be taking a positive step towards improved practice and the promotion of lifelong engagement in physical activity.

I would like to sincerely thank Susan Marron and Dr Frances Murphy, lecturers in the Education Department (Physical Education Unit) at St. Patrick's College, Dublin, for their supervision of the study and assistance in writing the paper. Photographs are with the kind permission of Scoil Bhride, Shantalla, Galway, Ireland.

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