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Physical contact in physical education, sports coaching and the preschool – a scoping review

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Abstract

Physical contact between adults and children in educational setting has been a well debated subject in research over the past 20 years. Although physical contact is often regarded as an important pedagogical tool, it has given rise to an increased awareness amongst sports coaches, physical education and preschool teachers about the possible negative consequences of its use in these settings. The aim of this article is to map the current literature on physical contact in physical education, sports coaching and the preschool and identify research gaps by means of a scoping review, i.e. after 20 years of research in the field of intergenerational touch what can be said to be known in the field and what possible gaps are there in the research? The research questions are: (i) Which journals, countries, settings, theories and methods are represented in the research field? (ii) Which central themes and knowledge gaps can be identified? The results show that the research field has expanded significantly in the last 20 years, both in terms of the number of published articles, the number of countries represented in the research and the number of journals in which articles on the topic have been published. The central themes identified in the articles included in the review cover the following topics: fears related to physical contact, resistance, cultural differences, the functions and needs of physical contact and the professional identity of sports coaches, physical education and preschool teachers. It is concluded that studies that could lead the research field forward would ideally focus on intersectionality, or how practitioners' fears of physical contact impact their pedagogical work with students.

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Introduction

Physical contact between people has received considerable attention in recent years. We have seen ratifications of child protection policies at institutional levels, initiatives for gender equity such as the #Metoo movement and, most recently, social restrictions connected to the global public health challenges of the Covid-19 pandemic. Such a contemporary transformation of how social practices relate to physical contact and social distance is pertinent to how societies, professions and educational institutions, amongst others, have come to re-evaluate interpersonal relationships.

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In physical education (PE), sports coaching and the preschool, physical contact has traditionally been a crucial part of teachers'/coaches' professional knowledge and teaching habits. In many ways, physical contact remains a significant educational tool when instructing, giving caring support and building durable relationships with young people (Fletcher, 2013; Öhman, 2017). Nevertheless, in the past two decades scholars and practitioners have been forced to become more aware of the possible consequences of physical contact. At a fundamental level, research has both enlightened and challenged researchers and practitioners to take more notice of teachers' and coaches' experiences and fears around physical contact. However, it is also notable that teachers and sports coaches are experiencing increased social control and in many ways struggle with higher levels of insecurity and vagueness (Fletcher, 2013; Piper et al., 2013a). The research field of intergenerational touch has contributed empirical knowledge about the subject and scholars have attempted to explore the moral and interpersonal limits of physical contact in relation to the pedagogical values and ideals of their professions (Andersson et al., 2018). Between 2000 and 2020 the research in this field began to grow and many articles on the subject have been published, although these advancements have yet to be gathered, systemised and synthesised. The intention with this scoping review study is therefore to contribute in some way to this. The overall purpose of conducting a scoping review is to identify and map the available evidence in the existing literature on a certain issue or topic (e.g. Arksey & O'Malley, 2005; Peterson et al., 2017).

The aim of the scoping review undertaken here is to map the current literature on physical contact in PE, sports coaching and the preschool, i.e. what has been investigated so far and what can be said to be known after 20 years of research in the field of intergenerational touch, and identify any research gaps. The following research questions have guided the review: (i) Which journals, countries, settings, theories and methods are represented in the research field? (ii) Which central themes and knowledge gaps can be identified? We have used Reid's (2019, 2020) conceptual framework of *blank*, *blind*, *bald* and *bright spots* to identify and systematise the topics that are repeated in research and those that we need to know much more about.

The study concentrates on the findings published in peer-reviewed research articles on physical contact in PE, sports coaching and the preschool between 2000 and 2020. These three areas have been chosen because they raise similar questions and issues in the research field. Besides increasing societal relevance, this review is motivated by a need to gain an overview of the accumulated empirical results concerning how roles, activities and aims are clarified and challenged. Such an overview has the potential to inform academic and professional discussions about how teaching and learning can adjust to contemporary transformations of social practices related to physical contact, without compromising physical contact as an educational tool.

Method

Unlike a systematic literature review, where the research question is usually well-defined and narrow, the intent of a scoping review is often broad (Arksey & O'Malley, 2005; Levac et al., 2010). Scoping reviews also differ from systematic literature reviews in that 'the scoping process requires analytical reinterpretation of the literature' (Levac et al., 2010, p. 1).

The basis for a scoping review is the use of rigorous and transparent methods during the different stages of the review (Arksey & O'Malley, 2005). In the following we describe the different stages that were employed when identifying which studies to include in this review. This process is inspired by the stages suggested by other researchers (Arksey & O'Malley, 2005; Colquhoun et al., 2014).

Stage 1 – Identify the research questions

The research questions in focus here are: (i) Which journals, countries, settings, theories and methods are represented in the research field? (ii) Which central themes and knowledge gaps can be identified?

Stage 2 – Identify the relevant studies

The review is limited to peer-reviewed articles published in English from 1st January 2000 to 31st December 2020. In the past, scoping reviews have been criticised for not paying attention to the quality of the included literature (Peterson et al., 2017). As a way of meeting this criticism, we have chosen to only include peer-reviewed articles. The starting date was chosen because it was around this time that research in this field began to be published more often. We are aware that excluding articles in other languages than English limits the review, although for reasons of time and cost related to the translation of articles, this was deemed necessary.

With the help of a librarian, the following three databases were identified as the most relevant to the research topic: PsychINFO, SportDiscus and ERIC. These databases were decided on due to their focus on sport science, pedagogy and education. After some initial tentative searches the three databases were finally searched with terms related to **'touch'** (such as 'physical contact', 'intergenerational touch', 'no touch', 'non-verbal communication') in combination with terms related to **'physical education'** or **'teaching'** (such as 'teaching', 'teaching methods', 'education', 'teacher education'), terms related to **'sports coaching'** (such as 'coaching', 'athletics'), or terms related to **'pre-school'** (such as 'child care', 'preschool education', 'preschool learning').

A total of 566 articles were identified in this process. However, 83 of the 566 articles were found to be duplicates and were consequently removed.

Stage 3 – Study selection

In stage 3,¹ the three co-authors independently screened the titles and abstracts of the remaining 483 articles from the search for relevance against the inclusion criteria, i.e. relating to *education, teaching, coaching, teacher/coach-student relationship, teacher/coach-student interaction or pedagogical issues*. Articles relating to *children with disabilities* (for example dyslexia, deaf, blind, intellectual disabilities or neuropsychological issues), *technology supported teaching and learning* (for example touch technologies in digital devices), *neuroscience, family and animals* were excluded from the study. During the selection process, meetings were held between all three authors to compare their independent selections, resolve any disagreements and make decisions. At the end of the selection process a total of 405 articles were categorised as irrelevant and were therefore removed from the review, leaving 78 possibly relevant articles. Full text articles were then retrieved for these 78 articles and reviewed independently by the authors. This step was followed by further meetings to determine which articles to include in the final dataset. This led to another 29 articles being deemed irrelevant according to the exclusion criteria and 7 articles were excluded because full text versions could not be retrieved. A total of 42 articles were finally regarded as relevant for the scoping review.

Additional searches

The database search was followed by what Arksey and O'Malley call the 'hand-searching of key journals' (2005, p. 23). In order to obtain some structure in this process, it was decided to hand-search the journals in which three or more articles were represented in the initial database search. Also, reference list searches were made in the articles included in stage 3. After all the additional searches, a final total of 60 articles were included in the scoping review (see Appendix 1 for an overview).

Stage 4 – Charting the data

To chart the data in stage 4 (Arksey & O'Malley, 2005), a data extraction sheet documenting descriptive information, such as author(s), country, journal, aim, method, theory and the key findings of each article, was filled out by the researchers.

Stage 5 - Collating, summarising and reporting the results

In order to thematise and present a scoping review narrative it is important to use an analytical framework (Arksey & O'Malley, 2005). In stage 5 we used Reid's (2019, 2020) conceptual framework of *blank*, *blind*, *bald* and *bright spots* to identify the topics that are repeated in research and any current gaps in the knowledge. According to Reid, *blank spots* are the topics that we know enough about and are able to question but for which we do not have all the answers. *Blind spots* are the topics that are easily missed or overlooked, i.e. research questions that are discovered over time by doing more research. *Bald spots* are those topics that are repeated in research, which means that the knowledge we already have is confirmed, even though there may be nuances. *Bright spots* are topics that inspire and innovate and mean that research takes new directions (Reid, 2019, 2020).

Results

The result section represents *Stage 5 – Collating, summarising and reporting the results* of the review. A descriptive overview is presented first, which answers this research question: (i) Which journals, countries, settings, theories and methods are represented in the research field? A thematic overview and an analytical re-interpretation of the literature is then presented, which answers this research question: (ii) Which central themes and knowledge gaps can be identified?

(i) #Descriptive overview: countries, journals, settings, theories and methods

The articles included in this review are from studies conducted in 16 countries and published in English in 36 different journals. The 21-year period has been divided into three in order to follow the increasing number of articles over time. The increase in the number of articles is notable in terms of the journals, countries and settings in which the studies were conducted. This illustrates how the field has both expanded and broadened in the time span of the study.

In terms of settings, there are differences in the articles depending on which setting is investigated. In Table 1, the preschool, school, university and sports coaching settings of the articles have been separated.

Theories and methods

Beck's framework of risks and Foucault's framework of dominating discourses are prominent in the research field but are applied in different ways. These two theoretical traditions have approached physical contact as a constant navigating of risks (Beck) and as regulated by discourses and decentralised power (Foucault), e.g. to explain or understand physical contact as a phenomenon, guide empirical analyses of physical contact, conceptualise and discuss results, or inform study designs. The key points of these theoretical applications are described in brief below.

As early as 2003, Piper and Smith wrote that one possible way of understanding the phenomena of touching and no-touching in educational settings would be to consider them in terms of Beck's (1992) account of a risk society. Beck's notions of a risk society have been used as a way of understanding the fear and anxiety of using physical contact in education (Andrzejewski & Davis, 2008; Varea et al., 2018). Risks essentially express a future component, and results show that teachers and coaches need to actively prevent problems and crises today so that they do not become the problems and crises of tomorrow.

Several of Foucault's theoretical concepts are used in the articles, in particular discourse, power, governance, panopticon, normalisation and subjectivity. The articles often connect to a discourse-analytical tradition and study how dominating discourses (child protection, safeguarding, no-touching) in society impact discursive practices (the teaching/coaching situations) in terms of facilitating or restraining actions (Andrzejewski & Davis, 2008; Burke & Duncan, 2016; Caldeborg & Öhman, 2020; Fletcher, 2013; Garratt et al., 2013; Jones, 2004; Lang, 2010; Öhman, 2017; Piper et al., 2012, 2013a,

Table 1. Years, countries, journals and settings of the included articles.

Year (21)	2000–2009	2010–2015	2016–2020
Articles (60)	13	22	25
Countries (16)	USA (3) United Kingdom (2) Sweden (1) Israel (1) Greece (1) New Zealand (1) France (1) Australia (1) New Zealand/United Kingdom/Sweden (1) Not specified (1)	United Kingdom (8) USA (8) Sweden (1) Greece (1) Australia (1) Canada (1) Central Africa (1) Denmark (1)	Sweden (13) Australia (3) United Kingdom (2) Spain (2) Norway (1) Denmark (1) South Korea (1) Saudi Arabia (1) New Zealand/Japan (1)
Journals (36)	British Educational Research Journal (2) (McWilliam & Jones, 2005; Piper & Smith, 2003) Acta Paediatrica (1) (von Knorring, Söderberg) British Journal of Sociology of Education (1) (Jones, 2004) Early Childhood Education Journal (1) (Caulfield, 2000) Electronic Journal of Research in Educational Psychology (1) (Stamatis & Kontakos, 2008) Indo-Pacific Journal of Phenomenology (1) (Miller et al., 2007) International Journal of Education (1) (Cushman, 2009) International Review for the Sociology of Sport (1) (Fejgin & Hanegby, 2001) Journal of Social Work (1) (Piper et al., 2006) Sex Roles (1) (Mcdowell & Cunningham, 2008) Social Psychology of Education (1) (Guéguen, 2004) Teaching and Teacher Education (1) (Andrzejewski & Davis, 2008)	Sport, Education and Society (11) (Chare, 2013; Fletcher, 2013; Garratt et al., 2013; Johansson, 2013; Johnson, 2013; Jones et al., 2013; Lang, 2010; Piper et al., 2012, 2013a, 2013b; Scott, 2013) Early Child Development and Care (2) (Lawrence & Gallagher, 2015; Owen & Gillentine, 2011) American Journal of Public Health (1) (Pulido et al., 2015) Child Abuse & Neglect (1) (Kenny & Wurtele, 2010) Electronic Journal of Research in Educational Psychology (1) (Stamatis, 2011) International Journal of Psychology (1) (Jung & Fouts, 2011) Journal of Sport & Social Issues (1) (Pépin-Gagné & Parent, 2015) Journal of Child Sexual Abuse (1) (Henny et al., 2012) Journal of Youth Sports (1) (Smith & Strand, 2014) Nordic Psychology (1) (Munk et al., 2013) Young Exceptional Children (1) (Schneider & Patterson, 2010)	Sport, Education and Society (6) (Andersson et al., 2018; Caldeborg, 2020; Caldeborg et al., 2019; Öhman & Quennerstedt, 2017; Taylor et al., 2016; Varea & González-Calvo, 2021) International Journal of Early Years Education (2) (Aslanian, 2018; Cousins, 2017) European Physical Education Review (2) (Caldeborg & Öhman, 2020; Öhman, 2017) Early Child Development and Care (1) (Svinth, 2018) Education (1) (Cruickshank, 2019) Education Inquiry (1) Hedlin et al., 2019b) European Early Childhood Education Research Journal (1) (Cekaite & Bergnehr, 2018) Global Studies of Childhood (1) (Burke & Duncan, 2016) International Journal of Primary, Elementary and Early Years Education (1) (Cruickshank, 2019) Issues in Educational Research (1) (Cruickshank, 2020) Journal of Early Childhood Research (1) (Åberg et al., 2019) Journal of EWarly Years Education (1) (Bergnehr & Cekaite, 2018) Journal of Pragmatics (1) (Cekaite, 2016) Pedagogy, Culture and Society (1) (Hedlin et al., 2019a) Perceptual & Motor Skills (1) (Frikha et al., 2019) Physical Education and Sport Pedagogy (1) (Jung & Choi, 2016) Research on Language and Social Interaction (1) (Cekaite & Kvist Holm, 2017) Societies (1) (Varea et al., 2018)
Setting	Preschool/Childcare (5) (Caulfield, 2000; Piper et al., 2006; Piper & Smith, 2003; Stamatis & Kontakos, 2008; von Knorring et al., 2008) School (5) (Andrzejewski & Davis, 2008; Cushman, 2009; Jones, 2004; McWilliam & Jones, 2005; Piper et al., 2006) School (university) (1) (Guéguen, 2004) Sports Coaching (4) (Fejgin & Hanegby, 2001; Mcdowell & Cunningham, 2008; Miller et al., 2007; Piper et al., 2006)	Preschool/Childcare (5) (Henny et al., 2012; Jung & Fouts, 2011; Kenny & Wurtele, 2010; Lawrence & Gallagher, 2015) School (6) (Fletcher, 2013; Owen & Gillentine, 2011; Piper et al., 2013a, 2013b; Pulido et al., 2015; Scott, 2013) School (university) (0) Sports coaching (12) (Chare, 2013; Garratt et al., 2013; Johansson, 2013; Johnson, 2013; Jones et al., 2013; Lang, 2010; Pépin-Gagné & Parent, 2015; Piper et al., 2012, 2013a, 2013b; Scott, 2013; Smith & Strand, 2014)	Preschool/Childcare (11) (Aslanian, 2018; Åberg et al., 2019; Bergnehr & Cekaite, 2018; Burke & Duncan, 2016; Cekaite, 2016; Cekaite & Bergnehr, 2018; Cekaite & Kvist Holm, 2017; Cousins, 2017; Hedlin et al., 2019a, 2019b; Svinth, 2018) School (10) (Andersson et al., 2018; Caldeborg, 2020; Caldeborg & Öhman, 2020; Caldeborg et al., 2019; Cruickshank, 2019, 2020; Jung & Choi, 2016; Öhman, 2017; Öhman & Quennerstedt, 2017; Taylor et al., 2016) School (university) (3) (Frikha et al., 2019; Varea & González-Calvo, 2021; Varea et al., 2018) Sports coaching (1) (Taylor et al., 2016)

2013b; Taylor et al., 2016). By using Foucauldian inspired approaches, researchers have reflected on and critically examined the consequences of dominating discourses and how they produce 'realities' and specific ways of thinking and acting. Piper et al. (2013a) demonstrate how the linked signifiers of 'abuse', 'protection' and 'safeguarding' produce both continuity and change in the philosophy and meaning of teaching/coaching practices, thereby giving rise to particular notions of 'government', regulation, risk aversion and prohibitions. Studies have also emphasised self-governing processes and the ways in which PE teachers regulate themselves in relation to the no-touching discourse (Jones, 2004; Öhman, 2017).

The selected studies include a number of different methods, with a focus on the use of interviews with practitioners, observations, questionnaires, narratives and text analyses. Other less represented methods include interviews with students and the use of visual methods and data related to protection/prevention programmes (for an overview see Appendix 2).

Central themes and knowledge gaps

In the analysis, six central themes were identified: (i) the fears and anxieties of physical contact – a critical approach, (ii) resistance, (iii) gender differences, (iv) different interpretations and cultural differences, (v) the functions and needs of physical contact and (vi) the professional identity. In each of these themes we use Reid's concepts of blank, blind, bald and bright spots to synthesise the identified knowledge and point to possible future research avenues.

It is important to note that all aspects of the result may not be representative for all three investigated fields of research (PE, sports coaching and the preschool) at all times. In cases where not all investigated fields of research are represented in the result, this is clearly noted in the text by naming which fields a certain aspect represents. In addition, it is also worth mentioning that the aim is to show how the different articles are represented in the identified central themes, although, we are well aware that physical contact may be viewed and used differently depending on if it is related to preschool children or young adult students.

(i) #The fears and anxieties of physical contact – a critical approach

A topic that is repeated in research - what Reid calls a *bald spot* - is teachers' and coaches' awareness of the public debate about physical contact between adults and children in educational settings. The practitioners are aware of the risks of touching, which is emphasised as a sensitive and difficult subject with numerous dilemmas (e.g. Andersson et al., 2018; Andrzejewski & Davis, 2008; Cruickshank, 2019; Cushman, 2009; Fletcher, 2013; Lang, 2010; Öhman, 2017; Piper et al., 2013a, 2013b). Knowledge that is confirmed, albeit with nuances, includes practitioners' feelings of fear, anxiety, insecurity and vulnerability. This reported climate of fear and anxiety often stems from guidelines regarding the safety of children, child abuse and no-touch policies in society (e.g. Andrzejewski & Davis, 2008; Cushman, 2009; Johnson, 2013; Lang, 2010; Owen & Gillentine, 2011; Piper et al., 2013a, 2013b). Central in this vein of empirical results is that discourses on child safety, or no-touch policies, have come to position all child-adult physical contact as suspicious, which is troublesome for those coaches or teachers for whom physical contact is essential in their daily work with children. This fear or anxiety is often related to the perceived gaze from colleagues and parents (Cruickshank, 2019; Garratt et al., 2013; Jones, 2004; Miller et al., 2007; Taylor et al., 2016) and the possibility of being accused of sexual harassment (Cruickshank, 2019; Fletcher, 2013; Munk et al., 2013; Piper et al., 2013a, 2013b).

The fear and anxiety of being viewed as suspicious or suspected of inappropriate behaviour have had different consequences for the practitioners' daily work. Some nuances can therefore be noted in the results. PE teachers and coaches are described as confused and fearful about their own practices, such as how they should act around the children they teach or coach (Cruickshank, 2019; Cushman, 2009; Owen & Gillentine, 2011; Piper et al., 2013a, 2013b). Some articles also describe teachers as self-policing (Garratt et al., 2013), self-surveillant (Jones, 2004;

Lang, 2010), or self-regulating (Öhman, 2017) and that they are increasingly kept under control (Aslanian, 2018).

What we know through research - a *bald spot* - is that teachers and coaches are aware of the public debate about physical contact between adults and children in educational settings and have their own concerns and fears about being accused of sexual harassment. As a consequence, many PE teachers and coaches have changed the way they work and make other or new pedagogical/didactical choices in their teaching situations. In identifying the *bald spot* regarding the fears and anxieties of physical contact, a clear tendency is that teachers seem to be forced to put their own safety first to avoid being accused of sexual harassment. A *bright spot* - what Reid refers to as a topic that could take research forward - is what the consequences of the practitioners' uncertainties, fears and self-regulations will be for their pedagogical work, the content of their teaching and the students' learning.

Research with a critical approach provides many examples of this moral panic and how it has occurred. Many critical articles argue that what was supposed to be a solution to a problem (less touch and less harassment) appears to have created new problems (less touch, less learning, less caring). The critical approach can be said to be a *bald spot* - a topic that is repeated in research. Many critical questions are asked but are not always empirically investigated. A *blank spot* occurs when it comes to the answers to certain critical questions, such as *how* teachers and coaches deal with fears, anxieties and suspicions in the practical teaching situation. Here, a *bright spot* is whether and how teachers' feelings of anxiety and fears are communicated to students, colleagues or principals and if any kind of support is available to them.

Even though the negative consequences of no-touching are obviously troublesome for PE teachers, sports coaches and preschool teachers, it is also possible to discern a certain amount of resistance to the no-touching discourse.

(ii)#Resistance

It is important to highlight that research has shown that some practitioners, mainly PE teachers and coaches, resist the no-touching discourse. For instance, they 'feel compelled to 'break away' from policy and act in what they perceive to be the best interests of those they teach' (Jones et al., 2013, p. 650). They also think that physical contact is natural and inevitable in the school subject of PE and continue to use it in their teaching (Öhman, 2017). In this respect, we can talk about a *blank spot*, i.e. we know that some resistance exists but need to know more about how teaching and learning can adjust to contemporary transformations of social practices related to physical contact (e.g. no-touching discourse) without compromising physical contact as an educational tool.

It has been shown that older and experienced coaches are more critical, for example by claiming that the guidelines are boring or unrealistic, while younger and less experienced coaches to a greater extent accept the policies and guidelines imposed on them in order to reduce the risks to children (Piper et al., 2013a). Similarly, it has been found that some are resistant to the physical contact guidelines (Piper et al., 2012). Empirical research also reports that some PE teachers show resistance by using downplaying strategies in relation to physical contact, such as acting as though physical contact is an obvious and natural part of the subject (Öhman, 2017). Other researchers claim that even if opportunities for resistance exist, the pressure on the practitioners to adhere to the norms and policies is sometimes too great (Taylor et al., 2016).

When it comes to resistance, we can talk about a *blank spot*, i.e. we know that some resistance exists but do not know how it occurs or what the consequences of it might be. A *blind spot*, or topic that is often missed, is the extent to which and how teachers and coaches resist the no-touch discourse. Hopefully the continuous development and expansion of the field will help us to address such issues.

One reason why PE teachers, preschool teachers and coaches resist changing their pedagogical work could be because they know that physical contact is necessary in their teaching (Andersson

et al., 2018). However, it should be noted that physical contact is seldom a choice that teachers can make on their own. In this respect, gender differences clearly exist.

(iii)#Gender differences

Gender difference in relation to physical contact in PE, sports coaching and the preschool is a recurring topic in the studied articles. The knowledge that there are gender differences is a *blank spot*, which means that this knowledge is confirmed. In the articles in which gender differences around physical contact are mentioned, male professionals seem to be more exposed and at risk of being suspected of suspicious behaviour than their female counterparts (Åberg et al., 2019; Caldeborg, 2020; Caldeborg & Öhman, 2020; Cruickshank, 2019; Cushman, 2009; Fejgin & Hanegby, 2001; Johnson, 2013; Miller et al., 2007). Men's vulnerability, especially in preschool and coaching settings, is clearly described in Johnson's narratives of his own experiences (Johnson, 2013). As such, the male body 'inspires horror, anxiety, disgust and fear' and is looked upon as 'a source of social pollution' (Johnson, 2013, p. 642). Male teachers are more likely to adopt a no-touch approach towards children to avoid any kind of suspicion (Cruickshank, 2019). Scholars have also claimed that male teachers' perceptions of when and where physical contact with students is appropriate are in line with policy documents. Even so, there are male teachers who are fearful of physical contact, especially when policy documents do not take certain physical contact situations into consideration, such as in class demonstrations or when comforting upset students (Cruickshank, 2020). Some studies show that male preschool teachers are subjected to gender-specific positions that either label them as 'the fun guy' or 'the possible perpetrator' (Hedlin et al., 2019b). Both male and female PE teachers are aware of the risks related to physical contact, although this fear is more accentuated among male teachers. Male teachers also appear to be more 'on guard' than their female colleagues (Öhman, 2017).

On the one hand, research shows that physical contact is more of a problem for male coaches, PE and preschool teachers. On the other hand, several studies show that it is also a growing problem for female PE teachers. Many female teachers express that while it is worse for men, they are also affected by the general debate about physical contact between teachers and students. Feelings of anxiety are not necessarily gender specific and anxiety about touching practices are experienced by both male and female practitioners (Andrzejewski & Davis, 2008; Åberg et al., 2019; Öhman, 2017; Piper et al., 2006). It is stated that 'Women too now regard themselves as potential risks, apparently having become infected by professional association, and are now more likely to police their own and others' touching behaviours' (Piper et al., 2006, p. 159). Research that can be related to the gender issue is how the discourse on heteronormativity is expressed when upper secondary school students talk about physical contact in the teaching and learning context (Caldeborg & Öhman, 2020). Female students often highlight age and their entry into womanhood and reflect on the fact that the heteronormative discourse that they also help to reproduce is unfair to men to the extent that they feel sorry for male teachers.

Through research, we have understood that while physical contact is a gender issue it is still a *blank spot*. That is, we know enough about it to question it but do not have elaborated empirical answers to the gender problem, especially when it comes to how the gender aspect takes shape in, and shapes, the teaching situation. Research on physical contact in teaching situations can help us understand the complexity of the gender structure in education, i.e. a *bright spot* meaning that research takes new directions. A more extensive survey would be needed to ascertain how great the differences really are between male and female teachers. On the other hand, gender differences cannot be understood in isolation and research has shown that cultural differences also need to be taken into account.

(iv)#Different interpretations and cultural differences

A bright spot – a topic that can innovate research – is the different definitions and interpretations of what sexual harassment is or can be according to different cultures and countries. We need more

knowledge about how some central concepts, such as physical contact, touching and harassment, are interpreted in different countries and cultures. It is also important to highlight that Western countries dominate the research field, which mostly reflects Anglo-European, North American and Australian interests. There are a few exceptions though. One example is an Israeli study dealing with the definition of sexual abuse and what we mean by it (Fejgin & Hanegby, 2001). The study found that Israeli university student-athletes are much stricter in their perceptions of sexual harassment in sport than American university athletes. Burke and Duncan (2016) compares the regulation of the body in New Zealand and Japanese early childhood education and emphasises that children's bodies occupy a culturally contested space. In New Zealand, children's bodies have become the focus of regulation, whereas in Japanese early childhood education children's bodies are placed at the centre of preschool life. More studies focusing on definitions, interpretations, differences and similarities with representations from different countries and cultures would make an important contribution to the research field.

It has been found that immigrant upper secondary school students in Sweden take several negotiation aspects into consideration when determining whether physical contact from a teacher is legitimate or not (Caldeborg, 2020). Some of these negotiation aspects, such as the teacher's professionalism and instructive skills, facilitate this process. Other negotiation aspects, such as opposite sex issues or students having the same immigrant background as a teacher (specifically concerning female students and male teachers), challenge the process of legitimising physical contact for the students (Caldeborg, 2020). The number of articles highlighting cultural differences are relatively few and can be said to be a *blind spot* - something that is missed or overlooked in research. For instance, it is stated that it is advisable for practitioners in these fields to be aware of the cultural and religious aspects of physical contact, given that acceptable practices vary within cultures (Schneider & Patterson, 2010). In addition, it is clear that school teachers deal with physical contact differently in different countries (Cushman, 2009). However, as yet there are no empirical results to back these suggestions up with scientific arguments and practical advice. For instance, when it comes intersectional perspectives that take the reciprocal effects of gender, ethnicity, culture and religion into account, there is much more to be done in relation to physical contact. The topic of intersectionality can be regarded as a *bright spot* that can inspire and innovate research and take new directions. Indeed, intersectional perspectives would be important in discussions about the functions and needs of physical contact that research continues to report on.

(v)#The functions and needs of physical contact

A *blind spot* - a topic that is well documented in research - is that physical contact fulfils a function in teaching and is considered to be an important part of a practitioner's pedagogical work (e.g. Stamatik & Kontakos, 2008). Many of the reviewed articles highlight the benefits that physical contact can lead to and how it is used in educational settings. The most common arguments are that physical contact is needed 'to get it right', for safety (support in gymnastics, protection against accidents), communication, caring, relationship building and to show compassion.

Physical contact is often used as a prerequisite for learning and for certain subject content, such as instructional and supportive physical contact (spotting) (Andersson et al., 2018; Cushman, 2009; Frikha et al., 2019; Guéguen, 2004; Miller et al., 2007; Owen & Gillentine, 2011; Öhman, 2017; Varea et al., 2018). It is also used as a human necessity (Caulfield, 2000) and as an expression of care (humanity and sympathy) (Öhman & Quennerstedt, 2017). These uses are discussed in terms of security, denoting and relational touch (Andersson et al., 2018). With a student perspective, two articles (Caldeborg, 2020; Caldeborg et al., 2019) show that even Swedish and non-western immigrant students claim that physical contact is necessary in order to learn in PE, as well as for security and emotional reasons. The humanistic and emotional aspects of physical contact are further developed in several studies. This includes physical contact being used to establish positive, caring and

social relations (Bergnehr & Cekaite, 2018; Cushman, 2009; Miller et al., 2007), for instance by giving high fives or fist bumps (Smith & Strand, 2014), for emotional regulation (Cekaite & Bergnehr, 2018; Cekaite & Kvist Holm, 2017; Owen & Gillentine, 2011; Svinth, 2018), to signal trust between teacher and student (Varea et al., 2018), for emotional development such as creating feelings of comfort, courage, warmth and sympathy in students (Cousins, 2017; Jung & Choi, 2016; Lawrence & Gallagher, 2015; Miller et al., 2007; Owen & Gillentine, 2011; Svinth, 2018) and for communicating, establishing and maintaining an effective relationship between teacher and student (Cushman, 2009; Jung & Choi, 2016; Miller et al., 2007; Stamatis & Kontakos, 2008). There are also reports of the relationship between physical contact and brain development, physical growth, stress tolerance and attention (Owen & Gillentine, 2011; Schneider & Patterson, 2010), as well as how gender schemas influence athletes' perceptions of physical contact (Mcdowell & Cunningham, 2008). Physical contact is also said to contribute to the reduction of negative thoughts, the normalisation of interpersonal relationships (Cekaite, 2016; Stamatis, 2011), closeness (Svinth, 2018) and as a way to reducing aggressive behaviour in young children through massage (von Knorring et al., 2008).

It is well known that teaching and learning are affected if teachers and coaches refrain from physical contact. A *blind spot* is identified when it comes to a deeper understanding of *how* students' learning is affected, or how the subject content changes if practitioners refrain from physical contact in the educational setting. Intimacy and integrity in the relationship (both the situated instruction and the personal/interpersonal) between teacher and student are timeless themes and teachers' professional identity is effectively highlighted through the analytical lens on physical contact.

(vi)#The professional identity

This last theme relates to a crucial question of whether and how the no-touching discourse, policy documents and guidelines and teachers' and coaches' concerns about physical contact affect the practitioners' professional identity. Some articles indicate that both the pedagogy and teachers' professional identity are under threat, due to the uncertainty surrounding touch. For example, it is argued that professionals in these fields are now under pressure to show appropriate behaviour with regard to physical contact and the avoidance of problematic incidents (Fletcher, 2013). This kind of pressure has resulted in a paralysing and defensive practice (Garratt et al., 2013; Munk et al., 2013; Owen & Gillentine, 2011; Piper et al., 2012, 2013a) among sports coaches, PE and pre-school teachers. One such effect is that it inhibits the creation of positive coach-athlete relationships (Piper et al., 2012). Having to constantly ask yourself about appropriate or inappropriate physical contact in your everyday work creates confusion about your own professional identity and the profession (McWilliam & Jones, 2005). A quote related to this issue is: 'an atmosphere of increased surveillance [...] has resulted in the once stable and relatively autonomous position of the teaching professional being called into question' (Piper et al., 2013b, p. 581). The question of identity is something that is noted, highlighted and discussed in several articles, but is nonetheless a *blank spot* - a topic that we know about but do not yet have all the answers for.

In a way, professionals can now be said to work from a culture of fear rather than caring (Anderson et al., 2018; Piper et al., 2006). The professional use of physical contact in mainly PE and sports coaching has also come to be viewed as a malpractice rather than a pedagogy (Garratt et al., 2013) and as such has been undermined (Fletcher, 2013). The practitioners in these fields have become 'aligned to the mechanisms of governmentality' (Taylor et al., 2016, p. 196), feel under pressure and need to act in line with norms related to child safety (Lang, 2010) in order to not be viewed as deviant. There is also evidence to suggest that the body of the coach (specifically the male coach) has changed and been redefined (Johnson, 2013), that trust in the coach as a professional has been reduced in recent years due to the no-touch discourse (Piper et al., 2012) and that there is pressure on the collective identity of these professionals (Fletcher, 2013). Another example is a swimming coach who said that it would be easier to demonstrate swimming with your hands in

the water, but that no-one dares to do that any longer (Garratt et al., 2013), which results in a sort of 'self-imposed regulation and control' (Garratt et al., 2013, p. 626).

However, professional identity is a topic that needs to be deepened and investigated using systematic research questions and analysis. Research that focuses on teachers' and coaches' professional identity is a *bright spot*, where knowledge is needed about how professional identity is changing, what this involves and how professional tools are developed. For example, it is claimed that a professional teacher needs to have a repertoire of practices that reflect risk awareness (McWilliam & Jones, 2005). The importance of providing opportunities for teachers (a population silenced by current education policy and practice) to share their experiences of touching and the ways in which bodies shape classroom interactions and learning have also been discussed (Andrzejewski & Davis, 2008). An interesting question to ask is how historical traditions (ideologies) and the 'core' of professional identity changes and take new directions.

Closing remarks

The aim of this scoping review has been to map the current literature on physical contact in PE, sports coaching and the preschool and identify any research gaps. We have provided a descriptive overview of the research and the knowledge that has been produced (research question one). In a thematised re-interpretation of the results, we have pointed to the important contributions to the field of intergenerational touch, as well as the gaps (research question two).²

All together our results demonstrate how physical contact in PE, sports coaching or in the preschool revolve around what is at stake, for whom, when and why. This is exemplified and illustrated throughout our themes. The fears and anxieties (i) that teachers and coaches experience in relation to physical contact have evidently changed the way they work and make didactical choices. Such choices are results of teachers' and coaches' adaption to public debate and institutional guidelines as well as their resistance (ii) to no-touch discourses and also their critical reflections about what, how and when pedagogical relationships are jeopardized. Male professionals experience a higher level of risk navigation than female professionals while female students, and especially those entering womanhood, are more on-guard than male students (iii). Also, teachers/coaches deal with physical contact differently in different countries and students also differ in how they navigate physical contact situations depending on their cultural background (iv). Gender and cultural differences aside, it is empirically clear that learning is affected if teachers and coaches refrain from physical contact even though we still lack substantial research results explaining how learning is affected (v). Likewise, it is empirically evident that changing teaching/coaching and caring behaviour closely relate to professionals' construction of identity, although it is unclear in what ways professional identity is changing (vi).

Despite intensified research attention on physical contact, we have yet to inquire, discuss and assess if changed teacher/coaching behaviour, intensified public and academic debate and child protection guidelines have led to a safer and more result-fulfilling practice, or if we are even witnessing a subject that is characterized by even greater uncertainty and ambiguity. Here, we cannot leave professionals alone in figuring out the strategies of sustainable teaching/coaching practices.

In order to not position teachers and coaches as passive recipients of institutional guidelines as well as research results, we suggest that future research bring together academic and professional discussions about how sustainable teaching/coaching practices are developed. Based on the results of this study, the time may have come to design research that focus on proactive solutions. We suggest more practice-oriented research where teachers and researchers work together with possible solutions to challenges related to physical contact. In this context we may need to re-consider physical contact and understand it as both a teaching/coaching tool and as an area of knowledge in its own right. That is, approaching physical contact not merely as something that happens or is used when teaching/coaching but, rather what it means to educate/coach and to be educated/coached in and through physical contact.

While the public debate often approach issues related to physical contact with a for- or against-rhetoric, research must be better at both deepening our understanding of the resistance in relation to no touch guidelines, as well as pinpointing how regulations and guidelines facilitate (or complicate) the development of professional tools needed for dealing with the issue of physical contact. As scholars in this growing field of intergenerational touch, our guiding principle when approaching these issues is that we have a collegial responsibility to not polarise the field (in ways that are evident in the public debate) and create a battleground between teachers' and students' perspectives on physical contact. Such a polarisation would disempower both teachers and students and neglect them as active co-producers of the educational praxis. That is why holistic educational perspectives that recognise the mutual relationships between teachers, students and subject content are needed to innovate research in the field further. Topics that could innovate research in this area include intersectionality and the professional identity of practitioners. At the same time as intersectionality is viewed as something that can result in alternative views of gender, ethnicity, culture and religion in research in this field, it is not always as simple as that. This is especially true in situations where some promote the values of physical contact and others critique the same values.

Lastly, since the spread of the Covid-19 pandemic, social practices related to physical contact and physical distance, have changed dramatically in society. It is our belief that this pandemic puts yet another strain on issues related to physical contact in educational settings. It is also important to point out that the motives for touching or no touching (such as pedagogical or clinical motives) differ enormously.

Notes

1. A schematic overview of stage 3 can be found in Appendix 1.
2. It is important to point out that the results in this specific study are based on the articles found using the specific method, the specific search words, and the specific inclusion/exclusion criteria described in the method's section. This is not to say that other articles on the topic of physical contact in similar settings do not exist.

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