

DRAFT 2

SCHOOL PHYSICAL EDUCATION AND LEARNING ABOUT HEALTH: PEDAGOGICAL STRATEGIES FOR USING SOCIAL MEDIA

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ABSTRACT

This chapter considers school physical education, pedagogical strategies and the role of social media in supporting young people's learning about health. I consider what can be learned from the case studies developed from Goodyear, Armour & Wood's (2017) research project, the wider research literature, and some of the implications for pedagogical strategies and teachers' professional learning. I conclude that physical educators can contribute to young people's critical health literacy, develop pedagogies of affect, and deploy social media forms and contents in critical and positive ways. This work will be challenging for physical educators in the face of the pervasive influence of social media in young people's lives.

SCHOOL PHYSICAL EDUCATION

School physical education has been well-established in the core curricula of many school systems since the middle of the twentieth century, and is widely recognised to provide young people with opportunities to develop their knowledge and skills in the main aspects of the physical culture of society, including sport, dance, and active leisure activities (Kirk, 2010). While learning in, about and through movement is the signal feature of most physical education programmes around the world (Arnold,

1979; Standal, 2015), it is also recognised that physical education offers opportunities for education about, and the promotion of, young people's health (Quennerstedt, 2008). There have been rising concerns about the emergence of social media as an increasingly prominent source of health-related information for young people, and suggestions that such uses of social media can have a negative impact on mental health (Goodyear, Armour and Woods, 2017). In this context, physical educators are being challenged to consider how they might be more reliable and authoritative sources of health-related information for young people, and so better facilitate their mental health and wellbeing (McCuaig & Quennerstedt, 2016). Despite holistic definitions of physical education encompassing physical, social, cognitive and affective dimensions of learning (Bailey, et al., 2009), in reality physical educators have tended to focus on the physical benefits of exercise (McKenzie & Lounsbery, 2009). They have also tended to see affective, social and cognitive outcomes as by-products of participation in physical activities (Bailey et al., 2009). As I will argue here, with only a few exceptions, physical educators have lacked examples of pedagogical approaches aiming specifically to address affective issues, such as motivation, resilience and positive body image.

In countries like the UK, a significant amount of public funding supports secondary school programs of physical education, with specialist teachers and facilities in most schools (Hardman, 2005). Public concerns about the emotional and mental health and wellbeing of young people have prompted governments to seek new pathways to facilitate health and wellbeing (eg. House of Commons, 2017). Physical education represents one site that may be underused for this purpose, with programs in their current form unfit for purpose (Haerens et al., 2011). New thinking is required around

the pedagogies needed to facilitate health and wellbeing in school physical education settings, including how to teach young people about social media as an increasingly prominent source of health-related information with both positive and negative aspects.

The purpose of this chapter is to consider some pedagogical strategies that physical education teachers might develop and implement to address concerns about the role of social media in young people's health. In the first part of the chapter, I consider what we can learn about young people, social media and health from the case studies developed from Goodyear, Armour & Wood's (2017) research and the wider research literature. In the second part of the chapter, I explore some of the implications of what we have learned from this literature for the development of new pedagogical strategies, and for physical education teachers' professional learning needs to implement these strategies. A key conclusion is that physical educators can play a role in developing young people's critical health literacy through pedagogies that take the affective domain as their central and explicit concern, and through teaching about the ways in which social media forms influence their physical education content. Only some of this work is currently underway and it represents a considerable challenge for physical educators in the face of the pervasive influence of social media in young people's everyday lives.

PHYSICAL EDUCATION, YOUNG PEOPLE, SOCIAL MEDIA AND HEALTH

In this section, I consider two key points illustrated by the case studies: (i) the positioning of 'young people' as a homogenous social category and (ii) the nature of the form and content of media.

Case study analysis

This chapter, as with the others in this book, takes as a starting point the six case studies of young people's engagements with social media and a range of health-related issues.

Much writing in physical education and health and wellbeing conveys an impression that 'young people' can be viewed as a uniform, homogenous category that would suit a one-size-fits-all approach to research and pedagogy. For example, Gard (2004) has been a particularly vociferous critic of the obesity lobby's insistence that 'everyone everywhere' is at risk of becoming obese. He is right to be critical because this is not so. Children living in multiple-deprivation have a considerably greater risk of becoming obese than their less deprived counterparts (Bromley et al, 2017; Stamatakis et al, 2010). Like obesity, neither is the risk of harm from social media use uniform. Certainly, young people from all parts of society experience similar hazards in everyday life, but not equally. Indeed the methodology of constructing the case studies to create 'individuals' who typify particular and diverse ways of engaging with social media makes this point clearly. The key message is that young people use and experience social media differently.

When we use the term 'young people', then, we do so with the understanding that the individuals and groups we are referring to experience social media in similar ways, but that the effects of this use will be mediated differently between groups and individuals by family, friends and peer group, school, neighborhood, local cultures and levels of deprivation. As the case studies taken together show, social media use

is complex and, as such, there will be no simple pedagogical solutions to minimizing harm and optimizing good for the purposes of educating about health and wellbeing.

A second point is that the nature of social media, its form and content, compounds this complexity. Postman (1985) reveals the issue of the form and content of media elegantly. Although he was writing as an expert on communication and technology in an analogue age, Postman was at root concerned with a fundamental shift in public communication from words to images, from the Age of Typography to the Age of Television. He was concerned, moreover, by what he saw as the trivializing effect of this shift on culture and society. He argued that the way something gets communicated affects *what* gets communicated. Referring to Marshall McLuhan's famous aphorism 'the medium is the message' (p.8), Postman proposed that if this is so, it would be relatively straightforward to decipher these messages. Experience suggests otherwise, and Postman claims instead that 'the medium is the metaphor' (p.10). Media do not simply deliver messages; meaning is often opaque, and has to be interpreted. Nor is social media as a highly visual form of communication a source of influence by itself. Its content reflects many aspects of daily life, which the form of the medium reconfigures, distorts, or amplifies.

Two examples might suffice to demonstrate Postman's insight that form effects content. The first is from Postman's 1985 book *Amusing Ourselves to Death*. He suggests that whatever use American Indians had for smoke signals, it was highly unlikely to be for philosophical analysis. As he wrote:

Puffs of smoke are insufficiently complex to express ideas on the nature of existence, and even if they were, a Cherokee philosopher would run short of wood or blankets long before he reached his second axiom. You cannot use smoke to do philosophy. Its form excludes the content. (Postman, 1985: 7)

To provide another example a little closer to our topic, we might refer to the WhatsApp conversation among the young people based on this project's data in Chapter 7. On the face of it, it is a good idea to put young people's voices into a social media form such as a WhatsApp conversation. At the same time, there is a tension around the authenticity of the conversation. The young people may indeed use this kind of social media to complain about school assemblies, teachers and parents who don't understand the challenges they face, and some of their words may well be 'real' rather than 'fake', that is, from the data rather than the researcher's imagination. But the medium provided by WhatsApp doesn't easily facilitate this kind of 'serious' conversation. There seem to be more words than would typically make up a WhatsApp chat between a group of friends, and fewer images and emojis. It is all too reflective and reverent for a medium that encourages spontaneity and irreverent humour. At the very least, the form of the conversation risks subverting its authenticity and its persuasiveness.

The case studies further exemplify these two points about heterogeneity of young people and the form and content of a medium. Comparing ourselves to our peers is something people have always done and doesn't happen solely through social media. However, this activity takes on a specific shape in social media, encouraging Jess (Chapter 6), for example, to Photoshop selfies in order to look like the 'fake

celebs' she admires. Wanting to be liked by others is also a commonplace human sentiment. Yet, James' (Chapter 5) use of social media takes this commonplace into a new realm; of competition between him and his peers to have the most 'likes'. And we can see here even in the notion of 'likes' an example of Postman's argument that the shift from words to images and the media that support this shift can lead to a trivialization of content. Thus, the natural desire for peer endorsement becomes a competition for 'likes'. James' (Chapter 5) case also shows how this distortion of a commonplace human sentiment can cause inadvertent harm to someone James 'liked' only to discover he was part of 'skinny shaming' a girl who had lost weight.

For Kelly (Chapter 2), social media facilitates peer interaction and maintaining relationships. Social media keeps her 'connected'. Because of how social media works, however, by using algorithms to customize images and sites accessed by her friends, she is regularly receiving messages and images she herself didn't look for. The commentary on this and some of the other case studies expresses concern about 'the invasion of young people's social media networks by commercial parties'. The concern here, rightly, is that social media facilitates the exploitation of young people. But the algorithms that are a key feature of the form of social media do more than 'sell' young people products. They also narrow choice and awareness of alternatives, as in the case of Yaz (Chapter 3) and his viewing of inappropriate muscle-building content. The posting of images by what Leah thinks of as 'skinny girls' creates peer pressure to conform to a particular body image. Then there is the question of what is real and what is fake, as Jess's (Chapter 6) case study reveals. Because of the form social media takes and the control it gives to its users over

some of its features, it is possible to manufacture images and messages that are in fact false or that mislead or misinform.

In the commentaries on the case studies, both the adults and the young people identify an overarching issue, which is how to help young people discriminate between useful and harmful health-related information. How, in short, do they become critical consumers of the metaphors social media produce? Can young people in their diversity learn to decode these metaphors? Can they learn to see through fake or misleading information? Can they become aware of alternatives to the narrow range of information social media feeds them? Who is best placed to help young people, particularly when they think their teachers or parents don't understand the challenges they face? Is there a role for schools and for physical education in particular to use social media to support better health-related education for young people? The commentaries also ask whether the owners of social media sites should take greater responsibility by adopting, perhaps, a code of practice that requires them to filter inappropriate material?

Physical education literature

What do we know from the existing research literature in physical education that might help us to answer the questions posed in the previous paragraph? The short answer would appear to be 'very little'. There is little robust research evidence on how young people use social media and, in particular, how they encounter, access and respond to information relating to health. Beyond their own research, Goodyear, Armour and Woods (2017) note that there has been recent interest in this issue internationally (see eg. Haussmann et al., 2017; Kim et al, 2016; Wartella et al,

2016) though there is a lack of a critical mass of robust empirical research upon which to base interventions.

A general conclusion from this work to date is that while young people are often sceptical of health-related messages and products on social media, they nevertheless lack the critical health literacy skills to make accurate judgements about the value of that information (see eg. Cusak et al, 2017). Researchers also report the potential for serious harm resulting from Internet use generally (Marchant et al, 2017), from social media use in particular, and its effects on mental health (Frith, 2017), from social media addiction (Webb and Wasilick, 2015) and from anxieties centred on body image (Andsager, 2014). Goodyear, Armour and Woods (2017) point out the consequences of this gap in the knowledge that's available, and its availability in formats that can inform teachers, clinicians and other health practitioners how to go about designing programmes that might utilise the popularity and attractions of social media for young people to positively benefit their health and wellbeing.

This information gap has not discouraged physical education researchers and teachers from positive advocacy for the use of social media in physical education. Advocates recognise the pervasiveness and power of social media and see an urgent need for physical educators to keep up with youth and 'speak their language' (e.g. Lambert, 2016). At the same time, supporters of social media use in health and physical education classes do recognise the need for quality control (Erwin, 2016). Nonetheless, there is a strong positive tone to the literature as exemplified by a recent opinion forum in *JOPERD* (2017). This forum revealed that physical educators

perceive wide-ranging benefits such as teachers sharing ideas, reaching out to students, promoting active lifestyles, promoting physical education in the face of budget cuts, and teachers acting as role models to students in their own use of social media. Some writers advocate the use of specific social media sites such as Pinterest (Franks and Krause, 2017) and others (eg. Polsgrove and Frimming, 2013) see the creative use of social media as a means of enhancing students' health and fitness knowledge.

This enthusiasm for new tools to support learning can be regarded as admirable and it acknowledges that physical educators need to keep abreast of digital technology in general and social media in particular. There is, at the same time, little acknowledgement in this small literature of questions to be asked about teachers' suitability to make safe and appropriate use of social media as an educational tool. The idea that teachers might view themselves as role models for the use of social media is immediately problematic given what we have learned from the research underpinning the case studies in this book, particularly about young people's views of adults and their lack of understanding of the pressures young people face using social media in their everyday lives. Nevertheless, positive recognition by physical educators that social media is part of their business as educators of young people is significant since it suggests they can see the need to engage with this technology. In the next section of this chapter, I move on to explore some of the implications for physical education's contribution to educating young people about health using social media.

IMPLICATIONS FOR USING SOCIAL MEDIA IN PHYSICAL EDUCATION TO SUPPORT YOUNG PEOPLE'S LEARNING ABOUT HEALTH

In order to explore some of the implications for physical education of what has been presented so far, it is helpful to return to Postman (1985) in order to understand the scale of the challenge schools face in relation to social media form and content. To conclude his analysis in *Amusing Ourselves to Death*, Postman cites the 'Huxleyan Warning', referring to Aldous Huxley's dystopian novel *Brave New World* (1932). He writes:

What Huxley teaches is that in the age of advanced technology, spiritual devastation is more likely to come from an enemy with a smiling face than from one whose countenance exudes suspicion and hate. In the Huxleyan prophecy, Big Brother does not watch us, by his choice. We watch him, by ours ...When a population becomes distracted by trivia, when cultural life is re-defined as a perpetual round of entertainments, when serious public conversation becomes a form of baby-talk, when, in short, a people become an audience and their public business a vaudeville act, then a nation finds itself at risk; culture-death is a clear possibility. (Postman, 1985: 156)

Postman was, as we noted earlier, referring to the rise of television in American society and its displacement of print as a principle form of public discourse. His overarching point was that *what* is communicated is shaped by the *form* of a medium. It takes little intellectual effort to see how Postman's analysis of a society dominated by television applies with even greater and more devastating force to one dominated by various forms of digital media, including social media. Arguably, the

rise of reality TV has taken this media form to one extreme, to the extent that the current President of the United States is regularly accused of running his presidency as if he were starring in a reality TV show¹. The fact that we learn what is on this President's mind more often through *Twitter* than any carefully crafted public statement or policy provides a measure, not just of the individual concerned, but of the extent to which such forms of digital media have penetrated society and have become normalized.

Central to Postman's critique of television and, we might extrapolate, of social media, is its trivialization of culture, and also its entertainment value. Aronowitz and Giroux (1985), also writing in the mid-1980s, recognized that the entertainment people receive from many popular cultural forms such as television makes a critique of these forms extremely difficult. They wrote: "Mass cultural forms have colonized the leisure time activities of youth so completely that by giving them up, through analysis, the pleasure one gets from them, may be painful" (Aronowitz and Giroux, 1985: 53).

Postman's language of 'spiritual devastation' and 'culture-death' may seem extreme, but scaled down to the level of a young person, it could be argued that it does not unreasonably overstate the nature of mental illness in the many forms associated with social media use and mis-use. Marchant et al's (2017) systematic review cited earlier of Internet use, self-harm and suicidal behaviour, is not the stuff of sensationalism but instead reflects the everyday realities of some young people's

¹ <http://www.nationalreview.com/g-file/448716/donald-trumps-reality-tv-presidency-crossovers>

experiences in a digital age. Nevertheless, despite the more and less obvious manifestations of harm social media facilitates, we cannot understate its drawing power as a form of entertainment and much more. In one case study, Kelly's 'connected' narrative (Chapter 2) begins with an exclamation: 'A world without social media "are you mad?!". As Postman cast around for solutions to the powerful and terrible conclusions he had reached, he considered then dismissed attempts by families, organisations and state governments to limit television viewing. He sees the Luddite position (of destroying the technology) as futile. As he put it: "Americans will not shut down any part of their technological apparatus, and to suggest that they do so is to make no suggestion at all". (Postman, 1985:158). We might follow the call during the Television Age to restrict viewing of certain topics (eg. Tobacco advertising) at certain times of the day and night (eg. The BBC's watershed for children's viewing) by requiring social media sites to work to a code of practice. This for Postman (1985: 160) was mere tinkering, however, since the problem was not "*what* people watch ... but *that* we watch". The solution, he believed, was in *how* people watched television.

I am going to suggest that a similar solution applies in relation to social media use and *how* both young people and adults use it in educational contexts. In other words, we need a different order of solution to the problem than is typically called for by teachers, researchers and young people themselves. In the next section I outline three pedagogical strategies that might be employed in physical education (often in collaboration with other fields) in relation to using social media to support education about health in physical education.

Pedagogical strategies in physical education

One pedagogical strategy already widely advocated in the literature is to facilitate the development of young people's health literacy (Nutbeam, 2008). Interactive and critical health literacy, that is, the ability to extract key information from various sources and to subject it to critical scrutiny, would appear to offer an important starting point for the work schools might do. Physical education teachers have a clear part to play here since there is a pressing need for the accuracy of health-related information and the trustworthiness of sources.

There are two issues to consider with this strategy. One is that physical education programmes in their current form do not necessarily provide the propositional knowledge and associated analytical skills underpinning the development of critical health literacy (Kirk, 2010). Indeed, where they do provide this information, it is usually in relation to the training effects of exercise on the body which they deliver informally and incidentally, integrated into practical physical activity units. Typically, physical education teachers don't address sensitive issues such as body image (Kerner et al., 2017), but these appear to be regularly occurring concerns for young people in social media contexts (eg. see Leah's (Chapter 4) and Yaz's (Chapter 3) case studies).

A second issue relates to heterogeneity among young people. Indeed, Leah's (Chapter 4) and Yaz's (Chapter 3) different health-related information needs and interests illustrate this in relation to the same topic, body image. The challenge for teachers adopting this first pedagogical strategy – health literacy - is to provide the information underpinning health literacy in ways that meet the needs of individuals

and groups of individuals. This in turn requires a different approach to the teacher-led pedagogies that are regular features of most physical education classes (Kirk, 2010), a matter addressed in the second strategy.

In order to get to the second strategy, it is worth reminding ourselves that the issues with social media use and young people, as illustrated by the case studies, most often relate to mental health and wellbeing. This is what physical educators would typically refer to as the 'affective domain', populated with matters of motivation, resilience, perceived physical competence, body image, enjoyment, interest and coping (Metzler, 2017). A second strategy, then, is to develop what might be called 'pedagogies of affect', pedagogical strategies that take the affective domain as their explicit and central concern. The bad news is that, with only a few examples, physical educators have a poor track-record in this domain. While the affective domain has been recognized as part of the business of physical education, traditionally, learning has been viewed as a by-product of programmes rather than a central and explicit objective (Bailey et al., 2009). Enjoyment, resilience, motivation, perseverance and the rest are hoped, rather than planned, for.

We can count among the few well-established examples of pedagogies of affect in physical education: Siedentop's (1994) Sport Education model (at least with respect to his enthusiasm learning objective), Hellison's (2003) Teaching Personal and Social Responsibility approach (TPSR) and Oliver's Activist Approach to working with adolescent girls (Oliver and Lalik, 2004; Oliver and Kirk, 2015). Some may wish to argue for inclusion of Cooperative Learning (eg. Dyson and Casey, 2016) on this

list, and while it is certainly a pedagogy of affect and used in physical education programmes, arguably it is not a model specific to physical education.

The Activist Approach, built on over 20 years of Kim Oliver's pathfinding work, provides an illustrative example of what a pedagogy of affect looks like in physical education, and contrasts markedly with traditional physical education practice. A critical element of the Activist pedagogical model is student-centredness whereby listening to girls' voices is crucial, as is responding to them constructively. During a recently completed Pilot Project based in four Glasgow schools (Kirk et al., 2016a and b), we sought, in Cook-Sather's (2002) terms, to 'authorise student voice', which involved a shift in the power dynamic between teachers and pupils. Another feature of this Activist Approach is pedagogies of embodiment. Here, teachers worked with girls to co-create an environment where girls felt comfortable to engage wholeheartedly in physical education activities, where they could trust their teacher and other girls not to judge them. Perseverance was encouraged by this enhanced level of engagement. Pedagogies of embodiment featured prominently in the project data since the moving body is the central object of physical education (Standal, 2015). Comfort and confidence, trust and not feeling judged were, for the girls in the study, key to their physical education experience. Our findings show (see Kirk et al., 2016a and b) positive and enthusiastic responses from girls as teachers worked with the pupils to co-create learning environments in which they felt safe to engage in physical education. At the same time, these pedagogies of embodiment needed to be tailored for groups and individuals within classes. A key means of learning what individual needs and interests are is to listen and respond not just once, but regularly over time, to what young people tell adults (Oliver and Kirk, 2015).

Pedagogies of affect do not address social media use directly, but they create environments in physical education classes that make it possible for the kinds of issues that social media amplifies and distorts, such as relationships, perceptions of the body, perceived physical competence, power dynamics, and so on, to be addressed explicitly and sensitively. They also recognize the importance of how young people feel about themselves and others, how they treat themselves and others, and the nature of their embodiment, particularly in visible and public settings such as school physical education. These aspects of health and wellbeing form a basis for engagement in forms of physical activity they are not adjuncts to or by products of such engagement.

Physical educators might also take forward a third pedagogical strategy in relation to social media, young people and health. Here, though, they will undoubtedly need to collaborate with teachers who have expertise in the ways in which social media works because this strategy would involve critical literacy skills not just in relation to the content of social media, but to the form of the medium itself. Postman (1985: 161) argued that: “No medium is excessively dangerous if its users understand what its dangers are”. His point is that it is in itself empowering to understand how the form of a medium shapes a message. What is required in this strategy, then, is educating young people about the relationships between social media forms and content. Given physical education teachers’ knowledge of (some) health-related content they would be essential collaborators in providing such programmes.

The case studies reported by Goodyear, Armour and Woods (2017) provide many examples of how form shapes content in social media. The ways in which algorithms select the information that appears on social media sites, often unlooked for by individual members of groups, are referred to in two cases. In Kelly's case (Chapter 2), they operate through the Search and Explore function², and leave her vulnerable to exploitation by commercial interests, while in Yaz's case (Chapter 3) the algorithms work increasingly to narrow the information he receives. Both Yaz's (Chapter 3) and Leah's cases (Chapter 4) reveal how the visual dominates the social media sites they use. James' (Chapter 5) competition to accumulate as many 'likes' as possible and the way in which this contributed to harming someone else exemplifies how social media trivializes the whole idea of friendship, or being liked for who you are. What is 'real' and what is 'fake' become genuine dilemmas for young people such as Jess (Chapter 6), contributing to the normalization of a 'post-truth' era (Klein, 2017), while at the same time rendering problematic the trustworthiness of information and the notion of 'expertise'. Kelly's (Chapter 2) case reveals the up and down sides of instantaneous connectedness, while Yaz (Chapter 3) is able to claim he prefers information from social media because it is simplified and there are no 'information essays'.

This selection of examples from the case studies show that it is possible to analyze and critique the *form* that is social media and its effects on content. But for schools to

² We're always working to update the types of photos and videos you see in Search & Explore to better tailor it to you. Posts are selected automatically based on things like the people you follow or the posts you like. You may also see video channels, which can include posts from a mixture of hand-picked and automatically sourced accounts based on topics we think you'll enjoy. (<https://help.instagram.com/487224561296752>)

open up conversations with young people around this topic may be fraught with difficulties. Not only does the task require collaboration among teachers across the school, it requires adults to be credible and knowledgeable about young people's experiences of social media, and not just its health-related content. We noted earlier Aronowitz and Giroux's (1985) warning that critique may be painful for young people if it requires them to give up the pleasures social media provide. Moreover, as Postman (1985: 162) again noted: "To ask of our schools that they engage in the task of de-mythologizing media is to ask something the schools have never done". His reference here is to the critique and de-mythologizing of print media in terms of how form and content interact. His point provides a glimpse of the scale of the challenge for the development of critical health literacy in schools centred on digital media.

Professional learning needs for teachers

It is commonplace in the current educational climate to regard initial teacher education as a starting point in a teacher's professional development, with an expectation in many education systems that professional learning will be a career-long process (Korthagen, 2005). This is an important development now that in many education systems the initial professional preparation of physical education teachers is limited to a one to two year postgraduate programme, with much of this school-based. A consensus also seems to have emerged that by far the most effective form of teacher professional learning is in the workplace itself, supported by peers and by other stakeholders in teacher education such as universities, local education authorities and school inspectors (Postholm and Waage, 2015; MacPhail et al., 2014). Career-long teacher professional learning is then the context in which we

should consider how we provide for teachers to learn new pedagogical strategies for young people, social media, and health. All three of the strategies outlined in the previous section have implications for teacher professional learning.

With respect to facilitating interactive and critical health literacy, most physical education teachers will by virtue of having completed undergraduate degrees in sport and exercise sciences or a related topic be able to provide a sound and trustworthy source of health-related information on the effects of exercise on the body, both for sport performance and health and wellbeing. Some of their undergraduate preparation may include psychological as well as biophysical knowledge and, perhaps less often, sociocultural understanding of health and wellbeing. While this is a valuable resource physical educators can bring to this first strategy, as we noted, some consideration would be required of how teachers could provide this resource in the face of traditional practice, particularly where it is carried out informally and incidentally within practical physical activity units.

Teachers' professional learning needs here will focus on how to plan for the provision of the propositional knowledge and analytical skills underpinning interactive and critical health literacy, at the same time acknowledging students' differentiated needs and interests. Workplace-based professional learning is important with respect to differentiation since the local context in which health literacy is to be applied informs teacher learning (Kirk et al., 2017). Physical education teachers may need support, however, to learn to deal with topics with which hitherto they have had little experience, such as body image.

Pedagogies of affect present an altogether bigger challenge for physical educators in terms of their professional learning. As we already noted, there are few well-established examples of approaches to physical education that make affective learning aspirations explicit and central, and neither are the approaches that exist widely practiced. The teachers in the Activist pilot project in Glasgow did learn over the course of a year to practice pedagogies of affect that had clear educational benefits for the adolescent girls they worked with (Kirk et al, 2017). We reported that it was only through the experience of working with an Activist Approach in their schools over time that the teachers learned what worked and what didn't, learned about their pupils, learned from other teachers, and learned about themselves. We also found that the teachers developed relationships with their pupils and the girls with each other that were stronger and more trusting than they had been able to formerly. This is important if teachers and pupils are to co-create a learning environment that allows confidence, enjoyment, and motivation but also the concerns and fears that require perseverance and resilience to be acknowledged openly and resolved collectively.

As the teachers began to gain experience in using an Activist Approach, they saw that they could not avoid pushing up against the *status quo* of traditional physical education. This issue was a source of considerable personal as well as professional anxiety and risk for the teachers since they were highly socialised and effective practitioners of the traditional form of their subject. There was then considerable unlearning to be done by these teachers in order for them to practice pedagogies of affect specific to working with adolescent girls, and this in itself presents a considerable challenge for teacher professional learning. The data from the pilot

projects shows that it *is* possible for teachers to do this in ‘real-time’ situations, with their classes in their schools (Kirk et al, 2017), and to provide genuine educational benefits for their pupils (Kirk et al, 2016a and b). We have still to discover how sustainable this pedagogical strategy might be and whether it can be scaled up for wider use.

The third strategy, of teaching about how the form of social media affects its contents, would appear at first glance to fall outside the remit of physical education teachers. Perhaps teachers in fields such as ICT are better placed to lead on this strategy. Nevertheless, since young people are encountering health-related information through social media and physical education teachers represent a source of expertise on this topic, we might argue that they should at least be partners in this strategy. In order to do this, we might argue further that all teachers should at least be familiar with social media forms. This doesn’t mean that teachers should become users themselves of social media, but they will need a level of firsthand experience to understand how this technology works and is used by young people, and for the development of their professional critical literacy skills. This professional learning need is not just to contribute to teaching social media literacy, but also to being credible with their pupils.

Postman (1985) commented that schools have never engaged in this task, at least in a systematic way that takes seriously the influence on the form of a medium of communication, not just on the content and meaning of the messages it conveys, but on the ways in which users of that medium think. This is not a technical task, then, of critiquing media, to be left to media specialists. It may be that ICT teachers would

find it difficult to gain the analytic distance from their area of expertise to be critical of its forms. There are, consequently, wider issues here for teacher professional learning across the whole curriculum since social media's influence is everywhere.

This means that physical education teachers must be part of a pedagogical strategy that seeks to teach about social media's form and content. The enthusiasm of the contributors to the *JOPERD* forum for physical educators to engage with social media is admirable, but this cannot be done uncritically. Quality control, as Erwin (2016) outlined, will undoubtedly be important in physical educators' embrace of social media. It is crucial for teacher professional learning that the reasons for doing so are clear. 'Speaking their language', as Lambert (2016) urges, may be important for teachers' credibility with young people. But learning to do so must also be for teachers to better understand social media form and content in order to de-mythologize it, a far more challenging task. Part of their professional learning will also have to be how to support young people in their diversity when their sources of entertainment, connection, and information are the object of critical analysis.

SUMMARY OF KEY MESSAGES

- Young people experience social media in similar ways, but unequally. There is evidence to show, in the case studies and elsewhere in the research literature, that social media can be both harmful and beneficial to young people's health and wellbeing. The effects of social media on health are mediated differently between groups and individuals by family, friends and peer group, school, neighborhood, local cultures and levels of deprivation

- The form social media take influences content, in ways that reconfigure, trivialize, distort, or amplify messages about a wide range of matters that impact on health and wellbeing
- The research literature can provide some insights into young people's uses of social media but much more needs to be known before we can develop effective interventions that help minimize harm and optimize benefits to young people's health and wellbeing
- Three pedagogical strategies are proposed that physical educators and teachers in other curricular areas could implement to assist young people with social media, the development of health literacy, the development of pedagogies of affect, and teaching explicitly and critically about the ways in which the social media forms influence content
- Teachers of physical education will have professional learning needs in order to develop and implement these pedagogical strategies

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