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Welcome to the third issue for 2018. We receive articles from many parts of the world and some do not make it into the journal. This is mainly due to our focus on young people and, although we do not specify an age range, most published articles are about those between the ages of 5-20 years old. There are exceptions and the Editor welcomes your contribution.

This issue continues with the proud tradition of independent publishing and offers an eclectic mix. The journal, published since 1983, is aimed at those involved with education and health who are concerned with the health and wellbeing of young people. Readers, in the UK, come from a broad background and include: primary, secondary and further education teachers, university staff, and health-care professionals working in education and health settings. Readers outside of the UK share similar backgrounds. The journal is also read by those who commission and carry out health education programmes in school and college.

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At some point in your career you may have been called upon to deliver PSHE and RSE content but PSHE and RSE can often evoke feelings of embarrassment and uncertainty. I have vivid memories of my own secondary school form tutor, nervously rambling through a lesson on ‘reproduction’ and looking as if he wanted to dissolve into the floor beneath him. At that time, my classmates and I, sensing fear, perhaps contributed to his feelings of dread toward the subject; however, since becoming an adult and ironically a PSHE and RSE educator, I empathise with him, and apologise profusely.

The thing is, teachers are busy professionals and are expected to have expertise in several areas (Walker & Milton, 2006). PSHE being one of them, but, for many educators, PSHE and RSE are rarely first-choice subjects and are often delegated to others (Alldred & David, 2007), because of anxieties towards the subject.

**Our approach**

At Lostock College, our curriculum needed quality PSHE, RSE and Citizenship and so we not only have PSHE lessons for 1 hour a week, but, in 2015 we also decided to implement whole school ‘Super Learning Days’ (SLDs). These SLDs occur approximately once every half term (5 each academic year) and as the name suggests, provide our students with an opportunity to explore PSHE and take part in learning beyond the usual constraints of a classroom. We also implemented ‘British Values’ within the SLD themes to support preparing young people for life in modern Britain.

**Planning**

Before each SLD at Lostock College staff are expected to meet in their SLD teams; the Senior Leadership team have allocated time on the school calendar for ‘prep meetings’, this enables staff to plan meaningful and effective sessions and activities.

**What is involved?**

For each SLD, the whole school timetable is collapsed and not only students, but staff too can work in cross-curricular teams with colleagues they may not usually get the chance to work alongside; this brings a variety of specialisms and expertise to each team.

The SLDs are usually delivered by staff and are taught on a rotating timetable to a specific year group who focuses on a PSHE theme, for example for our Autumn 2017 SLD:

- Year 7-Relationships (Anti-bullying and Peer Pressure)
- Year 8-Being a good citizen
- Year 9-Personal health (Substance abuse)
- Year 10-RSE (Sex and the law)
- Year 11-RSE (Healthy relationships and guest speaker from Stonewall)

As a staff body we recognise that there are some areas of PSHE that we are less equipped to deliver, and for that reason we sometimes seek expertise from multi-agency professionals, this is to ensure our young people are receiving the highest quality PSHE and RSE information possible.

External agencies such as St Johns Ambulance, Barclays Bank, Stonewall and our local PCSOs are just an example of some of the experts who have been scheduled onto our SLD timetable. Students also get the opportunity to enhance their PSHE learning off site, PSHE visits have included; the Apprenticeship Road show, the Museum of Science and Industry, and Manchester and Trafford Town Halls.
Assemblies
At Lostock College we take pride in our weekly assemblies, they are another way in which we approach PSHE and RSE at our school. Our assemblies have a strong focus on spiritual, moral, social and cultural development and incorporate PSHE themes and British Values. Recently we have even had assemblies delivered by some of our own young people on topics such as LGBTQ awareness and tolerance for others.

Feedback
Each term, students are asked to review their experiences of the SLD sessions they have attended, their feedback is available for staff to view, take on board and implement future changes if necessary. Completing an anonymous online questionnaire allows students to give their honest opinions on whether they liked or disliked their SLD sessions, although, as I am sure you can imagine, they are usually very forthcoming with honesty to my face whether they are asked for their opinion or not.

Figure 1. (below) show some of the responses taken from the ‘Winter 2017 pupil questionnaire’ SLD.

Relationships and Sex Education
This Spring, my year 8 PSHE class were looking at the topic of relationships, and for one lesson we focused on identifying signs of healthy and unhealthy relationships amongst young couples. I battled with the idea that teaching 12 and 13-year olds about intimate relationships was too young and I even had a moment of uncertainty as I stood at the front of the class Period 5, the last lesson on a Friday afternoon, ready to deal with giggling students and inappropriate comments, none of which happened.

I believe that this uncertainty stems from my own cringe-worthy experiences of sex education, and unfortunately, within the British culture, sex and relationships are still not spoken about sensibly; there are still misconceptions, myths, stereotypes and prejudices (Blake, et al., 2012). Despite my insecurities, I delivered the lesson, enjoyed it and sent my students off for the weekend with a homework task which required them to write a response to a fictional letter from a ‘confused teenager’ who was in an unsafe relationship. I was not sure what to expect, but a week later, 21 out of 25 pieces of homework were returned.

Twenty-one practical, mature and sensitive responses (Figure 2. below) from 12 and 13-year olds; these students were certainly not too young to show empathy and understanding.

Figure 2. Responses from the homework task

‘I enjoyed SLD because’…
- ‘The lessons were delivered in an engaging way which allowed us to interact.’
- ‘I enjoyed it because you learn things you don’t learn in normal lessons.’
- ‘I enjoyed most of the Super Learning Day sessions because they were teaching us about some very relevant topics.’
- ‘Because sometimes you can go on school trips and learn with different teachers that haven’t taught you.’
Our vision
At Lostock College, through our Super Learning Days, assemblies and PSHE lessons, we aim to confront several of the social issues that are relevant in our student’s lives; being mindful that quality PSHE and RSE supports young people, not just during their adolescence but throughout their lifetime.

References
The UK government recently launched an enquiry into young people’s social media use to understand the effect of social media on young people’s mental health. I was asked to give oral evidence to the Science and Technology Committee following our written submission outlining the evidence concerning excessive social media use and social media addiction (Griffiths et al., 2018). Although there are some who will say that individuals cannot become addicted to social media (e.g., Billieux et al., 2015; Kardefelt-Winther et al., 2017), research suggests that a small minority of adolescents genuinely become addicted to social media in the same way that other individuals become addicted to social media (Kuss & Griffiths, 2017). More specifically, such individuals experience what I consider to be the six core components of addiction (i.e., salience, conflict, mood modification, tolerance, withdrawal, and relapse) (Griffiths, 2005).

For these individuals, using social media becomes the single most important activity in their lives (salience), they engage in social media use to the neglect of everything else in their lives and compromises their social relationships and educational and/or occupational activities (conflict), they use social media as a way to modify their mood states (mood modification), they have built up the amount of time they spend every day on social media (tolerance), they experience unpleasant psychological and physical effects if they cannot engage in social media use (withdrawal effects), and they have trouble in trying to cut down and stop using social media (relapse).

I am the first to admit that the number of adolescents that would fulfil all of these criteria is small, but that does not mean social media addiction does not exist. Most adolescents who are heavy users of social media are what I would describe as habitual users (rather than addicted users). Some habitual users may experience problematic aspects to their social media use (such as decreased productivity at school or college, and/or not spending enough quality time with their family) but these individuals would not be classed as social media addicts using my own criteria.

However, there are many psychological ‘hooks’ that play a part in habitual social media use and why it is so prevalent. In this article I briefly outline some of the main factors facilitating habitual social media use among adolescents (i.e., unpredictable rewards, social affirmation and validation, FOMO [fear of missing out], smartphone sounds and vibrations, social connection, reciprocal liking, social competition, and psychological investment).

**Unpredictable rewards**

One of the key psychological characteristics in habitual social media use is the unpredictability and randomness of what happens within social media platforms (Griffiths & Nuyens, 2017). The rewards – which may be physiological, psychological and/or social – can be infrequent but even the anticipation of one of these rewards can be psychologically and/or physiologically pleasing. The rewards are what psychologists refer to as variable reinforcement schedules (Griffiths & Nuyens, 2017) and is one of the main reasons why social media users repeatedly check their screens. Social media sites are ‘chock-a-block’ with unpredictable rewards. Habitual social media users never know if their next message or notification will be the one that makes them feel really good. In short, random rewards keep individuals responding for longer and has been found in other activities such...
as the playing of slot machines and video games (Griffiths, 1991).

**Social affirmation and validation**

Another key ingredient that facilitates habitual social media use is the ‘like’ button. The feature was first introduced by Facebook back in February 2009, but such a simple characteristic has reaped huge rewards in terms of adolescents repeatedly coming back to check their social media platforms, and what some have described as a ‘craving for validation’ (Morgans, 2017). Some media reports (e.g., Brooks, 2017; Bullas, 2017; Morgans, 2017; Parkin, 2018) have described the use of ‘like’ buttons as ‘hijacking’ the social reward systems of a user’s brain. While I have little doubt that such rewards (or the anticipation of such rewards) release dopamine, the idea that dopamine ‘hijacks the brain’ and leads to ‘compulsive loops’ are analogies used in the media rather than the phrases used by scientists (the word ‘hijack’ is emotionally-laden to say the least). It has also been claimed that the few seconds it takes for social media applications to open on mobile devices is a deliberate ploy to increase anticipatory feelings of the user (because the anticipation of a reward is almost as good as the reward itself in releasing dopamine) (Morgans, 2017). Justin Rosenstein, one of the designers of the ‘like’ button on Facebook said:

“ ‘The main intention I had was to make positivity the path of least resistance, and I think it succeeded in its goals, but it also created large unintended negative side effects. In a way, it was too successful’” (p.1; cited in Morgans, 2017).

Although teenagers do not use Facebook as much as other apps (Anderson & Jiang, 2018), other social media platforms use similar techniques.

**Fear of missing out**

Recent research has suggested that high engagement in social networking is partially due to what has been named the ‘fear of missing out’ (FOMO). According to Przybylski et al. (2013), FOMO is “a pervasive apprehension that others might be having rewarding experiences from which one is absent” (p. 1841). Higher levels of FOMO have been associated with greater engagement with Facebook, lower general mood, lower wellbeing, and lower life satisfaction, mixed feelings when using social media, as well as inappropriate and dangerous social networking site use (i.e., in university lectures, and whilst driving) (Buglass et al., 2017; Oberst et al., 2017). In addition to this, research suggests that FOMO predicts problematic SNS use and is associated with social media addiction (Kuss & Griffiths, 2017).

**Smartphone sounds and vibrations**

What do most adolescents do when they hear the ring, ping, buzz, or vibration (if the smartphone is on ‘silent’ mode) of an incoming message or notification? For the overwhelming majority of them, they react to this stimulus by looking at the screens on their mobile devices and checking out what was sent. This creates a trigger for a routine and is exactly what social media operators want you to do. Morgans (2017) described the ‘attention economy’ referring to the demand of individuals’ attention, with attention being the commodity that is traded online. He also noted: “The business model is simple: the more attention a platform can pull, the more effective its advertising space becomes, allowing it to charge advertisers more” (p.1). Sounds and vibrations are deliberately designed and distracting technologies that facilitate users’ attentions away from the offline world and back to life online – pulling individuals ‘out of the moment’ (Morgans, 2017) and is arguably an example of ‘persuasive technology’ (Alter, 2017). All online commercial operators are competing for an individual’s time and attention. First, they have to get an individual’s attention (using every method at their disposal) and when they have got the person’s attention, they have to try and make the experience on their website as engaging as possible. Sean Parker (founding president of Facebook) recently acknowledged that the company was formed to distract individuals rather than unite them (Parkin, 2018). More specifically he said that Facebook’s thought process was simple: “How do we consume as much of your time and conscious attention as possible? [Facebook’s architects exploited a] vulnerability in human psychology. Whenever someone likes or comments on a post or photograph we give you a little dopamine hit” (p.1; cited in Parkin, 2018).

**Social connection**

Human beings have been described as ‘social animals’ (Aronson, 2011; Tomasello, 2014) and as such most individuals want to be connected with
other like-minded individuals. Social networks provide the medium for adolescents to connect in an instantaneous way (and is another key ingredient in repetitive use).

Reciprocal liking
Reciprocal liking is tendency for individuals to like others who express a liking for themselves (‘I like you because you like me’) (Eastwick & Finkel, 2009). Social relationships online are often facilitated by simple forms of social reciprocity. For instance, when an individual presses the ‘like’ button on a selfie* that has been uploaded onto a social networking site, the individual receiving the ‘like’ is more likely to reciprocate if the other individual posts an online selfie (Balakrishnan & Griffiths, 2018). Social media operators can exploit this human condition of reciprocal liking by alerting individuals when another person has read something posted or communicated online. Such alerts encourage the receiving individuals to respond.

Social competition
In addition to the human need to connect and reciprocate, individuals also like to be socially competitive. This can also be a driving force in repeated and habitual social media use (Griffiths & Balakrishnan, 2018). As soon as the ‘like’ button was introduced on Facebook, it also meant that individuals could keep count of the number of ‘likes’ they received in relation to the content posted. ‘Likes’ have a numerical value and users use such statistics as a way of raising or boosting self-esteem (Kuss & Griffiths, 2011). This make social media users create a routine and habitually check their social media. Numerical indicators keep individuals coming back for more likes and individuals also want to beat their own numerical scores as well as those of others. In some recent research we did on obsessive selfie-taking, social competition (i.e., getting the most ‘likes’ for selfies posted online) was one of the major reasons for posting selfies in the first place (Balakrishnan & Griffiths, 2018; Griffiths & Balakrishnan, 2018).

Psychological investment
The more that an individual invests in something (whether it is time, money and/or effort), the more they tend to persist in the behaviour. This is sometimes referred to as the ‘sunk cost’ bias referring to a cost that has already been incurred and cannot be recovered (Arkes & Blumer, 1985). Such behaviour helps explain why individuals carry on playing a national lottery game despite never winning large jackpots (Griffiths & Wood, 2001). It can also help explain why some individuals carry on investing large amounts of time in social media. Individuals have spent so much time psychologically invested that to stop doing it would mean that all their previous time spent on social media sites has been a complete waste of their time. The introduction of streaks on Snapchat are a good example (Foley, 2016). An individual’s streak number is simply the number of consecutive days that they have been ‘snapping’ with another individual (e.g., a score of 100 would mean that one individual has sent photos to another individual on Snapchat for 100 consecutive days). The whole point of a Snapchat streak is to see how long an individual can keep it going. The higher the streak score, the longer an individual is likely to persist in sending photos every day to the other person. The more friends that an individual has on Snapchat, the greater the number of different streak scores and the more time they spend on Snapchat.

Conclusion
Scholars such as Alter (2017) do not believe that social media platforms are designed to be addictive per se. However, they are certainly designed to get users (many of which are adolescents) coming back again and again (so-called ‘stickiness’ that relies on the unpredictable and random rewards). Habitual behaviour is a powerful reinforcer. It is about using daily routines to create habits (turning on a video game console as soon as a teenager enters their bedroom, or making a drink as soon as you get back home from school). The more an individual invests in carrying out a behaviour, the more they will persist in repeating it. Social media operators are trying to grab adolescents’ attention and can do it through sounds, vibrations and/or notifications. Other psychosocial factors are also involved in habitual social media use such as fear of missing out (FOMO), social connection, reciprocal liking, and social competition.

*According to the Oxford English Dictionary, a ‘selfie’ is a “photograph that one has taken of oneself, typically one taken with a smartphone or webcam and shared via social media”.

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References


Education and Health

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Contributors (see a recent list) - Do you have up to 3000 words about a relevant issue that you would like to see published? Please contact the Editor
Health and wellbeing have become increasingly visible within physical education discourse globally in the past two to three decades. Historically, health has been present in discourse about physical education since, for example in Britain, at least the beginning of compulsory mass schooling in the late 19th century (eg. Kirk, 1992). The emergence of a notion of physical education-as-sport-techniques in the UK in the 30 years period following the end of WW2 resulted for a time in a sport-based rationale dominating arguments for physical education’s place in the school curriculum (Kirk, 2010). Since the 1980s, however, with the development of a scientific field of exercise science and medicine in universities and the emergence of the ‘new health consciousness’ (Crawford, 1980) in society more generally, a health-based rationale has been advocated, increasingly within the context of combating the so-called ‘obesity crisis’ and other diseases associated with a sedentary lifestyle (Kirk, 2006).

I will argue in this paper that health is increasingly becoming the leading justification for physical education in schools, from a policy perspective at least if not in school practice. I will evidence this claim with reference to selected recent national curriculum and policy developments, and also to advocacy from academic researchers. Within this context, the identification from the early 1990s of sedentary behaviour as a risk factor for a range of preventable diseases has raised to prominence the place of Moderate to Vigorous Physical Activity (MVPA) in physical education programmes. I argue that this development has been strongly framed by the New Public Health (NPH) and supported a concept of physical education-as-health-promotion. I note advocates’ admission of limited impact of this concept on the practice of physical education, however, and the space this has opened up for alternative ways of thinking about the physical education, health and wellbeing relationship, in particular from a salutogenic perspective. I conclude with two caveats on my initial observation that health and wellbeing have become increasingly visible as a means of framing physical education’s place in the school curriculum that suggest the need for careful analysis of trends outside of education and health, such as the growing influence of digital technology in both fields.

Physical education and contemporary interest in health and wellbeing

A trend over at least the past two decades has been towards linking physical education to or locating it within health as a curriculum area or topic. Some recent examples include the Australian (National) Curriculum, where the subject is known as Health and Physical Education (ACARA, 2015), as it is also in the Canadian State of Ontario (Ontario Public Service, 2015). In Scotland, physical education is located within a larger curriculum area called Health and Wellbeing (Education Scotland, 2017). Even where the title physical education remains, health forms a significant part of the rationale for its place within curriculum documents and policies (eg. SHAPE America, 2014; Ministry of Education Singapore, 2014).

In each of these cases, physical fitness and physical activity are the two key health-related concepts that make the connection between physical education and health. In the Australian curriculum, the health-related learning outcomes are located in a sub-strand called Understanding Movement and a further sub-strand, Fitness and Physical Activity. Learning outcomes for Fitness and Physical Activity are stated for pupils from
Foundation through to Year 10. For Ontario, Physical Fitness is located in a curriculum strand called Active Living. Physical Fitness is described in relatively specific terms in the Ontario syllabus as follows:

Daily physical activity (DPA) is a mandatory component of daily instruction for students in Ontario and is included as a curriculum expectation in health and physical education for every grade within this section of the strand. This learning expectation requires students to actively engage in sustained moderate to vigorous physical activity, including appropriate warm-up and cool-down activities, to the best of their ability for a minimum of twenty minutes every day. All students, including students with special education needs, are required to have the opportunity to participate in DPA during instructional time. The goal of daily physical activity is to instil the habit of activity and enable all elementary students to be active on a daily basis in order to maintain or enhance their physical fitness, their overall health and wellness, and their ability and readiness to learn. (Ontario Public Service, 2015, p. 26)

In the case of the national Curriculum for Excellence in Scotland, Physical Fitness is one of four Significant Aspects of Learning in physical education. Here the focus is on stamina, speed, core stability and strength, and flexibility developed progressively from early years to secondary school. In the US, the Shape America standards include: ‘The physically literate individual demonstrates the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness’ as Standard 3 of five standards. Three aspects of this standard are listed for kindergarten through to grade 8: physical activity knowledge; engages in physical activity; and fitness knowledge. In the case of Singapore, two goals of six within a Physical Health and Fitness strand refer to ‘Goal 5: Acquire and maintain health-enhancing fitness through regular participation in physical activities’ and ‘Goal 6: Enjoy and value the benefits of living a physically active and healthy life’ (Ministry of Education, 2014, p. 132).

In addition to these national curriculum developments, there has been no shortage of advocacy for a health focus in physical education over the past two decades, nor indeed examples of forms of health-related, enhancing or optimizing physical education. McConnell (2005) developed a curriculum model for Fitness Education, while Haerens et al. (2011) propose a pedagogical model for health-based physical education. Metzler et al. (2013) have developed an instructional model for Health-Optimizing Physical Education. Working within a conventional multi-activity form of physical education within the national curriculum for England, Harris (2000) identified seven guiding principles for an inclusive form of health-related physical education. She argues that exercise can be a positive and enjoyable experience, that exercise is for all, and that everyone can benefit from exercise. Moreover, everyone can be good at exercise, everyone can find the right kind of exercise to suit them, exercise is for life, and excellence in health-related exercise is maintaining an active way of life (Harris, 2000, p. 18).

The New Public Health and physical education-as-health promotion

While each of these health-related models are proposed to co-exist alongside forms of physical education with learning outcomes for skill learning, playing sport, aesthetic movement experience, and so on, McKenzie & Sallis and colleagues (eg. Sallis & McKenzie, 1991; Sallis et al., 2012) have long advocated a sole public health focus for physical education through the development of a range of evidence-based programmes such as SPARK (McKenzie, Sallis, & Rosengard, 2009). Sallis & McKenzie (1991) were early advocates for a shift in focus to physical activity as the core concept connecting physical education to the New Public Health (NPH) (Tulchinsky & Varavikova, 2009). Within the NPH, school physical education is viewed as one of a range of public services that can be coordinated to promote health. Sallis & McKenzie (1991) argued that physical educators should have a public health role as members of teams alongside health educators, psychologists, dieticians and exercise physiologists.

The familiarity of their argument today should not cause us to miss its significance in the early 1990s when the sport-technique based rationale dominated school physical education programmes. This familiarity rests on their use of
the language of risk factors for disease, an important feature of the NPH and the new field of health promotion. They argued that regular physical activity could reduce the risk factors for Cardio-Vascular Disease (CVD), and for childhood obesity, which they identified at that time as an emerging problem in the US (Sallis & McKenzie, 1991, p. 125). While they saw other health-related benefits from physical activity, the prevention of CVD was in their view the main target for a public health oriented physical education. This way of thinking about the relationship between physical activity-focused physical education and health arguably rests on the concept of exercise-is-medicine (Jette & Vertinsky, 2001).

Throughout the 1990s and first decade of the 21st century, the ‘obesity crisis’ increasingly provided a frame of reference for school physical education and has proved irresistible, with exercise-is-medicine its underpinning logic. Physical activity, most often expressed in the notion of MVPA, comes with a recommended daily ‘dose’ of up to 60 minutes. Increasingly over the past decade or more, optimising MVPA has come to be viewed as something of a gold standard for physical education lessons (Fairclough & Stratton, 2005). Despite the dominance of this notion of physical education-as-health promotion, McKenzie reported in 2009 that physical education was ‘the pill not taken’ in the fight against diseases relating to sedentary lifestyles (McKenzie & Lounsbery, 2009); this metaphor drawn directly from the notion of exercise-is-medicine.

Are there alternative ways of thinking about physical education, health and wellbeing? A salutogenic approach

This notion of physical education-as-health promotion informed by the NPH has been identified as resting on a pathogenic view of health (Quennerstedt, 2008). As a childhood obesity crisis has emerged, the disease-specific nature of much pathogenic health care has become evident, solidified around health-related or optimizing physical education’s role in promoting physical activity. Given this context, Crawford (1980) was prescient in his insight that calls for regular exercise as a central aspect of the new health consciousness was effectively a medicalization of everyday life. If exercise-is-medicine and physical activity-based physical education is ‘the pill not taken’, then the ‘disease’ it targets and seeks to prevent is obesity.

Kickbush (2017) argues that it is a pathogenic disease prevention view of health promotion that dominates current curriculum and policy developments in education globally. Despite its dominance as a way of thinking about physical education, health and wellbeing, by its advocates’ own account, this pathogenic approach has met limited success (McKenzie & Lounsbery, 2009). These limitations have been further exposed by the growing awareness of mental health issues among young people (e.g. Kenny et al., 2018; Kerner et al., 2018). Within this context, salutogenesis has emerged as a possible alternative way of thinking.

Salutogenesis draws on the work of Antonovsky (1996). Antonovsky challenges the suitability of a pathogenic concept of health, built around reducing risk factors for disease, as a theoretical basis for health promotion. Salutogenesis begins with the observation that human beings live in heterostasis, not homeostasis, and that no-one is ever completely healthy at any point in time, but is more or less healthy. From this starting point, Antonovsky asks, how do we use health promotion to help people to remain as healthy as possible? He asks how we identify salutary factors that actively promote health rather than factors that merely reduce risk.

Salutogenesis has begun to influence thinking about health in physical education. In an advocacy paper, Quennerstedt (2008) argued that salutogenesis offered health and physical educators a wider and more positive perspective on health, and on how movement activities can enrich people’s lives rather than merely reduce the risk of illness. Jakobsson (2014) employed a salutogenic lens to investigate teenagers’ reasons for continuing to participate in Swedish sports clubs. In Australia, McCuaig et al. (2013) and McCuaig & Quennerstedt (2018) have investigated the application of a salutogenic approach to the development of the Australian HPE curriculum. In this context, they argue that a salutogenic perspective allows curriculum developers to promote a ‘strengths-based’ in contrast to a pathogenic ‘deficit’ approach to health. Pedagogically, this work has emphasised, consistent with Antonovsky’s notion of Sense of
Coherence (SOC), how health and physical educators might help address adolescent mental health issues, by problem-solving through inquiry, the identification of resources and assets for healthy living, and empowerment and self-determination by listening to student voices. McCuaig and Quennerstedt (2018) propose that salutogenesis makes possible a focus on the pedagogy of how young people can come to lead ‘the good life’.

The trend towards health-related physical education: two caveats

We might conclude, based on developments over the past two decades or more, that health does currently appear to occupy an important and prominent place within physical education. Indeed, it might be argued that physical education is well into a process of being relocated within the curriculum to a health education and promotion context, as a contributor to a public health agenda and within a predominantly pathogenic perspective. While a range of terminology exists, there are common threads in curriculum policy and development. Commonalities are the use of the same or similar concepts such as active living, health-related fitness, exercise, and physical activity, to articulate physical education’s relationship with health. Two caveats are nevertheless appropriate in concluding this paper.

The first is an observation by Kilborn, Lorusso & Francis (2016) of conflict between stated curriculum aims and content. These researchers analysed the curriculum policy documents of all 10 Canadian provinces. The stated aims of all policies are concerned with health and fitness, however, they note that the content is predominantly concerned with movement skills, reflecting the continuing dominance of sports and games in physical education (Kirk, 2010). While their analysis concerns Canada alone, we might wonder whether it has relevance elsewhere.

A second is Gard’s (2014) view that the more closely physical educators align themselves with a public health agenda, the more likely they are to be held to account for their claims that physical activity can, for example, reduce the risk of obesity, and therefore to be found out to be ineffective in achieving such a health-related goal. Furthermore, when digital technology is added, which he coins ‘eHPE’, physical educators may be venturing down a path that eventually makes them redundant, since machine-based programmes (eg. exergames), he argues, may be much less expensive than teachers and much more effective in terms of health-related results.

Even if this doesn’t happen, Gard suggests physical educators should be careful what they wish for when they advocate enthusiastically for the use of technology and a health focus in their subject. He points to Fitnessgram as an example of the marriage of state education, public health and private business and the narrowing of the curriculum that only teaches what is easy to measure. Sallis et al. have also made this point recently:

Two main goals of ‘health-related physical education’ (as coined in 1991) were to (a) prepare youth for a lifetime of physical activity, and (b) provide them with physical activity during physical education classes. The former goal (…) although important and health-related, is difficult to evaluate and has limited evidence to support its validity (…)

The second goal represented an immediate, tangible outcome from participating in physical education. (Sallis et al., 2012, p.126)

Pressed to provide evidence of our effectiveness, the implication of the observation of Sallis et al. is that we should prioritise the more easily measured and immediate goal, of optimising MVPA, while, perhaps, merely hoping for the best for the eventual achievement of the former. As Gard points out, this choice, pragmatic though it may be, sets school physical education in a particular relationship with health, as a means of reducing the risk of sedentariness-related diseases through physical activity, physical education-as-health promotion. Faced with new challenges centred on young people’s mental health, this may not be the best way forward for physical education.

These two caveats qualify the too ready-conclusion that physical education is currently framed within a health-related rationale. But the trend nevertheless is clear. In curriculum development, policy and advocacy terms, at least, if not in practice, physical education is viewed as a component of health education and promotion within the school curriculum.
Conclusion

Scientific discoveries have provided new insights into the nature of the physical and physiological effects of physical activity. At the turn of the 20th century in the Global North, physical educators were confronted with undernourished and emaciated bodies among the working classes and the spectre of intergenerational physical deterioration. As the 20th century progressed and the curative and preventative arms of medicine became increasingly effective, stunted growth and undernourishment were of diminishing concern in the countries of the Global North (Kirk, 1992). Mid-20th century scientific discoveries about the effects of exercise on bodily strength and endurance opened a new vista for physical educators, beyond the therapeutic role of exercise, to a focus on physical fitness. As the challenge shifted in the 1970s and 1980s from under to over-nourishment, this knowledge found further application in relation to reducing the risks of coronary heart disease and obesity.

Throughout this process, and running through the trends I have discussed, the emphasis on the physical and physiological within the relationship between physical education and health has remained. As a form of disease prevention, physical education’s contribution to health has been embedded in the body’s physical functioning. This is a continuity over time that is at first look disguised by the discontinuities in practice, as the content of physical education changed from free-standing gymnastics to games and sports to MVPA. It is however of considerable importance in understanding the residual effects of past practices on the present (Williams, 1977), particularly in terms of resistance to alternative conceptions of the relationship between physical education and health. This continuity may make it difficult for advocates of a salutogenic concept of health promotion, for example, to find acceptance for the new pedagogical strategies that are implicit in this approach.

References


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**Education and Health**

The journal, published by SHEU since 1983, is aimed at those involved with education and health who are concerned with the health and wellbeing of young people. Readership is worldwide and in the UK include: primary; secondary and further education teachers; university staff and health-care professionals working in education and health settings. The journal is online and open access, continues the proud tradition of independent publishing and offers an eclectic mix of articles.

**Contributors** (see a recent list) - Do you have up to 3000 words about a relevant issue that you would like to see published? Please contact the Editor

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**Education and Health Archive**

Each issue of the journal, published since 1983, is available via the archive. There are several simple indices that help to identify articles by keywords; year/issue number; author surname and article title. It can be seen that some contributors have had a number of articles published and there are a range of topics that have been covered over the years. Sometimes a contributor will update their article or develop points raised by another contributor. The pages on the website, that have been provided for the Education and Health journal, usually have the highest number of ‘reads’ across all pages on this Internet site.

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“The (SHEU survey) helped us to prioritise where we needed to be in terms of PSHE education. We delivered assemblies based on the evidence as well as curriculum development, and dealt with whole school issues – particularly in regard to pastoral care. The answers received to the question on the survey Who are you most likely to approach if you needed help worried staff as teacher was not a popular answer. Subsequently the staff asked themselves why this had happened and what needed to be done to address the issue. There was more emphasis on wider aspects of PSHE education delivery, which needed more attention. To summarise, the (SHEU survey) allows the PSHE department to assess the impact of teaching and learning and modify future lessons accordingly. It allows our school to look at whole school issues such as the extent to which the pastoral care system is meeting the needs of our pupils. It helps us to do need analysis of our pupils. It helps to provide important evidence for SEF / the extent to which we are meeting wellbeing indicators / National Healthy School standards.” Secondary School Head

For more details please visit [http://sheu.org.uk](http://sheu.org.uk)
**Alicia C. Stapp and P. Renee Hill-Cunningham**

Examining Classroom Physical Activity Integration: A Mixed Methods Analysis

The 2008 Physical Activity Guidelines for Americans suggest that children receive at least 60 minutes of daily physical activity (PA) (U.S. Department of Health & Human Services, 2008). Contrary to these guidelines, current research indicates an upward trend in children’s sedentary behaviors. Approximately one-fourth of children in the United States do not meet the recommended daily guidelines for PA (Hellmich, 2018). It is estimated that children spend up to seven hours a day in sedentary activities in and out of school (Rideout, Foehr, & Roberts, 2010). These sedentary behaviors are associated with negative outcomes for children in the school setting, inclusive of poor behavior and academic achievement. Conversely, studies indicate a positive correlation between behavior, academic performance and increased PA levels throughout the school day (Donnelly, Hillman, & Castelli, 2016).

**The Changing Role of Schools**

For over a century, schools in the United States have been at the forefront of providing PA for children through physical education (Wuest & Bucher, 1999). However, alarming health trends have changed the way that schools are viewed in promoting PA. An increased awareness of childhood obesity has shifted the discussion to when and where children should receive the majority of their PA. Even though schools should not be the only place children receive PA, Sidentop (2009) noted that without schools’ support, the trajectory of childhood obesity will not change.

**Classroom Physical Activity Integration**

Several studies have emerged that provide insight into the benefits of classroom physical activity integration. Two of the most comprehensive programs are Child and Adolescent Trial for Cardiovascular Health (CATCH) and Take 10! CATCH was developed during the 1980’s to improve both PA and diet in children. As a longitudinal school-based intervention, CATCH took place in California, Louisiana, Minnesota, and Texas. The effects of health behavior interventions in the cafeteria, physical education class, and classroom on 3,714 elementary school children were examined. Over a three-year period, positive changes in dietary behaviors for the experimental group were identified and moderate-to-vigorous physical activity (MVPA) levels significantly increased (Nader et al., 1999).

Take 10! is another PA integration program that began in 1999. The concept of Take 10! is to provide physically active lessons for teachers that facilitate 10 minutes of MVPA for children. One Take 10! study examined third-grade students and revealed that students who participated had 13% higher PA levels compared to a control group (Kibbe at al., 2009). While these programs offer viable options for PA integration, they lack sustainability to create systemic change in children’s PA at school.

**Comprehensive School Physical Activity Programs**

Even though PA intervention studies have been conducted at the school level, the need for comprehensive school PA programs has become a recurring theme when addressing childhood obesity. Thus, the Centers for Disease Control and Prevention (CDC) and SHAPE America collaborated to develop a step-by-step guide to implementing comprehensive school PA programs (CSPAP) (CDC, 2013). The underlying goal of CSPAP is to provide children with a variety of PA at school to meet the recommended...
60 minutes of daily PA. Additionally, CSPAP aims to promote collaboration amongst its components to build and enhance skills that children learn during physical education. While the message that CSPAP embodies is one that encourages collaboration, most CSPAP plans have not been successful. This has been attributed to factors such as lack of knowledge, and skill set among classroom teachers (McKenzie & Lounsbery, 2013).

The Role of Teacher Preparation: A Wellness and Physical Activity Endorsement

While SHAPE America and the CDC provide professional development on CSPAP, the academic mandates placed on teachers leave them with an extremely heavy workload. Therefore, it is imperative for teacher preparation programs to rethink their role in developing classroom teachers who are prepared to teach academic content while effectively promoting the development of children’s health through increased PA integration.

To address the above concern, a teaching endorsement for elementary education majors in wellness and PA was developed, approved by the State’s Department of Education and implemented in 2015. It is currently offered at a University in the Southeastern United States to elementary education majors. The endorsement was designed to train future educators who will effectively create and implement curricula, integrating academic content and PA into the whole school environment.

To evaluate this endorsement program, the current study examined the PA levels of third-grade students (experimental group) whose teacher graduated from the endorsement program in 2017. Physical activity levels of the experimental group were then compared to a control class who did not receive PA integration for six weeks. The control group was a third-grade class in Northwest Mississippi that did not receive PA integration for six weeks. Ten females and 11 males made up the experimental class. Ethnicities included 24% White, 38% Black, and 38% Hispanic. There were 9 females and 7 males in the control group. Ethnicities were 75% White, 13% Black, and 11% Hispanic. Both teachers had a state teaching license and while the experimental teacher had a teaching endorsement in wellness and PA the control teacher did not.

Measures

The credibility of output from pedometers utilized during research and practice has recently increased as a way to approximate daily ambulatory PA (Tudor-Locke, Hatano, Pangrazi, & Kang, 2008). The pedometer used during this study was a Pocket 3D Pedometer with Tri-Axis Technology. Its 3D digital accelerometer sensor provides superior accuracy by filtering out vibrations and only counting after it detects a sequence of continuous steps. These details were imperative to obtaining accurate and valid step count data.

Each parent, in both the experimental and control group, consented to their child wearing a pedometer for six weeks. Step counts were tracked daily on a “Counting My Steps” worksheet by each student who participated in the study (see Appendix A). The five hours students

Methods

This study utilized a mixed methods embedded experimental design wherein one data set played a supplemental role in the study based primarily on other data (Caracelli & Greene, 1997; Creswell, Plano Clark, Gutmann, & Hanson, 2003). Data were collected via pedometers to obtain students’ step counts for six weeks (October 2017-November 2017).

Qualitative data were collected after implementation of the pedometers from a semi-structured teacher interview to help better explain the quantitative findings.

Participants

The present study consisted of an experimental group that included a third-grade class (aged 8-9 years) in Northwest Mississippi. Participants received daily PA integration for five hours each day over a period of six weeks. The control group was a third-grade class in Northwest Mississippi that did not receive PA integration for six weeks. Ten females and 11 males made up the experimental class. Ethnicities included 24% White, 38% Black, and 38% Hispanic. There were 9 females and 7 males in the control group. Ethnicities were 75% White, 13% Black, and 11% Hispanic. Both teachers had a state teaching license and while the experimental teacher had a teaching endorsement in wellness and PA the control teacher did not.
wore pedometers represented approximately 21% of each student’s 24-hour day. Tudor-Locke, Hatano, Pangrazi, & Kang (2008) note that a level of >17,500 steps for male children or >14,500 for female children is considered highly active. Thus, to be considered highly active during the five hours students wore pedometers, males had to obtain 3,500 steps and females had to obtain 2,900 steps.

An interview with the experimental teacher was conducted after pedometer data were collected to further explain the quantitative findings. A semi-structured approach was employed and an ‘interview guide’ was developed that included both open-ended and theoretically driven questions (Galleta, 2013). A schematic delivery of questions was presented to the participant during the interview wherein an ethnographic questioning cycle was utilized to develop questions that capitalized on the teacher’s cultural and personal vocabulary (Spradley, 1979).

Data Analysis

Means and standard deviations for each class’ weekly step counts were determined first followed by the daily average step count. SPSS statistical software was utilized to analyze the data. An independent t-test was conducted to determine if the difference between the average daily step count of the experimental and control group were significant. The effect size (Cohen’s d) was also calculated to determine if the results were meaningful as indicated by significance.

The teacher interview was audiotaped with verbal and written consent. Photographs were also taken during the teacher’s lessons as artifacts to supplement the interview data. After audiotaping occurred, the interview was transcribed. Analysis of the transcript included several steps. The first step was to read through the transcript in its entirety. Next, the interview was coded starting with broad themes and concepts and then narrowed down into smaller units. This method of unitization was defined by Lincoln and Guba (1985) as the breaking down of parts into smaller meaningful pieces. After unitization occurred, the pieces were then developed into thematic categories to represent the emerging themes that helped explain the study’s quantitative data. When no new themes emerged, it was assumed that the data had met the saturation point and final themes were identified (Glasser & Strauss, 1967).

Results

Step Counts

Data from the experimental group revealed that students averaged 3,252 steps per day. Highly active is considered 2,900 steps for females and 3,500 steps for males (Tudor-Locke, Hatano, Pangrazi, & Kang, 2008). Thus, the experimental groups’ step count data were highly active. Students in the control group averaged 2,626 steps per day, which indicated a moderately active range. Results of the independent unpaired t-test indicated that the daily average step counts differed between the experimental class (M = 3252.29, SD = 716.46, n = 21) and the control class (M = 2626.31, SD = 883.52, n = 16) at the .05 level of significance (t = 2.38, df = 35, p < .05, 95% CI for mean difference 92.17 to 1159.78) (see Appendix B; Table 1). To measure effect size, Cohen’s d was also calculated. Data revealed that d = .78, indicating a large effect size.

Teacher Interview

An interview was also conducted to help explain the quantitative findings by analyzing the experimental teacher’s perceptions and experiences with PA integration. Three themes emerged during data analysis and were identified as most prominent to the discussion of PA integration: (1) students’ positive affect, (2) varying physical activity, and (3) lack of planning time.

Positive affect

What is known from research is that positive affect can have a substantial impact on behavioral and academic motivation. To foster discussion about students’ feelings regarding pedometers and PA integration in the classroom, the teacher was asked about students’ reactions to wearing pedometers and PA integration. The teacher responded as follows:

I had a couple that it was a really good tool for their academic behavior because they liked wearing them. I couldn’t forget them because they would remind me and I had a student that was her job every morning. At 7:35 a.m. she would pass them out and at 7:45 a.m. I would make the announcement “Okay it’s time to press and hold the reset button, put them on, if you need help let me know, and that was it.”
In addition to positive affect, the teacher also noted that some students showed an interest in PA integration and pedometer outcomes. Below is one story shared by the teacher:

One of my little girls...it’s been very challenging getting her motivated…but something clicked between the two of us…all of a sudden there was this motivation from somewhere that was great! And she eventually saw the physical activity and pedometers as you know, “I wish I had brought my form back to do that.” Like I see that it’s important to you and it’s cool to do physical activity. So, I did end up letting her wear the pedometer -- after speaking with her mom -- for a few days, but we didn’t track anything. You could tell she really enjoyed doing the physical activity and getting to see the results on the pedometer.

The teacher noted that most students were intrinsically motivated by PA. However, some of the interview data revealed that students enjoyed the instant extrinsic gratification the pedometers provided. While evidence suggests that pedometers are a motivational tool for increasing PA in children, the teacher stated that students were only intrigued by looking at their pedometers for about a week. Thereafter, the teacher noted that PA “seemed to just become part of what we did each day.”

Varying physical activity

The experimental teacher planned a variety of PA integration for students to participate in throughout the study. The teacher noted “I wanted to create a motivational setting for my students to participate in” by changing the types of PA used during the day. Below, the teacher described some of the different types of PA that were incorporated during the study:

Interviewer: What are some ways you incorporated physical activity?
Teacher: So, we started with an additional recess period. We were doing a brain break between writing and math, but now we have recess, so that is our brain break. Typically after morning meeting, we do a get up and get moving to wake up, because a lot of them come in and they’re just so tired! I am slowly working to integrate within the lessons. Whether it be something as simple as one center they’re moving around the room or we are utilizing classroom objects to determine area and perimeter.
Interviewer: Yeah, I noticed they enjoyed moving around during math centers.

Teacher: I am looking at trying to do some integration during recess with health and physical activity. They are calling it a health and wellness break and if they are going to call it a health and wellness break it needs to have some focus.

Interviewer: Yes! That’s a prime opportunity for health and physical activity integration.

Lack of time

Even though this study elicited many positive outcomes, one of the themes that emerged during the interview was a lack of planning time. Despite prior pre-service coursework on wellness and PA integration, the teacher found it challenging to “keep up with the integration” due to daily academic mandates. Therefore, the teacher chose to primarily focus on integrating PA during mathematics as noted below:

I feel like I’m trying to get everything lined up and there are so many different things in the short amount of instruction and center time that is provided. So, I am trying to get that nailed down and it’s like I get something figured out for physical activity integration and then we move on to the next area in math. For me, reading is a struggle to integrate, mainly because there are so many things mandated that there isn’t much wiggle room. So, that is why I have focused on math and my administration supports my integration. Getting the movement integrated within the centers in addition to the daily breaks and morning wake up is totally worth it! I know the kids love it and succeed when I integrate physical activity. I whole-heartedly believe in it and I am making it work!

As noted in the interview, utilizing PA during academic time is essential to student success. However, the pressure of academic mandates compounded by a lack of planning time presents an issue that has to be addressed when integrating PA. While the teacher did perceive integration as feasible during mathematics, step counts may have been higher if more time for planning was allocated or integrated into other academic areas.

Discussion

A natural interpretation of the pedometry is that a change in approach at school can produce important differences in children’s activity levels. This result demonstrates the unrivalled potential of schools to increase children’s PA levels and slow or reverse the impending childhood obesity
epidemic. However, a systemic shift to comprehensive school PA programs across the United States has not yet occurred. One reason, as indicated by this study’s findings is increased academic mandates and paucity of planning time. Moreover, teachers are under a substantial amount of pressure to increase academic achievement and without PA integration training, they may lack the efficacy to connect PA to the curriculum effectively. Therefore, classroom interventions to improve children’s health are left unattended, as the focus remains steadfast on academic content. Despite a lack of focus on children’s health by schools, this study revealed that a teacher with an endorsement in wellness and physical activity felt much more prepared to integrate PA and knew the benefits for her students. Support of administration and pre-service coursework were critical to both the teacher’s success and thus students’ increased PA. Subsequently, this study adds to the scope of literature revealing the positive benefits of training pre-service teachers on PA integration and the positive effect it can have on the health of our future generation.

While findings of the present study were significant, it is not without limitations, which included a small sample size of participants. Although it can be asserted that there was a correlation between PA integration and children’s PA levels in this study, the researcher acknowledges that utilizing a larger sample size within different geographical regions and with varying demographics would enable further generalizations. Data were also collected during a five-hour time period of instruction while students were in school. Future research may examine either a longer time frame during the school day or collect pedometer data 24 hours a day to address the notion that students who receive more PA opportunities in school may exercise less outside of school (Metcalf et al., 2004).

While there are barriers to obtaining data for a longer duration, it may provide additional insight into the impact of PA integration during the school day.

Conclusion

Developing pre-service teachers who can effectively integrate PA into the school day, provides a platform for creating sustainable physical activity for children. Outcomes of this study provide evidence to suggest that both PA integration and a teacher with pre-service training in wellness and PA may be able to foster higher levels of PA in his/her students during the school day compared to a teacher who is not trained in PA integration. Therefore, it is essential for teacher preparation programs to incorporate coursework that can develop the knowledge and skills for effective PA integration. By accomplishing this, it is the hope that a systemic change will transpire within education, leading to an improvement in the overall health of children across the United States.

References


Appendix A

Counting My Steps

Name_________________________________________ Date__________

<table>
<thead>
<tr>
<th></th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Weekly Totals</th>
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<tr>
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<tr>
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<tr>
<td>Week 6 Nov 6-10</td>
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<tr>
<td>Total Step Count 6 weeks</td>
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</tbody>
</table>

Figure 1. Graphic organizer utilized by students to self-report daily step counts.

Appendix B

Table 1

Results of Independent Unpaired t-test for Daily Average Pedometer Step Count.

<table>
<thead>
<tr>
<th>PA Integration</th>
<th>No PA Integration</th>
<th>95% CI for Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>n</td>
</tr>
<tr>
<td>Step Count</td>
<td>3252.29</td>
<td>716.46</td>
</tr>
</tbody>
</table>

*p < .05, PA = Physical Activity
Professor Jonathan Glazzard is Professor of Teacher Education, National Teaching Fellow, Carnegie School of Education, Leeds Beckett University.

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Jonathan Glazzard

The Role of Schools in Supporting Children and Young People’s Mental Health

This paper focuses on children and young people’s mental health and the role of schools in enabling individuals within them to be mentally healthy. It focuses specifically on the UK context, although it is acknowledged that mental health is also a global priority. It is also important to highlight that perspectives on mental health vary within and between societies, groups and individuals. For example, mental health is still stigmatised in some countries while cultural and faith values also influence perspectives on mental health.

Improving people’s mental health has been identified as one of the most critical public health priorities (Kieling et al., 2011; Knifton & Quinn, 2013). Data from the UK Child and Adolescent Mental Health Survey published in 2004 estimated that 10% of children and young people aged 5-16 had a clinically diagnosable mental health problem. In 2017-18, 18,870 children under the age of 11 were referred for specialist mental health support. This represents a rise of 5,183 (or by a third) since 2014-15 (BBC, 2018). Research suggests that half of all psychological disorders begin before the age of 14 years (Kessler et al., 2007), thus highlighting the need for early intervention.

Mental health problems can reduce the likelihood of successfully completing education, securing employment, and engaging productively as a member of society, thus detrimentally impacting on life quality (Kieling et al., 2011). Worryingly, young men and boys represent the group at greatest risk of developing mental illness in one third of developed countries (World Health Organisation, 2014). According to the NSPCC, approximately 1 in 6 adults in England experiences mental ill health and over 2 million children are estimated to be living with a parent who has a common mental health disorder (https://www.nspcc.org.uk).

The Department for Education (DfE) and the Department of Health (DoH) recently published a joint Green Paper entitled, Transforming Children and Young People’s Mental Health Provision (December 2017). Within the Green Paper both departments express a commitment to working together to improve mental health services for children and young people, especially within the school environment. The role that schools and colleges can play is also highlighted:

There is clear evidence that schools and colleges can, and do, play a vital role in identifying mental health needs at an early stage, referring young people to specialist support and working jointly with others to support young people experiencing problems (DfE/DoH, 2017:4).

However, it is important to emphasise that teachers are not trained health professionals and cannot be expected to deliver therapeutic interventions. They can however be supported to more effectively identify the signs of mental ill health and schools can reasonably be expected to develop whole-school approaches which foster a mentally healthy culture. According to the Green Paper, the two departments ‘...want to put schools and colleges at the heart of our efforts to intervene early and prevent problems escalating’ (DfE/DoH, 2017:3). To help them do this they have committed £1.4 billion over the next five years to young people’s mental health. The Green Paper proposes that every school and college should have a Designated Senior Lead who is responsible for leading and managing mental health provision, although the scope and remit of
this role is still being decided. Within the Green Paper, there are proposals to introduce Mental Health Support Teams into schools to provide support with identifying needs and providing targeted intervention. Specific risk groups are identified. These include those who are looked after, those who identify as Lesbian, Gay, Bisexual and Transgender (LGBT), those in gangs and those not in education, employment or training (DfE / DoH, 2017). According to the Green Paper ‘Children with a persistent mental health problem face unequal chances in life. This is one of the burning injustices of our time’ (DfE / DoH, 2017, p.6). It is estimated that 850,000 children and young people experience a mental health need (DfE/DoH, 2017). Currently, access to support is variable across England and, for many, the support comes too late. This can lead to devastating consequences for young people. Additionally, many children and young people do not meet the threshold criteria for a successful referral to Child and Adolescent Mental Health Services and within this context the role of schools in identifying needs early and providing early intervention is critical.

What is mental health?

The World Health Organisation (2014) defines mental health as:

...a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community. Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

It is important to acknowledge that mental health exists along a continuum which ranges from being mentally healthy to being mentally ill. Thus, mental health is more than the absence of mental illness (Keyes, 2002). The World Health Organization (2013, p. 6) has stressed that ‘there is no health without mental health’. Thus, one’s mental health is an essential element of being healthy, alongside their physical and social health.

The inter-relationship between physical, social and psychological wellbeing has long been established in the literature, although the relationship between mental health and wellbeing is sometimes unclear. For example, in some studies wellbeing is viewed as a component of mental health (Hanlon & Carlisle, 2013; Huppert, 2005; Keyes, 2005) but in other literature mental health is viewed as a component of overall wellbeing (Lehtinen, Ozamiz, Underwood & Weiss, 2005; World Health Organization, 1946). It is generally accepted that the different components of wellbeing are not mutually exclusive in that they support each other. Common attributes of wellbeing in children and adolescents include self-esteem, subjective wellbeing, quality of life, and psychological resilience (Lubans et al., 2016). Additional attributes may also include confidence and motivation.

Risk and protective factors

The problem is not unique to England, or even the UK and the causes of mental ill health are multi-faceted:

A growing body of evidence, mainly from high-income countries, has shown that there is a strong socioeconomic gradient in mental health, with people of lower socioeconomic status having a higher likelihood of developing and experiencing mental health problems. In other words, social inequalities in society are strongly linked to mental health inequalities. (Mental Health Foundation, 2016: 57)

Thus, socio-economic disadvantage acts as a psychosocial stressor and can have a detrimental impact young people’s mental health and wellbeing. It reduces the ability of young people to participate in activities with their peers. It is also associated with worse parental mental, which is, in turn, a strong risk factor for poor child mental health and wellbeing (Education Policy Institute, 2018). Additionally, adverse childhood experiences, have a known and significant effect on children and young people’s mental health. These include trauma, poor attachment, parental alcohol and drug abuse, domestic violence, neglect and abuse (House of Commons, 2018). School factors also play a role. Evidence suggests that young people who are excluded from school or in alternative provision are more likely to have a mental health need than children not in alternative provision (IPPR, 2017). Children in schools are likely to be excluded for persistent disruptive behaviour, physical
violence and verbal abuse (IPPR, 2017) but the experience of exclusion can result in the development of mental ill health. High-stakes exams can also have adverse effects on young people’s mental health and well-being (House of Commons, 2018). Additionally, lack of curriculum choice, particularly in secondary school, can increase stress and reduce self-esteem (House of Commons, 2018). Protective factors such as nurturing, stable family relationships and other social relationships can mitigate against risk factors. Positive relationships with parents, peers and teachers can strengthen resilience to adversity but they might not be sufficient to compensate. Mental ill health is also evident across individuals from a range of social backgrounds.

Common mental health needs in adolescents include anxiety, stress, depression, self-harm, substance misuse, conduct disorders and eating disorders. This is an illustrative rather than an exhaustive list. Young people lead very different lives to previous generations and this may account for the apparent increase in young people with mental health needs. For example, many young people now live much of their lives online. Research suggests that excessive internet use can have a detrimental impact on life satisfaction (OECD, 2016). The Office for National Statistics has also found an association between longer time spent on social media and mental health problems; young people who engage with social networking sites for three or more hours per day experience more symptoms of mental ill health compared those who spend no time on social networking sites (ONS, 2015). Research suggests that young people who are heavy users of social media are more likely to report poor mental health, including psychological distress (RSPPH, 2017) than those who use it less frequently. The relationship between social media use and low body-esteem has been established in the literature (British Youth Council, 2017). Additionally, 70% of young people have experienced cyberbullying and 37% of young people experience it frequently (RSPPH, 2017). Whilst social media can facilitate numerous benefits, including the benefits of peer interaction, access to information and advice, it can also facilitate direct exposure to a range of risks, including content which is dangerous and life-threatening. Examples include exposure to

A whole-school approach to mental health

Research demonstrates that the physical, social and emotional environment in the school impacts on young people’s physical, emotional and mental health and wellbeing as well as impacting on academic attainment (Jamal et al., 2013). In addition, research suggests that relationships between staff and students, and between students, are critical in promoting student wellbeing and in helping to engender a sense of belonging to the school (Calea, 2010). An essential element of a whole-school approach is the commitment of the school senior leadership team in promoting the development of a positive school culture which engenders a sense of belonging and connectedness. Student wellbeing must be central to the school’s vision and values and there should be clear policy which states how each of the elements of the whole-school approach will be enacted in practice. The learning environment should promote positive messages about mental health through displays and the leadership team should commit to a financial investment for staff training and resources to support the mental health curriculum. Investment in pastoral provision, school counselling and other services will provide an infrastructure which underpins the mental health provision. The leadership team should promote staff wellbeing in addition to student wellbeing and the development of positive relationships between pupils, staff and staff and pupils is central to the whole-school approach.

The personal, social and emotional (PSE) curriculum in the school can impact positively on young people’s health and wellbeing as well as providing them with the skills they need (Durlak et al., 2014; Goodman et al., 2015). An essential element of a whole-school approach to mental health is the development of a curriculum which provides children and young people with knowledge of mental health in order to improve their mental health literacy. The term mental health literacy was first introduced in 1997 by Jorm et al. and is defined as ‘knowledge and beliefs about mental disorders which aid their recognition, management and prevention’ (Jorm, et al., 1997). It is known that young people in
particular have low levels of mental health literacy, i.e. they have difficulties in identifying mental disorders and their underlying causes, risk factors, and associated protective factors, and can develop incorrect beliefs about the effectiveness of therapeutic interventions (Jorm et al., 2006; Kelly et al., 2007). Additionally, the stigma associated with mental health problems becomes apparent to people at an early age (Campos et al., 2018). However, research suggests that the attitudes of young people can be changed more easily than those of adults (Corrigan & Watson, 2007) and therefore schools can play a critical role in improving young people’s mental health literacy through the introduction of curriculum programmes which are specifically designed to develop young people’s knowledge about mental health and shape the development of positive attitudes towards it, thus reducing stigma. Research has demonstrated that young females have higher levels of mental health literacy than males (Martínez-Zambrano et al., 2013). This highlights the need for males to access mental health literacy programmes.

In addition to providing a mental health curriculum, schools should aim to provide students with a broad and rich curriculum with opportunities for curriculum choice in secondary education. This will ensure that students are able to develop their skills and knowledge in subjects that they are interested in and can experience success. Additionally, opportunities for discussing mental health should be integrated throughout the curriculum, particularly in the secondary phase, so that students begin to recognise that mental health is not just restricted to personal and social education lessons.

According to Public Health England (2015) ‘Involving students in decisions that impact on them can benefit their emotional health and wellbeing by helping them to feel part of the school and wider community and to have some control over their lives’ (p.14). Working in partnership with students is fundamental to a whole-school approach to mental health. Students who experience mental ill health should be given opportunities to set their own targets and review their own progress. In some schools, innovation in this area is already taking place through the development of student mental health ambassadors or champions and student wellbeing teams. Peer mentoring schemes can provide informal support networks to young people who prefer to speak to another young person rather than to an adult. However, research on the effectiveness of peer mentoring is inconclusive, largely because a wide range of models exist, which are operationalised differently, and programmes are established to measure a variety of outcomes (Coleman et al., 2017). Programmes of peer support can range from one-to-one, group and online support. There is some evidence which points to its effectiveness (Smith & Petosa, 2016) although there is need to more research in this area.

We are also aware of several schools that have implemented student-led mental health conferences. In mentally healthy schools, students are consulted about the introduction of policies which may have an impact on their wellbeing.

All staff in school should be provided with training on how to identify and support pupils with mental health needs. A strategic and financial commitment to professional development in mental health is essential so that education staff are empowered to support students. Mental health is everyone’s business within a school and staff need to be supported not only to identify the signs of mental ill health but also to recognise how their interactions with students and colleagues can impact on mental health in both positive and detrimental ways.

Identification of needs in schools is often unsystematic and relies on children and young people demonstrating symptoms. The students who are identified often demonstrate visible signs of mental ill health or they make a declaration of mental ill health. Students who demonstrate sudden changes in their behaviour, mood, attendance or academic profile may also become visible. However, many young people are skilled in hiding mental ill health for a variety of reasons, including shame. Delays in identifying and meeting emotional and mental health needs can have detrimental effects on all aspects of children and young people’s lives, including their chances of reaching their potential and leading happy and healthy lives as adults (Children & Young People’s Mental Health Coalition, 2012). Effective universal systems for identification of needs ensure that no student falls under the radar. We are starting to see
innovation in this area in schools, with some schools adopting software packages to systematically track student wellbeing over time. This enables senior school leaders to identify patterns and can provide information about where to target resources. Once mental health needs are identified schools should provide targeted support and develop systematic approaches for measuring the effectiveness of interventions.

Parents, carers and the wider family play an important role in influencing children and young people’s emotional health and wellbeing (Stewart-Brown, 2006). Parents of children and young people with mental health needs may also have mental health needs and these needs can result in mental ill health in their children. Additionally, some parents may exert pressure on their child to succeed academically which can subsequently result in the child experiencing stress and anxiety. Parents may need support and guidance to manage their own mental health and schools can play an important role in signposting them to appropriate external services. Additionally, parents of children with mental health needs may not know to identify the signs of mental ill health or how to support their child whilst they are experiencing mental ill health. A whole-school approach to mental health places emphasis on educating parents as well as educating students and workshops for parents on themes such as promoting their child’s wellbeing can be extremely beneficial.

**The Carnegie Centre of Excellence for Mental Health in Schools**

The Carnegie Centre of Excellence for Mental Health in Schools in the Carnegie School of Education at Leeds Beckett University, UK, exists to strengthen the mental health of the next generation by supporting schools to make a positive change at all levels of the UK's education system, thereby improving outcomes and life chances. Working in partnership with Minds Ahead we work with schools to support them in developing a whole-school approach to mental health. Our work strives to ensure that mental health difficulties do not limit success at school and beyond.

**Conclusions**

This article has outlined the policy context in the UK in relation to children and young people’s mental health. It has addressed the risk and protective factors which can cause or mitigate against mental ill health and it has outlined the elements of a whole-school approach to mental health. Schools should be places where students can live mentally healthy lives. Schools cannot control what happens to students outside of the school environment, but they can create mentally healthy environments which enable students to thrive and be resilient to the challenges they face. The commitment or ‘buy-in’ from the senior school leadership team is critical to developing effective whole-school mental health provision. Effective school leaders recognise that students need to be mentally healthy to succeed academically. They recognise that there are no tensions between the drive to improve student wellbeing and the drive to raise academic standards and they understand that the focus on wellbeing or mental health is the first priority. If students are mentally healthy they are happy, confident, have a positive self-concept and are motivated. These attributes are positively correlated with student attainment. Schools which offer targeted support for individual students but also adopt universal approaches to mental health for all students are well-placed to address the mental health challenges which young people face.

**References**


Stewart-Brown, S. (2006). What is the Evidence on School Health Promotion in Improving Health or Preventing Disease and, Specifically, What is the Effectiveness of the Health Promoting schools Approach? Copenhagen : WHO Regional Office for Europe. 


