Networking and partnership between Education, Health Education England and Academia: a viable tool for promoting young people’s health and wellbeing
Deborah Haydock, Gay Rabie and Jean Evers

Intentions to smoke and conventional cigarettes smoking among Malaysian adolescents: The mediating effect of experiencing alternative tobacco products
Siah Poh Chua, Mei Khon NG, Karen Mei Sing Wong and Kai Shuen Pheh

Recent additions to the free research resource that supports those concerned with the health and wellbeing of children and young people
SHEU

Expectations vs Reality: In which ways might watching porn online, as male and female adolescents, contribute to poor emotional health?
Richard H. Ainsworth-Masiello and David T. Evans
Welcome to the fourth issue for 2019. 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.

Articles focus on recent health education initiatives, relevant research findings, materials and strategies for education and health-related behaviour data.

Contributors (see a recent list)

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TO SUPPORT YOUR WORK WITH YOUNG PEOPLE TRY SHEU’S FREE RESOURCES
Increasingly, there is recognition within policy documents that ‘adolescence’ is a unique stage in life-course development differing from children and adults (Viner, 2012; World Health Organisation [WHO], 2014). Despite its importance, adolescent health has historically received limited attention, slow research progress and few resources (Sawyer et al., 2012; Ansley-Green, 2008). Evidence suggests that the 9.9 million young people within the United Kingdom have poorer health outcomes than those in other developed countries (Public Health England, [PHE], 2015; p5). According to Viner et al. (2011), deaths amongst adolescents aged 10–19 years are now higher than for any other period of childhood except for the new-born period. Areas of concern relate to mortality in 15 to 19-year-olds (mainly young men), and morbidity due to non-communicable diseases (Royal College of Paediatric Child Health, [RSPCH] 2017). Crucially an estimated 70% of premature adult deaths are due to behaviours begun in adolescence (Sawyer et al., 2012).

Starting at the onset of puberty and continuing into the mid-twenties, the adolescent brain undergoes a period of rapid and dramatic reorganisation (Colver & Longwell, 2013; Viner, 2012). These changes are said to rival those in the ‘early years’ with heightened sensitivity to reward occurring early in adolescence, and the development of impulse control and strategic decision-making functions occurring more gradually over a longer period, up to and beyond the age of 25 years (Giedd, 2012). Emerging evidence from adolescent neuroscience demonstrates that the consequences of cerebral reorganisation present as a significant challenge for ‘adolescents’ and for the adults who engage with them. Research findings suggest that choices and behaviours adopted during adolescence have lasting impact on the life-course of young people. Many non-communicable diseases, mental disorders, and injuries in adulthood arise from risk processes that begin in or before adolescence (Sawyer et al., 2012). The paradox of adolescent health is that although it is the ‘Physically healthiest period’ of the life-span, when young people are close to the peak in strength and reaction time, the overall morbidity and mortality rates increase by up to 200% from childhood to late adolescence (Giedd, 2004; 2009).

According to WHO (2014), the second decade of life provides a unique opportunity to work with young people, empowering them to take control over many aspects of their life. Hagell and Rigby (2015), argue the capacity to learn is at its greatest during adolescence and evidence suggests the development of effective social and emotional skills is central to adult mental health, life satisfaction, socio-economic, labour market, health and health-related outcomes. Education has a significant role in promoting such skills and in improving life chances overall (PHE, 2015; Viner, 2012). Initiatives to improve secondary school enrolment and quality of education are central to health, wellbeing and human capital, and have long-lasting benefits on health and welfare over the life-course (Patton et al., 2016). There is strong evidence to suggest that those with lower levels of education are more likely to die at a younger age and are at increased risk of
poorer health throughout life (Zimmerman & Woolf, 2014; Public Health Ireland, 2008). Sawyer et al. (2012), articulates a life-course approach highlighting the dual benefits of investing in adolescent health to influence the formation of positive adult health behaviours and outcomes. According to the NHS Federation, “Investing in children and young people’s health is a cost-effective way of improving long-term health outcomes and reducing pressure on the health service as these children grow up”. (NHS Confederation, 2011, p3). There is therefore a need to view education and health as reciprocal elements of adolescent development (Figure 1, see below), as poor health affects education (reverse causality).

School as a Health Promotion setting

Schools have long been identified as a ‘setting’ for improving health and well-being of children and young people (WHO, 1986; 1998). The transition from dependence to independence is lengthy and changes to statutory requirements for education and training have resulted in much of this time being spent in schools and colleges. This is significant as access to education and educational attainment is recognised as a key social determinant of health (Shanker et al., 2013). Young people in Secondary Education in England spend 714 hours each year in school (OECD, 2009) and school is arguably the most consistent influencing environment outside the home (Holt 2016). Schools play a critical role in the promotion of health, helping young people to establish lifelong patterns of healthy behaviour, in addition to providing education and therefore improving life-chances (Miller, Connolly & Maguire, 2013; Association of Young People’s Health [AYPH], 2015). Research demonstrates poor ‘academic performance is associated with health compromising behaviours and physical, mental and emotional problems’ (Ansari & Stock, 2010). This theory is supported by Basch (2010), who argues that healthier students are better learners. Schools have had a significant role in promoting ‘skills for life’ through Personal, Social Health and Economic (PSHE) education route which tend to focus on individual behaviours. However, health and well-being is also affected by social, economic and environmental determinants therefore successful interventions require multi-disciplinary and multi-sectorial approaches (WHO, 2018). There is now an expectation that schools should be directly involved in supporting ‘Health and Wellbeing Strategies’ with other key partners such as the Local Authority and the NHS. School settings provide a ‘captive audience’ for health and wellbeing intervention; however, paradoxically, schools are highlighting concerns in relation to deteriorating health and wellbeing of students.

Figure 1: Relationship of Health and Education in Adolescent Development
(Source: Virginia Commonwealth University; Centre for Society and Health, 2015)
This deterioration has occurred at a time of increased accountability measures (for example, Ofsted) and increasing demands on the curriculum leading to a reduction in the quality of teacher/pupil interaction and a loss of flexibility to respond to pupils as individuals (Hutchins, 2015). Consequently, there is a need to explore different collaborative approaches to ensure that health and wellbeing remain an integral element of a whole school approach.

The Healthy Futures Network Pilot
The ‘Healthy Futures Network Project’ (Rabie, Evers, Olsen & Byrne, 2017) is a cross-sector partnership between 8 ‘Founder’ schools from 5 North West sub-regions of England, Health Education England (HEE), and the University of Chester (UOC). The project aimed to examine the value of networking and collaboration across schools at a regional / sub-regional level, in respect of student health, wellbeing and employability and to assess how a network of schools and the NHS could work together to promote health and wellbeing of children and young people. It was anticipated that this ‘collaboration and partnership’ would ensure an avoidance of role duplication, and provide effective set of resources and sustainable interventions’ (DH, 2011). Collaboration is described as ‘working together to achieve mutual benefit’; with collaboration and partnership often used interchangeably. Carnwell and Carson (2008), suggest in order to distinguish between them, we think of the “Partnership as what something is” and “Collaboration as what one does”.

Operationalisation
To ensure a seamless transition, a ‘Memorandum of Understanding’ was agreed and signed by all participating Healthy Futures Network schools to formalise the ‘Healthy Futures Network Project’. Central to the development and sustainability of the project was the appointment of a Project Manager; this role included building relationships, supporting the network schools and expanding the network. The UOC provided managerial, academic and research support. The Project Manager met with the Senior Management Team in each of the ‘Network Schools’ when a Lead person was identified. Incentives for participation included:

- Funding was provided for completion of the School and Student Health Education Unit (SHEU) ‘Fit to Succeed’ survey in each Network school.
- An iPad was loaned to each participating school to facilitate networking and data collection.
- Support was given to develop action plans based on the school survey data.
- Networking opportunities were facilitated by the University, including training opportunities.
- Membership to a ‘Closed’ Facebook link.
- Access to an on-line resource included evidence-based publications, conference presentations and links to useful websites

Project commencement and key findings from the Pilot Surveys
Establishing the baseline for health and wellbeing was a critical element of the Network project as it would provide the schools with health-related behaviour data specific to their school. Eight schools across the North West completed the ‘Fit 2 Succeed’ (F2S) survey once. The sample population of 4,159 pupils included High Schools, Academies, a Faith School and a Specialist Sports College. The geographical spread of the schools included city centre, urban and rural settings.

The health-related behaviour F2S survey developed by the SHEU was considered suitable for the Healthy Futures Project because it comprises a self-completed on-line survey developed over 30 years with over a million school children in the UK. The questionnaire contains both quantitative & qualitative questions. Each school received an individual report of their results which highlighted areas of concern, including a baseline of student emotional health and wellbeing. Across the schools a number of concerns were highlighted ranging from poor eating habits, inadequate water consumption, inadequate exercise, poor sleeping habits, low confidence issues, and stresses related to social media, personal life and school (see Tables 1-4).
Table 1

Results examples—Eating Habits

- Almost 50% of students found healthy eating lessons useful.
- However, only 15–20% consider their health when choosing food.
- 15–20% had no breakfast on day of survey.
- Around 1/3 regularly eat no fruit/veg on a school day.
- High % would like to lose weight.

Table 2

Results example—Sleep

- Sleep is very important for young people.
- Sleep patterns very different in young people and adults.
- Graph—Average % of Network students going to bed after 11pm.
- Both boys and girls show an increase from KS3 to KS4+.
- Around ½ the KS4+ students go to bed after 11pm.
- Point of interest—link to sleep?
  - 35% of students spending over 3 hours/night on the Internet.
  - 70% of internet use is on social media.

Table 3

Physical Activity

- Approx. 75% of students enjoy/really enjoy PE classes.
- Approx. 60% exercise 3 or more times/week.
- % of students who ‘do NOT enjoy’ PE lessons remains a concern.
- Increase in % for both boys and girls as they progress from KS3 to KS4+.
- % of girls who do not enjoy PE is almost double % of boys—Why?

Table 4

Student Worries

- 60–70% of students have at least one worry.
- Range of worries related to school, home, friends, health, growing up, etc.

Girls:
- School work/Exams
- The way they look

Boys:
- School work/Exams
- Relationships with friends.
Many of the issues could be viewed as inter-related having the potential to impact student educational attainment. Many of the F2S results have similar findings to the literature such as the *The Good Childhood Report* (Children’s Society, 2016), and the *Girls’ Attitude Survey* (Girlguiding, 2016), which indicate that nine in 10 (87%) secondary leaders reported an increase in stress, anxiety or panic attacks amongst their students while eight in 10 (80%) report seeing an increase in depression among young people in the last two years.

Importantly, the findings demonstrate an overall decrease in healthy lifestyle behaviours as students progressed from KS3 (aged 11-14 in England) to KS4 (aged 14-16 in England). Of particular concern was the decrease in healthy lifestyle behaviours which affected student emotional health, wellbeing and happiness; the findings are consistent with the *Girls’ Attitude Survey* (Girlguiding 2016), depicting the percentage of girls who are unhappy as having doubled in the past 5 years and, crucially, the project data indicate that there is a widening gap between boys’ and girls’ happiness, see Table 5 (below).

**Actions**

Utilising the survey results, the schools developed action plans to address areas of concern in collaboration with the Healthy Futures Project Manager, this included developing a strategy to affect changes within the school (see Appendix 1). Following implementation, schools completed a second survey to determine the impact of the Action Plans. The second survey results demonstrated little overall change in healthy lifestyle behaviours however, this was felt to be indicative of the time required to affect change and to observe greater benefits.

Improvements were evident, however, with regards to the profile of emotional health and wellbeing, such as the number of interventions implemented in schools, and the acknowledgement that the Senior Management Teams (SMTs) in the Network Schools were more fully engaged in addressing the Health and Wellbeing of both Staff and Students.

Network members report a change in focus regarding health concerns in school; “at first it was all about physical activity, and it’s evolved now that we have a much wider understanding of the needs of young people… People will be looking at the whole child, and physical activity is just a small part of wellbeing”.

Furthermore, one Network member reports that “we are now looking after the whole organisation in terms of wellbeing. Significant changes have been made towards student and staff wellbeing”.

The effectiveness of the networking was acknowledged to be key part of this initial success. Where benefits were seen these were
achieved through the involvement of students in the development and implementation of Action Plans. A crucial element of the action planning was the sharing and dissemination of action plans amongst network members see Table 6 (below).

**Discussion**

According to Hale and Viner (2018), health in adolescence is strongly predictive of educational outcomes, including attainment and employment. Promotion of health by schools should be an essential part of their ‘core business of increasing attainments and enhancing later life chances’ (DH, 2011; Ch. 8, p7). Given the unique position that schools have in promoting health and well-being, there is now an expectation that they be more directly involved in supporting the development and delivery of Health and Wellbeing Strategies with other key partners such as the Local Authority (LA) and the National Health Service (Ofsted, 2015). Embedding a whole school approach to Adolescent health should be considered as less of a “cost” and more of an investment. The costs of inaction are too great to ignore. Investing in adolescents will yield a triple benefit – today, into adulthood and the next generation of children (Patton et al., 2012).

The survey results suggest that the Healthy Futures Project increased awareness of the links between health and wellbeing and the impact on education and life chances for young people. Eight schools with differing demographic profiles articulated the benefits of engagement in the Project including changes in the mind-set of the managerial and teaching staff following the results of the F2S survey. Network schools reported that pupil engagement with health and wellbeing had increased as a result of the project. This is demonstrated by pupils in several schools exhibiting an increase in ‘health literacy’, defined by WHO (1998), as “the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health”. Examples of increased health literacy include pupils from KS3 volunteering to participate in several health and wellbeing interventions in collaboration with staff members. As a direct result of the project 70 pupils in one school volunteered to work as health ambassadors and peer supporters alongside staff members. Together they worked on several areas of concern identified within their school Action Plan these included, nutrition, emotional health and well-being, (See Appendix 1).

Another example concerns a drama presentation, which was written and delivered by 40 pupils, that tackled emotional health and wellbeing. Both of these examples were
presented at a healthy futures conference to showcase the impact of network membership. These examples demonstrate that the pupils involved are well on the way to achieving the goal of health literacy “to promote greater independence and empowerment rather than simply to convey information” (Nutbeam, 2000). According to Fleary et al. (2018), there is a meaningful relationship between health literacy and adolescent health behaviours. Network members did identify some project constraints, reporting difficulties associated with time and resources, and the challenge of changing the managerial culture when implementing action plans. However, others reported a change in focus regarding holistic health concerns in school;

“... at first it was all about physical activity, it’s evolved now, we have a much wider understanding of the needs of young people. People (staff) will be looking at the whole child, physical activity is just a small part of wellbeing”.

Feedback generated from the focus groups also seemed to suggest a shift in mind-set towards a whole school approach which embraced the health and wellbeing of the entire school community;

“We are now looking after the whole organisation in terms of wellbeing. Significant changes have been made towards student and staff wellbeing”.

Feedback from the focus groups also demonstrated that network members appreciated the collaborative partnership and support afforded by the University, particularly in relation to the research evidence concerning the health and wellbeing of young people; comments included:

“It’s having a different perspective on young people’s emotional health’,

‘importance of information sharing” e.g. Public Health England and changes to Ofsted, “we would not have had access to information without input from the network”, “the links with University of Chester gives it kudos”.

The Healthy Futures Network Project has demonstrated that collaboration and partnership can effectively raise awareness of health and wellbeing in the whole school community. The profile of ‘school’ as a ‘setting’ for health and wellbeing has been raised and a ‘whole school approach’ implemented in several of the network schools. There has been a shift in emphasis from health and wellbeing as being the domain of the Physical Education staff, and the linear view of obesity as the main concern, to an understanding that improving the emotional health and wellbeing of pupils would bring major benefits not just to health but also to academic attainment. In addition, the attitudes of some senior management teams and teaching staff has changed over the timeline of the Project, particularly in relation to the evidence base regarding adolescence as a second opportunity to work with young people and install self-empowerment in their life choices (WHO, 2014). In raising ‘health literacy’ levels, a pupil who is emotionally and physically healthy, happy and resilient, wants to attend school, behaves better, participates more, feels valued not only for what he/she is now but for what they can become in the future and therefore achieves academically (PHE, 2014). Pupil involvement throughout the pilot project was crucial as they are likely to be the most consistent and permanent characters in the school (between 5 and 7 years for the majority of pupils). Pupil involvement provides for creditability, sustainability and scalability of the Project and adheres to the principle of “Nothing about us without us” (National Youth Agency, 2019) and the You’re Welcome Quality Criteria (DH, 2011) and the UNGA Article 12 (1989).

Conclusions and future impact

As a direct result, three schools have identified a member of staff with a dedicated remit for health and wellbeing. One school has escalated the Healthy Futures Project to include a focus on staff health and wellbeing and interventions include supportive return to work interviews. These are showing results such as a reduction in recurring staff short-term absences by identifying and seeking to address underlying reasons for ill-health and absence. The Healthy Futures Network has expanded since the pilot began and now includes 16 Secondary schools and 7 Primary school (two schools supporting children
and young people with special needs are included in these numbers). There are also a number of affiliated organisations within the Network membership including NHS Trusts, Local authorities, Public Health Teams and a Higher Education Institute. The network approach provides a sustainable model to create synergy in schools between education and health, recognising that positive outcomes are interrelated and co-dependent on the other resulting in health and wellbeing becoming a whole school approach.

Contributions
The authors wish to thank Veronica Olsen, Kevin Byrne and the network schools involved in this project.

Funding source
The project was supported by funding from Health Education England and the project was managed by the University of Chester.

References


### Appendix 1: Case Studies Summary Table

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<th>No</th>
<th>Case Study Title</th>
<th>Aim of Intervention</th>
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|    | Changing lifestyle habits through an “Out of School Hours” Learning Programme | • The girls to have more consideration over what they eat  
• To become more ‘habitually’ active over time.  
• To grow in self-confidence throughout the programme.  
• The majority of the girls to lose weight and to have the emotional strength and understanding to be able to maintain a healthy lifestyle once the programme is complete |
| 2  | Personal Best: Establishing a whole-school healthy lifestyle intervention (secondary) | **Short-term Aim**  
• To improve a range of aspects of physical fitness in the cohort  
• Improvement in physical health and emotional wellbeing  
**Long-term Aim**  
• Improved learning attitudes and ultimately attainment across the curriculum through a focus on the underlying causes of disaffection, low self-confidence and low aspiration amongst the targeted young people |
| 3  | Worry / Anxiety / Exam Stress and Preparation | • To reduce the stress and anxiety suffered by both the students and school staff  
• Create a culture within school more conducive to collaboration and supportive learning |
| 4  | Increasing physical activity by engaging families. | • Greater awareness amongst parents / carers of Change4Life messages.  
• An increased willingness amongst families to be more active with their children |
| 5  | Development of Fundamental Movement Skills in pupils aged 4-7 to increase likelihood of long-term involvement in physical activity and sport | • More children who can ride a bike aged 4-7  
• An increased number of children participating in Bikeability at Years 5 and 6.  
• More schools recognising the value of providing children with training to enable them to master the skill of riding a bike.  
• Children safer on the roads in their communities.  
• More children and families more physically active when all family members can ride a bike safely.  
• Providing the children with the skills and competences to ride a bike in small and very rurally isolated communities,  
• Giving young people the confidence and enthusiasm to improve their social skills and to have fun on their bikes together. |
| 6  | Development of Fundamental Movement Skills in pupils aged 4-7 to increase likelihood of long-term involvement in physical activity and sport | • Improved fundamental basic movement competences amongst a cohort of c. 80 youngsters from across the School Sports Partnership.  
• More students reporting greater enjoyment in physical education.  
• A greater range in the schools' PE ‘offer’ |
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<td>7</td>
<td>Health and wellbeing education and lifestyle choices</td>
<td>• More young people considering their health each time they eat.</td>
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<td>• More young people declaring themselves 'in charge' of their own health.</td>
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<td>• More young people recognising the correlation between 'taking care' of themselves</td>
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<td>and keeping healthy</td>
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<td>8</td>
<td>Peer mentoring for emotional wellbeing</td>
<td>• Fewer young people displaying symptoms of low level mental health issues caused by</td>
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<td>e.g. family problems, exam stress, bullying etc.</td>
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<td>9</td>
<td>Empowering young people to lead change</td>
<td>• Increased capacity for change when interventions are commissioned.</td>
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<td>• Increased self-confidence and enhanced life skills of the leaders.</td>
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<td>• More young people declaring themselves 'proud' to be a member of DHS</td>
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<td>10</td>
<td>Raising aspirations and improving life skills through sport and physical activity.</td>
<td>Amongst the targeted cohort of youngsters aged 11-13 (school years 7 and 8 (KS3) we</td>
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<td>• Students with raised aspirations</td>
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<td>• Students with increased self-confidence</td>
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<td>• Students with improved life and/or ‘employability’ skills (communication,</td>
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<td>self-management, resilience, empathy, collaboration and motivating and</td>
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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
According to the 2011 survey conducted by the World Health Organization, about 23% of adults in Malaysia are smokers (about 44% male and 1% female). The estimated prevalence of smoking among Malaysian adolescents is between 11.7% to 21.4% (Ministry of Health, 2016). Most smokers start smoking during their early adolescent years (Lim et al., 2017). Therefore, the prevention of smoking among adolescents is important to reducing national prevalence rates in smoking (Abidin et al., 2014). Besides conventional smoking, the consumption of alternative tobacco products among Malaysian adolescents is about 9.1% for e-cigarettes and vapour products, and 4.6% for shisha (Ministry of Health, 2016). Awareness of such alternative tobacco products was higher among male, younger, more educated and wealthier respondents (Gravely et al., 2014; Palipudi et al., 2016). Since studies among Dutch youths and adolescents in Jordan have suggested that the use of alternative tobacco products can be a gateway to smoking (Chatterjee, Alzghoul, Innabi, & Meena, 2016; Jaber et al., 2015; Treur, Rozema, Mathijsen, Oers, & Vink, 2017), it is therefore especially important to know whether the use of alternative tobacco products would mediate the effect of smoking intention on Malaysian adolescents’ conventional cigarette smoking.

Accordingly, this study adopted the Reasoned Action Approach (Fishbein & Ajzen, 2010) as a framework to examine the relationships between the influence of significant others, intention of smoking, the behaviours of experiencing alternative tobacco products and the smoking of conventional cigarettes. The Reasoned Action Approach is one of the most widely used theoretical frameworks to apprehend an individual’s behaviour according to social and attitude factors.

The Reasoned Action Approach claims that an individual’s attitude toward a behaviour could affect intention towards a particular behaviour, which will eventually affect the individual’s behaviour. The attitudes can be formed through subjective norms or identified referents, which can be further categorised into injunctive and descriptive norms (Ajzen, 2012). Consequently, it is expected that the smoking behaviours of adolescents’ significant others would positively associate with their intention to smoke and their conventional cigarettes smoking. We focus on the influence of subjective norm as family is an important factor for the development of adolescents in Asian culture (Chao, 2001). In addition, as studies have revealed the significant effects of belief and perceived benefits of tobacco use on smoking behaviours (Al-Dubai et al., 2014; Klein, Sterk, & Elifson, 2014), it is expected that adolescents’ knowledge of alternative tobacco products would also affect their intention to smoking and their conventional cigarettes smoking. Moreover, it is expected that the experiencing of alternative tobacco product would statistically mediate the effects of intention to smoke on smoking of conventional cigarettes.

Siah Poh Chua, Mei Khon NG, Karen Mei Sing Wong and Kai Shuen Pheh

Intentions to smoke and conventional cigarettes smoking among Malaysian adolescents: The mediating effect of experiencing alternative tobacco products

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Therefore, the hypotheses and conceptual framework of this study (see Figure 1) are as follows:

H1. The smoking among significant others is positively associated with the intention of smoking among adolescents.

H2. Knowledge of alternative tobacco products is positively associated with the intention to smoke among adolescents.

H3. Intention to smoke is positively associated with the experiencing of alternative tobacco products.

H4. Intention to smoke is positively associated with the conventional cigarettes smoking.

H5. The experiencing of alternative tobacco products is positively associated with the conventional cigarettes smoking.

H6. The experiencing of alternative tobacco products is the statistical mediator for the effects of intention to smoke on the conventional cigarettes smoking.

Method
Participants and procedure
A total of 1100 respondents participated in the study. This sample size is larger than the sample size recommended by using the Raosoft sample size calculator, which is 377.57.1% of them were males. The mean of their ages was 16.56 (SD = 0.71). 19.9% reported that they had tried conventional cigarettes and 7.7% had tried at least one type of alternative cigarettes. After getting approval from both the Ministry of Education and the Perak State Education Department to conduct the study at public secondary schools, the principals of secondary schools in Perak states were contacted based on the information collected from the webpage of the Ministry of Education. Emails were sent to all schools in Perak states in order to inform schools about the details of the research and obtain permission to carry out the research. Eight schools agreed to participate in the survey. A researcher then visited the school based on the date and time arranged by contact teachers at these schools. Purposive sampling method was then used to recruit participants. The criteria for selecting the participants were that the participants must be secondary year one to year four students. Year five and year six students are excluded due to the possible interruption of their examination preparation as indicated by Ministry of Education. Participants were informed about the purpose of the study, their right to not participate in the study and that all the data they provided would be kept confidential. After that, they were briefed about the guidelines to fill in the questionnaires. It took about 10 minutes for them to complete the questionnaire. The completed questionnaires were then collected and a token was given to participants. A total of 1600 questionnaires were distributed but the collected and valid questionnaires numbered 1100; thus, the response rate is 68.75%.

Measurements
Smoking behaviours of significant others. Participants were asked to tick a box to indicate whether or not their parents are smokers.

Intention to smoke. Four items were used to measure participants’ intention of smoking, which are “have you ever tried cigarette smoking, even one or two puffs?”, “do you think you will smoke a cigarette in the next year?”, “do you think that you will try a cigarette soon?” and “would you try to smoke if your good friends offer you a cigarette?”. Participants needed to answer the items according to a four-point Likert scale, in which a higher score indicated a stronger intention to smoke.

Conventional cigarette smoking. Participants were asked to tick a box to indicate the ways they get cigarettes (Yes/No). Three items were used, including “somebody gave me cigarette, even if I did not ask for it”, “I bought cigarettes on my own”, and “I get cigarettes from a store or others”. A higher summation score indicates that they are more likely to smoke conventional cigarettes.

Knowledge of alternative tobacco products. Participants were asked to tick a box to indicate whether they had heard about alternative tobacco products or not, and whether or not they had come to know of the alternative tobacco products from friends or the internet.

Experiencing alternative tobacco products. Participants needed to tick a box to indicate the products they have tried, including roll-your-own cigarettes, flavoured cigarettes, cigars, electronic cigarettes and water pipe smoking.

Statistical analysis
All the data were then keyed into an Excel file and were analysed by using Structural Equation
Modelling with the SmartPLS software.

**Results**

**Construct reliability.** The composite reliability values of all the scales ranged from 0.76 to 0.87, while the average variance extracted was from 0.51 to 0.63 (see Table 1), exceeding the recommended value of 0.7 for the former and the recommended value of 0.5 for the latter (Hair Jr, Hult, Ringle, & Sarstedt, 2016). Correspondingly, the findings suggested that the latent constructs of the four scales are acceptable.

**Discriminate validity and collinearity Statistics (VIF).** The Fornell-Larcker criterion was used to examine the discriminant validity of the measurements. As all the indexes of other measurements are lower than the square root of the measurement, the discriminant validity of the measurements is acceptable (see Table 2) (Hair Jr et al., 2016). In addition, the results of VIF are all below 2, thus, there is no collinearity issue for the measurements (Hadi, Abdullah, & Sentosa, 2016) (see Table 3).

**Path coefficients and mediating effect.** As shown in the table 4, those whose significant others are smokers and those have more knowledge of alternative tobacco products are more likely to have a stronger intention to smoke, \( p < 0.001 \), and those with stronger intention to smoke are more likely to smoke conventional cigarettes and alternative tobacco products, \( p < 0.001 \). In addition, those who have experienced alternative tobacco products are more likely to smoke conventional cigarettes, \( p < 0.001 \).

Also, as shown in Table 4, the results showed a significant indirect effect of intention to smoke on the conventional cigarette smoking, \( p < 0.001 \), which indicates the experience of alternative tobacco products is a statistical mediator of the relationship. In addition, since the direct effect of intention to smoke on the conventional cigarette smoking is also significant, \( p < 0.001 \), it indicates a complementary mediating effect (Zhao, Lynch Jr, & Chen, 2010).

**Discussion**

Due to concerns that alternative tobacco products could function as a gateway, inducing adolescents to become smokers, the use of such products among adolescents in Malaysia has gained the attention of both the Malaysian government and some NGOs. The main aim of this study is to examine whether or not experiencing alternative tobacco products would statistically mediate the effects of intention to smoke on conventional cigarettes smoking. In other words, whether intention to smoke would increase the likelihood of experiencing alternative tobacco products and thus leads adolescents smoke to smoke conventional cigarettes.

Firstly, similar to the findings of other studies (Hum, 2016; Lim et al., 2017), the findings show the significant effects of significant others on the intention to smoke. Respondents would have a stronger intention to smoke if their parents were smokers. This result is consistent with the expectation of the reason action approach, which indicates the importance of the subjective norm for intention (Fishbein & Ajzen, 2010).

Secondly, adolescents with more knowledge of alternative tobacco products are more likely to have a stronger intention to smoke. These results are also consistent with other studies (Al-Dubai et al., 2014; Klein et al., 2014). As most knowledge of alternative tobacco smoking is learnt from the internet, this indicates a gap in in the current policy for controlling the promotion of alternative tobacco products.

Thirdly, the intention to smoke affects the experience of alternative tobacco smoking and also conventional cigarette smoking. These findings are also consistent with the expectation of the reason action approach, which claims the importance of the effects of intention on behaviours.

Fourthly, importantly, experiencing alternative tobacco products did statistically mediate the effects of intention to smoke on conventional cigarette smoking. In other words, respondents who have a stronger intention to smoke are not only more likely to experience alternative tobacco products but also conventional cigarettes smoking. However, the effect size suggested that adolescents are more attracted to alternative tobacco products than conventional cigarettes smoking, and the experience of alternative tobacco products leads adolescents to smoke conventional cigarettes. This could be because such adolescents believe that the use of these alternative tobacco products is less harmful than the use of conventional cigarettes (Wong, Shakir, Alias, Aghamohammadi, & Hoe, 2016), leading them to try the alternative products first.
However, once they are addicted to nicotine, they will subsequently turn to conventional cigarettes to meet the needs of their biological addiction (Primack, Soneji, Stoolmiller, Fine, & Sargent, 2015).

**Conclusion**

In conclusion, these findings indicate that the use of alternative tobacco products could be a gateway to the smoking of conventional cigarettes for adolescents who have a stronger intention to smoke, especially amongst those whose significant others are smokers and have more knowledge about alternative tobacco products. Accordingly, the concerns that the use of alternative tobacco products may renormalize smoking and, thus, increase the number of smokers should not be neglected (Chatterjee et al., 2016).

Nonetheless, caution is required with regard to the interpretation of the current findings. The use of a cross-sectional design may have confounded the results with certain historical events (Shaughnessy, Zechmeister, & Zechmeister, 2015), such as the increased discussion of alternative tobacco products in media. Future studies can use a longitudinal design or intervention study to further examine the cause-effect explanation.

**References**


Table 1: Composite reliability and Average Variance Extracted of measurements.

<table>
<thead>
<tr>
<th>Items</th>
<th>Items</th>
<th>Composite reliability</th>
<th>Average Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention to smoke</td>
<td>4</td>
<td>0.87</td>
<td>0.64</td>
</tr>
<tr>
<td>Smoking behaviours of significant others</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Conventional cigarette smoking</td>
<td>3</td>
<td>0.83</td>
<td>0.63</td>
</tr>
<tr>
<td>Knowledge of alternative tobacco products</td>
<td>3</td>
<td>0.76</td>
<td>0.53</td>
</tr>
<tr>
<td>Experiencing alternative tobacco products</td>
<td>5</td>
<td>0.84</td>
<td>0.51</td>
</tr>
</tbody>
</table>

Table 2: Discriminant validity of the measurements

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Intention to smoke</td>
<td>0.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Smoking behaviours of significant others</td>
<td>0.36</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Conventional cigarette smoking</td>
<td>0.42</td>
<td>0.21</td>
<td>0.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Knowledge of alternative tobacco products</td>
<td>0.27</td>
<td>0.26</td>
<td>0.14</td>
<td>0.73</td>
<td></td>
</tr>
<tr>
<td>5. Experiencing alternative tobacco products</td>
<td>0.67</td>
<td>0.27</td>
<td>0.48</td>
<td>0.22</td>
<td>0.71</td>
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Table 3: Coefficient of determination and effect size of measurements

<table>
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<tr>
<th>Dependent variable</th>
<th>Predictors</th>
<th>R2</th>
<th>F2</th>
<th>VIF</th>
</tr>
</thead>
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<tr>
<td>Intention to smoke</td>
<td>Smoking behaviours of significant others</td>
<td>0.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Knowledge of alternative tobacco products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intention to smoke</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experiencing alternative tobacco products</td>
<td>Intention to smoke</td>
<td>0.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience alternative tobacco products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conventional cigarette smoking</td>
<td>Intention to smoke</td>
<td>0.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience alternative tobacco products</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Table 4: Path coefficients of the structural model

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Expectations</th>
<th>β</th>
<th>Standard Error</th>
<th>t-value</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct effect</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H1</td>
<td>Smoking behaviours of significant others → Intention to smoke</td>
<td>0.31</td>
<td>0.03</td>
<td>9.38</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>H2</td>
<td>Knowledge of alternative tobacco products → Intention to smoke</td>
<td>0.19</td>
<td>0.02</td>
<td>7.91</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>H3</td>
<td>Intention to smoke → Experiencing alternative tobacco products</td>
<td>0.67</td>
<td>0.03</td>
<td>21.38</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>H4</td>
<td>Intention to smoke → Conventional cigarette smoking</td>
<td>0.19</td>
<td>0.02</td>
<td>7.91</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>H5</td>
<td>Experiencing alternative tobacco products → Conventional cigarette smoking</td>
<td>0.36</td>
<td>0.09</td>
<td>3.73</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td><strong>Indirect effect</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H6</td>
<td>Intention to smoke → Experiencing alternative tobacco products → Conventional cigarette smoking</td>
<td>0.24</td>
<td>0.07</td>
<td>3.56</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

Figure 1. Conceptual framework
In January 2006, The Schools Health Education Unit [SHEU] began sending out a monthly email with links to research. The links were to information, chosen from the SHEU’s databanks and the Internet, about the health and behaviour of young people aged 16+. The links were mainly to research papers and, where possible, to the complete paper or at least an abstract.

The development of the resource grew out of the SHEU’s research work with schools and colleges across the country. It was clear that those working with children and young people did not have much time to search for relevant research that could support their work.

To join colleagues who work with children and young people and who receive this free resource please contact David McGeorge

To find more research please click on the following link.

The resource is regularly updated and recent additions include:

**Does Mindfulness Have a Place in a Christian School? One School's Experience and Reflections**

“It is a typical classroom in an Australian primary school. The children are not at their desks. They are lying on the floor with their eyes closed. Their teacher is guiding them through a Christian mindfulness exercise... Among the findings we observed that attention refocus and class calmness improved. This was similar to the findings in secular mindfulness investigations.”

**Development of ‘MyTeen’ Text Messaging Program to Support Parents of Adolescents**

“Mobile health interventions have great potential for supporting parents at a population level because of their broad reach and convenience. This study reports on the formative work conducted with parents/primary caregivers to identify their needs and preferences for the development of ‘MyTeen’ on promoting parental competence and mental health literacy for parents of adolescents (aged 10-15 years) in New Zealand... Among the findings were the need to support parents, participants lacked competence on initiating discussion about mental health with their child and parents were unaware of existing services.”

**Exploring Parents’ and Teachers’ Perspectives about School-Based Sexuality Education in a Multicultural Context: A Case Study in Mauritius**

“The aim of the study was to explore parents’ and teachers’ perspectives of sociocultural factors that can act as enabling factors or potential barriers... enabling factors were perceived as the importance of school-based SE by parents and teachers, contribution of external organizations, and a two-way communication process with adolescents. The potential barriers were perceived as a resistance from some teachers and students, the gender of the parent, and religion. Generation gap and ICT were found to be both enablers and barriers.”

**Cost-Effectiveness of Water Promotion Strategies in US Schools for Preventing Childhood Obesity and Increasing Water Intake**

“Installing water dispensers on school lunch lines could save almost half of the dollars needed for implementation via a reduction in obesity-related health care costs.... Although installing cup dispensers next to existing water fountains was the least costly it also had the lowest population reach. Overall school-based interventions to promote drinking water may be relatively inexpensive strategies for improving child health.”

SHEU [Schools Health Education Unit] provide a free resource that links to research on the Internet about children and young people’s health and wellbeing.

For communication, please email: david.mcgeorge@sheu.org.uk
he rationale for exploring adolescent pornography usage, with examination of possible negative emotional health outcomes, is integral to the role of the school nurse.

The role of the school nurse is to lead on, coordinate and deliver the 4-5-6 approach of the Healthy Child Programme (Public Health England, 2018). This model specifically states that school nurses need to support young people with a number of high impact areas. These include; developing resilience and wellbeing; keeping young people safe and promoting healthy lifestyles. Therefore, the rationale for this paper is integral to the school nurses’ role.

Possible psycho-sexual implications of online pornography consumption in adolescents correlate with multiple high-impact areas, specifically promoting healthy lifestyles, developing resilience and wellbeing, thereby warranting further examination on the topic, especially with the current significant of emotional health in adolescents. The Office for National Statistics (2015) quotes 1 in 8 children aged 10 to 15 reported symptoms of mental illness in the UK. Additionally, The Children’s Society (2018) found that 1 in 10 school aged children have a diagnosable mental illness in the UK. There is also evidence on young people’s use of pornographic material, with Martellozzo et al. (2017) finding that 48% of 11 – 16-year olds surveyed had seen pornography online. Of this, the proportions wishing to emulate pornography increase with age: 21% for 11-12-year olds; 39% for the 13-14-year olds and 42% for the 15-16-year olds (Martellozzo et al., 2017).

These statistics resonate with the primary author’s school nursing practice. Through sexual health assessments and delivery of health promotion lessons, young people highlight concerns regarding sexual expectations from relationships, including body image, duration of sex and the ‘need’ to perform certain acts with partners. Alongside this, they would also mention watching pornographic material and feeling a pressure to emulate this. These findings suggest pornography consumption impacts young people’s self-esteem and stress levels.

A reasonable hypothesis might state that when adolescents watch pornography, especially without appropriate sources of information or education on the topic of (relationship and) sex education, they conclude that the medium represents the societal norm, and therefore ‘should’ be emulated. Suleiman et al. (2017) state that when young people enter adolescence, the brain develops to prioritise positive risk taking, to learn from new experiences; this includes engaging in romantic and sexual relationships. The NSPCC (2019), surveyed young people, who said one of the reasons adolescents watch sexual content online is to learn about sex and sexual identities. Evidence has sometimes highlighted an association between viewing sexually explicit material and an increase in sexually risky behaviours, possibly signifying that adolescents who watch pornography are likely to imitate it (Koletic et al., 2019). Research is inconsistent, however, with Matkovic, Cohen and Stulhofer (2018) and Martyniuk and Stulhofer (2018) finding little association. The latter authors suggest the likelihood of an unobserved variable in the relationship between pornography
consumption in adolescents and an increase in sexually risky behaviours that is yet to be determined.

Anecdotal evidence, from the primary author and other school nurses, attest to the experience that, in many schools, sexual health education focuses on sexual ill health, consent, risk behaviours, conception and contraception; pornography is not an openly discussed topic. Nevertheless, the risk of potential links between emotional health and pornography has been recognised by the Department for Education (2019), in the most recent version of the ‘Relationships Education, Relationships and Sex Education and Health Education Guidance’. The guidance states, under the section about online and media education, that, by the end of secondary school, pupils should all be aware that sexually explicit material presents a false image of sex and sexual behaviours, which can be damaging to self-esteem and have a negative effect on behaviours towards sexual partners. An exploration of the published research on this topic is useful in determining indications of a link between adolescents viewing pornography as part of an underlying reasons for negative emotional health development.

**Findings in the research:**

**a male / female divide**

Critically exploring studies on the topic of a possible/potential link between adolescent pornography usage and negative emotional health (then, and later in life), revealed inconclusive and contradictory findings. Studies emphasised a) how more research needs to be carried out on this matter, and b) how neurophysiological outcomes might differ between males and females. Inconclusive findings related both to porn use during adolescence, and any suggested impact later in life. The matter is confused further as to whether detrimental porn use might be classified (then) as ‘addiction’, and/or to what extent it might or will lead to later sexual, emotional and relationship dysfunctions (White, 2019).

The inconclusive and contradictory findings from some studies suggest that some females viewing pornography appear to experience poor mental wellbeing. Stulhofer, Tafro and Kohut (2019), considered, but could not prove, a link between pornography usage and poorer psychological health. Mattebo et al. (2018) established increased psychosomatic symptoms (physical illness originating from emotional stress) with higher pornography consumption, especially in females. White’s (2019) findings were differently focused; she highlighted a range of detrimental psychosexual phenomena, often appearing later in life, including from young women coerced into porn-making and/or sexting; negative outcomes of increased sexual ‘risk’ taking; regretted experiences and unfulfilling casual sexual encounters. Additionally, Tylka and Kroon Van Diest (2015) found that previous partner’s pornography usage correlated with increased anxiety and decreased self-esteem in adolescent females.

The male evidence-base focused on the risk of learning hegemonic sexist attitudes, and relating these to the negative stereotypes that females are often portrayed in, through pornography. Stanley et al. (2018), reported findings that adolescent males who perpetrated sexual coercion and abuse also regularly viewed online pornography and had an increased chance of holding negative gender attitudes. Hald, Malamuth and Yuen (2010) showed that the consumption of more sexually violent pornography was related to males being likely to support and enact violence against women. Brown (2016), equally discussed the increased amount of pornography consumption of males in relationships with poor attachments and high levels of aggression.

Findings from the sources cited in this paper demonstrate a difference between the possible negative outcomes in males and females. These outcomes appear to relate to stereotypes and hegemonic male-dominated themes, some of which are outlined above, and emanate from within (particular) pornographic genres. These themes are not just the failings of pornographic material, but also relate to wider patriarchal and masculinist cultures. One of the UK’s leading gender equality charities, The Fawcett Society (Fawcett, 2017), discusses how 39% of girls aged between 9 and 16 felt that sexism in modern media, just one of the negatively powerful (hegemonic) themes, knocked their confidence. For example, 38% of men and 34% of women agreed that “a woman is either partly or totally to blame for being a victim of sexual assault if they go out late wearing a short skirt and get drunk”. Fawcett (2017) goes on to say that, in film and
television, women are predominantly represented in passive and (sexualised) stereotyped roles.

**Approach used to promote positive behaviour change**

Although more research and discussion has opened around sexism and mainstream media, pornography is still considered to be taboo, by many, especially – as evidence shows – in compulsory education settings. Themes of sexism and stereotyping are not outwardly discussed or highlighted, either. The wider socio-cultural ethics generally, is that pornography is private and sometimes considered bad behaviour. Carlisle et al. (2001), states that by avoiding discussing the topic, health promotion can exclude groups of people and reinforce stigma.

A review of the previous version of the (then) Sex and Relationship Education (SRE) model (DfEE, 2000) reveals a predominantly biological approach to sexual health promotion, which might also have an impact on the perception of pornography being a taboo subject. Considering the information enclosed in the SRE Guidance (DfEE, 2000), and expectations set, it focuses primarily on the prevention of conception, especially teenage pregnancies, as well as preventing transmission of sexual infections. Although the guidance mentions emotional health and sex, the document doesn’t consider what these are, or what needs to be taught in schools. While the biological model of health is effective for dealing with physical health, a key criticism is that it is reductionist, focusing on treating ‘patients’ and not educating young people (Wade & Halligan, 2004). By not examining the wider determinants of health, the biological approach fails in teaching young people on psycho-sexual aspects of health (WHO, 2019).

Building on the hypothesis above (regarding adolescent emotional health being impacted by pornography, due to the belief of it representing the ‘norm’), we suggest that by not proactively and effectively addressing the social implications of sex, focusing disproportionately on disease prevention and conception, young people turn to other available sources of information, as mentioned earlier by Suleiman et al. (2017). In this case, that source is on-line pornography. Because young people are looking at pornography as an educational tool, as well as entertainment, when themes of hegemonic male dominance or sexist views towards females are shown, young people may believe this is how society views sex and, consequently, how they are to behave. With adolescent brain development prioritising “conforming with wider society and peers” (Arain et al., 2013), pornography can encourage negative, sexist, views of females.

Findings from the studies supporting this work, alongside conclusions from research cited, emphasises the importance of discussing pornography openly with adolescents in sexual health promotion, including addressing the false ‘reality’ it can depict, and how that may impact on individual morals and/or emotional health. The current relationship and sex education (RSE) (DfE, 2019) guidance has highlighted pornography as an area in need of specific coverage in sexual health promotion. This statutory guidance highlights a need for resources on the topic to be developed and prompted the leaflet author 1 has created (Figure 1, page 114/115) to support public health specialists within the secondary school setting.

**Promoting positive behaviour change**

To promote positive behaviour change, the focus has been on the trans-theoretical approach to behaviour change, advocated by Prochaska and DiClemente, (2005). This article adopts this model, given that the topic, i.e. the use of porn by adolescents, is something clearly under-discussed. The aim outlined here, therefore, specifically focuses on young people in the pre-contemplation and contemplation level of change; the aim is to inform and start a dialogue on pornography and sexual health. The trans-theoretical model also suggests that the different levels of change need different forms of health promotion to successfully move an individual between them (Giacobbi, 2016). By aiming the school-based health promotion leaflet (Figure 1) at the first two levels (pre-contemplation and contemplation), we can use other health promotion methods alongside the leaflet to support the role of the public health specialist (undertaking one-to-one health assessments and health promotion lessons) and open a dialogue with young people to discuss ethical and moral considerations of pornography in sexual health,
Rationale for resource creation

While there is need for biological aspects of sexual health to be discussed, such a reductionist and utilitarian approach focuses on the implied ‘norms’ in society, not allowing for young people to discuss wider, and contemporary, sexual- sexual health (Mandal, Ponnambath & Parija, 2016). Focusing on social-sexual health promotion underpins the creation of the leaflet, as an informational resource, aimed at young people to proactively, and educationally, being allowed to discuss pornography, and how it stigmatises, rather than enhances ‘real life’ sex. The aim of the leaflet is to empower young people with information, allowing them to understand particular ‘norms’ of sex (devoid of the negativities of detrimental pornography), respect themselves, and others, as individuals. This will hopefully have a positive impact on the negative attitudes and risks to emotional health highlighted by the evidence base of this paper. This is a deontological approach to sexual health promotion, meaning it focuses on promoting positive morals and individual change to affect a population’s health. It means that by starting off the discussion point, health promotion can allow for further dialogue of individual beliefs and preferences (Mandal, Ponnambath & Parija, 2016).

The target audience for this resource (Figure 1) is young people in secondary schools, specifically between the ages of 13 and 16, as this is the age range targeted in the research underpinning this work. Utilising this demographic allows the resource to be used in practice and will be inclusive of young people who may already be having sex/using porn (Fraser, 1985, cited by the NSPCC, 2018). There are barriers and ethical/moral consideration to the resource created, however, that need to be considered.

Possible barriers of the resource on positive behaviour change

The resource (Figure 1), aimed at young people between 13 and 16 years of age is intended as an exemplar or template, from which others can be adapted. It is underpinned by a deontological approach to sexual health education, i.e. that the production of a resource on this topic is good, in itself, especially by facilitating differing viewpoints and options, which form the basis of a dialogue challenging false ‘reality’ of pornography. A barrier to this current resource being perceived as relevant for all young people in the age range, however, is that it does not account for differing sexualities other than heterosexual (Evans, 2017) or genders other than cisgender male/female. More specifically, it reflects the research population of the works cited, which may differ from the practitioner’s target population. Data are limited and difficult to determine, but research has estimated that approximately 1.5% of the UK population identified as same-sex attracted and identifying (lesbian and gay) or bisexual (ONS, 2016). Other research shows drastically different numbers. Dahlgreen and Shakespeare (2016), using the Kinsey scale of sexuality, for example found that 23% of British people self-identified and something other than “100% heterosexual”, with this number increasing to 49% of 18 to 24-year olds. Regardless, this highlights a significant population that the research, cited in this paper, does not take into consideration, therefore possibly making the resource in Figure 1 not being relevant for some young people to identify with. To counteract this point, the expectation of the resources is that it is still applicable for helping Lesbian, Gay, Bisexual, Transgender + (LGB&T+) young people in the ‘pre-contemplation stage’ (Prochaska & DiClemente, 2005). This gender and sexuality predisposition i.e. the presumption that all people are straight and either male or female, has highlighted the possible need for future investigation and specification in this area, including for gender and sexuality diversity training and psychosexual health and well-being.

Another barrier to the reliability and validity of the resource, is the appropriateness, or presumed inappropriateness, of discussing sexually explicit material with young people. This is where normative or deontological ethics influence the production of this resource. Firstly, porn (especially for young people) is perceived, socially, morally and legally, as wrong, bad and illegal. Therefore, simply acknowledging its use by young people might be considered, by some, as ‘intentionally promoting’ it (akin to the language of the now obsolete Section 28 of the
Local Government Act, 1998). Under the Sexual Offences Act (2003), the legal age of consenting to sex is 16 years. The Fraser guidelines relay advice to healthcare professionals about discussing sexual health with young people under the age of 16 and without the consent of a parent or guardian (Fraser, 1985, cited by the NSPCC, 2018). The advice comprises of 5 criteria which professionals should be satisfied have been achieved before this advice can be given. Some of these include: sufficient maturity and intelligence to understand the information being shared, and that the advice is in the young person’s best interests. The moral difficulty here is by discussing themes of pornography and sexual health on a leaflet, the professional’s ability to complete Fraser guidelines assessment on the young person is eliminated. Therefore, a young person who would be judged as lacking capacity to sexual health advice, without parental consent, would be accessing this material regardless. Instead of limiting the resource to those assessed as Fraser competent, we suggest widening the scope of the child sexual exploitation (CSE) framework used in practice is more appropriate. Research on the safeguarding concerns of sexual health services providing condoms online (Evans & Evans, 2016), for example, discussed the numerous barriers to accessing in person, including the young person’s embarrassment, anxiety and fear of breaches in confidentiality. Evans and Evans (2016), suggested that expanding and improving the opportunities to complete safeguarding assessments is the best practice. Similarly, with the primary author’s scope of work, instead of limiting the resource presented in Figure 1, thus restricting relevant health promotion, the suggestion is to adapt the existing child sexual exploitation framework, used in practice, to a wider audience, which would be the best (deontological/ethically good) approach to take. Expanding the scope of child sexual exploitation assessment could be achieved through health promotion sessions and further advertising drop-in services, but such action may warrant further communication with school and parents/guardians beforehand.

Conclusion

This paper details the examination of the relationship between adolescent pornography usage and emotional health. Although the research does not conclusively show a link between the two themes, i.e. pornography use and emotional health, advice on discussing porn in sexual health promotion and addressing the hegemonic expectations is considered good practice to supporting young people’s sexual-emotional health. This learning and understanding have been utilised to generate a health promotion leaflet with the aim of informing young people about how pornographic material differs from reality and how not to compare themselves to a false interpretation of sex and relationships.

To understand the possible effectiveness of this resource, the expectations have been identified regarding the leaflet’s ability to promote positive health change, through the use of the trans-theoretical approach to behaviour change (Prochaska & DiClemente, 2005). Specifically, the resource is recognised as benefitting those in the ‘pre-contemplation’ and ‘contemplation’ level of change, as the consideration is that this resource may be a starting point of further discussion on sexual health.

There has been acknowledgement of the barriers of trying to apply this learning to all young people, as the heterosexual, cisgender focus of the research does not account for the diverse population of young people. The barrier of sharing information regarding sexually explicit material with a young target audience has also been identified, as well as how this highlights the need to widen child sexual exploitation assessments. Both barriers identify future areas for further learning to be completed as to benefit the sexual-emotional health of our adolescent community.

The title posed the question “In which ways might watching porn online, as male and female adolescents, contribute to poor emotional health?”. We have suggested key reasons why this question is important, as well as identify ways the school nurse might not just address the issue reactively, but clearly headlining and profiling it, as part of proactive efforts in bettering relationship and sexual health promotion.


Martellozzo, E., Monaghan, A., Adler, J.R., Davidson, J., Leyva, R. & Horvath, M. (2016). I wasn’t sure it was normal to watch it. London: NSPCC


Figure 1 (page 1): Sexual Health Leaflet Resource created as a result of the Research

Let's Talk About PORN!

Is it FANTASY or is it REALITY?
Porn is defined as media (pictures, videos etc.) which shows sexual organs or sexual activity, with the intent to entertain and cause sexual excitement. It can sometimes leave you with a lot of questions, such as:

“What’s the average penis size?”

“Does everyone shave their pubic hair?”

“Isn’t that what people like?”

“What if I don’t want to do that?”

“Do I really need to use condoms or protection?”

“Is it bad that I want to try that?”
Figure 1 (page 2): Sexual Health Leaflet Resource created as a result of the Research

"Do people in real life look like people in porn?"

Actors in porn sometimes look different to most people, and it can be easy to compare yourself to them, which you shouldn’t. Research has found the average erect adult penis size varies from around 13cm to 18cm (5in to 7in). Research has also found that more young women under 35 have some pubic hair (53%) than no pubic hair (47%).

Photos are also altered afterwards (i.e. ‘photo-shopping’ or ‘airbrushing’). This is done to get rid of spots and rashes. They can also be used to make breasts look a little bit bigger and waists a bit smaller on women, or even to add bigger shoulders, bigger penises and more defined ab muscles on to some of the men.

Many women in porn have large breasts, sometimes by having had surgery to make them bigger, sometimes simply having large breasts naturally. Don’t forget! When you see models, they have to keep incredibly fit and are posing in ways to make their bodies look better.

"Is porn sex what sex is really like?"

Porn has scripts and time for breaks, so reapply makeup, get hard again, or add lube. People normally don’t look that good during sex, or last that long. Porn is acting, some of the things you see people doing probably won’t work in real life.

Most women in porn pretend to orgasm just from vaginal penetration. In real life, most women usually need other stimulation to orgasm. Men in porn appear to stay erect for a long time and last a long time. The stretching and lubrication involved in anal sex often happens off-screen. Porn actors are shown to enjoy the same things, like spanking or people ejaculating on each other. Not everyone enjoys these things, and that’s perfectly ok.

Condoms and dams aren’t always seen in porn, but they’re important to protect yourself from sexually transmitted infections (STIs), which you can get from vaginal, anal or oral sex. Condoms are the only method of safer penetrative sex. It’s not easy to know whether someone has an STI, as there are often no symptoms, so people don’t always realise they have one. Many STIs are easy to treat, but some common STIs (like gonorrhoea) are becoming resistant to treatment. It’s best to protect yourself by having safer sex and using condoms.

"Consent and Communication!"

You might want to share or look at sexual or nude images of yourself or other people you know. This is illegal for under 18s, even if everyone involved consents to it. Police are likely to prosecute people who share non-consensual images. If you do take a sexual photo or video, be aware of the risks, including other people sharing them without your consent (or knowledge), and only do what you and others are comfortable with.

Some kinds of porn are illegal, including anything involving people under 18, porn showing acts which threaten a person’s life and porn that shows sexual activity between a person and an animal.

It’s perfectly fine not to want to look at porn. You shouldn’t be forced to look at stuff you don’t want to. Everyone has different opinions on porn, and what is acceptable. Some people may think that it is inappropriate to talk to young people about porn, but it is a good thing to do, as it can help prevent a whole lot of problems. Reasons people might not agree with porn are: feeling that porn degrades women, or people from different ethnicities, in a negative way, they worry the actors in pornography are being taken advantage of, it’s against their religion etc.

It is helpful to discuss different opinions and come up with your own.

If you’re worried and want to talk to someone about anything you’ve seen on this flyer, then you can call Childline on 0800 1111. Otherwise you can speak to your school nurse.