

Never before have young people had such easy access to 24-hour uncensored images of sex acts, violent sex acts, and risky forms of sex (Price et al., 2016) through a variety of mediums (television, music, pornographic websites and magazines) (Bleakley et al., 2011b). However, the most common forms have changed in recent years, from magazines, videos, television and books (Becker & Stein, 1991; Roe, 1987) to the internet (Flander et al., 2009; Flood, 2007). The existence of the internet has resulted in young people being able to watch sex at any time and in almost any place (Livingstone & Bober, 2003), exacerbated by no enforced age requirements to view pornography or Sexually Explicit Media (SEM) and no costs to accessing many sites.

This issue is more prevalent than many believe, and although there is little agreement on the exact number of children and young people who view SEM and pornography, there is agreement that young people view it (for example; Cowell & Smith, 2009; Häggström-Nordin et al., 2009; Kim, 2011; Papadopoulos, 2010; Tydén & Rogala, 2004), with some of the highest reported figures of young people viewing pornography coming from studies carried out in Scandinavian countries. For example, Tydén & Rogala (2004) and Sørensen & Knudsen (2006) reported that up to 99% of their samples of young people had viewed pornography. Additionally, all other research found that a significant number of their participants reported having viewed pornography (e.g. Cowell & Smith, 2009; Häggström-Nordin et al., 2009; Kim, 2001, 2011; Papadopoulos, 2010; Tydén & Rogala, 2004). Even in studies carried out in rural Africa where mobile phones are commonplace, yet there is a lack reliable internet connection, pornography viewing has been found amongst young people (Day, 2014; Kinsman et al., 2000; Njue et al., 2011). Although there is a limited amount of research carried out on this in Britain, studies have confirmed that young people in Britain view pornography fairly commonly, with one study showing that, by the age of 19, 80% of young British people questioned stated that they had viewed pornography (Livingstone & Bober, 2004). The paucity of research on this topic from any given country means that to get a comprehensive picture of this issue requires drawing on international literature.

The above raises questions about the effects of pornography on children and young people, with much work left to be done. It is clear that there are gender effects in the viewing of SEM and pornography (Livingstone & Bober, 2004, Mesch, 2009), however, these are varied and complex. The current article aims to review existing literature, exploring the effects of pornography viewing on young people, summarising key points identified so far and highlighting strengths and

weaknesses of that literature, before suggesting possible ways forward in helping young people navigate the complexities of the digital age where pornography and SEM is ubiquitous. In doing so it will draw on both national and international literature. This means that it is important to be cognisant of cultural differences in access to technology, attitudes to sex and cultural norms.

Method

The Malamuth (2001) definition for pornography will be utilized, as it is the most widely used and comprehensive definition. This definition is: “Pornography is any sexually explicit media that are primarily intended to sexually arouse the audience” (Malamuth, 2001, p.11817). Sexually explicit material (SEM) is defined as uncensored depiction of sexual acts intended to provoke sexual arousal (Matkovic, Cohen & Štulhofer, 2018). Studies that discuss SEM will also be included as there is little discernible difference between SEM and pornography and the terms are often used interchangeably. The effects on young people are expected to be similar for SEM and pornography because of today’s high-quality graphics and high-speed internet connections (Dill and Thill, 2007). The studies included in this review focus on the gender effects of pornography and SEM and all (with the exception of Kubicek et al., 2010) relate to heterosexual pornography and include heterosexual participants in their studies. This is not an attempt to ignore or marginalise homosexual young people but a recognition that gender dynamics can be very different within these relationships, and the scope of this review would not be able to do justice to this diversity.

To identify the strongest pieces of literature a Rapid Evidence Assessment (REA) technique was used (see <https://www.gov.uk/government/collections/rapid-evidence-assessments>). An REA is a tool for synthesizing the available research evidence on a given issue. REAs are well established methods for screening literature (for example; Brown et al., 2010; Disley et al., 2011; Horvath et al., 2012). According to Davies (2003) the functions of a REA are to: search the electronic and print literature as comprehensively as possible within the constraints of a policy or practice timetable, and collate descriptive outlines of the available evidence on a topic. Following this it is possible to critically appraise the evidence to sift out studies of poor quality and then ultimately provide an overview of what the evidence is saying. This literature search comprises two stages: identifying the literature and screening the literature.

To identify the literature, search terms were developed from the research question ‘what are the effects of pornography and sexually explicit material on children and young people?’.

The academic literature searches were conducted on five databases (PsycInfo/PsycARTICLES, Medline, ScienceDirect, ISI Web of knowledge/Web of Science, J-Stor) as well as Google Scholar and Google. After the primary search using the initial search terms (see Table 2 for search terms), the search terms were revised as some search terms were ineffective. Consequently, the databases were searched using only those terms. As the search progressed, search terms that were not returning relevant material were excluded. In addition to excluding some of the original search terms, all the general search terms with child*, e.g. Pornography AND child*, were excluded as they were only returning results relevant to children in pornography (indecent images of children) rather than studies of children who view pornography.

A search was also made in order to access unpublished and/or non-peer reviewed literature. These were searched for online using search engines and looking on charity websites. This search included the use of Google and Google Scholar for any resources not found on the academic databases. The search term ‘pornography’ was used in conjunction with ‘child’, ‘young people’ and ‘adolescents’ in Google and Google Scholar.

When carrying out internet searches on topics such as pornography it is necessary to adhere to guidelines, not the least as protection for the researcher. British Psychological Society guidelines were followed and no websites were accessed that did not appear to be of an academic or professional nature. It was deemed important to search for grey literature (e.g. professional policy documents, guidelines) as well as white literature (academic journal articles) as much can be learned from professionals as well as academic literature. The accessed websites were easily identified by their domain names (for example NSPCC) and no explicit pornography sites were accessed.

The literature was then screened. The articles were initially sifted based on relevance to this literature review judging from the content of the abstract. Any articles about sexting, indecent images of children or adults watching pornography were excluded and the full version was not sought. Sexting was excluded because it is a very specific form of viewing pornography with unique complex issues such as the perpetrator of distributing indecent images of children also being the victim. As the young person involved is participating in the act, it is psychologically and emotionally different to

viewing mainstream pornography and the images will be of a different nature to those from professional pornography. As this topic is so important it deserves to be explored in full, separately to the subject matter of this review. Indecent images of children were excluded, as that is not the focus of this study and the effects of pornography on adults is also a separate topic. Additionally, all duplicated articles were eliminated at this stage. Relevant articles were saved alphabetically so any duplicates were easily identified and not kept.

Full text articles were obtained for material that fit the inclusion criteria. If they did not meet the inclusion criteria, they were excluded at this stage. They were also assessed using a 'Weight of Evidence' (WoE) approach, in which the quality and relevance of the literature were assessed and given a strength rating; high, medium or low. This approach was developed by the EPPI-Centre (Evidence for Policy and Practice Information and Co-ordinating Centre; Gough, 2007) and can be used for both quantitative and qualitative studies. This ensured consistency and allowed the inclusion of research conducted using varied methodologies.

Despite the apparent importance of this topic there is a paucity of research, poor methodology of some of the existing literature and issues with definition of pornography and SEM making it hard, at times to draw strong conclusions. There are some studies that look at elements of this topic or generalise from other similar topics. It is therefore, necessary to draw on research from numerous countries and cultures adding the problem of generalisability. Some studies include large age ranges combining adults and young people in the same sample.

The table below lists the number of articles that were identified as relevant to the topic in general, broken down by high, medium and low relevance. A highly relevant article is an article that is expressly about young people viewing pornography while a low relevant article is related to the topic in some way but may be more general (for example about sexualised media or may group young people and adults together). Some medium and low relevance articles were included if they were unique or included some information not given elsewhere. Some articles that are included are only relevant to one element of the topic discussed, for example, only relevant to the discussion of the effects of SEM on body image not wider psychological effects. The number of articles in this category are listed in the second column, again broken down by high, medium and low relevance.

Table 1.

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The following analysis of the evidence is divided into sections addressing key issues identified through the above described processes.

Accessing vs. being exposed to SEM and pornography

When analysing existing studies, it is important to distinguish between findings related to exposure to pornography and accessing pornography. Access is the act of deliberately obtaining and viewing pornographic material; in this case young people are more psychologically prepared for what they see because they are actively seeking it out (Flood, 2007). This preparedness acts as a protective factor from emotional distress (with the exception of seeing things outside cultural norms or things they were not expecting, such as sadomasochism or urination [Flood, 2007]). The gender difference is evident in reporting rates of exposure and access with young males being more likely to admit to deliberately accessing pornography (Alexy et al., 2009; Bleakley et al., 2011b; Bonino et al., 2006).

Exposure, on the other hand, is non-deliberate by the viewer and can vary in the extent of coercion used by the other party. Exposure can occur in many ways, some may be by pure accident; some by design of the pornography industry and some by malicious or intrusive behaviours of others. Examples of accidental exposure to pornography were clearly demonstrated in the focus groups carried out by Livingstone and Bober (2004 & 2005) who utilized a series of interviews and focus groups with 1500 children and young people aged 8-19 as well as 900 of their parents about internet use. They found that young people reported to have sought information online about something unrelated to sex (such as health information) and encountered pornography. The pornography industry also orchestrates ways for people who are not searching for pornography to be exposed to it. This can be more upsetting and shocking: it may be the young person's first exposure to viewing sexual acts, and they may not understand what they are seeing (Buckingham & Bragg, 2003). Additionally, there is no psychological preparedness as the viewer may believe they are clicking on or are about to view something innocuous or unrelated to sex. Equally, they may be tricked or forced to watch it by someone else. A less sinister example of this is another young person showing their phone to someone whilst pornography plays on the phone.

In more concerning circumstances, it has also been reported that exposure to pornography can be used to ‘warm up’ a young person to sex, either in a grooming situation (Langevin & Curnoe, 2004) or by young males who want to engage in particular sex acts with their girlfriends. In these circumstances, pornography has been found to be ‘norm creating’ (Mattebo et al., 2014).

The identified gender differences are varied for example, young men and boys are more likely to be exposed to pornography than young women and girls (Fleming et al., 2006; Flood, 2007, 2009). They also report intentionally seeking out and using pornography more often. In both cases, their consumption was higher than that of young women (Alexy et al., 2009; Bleakley et al., 2011b; Bonino et al., 2006), leading to young men being generally more frequent viewers of pornography (Bonino et al., 2006; Flood, 2007). Girls tend to be more likely to be exposed to and upset by pornography (Livingstone & Bober, 2004). Wolak et al. (2007) found that in his sample of 10-17 years olds in the US, wanted and unwanted exposure increased with age for boys, while for females, only unwanted exposure to pornography increased with age. Exposure was wanted for boys, however, only a few females in this study reported welcoming this exposure.

This is in line with research more generally: girls and young women generally report that viewing pornography is unwelcome and socially distasteful, and that they feel emotionally uncomfortable when viewing pornography (Bryant, 2009; Cameron et al., 2005). Girls, more frequently than boys, believe that pornography could create expectations and demands around sexuality and sex, which adds to their discomfort about the consumption of it (Häggström-Nordin et al., 2009). This is supported by additional Swedish research carried out by Wallmyr and Welin (2006), who report that 46.3% of young females and 23.3% of young males described pornography as “degrading”. The majority of males (62.7%) responded positively about pornography, describing it as “stimulating” and “cool”, but above all “exciting”. Boys and young men report that they view pornography because of curiosity and for education.

Studies of young people that investigate subjects of a sexual nature and make gender comparisons should always be treated with caution. Desirability effects are strong, females are judged differently than males for their sexuality (Kreager & Staff, 2009). This could explain some of the findings that suggest that young women and girls view less pornography less often. Nevertheless, there does seem to be a gender effect in the attitudes to pornography and SEM in general which

would, at least in part, support the gendered pattern in findings (Anderson & Bushman, 2001; Kalof, 1999; Boxer et al., 2008).

Gender differences in the effects of pornography

Research has identified both behavioural and emotional effects for young people who view pornography (Bleakley, 2011a), for example, viewing pornography has been linked to sexual risk taking for both young males and young females, such as not using condoms (Mattebo, et al., 2012), group sex and use of drugs and alcohol during sex (Braun-Courville & Rojas, 2009). Additionally, in a study of young Croatians, viewing pornography was correlated to sexual pleasure being viewed as more important than caring about the other person (Sinkovic', Štulhofer & Božic, 2012). This finding is mirrored in a study carried out with British 16-18 year olds. Marston and Lewis (2014) found a significant gender difference in the attitudes held of partners: young males exhibited a lack of concern regarding certain sex acts being painful for their partners. Other studies found similar patterns of lack of care and emotional attachment in pornography consumers illustrating that pornography viewing is associated with seeking pleasure over the consideration of the feelings of the other person (Sinkovic', Štulhofer & Božic, 2012; Marston & Lewis, 2014).

For example, Marston and Lewis (2014) studied 130 sixteen to eighteen year olds and found young men reported a lack of concern for consent stating that they would ask for anal sex and if consent was not given, they would engage in anal sex anyway telling their partner that they 'slipped' while trying to engage in vaginal sex. The authors acknowledge that although pornography was the rationale given by the young males in their study for desiring these sexual practices, the relationship seemed to actually be more complex: peer pressure and belief that other people were engaging in certain sex acts was as important as pornography viewing. The peer pressure manifests as more value being attributed to sex acts performed in pornography and those acts being considered better or more prestigious than other sex acts amongst sexually active young people (Marston & Lewis, 2014).

Other studies have also found a correlation between pornography viewing and young men engaging in violent practices such as coercive and dominant behaviours (slapping and hair pulling) (Marston & Lewis, 2014; Wright et al., 2014). Although there is strong evidence of a correlation between certain attitudes and behaviours and pornography viewing, it is not possible to establish causality. It is always possible that these young people would still have behaved in these ways,

had they never seen any pornography. It is also possible that some young men watch violent pornography because they enjoy violent sex, rather than the content of the pornography informing their sexual practices.

However, the relationship between pornography and sexual behaviours which was found by Marston and Lewis (2014) is not unique: in a UK-based study, 80% of young people taking part in the survey said that watching pornography affected the way in which they had sex (Cowell & Smith, 2009). The young people in this study referred to new ideas that they accumulated from watching pornography, and sexual positions that they were eager to try. In addition, in-depth interviews with 18 young people (16-23 years old) in Sweden showed that for the participants pornography encouraged views that, in sexual situations, males should be dominant and females submissive (Häggström-Nordin et al., 2006). These patterns are international: Brown and L'Engle (2009) found in their USA-based study that young men and young women who had been exposed to pornography at a young age held less progressive gender role attitudes and Wright et al. (2014) identified a correlation between frequent viewing of pornography, and engaging in dominant and coercive behaviours seen in pornographic films in their sample of 384 heterosexual German men. Additionally, frequent viewers were more likely than non-frequent viewers to engage in behaviours that are degrading to their female partners, such as penile gagging, spanking hard enough to leave a mark, and facial ejaculation. The shift in attitudes to sex and sex acts that is attributed to SEM and pornography has in turn been found to evoke fear in some young Swedish women who felt it could lead to rape and men not taking their lack of consent seriously (Mattebo et al., 2012). These studies demonstrate that what is viewed by males as educational and recreational can take the form of unwanted coercion and violence in sexual relationships and lead to anxiety in young women. This highlights the need for additional information for young people about consent, sex and relationships to challenge and counteract the messages they are getting from pornography.

However, it is important to note that the emotional effect of viewing pornography and SEM is not always negative. It has been found that some young people find pornography to be helpful, educational and even inspirational. Mattebo et al. (2012) carried out focus groups with 35 Swedish young people aged 16-19 years old. There was a strong effect of gender found in this study with males feeling that pornography was 'everywhere' and it was normal to view it. Overall the male participants were more positive about the viewing of pornography. However, the female participants in this study were more ambivalent, seeing some value to it but also expressing fear of some of the themes in pornography such as female subordination. Nevertheless, the benefits of pornography were described by both male and female participants. For

example, they explained that they found inspiration from pornography with it suggesting positions and sex acts they could try. Additionally, it helped them in their sexual relationships providing ideas and points for discussion. The young people in this study also saw a value in pornography for people that had trouble becoming aroused, stating that using pornography to gain arousal was a healthier option than drug treatments like Viagra.

Despite these reported positive educational effects of pornography, many concerns remain about the effects of viewing pornography on young people. There is a general consensus in the literature that some children and young people learn sexual behaviours from observing the behaviours displayed in pornography (Alexy et al., 2009; Häggström-Nordin et al., 2006; Laville, 2012). However, pornography tends to portray men as sexually dominant over women (Gorman, Monk-Turner & Fish, 2010) and as such it promotes certain gender stereotypes and attitudes.

It is rare in pornography for women to be dominant or even equal partners in the acts performed, and there is often an element of degradation of the women in SEM, with acts such as urinating on women, hitting them or hurting them in other ways (Wright et al., 2014). Additionally, pornography rarely shows negotiation between the male and female participants where the sex acts that are going to be performed are discussed, or cease if they are not found enjoyable by either party. This can send a strong message about women, their role in sex, relationships, and society and can have serious implications for young males' and females' beliefs around gender roles, equality and ability (Ward, 2002; Ward et al., 2005; Ward and Freidman, 2006).

SEM perpetuates body dissatisfaction

Papodopolos (2010) argues that the viewing of pornography for children and young people is about finding and expressing their individuality and sexuality. However, she highlights that pornography imposes gender stereotypes in a way that objectifies their bodies and commodifies their sexuality, putting girls and boys under pressure to emulate polarised and unrealistic gender stereotypes. The evidence collected in her extensive report suggests that pornography is having a profound impact, particularly on girls and young women by creating a culture of sexualisation and body dissatisfaction. Plastic surgery among young females is increasing, with breast operations and labiaplasty being carried

out on young females at an unprecedented rate. Between 2000 and 2010 the requested number of labiaplasty operations in the UK by adolescents saw a fivefold increase (Crouch et al., 2011). Pornography places emphasis on physical perfection that few people can measure up to, and this feeds into a wider cultural climate where gender norms are played out through (often unobtainable) physical ideals young women are exposed to, such as a female's value being based on their physical appearance, leading to low self-esteem, self-loathing, and a desire to change one's body (Mattebo, et al., 2012).

Although it can be tempting to focus on the effects on girls and young women, and to see objectification of girls as the outcome of pornography use, boys and young men are negatively affected too. In some ways, the messages given to boys are just as limiting and restrictive: be macho, strong, dominant and emotionless (Papadopoulos, 2010). Hyper-sexualisation of femininity cannot exist without hyper-masculinisation, which feed off and reinforce each other. This objectification does not exclusively come from pornography, but exists in a wider social climate. For example, studies have shown females objectified in rap music (Conrad et al., 2009) and in computer games (Dill et al., 2008). The depiction of women as sex objects and their physical appearance being their defining feature is evident across society but perhaps none as strongly as in heterosexual pornography.

Women as sex objects

The importance of physical attractiveness perpetuated by pornography feeds other sexist attitudes held by young viewers of pornography such as women being viewed as sex objects. This was found by Peter and Valkenburg from the Netherlands, who published a series of studies on this topic going back to 2006 including both interview and questionnaire studies of young people looking at their pornography consumption and their views of it (Peter & Valkenburg, 2006, 2007, 2008, 2009a, 2009b, 2010, 2011 & 2014). In one online questionnaire study of 745 13-18 year olds, they found that exposure to SEM was significantly related to the belief that women are sex objects, even when exposure to other forms of sexual content was controlled for (Peter & Valkenburg, 2007). How much children and young people liked internet pornography was a mediating factor in the relationship between exposure, and the belief that women are sex objects. They also found the reverse relationship: the impact of the belief that women are sex objects on exposure to internet pornography is also mediated by a liking for internet pornography. Therefore, exposure to internet pornography is both a potential cause and a consequence of viewing women as objects (Peter & Valkenburg, 2006).

Although pornography viewing has been shown to have some positive effects, especially for older teens (Mattebo et al., 2014), there are numerous concerning relationships between pornography and other variables such as changes in sexual practice (Marston & Lewis, 2014; Wright et al., 2014), increase in plastic surgery related to sexual body parts (Crouch et al., 2011) and lack of concern for consent (Marston & Lewis, 2014). These all seem to be associated with viewing pornography, illustrating that pornography may have a negative effect on the attitudes of some young people and may change how those young people view each other and sex in general.

The way forward: Can access to pornography be regulated?

While the negative effects outlined above appear to be widespread and concerning, professionals struggle with how to deal with the availability of pornography for young people, primarily due to the rapid advances in, availability of, and access to, technology (Kirkup, 2012). Technology is advancing at a faster rate than ever before: as soon as a technology is developed with the potential to protect young people, a workaround is found by young people, or by the pornography industry itself. An example of this is the hopes held by many professionals who work with young people that Snapchat could be used to send personal or sexual images without the possibility of them being shared. However, the ability of phones to take a screenshot means that even a temporary or disposable image can be captured, saved and shared. In addition to this, there is evidence to suggest that government measures to limit this effect – such as encouraging households to opt in or out of parental controls – had little effect, as young people are often entrusted with orchestrating any technology changes and so know how to bypass safeguards (Livingstone & Bober, 2003).

The pornography industry also works hard to market its product to new audiences, including young people. ‘Aggressive’ (Crabbe & Corlett, 2010) as well as ‘indiscriminate and sometimes coercive’ (Flood, 2007, p.49) online marketing of pornography makes it difficult for young people to avoid, and almost impossible for parents to protect against. Some examples of this are: free taster material; unsolicited pop-ups and emails; website names that are similar to non-sexual topics/other means to capitalise on search engine processes; ‘mouse trapping’ (where trying to leave a website actually takes you to another website); few or no age-related barriers (e.g. requesting proof of age); and lack of warnings about

adult content (Crabbe & Corlett, 2010; Dombrowski et al., 2007; Flood, 2007; Independent Parliamentary Inquiry into Online Child Protection, 2012; Mitchell et al., 2003a).

Livingstone et al. (2004) showed that homework search terms or popular music star names were used to lead young people to pornography sites, showing that young people are their target audience. Added to this, the widespread “pornification” of society (McNair, 2002), such as the popularisation of what McNair refers to as ‘strip tease culture’ (McNair, 2002), clothing with ‘porn star’ written on it and the prevalence of recreational pole dancing all lead to popularising pornography and the sex industry in mainstream culture. Long (2011) argues that there is an acceptance of pornography on aspects of everyday life such as lap dancing clubs in residential areas (Long, 2011). However, this proliferation and prevalence of pornography viewing amongst young people make regulation difficult to enforce.

What can be done?

Trying to counteract the harmful effects of pornography using regulatory or technological means is ineffective for the reasons listed above. Prohibition does not work in an age where young people can access pornography almost anywhere they go, and on a variety of devices and mediums (Cowell & Smith, 2009; Livingstone & Bober, 2004). The literature suggests that the most effective means to countering problematic messages in pornography is by way of helpful, child-centred education and information (Horvath et al., 2013). Schools, parents and youth organisations should all play their part in informing young people about the fact that pornography is not real, does not reflect real sex or real relationships, and the potential harm of some of the things they are seeing. There is emerging evidence to suggest that the way young people are educated about pornography is important, a ‘slant wise’ approach has been suggested by some researchers (Quinlivan, 2018), this is an approach which uses virtual art and other interactive approaches to start an open dialogue. The top down, pornography literacy approach which has been used historically, focusing on harms and effects seems to miss the needs of young people (Goldstein, 2019). In addition to sex education, relationship education is key. Issues such as consent, reciprocity, respect and care need to be taught to counteract the messages in many forms of pornography. Additionally, a move away from a focus on contraception and sexual health to encompass all types of sexual relationships and a more general focus on sex acts is needed (Horvath et al., 2013). Young people have expressed a desire for open, honest information about sex and many feel they don’t get this from school sex education, where it exists (Kubicek et al., 2010).

Schools should help children develop the capacity to interpret and filter the information and messages they receive from pornography, and to recognise and value difference in people and relationships. Some authors suggest that we need to consider the gender related studies in this area, and begin to use them as the core for the curriculum in sex and relationship education (Horvath et al., 2013, Thornburgh & Lin, 2002; Papodolulos, 2010). Sex education in Britain often fails to prepare young people to form healthy, respectful, emotionally fulfilling relationships, and is not universal or compulsory in England and Wales (Horvath et al., 2013). Although the British government has recently made moves to introduce this form of education many schools are excluded from having to offer this form of education: academies, independent schools and free schools for example. As the media can provide misinformation about relationships and sex (Palasinski et al., 2013), open communication with young people is important to negate the harmful effects of what young people are viewing (Rasmussen et al., 2015). Relationship education could go part way to rectifying problems discussed above, for example young males not being concerned about consent.

The effects of the media have repeatedly been found to be mediated by family relationships (Myers et al., 2003; L'Engle et al., 2004; Ybarra and Mitchell, 2005; Markey & Markey, 2010). The ability to talk to parents or other family members is key in counteracting some of the negative messages found in pornography. Lou et al. (2012) found that in a study of 17,000 young people in Shanghai, Taipei and Hanoi, only 13-24% of variance in sexual knowledge came from the media for these young people; school, peers and family explain a far greater amount of variance (30-50%). Although this study was carried out in a very different cultural setting, and therefore may not be directly generalizable to other cultures, it suggests that family and peers are still instrumental in the sexual development of young people. A similar western study carried out by L'Engle et al (2004) found that media only explains 13% of variance when looking at young people's attitudes; other factors such as parents and religion are equally or more influential. Parents therefore need to play a larger role in explaining and modelling healthy relationships, or finding others to do this for them, such as contacting a young persons' sexual health services. However, many parents seem to be naive about what young people are viewing, dramatically underestimating their children's pornography exposure as evidenced by Livingstone and Bober (2004). They found that 57% of young people in their study reported having seen pornography, but only 16% of their parents believed that their children had viewed pornography. If parents do not acknowledge that their children engage with SEM, they are powerless in playing a role in protecting young people from the harms posed by pornography and SEM, including counteracting the stereotypes they are seeing and explaining inaccuracies that pornography presents as fact.

It is therefore evident that the relationship between young people and the media is not as direct as some authors suggest, and other sources such as family, peers and school have an important role to play. Society needs to catch up with the changes the internet has brought to young people's lives as this issue is currently not sufficiently addressed.

The British Government has committed to better protect girls and young women from gender-based violence in the Ending Violence Against Women and Girls Action Plan (Violence Against Women and Girls Strategy, 2016-2020). As part of this national initiative, The Home Office and the Department for Education should commission further research into the safeguarding implications of exposure and/or access to pornography on children and young people, particularly in relation to their experiences of teenage relationship abuse and peer exploitation.

Conclusion

The internet is here to stay. With its numerous benefits come some complications, one of which is easy access to pornography for young people (Livingstone & Bober, 2003, 2004). Research has identified many problematic areas of young people's sexual health in which pornography is implicated. Society, education and parents need to acknowledge these problems, and catch up with the technological changes to best help young people navigate the complex world of sex and relationships. Failure to do so means we are leaving it to pornography to educate our young people about sex and relationships with the evidenced deleterious consequences.

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