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Chapter

The Dark Side of YouTube: A Systematic Review of Literature

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Abstract

The prolific use of social media platforms, such as YouTube, has paved the way for the potential consumption of inappropriate content that targets the vulnerable, especially impressionable adolescents. The systematic review of literature has identified 24 papers that focused on the "dark side" of YouTube for adolescent users. The analysis showed that eight themes emerged: the glamorization of smoking, the promotion of alcohol use, videos that focused on body image/health, videos on bullying, self-harm/suicide, advertising, drugs and general vulnerabilities. The results revealed that videos that contain smoking and alcohol frequently feature sexualized imagery. Smoking videos also frequently feature violence. Smoking and alcohol are also often featured in music videos. The analysis also showed that researchers call for awareness, more strict advertising guidelines and promotion of health messages especially in terms of body image/health, self-harm/suicide and bullying. It is recommended that parents regulate the YouTube consumption of their younger adolescent children, as children do not always understand the risks associated with the content consumed, or might get desensitized against the risks associated with the content.

Keywords: YouTube, Adolescents, Teenagers, Risk, Vulnerabilities, Tobacco, Alcohol, Self-harm

1. Introduction

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In [1] it was reported that the main reasons adolescent use social media is for information sharing, alleviating boredom, escapism, to interact socially with peers, building social capital and to receive feedback on their appearances. Therefore, adolescents' participation in social media platforms is an important aspect for "social participation" [1–4]. However, research has also shown that social media use can have an impact on the emotional state of the adolescent and the extent to which they can be influenced by peers [5]. Although, research on adolescents' use of social media is widely reported, this research is focusing on one social media platform, YouTube. YouTube is a video sharing platform that allows content creators to share videos easily, and viewers can view most videos without subscription, registration or restriction.

According to [6] 80% of parents survey in the United States of America (USA) indicate that their children younger than 11 years of age watches videos on YouTube. According to [7] 85% of USA boys and 70% of USA girls between the ages 13 and 17 years of age use YouTube on a daily basis.

In [3] it was shown that adolescents develop a familiarity with the YouTubers (both as content creators and viewers) as they can identify with what they represent. This prolific use of YouTube by adolescents, and even pre-adolescent children, expose children to a variety of content: good and bad. Although it has been reported that adolescent do access YouTube content "for good" such as incidental learning [8], informal learning [9], dealing with anxiety [10], practicing safe sexual health [11] and to obtain information regarding medical procedures [12] to name a few, unfortunately a number of studies have reported on using YouTube "for bad".

This chapter reports on a systematic review of literature on the negative aspects associated with YouTube, specifically concerning adolescents.

The chapter is structured as follows: Section 2 provides a description of the research methodology, Section 3 provides the data analysis and results. The results are discussed in Section 4 and the chapter is concluded in Section 5.

2. Research methodology

This study employed a systematic review of literature as the methodology. Two research platforms (ProQuest and Ebscohost) were used to access scholarly articles. The ProQuest platform included 12 databases (including ProQuest Central, Health & medical Collection, healthcare Administration database, Nursing and Allied Heath Database and Psychology Database) and the Ebscohost platform included multiple databases (including APA PscyArticles, APA PsycInfo, Family and Society Studies Worldwide, Health Source – consumer edition, Health source: Nursing/academic edition, humanities source, MEDLINE,) In both instances the search terms used were "YouTube" AND "(adolescents or teenagers)". In both instances "YouTube" had to appear in the title of the paper and "adolescents/teenagers" needed to appear in the abstract of the paper. This search criteria ensured that the search was focused on the YouTube social media platform, with the user segment of adolescents or teenagers. The only filtered aspect was that only peer reviewed scholarly articles should be included.

The initial search with the keywords revealed 99 papers. 76 papers were excluded based on the following criteria:

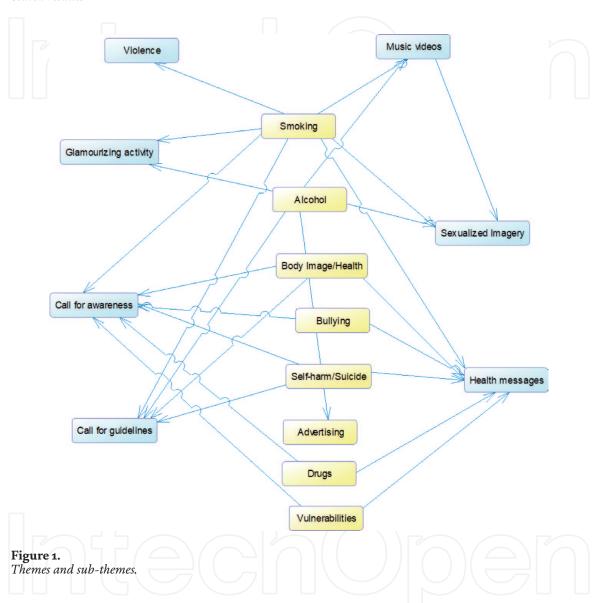
- Duplicate paper
- Not written in English
- Not focusing on "dark side" aspects

Table 1 illustrates that the final results obtained was a review of 24 papers. These 24 papers.

Thematic Analysis [13] was employed to analyze the content of each of the 24 papers. Phase one is concerned with the researcher familiarizing herself with the data. This was accomplished by reviewing the articles obtained in the search and applying the exclusion criteria. Phases two to five almost occurred in parallel. Phase two was concerned with coding which involves the identification of the theme addressed by the paper. Eight main themes were identified and is illustrated in **Table 2**. The third phase was concerned with sub-themes. For example, it emerged that YouTube videos featuring smoking also features violence and sexualized imagery. Phase four was concerned with reviewing the themes. This phase involved identifying links between sub-themes, for example it emerged that YouTube videos featuring alcohol also featured sexualized content. This is illustrated in **Figure 1**.

Platform	Initial results	Final results
ProQuest	44	6
EbscoHost	58	18
Final Total	99	24

Table 1.Search results.



Phase five was self-evident, as the eight themes that emerged was very well-defined in terms of the context in which it was presented. Phase six is concerned with the write up of the data. This was done in two phases, first by providing a short description on each of the studies and then discussing the results in Section 6.

3. Data analysis and result

Thematic analysis uncovered eight major themes. The themes that were uncovered are detailed in **Table 2**.

Figure 1 illustrate how the themes (in yellow) are connected with the sub themes (in blue). The themes and sub themes have emerged from the literature where the authors discussed the theme in terms of the sub themes. For example, Kim et al. [14] conducted a content analysis of smoking fetish videos on YouTube

Theme	Source	Year of study
Smoking	[14–17]	2010, 2016, 2017, 2013
Alcohol	[15, 18–20]	2016, 2017, 2015, 2017
Body Image/Health	[21–23]	2020, 2013, 2017
Bullying	[2, 24, 25]	2018, 2017, 2017
Self-Harm/Suicide	[26–28]	2020, 2011, 2010
Advertising	[19, 29]	2015, 2020
Drugs	[2, 30]	2018, 2010
Vulnerabilities	[2, 31]	2018, 2017

Table 2. *Themes identified from paper.*

and discovered videos containing smoking glamourizes the activity and it also contains a lot of sexualized imagery and violence. They call for guidelines to manage videos as young children have access to videos that should have parental guidance (PG) ratings.

Likewise, YouTube videos featuring alcohol, also contained sexualized imagery, were present in a number of music videos [18] where the use of alcohol was glamourized [20] and advertised [19].

Each of these themes will be discussed below.

3.1 Smoking

Four of the twenty four articles discussed the promotion and "eroticized" nature [14] of smoking. In [14] 200 videos were sampled from 2300 videos obtained by using the search words "smoking fetish" and "smoking fetishism". Their analysis revealed (at 4 November 2007) 2220 smoking fetish videos. Using the same search term ("smoking fetch") it was observed by looking at the playlists only, that there are over 7000 smoking fetish videos now¹. Their analysis further showed that although some content was not available for under 18-year old's, 85.1% of the content was available to everybody. Their study further found that almost 60% of the smoking fetish videos were sexually charged with scantily clad women. They also recommended stronger rating for the videos as it contained sexuality and violence.

In [16] it was tested whether health messages that informs adolescents of the risks of smoking had an impact on their perception of smoking. Their research showed that smoking exposure to adolescents on YouTube correlates with an apparent increased prevalence of smoking.

In [15] it was investigated how tobacco was presented in music videos. The results showed that, at that time (2015), the music videos contained 203 million representations of tobacco products where adolescents were exposed four times more than adults to tobacco products per head of the UK population. The research also showed that for both alcohol and tobacco girls were more.

In [17] it was explained that adolescents perceive cigars to be less harmful than cigarettes. As a consequence, smokers remove the tobacco binder through a process known as "freaking". The results of their multi-study indicated that adolescents participate in freaking because they believe it 'Easier to smoke' (54%), 'Beliefs in reduction of health risks' (31%), 'Changing the burn rate' (15%) and 'Taste

¹ 30 May 2021

enhancement' (12%). Study 2, which concentrated on the comments of freaking videos, indicated that adolescents were unaware or not understanding the risks associated with smoking.

3.2 Alcohol

The alcohol theme is associated with the presence or consumption of alcohol in YouTube videos. Four papers reported on the extent to which alcohol was present in YouTube videos.

Further to what was reported above, [15] also investigated how the presence of alcohol was presented in music videos. The results showed that, at that time (2015), the music videos contained 1006 million representations of alcohol products where adolescents were exposed five times higher for alcohol than for tobacco and four times higher than adults for alcohol representations per head of the UK population. Exposed than boys.

In a further study of Cranwell et al. [18] analyzed "lyrics and visual imagery" of "49 UK Top 40 songs and music videos". They found that the presence of alcohol in music videos were often accompanied with sexualized imagery or the objectification of women., that the use of alcohol was part of the image, lifestyle and sociability of the video actors and finally the videos promoted excessive drinking with no regards to consequences. Their study concluded, with a caution to the role of advertisers play in the promotion of music video product placements. The placement of alcohol in the videos are often not in line with the "advertising codes of practice".

Managing the advertising content on social media, has received some attention. In [19] it was investigated whether organizations conform to their digital marketing standards, even on social media. Specifically, the study focused on the extent alcohol is advertised/promoted on YouTube to viewers that are under the legal drinking age. The also, found that alcohol companies' digital marketing is not sufficient to protect underage viewers from viewing advertisements that promotes the consumption of alcoholic beverages.

In [20] it was further reported that alcohol use was presented as a fun, social activity with underage drinkers. A content analysis on 137 YouTube videos were conducted and concluded that YouTube is an effective platform to advertise alcohol use to adolescents.

3.3 Body image/health

The body image/health theme is concerned with the way body image/health information is communicate and perceived on YouTube. Three papers reported on the dissemination of body image/health data on YouTube.

In [21] an experimental study was conducted to examine the effects of health advice on "adolescent girls' state of self-objectification, appearance anxiety and preference on products that can be used to enhance appearance". The study used YouTube videos to inform adolescent girls on healthy behaviors. The results from 154 adolescent girls showed that younger girls tend to self-objectify more. Furthermore, the younger adolescent girls' self-objectification mediated the effects on appearance anxiety and the use of products to improve their appearance.

In [22] misinformation spread on YouTube regarding anorexia was investigated. Three doctors analyzed 140 videos on YouTube regarding anorexia. They classified content as "informative, pro-anorexia, or other". It was found there were less pro-anorexia videos than informational videos creating awareness on anorexia, but pro-anorexia videos were more liked by the viewers. The researchers advocated for more awareness on truthfulness of YouTube videos, especially concerning beauty

and lifestyle advice. They recommended that celebrities should be employed to create awareness of anorexia.

In [23] it was reported on adolescents accessing YouTube videos to learn about weight loss. They reported that adolescents showed negative feelings regarding body image. The exploratory research analyzed 50 videos that were identified by searching with the key word "diet". Their analysis concluded that the videos did not show appropriate guidelines to safely lose weight as it was made by non-qualified people. They recommended that policies by government should be in place, or at least be present on the YouTube platform to guide the information being made available on YouTube.

3.4 Bullying

Bullying is concerned with the actions to cause physical or emotional harm to another party. Four papers reported on the extent of bullying content visible in YouTube videos. In [2, 31] it was identified as a common theme as part of digital vulnerabilities of adolescents. However, two papers focused exclusively on bullying.

In [24] investigated the degree to which bullying content is present on YouTube. They found that 89 videos showed violence, 38 videos presented content related to suicide. Only 56 videos were promulgating positive messages related to finding help. They concluded that professional agencies should work towards spreading messages to stop bullying behavior.

In [25] it was reported that YouTube is the most popular social networking platform among Canadian adolescents. This research reported on the analysis of 55 video logs (vlogs) about bullying. They recommended that YouTube can be used as a platform to disseminate and discuss bully behavior.

3.5 Self-harm/suicide

Self-harm/suicide theme is associated with activity to inflict injuries on themselves, or in extreme cases take their own lives. Four papers reported on these types of activities. In [32] research on the "blue whale challenge" was reported. The "blue whale challenge" encouraged adolescents to self-harm and eventually kill themselves. Through a thematic analysis of comments on 60 publicly posted YouTube videos, they learnt that although the comments were focused on raising awareness of the risks of the challenge, it might encourage vulnerable individuals to partake in the challenge. They advocated for "safe messaging guidelines" to create awareness to social media users on the risks associated with content that promote self-harm/ suicide.

In [26] reference is made to another challenge, namely Tide pod, which encourages non-suicidal self-harm. The analysis of 413 YouTube videos that featured content on self-harm/suicide revealed that 80% of the videos promoted awareness regarding the risks. Other results indicated that an anlysis of the comments revealed that 2.9% of the comments encouraged suicide, 2.1% of the comments were on how to fight suicidal thoughts, 5.4% of the comments were related to the poster wanting to commit suicide and 5.8% of the comments were negative. They concluded that further research is needed to investigate the negative impact social media platforms can have on the mental health of adolescents.

In [27] the 50 most popular videos depicting self-harm was analyzed. It was revealed that 58% of the videos did not warn viewers of the potential sensitive content to be displayed. The analysis showed that 42% of the videos were portraying a neutral message with regards to self-harm, 27% of the videos discouraged self-harm. However, 23% of the videos provided "mixed messages" regarding self-harm

and 7% of the videos encouraged self-harm. They concluded their research by recommending that teachers and parents need to be made aware of self-harm content on YouTube to which vulnerable adolescents can be exposed to.

In [28] 65 videos that demonstrated the asphyxiation game was analyzed. Results showed that 90% of the videos featured males. The videos demonstrated different asphyxiation techniques, including hypoxic seizures (55%) and the sleeper hold (88%). The researchers concluded that YouTube provides a platform for adolescents to view videos on choking and that continued exposure to such videos might normalize the act of choking. They advocated for increased awareness of this to alert youths to the risks associated with the choking games.

3.6 Advertising

Product advertisement on YouTube, is not always regulated by the same digital marketing guidelines as formal digital marketing platforms. Two papers spoke directly about the advertisement of products in YouTube videos.

Further to the promotion of alcohol in [19] to underage drinkers, as reported above, another paper investigated the presence of product placement in microcelebrities' YouTube videos.

In [29] 1961 comments were analyzed and it revealed that the followers of the specific YouTube channel accepted the commercial content promoted by the star of the YouTube channel. However, they cautioned that viewers are not always aware of product placement, due to lack of transparency, and that viewers might have a skewed view of the life of microcelebrities and the extent to which their lifestyles are supported by industry.

3.7 Drugs

Three papers, [2, 30, 31] reference drugs as being a theme in YouTube videos. Although [2, 31] referenced the presence of drugs as a general theme, [30] explained in detail the effect of Salvia, a short-acting hallucinogenic drug that adolescents in the United States used. The research focused on the analysis of self-taped videos of the use of Salvia. It was reported that the onset of the drugs' effects was quick, within 30 seconds and lasted for approximately 8 minutes. The research concluded that YouTube was an effective medium to showcase the effect of drug use.

3.8 Vulnerabilities

Through content analysis [2, 31] found that YouTube content creators focused on four major themes of: sex, bullying, pregnancy and drugs. These four themes presented the vulnerabilities adolescents are exposed through YouTube content. They concluded that the language used in the YouTube content was aimed at adolescents. Furthermore, they found that the videos that adolescents made themselves, were more often watched by other adolescents. Videos that were made by institutions to promote a certain "positive" message, were not well watched, or distributed.

4. Discussion

The analysis of the 24 articles provided eight "dark side" themes associated with YouTube content that adolescents engage with. These "dark side" themes

describe the typical dangers that adolescent can be exposed to when viewing YouTube videos.

It was apparent that a number of videos featured sexualized imagery, in addition to the promotion of smoking and alcohol consumption [14, 18]. The promotion of alcohol to underage drinkers were also revealed [19, 20].

It was quite interesting to observe that the context in which smoking and alcohol was promoted was through music videos. Often in the music videos, smoking and the consumption of alcohol was perceived as fun, and socializing activities [18].

A number of papers reported that certain YouTube videos do attempt to create awareness of the risks and dangers associated with some activities promoted on YouTube [26, 32]. However, the research reported mixed results. For example, in [22] it was reported that there are fewer pro-anorexia videos observed from the sample than informational videos that caution against anorexia, however the pro-anorexia videos were more "liked" than the informational videos.

A common theme that emerged from the research was: "regulation". In [14] it was stated that the regulation of smoking advertisements, and smoking fetishism is not sufficient. Strong regulations on advertising was also mentioned in [19]. Advertising Agencies need to be made aware, or realize that the viewers of YouTube content are becoming younger [6], and potentially more vulnerable due to the desensitizing effect of over consumption of YouTube content. The promotion of inappropriate products, such underage drinking and smoking, and the potential unawareness of a young viewer of intentional product placement [29] need to be more effectively regulated. Adolescents are greatly influenced by social media influencers [33] or microcelebrities [29] and although the intention of these influencers or microcelebrities are not always negative, they might unintentionally promote negative behavior. Furthermore, the use of "corrective messages" [16] to counteract the effect of making smoking socially acceptable. This was also advocated by [24] who argued that governmental institutions or professional organizations invest in the promulgation of "positive messages" to prevent bullying and assist adolescents who are/have been bullied.

Parents need to be aware of the availability of potentially harmful content on YouTube (also other video sharing platforms such as Tic Toc). Often, the harmful videos do not limit underage or vulnerable viewers to access the content. Although it was shown that some videos to promulgate health messages, parents need to ensure that their children do not get desensitized due to the over consumption of content. Children often do not understand the risks associated with certain "fun" activities such as freaking [17] or games [26, 32].

Adolescents' motivation of social media use in general can provide the explanation of the impact it can have on adolescent well-being. In [1] it was shown that motivation for social media use which include passing the time or escapism are inversely related to well-being and body satisfaction and well-being respectively. Therefore, apart from the "negative message" received on social media, such as YouTube, the reason for "escaping" or "passing the time" using social media can further have a detrimental effect on adolescent well-being.

5. Conclusions

YouTube (and similar video sharing platforms) is a popular social media platform for adolescents. Although not all the content on YouTube is problematic, this research has shown that there is truly worrisome content on YouTube which adolescents, especially young adolescents have free access to. Although social media use in general need to be regulated, parents need to regulate the content that their

younger adolescents consume of YouTube as the do not always understand the risks associated with the content presented. Also, due to the presentation of some content as "fun" and "sociable", it can normalize viewers into believing that it is acceptable to partake in illustrated activities.

Apart from "being aware" of potential harmful content on YouTube which can have a detrimental impact on the well-being of adolescents, regulating authorities need to capitalize on the prolific viewership of YouTube by promoting "positive messages" on YouTube.

Furthermore, although the focus of the study was on uncovering the themes that can promulgate "negative messages", parents, users and regulators need to be aware that the motivations of adolescents' YouTube use might in itself be harmful to their well-being.

Due to the limited number of empirical studies conducted on the "dark themes of YouTube", future research can be dedicated to uncovering the impact these dark themes have on the well-being of adolescents.



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