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Cancer entertainment education and Netflix – an exploratory study

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ABSTRACT

The entertainment education (EE) approach shows that entertainment storylines influence people's attitudes, opinions, and behavior, and this occurs, among others, when it comes to health and disease. In the case of TV shows and movies cancer is the most frequently shown disease, and this is especially important when considering the rise of VOD platforms, gaining in subscribers and popularity. The article aims at signaling Netflix's EE potential, hence it could be a starting point for future studies of streaming platform's EE, a highly neglected area. Netflix is thus 1) compared with other popular VODs in terms of the number of cancer content (this being the main interest of the presented analysis) and 2) three content categories are indicated. Also, 3) a brief description of selected texts is presented. The aim of the article is exploratory, and it highlights the need for future research, as the potential of Netflix's EE seems the greatest when compared to other platforms analyzed. Netflix has the largest number of contents featuring cancer, and these could influence audiences, i.e., raise awareness, change attitudes, and motivate individuals to act.

KEYWORDS

Netflix; cancer; VOD; streaming services; entertainment education; medical dramas; movies; HBO; Prime Video

Introduction

The entertainment education (EE) approach assumes that people can learn and act as a result of compelling entertainment storylines with educational messages (Brown & Fraser, 2004; Morgan et al., 2009; Rosenthal et al., 2018; Shelus et al., 2018). This occurs, among others, in the case of health and disease, as entertainment narratives raise awareness, change attitudes, and motivate individuals to act considering their health and well-being (Collins et al., 2003; Kennedy et al., 2004). EE differs from the edutainment (educational entertainment) approach, where the text is goal-oriented, and producer creates it with an educational intention. In the case of edutainment media educate through entertainment, and it is to make an educational message more attractive or

Netflix's cancer content influence. Researchers studying Netflix and other platforms should be sensitive to the stigmatization of patients and also pay attention to how the information on preventive measures is presented. Such analyzes could contribute to producing texts and storylines supporting the well-being of patients and preventing the worst possible outcome of having cancer.

Endnotes

1. <https://spidersweb.pl/rozrywka/2020/04/14/netflix-hbo-go-serwisy-vod-ogladalnosc-koronawirus> (Accessed: 10.06.2021).
2. <https://www.justwatch.com/pl> (Accessed: 10.06.2021).
3. <https://flickmetrix.com/> (Accessed: 10.06.2021).
4. These are both commercial ventures allowing viewers to set up a profile and build one's own library of content to watch.
5. <https://spidersweb.pl/rozrywka/2021/03/06/netflix-polska-top-10-new-amsterdam-wyniki> (Accessed: 10.06.2021).
6. For example, the *Dead To Me* series, where Jen, a main protagonist, is a BRCA gene carrier who had a double mastectomy, which is revealed in episode four of season 1 ("I Can't Go Back" [2019]) and not mentioned further in the series.

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Introduction

The entertainment education (EE) approach assumes that people can learn and act as a result of compelling entertainment storylines with educational messages (Brown & Fraser, 2004; Morgan et al., 2009; Rosenthal et al., 2018; Shelus et al., 2018). This occurs, among others, in the case of health and disease, as entertainment narratives raise awareness, change attitudes, and motivate individuals to act considering their health and well-being (Collins et al., 2003; Kennedy et al., 2004). EE differs from the edutainment (educational entertainment) approach, where the text is goal-oriented, and producer creates it with an educational intention. In the case of edutainment media educate through entertainment, and it is to make an educational message more attractive or concealed (Singhal et al., 2003). In EE the entertainment is the starting point and we are dealing with popular storylines with educational messages and produced by media companies.

EE assumes that contrary to “serious” programming, e.g. news or journalism, entertainment storylines are not overtly persuasive, and audiences do not feel that producers want to impose a specific point of view (Oschatz et al., 2019), hence the greater “absorption” and influence of a given content (for a discussion on persuasive EE strategies see Brusse et al., 2015). It is worth noting that entertainment is only seemingly non-persuasive as texts can be culturally biased, also in the case of health issues. For example, Hether and Murphy (2010) examined the role of character gender in prime-time television health portrayals. An analysis of the content of 1,291 storylines of the most popular American dramas from 2004-2006 showed that the narratives differ depending on the gender of the characters. Men are shown much more often, male injuries and

diseases are more serious, and these will more likely take place in a medical setting, and thus, the storylines showing men have higher EE influence.

In the case of EE, the viewers often see the narratives through the prism of their own experiences, and this favors emotional involvement (Moyer-Gusé, 2008). Additionally, the processes pin-pointed by social cognitive theory (Bandura, 2001) are also important. Individuals learn by observing others, especially those with whom they identify or perceive as similar. In “real life” these could be parents, relatives, friends, but learning applies to fictional characters as well (Brown & Fraser, 2004). Involvement with a specific character, or with the narrative, and viewers' emotional reaction to the narrative produce EE effects. It is shown, for example, by Murphy et al. (2011), who examined 167 regular viewers of the *Desperate Housewives* TV show, and the study relates to a thread in the series related to lymphoma cancer.

TV shows (and movies broadcast on television) are being researched more and more often. U.S.-based study by Rosenthal and Talati (2014) and Rosenthal et al. (2014), shows that over 40 percent of viewers of prime-time comedy series and dramas confirm that thanks to these they learn something new about health and disease. Slightly over 20 percent claim that based on this new knowledge, they have taken some pro-health actions. Rosental (2015) analyzed the influence of television series on nutrition. Research from the years 2004-2013 showed that “people are influenced when they see characters similar to them modeling healthy or unhealthy behaviors. Thus, when viewers see characters actually consuming unhealthy food more often than healthy food, they may be more likely to pick up unhealthy eating habits” (2015, p. 2). The influence of TV shows and movies can be considered significant. It is not only about medical dramas, which, due to the genre, offer health information. Other genres also present storylines focusing on rare and

atypical diseases, or featuring a variety of important topics from heart disease to sexually transmitted diseases to mental illnesses, among others (Murphy et al., 2008).

However, cancer is the most frequently shown disease (Lipseý et al., 2020; Murphy et al., 2008; Rosenthal et al., 2014, 2018), hence EE researchers include the positive effects of exposure to cancer-related themes. For example, analysis of two consecutive episodes related to breast cancer gene mutations on the medical dramas *ER* and *Gray's Anatomy* proves that exposure to these episodes had stronger effects on knowledge, and behaviors than either episode alone (Hether et al., 2008). Other medical series, such as *House*, are also researched (Morgan et al., 2009), so are other genres (see e.g. analysis of TV show *Friends*: Collins et al., 2003). For example, Rosenthal et al. (2018) dealt with the popular youth series *90210*, a spin-off of the 90s series *Beverly Hills, 90210*. Eight analyzed episodes of the series concern the carcinogenic BRCA gene mutations of one of the characters and the dilemmas regarding preventive mastectomy (removal of one or both breasts). Exposure to this storyline was associated with increased knowledge about both the gene and mastectomy. Moreover, researchers observed evidence of increased fears regarding breast cancer and intentions to talk to a doctor. This was confirmed by the Spanish-language soap opera *Ladrón de Corazones* study when the increase in calls to a cancer information hotline was noted after the emergency number was highlighted in episodes related to breast cancer (Wilkin et al., 2007).

Cancer is thus showed in many series and movies of various genres, and it is worth bearing in mind the revolution that television is undergoing today, i.e. the rise of streaming platforms (video-on-demand [VOD] services), such as Netflix, HBO Now (or HBO Go in Poland), Amazon Prime, Hulu or Disney Plus (Buck & Plothe, 2019). The number of VOD subscribers of the biggest platforms is growing year by year, with the so-called online time-shifted viewing as the main reason, i.e. the possibility of watching

not only in front of the TV set, but using a PC or mobile devices, and at the most convenient time (Randolph, 2019).

Streaming services compete for viewers with more traditional TV broadcasters, media corporations, cable and digital TV platforms, and are the hallmark of the changes in the TV industry. The leader of these is Netflix, a very strong brand with a huge number of subscribers and constantly innovating TV production. Netflix is recognized as a pioneer of the television revolution, and a producer of original content (some of it critically acclaimed), and a resource of a huge number of licensed content (McDonald & Smith-Rowsey, 2018). The constant increase in the number of presented series and movies, both original and licensed, is to be one of the ways to effectively compete for the viewers (also for other platforms), both with traditional broadcasters and other VOD platforms (Siuda, 2020).

The aim of the presented article is to signal Netflix's potential when it comes to cancer EE. The service presents a multitude of series and movies with cancer storylines that may influence the opinions, attitudes, and behavior of subscribers. The aim is achieved by 1) comparing Netflix with other popular streaming platforms in terms of the number of cancer content (this is the main interest of our analysis), 2) presenting categories of this content and 3) a brief description of selected texts. These are discussed in terms of how cancer is presented and the potential impact on the audiences, however this is not backed up by any systematic study, and we elaborate on this while indicating limitations of our research in the Discussion. We assume that the impact could be positive, as this is in line with the EE considerations in general, as stressed above.

The purpose of the article is thus exploratory, and we highlight the need to research a heavily neglected area. We want to start a conversation on studying the reception and effects of specific Netflix (and other VOD platforms as well) titles and

storylines, but also on researching Netflix (or other platforms) subscribers as a whole, that is discovering how reception patterns and habits of VOD viewers affect EE (we elaborate on this further in the Discussion). In the next sections of the article, we compare different services and take a closer look at selected TV shows and movies. We conclude by showing the implications of our analysis, mentioning its limitations, and reflecting on the possible future research.

Cancer on Netflix

Netflix vs other streaming platforms

We compared Netflix to other streaming platforms in terms of the number of cancer-related content, and this was not an easy task for several reasons. Firstly, there are many services, and what's more, they differ when it comes to availability in specific countries. For example, Disney+ and Hulu, while popular in the U.S., are not (yet) available in many European countries, including Poland. Secondly, the content varies from country to country (Lobato, 2019), as a result of license agreements, profit and cost balance, legal issues, etc. Additionally, the content changes constantly, as some series and movies are removed and others added. Platforms use different strategies in this regard, and in the case of Netflix, content changes daily.

Considering the above-mentioned difficulties, we analyzed the content of the services operating in Poland, due to their availability (the study was conducted in Poland). In addition to Netflix, the most popular service in Poland, we took a closer look at two others from the top ten, i.e. HBO Go and Prime Video [1]. The criteria for making this choice was that all three are so-called Subscription Video on Demand (sVOD), unlike other popular platforms, where accessing content means paying for a given movie or series/episodes, and this is a one-time payment. Moreover, the three services are also

present in other countries, as they are globally recognizable media brands, with HBO being considered the main competition for Netflix (Siuda, 2020). All three platforms compete with each other in the production of high-quality original series and movies.

We analyzed the content of the three platforms at several stages, and all took place in August 2021.

- Stage 1 – the services selected for the analysis do not allow viewing the entire content at once. The texts are in different categories, usually based on genres. Therefore, in the first stage, we used the JustWatch [2] and Flick Metrix [3], i.e. popular websites [4] presenting the full offer of the major VOD platforms and allowing them to filter by country. These sites are updated regularly and also provide the total number of texts available at a given time. We used the mentioned platforms JustWatch and Flick Metrix, searched the content of three selected platforms, reading the full descriptions of each TV show, movie, documentary. Whenever the description included keywords related to cancer or a serious disease (e.g., “cancer”, “neoplastic disease”, “terminal disease”; “serious disease”, etc.), the text was included in the second stage of the analysis. Also, the medical dramas and movies were automatically included in the next stage (see categories below).
- Stage 2 – on VOD platforms we checked whether the selected texts are available. Additionally, we viewed each selected TV show, movie, or documentary to verify whether these are cancer-related or medical. Showing cancer could have been specific or general, e.g. the text presents characters suffering from this disease (specific), or reflects on the possibility of finding a cure, or discusses the social, psychological, and economic consequences of the disease (general).
- Stage 3 – we searched VOD platforms using internal search engines. Although none of the series and movie tags are visible to users, entering a given keyword generates results thematically related to this keyword. We used the following ones: “cancer”, “cancer stories”, “cancer healing”, “cancer dramas”, “cancer movies”, “cancer documentaries”, “medical dramas”. Stage 3 was to check whether we have missed any texts in the previous two stages.

When comparing the content of VOD services, we did not consider many factors that differentiate the texts. We did not distinguish between licensed or original TV shows or movies and consider country or year of production, budget, genre (except for the categories indicated below), etc. One could include many variables here, but these would

be less relevant from the point of view of the article's aim. We wanted to show the number of productions dealing with cancer, this being the main interest of our analysis. We considered only the basic categories that could differentiate how this disease is presented.

The categories we indicated are:

- C1 – medical dramas and movies, as a genre discussing various diseases medically but also understandably for viewers (Rocchi, 2019). As indicated earlier, medical dramas storylines are often about cancer (additionally see e.g. Lee & Taylor, 2014), hence the C1 category is the only one based on genre. This is also in line with the exploratory nature of the study, as we do not analyze the content of all the indicated movies and series thoroughly (see below). Based on previous research, we assume that in the case of medical dramas, cancer is present.
- C2 – TV shows and movies of other genres as potentially approaching cancer differently than the medical ones.
- C3 – documentaries implicitly showing actual events and medical expertise related to cancer (Ono & Kato, 2020).

In Table 1, we present texts including platforms and categories (we also give the total number of movies and series from a given VOD). We provide the original title (and the title in English, if the original is in a different language), the country of production, the number of seasons and episodes (in the case of series), and the year of production. The texts are arranged from the newest to the oldest.

Table 1. Cancer content on three selected platforms

C1 – medical dramas and movies (C1)	C2 – TV shows and movies (other genres)	C3 – documentaries
Netflix (4394 texts in general)		
슬기로운 의사생활 (Hospital Playlist) ; South Korea; no. of seasons: 1; no. of episodes: 12; 2020-present	Movies: 18 regali (18 Presents) ; Italy; 2020 El Cuaderno de Tomy (Notes for My Son) ; Argentina; 2020	Hope Frozen ; US/Thailand; 2019 Weed the People ; US; 2018 Cristina ; US; 2016 The C-word ; US; 2016

<p>New Amsterdam; US; no. of seasons: 3; no. of episodes: 47; 2018-present</p> <p>Charité; Germany; no. of seasons: 3; no. of episodes: 18; 2017-present</p> <p>Doc Martin; UK; no. of seasons: 9; no. of episodes: 70; 2004-present</p>	<p>Paddleton; US; 2019</p> <p>Irreplaceable You; US; 2018</p> <p>Then came you; US; 2018</p> <p>Kiss and Cry; Canada; 2017</p> <p>Other People; US; 2016</p> <p>Chemia (Chemistry); Poland; 2015</p> <p>Steve Jobs; US/UK; 2015</p> <p>The Bucket List; US; 2007</p> <p>Sweet November; US; 2001</p> <hr/> <p>TV shows:</p> <p>Alexa & Katie; US; no. of seasons: 3; no. of episodes: 39; 2018-2020 (concluded)</p>	<p>Tig; US; 2015</p> <p>A Lion in the House; US; 2006</p>
<p>HBO Go (1303 texts in general)</p>		
<p>Temple; UK; no. of seasons: 1; no. of episodes: 8; 2019-present</p> <p>Trust Me; UK; no. of seasons: 2; no. of episodes: 8; 2017-2019 (canceled)</p> <p>Getting On; US; no. of seasons: 3; no. of episodes: 18; 2013-2015 (canceled)</p>	<p>Movies:</p> <p>别告诉她 (The Farewell); US; 2019</p> <p>The Immortal Life of Henrietta Lack; US; 2017</p>	<p>The Education of Dee Dee Ricks; US; 2011</p>
<p>Prime video (1022 texts in general)</p>		
<p>House, M.D.; US; no. of seasons: 8; no. of episodes: 177; 2004-2012 (concluded)</p>	<p>Movies:</p> <p>The Professor; US; 2018</p> <p>Achtste Groepers Huilen Niet (Eighth Graders Don't Cry); The Netherlands; 2012</p> <p>Etienne!; US; 2009</p> <p>Funny People; US; 2009</p>	<p>N/A</p>

Source: own study

When it comes to cancer content, Netflix is the richest platform from the ones analyzed (one of the reasons here could be of course that its library is by definition bigger than the compared competitors, but this does not change the overall conclusion). Netflix's potential for cancer EE is the greatest when only the number of series and movies is considered. To emphasize this potential, we textually analyze three particular texts, although this is not a systematic content analysis which we emphasize in Discussion. Due to the exploratory nature of the study, we analyzed those from two categories, i.e. C1 and C2. We skipped documentaries, as despite being significant, most EE studies focus on TV show's and movie's storylines, and documentaries seem closer to the edutainment approach mentioned in the Introduction. We decided to explore C1 and C2 only, which is in line with the EE research, as mainly non-documentary storylines are analyzed. We have selected *New Amsterdam*, *Alexa & Katie*, and *Kiss and Cry* for the reasons we give below. We watched all episodes and the entire movie to include previously mentioned issues, i.e. how cancer is presented and the potential impact on the audiences.

C1 – New Amsterdam

New Amsterdam is one of the newest U.S. medical dramas produced by NBC, breaking records in viewership [5], and that is the reason why we decided to describe the series in the article. The series takes place within the oldest public hospital in the United States (the fictional New Amsterdam hospital) and begins when the main protagonist – Max Goodwin – becomes its Chief Medical Director. He is presented as a Medical Doctor with an unconventional approach when it comes to hospital management. Goodwin aims to reform a neglected facility by fighting bureaucracy. At the same time, his priority is to provide patients with good quality health care, thus he quickly gains the sympathy and respect of other employees. With all this, he has an aggressive form of throat cancer,

which viewers learn about in the first season. Goodwin is portrayed as a person who at first does not find time for his treatment, avoids talking about how he feels, devoting himself fully to his duties. Ultimately, when his condition worsens to the point that he cannot breathe, he agrees to treatment. He joins a hospital chemotherapy ward, and as a result, engages in relationships with patients.

The disease of the main protagonist, although not the main theme of the series, is important for the whole narrative, especially in the first and the second season. The series shows the moment of the diagnosis and the emotions accompanying Goodwin. The protagonist, like other patients shown, is anxious and goes through various stages of coping with the disease (e.g. the above-mentioned avoiding treatment stage). Goodwin has extensive medical knowledge, but the illness opens his eyes to issues he had never realized before. For example, at first, he cannot understand cancer patients making fun of their disease. Also, Goodwin is shown as an ideal doctor in the sense of taking care of the needs of patients, which contrasts with the difficult treatment strongly affecting him. There is a specific conflict here – on the one hand, we can see a Goodwin-doctor with extensive medical knowledge, who seems untouched by the disease and helps others, on the other, Goodwin-patient, susceptible to disease, just like everyone else. Goodwin is shown as someone who struggles to reconcile being sick with work, and he cannot accept that at some point he stops coping with his duties.

Looking at *New Amsterdam* from the perspective of the EE research, one can assume (and we do not state anything solid here which we elaborate on in the Discussion) that the depiction of cancer in the series may have educational and preventive value. The protagonist's disease, showing the diagnosis, and various methods of therapy, and patients' problems, and the encouragement to early diagnosis appearing in the series, can all influence the audiences positively, encouraging them to take care of their health or to

accept the disease. As indicated above, the problem of professional work and the specific behavior of the sick (e.g. making fun of the disease) is also discussed.

C2 – Alexa & Katie

Alexa & Katie is Netflix's original TV show, the only non-medical series with cancer as one of the main themes with this being a rationale for analyzing the text. Both the style of the show and its narrative resemble those of Disney Channel teen shows (Blue, 2017) when it comes to dialogues, humor, and themes, and plot twists.

The main protagonists of the series are two teenagers – Alexa and Katie. When the series begins, they are just starting high school, being best friends, and supporting each other for years. The narrative of the series focuses on teenagers' school and friend and family problems, first love, but also Alexa's cancer, as she is undergoing treatment and chemotherapy. However, the producers do not mention the type of cancer she suffers from. Additionally, they do not depict or describe any medical procedures, but rather focus on the psycho-social aspects of the disease.

Alexa is portrayed as struggling with many difficult situations related with cancer. For example, she is upset when chemotherapy causes her hair to fall out, fearing the reactions of other people. Other issues include Alexa's parent's inability to cope with the disease. In general, viewers follow both girls' high school education, and this turns out to be a turbulent period, not only due to Alexa's illness but also due to various problems teenagers usually face.

From the point of view of EE, discussing cancer may have a positive impact on audiences, especially raise awareness of problems faced by sick adolescents. Due to the absence of any medical information, this is not the series from which one can learn about

cancer. However, showing the social side of the disease and its psychological consequences may influence the audience's beliefs and behaviors.

C2 – Kiss and Cry

We have chosen *Kiss and Cry* considering previously mentioned involvement with series or movie characters, as triggering viewers' emotional reaction, and thus producing EE effects. The movie is based on the true story of Carley Allison, a young skater dealing with severe and rare throat cancer (clear-cell sarcoma). The viewers are introduced to 17-year-old Allison as she prepares to Olympics in Sochi, but she is also portrayed as a typical teenage girl, having many passions, and with a loving and supportive family and friends, and dating a boyfriend. The girl's life changes after being diagnosed with cancer.

The storyline focuses on the different stages of treatment and life with cancer, with Allison trying to be optimistic and enjoying life, an attitude surprising for the medical staff. The therapy is shown realistically but only the basic stages are presented, i.e. Allison undergoes an operation, has a tracheotomy, and chemotherapy.

Kiss and Cry could have therapeutic values. Although Allison eventually dies, the producers portray her as someone who leaves behind a testimony that even the most difficult experiences can be turned into something positive. In one of the final scenes, a teenager writes an emotional letter from her cancer to herself, trying to understand what has happened to her. This is shown as therapeutic and helpful in dealing with the disease. Thus, the movie focuses on the process of dealing with cancer rather than on the disease itself. This seems to make *Kiss and Cry* significant from EE's perspective. The presented ways of coming to terms with cancer and showing the process of going through the various stages of the disease may shape the viewer's attitudes and influence the actions they take.

Discussion

We have demonstrated the potential of Netflix when it comes to cancer EE by comparing the service to two other popular streaming platforms. Netflix has the largest number of series and movies featuring cancer, and a closer look at the three selected ones suggests they could influence the opinions, attitudes, and behavior of subscribers, although, as mentioned, the article does not provide any definitive evidence of that (which we also elaborate on in the following paragraphs).

Nevertheless, given the potential influence of Netflix's storylines, one could assume that it would be beneficial for these to accurately depict cancer medically. In the case of the texts analyzed, only *New Amsterdam* offers any medical information, although we have not verified its accuracy. One could also assume that the absence of cancer medical information may strengthen the myths about the disease. While not making claims about this being the case, we argue – following EE research – that cancer TV shows and movies are beneficial in terms of taking preventive pro-health measures. Watching cancer storylines could make audiences realize the need for examinations. Also, the texts may motivate one to look for reliable information about the disease or to introduce pro-health changes to one's life. From the EE's point of view, it may not be that important to have detailed medical information about cancer, but rather to be aware of its social and psychological aspects, e.g. fears and problems of patients of different ages, or realizing that anyone can have cancer, no matter the age, gender, race, occupation, etc.

Netflix's cancer storylines may strongly influence audiences as the service is widely available, has many subscribers, and the series and movies are emotional, and allow viewers to identify with the protagonists. Additionally, the characters may promote pro-health behavior or give pro-health tips and hints. A large number of cancer texts on

Netflix may contribute to a “normalization” of the disease, hence not treating patients as “others” and “strangers” (Pluta, 2017).

When highlighting a potential Netflix’s EE influence, we are aware of the limitations of our analysis resulting from its exploratory nature. Comparing the three VOD platforms, it is worth noting that their content may change over time, as mentioned before. Besides, we considered only three services, and only these with a subscription model. Also, while searching for series and movies (the stages indicated), we reached only these for which cancer was one of the main narrative elements, as the disease was mentioned in the description or a given text was tagged as being about cancer (excluding medical dramas and movies). We are aware that series and movies other than those listed in Table 1 may include cancer storylines as well. Cancer may be presented occasionally not only in the cases of medical dramas, e.g. only a specific episode of a non-medical series may be about cancer [6]. Additionally, the analysis of the three selected texts is also limited. Firstly, it is not systematic, i.e., we did not pinpoint any units of analysis, e.g. episodes, minutes, threads. The presented overview is purely qualitative, and our study is exploratory exactly because we have selected only three titles.

However, through our exploration, we want to signal that so far there is no EE research not only on Netflix’s (and other platforms) titles or storylines but also on Netflix’s audiences (and we mean here EE perspective). Are the cancer texts and storylines visible at all, and how popular are these, and among what audiences? How is this content consumed and what are the viewers’ practices – e.g. is cancer content binge-watched (Jenner, 2016)? What elements contribute to EE reception of VOD platforms, i.e. personal interest, context of reception, previous knowledge? Future research could answer these questions and also compare the texts from different categories, or thoroughly research series and movies within the same category. Medical dramas or

movies could differ from other genres when it comes to influencing viewers. We have signaled this pointing out that non-medical *Alexa & Katie* and *Kiss and Cry* do not provide any medical information, unlike the medical *New Amsterdam*. Comparing these was not the aim of the study, and is by no means conclusive, but proves the need for further research.

The presented article may be a useful starting point for research on how VOD content may inform about cancer and how audiences perceive cancer-related storylines, a thread worth researching especially due to the growing popularity of streaming services. We do not mean that producers are obliged to provide complete and highly accurate medical information on cancer. Rather, we want to signal the need for studying how the disease is portrayed, and what issues are highlighted or absent, or marginalized. This can help to discover how cancer content shapes audiences' views, attitudes, and behaviors. Research on Netflix (or other VOD platforms) could utilize methods similar to those used in the studies described in the Introduction, e.g. surveys, or qualitative IDIs. One could also use experiments, or longitudinal research designed to measure the effects of series or movies months or years after watching.

We have focused here on cancer, as this disease is researched most frequently when it comes to EE. Nevertheless, future studies should also include series or movies on other diseases, as Netflix (and other platforms) is full of these, e.g. depression, HIV/AIDS, and many other less recognizable ones. Netflix's EE potential is not limited to cancer solely, and this is in line with the EE literature, as researchers study other diseases as well.

For example, Pereira et al. (2014) studied 10 of the most popular American TV series from 2009, 2010, and 2011. Researchers measured the frequency of sexual health content, what type of information appeared, the way sexual health problems were

presented, the stigmatization of sexually transmitted diseases (STD), and the type of role model portrayed. They consider it positive that viewers are exposed to a large amount of health content. However, there are more negatives, as the TV shows did not include many serious diseases, and were related to the treatment, not the preventive measures. Besides, STDs are stigmatized, as only negative role models occur, or the diseases are treated casually or humorously. On the other hand, people with pregnancy issues are typically positive role models. The conclusion reached by Pereira et al. may as well serve as a summary of the presented exploratory study on potential Netflix's cancer content influence. Researchers studying Netflix and other platforms should be sensitive to the stigmatization of patients and also pay attention to how the information on preventive measures is presented. Such analyzes could contribute to producing texts and storylines supporting the well-being of patients and preventing the worst possible outcome of having cancer.

Notes

- 1) <https://spidersweb.pl/rozrywka/2020/04/14/netflix-hbo-go-serwisy-vod-ogladalnosc-koronawirus> (Accessed: 10.06.2021).
- 2) <https://www.justwatch.com/pl> (Accessed: 10.06.2021).
- 3) <https://flickmetrix.com/> (Accessed: 10.06.2021).
- 4) These are both commercial ventures allowing viewers to set up a profile and build one's own library of content to watch.
- 5) <https://spidersweb.pl/rozrywka/2021/03/06/netflix-polska-top-10-new-amsterdam-wyniki> (Accessed: 10.06.2021).
- 6) For example, the *Dead To Me* series, where Jen, a main protagonist, is a BRCA gene carrier who had a double mastectomy, which is revealed in episode four of season 1 ("I Can't Go Back" [2019]) and not mentioned further in the series.

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