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FROM HEALTH CARE PROVIDERS TO Dr. GOOGLE: ANALYSIS OF ONLINE HEALTH INFORMMATION SEEKNG (OHIS) BEHAVIOR AMONG PAKISTANI YOUTH

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ABSTRACT

In recent years, many individuals have turned to the internet and social media platforms to learn about their health. These online tools provide a vast platform for accessing and sharing health information. Youth has grown up in an environment where internet is easily accessible and being digital natives they are addicted to the internet. In Pakistan, there is a higher tendency among young individuals to use social media platforms. But when it comes to using online sources for sensitive information such as health information, it is vital to consider the online health information seeking patterns or behavior of youth because health information found in online sources can be insufficient and incorrect. The current study investigates the online health information seeking (OHIS) behavior and its determinants/factors among youth. A survey involving 500 youth respondents (M= 215, F= 285) was conducted to fulfill the research objectives. The results indicated that youth frequently seek information from online sources. The tendency of searching health symptoms and medicines was greater among youth. The findings also revealed that search engines like Google are the most preferred source of OHI among youth followed by social media platforms. Socioeconomic status and significant health issues were found to have more influence on OHIS behavior among youth. Overall, this study provides valuable information that may be used to develop targeted interventions to enhance or regulate the online health content and support youth in accessing and managing online health information (OHI).

Keywords: Online health information (OHI), online health information seeking (OHIS), online health information seeking behavior (OHISB)

INTRODUCTION

The internet has significantly transformed the way people find and use information (Beaunoyer et al., 2017). Social media and the growth of online health resources offer a huge platform for sharing and seeking health information (Betsch et al., 2012; Butler, 2019; Zimmerman & Shaw, 2020). The behavior of online health information searching is spreading across the world (Zhang et al., 2021) with an increasing number of people seeking health information online (Chu et al., 2017; Kaya & Gündoan, 2018; Murero & Rice, 2013). Eurostat reports a 21% increase in health-related information online searches since 2010 (Eurostat, 2021), with Finland, Netherlands, Denmark, Germany, and US surpassing 70% (Finney Rutten et al., 2019). However, the percentage of people searching for health information online is considerably greater in some Asian countries (Chu et al., 2017: Wang et al., 2021). Patients and their families/friends, as well as others seeking health-related information online in order to achieve good health or a healthy lifestyle, are online health information consumers (Lu et al., 2020). With a growing demand for OHI and the proliferation of diverse media channels, online resources occupy a more prominent role in the health information supply network (Zhang et al., 2017). In fact, consumers conduct their health-related searches using a range of online channels, including "search engines, social networking sites (SNS), online health websites (OHW), and social question and answer (Q&A) sites" (Fox & Duggan, 2013). Therefore, due to this widespread use of online health information, it is crucial to study the online health information seeking behavior among youth.

Health information found on online sources includes "anything regarding the symptoms, diagnoses, and treatments of different diseases or simply general information about weight loss, healthy diets or wellness tips" (Ghahramani & Wang, 2020, p. 1288). People who seek health information from online sources can learn about their health concerns, deal with health problems, make sensible decisions regarding their health, and possibly change their behaviors (Ghahramani &Wang, 2020; Lambert & Loiselle, 2007). People increasingly use the internet to search health issues because it contains a wide range of information, is easily accessible, convenient to search, affordable, interactive, and allows for privacy (Osei Asibey et al., 2017; Lagoe & Atkin, 2015). Moreover, the growing availability of online medical information has the potential to empower individuals and patients (Prescott & Mackie, 2017; Lee & Lin, 2016).

Nonetheless, health information found in online sources can be insufficient and incorrect (Garfinkle et al., 2019). The availability of poor-quality online health information in Asian nations is reportedly more serious than that in Western nations (Varady et al., 2018). People have difficulty differentiating between authentic and unauthentic sources of online information (McElroy & Shevlin, 2014). The internet allows individuals to freely create websites and provide expert advice on various subjects, thanks to the freedom of information. The online health information content and information can vary, ranging from blogs, personal opinions, or the experiences of other patients to scholarly articles or sources reviewed by experts (Tan & Goonawardene, 2017). According to Eastin (2001), most health information websites are not written by medical professionals and lack supervision from regulatory organizations or compliance with ethical regulations. The reliability of the information may be questionable, resulting in quick, uninformed, and potentially harmful health decisions (Schulz & Nakamoto, 2013).

The importance of the internet as a means of information for users, especially those dealing with some illness, and how it compares to other media has been the subject of extensive research and received considerable attention from the academic community (Eysenbach, 2009; Raupach & Hiller, 2002). Several studies have examined the online health information seeking behavior of people with certain diseases, such as prostate cancer patients (Smith et al., 2003) or lung cancer patients (Peterson & Fretz, 2003), and of those who are concerned about the health of loved ones such as mothers searching health information for their children's health (Bernhardt & Felter, 2004). Some researchers have also studied the factors that influence individuals' preferences for obtaining health-related information through the Internet (Brashers et al., 2006). According to the findings of one study, many consumers searched the internet for health-related information. 91% of them were looking for details about a particular illness, and 26% were curious about mental health issues (Rice, 2006). Some studies have also discussed various levels of involvement in internet-based health communication activities, as well as the influence of demographic and other social characteristics, such as health status and illness experience, on user attitudes and actions toward health information (Atkinson et al., 2009).

The current study, however, suggests that online health information seeking behavior and the factors/determinants that influence OHIS behavior should be studied in the perspective of

youth. This is so because research indicates that young people they value internet health information for self-education and informed decisions (Fox & Duggan, 2013). The Pew Research Center's research on youth's online behavior reveals that many teenagers and youngsters utilize social networks and mobile internet to access health-related information (Madden et al., 2013; Smith, 2014). The rising trend of young people seeking internet health information is attributed to the easy accessibility of internet-connected devices, such as smartphones and tablets (Zhang et al., 2018), and the availability of health-related resources like medical websites, online forums, and social media platforms to seek advice and support from their peers (Schneider et al., 2020). The digital generation, known as digital natives, has grown up in an environment where the internet is a fundamental aspect of their existence. As a result, they possess a natural tendency to rely on online resources for obtaining information (Cain et al., 2010).

The current study is an important effort to assess the OHIS behavior of youth as in health communication research, little attention is given to the significance of youth as a variable. The current study intends to address this research gap. This study will help as a foundation for future researchers in the area of online health information. It will introduce new areas of investigation, provide opportunities for further exploration, and make additional research questions on the online health information searching behaviors, information needs of youth and its associated risks. This research will also be useful for stakeholders, such as web developers and medical professionals who use the internet professionally. Data on the main characteristics of online health information seekers and an understanding of the elements that influence them will aid in recognizing the information requirements of those who seek online resources. Self-care may depend on how effectively individuals use health-related information. So, this study will also help improve the online health-related content for prevention efforts which will help people to make better decisions regarding their health and medical treatments (Kalantari et al., 2021) instead of self-diagnosing and getting worried. From a management perspective, this research will help the government to control web-based health information (Cuan-Baltazar et al., 2020) through the enhancement of search engine properties (e.g., internet search ranking criteria) and knowledge of health resources among online health-information seekers, as well as a better understanding of youths' preferences for some health websites over others (Starcevic & Berle, 2013).

LITERATURE REVIEW

In recent years, many people have turned to the internet and social media platforms to learn about their health (Zimmerman & Shaw, 2020) as these resources offer a huge platform for finding and sharing health information (Betsch et al., 2012). The health information on online sources can be categorized into curative and preventive health information. From the perspective of curative health information (CHI), consumers benefit from access to accurate online health information about diseases. It can help reduce anxiety (Arora et al., 2002), increase feelings of self-efficacy, and lead to a decrease in the use of outpatient care (Killen et al., 1989). Other reported benefits of OHI include assisting individuals in improving self-care practices (Fox & Rainie, 2000) and enhancing their knowledge of health-related matters (Baker et al., 2003). Similarly, internet use for PHI (preventive health information) is growing, which includes guidance on healthy lifestyles, exercise, and nutrition. However, the standard of online health-related content can vary significantly (Shah et al., 2013), and it generally fails to cater specifically to users' individual needs.

The advantages of seeking health information from online platforms manifest in a variety of ways. Internet use before going for a professional diagnosis has the potential to improve patient-physician relationships, and people are more inclined to believe their doctors' opinions if they discuss their web results with them (Peng et al., 2020). Individuals are more likely to alter their health choices when they access health information online more frequently (Ayers & Kronenfeld, 2007). The internet may also enhance the skills of chronic disease sufferers in controlling their condition (Madrigal & Escoffery, 2019; Jin et al., 2019). Moreover, searching health information from online channels concerning health issues or symptoms offers advantages; for example, people can easily find information related to their requirements since information is always available and freely accessible, expenses are minimal or nonexistent, and searching may be conducted anonymously. Additionally, searching for OHI can give individuals some power to control their health, facilitate social assistance, and help patients in coping with health concerns (Starcevic & Berle, 2013). According to research, people looking for medical information online have favorable outcomes, for example, a greater sense of confidence in asking their doctor questions and making sound healthcare decisions (Fox, 2006). In light of this, when one needs health information, one may find that consulting internet health information can

provide an answer that is just as satisfactory as consulting a physician. But does it? Given that online sources are widely available and the internet has emerged as a major resource of health-related information, it is also critical to understand the implications of searching such type of information through online sources (Fox & Jones, 2009; Lee & Hawkins, 2010).

On the contrary, studies concerning the drawbacks of an abundance of publicly available online medical information are also available in the literature. Web 2.0 (health blog posts, health-related social networking groups, and YouTube), especially its medical versions Health and Medicine 2.0 are characterized by a huge increase in user-generated content and it has led to growing concerns about the standard and accuracy of health information available online (Fullwood et al., 2018). Even if the health information people find online is very accurate, it can still affect their health in some ways. This has been explained by the term "contextual deficit," which is indicative of health information shared online (Eysenbach et al., 1998, pp. 1496). A lack of context makes it more likely that correct information will be used incorrectly. This can happen when a message intended for professionals is read by a non-professional when information related to a specific clinical context is moved to another frame of reference where it loses its validity, when information is outdated, or when information is presented in a certain language and is misunderstood (Eysenbach et al., 1998). Individuals with low health literacy may experience difficulties in understanding and effectively using health-related information that they get (Chung, 2013; Lee, 2008). Another problem with internet-based health information is that the information is frequently of low quality with no reliability and credibility (Lee, 2008). For instance, websites may have a professional appearance but they may not provide quality or researched content that is reviewed and verified by the experts. Additionally, there is no quality assurance for web health information (Cotten & Gupta, 2004), making it more difficult for customers to evaluate the validity and quality of the information they get online (Lee, 2008). Furthermore, having access to a wealth of medical knowledge can benefit individuals, but it can also cause them distress or lead to misinformation. Evidently, studies have shown that consumers feel uneasy and overburdened by online information (Chung, 2013; Fox, 2006).

Despite these drawbacks of OHI, still the most popular source of health information is the internet (Andreassen et al., 2007). On average, 50 to 70% of internet users worldwide seek health information online once a year (European Commission, 2013; Fox & Duggan, 2013). With the

advancement of information technology and social media, online HISB has been changing, suggesting that there may be major variations between the health information of consumers' earlier online HISB and the present HISB (Jia et al., 2021). Consumers employ a range of online resources for health-related inquiries (Fox & Duggan, 2013). In 2012, it was reported that around eighty percent of online health searches begin with search engines like Google or Yahoo (Fox & Duggan, 2013). These search engines aggregate information from numerous sources and are easy and valuable to consumers (De Choudhury et al., 2014). According to Zhang et al. (2017), social networking sites or SNSs based on genuine social links, such as Facebook and Twitter, are more commonly used for sharing and discussing less severe symptoms and health conditions.

Online health information seekers are interested in many health subjects. According to a number of studies, disease information is the most often searched topic by OHI seekers (Li et al., 2016; Ramsey et al., 2017). Other common search terms include symptoms, medicine, therapy, exercise and physical fitness, and nutrition or diet (Madrigal & Escoffery, 2019; Ramsey et al., 2017; Wong & Cheung, 2019). However, there is no formal classification or consensus about these prevalent health concerns. By evaluating prior research, these subjects may be categorized primarily into two categories: (1) healthy habits, which include information on nutrition or food, exercise, and body maintenance; and (2) medical concerns, which include information about disease, drugs, and therapies (Li et al., 2016). Among these two kinds, those with greater health risks are more likely to seek medical information (Wong & Cheung, 2019). For example, compared to the population without chronic disease, those with chronic diseases are more likely to look for information regarding medications (Madrigal & Escoffery, 2019). Evidence indicates that medical information appears to be the most popular health-related content on the internet.

However, various demographic groups have varying preferences for health information, and how the characteristics of those who seek this information may vary remains unclear. A researcher suggested that young people feel hesitant while talking to their parents or a doctor about sensitive health issues. Instead, they turn to social questions and answers sites (Bowler et al., 2015). Consequently, it is vital to examine the most recent trend in online HISB research, particularly among social media-addicted youth. Therefore, the current study attempts to evaluate the OHIS behavior of youth in terms of how frequently they conduct online health

searches, their preferred online channels for seeking health information, and what health information they look for online.

Previous studies have investigated how socio-demographic characteristics impact OHIS behavior. Those who are female, younger, better educated, or have a larger household income are more susceptible to OHIS (Ghweeba et al., 2017; Wang et al., 2022). The socio-demographic characteristics of gender and education highly predicted OHIS in both 2002 and 2012, while age and income were significant predictors in 2012 but not in 2002, according to an analysis of two Pew datasets gathered in 2002 and 2012 (Li et al., 2016). It has also been found that Internet access and OHIS activity differ by race and ethnicity (Din et al., 2019; Sherman et al., 2020). Other factors, including health status (Ghweeba et al., 2017) and work status (Sherman et al., 2020), were statistically significant in OHIS behavior. Age, gender, education, income, race, and experience were identified as social predictors of OHIS in a meta-analysis (Wang et al., 2022). In summary, the majority of research suggests that age, level of education, income, and ethnicity are the most important features influencing the behaviors of online health information seekers (Chen & Zhu, 2016). Others have discovered the influence of demographics and other social factors, such as health status and illness experience, on users' attitudes and behaviors toward online health information (Atkinson et al., 2009). However, from among all the factors those which are most likely to influence the online information seeking behavior of youth are not yet included. Therefore, the "Comprehensive model of information seeking (CMIS)" (Johnson et al., 1995, pp. 274–303) is used as a theoretical framework in this study to examine the online health information seeking behavior of youth and the factors that influence this behavior.

The CMIS is very helpful for health communication researchers as it provides a comprehensive framework for understanding how people seek information about health. This model was developed by J. David Johnson in 1997 and then began to be used in different fields including information science and health communication. The framework consists of three main components including user-related factors, information carriers, and information-seeking behaviors (Johnson, 2002). It has been used in different studies including internet use (Wang & Metzger, 2005), cancer patients (Kreps & Neuhauser, 1998), and AIDS patients (Rimal et al., 1999) to find the OHIS behavior and factors that influence information seeking activity of people. The current study partially adopts the CMIS to assess the consumption patterns and

determinants of OHIS. The researcher has drawn from the CMIS model, the antecedents (socio-demographics and illness experience) to identify the factors that influence information seeking behavior of youth and the actual online information seeking activity or behavior, including the duration and intensity of online searches (frequency), the depth or dimensions investigated (topics or types of information sought), and the method of search (channels) (Johnson et al., 2001).

Research Objectives

The objectives of the study are:

- To assess the OHIS behavior or consumption patterns of youth.
- To find the determinants/factors that are more likely to influence OHIS behavior among youth.

Research Questions

1. What are the consumption patterns of OHI or OHIS behavior among youth?
   (i) How frequently youth conduct online health searches?
   (ii) Which is the preferred online channel for seeking health information among youth?
   (iii) Which health topic/information youth seek from online sources?
2. Which determinants are more likely to influence OHIS behavior among youth?

METHODOLOGY

This study used a quantitative approach and applied a survey methodology for data collection. The survey method was chosen because it was considered appropriate for achieving the research goals and addressing the research questions. The survey helped in collecting quantitative data on OHIS behavior and the factors influencing OHIS behavior among youth. The survey included questions with predetermined answer options to mark (i.e., close-ended questions). The researcher developed the survey by reviewing existing research literature and scales. Participants responded using a five-point Likert scale.

Target Population

The target audience of the study was Pakistani youth from 15 to 29 years who use OHI. The study included 500 young individuals who successfully completed the survey, with a gender distribution of 43% males (N = 215) and 57% females (N = 285).

Sampling Technique

Convenient sampling technique was employed to select participants for this study. This method involves the selection of conveniently accessible and active participants. At various locations, such as university campuses, community centers, online forums, and social media platforms, participants were requested to complete surveys. Recruitment of participants is made simple and effective by simple random sampling since respondents willingly complete surveys with high levels of engagement. It also allows the researcher to reach a diverse target population from diverse settings and backgrounds, not limited to a specific group like universities.

Survey Instrument

The survey aimed to gather data on OHIS behavior and the determinants influencing OHIS behavior among young people in Pakistan. It included the two sections.

1. Questions related to online health information seeking behavior
2. Demographic factors, self-rated personal health, and experience with general and significant health issues.

Online Health Information Seeking Behavior (OHISB)

Online health information seeking behavior was assessed based on the CMIS framework and the literature review. According to the CMIS, patterns that users follow when they are looking for health information are called information seeking behaviors. The behavior of searching can be described based on its extent, which refers to the number of activities performed or how many times a user looks for health information. This extent is made up of two components: scope, which refers to the alternatives (health topics or issues) individuals explored, and depth, which refers to the number of each alternative that are investigated (frequency of searching for health topics). Another significant aspect of the search process is the search method, also known as the search channel. For example, a person might prefer to check with a telephone information service. They may decide to focus on a specific health issue by asking questions, but thoroughly investigate every suggestion, which would enhance the depth of their search (Johnson et al., 2001). Therefore, the items for assessing OHIS behavior in this study included the frequency of online health information seeking, the online sources or channels used, and the types of topics sought. The researcher designed the scale items with the help of a literature review of this study

and the reliability scored 0.821, using chronbach's alpha. Thus, the psychometric properties of the scale are favorable, exhibiting strong internal consistency and reliability.

Determinants of OHIS Behavior

Determinants of OHIS behavior were measured based on the CMIS model and literature review.

Socio-Demographic factors. The socio-demographic factors of gender, age, education level, employment status, income level, and health status were included in the study. These factors were drawn from the CMIS and their evidence was found in the literature review.

Illness experience. Illness experience was measured on the basis of the CMIS model, which suggests that there is a strong connection between the experience of an illness and the needs and behaviors related to information (Johnson & Johnson, 1997).

RESULTS

Online Health Information Seeking (OHIS) Behavior among Youth

The researcher used descriptive statistics to assess OHIS behavior and consumption patterns among youth. The given frequency tables 1, 2, and 3 present data on the participant's frequency of using online health information, the types of topics they search for, and the sources they use, respectively.

Table 1

Frequency Distribution of Participants Online Health Information Searching

	Frequency	Percent
Neutral (no exact idea)	19	3.8%
Rarely	65	13%
Sometimes (when needed)	173	34.6%
Often	158	31.6%
Very Often	85	17%

Note. N = 500, Mean = 3.45 for frequency. Scale values, neutral to very often (1-5).

According to the findings presented in Table 1, a significant proportion of the participants engage in frequent online searches for health information. The mean score for the frequency of online health information searches was 3.45, indicating a relatively high level of engagement.

Specifically, 85 (17%) participants responded that they very often search for health information online, while 158 (31.6%) reported doing so often. Additionally, 34.6% of participants indicated that they sometimes engage in online health information searches when they need it. While only a small number of participants (13%) rarely search for health information online. Hence, from these results, it is concluded that youth frequently use online platforms for health information.

Table 2

Frequency Distribution of Health and Medical Topics Participants Search Online

	Disease symptoms	Drugs/medicine/ supplements or vitamins	Therapies or treatments for minor health issues	Healthy diet/ nutrition or food	Physical fitness (exercise or body maintenance)
	Frequency (Percentage)				
Not at all	12 (2.4%)	25 (5%)	20 (4%)	23 (4.6%)	37 (7.4%)
Rarely	16 (3.2%)	30 (6 %)	30 (6%)	67 (13.4%)	75 (15%)
Sometimes	55 (11%)	81 (16.2%)	112 (22.4%)	129 (25.8%)	133 (26.6%)
Often	153 (30.6%)	196 (39.2%)	172 (34.4%)	164 (32.8%)	162 (32.4%)
Very Often	264 (52.8%)	168 (33.6%)	166 (33.2%)	117 (23.4%)	93 (18.6%)

Note. Scale values, not at all (1), to very often (5).

The findings in Table 2 suggest that the majority of participants, 264 (52.8%), very often and 153 (30.6%), often engage in online searches for disease or health-related symptoms. The mean score for this category was 4.28, indicating a relatively high level of interest and frequency in seeking information about disease or health-related symptoms. Furthermore, participants also showed a notable interest in searching for information related to drugs and medicines, as indicated by a mean score of 3.90 and 33.6% searching very often and 39.2% often. The

frequency of searching for other topics including therapies, or treatments, healthy diet or nutrition, and physical fitness was relatively lower compared to disease or health-related symptoms and information about drugs and medicines.

Table 3

Frequency Distribution of Online Sources Participants Use for Health Information

	Search engines (e.g., Google)	Health-related websites (e.g., Mayo Clinic)	Social media (e.g. Facebook, YouTube)	Health-related apps	Online forums (Q/A websites)
	Frequency (Percentage)				
Not at all	17 (3.4%)	105 (21%)	62 (12.4%)	251 (50.2%)	301 (60.2%)
Rarely	35 (7%)	147 (29.4%)	123 (24.6%)	137 (27.4%)	132 (26.4%)
Sometimes	54 (10.8%)	101 (20.2%)	114 (22.8%)	64 (12.8%)	43 (8.6%)
Often	106 (21.2%)	68 (13.6%)	80 (16%)	35 (7%)	20 (4%)
Very Often	288 (57.6%)	79 (15.8%)	121 (24.2%)	13 (2.6%)	4 (0.8%)

The findings in Table 3 suggest that search engines, such as Google and Bing, are the most preferred source for searching health information among the participants. The majority of the participants (57.6%) use search engines very often and 21.2% often. It was also found that many participants (24.2%) also use social media platforms as a source of getting health-related information. This finding suggests that social media is becoming a popular resource for individuals to seek information about health topics. Moreover, the results also indicate that medical websites are also used by some participants (15.8%). In comparison, only a limited number of participants use health-related mobile apps (7%) and online question-and-answer forums (4%).

Multiple Regression Analysis to Examine the Determinants Influencing OHIS Behavior among Youth

The multiple regression analysis was used to analyze which socio-demographic determinants are more likely to influence online health information seeking behavior among youth. The results were analyzed by beta coefficients and p values for each predictor variable, as shown in Table 4.

Table 4

Findings of Multiple Regression Analysis

Effect variables	B	T	*P*	95% Confidence interval	
				LL	UL
Gender	.122	.257	.798	-.809	1.053
Age	.159	.379	.705	-.666	.984
Education level	.605	1.52	.129	-.176	1.387
Employment status	-.271	-1.42	.157	-.645	.104
Income	.477	2.70	.007	.130	.824
Health status	-.244	-.881	.379	-.787	.300
General health issues	-.273	-.406	.685	-1.597	1.051
Significant health issues	1.358	2.159	.031	.122	2.594

Note. B = beta value, LL = upper limit, UL = upper limit.

R^2 = .056, Sig. = <0.001.

The p-value below 0.001 (i.e., $p < 0.001$) suggests that the regression model used in the study is statistically significant. The findings indicate that the factors being studied (independent variables) have a significant impact when considered together, and their combined effect is not likely due to random chance. The R-square value of 0.056 predicts that the independent factors used in the regression model can account for approximately 5.6% of the differences in OHIS behavior among youth. Moreover, the results of the regression analysis indicate that both income and significant health issues have a statistically significant influence on the OHIS behavior of youth.

Table 4 shows that for income the coefficient is 0.477, and the p-value is 0.007, which suggests that higher income is associated with increased online health information seeking behavior. Similarly, the coefficient for significant health issues is 1.358, with a p-value of 0.031, which indicates that having significant health issues is also linked to a greater likelihood of seeking health information online. Furthermore, the regression analysis found that factors such as age, education level, gender, work status, health status, and general health issues do not have a significant impact on the online behavior of health information seeking among youth. This conclusion is based on the fact that their p-values are greater than 0.05, which is statistically insignificant.

DISCUSSION

The importance of the Internet as a means of information for users, especially those dealing with some illness has been the subject of extensive research and received considerable attention from the academic community (Eysenbach, 2009; Raupach & Hiller, 2002). However, the current study intended to investigate the online health information-seeking behavior of youth and to examine the determinants which are most likely to influence the OHIS behavior among youth. While previous studies suggest the patients (Smith et al., 2003; Peterson & Fretz, 2003) and the loved ones concerned about health of family members (Lu et al., 2020; Bernhardt & Felter, 2004) search for health information online, the current study focused on the inclination of youth towards OHIS. The current study revealed a high level of engagement among youth in online health searches. These findings reinforce the notion that the behavior of seeking health information online is spreading worldwide (Zimmerman & Shaw, 2020 & Zhang et al., 2021) even among youth being the digital natives.

The current study also revealed that youth prefer using search engines like Google and Bing to access health information. While in earlier studies it was found that consumers conduct their health-related searches using a range of online channels, including “search engines, social networking sites (SNS), online health websites (OHW), and social question and answer (Q&A) sites” (Fox & Duggan, 2013), This means in this digital era, youth trust Google as an informational authority believing that if someone in the world has an answer; Google has an answer (Shukla, 2022). Additionally, a significant portion of youth also use social media platforms as a means of accessing health-related information, and earlier works have already

emphasized this trend. According to Zhang et al. (2017), social networking sites or SNSs based on genuine social links, such as Facebook and Twitter, are more commonly used for sharing and discussing less severe symptoms and health conditions. Furthermore, the current study also identified a considerable interest among youth in searching for health issues and symptoms online, with most participants frequently engaging in such searches. Youth is also found to be searching more often for drugs and medicines-related information. These findings are supported by other studies that show disease information as the most often searched topic by online health information seekers (Li et al., 2016; Ramsey et al., 2017: Wong & Cheung, 2019). As for patients, it is justified to search for health-related information but the finding of the current study is surprising in the way that youth being young and active are searching for curative health information instead of searching for healthy lifestyles, diet, and fitness i.e. preventive health information. The reason could be that they feel reluctant to talk about their health issues with elders and doctors ((Bowler et al., 2015). In relation to uses and gratification theory, these findings suggest that individuals use and consume media for health information to cater to their needs (Katz et al., 1973).

Secondly, although previous studies have investigated how socio-demographic characteristics (Ghweeba et al., 2017; Wang et al., 2022), health status, and illness experience, (Atkinson et al., 2009) impact OHIS behavior. The current study evaluated which factors/determinants are more likely to influence OHIS behavior among youth. From among the already defined determinants of OHIS behavior, the multiple regression analysis revealed that income and significant health issues are more likely to influence the online health information seeking behavior of young people. This means that youth with experience of significant health issues and higher income are more likely to search for health information for gratifying disease-related information needs and it is consistent with the assumption of UGT (Katz et al., 1973). Moreover, the association of significant health issues with OHIS behavior is supported by the CMIS, which states that there is a strong connection between the experience of an illness and the needs and behaviors related to information (Johnson & Johnson, 1997). For instance, young individuals who experienced a significant health incident or have a relative with a chronic condition may have increased motivation to seek health-related information on the internet. On the other hand, the finding that youth with high income have a higher tendency to engage in

OHIS behavior is supported by the assumptions of knowledge gap theory. First, people with high incomes are more educated and digitally literate to be able to use online sources for health information. Second, those with greater incomes have better access to information because they can afford advanced technology like high-speed internet and internet-connected devices like computers or laptops and smartphones (Tichenor & Donohue, 1970).

CONCLUSION

Overall, the current study contributes to the existing body of knowledge about the behavior of online health information searching with special reference to youth. The widespread use of search engines and social media for health information among youth highlights the need for reliable and accurate health information dissemination through these platforms. Furthermore, the interest in searching for specific health topics, such as drugs and medicines, emphasizes the importance of providing trustworthy and up-to-date information on these subjects online. In this digital era, when young people feel hesitant while talking to their parents or a doctor about sensitive health issues and turn to social questions and answers sites (Bowler et al., 2015), the digital landscape continues to evolve. Consequently, understanding online health information seeking behaviors becomes crucial in developing effective health communication strategies to meet the needs of different populations so that they do not result in psychological or behavioral issues.

Future studies should focus on using diverse and representative samples from different age groups, cultural backgrounds, and socioeconomic statuses to enhance generalizability and provide a comprehensive understanding of OHIS behavior of different populations. In addition, a combination of quantitative and qualitative research methods, e.g., extensive interviews and focus groups can enhance understanding of the motivations of online health information seeking behavior among people. The list of variables influencing online health information seeking behavior also has to take into account other OHIS-related elements, such as the reliability of the information source. Intervention studies are also needed to find ways to control excessive online health information searches, for instance, training programs or strategies that motivate people to seek knowledge in healthy ways, preventing the negative consequences of OHI.

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