

USES AND GRATIFICATION OF INTERNET CONSUMPTION BEHAVIOR OF FEMALES – DIGITAL HEALTHCARE MARKETING PERSPECTIVE

Harikishni Nain

Professor, Department of Commerce, Bharati College, Delhi University, India,

E-mail: harikishni@gmail.com

ABSTRACT

This paper attempts to explore the uses and gratification of Internet consumption behavior among females from the perspective of digital healthcare marketing. The United Nations Beijing Declaration and Platform for Action recognized media as an important tool for women's empowerment and hence demands increased participation and access by women in the development and adoption of media and new technologies of communication for their well-being. Past researchers have also recognized the grim ground realities in this regard and suggested that the availability of timely information will facilitate the females' ability to control all aspects of their health, privacy, confidentiality, respect, informed consent, and fertility. All these are basic to their empowerment. The understanding of the uses and gratification of Internet consumption behavior by females will significantly enable the various stakeholders to empower females in terms of their access to affordable, quality health care. This is an empirical study based on primary data obtained from a survey of 171 Indian females conducted with objectives to (i) gain an understanding of how, why, when, and where women consume the Internet in India; and consequently, (ii) alert marketers, policymakers, and researchers to the numerous prospects, particularly in the area of digital health marketing.

Keywords –Uses and gratification, digital divide, digital health marketing, India

INTRODUCTION

The United Nations' "Beijing declaration and platform for action", adopted by 189 countries in 1995, is a progressive blueprint to secure and guide the commitment of various stakeholders including governments, institutions, civil society, and the private sector to work collectively for the betterment of women and girls in terms of twelve critical areas, i.e., environment, violence, institutional mechanism, armed conflict, poverty, decision-making, the girl child, education, training, health, human rights, and media, for women and girls (United Nations, 2015). Even in cases where men and women suffer from the same health conditions, women are forced to experience them differently due to: (i) their economic dependence on men (Green et al., 2021; Ahmad et al., 2018; Khanal, 2015); (ii) prevalence of poverty; (iii) inadequate sanitation facilities; (iv) experience of violence; (v) gender stereotypes; (vi) discrimination and myths; (vii) prevailing household inequalities regarding access to health care services, education and nutritional food (Green et al., 2021; Serrano-Cinca et al., 2018); (viii) limited mobility; (ix) restricted financial autonomy; and (x) limited participation in decisions over their sexual and reproductive lives having an adverse impact on their health (Radhakrishnan, 2023; Green et al., 2021; Ahmad et al., 2018; Serrano-Cinca et al., 2018; Khanal, 2015). The existence of all these factors across cultures and countries resulting in none or wrong diagnosis of these health issues which overburden women and negatively impact their health and wellbeing.

Apart from these, certain health issues such as mensuration, cancer (breast, ovarian, cervical and reproductive tract), menopause, and pregnancy are only women centric. Where again the awareness level and availability of proper information regarding the diagnosis of them is very low endangering the very existence of females' suffering from them. Further, according to the available data, as compared to men, women suffer higher heart attack deaths, more frequently exhibit symptoms of depression and anxiety (Radhakrishnan, 2023; Blank & Groseļj, 2014), affected more regularly by urinary tract conditions and sexually transmitted diseases. In this situation, the Internet can play a significant role as has also been advocated by the United Nations in its Fourth World Conference on Women in 1995 whereby it had been suggested that the member countries must work for the betterment of women's health by (i) providing with timely information and related services; (ii) properly informing about preventive health policies and

programs that promote their health; (iii) making available the required funds for research on their health; and (iv) making provisions to monitor the actions taken in this regard on regular basis. The understanding about the Internet consumption behavior can play a significant role in the realm of digital healthcare marketing. Understanding how females consume the health-related content online can help healthcare organizations and marketers effectively reach and engage with them. Previous researchers have amply suggested that people frequently turn to the internet to seek health-related information by searching for symptoms (Chang et al., 2015; Penard et al., 2015), medical conditions, treatment options, and healthcare providers (Zheng & Ma, 2022; Tchamyou et al., 2019; Kumar, 2016; Blank & Grosej, 2014). Under this background, the understanding about the uses and gratification of Internet consumption behavior of females can provide significant clues as to how the healthcare facilities be made more female centric, easy to approach for them, trustworthy, and affordable. With this objective, the present study is being undertaken in Indian settings but the study results can also be replicated in other countries as well.

THEORETICAL FOUNDATION AND HYPOTHESES FORMULATION

Uses and gratifications theory

Propounded by Blumler and Katz (1974), the uses and gratification theory is an audience-centric positivistic approach to understand the reasons behind the mass consumption of a particular type of media. The focus of this theory is on the motives, goals, and needs of people for whose satisfaction they use different type of media at different points of time. Like other tangible products that are easily available in the market for sale, purchase, and consumption at mass level, it assumes media also to be an easily available product that can be demanded and consumed by people at mass level as per their individual requirements. This theory enumerates the reasons for making a deliberate choice for a particular media option by users that will satisfy their given needs apart from enhancing their knowledge, social-interactions, entertainment, diversion and escape (Devadas and Meghana, 2021).

Katz et al. (1974) have suggested five components of uses and gratification approach, i.e., (i) active audience; (ii) media choice that provides gratification; (iii) competition between media and other sources of satisfaction; (iv) individual audience's accumulated goals that are actually the goals of mass media use; and (v) audience orientations. According to them these five components are significantly important to understand the mass communication perspectives as people use media to acquire information, entertainment, social interactions, escape from stress, and imitate the media characters (Vatsa et al., 2022; McQuail, 2010). This theory assumes that users of media play an active and decisive role in deciding not only their media consumption but also in interpreting and integrating the existing media options in their lives to satisfy their needs and achieve gratification thereof. This results in competition amongst the available media alternatives for viewers'/users' gratification (Vatsa et al., 2022; Zhu et al., 2020).

Another implication of this theory is that the users have various media options available to them to satisfy their media related needs and each media option has different functions, benefits, and limitations. This approach assumes that it is the content of the media which is important for the users to satisfy their needs, hence, the users choose media content on the bases of their cognitive, social, psychosocial, para social, habitual, motivational, entertainment, esteem, recognition, and informational requirements. Over a period of time, this theory has been widely used to study nearly all kinds of mass media tools () started from radio (Lazarsfeld, 1940), comic books (Wolfe & Fiske, 1949), newspaper reading (Berelson, 1949), movies (Rehman, 1983), VCRs (LaRose et al., 2001), Cable TV (LaRose et al., 2001); Palmgreen & Rayburn, 1985), computer and video games (Al-Rahmi et al., 2020), mobile phones (Leung & Ran, 2000), text messaging (Al-Rahmi et al., 2020), Internet (Vatsa et al., 2022; Leng et al., 2020), Snapchat (Grieve, 2017), and

Facebook (Menon & Meghana, 2021; Zhu et al., 2020). Based on this discussion, it seems appropriate to hypothesize that:

- H1:** Females’ frequency of the Internet consumption varies across (a) the activities undertaken; and (b) their age.
- H2:** Females’ ways of locating the relevant websites varies by their age.
- H3:** Females’ usage of various sources to acquire sensitive health-related information vary across the available options.

RESEARCH METHODOLOGY

Sample Design and Profile

This is an empirical study based on primary data obtained from a survey of 171 Indian females. Guided by a literature review in terms of females’ age-based informational needs for peculiar health issues ranging from the pubertal onset to menarche, the study sample covered females a wide range of respondents of 15 to 60 years of age. Based on the survey precondition, i.e., the respondent must be able to surf the Internet independently, initially 250 females from various socio-economic-cultural background were approached across the selected age groups, 226 filled the questionnaire and finally the responses from 171 females could be used for this research. As recommended by previous researchers, purposive sampling technique was adopted for sample selection to ensure the representativeness of the sample. The respondents were ensured confidentiality. The survey took place in the month of July 2023. Surveyed sample composition is provided in Table 1.

Table 1: Sample Composition

Characteristics	Number (N = 171)	%	Characteristics	Number (N = 171)	%
<i>Residential Area</i>			<i>Educational Qualification</i>		
Rural	77	45	Illiterate	10	6
Urban	94	55	Up to class 12	75	44
<i>Age (years)</i>			Graduation and above	86	50
15-30	46	27	<i>Family Size</i>		
30-45	74	43	Small Family	115	67
45-60	51	30	Large Family	56	33
<i>Employment</i>			<i>Family Type</i>		
Working	62	36	Joint Family	48	28
Non-working	109	64	Nuclear Family	123	72

RESULTS

Consumption of Internet in general

The first part of the first hypothesis (H1a) proposed that females’ frequency of the Internet consumption varies across the activities undertaken. To this end, seven activities, i.e., shopping, cooking, travel and tour, entertainment, employment, health care, and education were identified for which the Internet may be used by the respondents almost on daily basis. The respective data were collected using a 5-point scale (Table 2). The mean Internet usage scores as enlisted in Table 2 are different from each other indicating that the frequency of Internet usage varies across activities. The mean scores also indicate that usage of the Internet is more popular for informative purposes than for shopping and entertainment in this order. Rankings were assigned

to the listed activities based on mean usage scores. As per these rankings, the usage of the Internet is highest for gathering health-related information (Mean = 3.96; Rank = I) and the least for cooking (Mean = 2.69; Rank = VII). For statistical validation, one sample t-test was applied by taking 2.5 (scale mid-value) as the test value. All the t-values were found to be significant at $p < .001$, and $P < .05$ leading to the acceptance of H1a.

Table 2: Internet Usage: t-test

Type of activity	Mean (SD) ¹	Ranking ²	Mean Difference ³	t-value	Sig.
Shopping	3.49 (1.29)	IV	0.99	16.27	.000**
Cooking	2.69 (1.44)	VII	0.19	10.66	.000*
Travel and Tour	3.42 (1.13)	V	0.92	15.98	.000**
Entertainment	3.01 (1.38)	VI	0.51	7.28	.000*
Employment	3.68 (1.27)	III	1.18	19.32	.000**
Health Care	3.96 (1.12)	I	1.46	25.51	.000**
Education	3.74 (1.19)	II	1.24	18.16	.000**
* $p < 0.05$, ** $p < 0.001$					

For the statistical examination of the assertion made by the second part of the first hypothesis (H1b), i.e., females' Internet consumption for various activities varies across their age, the ANOVA test was applied to mean Internet usage scores for various age groups, and the corresponding results are summarized in Table 3. Differences can be observed in the mean usage of the Internet across age groups of the respondents. In the first two age groups, the highest consumption of the Internet was for obtaining health-related information as compared to the third age groups respondents who have used the Internet most for gathering work-related information. The usage of the Internet for finding out new cooking recipes was found to be minimal for all age groups females. Although, the mean scores are different, indicating that the usage frequency of the Internet for listed activities varies across the age groups of the respondents, however, ANOVA test results found these differences to be significant at $p < .001$, and $p < .05$ only in five out of seven cases leading to the partial acceptance of H1b.

Table 3: Age-wise analysis of Internet usage: ANOVA

Type of Activity	Internet Usage across Age Groups (Mean)				F-value	Sig.
	N = 171	15-30	30-45	45-60		
Shopping	3.51	3.66	3.41	3.47	0.24	1.121
Cooking	2.69	1.33	2.61	3.15	3.32	.024*
Travel and Tour	3.42	3.43	3.38	3.52	3.12	.015*
Entertainment	3.01	2.69	3.29	3.48	4.76	.001*
Employment	3.74	3.44	3.86	4.15	0.15	.962
Health Care	3.96	3.86	4.18	3.95	5.92	.000**
Education	3.68	3.44	3.86	4.10	5.63	.000**
* $p < 0.05$, ** $p < 0.001$						

The second hypothesis (H2) states that females' ways of locating the relevant websites vary by their age. In this direction, first, responses were obtained for four possible options (random browsing, parents/children/friends/others, print, and Radio/TV advertisements) on a five-point scale. Secondly, the corresponding mean scores were calculated, and finally, a one-way ANOVA test was applied (Table 4). Analysis results indicate that out of the listed options, random browsing is the most popular way chosen by the respondents across all age groups to find out about the relevant websites (Mean = 3.95) followed by

asking parents/children/friends/others (Mean = 2.89), print advertisements (Mean = 2.02), and Radio/TV advertisements (Mean = 1.79). A similar result exists across all the four age groups of the surveyed sample. However, statistically, these differences were found to be significant only in three of the four cases leading to the partial acceptance of H2.

Table 4: Age-wise analysis of web location ways: ANOVA

Way to locate web-sites	N = 171	15 - 30	30 - 45	45 - 60	F-value	Sig.
Random Browsing	3.95	3.63	4.18	4.24	6.85	.000**
Parents/children/friends/others	2.89	2.78	3.02	2.90	1.30	.276
Print advertisements	2.02	1.79	2.25	1.95	4.15	.005*
Radio/TV advertisements	1.79	1.54	2.06	1.71	6.08	.000**
* $p < 0.05$, ** $p < 0.001$						

Consumption of Internet for Sensitive health issues

The third hypothesis (H3) proposed that females’ sources to acquire sensitive health-related information vary across the available options. To examine this hypothesis, first, the relevant data were collected from the respondents across three sources, i.e., parents/children, friends/relatives, and the Internet, under five conditions: speed, ease, confidentiality, comfort, and privacy. Table 5 depicts the corresponding results. The mean percentage was calculated for each source. Results show that almost 50 percent (Mean = 46.6) of the surveyed females relied on the Internet, followed by parents/children (Mean = 31.9), and friends/teachers (Mean = 21.4) to acquire information about sensitive health-related issues. Source-wise, the results reveal that under the specific conditions, females preferred different options to gather the required information. For example, the Internet is the most sought out way opted by females when they need information fast (66.3 percent), easily (60.8 percent), and comfortably (38.6 percent), however, parents/children were most preferred to be consulted when confidentiality (40.2 percent) and privacy are to be maintained consult children when they need privacy (46.7 percent). Out of the three available options to get information about sensitive health issues, the respondents perceived the Internet as the fastest, easiest, and most comfortable medium. Friends/teachers were also preferred by a good number of females when they need the information with the least effort.

To statistically examine this hypothesis (H3), the ANOVA test was applied and the corresponding *F*-values were calculated across the three age groups of the respondents (Table 5). Although, the mean percentage scores for three source of information are different, indicating that under the given conditions the respondents have preferred different source of information but ANOVA test results found these differences to be significant at $p < .05$ only in two out of five cases leading to the partial acceptance of H3.

Table 5: Sources of Sensitive information acquisition

Prevailing conditions	Source of information (%)			F-value	Sig.
	Parents/Children	Friends/Teachers	Internet		
Speed to get information - fast	22.7	11.0	66.3	0.51	.676
Way to get information-easiest	17.5	21.7	60.8	1.46	.225
Confidentiality concern -important	40.2	26.9	32.9	1.18	.318
Comfort level needed - high	32.6	28.7	38.6	3.76	.011*
Privacy concern - required	46.7	18.8	34.5	2.68	.047*
Mean (%)	31.9	21.4	46.6		
Ranking	II	III	I		

* $p < 0.05$

DISCUSSION

This study aimed to explore the uses and gratification of media consumption behavior of females in the age group of 15 - 60 years with the perspective of identifying the scope of digital health marketing in India. The study focused on Internet consumption behavior of females in terms of why, what, when, and how they consume the content available on the Internet. In this domain three hypotheses have been developed and tested with the collected data. The study results led to the acceptance of H1a (i.e., females' frequency of the Internet consumption varies across the activities undertaken); H3 (i.e., females' sources to acquire sensitive health-related information vary across the available options); and partial acceptance of H1b (i.e., females' Internet consumption for various activities varies across their age); and H2 (i.e., females' ways of locating the relevant websites vary by their age). In the last few years, India is emerging as a strong voice for various critical issues including climate change, electrification, space race, and manufacturing. In most of these issues, India is at the forefront (Reddy, 2023). At the same time, India is now the world's diabetes capital, millions have hypertension, cancer, respiratory issues, depression and more (Reddy, 2023). Needless to state that if left unchecked, India's non-communicable disease burden will be nearly \$4 trillion by 2023 (Reddy, 2023). Hence, it is imperative that Indian health care industry should join hands and protect the country by increasing awareness and the proper utilization of Internet can definitely play a decisive role in this area.

The internet has revolutionized the way we disseminate and consume information for various purposes. The study results have indicated that this phenomenon has been particularly profound among females, who have harnessed the internet to meet a wide array of needs, including health-related information and services. Females are finding the internet as a valuable source for obtaining quick, secret, and easily accessible information on symptoms, health conditions, diseases, treatments, and preventive measures. Women can also become part of several existing online forums, support groups, and social media communities, which allow them to seek emotional support, share personal experiences, and learn from the experiences of others. Researchers have found these digital communities to be very valuable for women dealing with issues that are still not freely discussed in India, such as fertility, pregnancy, chronic illnesses, or mental health concerns (Reddy, 2023). Further, in the current scenario, they may also schedule doctors' appointments and participate in telemedicine consultations. With the availability of numerous mobile apps, fitness apps, menstrual cycle trackers, calorie counters, and wearable devices, females can also monitor their health and wellness.

For marketers in the healthcare industry, understanding the uses and gratifications of internet consumption behavior among females is essential. Leveraging these insights can enhance the effectiveness of digital healthcare marketing strategies in terms of (i) developing content; (ii) fostering the inclusion of more engaging and interactive features like live chats, question and answer sessions, and online communities; (iii) offering more opportunities to women to seek timely clarification and connect with healthcare professionals; (iv) collaborating with app developers and wearables manufacturers to offer integrated solutions that aid women in tracking their health and wellness; and (v) streamlining telemedicine services and appointment scheduling to ensure they are user-friendly, secure, and accessible.

This enhances the convenience aspect of healthcare consumption and will make females more self-empowered. The internet has become an indispensable tool for women seeking health information and services. Their uses and gratification of internet consumption behavior are deeply intertwined with empowerment, convenience, support, and customization. In the realm of digital healthcare marketing, recognizing and catering to these aspects can help providers deliver more effective and patient-centered care, ultimately improving the health and well-being of women in the digital age. Accordingly, the study results will guide the stakeholders to work collectively to take measures to strengthen female well-being and access to affordable and quality health care.

Conflict of interest: No conflict of interest exists.

REFERENCES

- Ahmad, S., Rafiq, M., & Ahmad, S. (2018). Gender disparities in the use of internet among graduate students of a developing society: A case of Pakistani universities. *Global Knowledge, Memory and Communication*, 67(4–5), 226–243. DOI: 10.1108/GKMC-11-2017-0092
- Al-Rahmi, W. M., Alzahrani, A. I., Yahaya, N., Alalwan, N., & Kamin, Y. B. (2020). Digital communication: Information and communication technology (ICT) usage for education sustainability. *Sustainability (Switzerland)*, 12(12), 1–18. <https://doi.org/10.3390/su1212505>
- Berelson, B. (1949). Events as an Influence upon Public Opinion. *Journalism Quarterly*, 26(2), 145–148. <https://doi.org/10.1177/107769904902600202>
- Blank, G., & Grosej, D. (2014). Dimensions of internet use: Amount, variety, and types. *Information Communication and Society*, 17(4), 417–435. <https://doi.org/10.1080/1369118X.2014.889189>
- Blumler, J. G. & Katz, E. (1974.). *The Uses of Mass Communications: Current Perspectives on Gratifications Research*. SAGE Publications. pp. 71–92. ISBN 978-0-8039-0340-1.
- Chang, J., McAllister, C., & McCaslin, R. (2015). Correlates of, and barriers to, internet use among older adults. *Journal of Gerontological Social Work*, 58(1), 66–85. <https://doi.org/10.1080/01634372.2014.913754>
- Devadas, M., & Meghana, H.R. (2021). Unpacking the uses and gratifications of Facebook: A study among college teachers in India. *Computers in Human Behavior Reports*. 3: 100066. <https://www.sciencegate.app/app/redirect#aHR0cHM6Ly9keC5kb2kub3JnLzEwLjEwMTYvai5jaGJyLjIwMjEuMTAwMDY2>
- Green, C., Hollingsworth, B., & Yang, M. (2021). The impact of social health insurance on rural populations. *European Journal of Health Economics*, 22(3), 473–483. <https://doi.org/10.1007/s10198-021-01268-2>
- Grieve, R. (2017). Unpacking the characteristics of Snapchat users: A preliminary investigation and an agenda for future research. *Computers in Human Behavior*, 74, 130–138.
- Katz, E. (1 January 1959). "Mass Communications Research and the Study of Popular Culture: An Editorial Note on a Possible Future for This Journal". *Studies in Public Communication*, 2, 1–6.
- Katz, E., Blumler, J. G., & Gurevitch, M. (1974). Uses and gratification Research. *The Public Opinion Quarterly*, 37, 509-523.
- Khanal, A. R., Mishra, A. K., & Koirala, K. H. (2015). Access to the internet and financial performance of small business households. *Electronic Commerce Research*, 15, 159–175. <https://doi.org/10.1007/s10660-015-9178-3>

- Kumar, R. (2016). Personal savings from top incomes and household wealth accumulation in the United States. *International Journal of Political Economy*, 45(3), 224–240. DOI: 10.1080/08911916.2016.1230448
- LaRose, R., Mastro, D., & Eastin, M. S. (2001). Understanding Internet Usage: A Social-Cognitive Approach to Uses and Gratifications. *Social Science Computer Review*, 19 (395), 395–413. doi:10.1177/089443930101900401. S2CID 31973510.
- Lazarsfeld, P. F. (1940). *Radio and the printed page; an introduction to the study of radio and its role in the communication of ideas*. New York, New York: Duell, Sloan, and Pearce. ISBN 9780405035753
- Leng, C., Ma, W., Tang, J., & Zhu, Z. (2020). ICT adoption and income diversification among rural households in China. *Applied Economics*, 52, 3614–3628. DOI: 10.1080/00036846.2020.1715338
- Leung, L., & Ran, W. (2000). More Than Just Talk on the Move: Uses and Gratifications of the Cellular Phone. *Journalism & Mass Communication Quarterly*, 77 (2), 308–320.
- McQuail, D. (2010). *McQuails Mass Communication Theory* (6 ed.). London: SAGE Publications.
- Menon, D. & Meghana, H.R. (January 2021). Unpacking the uses and gratifications of Facebook: A study among college teachers in India. *Computers in Human Behavior Reports*. 3: 100066.
- Palmgreen, P., & Rayburn, J. D. (1985). A comparison of gratification models of media satisfaction. *Communication Monographs*, 52 (4): 334–346. <https://doi.org/10.1080/03637758509376116>
- Penard, T., Poussing, N., Mukoko, B., & Tamokwe Piaptie, G. B. (2015). Internet adoption and usage patterns in Africa: Evidence from Cameroon. *Technology in Society*, 42, 71–80. DOI: 10.1016/j.techsoc.2015.03.004
- Radhakrishnan, V. (11 September, 2023). Housewives make up over 50% of India’s female suicides, *The Hindu*, 7.
- Reddy, P. C. (18 September, 2023). India is at a pivotal moment in its health-care journey. *The Hindu*, 6.
- Rehman, S. (1983). *Correlation between gratifications sought and obtained from the movies*. Doctoral dissertation, Bowling Green State University, Ohio (Report).
- Serrano-Cinca, C., Muñoz-Soro, J. F., & Brusca, I. (2018). A multivariate study of internet use and the digital divide. *Social Science Quarterly*, 99(4), 1409–1425. <https://doi.org/10.1111/ssqu.12504>
- Tchamyou, V. S., Erreygers, G., & Cassimon, D. (2019). Inequality, ICT and financial access in Africa. *Technological Forecasting and Social Change*, 139, 169–184. <https://doi.org/10.1016/j.techfore.2018.11.004>
- The United Nation. (2015). *Fourth World Conference on Women Beijing Declaration* <https://www.un.org/womenwatch/daw/beijing/platform/declar.htm>

- Vatsa, P., Li, J., Luu, P. Q., & Botero-R, J. C. (2022). Internet use and consumption diversity: Evidence from rural China. *Review of Development Economics*, 1–22. <https://doi.org/10.1111/rode.12935>
- Wolfe, K. M., & Fiske, M. (1949). *The Children Talk About Comics*, *Communications Research, 1948-1949*, Paul F. Lazarsfeld and Frank N. Stanton, eds., New York: Harper & Brothers, 3-50.
- Zheng, H., & Ma, W. (2022). Impact of ICT adoption on cosmetic expenditure of Chinese residents: An exploration accounting for urban-rural differentials. *Applied Economics Letters*, 29(14), 1–6. <https://doi.org/10.1080/13504851.2021.1927953>
- Zhu, Z., Ma, W., Sousa-Poza, A., & Leng, C. (2020). The effect of internet usage on perceptions of social fairness: Evidence from rural China. *China Economic Review*, 62(May), 101508. <https://doi.org/10.1016/j.chieco.2020.101508>