
Relationship between Internet Use and Health Orientation: A Study among University Students

Shubha H S, Manipal University, India

Abstract

People have three ways to learn about the world, through direct personal experiences, interpersonal interactions and the media. Today through Internet, all three methods are experienced at the same time. Young adults are reluctant to share physical and emotional health queries through interpersonal communication and turn to the Internet as it is seen as a fast and confidential way of getting health information.

This study investigates the role Internet on its users health information seeking behaviour in the Indian context. Given that youth in India are the largest segment of Internet users, the study aims to find out if young adults search for health information online and for those who do, does the medium play any role in their health satisfaction. The findings of this research reveal that young adults occasionally search for health information on the Internet and have benefitted from it. The study also reveals that the young adults recognise the importance of health but are not very satisfied with their current health.

Introduction and Literature Review

People from different walks of life debate the utility of the media and its role of media in the modern world. Media's role in defining sociological and cultural changes is an ever green research area. While the Quality of Life of individuals has undoubtedly been influenced by the mass media, particularly the Youth, its impact study has been largely restricted to the lifestyles and cultural influences of its audience.

The Internet has emerged as an invaluable tool for health information, access and dissemination. Past research (Todd H. Wagner, 2005) reported that those who used Internet for health information generally reported that they benefited from its use. They added that approximately a quarter of the people, if given free Internet access will search for health information. As Internet has become pervasive in the lives of young people, their online activities and interactions are a focus for research. Evidently, Internet has the ability to prevent risks and also provides opportunities for the user to develop.

Uniqueness of Internet

Internet is the specific name of the communication network that is comprised of millions of interconnected computers that freely exchange information with each other worldwide. (Marshall, 2003). Among many important features provided by the medium like interactivity, irrelevance of distance and time, low setting up cost, reaching out to the exact target audience, ease of reach and entry Internet has been unique.

Mobile devices with Internet connection has made it universally accessible across demography. Information on the Internet are also largely permanent and are searchable. With 24 hours availability, it has not boundaries. On the other hand, content is not private. Young adults, also known as the Net Gener are who have grown up with Internet, are familiar with its technology and use it for numerous reasons. Among other occasional uses like searching for health information, online shopping and other e-commerce transactions like e-banking, e-booking, keeping in touch with friends, using the Internet for entertainment and information are the main purpose of using the medium. Attachment to Internet has increased to a great extent. (CISCO, CISCO Connected World Technology Report, 2011) cites that one of every three college students and young employees believe that Internet is as important as air, water and shelter.

Social media is a phenomenon that people use to socialize. It is a web based technology that disseminates knowledge and information to a huge number of users quickly. Very active users of Social media are the adolescents' and young adults. Some of the popular social networking sites are Facebook, Twitter, Hi5 and they are collectively called the social media. Social media is used to discuss, participate, share and create content online. These networks create entertainment as well as expand the horizon for people through sharing and collaboration. Addiction to Internet and online risks such as exposure to restricted content and cyber bullying are some of the popular negative aspects of Internet usage. Evidence for the positive aspects of Internet include improvement in test scores (Wainer J, 2008) and motivation to learn (Rau P., 2008).

The Internet has made a wealth of health and medical information readily available (Viswanath, 2005). Worldwide, people with Internet access are using it for seeking health information. Access to the Internet further expands the availability of health information and is likely to grow. This also reflects a change in the landscape of health information. Knowledge that was earlier limited to medical practitioners, and in certain cases, stretched to

advice from elders and friends, even from the mass media is now easily available to the individual. The originality and credibility of the information is questionable and the trust worthiness of the information has also been debated, nevertheless the mere availability of the information directly for the individual is seen as an advantage.

A PEW Research centre (2011) report states that 80 percent of Internet users look for health information online and is the third most popular activity online. Numerous studies from different parts of the world have explored the health information seekers. They tend to be women (Atkinson, 2009), have higher income and educational attainment (Atkinson, 2009). It is estimated that one in four adolescents have used the Internet to search for health information (Ybarra ML, 2008). They are likely to turn to the Internet for health information, when they are unable to confide in others or when it is not available from personal face to face sources like family or friends. Online contexts are an open, free and safe space to express themselves and can be used to lead healthy habits.

The kind of health information that is available on the Internet may differ from the kind available from traditional sources and due to the interactive nature of the medium, information can be tailor made to suit the requirement and also provide anonymity to the user. A recent review of literature shows that adolescents are using Internet to reinforce offline relationships. They also look up Internet for information about health. It is said that young people seek information online if it is not available from personal face to face sources like friends or family. Not being able to confide in others leads them to look for information online. It is suggested that online contexts are an open safe space in which youth can express themselves and promote healthy habits.

There are free websites, where users can create profiles that allow them to track their weight loss or smoking cessation progress (K. Subrahmanyam, 2011). A variety of other health related resources such as web sites, bulletin and discussion boards, physician blogs and sites that also allow users ask physicians a medical question. The topics too are varied, relevant to serious health issues to youth specific concerns such as mental health, sexual health and others. While, seeking health information online seems to be increasing, the types of information people are seeking is still unclear. Would it change with the demographic profile of the seeker or is it consistent with the type of information sought? Is there a trend in seeking disease specific information for a diagnosed health problem or are people generally using the Internet to be more health information aware? Are health information searches specific about seasonal outbreaks or celebrity diagnosis? Online health information has been directed toward consumers and is not tied to an individuals' health care (Susan Koch-Weser, 2010). While tracking the young people's use of Internet for accessing health information (Skinner, 2003) observed that 67 percent of Canadian adolescents looked for information on specific medical conditions, 63 percent sought information on body image and nutrition and 56 percent for information about sexual health.

Information about health is easily available to the public through the Internet. Its popularity as a resource for health information makes it an appealing vehicle for delivering interventions. It would be economical and effective means for health promotion and prevention. As risky health practices like smoking, unhealthy eating habits often start in adolescence; early intervention through the Internet may serve as a preventive measure. Free counselling for smoking prevention, obesity and eating disorder prevention, anger management and violence prevention and substance abuse prevention are some areas provided by the Internet. Past research reveals that young people search for information related to sexual health, pregnancy

and body image among other topics. Various online applications such as web pages, bulletin boards and chat rooms are being used to access health information. Each of them offer different benefits ranging from getting information from trusted sources to having interactive formats where users can get answers to specific questions from experts and peers. Emerging adults and adolescents report that while looking for health information, they keep in mind the source of information and the opportunity to ask questions.

Studies of online search for health information by adolescents and young people reveal that their concern was sensitive and hence turned to the Internet because they were not comfortable asking their parents, teachers or doctors. Driving them to the Internet for sourcing such sensitive information, away from adults can be seen as a characteristic of youth. Not relying on their adult sources for information, not just about health, whom they were dependent on in their younger days directs the attention to their growing up status. They may even share the information they get on the Internet with their peers.

Young Adults

Youth in many situations may be based on ones' social circumstances than their age or cultural position. While in some cultures, pre-adolescent individuals may be considered as youth while on the other hand, youth may even be 30 or 40 year olds' when seen as a cultural stage.

The youth are the digital "natives" (having grown up with digital technology) and engage with technology for constructing and expressing their own identities. The digital media provides them with symbolic resources and also creates a divide between them and the digital "immigrants"(adults who have come to use the digital technology later in life), (Buckingham, 2008). Today there is scarcely an aspect of their life that is not being affected by the information available on the numerous sites crowding the Internet. This communication medium is now so fundamental to society that it has the capacity to reshape their work, leisure, lifestyle, and social relationships, even their national and cultural identities.

Young adults everyday interaction with the Internet lays importance to 'informal learning'. Purposive or incidental information seeking situations are a result of this informal learning, which many times would be self-directed, spontaneous and motivated in ways that are different from academic learning. In learning with and through these media, young people are also learning to learn (Buckingham, 2008). He added that they develop particular orientations toward information, find particular methods of acquiring new knowledge and skills among other things, as learners.

Young adults face numerous challenges that range from growing academic expectations, emotional and physical changes, the changing scenario of social relationships among many other issues. These growing up years mark a period of increased autonomy where in independent decision making could influence their health and healthy behaviour. Behaviours developed at this stage of life are likely to continue into adulthood that could influence their emotional well-being as well.

Theoretical Framework

Uses and Gratification theory mainly seeks to understand and explain the psychological needs that shape peoples reason for using the Media and the reasons which motivate them to engage in certain media use behaviours. Researcher's (Stafford, 2004) observed three types of gratifications perceived by the audience which were content gratifications, process gratification and social gratifications. This theory assumes that mass media users are goal

oriented in their behaviour and are active media users. They are aware of their needs and select appropriate media to gratify their needs. The rapid growth of the Internet has strengthened the potency of Uses and Gratification theory because the medium requires high interactivity from the users. Past studies reveal that Internet is used for seeking information, entertainment and also to escape.

Additionally, in over three decades since the digital media grew to become an integral part of daily life for people, the Media System Dependency Theory (Ball-Rokeach, 1976) assumes that individuals are active in the selection and use of media content and are goal oriented. They add that the degree of audience dependence on media information is a key variable in understanding when and why media messages alter audience belief, feeling and behaviour. Using Media System Dependency theory to explore how the Internet has integrated into individuals lives, to answer why the media could have varying cognitive, affective and behavioural effects on different people has been attempted in the past. Over time, it evolved as a complex theory that deals with the relationship between media and individuals.

Although the role of Internet in the life of modern young individual is evident, little is known of how this Internet connectedness affect the perceptions of how information literate they are about issues related to their well-being. Internet makes life more connected to it than how the other media like television, radio and newspapers did. Such connectedness to the Internet affects their literacy perceptions and helps them fulfil much of their communication needs; this in turn affects their perceived life quality.

With the available abundance of health information landscape on the Internet, it is still unclear how useful it is to Indian young adults. (Currie, 2012) Observed that young people are often neglected as a population group in health statistics, they are either combined with younger children or associated with adults. In India, 75 percent of the online population is below the age of 35 (iCUBE 2014). 36% of India's Internet users population belong to the age group of 15-24 years (Digital India 2014).

Although Internet has pervaded into the lives of Young adults and is an important resource for information and entertainment, little is known about the ways in which individuals use this technology for health information and support. This research aims to study in what way does Internet play a role in influencing 'health related individual' that in turn relates to a healthy individual?

Methodology and Procedure

The objectives of the research are

- a. to explore if young adults search for health information online
- b. to understand if Internet aids in making those young adults health conscious
- c. to identify if the young adults give importance to their health and know how satisfied they are with their health

Since this study measures the Internet usage behaviours and the extent of influence of the medium on young adults, a survey was used for the study. Young adults here are university students who have crossed 18 years of age. The research was conducted during March-April of 2015 at the Manipal University.

Non- probability non- proportional sampling method was used for sampling. The subjects were Indian students enrolled in regular classes at Manipal University. 100 volunteering respondents enrolled in the first year of two faculties i. e., faculty of Engineering (n=50) and

Faculty of Arts (n=50) participated in the study. The participants were selected by disciplines through snowball sampling.

Results

All the respondents belong to 18-22 age group. The proportion of female students was 62% and male students were 38%. The respondents belonged to different parts of India and 84% of them had moved out of their homes and resided in hostels due to academic necessity at the time of this study.

About their access to Internet, more than 90% of the respondents said they have access to Internet on their phones and when necessary they use it from their laptop through wireless connection. There was no difference in the access based on the gender of the respondent as well. This indicates that Internet is probably a necessity and almost all the young adults at Manipal University can afford a phone which enables Internet connection.

In response to a question about the importance of which of the listed health issues facing young adults today, the response was as follows:

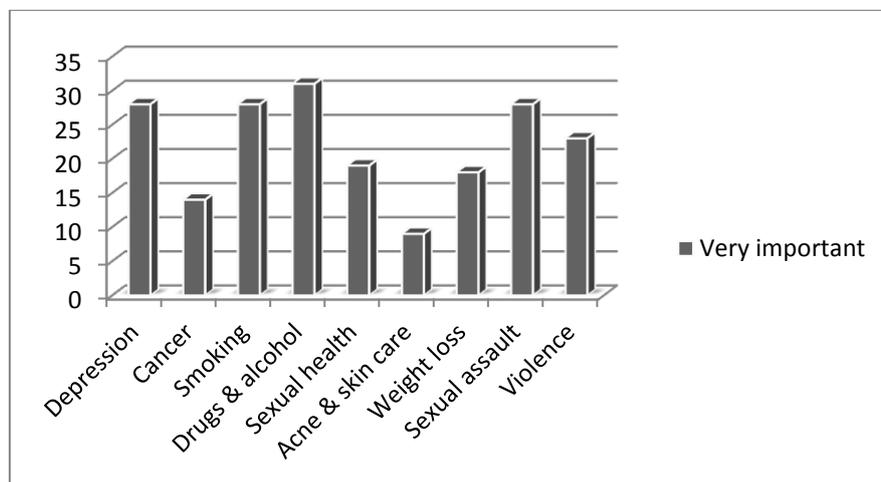


Fig 1: Column chart showing importance given to various health issues

The respondents related health issues like Drugs and Alcohol abuse, Smoking, Sexual assault and Depression or other mental issues to be very important. While 73% respondents indicated that Drugs and alcohol abuse was very important, 66% of the respondents also observed Smoking, Sexual Assault and Depression to be very important. Problems related to their personality and looks like acne and weight related issues don't seem to be on their mind. The number of respondents who said Cancer, Sexual health such as Pregnancy/AIDS and Violence were very important was less when compared to the other issues.

When the data was checked if the response varied based on the gender, it was observed that there was not a significant difference in the importance of given health issues. When questioned if any of the respondents were affected by any significant health issues in the recent years, 23% of the respondents mentioned YES. When asked to identify the issue through an open ended question, the answers were Cancer, Chicken Pox, Allergy, Arthritis and Depression. When asked about the source of health information and its trustworthiness, the response was as follows:

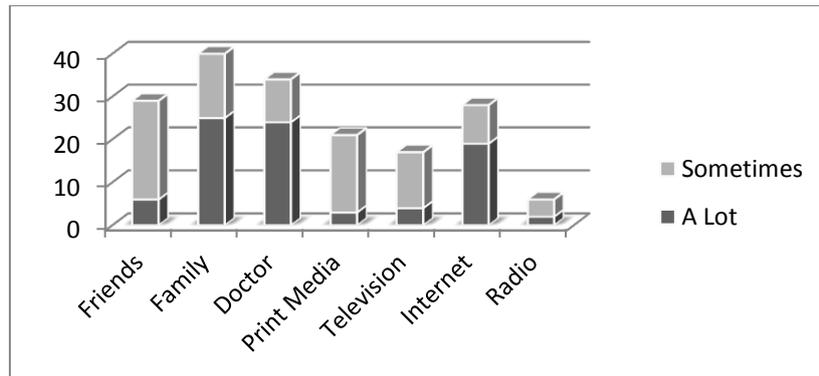


Fig 2: Stacked column chart showing the source of health information and its trust

The above data reveals that Family (at 59%) and Doctors (at 57%) are the most significant source and trust worthy of Health information for the young adult respondents. Among the mass media, Internet scored the highest with 45% of the respondents accepting that they use the Internet as a source of health information and trust it. Other sources like Friends, the Print Media, Television and Radio were not as popular as source for health information.

While observing the gender difference in the above, it was found that the results of Friends, Family, Doctor, Print Media, Television and Radio remained unaltered. When it came to Internet as a source of health information and trust, more than 50% of the male respondents said that they depend on the Internet for health information and trust it, whereas it was over 66% for the female respondents. This may indicate that more female users depend on the Internet for seeking health information than male users.

The popular daily online activities of the respondents included General information search, Emailing, Academic referencing, watching/downloading music/films and Social networking. Using the Internet for video-chat's, shopping, booking tickets, playing games, doing online courses, watching forbidden content were occasional or rare activities for the respondents. When the two genders were compared for understanding the daily online activities, the result shows certain differences in the usage pattern. More female users (66%) admit to using the internet daily for academic work when compared to male users (37%). About 75% of both female and male users were social networking through the Internet daily. While 50% of male users were watching forbidden content occasionally, 20% of the female respondents were doing the same. The other online activities did not reflect any major differences. When asked if they have intentionally sought information about a specific health topic online, the response was as follows:

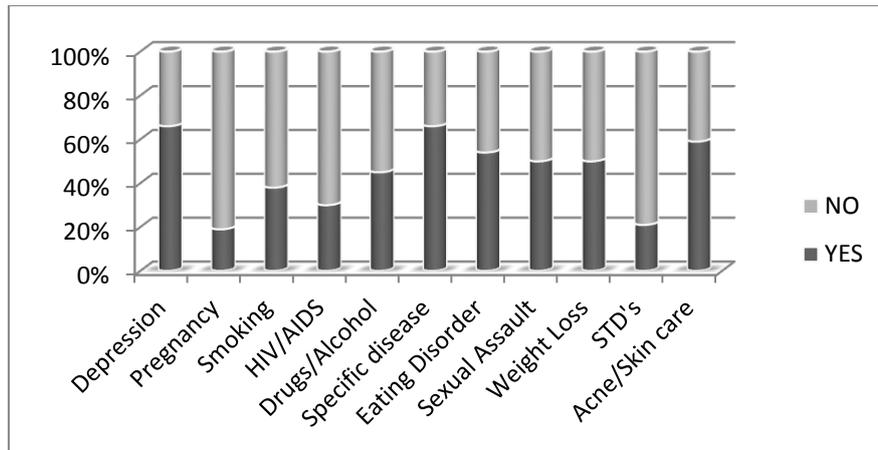


Fig 3: Stacked cylinder bar depicting the specific health information sought online by the respondents

It can be seen that Depression, information about a particular disease and Acne skin care related issues are the popular health topics among the respondents. When the above data was seen for differences among male and female users, the findings reveal that Depression, Weight Loss, search about a specific disease, Acne & Skin disease, eating disorders, sexual assault, finding a local health clinic (in the descending order of popularity) were the popular search topics for the female users. The male users searched for information on specific disease, weight loss, drugs and alcohol problems (listed in the descending order of popularity).

When asked how often they search for health information online the response was:

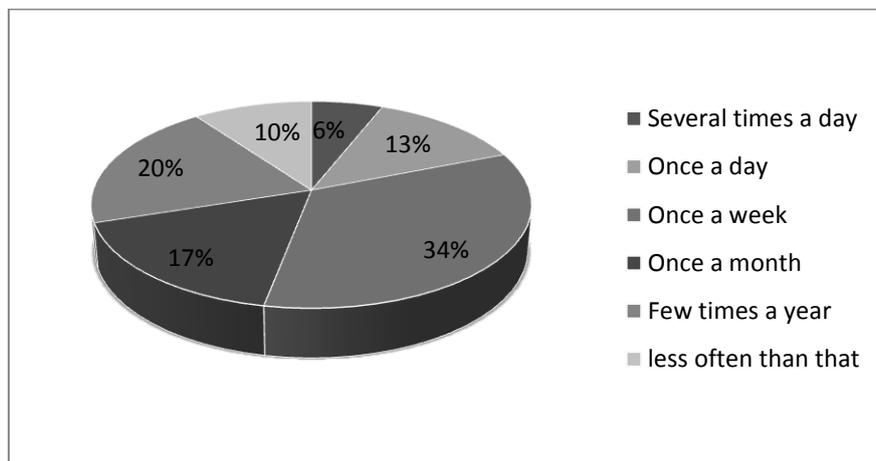


Fig 4: Pie chart showing the frequency of use of Internet for seeking Health Information

About 60% of the respondents have sought health information online as frequently as at least once in a month, if not more frequently as once in a week, once in a day or several times in a day. This not only shows that seeking health information online is a popular online activity in addition to the other activities that they perform online. When the data was checked for disparity between genders, it was observed that while 37% of the male users admitted to look for health information online more frequently than once a week the percentage of female users doing the same was 63%. About the usefulness of the health information found online,

the respondents did not seem very satisfied. While about 40% of the respondents said that the health information they found online was very useful about 60% of them say they are somewhat and slightly useful. So even though there seems to be dependency on the Internet for seeking health related information, its usefulness to them is not very evident.

The gender differences at this stage are interesting. While more (96%) of the female users say that the health information found online is very useful/somewhat useful, only 50% of the male users feel the same. This finding confirms the earlier cited research study that educated women users of health information online find it useful. About 60% of the respondents talk about the health information they found online with friends and family members. 26% of them visited a doctor after they found something about their health through the Internet. Here it was found that more female respondents (33%) visited the doctor when compared with 18% male respondents. 66% of the respondents have changed a particular behaviour/habit as per the advice found on the Internet.

Even though the percentage of respondents who visit a doctor for detailed check up for a symptom is less and many of the respondents say that they do not get useful health information online, the above finding notes that almost 2/3rd of them willingly change their behaviour/habit as advised on the Internet to overcome a particular health issue.

This adds to the next finding that almost 2/3rd of the sample feel that they are more health conscious as they have read about the pro's and con's of health issues online and take more precautions. More male respondents 54% take precautions when compared to female (46%) respondents.

It is also observed that more male respondents (52%) recommend the use of Internet for information on health than female respondents (37%). Overall, about 86% of the respondents feel that their own health is very important/could not be more important. 23% of the respondents are very satisfied/could not be more satisfied with their current health status and a majority of over 52% feel that they are somewhat satisfied with their own health. The response to importance and satisfaction with their own health was almost similar among the male and female respondents.

Conclusion

Keeping pace with the range of young adults engagements with the Internet is a daunting task. There will be many gaps in our accounting of their engagements. The study found that almost all of them accessed Internet from their smart phone's Internet connection and used their laptop when they have certain academic work. The health issues which they perceived as important to were issues like Drugs and Alcohol abuse, Smoking, Sexual assault and Depression or other mental illnesses and they have been searching for health topics related to these issues on the Internet. As noted in the literature review, it is at this age that they are exposed to new habits and lifestyle. It can be inferred that young adults see these issues around them and hence feel they are very important health issues.

The findings also reveal that Family and Doctors are significant source and trust worthy of Health information sources. Mass media, except for the Internet does not play a significant role in disseminating health information, especially for the young female adults, who happen to use the Internet more than their male counterparts for seeking health information. The Print Television and Radio as mass media have very little role in health communication. The Internet can mimic interpersonal communication and the theories of health behaviour applied on the Internet may lead to persuasive benefits, similar to the ones applied to conventional

interventions. The health belief model for instance, noted that health behaviours are mediated by the perceived threat of a health outcome, the expected threat reduction caused by action, and the perceived benefits and barriers to taking action (Becker, 1974).

Internet activities like information seeking, sociability have been found to be positively related to various dimensions of social support. Past research (Louis, 2004) reveal that those who communicate their inner world with friends online and rely on the Internet for advice and information to understand their personal problems are those who often receive guidance and assistance in times of crisis. The young adults on the Internet indulge in General information search, Emailing, Academic referencing, watching/downloading music/films and Social networking.

Searching for health information may not be a daily activity for the young adults unless there is a serious health issue bothering them or their near ones. It is observed that, more young women than men, use the Internet once in a week to a month for seeking health information. Though the young adults do not say vehemently that the health information they find online is useful, it was found that more female respondents visited the doctor and $2/3^{\text{rd}}$ of them have changed a particular behaviour/habit as per the advice found on the Internet.

Additionally, almost $2/3^{\text{rd}}$ of the young adults admit to being more health conscious, more so the young men, because they have read about the pro's and con's of health issues online and take more precautions. The young men also recommend the use of Internet for information on health than women. Overall, a majority of young adults feel that their own health is very important/could not be more important. Contrastingly, just about $1/4^{\text{th}}$ of them are very satisfied/could not be more satisfied with their current health status and over 52% feel that they are somewhat satisfied with their own health. Even though the normally disease free young adults know that health is a very important aspect of their well being, that health information is available widely at the click of a button and they also occasionally access the information for various health related information, they are not very satisfied with their own health condition.

The findings that young adults are goal oriented and depend on the Internet for health information and also admit to being health conscious relate well with the theoretical framework explained earlier. Caution has to be exercised when applying the results of this study for a few reasons. First, the data was collected at only one University and hence limited and the applicability to generalise the findings to all Indian young adults is not reasonable. Secondly, it would have been more useful to collect other socio demographic data beyond sex and age (family income, background, educational level of parents and others) to understand the background of the respondent which would help in inferring their present status.

Internet is an important medium and has changed the daily lives of people. Various researches' about the effects of Internet is still at the dawning. Not negating the ill effects of the medium on its users, the potential of the possible good the medium is capable of doing should inspire the users and the information providers. In conclusion, the findings of the research lead us to make definitive statements about the possibility of young adults using the Internet to be better health informed and health oriented individuals.

References

- Atkinson, N. S. (2009). Using the Internet for health related activities : findings from a national probability sample. *Journal of Medical Internet Research*.
- Babbie, E. R. (2001). *The practice of social research (9th ed.)*. Belmont, CA: Wadsworth.
- Backer, T. R. (1992). *Designing Health Communication Campaigns : what works?* Newbury Park, CA: Sage.
- Ball-Rokeach, S. J. (1976). A Dependency model or mass media effects. *Communication Research*, 3-21.
- Becker, M. E. (1974). *the health belief model and personal health behaviour*.
- Buckingham, D. (2008). "Introducing Identity." *Youth, Identity and Digital Media*. Cambridge: The MIT Press.
- CISCO. (2011). *CISCO Connected World Technology Report*. CISCO.
- Currie, C. e. (2012). *Social Determinants of Health and Well Being among young people. Health Behaviour in School aged CHildren (HBSC) Study : International report from the 2009-2010 survey*. Copenhagen: WHO Regional Office for Europe.
- Hanjun Ko, C.-H. C. (Summer 2005). Internet Uses and Gratifications : A structural Equation Model of Interactive Advertising. *Journal of Advertising Vol 34, No. 2 , 57-70*.
- K. Subrahmanyam, D. S. (2011). Digital Youth,. In *Advancing Responsible Adolescent Development* (pp. 143-155).
- Louis, L. P. (2004). Multiple Determinants of Life Quality : the roles of Internet activities, use of new media, social support and leisure activities. *Telematics and Informatics*.
- Michael M. Cassell, C. J. (n.d.). *Health Communication on the Internet : An effective channel for health behaviour change?* University of North Carolina, Chapel Hill, North Carolina, USA: Department of Health Behaviour and Health Education.
- Rau P., L. P.-M. (2008). Using Mobile communication technology in high school education : Motivation, pressure and learning performance. *Computer Education*, 1-22.
- Roy, S. K. (2009). Internet uses and gratifications : a survey in the Indian context. *Computers in human behaviour*, 878=886.
- Skinner, H. B. (2003). How Adoolescents use technology for health information : Implications for health professionals from focus group studies. *Journal of Medical Internet research*, e32.
- Stafford, F. T. (2004). Determining the Uses and Gratifications for the Internet . *Decision Sciences* 35(2), 259-288.
- Subramanyam, S.-S. A. (2009). Youth Internet use : risks and opportunities. *Current Opinion in Psychiatry*, 351-356.
- Susan Koch-Weser, Y. S. (2010). The Internet as a health information source : findings from the 2007 Health Information National trends sorvey & implications for health communication. *Hournal of Health Communication*, 279-293.
- Todd H. Wagner, M. K. (2005). Free Internet access, the Digital Divide and Health Information. *Medical Care*, 415-420.
- Viswanath, K. (2005). Science and Society : The communications revolution and cancer control. *Nature Reviews Cancer*, 828-835.
- Wainer J, D. T. (2008). Too much computer and Internet use is bad for your grades, especially if you are young and poor : results from the 2001. *Computer Education*, 1417-1429.
- Ybarra ML, E. N. (2008). Health information seeking among Mbararan Adolescents : results from the Uganda Media and You survey. *Health Education*, 249-258.