



MARKETING RESEARCH:

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***Introduction:**

With the increase of information available to society today, a growing trend within the medical field is the advertisement of health care information and products.

People have access via television, internet and other media to find out about medical treatments, new drugs, diagnosis and so forth. Because the methods that patients can gain information from have expanded, studies have been conducted to trace the impact that it has had on the medical field and the relationships between patients and their doctors.





***The Impact of Advertising:**

OBJECTIVES:

- * Analyze if and how direct-to-consumer advertising affects the relationships between patients and doctors.**
- * Once analysis is complete, conclusions are drawn based off of our findings.**



***The Impact of Advertising:**

OBJECTIVES:

*** Answer the following questions:**

- 1. Are there differences between how men and women obtain their health information?**
- 2. Do feelings regarding health information differ by gender?**
- 3. Are there differences between how males and females view health information quality on the internet?**
- 4. How do genders and ethnicities feel towards health information on the internet?.**



***The Impact of Advertising:**

PRESENTING CONCLUSIONS:

- * Analysis will show whether advertising affects the relationship between patients and doctors.**



*Hypothesis:

METHODOLOGY

Information obtained from: www.icpsr.umich.edu/cocoon/ICPSR/STUDY/03994.xml
2001 Study from UC San Francisco, funded by the Robert Wood Johnson Foundation.

*** UNIVERSE: Survey of the Public:**

Adults 18 years of age or older in telephone households in the continental United States (excluding Alaska and Hawaii).

*** SAMPLE: Survey of the Public:**

Households were selected using stratified random-digit dialing. Within households, the adult with the most recent birthday was selected. “Sicker” adults -- respondents who described their health as fair or poor, or had a disability which prevented them from participating fully in school, work, or other activities, or were hospitalized in the last 12 months for reasons other than a normal birth delivery -- were oversampled.



*Hypothesis:

*** Direct-to-Consumer Advertising has an effect on male and female patients equally.**

*** Based on this we have come up with four hypotheses to test this in the following pages.**



*Hypothesis 1:

EMPIRICAL RESEARCH:

- * Are there differences in how males and females obtain their health information?

SOURCE:

- * Men go online for health information less often than women. According to the nonprofit Pew Internet and American Life project, which surveyed Internet users last year about how they use the Web for health, 72% of women said they had ever searched about a specific disease or medical problem, compared with 54% of men. Women are more likely to say their latest search was at least in part for someone else -- including the men in their lives. (Personal Health, 2004)

- * Last November, the British Medical Journal published an article which said that 27% of female Internet users and 15% of male users access health information at least once a week and predicted that massive consumer demand would continue to fuel the growth of healthcare Web sites. (Cyber Dialogue, 1999)

*Hypothesis 1:

METHODOLOGY:

H_0 : The two means (men versus females) are equal

H_A : The two means differ from each other

DV: 7 test variables

IV: Gender (male, female)

Independent Samples t-Test for the difference between two group (gender) means. Test is applied to seven separate test variables:

- * doctors
- * pharmacists
- * drug companies
- * media
- * Internet
- * health plans
- * family and friends

The results are used in the interpretation.



*Hypothesis 1:

METHODOLOGY:

Info from doctors
you visit:

male M = 2.04 female M = 1.88 $t(2963) = 4.776, p < .05$

Info from pharmacists
you visit:

male M = 2.72 female M = 2.42 $t(3193) = 8.005, p < .05$

Info from drug
companies:

male M = 3.25 female M = 3.25 $t(3123) = .050, p > .05$ NO DIFFERENCE

Info from the
media:

male M = 2.17 female M = 2.13 $t(3059) = 1.158, p < .05$

Info from the
Internet:

male M = 2.91 female M = 3.00 $t(3196) = -2.263, p < .05$

Info from health
plans:

male M = 2.68 female M = 2.61 $t(3189) = 1.966, p < .05$

Info from family
and friends:

male M = 2.11 female M = 2.04 $t(3051) = 2.205, p < .05$



*Hypothesis 1:

INTERPRETATION:

- * Within these results, both males ($M=2.04$) and females (1.88) seek information the most often from doctors they visit ($M=2.04$).
- * Both gender hardly ever seek information on the Internet (male $M = 2.91$, female $M = 3.00$).
- * Males and females showed no significant difference in the information they seek from drug companies.
- * The other six test variables showed differences in where males and females seek health information.



*Hypothesis 2:

EMPIRICAL RESEARCH:

- * Are there differences in male and female attitudes towards health information?

SOURCE:

- * Women appear to be slightly more inclined to pay attention to DTC advertisement messages than males. This finding is generally in line with medical journal reports indicating that men are less likely to visit their doctor and more likely to resort to self-medication (or no medication) than women. It should come as no surprise then that women in the USA, on average, live five years or longer than their male counterparts. (Joseph, 2005)

*Hypothesis 2:

METHODOLOGY:

H_0 : The two means (male feeling vs. female feeling) are equal

H_A : The two means differ from each other

DV: 3 test variables

IV: Gender (male, female)

Independent Samples t-Test for the difference between two group (gender) means. Test was applied to three separate test variables:

- * Attitude towards increase in drug ads
- * Attitude towards increase in health information
- * Attitude towards the amount of health information needed to make the right decisions.

The results are used in the interpretation.

*Hypothesis 2:

METHODOLOGY:

Increase in drug
ads good/bad?:

male M = 3.28 female M = 3.11 $t(2883) = 3.263, p < .05$

Increase in health
info good/bad?:

male M = 2.20 female M = 2.23 $t(2755) = -.655, p < .05$ NO DIFFERENCE

Enough info to make
right decisions?:

male M = 2.29 female M = 2.29 $t(2983) = .104, p < .05$ NO DIFFERENCE



*Hypothesis 2:

INTERPRETATION:

- * Within these results, Females ($M=3.11$) saw the increase in drug ads in a more favorable light than males ($M=3.28$).
- * Their mean responses indicated that they saw the increase in drug ads as “bad”, increase in health information as “good”, and thought that there was enough information to make the right decisions most of the time.



***Hypothesis 3:**

EMPIRICAL RESEARCH:

- * Are there differences in how males and females view health information quality on the Internet?**

SOURCE:

- * Men reported significantly more information received and greater satisfaction with healthcare practitioners meeting their information needs. (Stewart, 2004)**

*Hypothesis 3:

METHODOLOGY:

H_0 : The two means (male feeling vs. female feeling) are equal.

H_A : The two means differ from each other.

DV: 4 test variables

IV: Gender (male, female)

Independent Samples t-Test for the difference between two group (gender) means. Test is applied to four separate test variables:

- * Looked for Internet health information last year
- * Difficulty of finding quality information
- * Reliability of information
- * Assessment of information

The results are used in the interpretation:

- * Last year looked for information on Internet?
- * Difficult or easy to find quality inf on Net?
- * Reliability of health information on Net?
- * Assessing whether information is reliable?

*Hypothesis 3:

METHODOLOGY:

Looked for Internet health information
in the last year? male M = 1.65 female M = 1.66 $t(2883) = 3.263, p < .05$

Difficulty/ease of finding quality information
on Internet? male M = 1.97 female M = 1.90 $t(2755) = -.655, p < .05$ NO DIFFERENCE

Reliability of health information
on Internet? male M = 2.14 female M = 2.07 $t(3024) = 10.984, p < .05$

Assessing whether information
is reliable? male M = 2.87 female M = 2.85 $t(2983) = .104, p < .05$ NO DIFFERENCE



*Hypothesis 3:

INTERPRETATION:

- * Within these results, in the last year (2000) males ($M=1.65$) did look for more information on the net than females ($M 1.66$).
- * Both thought that finding the information was relatively easy (male $M = 1.97$, female $M =1.90$), and were somewhat concerned with the information quality.
- * Males ($M = 2.14$) were less concerned than females ($M =2.07$).
- * They felt that they had a good grasp on assessing the information reliability (male $M = 2.87$, female $M = 2.85$).



*Hypothesis 4:

EMPIRICAL RESEARCH:

- * How positive do genders and ethnicities (White, Black, Hispanic, Asian+Other) feel toward health information on the Internet?

SOURCE:

- * New research is showing that health care disparities among black, Hispanic, and white Americans cannot be explained wholly by disparities in income and health insurance coverage among these groups, but that other factors such as lack of information play a critical role. Access to information is a critical piece in the access picture for Hispanic and other underserved communities. (Delgado, 2001)

*Hypothesis 4:

METHODOLOGY:

H_{01} : There is no main effect of gender

H_{A1} : There is a main effect of gender

H_{02} : There is no main effect of ethnicity

H_{A2} : There is a main effect of ethnicity

H_{03} : There is no interaction effect of gender and ethnicity

H_{A3} : There is an interaction effect of gender and ethnicity

DV: Summated Scale of Positive Attitude with regards to:

- * Encourages Patients to self-diagnose
- * Gives Patients the confidence talk to doctor
- * Helps Patients to get treatment
- * Challenges Doctors be more up-to-date
- * Over-the-counter meds obtained due to the Internet?

IV: * Gender (male, female)

- * Ethnicity (white, black, hispanic, asian + other)

This is a 2X4 ANOVA Test.

*Hypothesis 4:

METHODOLOGY:

Look for any effect gender and/or ethnicity had on positive attitude toward health information on the Internet.

*The main effect of ethnicity is the only significant one:
 $F(3, 1030) = 3.742, p < .05.$

*There is no main effect of gender, $F(1, 1030) = .584, p > .10.$

*There is no interaction effect (ethnicity * gender), $F(3, 1030) = 1.792, p > .10.$

*Hypothesis 4:

INTERPRETATION:

- * Post hoc Duncan tests of “Positive attitude to health information on the Net” reveal that Hispanics were the most positive ($M = 15.96$) than all other ethnicities.
- * Asian + other ($M = 16.13$) and Whites ($M = 16.51$) had similar attitudes
- * Blacks were the least positive ($M = 17.12$).
- * Individual cell means show that the greatest gender differences in positive attitude was between males and females in the Asian + Other group ($M = 15.909$ versus 14.455 , respectively).



***Conclusions:**

HYPOTHESIS 1:

- * Both males and females obtain health information most frequently from their doctors.**

HYPOTHESIS 2:

- * Females have a more positive attitudes towards DTC advertising than males**
- * Females felt DTC ads provided enough information to make the right decision.**



*Conclusions:

HYPOTHESIS 3:

- * Males utilized the internet for information more often than females.
- * Both genders thought information on the internet was easy to find.
- * Both genders were somewhat concerned with the quality of information found on the Internet.

HYPOTHESIS 4:

- * Hispanics have the most positive attitude towards DTC advertising.
- * Whites and Asian + Other had similar attitudes towards DTC advertising.
- * Blacks have the least positive attitude towards DTC advertising.



*Conclusions:

LIMITATIONS:

* The general limitations for our survey are that it was done by phone, which can cause survey fatigue, and also the fact that some patients were not reachable by phone.

* The ANOVA test on Hypothesis 4 may have been skewed by the fact that we combined the Other category, due to the fact that they were very small groups compared to Whites, Blacks, & Hispanics.



***Overall Conclusions:**

POINT 1:

*** DTCA can have good and bad effects on quality of care, the doctor-patient relationship, and health service utilization. The benefits might be maximized, and the harms minimized, by increasing the accuracy of information in advertisements; enhancing physicians' communication and negotiation skills; and encouraging patients to respect physicians' clinical expertise.**



***Overall Conclusions:**

POINT 2:

*** DTCA encourages members of the public, particularly those of low socioeconomic status, who are traditionally considered hard to reach with public health campaigns to request preventive care and schedule a checkup. It encourages people to disclose health concerns to their doctor, and enhances some patients' sense of confidence and control during a visit.**



***Overall Conclusions:**

POINT 3:

*** For health information on the Internet to achieve its potential as a force for equity and patient well-being, actions are required to overcome the digital divide; assist the public in developing searching and appraisal skills; and ensure physicians have adequate communication skills.**

*References:

HYPOTHESIS 1:

- * Landro, Laura (2004), "Personal Health Net Benefits: Where men Can Turn to Help Close the Gender Gap in Health." *Wall Street Journal*.
- * Gray, Robert (2000), "Web Treatment", *British Medical Journal*
- * Himmelsbach, Vawn (2000), "Advertisers Woo Women", <http://proquest.umi.com.mcc1.library.csulb.edu/pqdweb?index=16&did=52018285&SrchMode=1&sid=13&Fmt=4&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1178521484&clientId=14436>

HYPOTHESIS 2:

- * Joseph, Matthew (2005), "The Effect of Manufacturer-to-Consumer Prescription Drug Advertisements", *Journal of Marketing* <http://proquest.umi.com.mcc1.library.csulb.edu/pqdweb?index=0&did=891826441&SrchMode=1&sid=3&Fmt=4&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1178517536&clientId=14436>



*References:

HYPOTHESIS 3:

* Stewart, Donna E. (2004), “Gender Differences in Health Information Needs and Decisional Preferences in Patients Recovering From an Acute Ischemic Coronary Event ” *Wall Street Journal*.

HYPOTHESIS 4:

* Delgado, Jane L. (2001), “National Alliance for Hispanic Health”
<http://republicans.energycommerce.house.gov/107/Hearings/06132001hearing276/Delgado415.htm>