Promotion of Prescription Drugs to Consumers: Case Study Results

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ABSTRACT

OBJECTIVE: Identify key factors related to patients' medication adherence and health outcomes after they received a prescription that they requested based on a prescription drug advertisement.

METHODS: During January 2002, 6 individuals who requested advertised prescription medications and received a prescription from their physician were interviewed. Qualitative analysis was employed to allow for preservation of individual findings and variances in effects for each subject.

RESULTS: In all, the 6 patients received 10 prescriptions. For 8 of the 10 requests (80%), the patients were given a prescription for the specific products requested. Of the 10 prescriptions granted to the patients, only one (10%) of the medications was discontinued by the patient due to lack of efficacy. In addition, one patient discontinued one of the products because it was withdrawn from the market. The results showed that individuals (a) may be willing to "just try" new therapies to see if they work better than their existing therapies, (b) appear to make decisions about the usefulness or value of the drug product after a short-term trial, (c) compare the value of the product with the out-of-pocket cost of the product after a short trial, (d) value and seek the advice of their physician about information they see in advertisements, (e) become extremely pleased when they find that the new product actually helps them, and (f) may develop favorable views about advertised prescription drug products, in general, if they had a favorable experience with the first product they requested. Some patients experienced disappointment, side effects, new challenges about how to fit the newly prescribed therapy into their lifestyle and existing drug regimen, the need for follow-up appointments with their physician, and the unwelcome challenge of how to pay for their newly prescribed therapy.

CONCLUSIONS: Each study subject had unique experiences and outcomes after asking his or her physician for an advertised prescription drug product. Both positive and negative experiences were noted. Asking for an advertised drug appears to be viewed by patients as an opportunity for a short-term trial of a new therapy. Such short-term trials could introduce the need for follow-up physician visits and may result in higher drug expenditures for patients.

KEY WORDS: Direct-to-consumer advertising, Prescription drugs, Promotion

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Promotion of prescription drugs directly to consumers (also referred to as direct-to-consumer advertising or DTCA) can be viewed as the provision of promotional information through a variety of media that is targeted at the end user of the medication (consumer/patient). Consumer-directed advertising of medicines was popular in the United States as far back as 1708 when Nicholas Boone introduced the first patent drug in Boston. The common method of advertising used then was the "Travelling Medicine Show."

Throughout the 1800s and early 1900s, newspapers received the largest part of their advertising income from consumer-directed advertising for drug products. At that time, the Federal Trade Commission controlled drug advertising. In 1962, however, the Kefauver-Harris Drug Amendments were passed and placed advertising of prescription drug products under the jurisdiction of the Food and Drug Administration (FDA) as part of the product's labeling.

Currently, consumer-directed advertising for prescription drugs consists of a dual approach developed by FDA in draft form during 1997 and in final form in 1999. This FDA guidance balances the promotion of benefits by the sponsor of the advertisement as a means to sell more of the product with the presentation of risks as a means to educate consumers and provide a fair balance of information. The overall goal of DTCA policy is to both protect and promote public health by the dissemination of truthful, balanced, and accurately communicated information about prescription drug products.

One of the benefits of DTCA can be seen from an advertising sponsor's viewpoint. In general, advertising is capable of producing a pronounced effect on sales of a brand within a short period of time (generally measured as 7 to 30 days after exposure to the ad). If an advertisement does not produce the desired effects in the short term (e.g. market penetration, purchase frequency, ability to charge higher prices, and reduction in the brand's price elasticity), the ad can be withdrawn relatively quickly. Penetration, purchase frequency, consumer price, and price elasticity are all expressions of market share in the short term (i.e. measured in one-year increments or less). Over the long term, advertising also can be useful for building brand equity. Those who introduce new brands need to build the innate strength of the brand (brand equity) so that long-term momentum can be maintained when new competitors enter the market and during periods when promotional activities for the brand decline.

Due, in part, to its apparent success in the marketplace, spending on consumer-directed advertising for prescription drugs continues to grow. Figure 1 shows that spending on DTCA for prescription drugs reached $1.3 billion in 1998,
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almost twice the $695 million level seen in 1996. In 1999, $1.9 billion was spent on DTCA and generated an estimated $9 billion in product sales. Expenditures for 2000 were $2.5 billion, or almost double that in 1998. It should be noted, however, that most promotion of prescription drugs in the United States still is directed toward professionals. For example, spending on DTCA in 2000 was only 2.2% of product sales compared to promotion to professionals that was 11.8% of those products’ sales.

One of the largest and most important movements in the American marketplace is the shift toward self-care, and DTCA provides individuals with information necessary for meeting their self-care goals. In recent studies, consumer-directed ads were shown to help individuals make their own decisions about prescription medications and served to encourage individuals to talk with their doctors about the advertised products and the maladies they treat.

Another way DTCA may affect individuals is by encouraging people to remain compliant with their drug regimens. This implies that this type of advertising may achieve the “same kind of public health function as public health campaigns.” Compliance also may be impacted by the involvement of doctors in their patients’ therapies. In general, patients who have seen or heard their medication advertised and talked with their physician about the risks of the medication are more likely to take it.

Although DTCA is seen as providing ways to build market share and brand equity for the ads’ sponsors and providing the kinds of information consumers need and want, little is known about how DTCA can affect patients’ experiences with these medications and resultant health outcomes. Some have described concerns about the effects DTCA can have on the use of prescription medications, the relationship patients have with their physicians, and the combination of these 2 factors on public health. For example, 49% of individuals surveyed reported that DTCA makes prescription medicine seem harmless, and 39% believed that the ads cause tension between patients and their doctors. In another survey, 58% of the respondents reported that advertisements make the drugs seem better than they really are, and 59% reported that the ads do not give enough information about the risks and negative effects of using the drug.

Lisa Bero developed a model that outlines a number of steps where measurement of DTCA effects is needed (adapted model in Figure 2). The various steps consist of DTCA exposure, effects of advertising on the attitudes of patients and physicians, actions of patients and physicians, use of drug and health services, and health outcomes. Bero identified where data already are available and areas where little or no data are available. In Figure 2, italicized items represent areas where little or no data exist. The bold-italicized areas represent the focus of our study. The lack of information and knowledge about effects that DTCA could have on patient adherence and health outcomes led us to conduct an exploratory study to look for insights that would help connect these components together and guide future research.

It is possible that patients who request and receive a prescription for an advertised drug are likely to have better adherence to this drug therapy than other drug therapies not requested. The thought is that if consumers are willing to spend time and energy on getting a prescription, then they may believe that the drug will help them in some way and be motivated to take it.

During January 2002, 6 individuals who requested advertised prescription medications from their physicians were interviewed in depth to determine the type of effects their requests for the advertised drug product had on their medication adherence and health outcomes. The patients were required to meet specific criteria to be eligible for the study. Each individual

![FIGURE 1 Direct-to-Consumer Advertising Spending in the United States, 1993-2001](image-url)

Sources: Med Ad News and IMS Health.
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needed to have (1) been exposed to a prescription drug advertisement, (2) requested a prescription from his or her physician as a result of exposure to the ad, (3) received a prescription based upon the request, and (4) filled that prescription and begun using it. Subjects were identified through fliers distributed at a community pharmacy in Minnesota calling for study volunteers. Only those individuals who volunteered and met all of the criteria for this study were interviewed. We estimate that the fliers were read by more than 100 individuals, but only 6 met the criteria and also were willing to participate in the study.

A list of interview questions was compiled to assist in obtaining information. We asked subjects questions to get their general impressions about prescription drug ads. More specifically, we asked them what drug or drugs they requested, what type of ad motivated them to request the medication, what their expectations were of the drug, how they are or were taking the drug, and what the outcome was of taking the medication. Subjects were given time to elaborate on any of the questions if they chose to do so.

Qualitative analysis was used to interpret the data obtained from the in-depth interviews. According to Maxwell, there are 5 specific “research purposes” that are well suited for qualitative analysis. These include comprehending the meaning of “events, situations, and actions” of study participants; understanding the context of people’s actions and the influence this has on them; discovering unexpected trends and effects; recognizing the process of events and actions; and developing underlying reasons for actions. Qualitative analysis was selected for this study to determine if and how DTCA may affect different people’s medication adherence and health outcomes related to the prescriptions they received. This type of design allowed for preservation of individual findings and variances in effects for each subject. It also permitted any unexpected trends to appear and helped to get a deeper understanding of each subject’s thoughts. Specifically, a qualitative interviewing approach was used to describe and interpret the results.

Results

A total of 6 people participated in the study: 5 were female (83%) and one was male (17%). All participants requested a prescription drug or drugs that they saw or heard about in an advertisement for the products. Specific drugs requested and received are listed in Table 1. The analytical approach we employed viewed each of the study subjects as a unique case for evaluation. The interview with each subject is described next. In such a case approach, both trends and unique aspects of the study subjects’ interviews are reported.

Study Subject 1

Subject 1 requested the drug Fen-Fen from her physician. The patient had seen a television ad for this product that promised to decrease appetite and help with weight loss. The patient stated that she hesitated to request the drug from her doctor because of uncertainty about whether the physician would
made the appointment to specifically ask about this product because her allergy symptoms were bothersome at the time. The patient described the relationship with her physician as “formal” and said that there was a definite sense that she was the patient and her doctor was the decision maker. Despite this, her physician wrote her a prescription for Claritin-D. She expected that the medication would eliminate her symptoms of itchy, watery eyes without making her drowsy. Her physician instructed her to take the medication only as needed, and she faithfully took it every day in the spring and summer when her symptoms were most bothersome. She reported that she is very compliant with her other medication regimens and that the Claritin-D greatly helped to reduce her allergy symptoms. If she were to run across an ad for another drug she felt would help her, she would feel comfortable requesting that drug, but she would seek advice from a different physician next time.

Study Subject 4

Subject 4 requested the drugs Ultram, Vioxx, and Ambien from her physician. She was introduced to these medications through ads and articles in a fibromyalgia newsletter and through television ads. Feeling that her fibromyalgia pain was not well controlled and that she was not sleeping well, she made a follow-up appointment to address her pain and sleep issues and to ask about these products. The patient revealed that she feels very comfortable discussing her condition and medication issues with her doctor, so she did not hesitate to ask about the 3 drugs. Her physician gave her prescriptions for Ultram and Vioxx but not for Ambien, explaining that if her pain was better controlled at night, she would be able to sleep better without the need for a prescription. She expected Vioxx to help prevent pain during the day and Ultram to provide pain relief at night. She reports that she took Vioxx every morning for about 3 or 4 days. However, it did not seem to help as well as her previous pain therapies, and she felt very restricted in what she could take during the day since her doctor instructed her not to mix her other pain medications with Vioxx. Because of this, she resumed her previous daytime pain therapies, which she could take on an as-needed basis. As for Ultram, she was very pleased with its effects. She continues to take it as needed for pain at night and reports good relief. This patient also takes prescription medications for other conditions and denies forgetting or skipping doses of the other drugs.

Study Subject 5

Subject 5 requested Denavir and Effexor XR, one product from each of his 2 physicians. He learned about Denavir from an Internet ad and Effexor XR from a magazine ad. He has been seeing his primary physician for many years and called this doctor to request a prescription for Denavir over the telephone. According to this patient, his doctor knows his medical history very well, so the physician was happy to prescribe the cold sore medication. The patient stated that he had no expectations of

### TABLE 1

<table>
<thead>
<tr>
<th>Patient</th>
<th>Drug(s) Requested</th>
<th>Drug(s) Received</th>
<th>Source of Ad</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fen-Fen</td>
<td>Fen-Fen</td>
<td>TV</td>
</tr>
<tr>
<td>2</td>
<td>Ortho-Tri Cyclen</td>
<td>Ortho-Tri Cyclen</td>
<td>TV and magazine</td>
</tr>
<tr>
<td></td>
<td>Allegra-D</td>
<td>Allegra-D</td>
<td>TV and magazine</td>
</tr>
<tr>
<td>3</td>
<td>Claritin</td>
<td>Claritin-D</td>
<td>TV</td>
</tr>
<tr>
<td>4</td>
<td>Ultram</td>
<td>Ultram</td>
<td>Newsletter</td>
</tr>
<tr>
<td></td>
<td>Vioxx</td>
<td>Vioxx</td>
<td>Newsletter and TV</td>
</tr>
<tr>
<td></td>
<td>Ambien</td>
<td></td>
<td>Newsletter and TV</td>
</tr>
<tr>
<td>5</td>
<td>Denavir</td>
<td>Denavir</td>
<td>Internet</td>
</tr>
<tr>
<td></td>
<td>Effexor XR</td>
<td>Effexor XR</td>
<td>Magazine</td>
</tr>
<tr>
<td>6</td>
<td>Nexium</td>
<td>Nexium</td>
<td>TV and Magazine</td>
</tr>
</tbody>
</table>
this medication. He just wanted to “try it” to see if it would help. He reported that he used it exactly as his doctor instructed, and it shortened the duration of his cold sore symptoms by approximately 3 days. The request for Effexor XR was directed to his psychiatrist. The patient read about this product in a magazine ad he found while in the waiting room at his doctor’s office. He showed the physician the ad and discussed the medication with him. After a thorough discussion with the doctor, the patient was given a prescription for Effexor XR to replace his prescription for Wellbutrin SR to treat his depression and anxiety. After he began taking Effexor XR each morning, he experienced a “groggy” or “cloudy” feeling. He spoke with his psychiatrist about this and was instructed to take the medication in the evening instead. This change greatly helped eliminate the groggy feeling during the day, and he has been faithfully taking this drug in the evening ever since. However, if his doctor had told him that he needed to take it in the morning, he felt that this unpleasant side effect could have decreased his adherence to this regimen, and he would have requested another change in therapy.

**Study Subject 6**

Subject 6 requested the drug Nexum. She saw the product advertised in magazines and on television and used a coupon in a magazine for a 7-day trial. She had been having problems with her “reflux disease” and thought that Nexium might help to alleviate it. In order to request this prescription, she called her doctor on the telephone since the physician knew her history very well. However, she stated that she would have made an appointment to specifically ask for the drug if the physician had required her to be seen. She expected this medication to reduce her heartburn symptoms, and after receiving a prescription for Nexum, she reported that it “completely eliminates” her heartburn. Her physician instructed her to take one capsule each day. However, since she did not have prescription insurance to reduce the high cost of this drug, she did not take any for about one week. Her symptoms returned, and she resumed her daily regimen despite the high cost. As for her other prescription medications, she seems to be rather compliant. This patient was extremely satisfied with her response to the medication, and she reports that she would ask for an advertised prescription drug again in the future if it seemed appropriate for her.

**Insights Gained From Qualitative Analysis of the 6 Cases**

In all, the 6 patients requested 10 prescriptions. For 8 of these requests (80%), the patients were given a prescription for the specific product they requested. Of the 2 remaining requests, one of the patients was given Claritin-D instead of Claritin, and the other prescription request for Ambien was denied (Subject 3). This request was refused because the physician felt that the other 2 medications that this patient requested would help control her pain at night so that she would not need a medication to help her sleep.

Some individuals in our study learned about advertised medications via multiple advertising sources, and others relied upon just one source of information. The most common sources of information were through television advertising and magazine/newsletter advertising. Only one of the prescription requests resulted from information discovered on the Internet.

Of the 10 prescriptions granted to the 6 patients, only one of the medications was discontinued by the patient due to lack of efficacy and because it did not meet her expectations (Subject 3, Vioxx). A patient discontinued one of the other prescriptions because the drug was withdrawn from the market (Subject 1, Fen-Fen). Another patient needed to adjust the time of day he was taking his requested medication (Subject 5, Effexor XR). This alteration increased the patient’s satisfaction with the drug’s effects. Four of the requested medications are taken only on an as-needed basis, and all patients taking these drugs understood when they needed to take them and were satisfied with their outcomes.

**Discussion**

This exploratory study serves to help understand consumer-directed advertising’s impact on consumers/patients. The results showed the complexity and unique characteristics each study subject presented. For some patients, consumer-directed advertising can help them find a prescription drug therapy that meets their health care needs extremely well. Quick diffusion of helpful therapies to patients who need them is useful to promote the health of individuals and society. Such positive experiences would lead these individuals to again request a medication based on information contained in an advertisement in the future.

However, all that glitters is not gold. In our case analysis, we found that some patients experienced disappointment, side effects, new challenges about how to fit the newly prescribed therapy into their lifestyle and existing drug regimen, the need for follow-up appointments with their physician, and the unwelcome challenge of how to pay for their newly prescribed therapy after price-related promotions (e.g. coupons) no longer applied. Also, for one of our subjects, it appeared that the process of requesting an advertised drug product revealed the formality of her relationship with her physician that would lead her to seek advice from a different physician in the future. These challenges are significant and serve to highlight the importance of not only drug product selection and utilization patterns that DTCA might influence but also aspects of drug product use by patients including adherence, clinical outcomes, affordability, new monitoring requirements, and the opportunity to change the new therapy if it is not satisfactory to the patient.

Other insights were gained through the in-depth interviews. Most of the patients were comfortable with asking their health care providers about advertised prescription drugs. It appears that patients had good relationships with their physicians and were encouraged to discuss various health issues. Also, it could be because consumers are taking a more active role in their own
health care. They may feel that if there is a chance that they could benefit from an advertised product, they will not hesitate to ask for it, no matter what type of relationship they have with their physicians. As one study subject put it, “I just wanted to try it to see if it would help” and then go from there. The cost implications of such an approach to prescription drug use are not known. More research is needed to understand if such trials of therapy lead to benefits that are worth the associated costs such as cost of the medications, follow-up, monitoring, and any costs associated with therapy failures.

Television and magazine advertisements were the principal sources for prescription ad exposure. This is not surprising since our society heavily utilizes these resources for entertainment and information purposes. Therefore, it is obvious why these sources may have the greatest ability to impact a larger proportion of consumers. It was interesting to note that one of the study subjects saw a print advertisement in his physician’s waiting room and decided to talk to the doctor about the medication since he was there anyway.

Our study was exploratory and utilized only 6 study subjects. Our goal was to use in-depth interviews with carefully selected cases to help us gain new insights and understanding about the effects consumer-directed advertising could have on individuals. The purpose of our study was to identify key factors related to patients’ medication adherence and health outcomes after they received a prescription that they requested based on a prescription drug advertisement. We learned that individuals (1) may be willing to “just try” new therapies to see if they work better than their existing therapies, (2) appear to make decisions about the usefulness or value of the drug product after a short-term trial, (3) compare the value of the product with the out-of-pocket cost of the product after a short trial, (4) value and seek the advice of their physician about information they see in advertisements, (5) are extremely pleased when they find that the new product actually helps them, and (6) may develop favorable views of not only the product they received (brand equity) but also about advertised prescription drug products, in general, if they had a favorable experience with the first product they requested.

The factors we identified, combined with the movement to more self-care by patients, could affect how patients will comply with prescribed therapies and evaluate the outcomes from these therapies. Patients might be willing to change therapies after a relatively short trial if they believe that there are other alternatives to try, based on information they receive through advertising. Quite often, new therapies may be advertised directly to consumers as a means to hasten the adoption of the new therapy. It is likely that there are patients who would like to try “what’s next” in therapy and would ask their physician if the new therapy might be an improvement over what they currently are taking. In marketing terms, these individuals are called “Innovators” or “Early Adopters”; they can play important roles in how new innovations are tried and adopted by the overall population (e.g., positive word-of-mouth endorsements to others).

These findings have practical implications for patient care and prescription drug use. Some patients take an active approach to their health care and ask their physician to prescribe a course of therapy that might benefit them. We interpret our findings to suggest that some patients and physicians work together to form a negotiated course of action that meets the patient’s needs and is deemed reasonable by the physician. Such an approach to the prescribing and taking of medicines has been called concordance.

In future research, concordance might be a more relevant perspective to take than the traditional notion of compliance. Concordance is an agreement reached after negotiation between a patient and a health care professional that respects the beliefs and wishes of the patient in determining whether, when, and how medicines are to be taken. Although reciprocal, this is an alliance in which health care professionals recognize the primacy of the patient’s decisions and perceptions about taking recommended medications. Concordance aims to help patients and prescribers make as well-informed a choice as possible about diagnosis and treatment and benefit and risk, and to collaborate fully in a balanced therapeutic alliance to optimize the potential benefits of medical care. The growth in consumer-directed advertising for prescription drugs might contribute to the use of this new approach to decision making about prescription drug therapy as it serves as an information source for patients and prescribers.

This was an exploratory study with the aim of gaining a better understanding of consumer-directed promotion for prescription drugs through the eyes of the consumer. Our approach allowed for preservation of individual findings and variances in effects for each subject. It also permitted any unexpected trends to appear and helped get a deeper understanding of each subject’s thoughts. However, such an approach has limitations. The small sample size provides no basis for generalizable conclusions. Also, we did not measure any health outcomes via quantitative means. All data were provided by the study subjects and represent their subjective assessments. The study participants were self-selected individuals and quite likely are individuals who thought that they had an interesting story to tell. Thus, the results most likely represent interesting case studies but do not represent generalizable data. Recall bias could be problematic in this study. It is not known how long ago the study subjects had asked for and received their prescription medications. For example, Subject 1 requested Fen-Fen, which was recalled in 1997 (at least 4 years before our study was conducted). However, it appeared that the experience she had was memorable, and she wanted to talk about it with the researcher. Such “critical incidents” can provide important insights.

Conclusion

DTCA has a variety of effects on consumers. It is difficult to gen-
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It has been shown to influence consumers to ask their health care providers about the advertised drugs and even encourage them to request a specific prescription product. As far as its effects on patient adherence and health outcomes, more research is necessary. What we learned from this exploratory study is that each study subject had a unique experience when he or she asked his or her physician for the advertised product. Consistent with previously reported research, it appears that physicians are willing to prescribe the products that patients request or, if more appropriate, similar products. However, our findings suggest that once the patient starts using those products, the patient’s experiences with the product and outcomes achieved are quite varied.

These results can serve as a guide for quantitative research. We propose that a useful next step for research would be to categorize patients who take selected drug products depending upon how they were prescribed those products (patient-initiated request or physician-initiated recommendation) and then compare patients’ characteristics, experiences, and outcomes to measure differences. Propensity scores, or other matching techniques, could be used to help assure that the 2 groups are similar on demographic and health care variables as comparisons in outcomes are made between the 2 groups.

REFERENCES


DISCLOSURES

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