

Analysis of Direct-to-Consumer Healthcare Service Advertisements on Television:
An application of the patient expectation framework

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Abstract

Direct-to-consumer advertisements for healthcare services constitute a rare channel of public communication where consumers see and hear directly from their local providers and healthcare organizations. Although spending on these advertisements has increased drastically during the past decades, research on their content and effects remains rare. To fill this gap, we analyzed primetime television advertisements for healthcare services directly targeting consumers. The advertisements were collected from the two largest media markets in Nevada for one month. In total, 795 advertisements were identified, and 106 of them were non-duplicates. Analysis revealed that the advertisements focused on patients' good health outcomes by showing them smiling, going out and about, having fun with others, and enjoying rigorous physical activities. On the other hand, the advertisements focused less on the providers. Although the advertisements often showed providers in clinical settings, basic information about their professional degrees was often missing. Mentions of providers' other qualifications and professional experiences were even scarcer. Also, a substantial number of advertisements failed to show providers interacting with patients. Additional analysis of patient and provider characteristics revealed under-representation of racial or ethnic minority and older adult patients. Representation of women and minorities as providers was even more uncommon. We discussed the implications of these findings from the perspective of patient expectation and made suggestions to help providers improve their direct-to-consumer advertisements.

Keywords: healthcare service advertising; television; direct-to-consumer advertising; patient expectation; diversity; health disparity; race; gender; older adults

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In the last decade, healthcare organizations spent approximately 33% of their marketing budget on direct-to-consumer (DTC) advertising (Pagano, 2021). For healthcare providers and organizations, DTC advertising has become an essential tool to generate new revenue streams (McCarthy, 2013). In this environment, consumers grew to accept advertising by doctors and hospitals (Moser et al., 2016) and often found providers through their own search rather than referrals, making advertising important for providers to stay on consumers' radars (Kyruus, 2018). An earlier study also found that billboard advertisements (ads) for an urgent care center were effective in attracting new patients (Fortenberry & McGoldrick, 2010).

Unlike advertising for other consumer products and services, DTC ads for healthcare services and prescription drugs have unique legal and ethical dimensions. Of the two, prescription drug advertising has been more closely scrutinized and regulated (Donohue, 2006; Rosenthal, 2016). On the other hand, DTC healthcare service advertising received very little attention from healthcare professionals and researchers alike. Although some bioethicists levied criticisms against DTC healthcare service ads (e.g., Delmas, 2014), empirical research has remained scarce.

To fill the void, this study analyzed patient motivators, provider professional qualifications and communication, and patients' and providers' personal and social identities portrayed in DTC healthcare service ads. Because patient expectation directly affects their satisfaction with the care received (Agency for Healthcare Research and Quality, n.d.; Rao et al., 2000), providers—including those who do not deploy DTC ads — need to be aware of the expectations set by the ads. This study analyzed the words and images in television ads because

television accounts for the largest share of DTC healthcare service advertising spending (Schwartz & Woloshin, 2019).

Direct-to-Consumer Healthcare Service Advertisements

In the U.S., two federal government agencies regulate DTC health advertising: the Food & Drug Administration (FDA) and the Federal Trade Commission (FTC). The FDA regulates prescription and over-the-counter drugs, medical devices, radiation-emitting products, biologics, cosmetics, and tobacco products (FDA, n.d.). On the other hand, the FTC has a much wider scope in the products in its purview. It also has a dual mission of protecting consumers from unfair, deceptive, or fraudulent business practices as well as promoting competition by enforcing antitrust laws (FTC, n.d.).

Originally, the FTC was in charge of both DTC prescription drug advertising and healthcare service advertising. However, the 1962 Kefauver-Harris Amendments to the Food, Drug, and Cosmetic Act transferred jurisdiction over prescription drug ads from the FTC to the FDA, resulting in an adoption of more stringent regulations (Donohue, 2006). Meanwhile, DTC healthcare service advertising remained under the FTC's jurisdiction, which resulted in fewer restrictions. Until the 1980s, DTC healthcare service ads other than directory listings had been banned by many professional societies. However, the FTC challenged the professional self-regulation as anti-competitive and the dispute ended in 1982 when the U.S. Supreme Court ruled in favor of the FTC (Signs, 2015). Soon after the ban was lifted, physicians in private practices began attending multi-day marketing seminars run by advertising and public relations practitioners (Dougherty, 1984).

In more recent years, some hospital and healthcare system ads produced by national advertising firms raised concerns about the ethics of using conventional advertising tactics such

as patient testimonials and emotional appeals (Rosenthal, 2016). Professional societies' responses to these controversies have been muted. In 2016, the American Medical Association (AMA) issued a Code of Medical Ethics Opinion that stated, "There are no restrictions on advertising by physicians except those that can be specifically justified to protect the public from deceptive practices." In the same statement, the AMA also suggested that advertising and other publicity materials include the educational background of the physician, the basis for fees, and available credit or other methods of payment, in addition to other non-deceptive information (American Medical Association, n.d.).

To date, only a few studies systematically analyzed the content of DTC healthcare service ads, and they converged in their findings: Television, magazine, and newspaper ads and websites of mid-to-large-sized organizations all fell short in informing consumers about the cost and risk associated with the featured services while upselling the benefits (Larson et al., 2005; Muhlestein et al., 2013; Salant & Santry, 2006; Vater et al., 2014).

The latest study that analyzed television and online ads by medical providers – including small clinics – reported similar findings (Park et al., 2020). Although the ads reliably conveyed information about what services were provided and how one could make an appointment, they had limited utility in informing consumers about the quality and cost of care. Claims of good patient outcomes were rarely substantiated, and safety issues were often not mentioned at all. Cost information (e.g., insurance, financing, price) was present in even fewer ads. Further, the scarcity of substantive information was more pronounced in television ads, prompting the question of what the ads convey to consumers if they do not provide information about the quality, safety, and cost of the featured services.

Health Outcomes as Patient Motivators

Because television is primarily a visual medium, a closer examination of the visual cues might yield better insights into the messages the ads convey to their audiences. In doing so, we turned to content analysis studies of prescription drug ads for guidance. Many of these studies focused on whether the factual claims in the ads met the FDA's DTC prescription drug advertising guidelines for fair balance between the drug benefits and risks (FDA, 2012). They drew similar conclusions: Across media outlets, the ads placed stronger emphasis on the advertised drugs' benefits than risks (e.g., Adams, 2016; Avery et al., 2012; Kaphingst et al., 2004). In three studies, researchers also analyzed the images. None reported a negative image accompanying the risk information. Instead, one study tallied 91% neutral images and 9% positive images (Adams, 2016), another counted 99.9% positive images (Avery et al., 2012), and the third reported 91% positive or neutral images with no negative images (Kaphingst et al., 2004). However, because the studies provided little details about the image coding, we cannot tell what types of images were coded as positive versus neutral or what the images actually showed.

One study focusing on the visual content of prescription drug ads provides more insights into the images. Applying social cognitive theory (Bandura, 1994), Cline and Young (2004) reasoned that visual cues in DTC prescription drug ads could serve as motivators for consumers to seek out the advertised products. In an analysis of magazine prescription drug ads (Cline & Young, 2004), they found that ads showing patients taking medications—consuming the advertised product—were rare. Instead, the vast majority of the ads exclusively featured healthy-looking people, with less than 10% showing ill-looking patients. More than 70% of the ads featured patients smiling or looking friendly. The ads were also more likely to show active patients—whether physically or socially—than physically inactive or socially isolated patients.

More recent evidence shows that use of positive motivators to drive interest in drugs has continued. A study analyzing prescription drug ads from 2004 (Frosch et al., 2007) and a follow-up study examining prescription drug ads from 2016 (Applequist & Ball, 2018) revealed that more than 94% of ads used positive emotional appeals. At the same time, the use of negative emotional appeal became less common, from 75% to 51%. The percentage of ads showing the product as an enabler of recreational activities increased from 56% to 69%.

Based on the existing literature, one research question was generated to identify patient motivators in DTC healthcare service ads:

RQ1. What are the patient motivators depicted in direct-to-consumer healthcare service advertisements on television?

Providers' Professional Qualifications and Communication

In addition to health outcomes (e.g., being healthy, happy, and socially or physically active), another distinct dimension of patient expectations for their healthcare interactions centers around what patients want from their providers (Bowling et al., 2012). Patients' expectations about providers fall into two domains: clinical knowledge/skills and the patient-provider relationship (Lateef, 2011). Healthcare service ads can set patients' expectations about providers by conveying information about their professional qualifications. The ads can also illustrate through audiovisual features what patients can expect when they come into the care facilities and interact with providers.

There are a few studies that examined how frequently plastic surgeons identified their professional qualifications in promotional messages. Whereas virtually all plastic surgeons had their professional qualifications featured on their website homepages (Park & Park, 2017), less than half of plastic surgery ads in magazines included the information (Hennink-Kaminski et al.,

2010). Further, professional qualifications were found in 38% of plastic surgeons' Instagram profiles and 4% of Instagram posts (Joa & Park, 2021).

On the provider directories of healthcare system websites, providers' professional qualifications were more reliably featured. In family physicians' text and video biographies (Perrault, 2014) and primary care providers' text biographies (Perrault et al., 2021; Perrault & Smreker, 2013), almost all providers had their professional credentials (i.e., professional degrees, fellowship, licensure, etc.) identified. The studies also reported a strong presence of education and other professional qualification elements, ranging between 65% and 99%.

Research examining the depiction of patient-provider interaction is harder to find. The content analysis of family physicians' biographies on healthcare system websites (Perrault, 2014) reported that only about 10% of the websites contained video biographies, and only a quarter of the video biographies showed the doctors interacting with a patient. However, patients identified good communication attributes (e.g., being attentive, caring, etc.) as the most important quality in their doctors (The Associated Press & NORC Center for Public Affairs Research [AP-NORC], 2014; Perrault, 2014). After watching a few doctors' video biographies where the doctors talked about themselves, people also wished that the videos had included footage of the doctors interacting with patients or staff (Perrault, 2016).

In addition to providers' professional qualifications and communication, consumers identified providers' professional experience and office environment as important factors (AP-NORC, 2014). However, information on these factors was not readily available. For example, the number of years practicing was present on approximately one in ten online biographies of family physicians (Perrault, 2014) and primary care providers (Perrault et al., 2021; Perrault & Smreker, 2013). In addition, doctors' offices were shown in less than one-third of family medicine

doctors' video biographies (Perrault, 2014). Due to the scarcity of previous studies, the analysis of provider attributes portrayed in DTC healthcare service ads was also guided by a research question rather than a hypothesis:

RQ2. What are providers' professional qualifications and communication with patients and other providers depicted in direct-to-consumer healthcare service advertisements on television?

Personal and Social Identities of Patients and Providers

The personal and social identities of patients and providers constitute the third dimension of patient expectations we examined. Previous studies reported common use of patient testimonials where actual patients of the providers praised the care they received, despite some concerns about the misrepresentation of exceptional cases as the norm (AMA, n.d.; Salant & Santry, 2006; Vater et al., 2014). On the other hand, identifying the providers and having them speak directly to the television audiences could serve as valuable functions similar to the video biographies on healthcare system provider directories (Perrault, 2016).

Social identities of patients and providers – gender, race/ethnicity, and age – represented in the ads are important from the diversity and equity perspective. The social identity theory predicts that people are more likely to pay attention to and respond favorably to ads if the ads feature people who share their social identities (Sierra et al., 2009). Although no study to date examined patient characteristics in DTC healthcare service ads, two studies analyzed gender and race/ethnicity of humans featured in DTC prescription drug ads (Cline & Young, 2004; Mastin et al., 2007). In both studies, ads featuring only women were the most common, followed by ads showing mixed-gender models. Ads with only men were the least common. In terms of race/ethnicity, the studies analyzed ads from different periods and different magazine titles and

yet concurred that about three-quarters of all ads featured white models only. Because the representation of patients' gender and race in the ads was not consistent with the prevalence rates of the featured diseases in the demographic groups, the findings raised concerns that the ads might perpetuate the caregiver stereotype for women and exacerbate existing health disparities. One study also reported that representation of older adults was lacking (Cline & Young, 2004).

Demographic characteristics of providers have not been examined in either DTC healthcare service ads or prescription drug ads. Representation of providers in the ads is important because it could reinforce the stereotype of doctors being white and male. For patients with a gender-based preference for their providers (Varia et al., 2014), the gender(s) of providers shown in the ads can be crucial information. Furthermore, ads featuring racial/ethnic minority providers could help mitigate health disparities because some minority patients prefer providers who share their racial/ethnic background (Jang et al., 2021). Also, patient-provider concordance in race/ethnicity was linked to higher trust and patient satisfaction (Takeshita et al., 2020). Hence, the personal and social identities of patients and providers were examined to answer these two research questions:

RQ3. What are the personal and social identities of patients depicted in direct-to-consumer healthcare service advertisements on television?

RQ4. What are the personal and social identities of providers depicted in direct-to-consumer healthcare service advertisements on television?

Method

Collecting Television Advertisements

The unit of analysis was a television ad for healthcare services. All primetime television ads for healthcare services were collected for one month from Las Vegas and Reno, the two most

populous local television markets in Nevada. For data collection, healthcare service was defined as a clinical service provided by credentialed professionals, and at least some of the services offered in the office/organization had to be covered by Medicare, including Medicare Part C. The definition included medical, dental, behavioral health, vision, and hearing aid services but excluded spas, gyms, and nonprescription orthotics.

To locate the ads, we used a television programming recording service. Two research assistants located and saved the ads while speed-watching the entire primetime programming from the four local affiliates of ABC, CBS, NBC, and Fox in each market. The spoken words in the saved ads were transcribed using an online transcription software, and a research assistant reviewed the transcript for each ad for accuracy. See [Appendices A](#) and [B](#) for examples of the television ads.

Coding Variables

The content of all unique ads, encompassing the visual, verbal, and written content, was analyzed by two coders. After test-coding 40% of unique ads and reconciling differences, the two coders reached perfect agreements for all coding variables (Krippendorff's $\alpha = 1$). Because there were only 106 unique ads, both coders analyzed all of them.

Patient Motivators

Each ad was examined for patient presence and motivators. Patient presence was recorded at four levels; All patient motivators were dichotomous variables. The patient motivators and their operational definitions were borrowed from Cline and Young (2004) and modified for clarification when necessary.

Patient Presence. People who could clearly be identified as non-clinical or non-administrative personnel at a clinic or hospital were coded as patients. Because this category not

only included those wearing patient gowns but also counted people in plain clothes shown in various settings such as clinical offices, outdoors, and stores, family and friends could have been counted as patients as well. The number of patients in each ad was coded as zero, one, two, or three and more.

Patient Using Healthcare Service. If one or more patients were shown taking medication, consulting a clinician, or undergoing screening or treatment, the ad was coded as showing a patient using healthcare services.

Patient Looking ill. A patient was counted as looking ill when the person exhibited outwardly expressed pain, low energy, or frailty.

Patient Looking Friendly. If an ad showed a patient smiling or laughing, the ad was coded using friendliness as a patient motivator.

Patient inside Home. Each ad was examined to determine whether it showed a patient inside their homes.

Patient out of Home: Indoor. The indoor settings included a restaurant, coffee shop, gym, airport, and other places. Home and clinic did not count.

Patient out of Home: Outdoor. Outdoor was defined as natural settings such as forests, mountains, and beaches. Gardens in care facilities did not count.

Patient Being Inactive. The state of being inactive was operationalized as sitting, sleeping, or reading. However, the same behaviors were not coded as inactive if expected in the depicted context, such as riding in a car or being in a classroom.

Patient Being Physically Active. Engaging in activities such as climbing stairs, hiking, biking, and dancing or wearing physical work-related clothing or equipment were all counted as being physically active.

Patient Being Socially Active. Interacting with one or more people, not including providers or office staff, was coded as being socially active.

Provider Professional Qualifications and Communication

Each ad was examined for the presence of provider professional degree, other clinical credentials, experience, and visual images of the clinical facility as well as providers' communication with patients. As inter-professional teamwork is an indicator of high-quality care (Rosen et al., 2018), communication between providers was also recorded. Provider presence was measured on a four-point scale (0, 1, 2, 3 and more) and their attributes were measured as dichotomous variables (present or absent). As long as an ad showed at least one provider with a given attribute, the ad was coded as showing the provider attribute.

Provider Presence. Providers included both clinicians and administrators. Hence, the people identified as providers or shown in a medical gown or scrubs, handling a medical device or paperwork, or behind a front desk were all counted.

Provider Professional Degree. Each ad was examined to determine whether it identified the professional degree(s) of the people in charge of the clinical care (e.g., MD, DO, PA, APRN, DPT). If an ad only mentioned "doctors and nurses," it was also coded as presenting the professional degree information.

Provider Other Credentials. Other credentials included board certification, the school or hospital where the provider completed internship or residency, and the provider's affiliation with a professional organization, university, or hospital. As long as an ad mentioned any of these, it was coded as conveying other credential information.

Provider Experience. Experience included the number of years in practice, number of patients seen, and cases performed.

Provider at Clinic. The clinic was defined as any part of the building and land, including exam rooms, hallways, and conference rooms.

Provider with Patient. When an ad showed one (or more) provider with one (or more) patient in one scene, it was coded yes.

Provider Communicating with Patient. Ads showing one (or more) provider with one (or more) patient in one scene were further coded to determine whether they were communicating with each other (e.g., making eye contact or talking with each other).

Provider with Another Provider(s). When an ad showed two or more providers together in one scene, it was coded yes.

Provider Communicating with Provider. Ads showing two or more providers together in one scene were further coded to determine whether they were communicating with each other (e.g., making eye contact, talking with each other, or looking at the same chart/image).

Personal and Social Identities of Patients and Providers

Given prospective patients' desire to see providers identify themselves and speak to them in video biographies (Perrault, 2016), the ads were examined to determine whether providers identified their names and spoke directly to the television audiences. Patients' name identification and speaking to the camera was also recorded because of the AMA's concerns about the potential misuse of patient testimonials in healthcare service ads (AMA, n.d.). Based on source homophily of advertising audiences (Sierra et al., 2009) and patients' gender and race/ethnicity-based preference for providers (Jang et al., 2021; Varia et al., 2014), patients and providers' gender and race/ethnicity were coded. In addition, age of patients was examined because older patients were underrepresented in DTC prescription drug ads (Cline & Young, 2004). Lastly, we examined whether the ads hired actors to play providers instead of showing the

actual providers because using actors would diminish the informational value of ads in helping patients choose their providers. Only the ads with at least one patient or provider in a major role were examined for the further details of the patients and providers.

Major Role. Playing a major role in an ad was defined as either being a focus of the camera frame or staring into the camera to allow us to identify the provider or patient's facial features. Providers were classified into clinicians and administrators, and non-providers were classified into patients and family/friends. Clinicians and patients were the default options unless identified as administrators or family/friends.

Speaking. A patient/provider who spoke to the camera was coded as having a speaking role. Talking to another person in the ad did not count as a speaking role.

Name identified. Ads were examined to determine whether a patient/provider was identified by their name, whether first name, last name, or both.

Gender: women. As long as an ad showed a woman as a patient/provider, it was coded yes for this variable.

Gender: men. As long as an ad showed a man as a patient/provider, it was coded yes for this variable.

Race/Ethnicity: minority. As long as an ad showed at least one person with a non-white race/ethnicity as a patient or provider, this variable was coded "yes". The identification was made in consideration of their appearance (e.g., skin color, facial features, hair texture, attire, etc.) and name, if identified. For providers, coders also looked up their practice websites for further clarification, when their race/ethnicity was not immediately clear.

Race/Ethnicity: white. As long as an ad showed a white person as a patient/provider, it was coded yes for this variable.

Age: child/adult/older adult (patients only). Age was determined based on their appearance. Each ad was coded three times for featuring a child, an adult, and an older adult. Providers were not coded for age.

Actor (providers only). Providers in a major role were coded for being an actual provider or actor. When not self-evident in the ad itself, coders visited the practices' websites to verify. Patients were not coded for being actors or actual patients.

Statistical Analysis

The research questions concerning patient motivators (RQ1), provider professional qualifications and communication (RQ2), personal and social identities of patients and providers in major roles (RQ3 & 4) were answered descriptively with frequencies. First, the percentage of each variable was reported based on two parameters, the numbers of unique ads and total ads. The 106 unique ads were repeated 7.5 times on average, resulting in 795 total ads. However, one ad for a hospice facility was repeated 127 times, making it an extreme outlier. To keep the ad from skewing the results, we eliminated the ad from the total ads, although it remained in the 106 unique ads. Thus, the total number of all ads was 668, after subtracting 127 from 795 ads. See [Appendix C](#) for the characteristics of the 106 unique ads and 668 total ads. Because not all ads featured patients or providers, one more pair of percentages (e.g., the number of ads containing a feature divided by the number of unique/total ads showing a patient or provider) were calculated to answer each research question.

Results

RQ1. Patient Motivators

A majority of the ads featured patients. See Table 1 for detailed figures. When they featured patients, they were far more likely to show three or more patients (64% of unique ads;

74% of total ads) instead of just one or two. Approximately half of the ads showed patients using some healthcare service (48% of unique ads; 51% of total ads).

Ads showing visibly ill patients were not common (18% of unique ads; 9% of total ads). Most ads showed smiling, friendly-looking patients (82% of unique ads; 91% of total ads). More than twice as many ads showed patients out-of-home (57% of unique ads; 64% of total ads) as inside home (24% of unique ads; 32% of total ads). The out-of-home locations were almost three times more likely to be outdoors (50% of unique ads; 51% of total ads) than indoors (16% of unique ads; 19% of total ads). Only a small number of ads showed patients in a state of inactivity (11% of unique ads; 14% of total ads). In contrast, almost five times more ads depicted patients in a state of social or physical activity (56% of unique ads; 67% of total ads).

- Table 1 about here -

RQ2. Provider Professional Qualifications and Communication

The majority of ads featured providers. See Table 2 for detailed figures. Almost one-half of unique ads with providers featured only one provider (49% of unique ads). Among total ads with a provider, three or more providers were the most common (51% of total ads).

More than half of ads with providers identified the professional degrees of providers (60% of unique ads; 55% of total ads). Ads mentioning other credentials were not common (24% of unique ads; 17% of total ads). Providers' experience was noted in even fewer ads (10% of unique ads; 12% of total ads).

Most ads showed providers in a clinical setting (86% of unique ads; 86% of total ads). When providers were shown with patients (58% of unique ads; 66% of total ads), almost all of them communicated with patients rather than simply treating patients without talking or making eye contact with them. When providers were shown with other providers (33% of unique ads;

32% of total ads), they were more likely to interact with other providers than simply posing together in front of a camera.

- Table 2 about here -

RQ3. Personal and Social Identities of Patients in Major Roles

Approximately one-third of ads featured at least one patient/family/friend (PFF) in a major role. See [Appendix D](#) for detailed figures. Most of them showed patients (92% of unique ads; 97% of total ads). A substantial number of ads also showed family/friends (34% of unique ads; 40% of total ads). A majority of the PFFs served as a spokesperson for the clinic, offering their endorsement (74% of unique ads; 76% of total ads). Slightly more than half of the PFFs were personally identified by their names (53% of unique ads; 52% of total ads).

Women were more common in unique ads (66%), whereas men were more common in total ads (70%). Racial/ethnic minority patients were less common in both unique ads and total ads (40% of both unique and total ads) than white patients (79% of unique ads; 87% of total ads). In terms of age, ads showing adults were the most common (79% of unique ads; 68% of total ads). Older adults were a minority, although their percentage increased among the total ads (16% of unique ads; 37% of total ads). Children were the least common (16% of unique ads; 12% of total ads).

RQ4. Providers in Major Roles

Close to half of unique ads featured at least one provider with a major role, although the percentage was smaller among total ads. See [Appendix E](#) for detailed figures. Most of the ads showed clinicians (89% of unique ads; 93% of total ads). A small number of ads showed administrators (11% of unique ads; 7% of total ads). The vast majority of the providers served as

a spokesperson for their clinic (96% of unique ads; 97% of total ads). A majority of the providers were also personally identified by their names (78% of unique ads; 81% of total ads).

Demographically, less than one-third of the ads featured women as providers (30% of unique ads; 26% of total ads). On the other hand, most ads showed male providers (78% of unique ads; 82% of total ads). Similarly, racial/ethnic minority providers were shown in approximately one-fifth (22%) of unique ads and one-third (35%) of total ads. White providers appeared in most ads (87% of unique ads; 73% of total ads). A few ads (15% of unique ads; 13% of total ads) featured actors as providers instead of the actual providers.

Discussion

The current study analyzed DTC healthcare service ads on television, including text and audiovisual information, to identify patient motivators, provider professional qualifications and communication, and the patients' and providers' personal and social identities. Similar to DTC prescription drug ads (Cline & Young, 2004), DTC healthcare service ads highlighted good health outcomes to motivate viewers to choose the advertised providers. Patients were smiling and going out and about, having fun with others, and even enjoying rigorous physical activities. Ads showing patients looking ill or inactive were uncommon. Having said this, the service ads were more realistic than the prescription drug ads: The percentage of healthcare service ads showing people using the services was higher than prescription drug ads showing people taking the medications (Cline & Young, 2004).

While the television ads emphasized good health outcomes, they did not highlight the advertised providers, who would primarily be responsible for the good outcomes. Although the ads often showed providers in a clinical setting, basic information about their professional degrees was missing in many ads, with even fewer ads mentioning specific qualifications and

relevant experience. Similarly, a substantial number of ads failed to show how the providers treat and interact with patients. In addition, the ads fell short in illustrating coordination between providers. Some of these shortcomings might be linked to structural limitations, such as having only one doctor in the practice. But, even then, the ads could have shown an interaction between the primary provider and other clinicians or administrators. Filming the ads in actual clinics rather than in studios is another remedy advertisers can easily adopt to enhance the informational value of the ads to prospective patients.

More detailed analysis of patients and providers in major roles revealed under-representation of racial or ethnic minorities as patients in a state where racial or ethnic minority residents together constitute more than half of the population (United States Census Bureau, n.d.). The even lower percentages of women and minority providers, vis-à-vis men and white providers, might reflect the actual state of women and minority provider shortage. Still, advertisers could alleviate the lack of representation by purposefully showcasing their current women and minority providers more and hiring more women and minority clinicians and administrators. Another under-represented social identity group was older adult patients. Given that people 65 and older spend almost three times more on healthcare than people between 19 and 64 (Lassman et al., 2014), this finding might be part of the larger trend in the media that visually under-represents older adults (Loos & Ivan, 2018). The use of actors instead of actual providers, albeit only in a few ads, is worth mentioning because it suggests that patients' relationships with their providers are not as important as their relationships with the healthcare brand. Despite these shortcomings and potential negative implications, some of the ads also reflected the notion of patient-centered care by including patients' families and friends in major roles.

Overall, the robust visual representation of a healthy and active lifestyle may speak directly to patients' expectations about health outcomes. The disproportionate emphasis on positive outcomes, in comparison to the not-so-upbeat reality of patient-hood, could raise patient expectations, which could eventually lead to disappointment and lower satisfaction. On the other hand, the ads did not fully address patients' expectations about providers' clinical skills and relationships with patients. Between the two, providers' clinical qualifications received even less attention. Those who created the ads might have considered displaying providers' professional credentials as an elitist posture and unappealing. However, this information is what consumers wanted to know most when searching for providers (AP-NORC, 2014), and thus omitting these details reduces the informational value of the ads for consumers. Further, repeated exposure to DTC healthcare services ads that similarly underplay provider qualifications may condition consumers to look for ancillary cues as quality indicators.

The strong emphasis on good health outcomes without a similarly strong emphasis on provider qualifications might be linked to the disconnect between U.S. patients' (high) satisfaction with the care they received and their (low) trust in physicians (Blendon et al., 2014). By underrepresenting minority and senior patients, many ads also failed to set the expectation that these large, yet marginalized, groups of patients are welcome to the practices. Further, the ads reaffirmed the culturally embedded expectation about white male doctors as the authority figures by showing only a few women and minority providers.

Given the FTC's emphasis on protecting consumers from deceptive advertising, the FTC's jurisdiction over DTC healthcare service ads may not result in new regulatory constraints for these ads, so long as the ads are not demonstrably misleading or deceptive. Hence, improving informational value of the ads and cultivating more realistic patient expectations may be best

achieved by giving providers and healthcare marketers tools to aid their advertising decision making. See [Appendix F](#) for a preliminary list of considerations for informative and ethical DTC healthcare service advertising.

Limitations

This study has several limitations. First, it was exploratory in theory and descriptive in the method. The scarcity of DTC healthcare service advertising research made it difficult to develop a coherent conceptual framework and more sophisticated analytic strategies. Second, the number of unique ads analyzed was limited. Needs for healthcare services are primarily met in local markets, and thus it is important to study local ads. Future researchers are advised to explore more cost-effective ways of identifying the ads. Third, we focused on television ads in one state. Hence, our findings should be understood with that caveat. Fourth, we primarily depended on appearance to determine race/ethnicity, age, and gender of patients and providers, which may result in mis-specification bias. In case of advertising characters, however, casting calls are typically written with specific demographic attributes (e.g., “father 40 to 50, Black. Loving and friendly”) and thus appearance-based coding of patients was deemed acceptable for this study. Last but not least, the concerns about the potential impact of the ads on patient expectations are based on theoretical conjectures and need to be examined through empirical methods such as focus groups and experiments.

Conclusion

DTC healthcare service ads constitute a rare public communication channel where consumers see and hear directly from their local providers. The most dominant elements in the ads were good health outcomes. In comparison, providers’ professional qualifications and interactions with patients and other providers were not as prominent. In addition, the ads

underrepresented minority and older adult patients and showed even lower percentages of women and minority providers, vis-à-vis men and white providers. If healthcare service providers care about making their ads helpful for prospective patients, they need to pay attention to what the ads say and show. Conscious efforts to remedy the shortcomings and continued monitoring of the ads are needed.

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Table 1. Patient motivators

	Unique ads			Total ads		
	<i>n</i>	% of ads (106)	% of ads with patient (84)	n	% of ads (668)	% of ads with patient (573)
Patient present	84	79.2	-	573	85.8	-
one person	16	15.1	19.0	84	12.6	14.7
two persons	14	13.2	16.7	64	9.6	11.2
three or more	54	50.9	64.3	425	63.6	74.2
Using healthcare	40	37.7	47.6	293	43.9	51.1
Looking ill	15	14.2	17.9	53	7.9	9.2
Looking friendly	69	65.1	82.1	522	78.1	91.1
Inside home	20	18.9	23.8	185	27.7	32.3
Out of home	48	45.3	57.1	369	55.2	64.4
indoor	13	12.3	15.5	110	16.5	19.2
outdoor	42	39.6	50.0	291	43.6	50.8
Inactive	9	8.5	10.7	80	12.0	14.0
Active	47	44.3	56.0	383	57.3	66.8
physically	31	29.2	36.9	252	37.7	44.0
socially	37	34.9	44.0	292	43.7	51.0

Table 2. Providers' professional qualifications and communication

	Unique ads			Total ads		
	<i>n</i>	% of ads (106)	% of ads with provider (80)	<i>n</i>	% of ads (668)	% of ads with provider (467)
Provider present	80	75.5	-	467	69.9	-
	one provider	39	36.8	178	26.6	38.1
	two providers	13	12.3	52	7.8	11.1
	three or more	28	26.4	237	35.5	50.7
Professional degree	48	45.3	60.0	257	38.5	55.0
Other credentials	19	17.9	23.8	80	12.0	17.1
Experience	8	7.5	10.0	58	8.7	12.4
At clinic	69	65.1	86.3	401	60.0	85.9
With patient	46	43.4	57.5	308	46.1	66.0
Comm. w/ patient	41	38.7	51.3	278	41.6	59.5
With provider	26	24.5	32.5	149	22.3	31.9
Comm. w/ provider	16	15.1	20.0	105	15.7	22.5