Framing Medical Tourism: An Examination of Appeal, Risk, Convalescence, Accreditation, and Interactivity in Medical Tourism Web Sites

Alicia Mason & Kevin B. Wright

Routledge
Taylor & Francis Group

Framing Medical Tourism: An Examination of Appeal, Risk, Convalescence, Accreditation, and Interactivity in Medical Tourism Web Sites

ALICIA MASON

Department of Communication, Pittsburgh State University, Pittsburgh, Pennsylvania, USA

KEVIN B. WRIGHT

Department of Communication, University of Oklahoma, Norman, Oklahoma, USA

This exploratory study analyzed the content of medical tourism Web sites in an attempt to examine how they convey information about benefits and risks of medical procedures, how they frame credibility, and the degree to which these Web sites include interactive features for consumers. Drawing upon framing theory, the researchers content analyzed a sample of 66 medical tourism Web sites throughout the world. The results indicated that medical tourism Web sites largely promote the benefits of medical procedures while downplaying the risks, and relatively little information regarding the credibility of these services appears. In addition, the presentation of benefits/risks, credibility, and Web site interactivity were found to differ by region and type of facility. The authors discuss the implications of these findings concerning the framing of medical tourism Web site content, future directions for research, and limitations.

Medical tourism, sometimes referred to as *health tourism, medical outsourcing*, or *medical travel*, can be traced back to ancient Greece where seekers came from all over the world to the Mediterranean to find the mercy of the "healing god" Asklepios at Epidaurus (Chew & Mit, 2007). In addition, throughout the centuries, people in Western culture have made pilgrimages to various sites that were known for their healing properties, such as the waters at the Shrine of Bath in England and other locations around Europe (MacIntosh, 2004). The contemporary era finds major centers for medical tourism in southeast Asia, South America, and proximally as close as Cuba. These agencies offer comparatively low-cost medical services (compared with health services in the United States) and use the Internet to promote their services (including cosmetic surgery) to an international audience.

As a result of globalization and international communication, medical tourism has become an increasingly popular health care alternative for Americans. Al-Bawaba (2008) estimated the worth of the medical tourism industry to be currently around $56 billion worldwide, and it is projected to be worth $100 billion

Address correspondence to Kevin B. Wright, Department of Communication, 610 Elm Avenue, Room 101, University of Oklahoma, Norman, OK 73019, USA. E-mail: kbwright@ou.edu

Table 1. Cost comparison of medical procedures in the United States versus foreign countries

Procedure	United States	India	Thailand	Singapore
Heart bypass	130,000	10,000	11,000	18,500
Heart valve replacement	160,000	9,000	10,000	12,500
Angioplasty	57,000	11,000	13,000	13,000
Hip replacement	43,000	9,000	12,000	12,000
Hysterectomy	20,000	3,000	4,500	6,000
Knee replacement	40,000	8,500	10,000	13,000
Spinal fusion	62,000	5,500	7,000	9,000

Cost represented in U.S. dollars, excluding travel and convalescence expense.

by 2012. As the patient selection of overseas medical care service is expected to drastically increase over the next decade, the representation of such services is vitally important to potential clientele. According to the National Coalition on Healthcare, approximately 500,000 Americans travel abroad for medical treatment each year for various affordable medical procedures (Go, 2008). Whether Americans are uninsured, uninsurable, or underinsured, medical tourism provides a popular substitute to the current U.S. system of preventative and urgent care response (see Table 1).

The high cost of health care in the United States likely explains one motive for the increase of medical tourism among Americans. In the United States today, approximately 43 million people are without health care, and 120 million Americans live without any form of dental coverage. While nearly all European countries have adopted nationalized health care systems, some nationalized health care countries, such as Canada, have even begun reimbursing medical tourists for overseas services in an effort augment delays in nationalized health care services. Despite the increase in medical tourism, relatively few researchers have explored this phenomenon (for exceptions, see Jones & Keith, 2006; MacReady, 2007; Mattoo & Rathindrin, 2006; Milstein & Smith, 2006), and no studies of medical tourism currently exist in the health communication literature. The goals of this exploratory study were twofold: (a) to assess the framing of content, and (b) to examine the practical component of interactivity within medical tourism Web sites. Specifically, the study focuses on how messages on these Web sites convey information about benefits and risks of medical procedures, how they frame credibility, and the degree to which these Web sites include interactive features for consumers. Toward that end, we ground this study in framing theory and review literature related to the framing of health benefits and risk information, Web site credibility, as well as literature dealing with Web site interactivity.

Review of Literature

Framing Theory

Object/issue framing theory/research serves as a useful theoretical framework for investigating medical tourism Web sites. Audience framing involves invoking a "schemata of interpretation" that enables individuals to "locate, perceive, identify and label" information attended to in the environment (Goffman, 1974). The

original definition posited by Entman (1993) argued that to frame is "to select some aspect of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation" (p. 52) for the item described.

Message framing has emerged as a dominant model in media effects research (Price & Tewksbury, 1997). Media, health, and advertising researchers take note of framing effects because the manner in which information is presented may, in fact, influence consumers' decisions and judgments toward products (for a review of framing research, see Levin & Gaeth, 1998).

Typically, such research centers on the way the presentation of information in gain- versus loss-frames scenarios affects an individuals' cognitions, intentions, and dispositions toward health-related behaviors or products (e.g., Block & Keller, 1995; Rothman, Salovey, Antone, Keough, & Martin, 1993; Rothman, Martino, Bedell, Detweiler, & Salovey, 1999). Current research in the health context indicates that negative frames tend to have the greatest influences on individuals, given that audiences tend to be risk adverse (Block & Keller; Meyerowitz & Chaiken, 1987; Steffen, Sternberg, Teegarden, & Shepard, 1994).

Chang (2007) cited that for products with high perceived risk, "negatively framed information increases consumers' need for information about the relevant attribute of the product, its negative consequences, and ways to avoid the occurrence. [As a result this]...need for information affects consumers level of information and acquisition" (p. 52). It is currently unknown how Web sites are framing the concept of medical tourism and its attributes to worldwide audiences. Because there is no extant literature on how medical tourism Web sites may be informing (and influencing) the decision practices of potential consumers through Web sites, this research aimed to use framing theory as a conceptual framework to analyze the persuasive attributes of medical tourism Web sites (and their potential for influencing medical tourism decision making).

Medical Tourism and Medical Tourism Web Sites

Recent empirical findings support the need to study health-related Web sites and information on the Internet (for a review, see Neuhauser & Kreps, 2003). A 2003 survey found nearly 80% of all patients go online for health-related information (Van Knoop, Lovich, Silverstein, & Turry, 2003). Web sites are an important marketing strategy for medical facilities abroad who are attempting to attract foreigners to their medical facilities. The investors and administrators in these organizations and facilities have a significant financial interest in attracting new clients, and so they must be strategic in terms of crafting messages that will appear on their Web sites. However, no studies to date have investigated how these messages are framed through medical tourism Web sites, and particularly how messages dealing with allure and appeal, procedural risk, postoperative/convalescence care and accreditation are being conveyed by Web sites.

Framing of Potential Health Benefits and Risks of Medical Procedures on Medical Tourism Web Sites

Because risk-adverse alternatives are preferred when consumers deliberate benefits and/or gains in advertisements, Chang (2007) hypothesized and supported that

positively framed messages were more likely to advance the promotion of travel health care products with low perceived risks. Given the conundrum of uncertainty surrounding the international travel, quality of health care, and physician credibility and expertise associated with medical tourism, it is presumed medical tourists approach this health care alternative with a high level of perceived risk. However, Pachisa (2007) provided the top ten reasons medical tourism is so attractive to medical patients. While the significantly lower expense is the most prominent allure, additional benefits include lack of wait time, excellent quality, and travel opportunity, among others. Yet, there are a number of negative aspects of medical tourism. For example, although medical tourism is appealing, a number of problems emerge from seeking medical care abroad, such as the following: government and basic medical insurance may not cover international medical procedures, requiring patients to pay in cash, and there is little postoperative care for potential negative side effects. In addition, most countries that offer highly attractive medical procedures offer little malpractice recourse and the potential exposure to viruses in foreign countries creates concern for the process of travel, medical, or otherwise.

Although some hail medical tourism as first world treatment at third-world prices, others urge caution. Tan and Lim (2007) noted that if a facility has a "focused factory," or specialized approach, then medical tourists should confirm full access to all the specialists a person "might need in a medical disaster, e.g., nephrologists in case of post-operative kidney failure requiring dialysis, infectious disease physicians for post-operative wound infection etc." (p. 10). In addition, recovery needs vary on the basis of the nature of the procedure. Some markets offer recovery retreats with 24-hour trained nursing staff, whereas others offer recovery time at hotels or lodges several miles away from the physician and facilities at which services were rendered. The expanded distance between physician and patient after surgery greatly increases the response time should postoperative complications result. On the basis of framing theory and the literature on the risks and benefits of medical tourism, we posed the following questions:

Research Question 1a: To what extent do the medical tourism Web sites communicate both benefit and risk of medical procedures?

Research Question 1b: Do messages regarding benefits and risks of medical procedures differ by region and type of facility?

Framing of Credibility on Medical Tourism Web Sites

The Internet allows groups to represent themselves by linking to other Web sites. Although the content of hyperlinks is not analyzed in this study, the presence of hyperlinks was coded when the Web sites offer direct links to accreditation organizations. When choosing a medical provider, the accreditation or certified skill level of the provider or facility should be a major concern for foreign patients. Two organizations exist on the international level to offer insight into the educational, skill, knowledge, and background (records) of facilities and practitioners. The Joint Commission International is considered to be the "gold standard" for international credentialing. Their seal is considered to be an internationally sign of a hospital that operates with the highest standards.

In contrast, the International Organization for Standardization (ISO) includes approximately 100 countries. The "ISO 9000:2001" is designed as a management tool "to achieve control and consistency in all aspects of business, from technical

to administrative" (Freeman Health System, 2003, p. 1). The Joint Commission International and the International Organization for Standardization provide credibility for international medical care.

However, not all Web sites rely on such standards to establish credibility among consumers. Other credibility appeals, such as patient testimonials and information about physician and organizational expertise and background appear to be common ways to target credibility issues among consumers. The ways in which medical tourism Web sites establish and advertise credibility to audiences has not been examined in previous research. Such information would be useful in terms of extending our understanding of how credibility is framed with medical tourism and other similar types of health-related service Web sites. Therefore, we posed the following research questions:

Research Question 2a: How are medical tourism Web sites establishing/advertising credibility to their audiences: (a) branding (logo), (b) accreditation (e.g., Joint Commission International, International Organization for Standardization), (c) testimonials, or (d) physician expertise/background?

Research Question 2b: Do credibility appeals differ by region and type of facility?

Web Site Interactivity

In addition to the framing of content concerning risks, benefits, and credibility, we were interested in the interactive Web components within medical tourism Web sites, particularly as it relates to the potential influence of these Web sites may have on consumer behavior. Several researchers have explored Web site interactivity, and they have found perceptions of interactivity to be important in terms of influencing consumer behavior (Chen, Griffith, & Shen, 2005; Jee & Lee, 2002; McMillan & Hwang, 2002). For example, Chen and colleagues found that individuals who perceived greater Web site interactivity had higher trust of the Web site source and greater understanding of the Web site. In addition, these researchers also found this relation to positively affect participants' offline purchase intentions (Chen et al.). Similarly, McMillan and Hwang randomly assigned participants to Web sites with low and high levels of interactivity, and they found that higher perceived interactivity was associated with more positive attitudes toward the Web site content as well as intention to act upon the Web site information. However, other researchers did not find evidence for a relation between interactivity and positive attitude toward the Web site (Bezjian-Avery, Calder, & Iacobucci, 1998; Coyle & Thorson, 2001). Previous scholars have speculated that the differences in study findings is partially based on whether interactivity was operationalized objectively (e.g., counting the number of interactive features) or subjectively (e.g., perceptions of interactivity). Yet, objective and subjective measures of Web site interactivity have been found to be correlated across studies, and some researchers have argued that perceived interactivity may mediate actual interactivity (Wu, 2005).

Previous research in the area of Web site interactivity has not focused on medical tourism Web sites. Although measuring the effects of perceived interactivity among people who obtain their information from medical tourism Web sites is beyond the scope of the present study, given the potential of interactive features to shape positive perceptions toward the Web site content and purchasing intentions, it is important to assess the degree to which interactive features exist within medical

tourism Web sites and the degree to which these features vary by region and type of facility. Therefore, we posed the following research questions:

Research Question 3a: To what degree do medical tourism Web sites include interactive features for consumers?

Research Question 3b: Do levels of interactivity on medical tourism Web site differ by region and type of facility?

Method

The first author conducted a content analysis of medical tourism Web sites in an effort to assess the structural frames related to the study's research questions. The following sections discuss the selection criteria and sampling procedures used in the study as well as coding procedures and intercoder reliabilities.

Web Site Selection Criteria and Sampling Procedures for Content Analysis

The following were the criteria for Web site inclusion: (a) the Web site must be printed in English, and (b) the Web site's primary goal was the offering of medical tourism services. As stated earlier, we hypothesized specific types of Web sites will frame the alluring portrayals of medical tourism services thereby maximizing benefits while minimizing issues of procedural risk, postoperative care, and legal recourse.

Before data collection, we defined a Web site as the unit of analysis. For the purposes of this study, the term *Web site* was defined on a lay level as a collection of pages or files linked together and available on the Internet. Any hyperlinks that would take us from the original Web site were omitted from this exploration. The unit of analysis was the home page and one generation removed. It was initially discovered that the home page offered limited information; therefore, the addition of the extended data collection was meant to further explore accreditation, procedural risk, and postoperative care communicated through the sample of sites.

At present, there is no standardized method for sampling content featured on the Internet. With the lack of standardized protocols, Web sites were identified in the manner the potential medical tourism patient would begin their quest: by searching for them on Yahoo! (yahoo.com). Yahoo! serves as a search catalog of Web sites that have been prescreened by Yahoo! staff. Internet researchers "recommend using a search catalog such as Yahoo! when the research topic is in the early phases and when one is seeking information on a broad topic" (Ribisl, Lee, Henriksen, & Haladjian, 2003, p. 4).

On the basis of data from the ComScore Media Metrix service, Yahoo! ranked as the second overall Internet property, receiving approximately 140.6 million visitors in April 2008, preceded only by Google, for the first time, with 141.0 million visitors.

The Yahoo! search was conducted using the keywords *medical tourism*, in both the URL and title with ".com" extensions only, English language only, filtering adult-oriented sites, within the U.S. domain, which produced 1,000 sites. From these, a random sample of 200 Web sites was selected for inclusion in the study. The sites were then examined to determine whether the advancement of medical tourism services was in fact the main purpose. Excluded from the sample were 134 sites for 46

nonprimary medical tourism sites, 83 nonfunctional links, 2 regions of noninterest, and 3 duplicates. This produced a total of 66 Web sites included in the analysis.

Coding Procedures

The coding form reflected two units of analysis: (a) content featured on the main page, (b) content featured on one click away. Two trained coders independently categorized the Web content. The coders first examined the content on the main page or home page that first appeared on the browser screen. The coders assessed the characteristics of the main page separately from the rest of the site for two reasons: (a) main page content draws viewers to the subsequent pages and (b) visitors would be exposed to the main page even if they didn't visit additional information through linkage (Ribisl et al., 2003). Intercoder reliabilities were assessed using Scott's pi on 25 of the 66 sites. The following sections discuss the coding procedures for specific frames and Web site content.

Medical Benefits
To assess the medical benefits that were mentioned in the medical tourism Web sites, we relied on Pachisa's (2007) typology of medical tourism facility benefits to the consumer. Each of these benefits were coded as either present or absent on the main page plus one click away. Reliability for benefits was .92.

Risks and Warnings
The coders next indicated whether the Web site displayed any content or links to information regarding procedural risk or complication. "Postoperative care information" was coded as present or absent. Depending on the nature of the procedure, convalescence and complication is not typically included in medical tourism "packages." As a result, full disclosure would dictate patients, after the procedure, to continue follow-up care with a physician stateside upon their return. Full disclosure would also dictate patients be informed of the legal repercussions they are entitled to should complications result; therefore, *legal recourse* was coded as present or absent. Reliability for these general risk measures was established at .90.

Credibility
The coders then identified whether the Web site organizationally established credibility through the incorporation of a branding logo or by explicitly stated certification, or the use of testimonies/stories. Additional credibility coding was conducted, on the individual level, if a physician profile was available with background/certification or educational/work history. Reliability for these credibility measures were established at .89.

Web Site Interactivity
We also focused on the medium's interactive traits and characteristics by examining the presence or absence of tools meant to enhance user interactivity. Web site sophistication was coded on the basis of the inclusion of navigational tools, access, software downloads, animation, shockwave, sitemap, search/help, updatedness, and Web survey with reliability at .90. Specific information for types of medical procedures offered, responsiveness such as direct contact with physicians, and contact available

with the organization by (a) e-mail, (b) phone, and (c) mix were coded and reliability established at .85. Access to site information reliability was established at .96.

Results

General Characteristics of Web Sites

Of the 66 sites that were analyzed, 35.6% indicated the type of services being promoted, with 12% indicating elective, 3.2% specialized, and 20.5% offering all types of services. The remaining 64.4% of the Web sites reviewed did not include any specific information on the types or forms of services and treatments offered. Given that *travel* is synonymous with *medical tourism*, it was surprising that only 14.5% of the sites actually addressed or provided specific in-house information for travel assistance. Instead, the travel portion of medical tourism appears to be outsourced with 25.9% of the sites offering information or links for specific travel agencies and only 4.5% incorporated an airfare estimator or calculator.

Benefits and Risks of Medical Tourism

To answer the first research question, which asked about the extent to which medical tourism Web sites communicate both benefit and risk of medical procedures, appeals to benefits were assessed using Paschisa's (2007) listing of the allure of medical tourism. It was found that these appeals are integrated throughout the Web sites. The appeal of significantly lower expense (cost) was presented in 69.1% of the sites, no wait time in 25%, and excellent quality in 48.5%. As expected, cost, convenience, and quality are at the forefront in framing medical tourism with these positive attributes emphasized throughout the sites.

In terms of risk messages, Table 2 indicates potential concerns were rarely if ever presented in foreground of the Web sites, with only 4.9% addressing postoperative care, 1.1% legal recourse, 2.2% complication, and 2.2% procedural risk. As stated earlier, because of the limited amount of information available on the main or home page additional coding conducted revealed general risk information was more frequently made available one page/generation away with 18.2% addressing postoperative care, 2.6% procedural risk, 6.1% legal recourse, and 5.4% complication. It important to note the aforementioned numbers do not reflect content that was derived from the frequently asked questions (FAQs) page included in many of the Web sites. Of the Web sites included, 36.1% offered a FAQ section. An analysis of FAQ pages yielded an increased but still low emphasis on these concerns, with 11.9% addressing convalescent care, 7.1% procedural risk, 2.6% providing some form of information on legal recourse, and 13.9% potential complication.

In an effort to answer Research Question 1a, we conducted an analysis of variance to examine the hypotheses regarding usage of appeals. Results revealed a main effect for both type, $F(3, 918) = 53.4$, $p < .001$, $\eta^2 = .15$; and locality, $F(6, 918) = 6.2$, $p < .001$, $\eta^2 = .02$, and an interaction effect for type and locality, $F(4, 918) = 11$, $p < .001$, $\eta^2 = .04$. The aforementioned results indicate that the amount of appeals varies depending on the type of the Web site. Travel companies, as expected, rely heavily on the appeal and allure of medical tourism, with independent medical tourism providers following shortly after. The locality, or region of services offered, indicates it is travel companies originating from Eastern Asia

Table 2. Appeals, risks, and other information in medical tourism web sites

Appeals	%	% 1 page
Low cost	69.1	—
No wait time	25.0	—
High-quality services	48.5	—
State-of-the-art facilities	31.8	—
Access to latest technology	22.5	—
Physician or surgeon expertise	37.1	—
Personalized services	10.1	—
Longer hospital stays	0	—
Greater convenience	2.7	—
Travel opportunity	48.7	—
Credibility		
Accreditation	29.3	—
Links to accreditation organizations	0	—
American Medical Association recommendations	1.3	—
Physician or staff biography and education	10.0	—
Logo-branding symbol	77.5	—
Use of testimonies	29.8	—
Risk addressed in FAQs		
Postoperative care	—	11.9
Procedural risk	—	7.1
Legal recourse	—	2.6
Complication	—	14.2
General risk		
Postoperative care	4.9	18.2
Procedural risk	1.1	2.6
Legal recourse	2.2	6.1
Complication	2.2	5.4
Payment or monetary information		
Transnational insurance options	4.9	5.7
Upfront cash payments	7.0	8.3
Financing options	9.6	12.6
General information		
Greeting or mission statement	44.8	—
Frequently asked questions	36.1	—
Mapped location to site of services	25.5	—
About us	54.2	21.7

and the Pacific as well as Europe and Central Asia that emphasize the appeals of medical tourism. Independent and/or private agencies from Eastern Asia and the Pacific, as well as South Asia also place added emphasis on the appealing attributes of medical tourism.

To assess Research Question 1b, which asked whether messages regarding benefits and risks of medical procedures differ by region and type of facility or organization, we conducted an analysis of variance. Differences by region were nonsignificant. However, the results indicated that risk information differed

significantly by type of facility, $F(3, 925) = 11.25$, $p < .001$, $\eta^2 = .04$. It is surprising that travel Web sites ($M = .08$, $SD = .07$) offered more information on the potential risks associated with medical tourism than did hospitals ($M = .02$, $SD = .06$).

Credibility

To assess Research Question 2a, we believed that the Web sites would use a variety of techniques to establish credibility in their foreign audiences, including international standards and certifications, additional links to accreditation agencies, American Medical Assocation recommendations, the inclusion of physician biographies and educational background, as well as branding techniques, such as an organizational logo and the incorporation of testimonials from past clientele. The inclusion of accreditation information was mildly integrated into the sites content, with 28.3% providing such information: 18.5% relied on the Joint Commission International, 1.5% International Organization for Standardization, an additional 5.2% for both, and another 3.2% with other forms of accreditation provided by their regional location. Of the sites analyzed, none offered links to the accreditation institutions. Although a large portion of the sites (37.1%) boasted of the physician or surgeon expertise, only 10% integrated specific information for the doctors, such as a biography, vitae, or educational background. Testimonies from past clientele was offered by 29.8% of the sites and serves as a primary mode for establishing credibility, second only to the use of an organizational logo for branding purposes, which was present in 77.5% of the sample.

Research Question 2b considered that the methods used to establish credibility may be based on both the type of facility and region of services offered. Figure 1 presents the findings. Results were significant for both type of facility, $F(3, 925) = 48$, $p < .001$, $\eta^2 = .14$; and region, $F(3, 925) = 8$, $p < .001$, $\eta^2 = .03$. Of the sites included in analysis, hospitals were found to incorporate the most content related to establishing credibility ($M = .36$, $SD = .18$) when compared with others. While
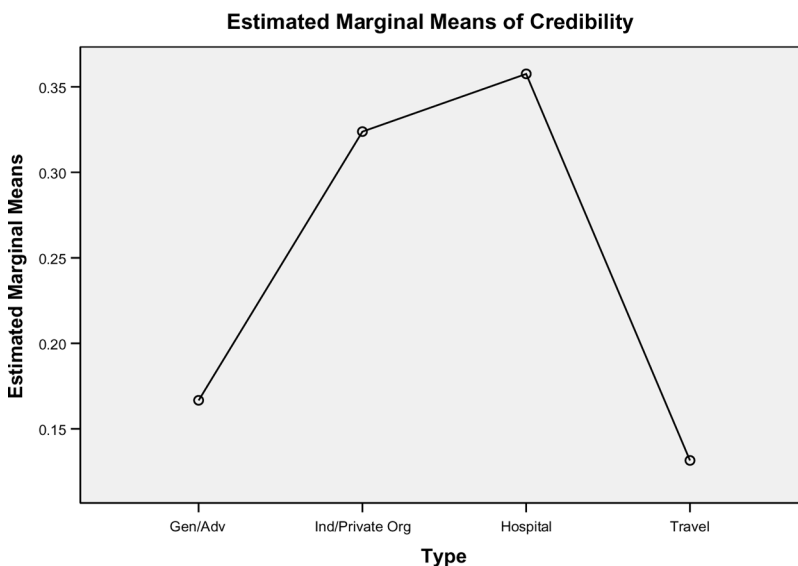

Figure 1. Means associated with credibility appeals.

hospitals would naturally include their logo, the fact they have close affiliation with the international accreditation organizations, the Joint Commission International and the International Organization for Standardization, may potentially explain this finding.

Interactivity

We conducted an analysis of variance to examine prevalence of interactivity within both the type of facility and the region services to assess Research Questions 3a and 3b. The results indicated that interactivity varies by the type of facility, $F(3, 925) = 39.2$, $p < .001$, $\eta^2 = .11$; and location of services offered, $F(3, 925) = 19.8$, $p < .001$, $\eta^2 = .06$. The results indicated that by type of facility, it is hospitals ($M = .38$, $SD = .08$) and independent/private organizations ($M = .38$, $SD = .08$) that integrate the most interactive features within their sites. By region, it is Latin America/Caribbean ($M = .40$, $SD = .08$) and Europe and Central Asia ($M = .39$, $SD = .08$) that integrate the most interactive features for potential medical tourists.

Discussion

The purpose of this study was to analyze the content of medical tourism Web sites and assess the inclusiveness of the frames of information they provide. Toward that end, we focused on how messages on these Web sites convey information about benefits and risks of medical procedures, how they frame credibility, and the degree to which these Web sites include interactive features for consumers.

According to framing theory, similar to other media content, the ways in which Web sites frame health and medical information are important to study, given that the manner in which information is presented may in fact influence consumers' decisions and judgments toward products (Price & Tewksbury, 1997). This study used framing theory to understand how the ways in which information included in medical tourism Web sites selectively present a view of reality that may ultimately influence consumer decision making regarding the use of medical services abroad.

In terms of the framing of risks and benefits within medical tourism Web sites, the findings indicated (perhaps not surprisingly) that these Web sites emphasize benefits to a much greater extent than risks. This finding is consistent with Chang's (2007) notion that positively framed messages are more likely to advance the promotion of travel health care products with low perceived risks, and it adds to the literature by providing empirical evidence that low cost, convenience, and high-quality services may be the most frequently advertised appeals when conveying the benefits of medical services to potential consumers. According to framing theory, this may influence audience members dispositions toward health related behaviors or products (e.g., Block & Keller, 1995; Rothman et al., 1993; Rothman et al., 1999). In addition, the present study found evidence that the framing of risks and benefits may be influenced by the type of organization and locality, with more exotic travel locations emphasizing the travel benefits of using medical services.

Although past research indicates positive frames are most effective with products associated with low perceived risk (Block & Keller 1995; Meyerowitz & Chaiken, 1987), the messages being conveyed through medical tourism Web sites, a concept associated with a great deal of health risk, appear to focus not on loss aversion, but instead on the positive attributes of appeal and allure. Despite the

great importance of postoperative care, procedural risk, and potential medical complications when making informed decisions about undergoing a medical procedure, the issues appear to be discussed in limited ways (if at all) on these Web sites. Even when using follow-up links on these topics, relatively little information was found to be available on secondary Web pages. It is interesting to note that although Chang (2007) found that products with high perceived risk that negatively framed information increased consumers' need for information about the relevant attribute of the product, negatively framed information appears to be relatively absent from medical tourism Web sites.

In terms of how issues of credibility were framed within medical tourism Web sites, the finding that a large percentage of Web sites highlighted physician or surgeon expertise, despite the fact that there were relatively few links to specific information about physician or surgeon education or background, is troublesome given the inherent risks associated with the advertised medical procedures. The information that consumers could potentially gain about physician or surgeon credibility on these Web sites tended to be superficial messages extolling the talents of medical personal as opposed to in-depth information that would allow consumers to make a more discerning judgment (or at least have their primary care physician scrutinize) about the credibility of medical personnel before making a decision about whether to use such services. In addition, the reliance on client testimonials was an important feature in terms of attempts to establish the credibility of medical tourism services. While a common advertising tactic, such information gives consumers little information about the credibility of physicians or surgeons, and it ignores issues such as patient variability in terms of individual differences (such as physical health status, variations in patient ability to recover from surgery, and susceptibility to secondary infections) that may affect the outcome of having a medical procedure.

As far as the use of links to accreditation organizations was concerned, most medical tourism Web sites did not provide links to such organizations, although among those Web sites that did provide links, the largest percentage of the medical tourism Web sites provided links to the Joint Commission International. Hospitals were found to be much more likely than other medical tourism services to provide accreditation links. For U.S. consumers, it is likely that relatively few people are aware of organizations such as the Joint Commission International. In addition, links to accreditation organizations do not necessarily mean that these organizations endorse the particular Web site or service. Given the ease of creating links within Web sites and copying logos, it is often difficult to ascertain the degree to which businesses are legitimately endorsed by accreditation organizations.

Future research should continue to explore the ways in which medical tourism Web sites (and Web sites promoting similar health products and services) attempt to frame credibility issues. One fruitful area of research would be to examine how medical tourism Web sites have been framed in the news media. Given the importance of such consumer judgments in terms of making decisions about whether to use such services, future researchers should assess how consumers make judgments about credibility when encountering health information on these Web sites.

Last, in terms of Web site interactivity, the present study found that hospitals and private medical organizations used a larger number of interactive features on their Web sites than other types of medical tourism organizations. Given that

perceptions of interactivity have been found to be important in terms of influencing consumer perceptions of trust, positive attitudes toward Web site content, and behavioral intentions to purchase products and services (Chen et al., 2005; Jee & Lee, 2002; McMillan & Hwang, 2002), we attempted to assess the level of interactivity within medical tourism Web sites to examine interactive features that may potentially influence attitudes, beliefs, and behaviors among individuals who use medical tourism Web sites. Given the greater degree of interactivity among hospital and private organization Web sites and within medical tourism Web sites in Latin America/ Caribbean and Europe and Central Asia, it is likely that these organizations and regions may be more influential in terms of attracting clients than other types of medical tourism organizations. However, as with the other Web site features we examined in the present study, it is important for future researchers to assess consumer perceptions of interactivity as well as the degree to which these features influence self-reported attitudes, beliefs, and behaviors.

Limitations

There are several limitations to the present study. First, although the results indicated it was travel Web sites that incorporated the greatest quantity of risk information, it is important to note that the quality of this information was not coded. Therefore, given that international travel to certain destinations is commonly accompanied by the inclusion of general risks and safety warnings and precautions, it is still unknown whether there are differences in the qualitative nature of information regarding risks and by extent how this affects potential medical tourists decision making criteria.

Another potential limitation is the general force or weight of this Web site content on the global decision making criteria of medical tourists is unknown. It is conceivable that the information provided through these Web sites only affects the behavioral intentions of medical tourists with little overall relevance for those who actually use and experience the process.

Certainly, there are other limitations of the present study surrounding the methodology. As with any content analysis, there is no guarantee that the way in which content is framed within a Web site will actually influence human behavior. In addition, the present study did not assess other persuasive elements of these Web sites, including other arguments that were made for using foreign medical services or aesthetic features of the Web site (such as design elements or photographs). Future research in the area of medical tourism Web content should consider examining this content as well as assessing how it plays a role in framing issues of risk/ benefits, credibility, and interactivity. Last, the relatively small sample size and the focus on English-speaking Web sites limits the generalizability of findings to some degree.

Conclusion

The overall purpose of this exploratory study was to describe the informational landscape of medical tourism on the Internet. The investigation yielded some insights into how medical tourism is being represented internationally via Web sites. The findings revealed a number of problems in terms of the way risks and benefits are framed as well as concerns about the ability of such Web sites to link people to

adequate information that allow them to assess the credibility of services and help them to make informed decisions. In addition, it appears that some Web sites may be more interactive, and theoretically more persuasive, than others. Ideally, the present study will provide a platform for future investigations of the quality of medical tourism health information across modalities, and the effect that framing of this content has on potential consumers. Given the current need for viable health care alternatives, it is important that such alternative sites for medical procedures continue to be investigated in the future.

References

Al-Bawaba, A. (2008). *Medical tourism worth $100 US billion by 2012*. Retrieved July 14, 2008, from http://www.albawaba.com/en/countries/UAE/226561

Bezjian-Avery, A., Calder, B., & Iacobucci, D. (1998). New media interactive advertising vs. traditional advertising. *Journal of Advertising Research*, *38*, 23–32.

Block, G., & Keller, P. (1995). When to accentuate the negative: The effects of perceived efficacy and message framing on intentions to perform a health-related behavior. *Journal of Marketing Research*, *32*, 192–203.

Chang, C. (2007). Interactive effects of message framing, perceived risk and mood—The case of travel healthcare product advertising. *Journal of Advertising Research*, *47*, 51–65.

Chen, Q., Griffith, D. A., & Shen, F. (2005). The effects of interactivity on cross-channel communication effectiveness. *Journal of Interactive Advertising*, *5*, 30–44.

Chew, G., & Mit, N. (2007). The lure of medical tourism in Asia. *Medical Tourism*, *1*, 6.

Coyle, J. E., & Thorson, E. (2001). The effects of progressive levels of interactivity and vividness in Web marketing sites. *Journal of Advertising*, *30*, 65–77.

Entman, R. M. (1991). Framing: Towards clarification of a fractured paradigm. *Journal of Communication*, *43*, 51–58.

Freeman Health System. (2003). *ISO 9000:2001 registered.* Retrieved March 16, 2009, from http://www.freemanhealth.com/body.cfm?id=994

Go, P. (2008). Why is medical tourism so popular in America? Retrieved October 10, 2009, from http://ezinearticles.com/?Why-Is-Medical-Tourism-So-Popular-In-America?&id=1170333

Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. New York: Harper & Row.

Jee, J., & Lee, W. (2002). Antecedents and consequences of perceived interactivity: An exploratory study. *Journal of Interactive Advertising*, *3*. Retrieved March 17, 2009, from http://jiad.org/vol3/no1/jee/index.htm

Jones, C. A., & Keith, L. G. (2006). Medical tourism and reproductive outsourcing: The dawning of a new paradigm for healthcare. *International Journal of Fertile Women*, *51*, 251–255.

Levin, I. P., & Gaeth, G. J. (1988). Framing of attribute information before and after consuming the product. *Journal of Consumer Research*, *15*, 374–378.

MacIntosh, C. (2004). *Medical tourism: Need surgery, will travel*. Retrieved March 17, 2009, from http://www.cbc.ca/news/background/healthcare/medicaltourism.html

MacReady, N. (2007). Developing countries court medical tourists. *Lancet*, *369*, 1849–1850.

Mattoo, A., & Rathindran, R. (2006). How health insurance inhibits trade in health care. *Health Affairs*, *25*, 358–368.

McMillan, S., & Hwang, J. (2002). Measures of perceived interactivity: An exploration of the role of direction of communication, user control, and time in shaping perceptions of interactivity. *Journal of Advertising*, *31*, 29–42.

Milstein, A., & Smith, M. (2006). America's new refugees: Seeking affordable surgery offshore. *New England Journal of Medicine*, *355*, 1637–1640.

Meyerowitz, B., & Chaiken, S. (1987). The effects of message framing on breast self-examination attitudes, intentions and behaviors. *Journal of Personality and Social Psychology*, *52*, 500–510.

Neuhauser, L., & Kreps, G. L. (2003). Rethinking communication in the e-health era. *Journal of Health Psychology*, *8*, 7–23.

Pachisa, M. (2007). *Top 10 reasons why medical tourism is popular*. Retreived March 19, 2009, from http://www.associatedcontent.com/article/506179/top_10_reasons_why_medical-tou

Price, V., & Tewksbury, D. (1997). News value and public opinion: A theoretical account of media priming and framing. In G. Barnett & F. J. Bosters (Eds.), *Progress in communication sciences* (pp. 214–257). New York: Ablex.

Ribisil, K., Lee, R., Henriksen, L., & Haladjian, H. (2003). A content analysis of Web sites promoting smoking culture and lifestyle. *Health Education and Behavior*, *30*, 64–78.

Rothman, A. J., Salovey, P., Antone, C., Keough, K., & Martin, C. (1993). The influence of message framing on intentions to perform health behaviors. *Journal of experimental Social Psychology*, *29*, 408–433.

Rothman, A. J., Martino, S. C., Bedell, B. T., Detweiler, J., & Salovey, P. (1999). The systematic influence of gain and loss-framed messages on interest in and use of different types of health behavior. *Personality and Social Psychology Bulletin*, *25*, 1355–1369.

Steffen, V., Sternberg, L., Teegarden, L., & Shepard, K. (1994). Practice and persuasive frame: Effects on beliefs, intentions and performance of a cancer self-examination. *Journal of Applied Social Psychology*, *24*, 897–925.

Tan, D., & Lim, J. (2007). Selecting a medical travel destination. *Medical Tourism*, *1*, 10.

Van Knoop, C., Lovich, D., Silverstein, M., & Turry, M. (2003). Vital signs: E-health in the United States. Retrieved October 10, 2009, from http://www.bcg.com/publications/files/Vital_Signs_Rpt_Jan03.pdf

Wu, G. (2005). The mediating role of perceived interactivity in the effect of actual interactivity on attitude toward the website. *Journal of Interactive Advertising*, *5*. Retrieved March 19, 2009, from http://www.jiad.org/article61