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Framing Medical Tourism: An Analysis of Persuasive Appeals, Risks and Benefits, and New Media Features of Medical Tourism Broker Websites

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This study explores the benefits and risks featured in medical tourism broker websites, as well as the types of persuasive appeals that these websites use to attract potential customers, from a framing theory perspective. In addition, it examines relationships among types of appeals and specific types of health-related services offered by medical facilities abroad and the role of new media modalities within medical tourism broker sites. A content analysis of 91 medical tourism broker websites was conducted. The results indicate that the websites highly emphasized benefits while downplaying the risks. Specifically, despite offering consumers complicated and risky medical procedures, the websites failed to report any procedural, postoperative, or legal concerns associated with them. Moreover, the results indicated that the websites relied on heavy use of new media features to enhance the appeal of the medical services that were offered. The implications of these findings, future directions for research, and limitations of the study are discussed.

The globalization of health care has led to a rise in consumers using the Internet and related technologies for the purpose of gaining access to health information and medical services that transcends international borders (Kangas, 2010; Lunt, Mannion, & Exworthy, 2012; MacReady, 2007; Snyder, Crooks, Adams, Kingsbury, & Johnston, 2011). When faced with high cost or limited options in the United States, more and more Americans are looking to developing countries to obtain various health-related services, including cosmetic surgery, dentistry, diagnostic testing, fertility treatment, and major surgeries such as heart valve operations and organ transplants (Dalstrom, 2012; Snyder et al., 2011; Sono, Herlihy, & Bicker, 2011). The medical tourism marketplace consists of a growing number of countries competing for patients by offering these services, as well as access to restricted procedures (e.g., stem cell surgery) or products (e.g., restricted pharmaceuticals), at prices that are

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often considerably lower than in the United States (Snyder et al., 2011; Turner, 2011). This type of consumer activity has been labeled "medical tourism," and it has attracted the attention of a number of researchers in recent years, including health communication scholars (Mason & Wright, 2011; Mason, Wright, & Bogard, 2011; Lunt et al., 2007). Yet a lack of reliable data about medical tourism makes it difficult to create policy, health system, and public health responses to address the possible risks to consumers who decide to participate in this type of health care.

Hospitals and other health-related facilities around the world, particularly those located in low- and middle-income countries, are beginning to offer a more comprehensive range of surgical and diagnostic procedures, and they are increasingly active in seeking to attract international patients (Dalstrom, 2012; Snyder et al., 2011). Many U.S. consumers seek medical care abroad because they face long waiting lists in their home systems; want to access procedures that are illegal or unavailable at home; are seeking procedures not covered by a public health care system in their home country; or are uninsured or underinsured and are looking for an affordable care option (Lunt et al., 2012; Milstein & Smith, 2006; Turner, 2011).

While assessing the precise number of individuals who cross borders for medical treatment is difficult due to the absence of an internationally agreed definition of what qualifies as medical tourism and the absence of methods to collect data (Helble, 2011), anecdotal evidence suggests that the global medical tourism industry currently generates annual revenues up to $60 billion, with 20% annual growth (MacReady, 2007). Websites are an important marketing strategy for organizations promoting medical facilities abroad. The investors and administrators in these organizations and facilities have a significant financial interest in attracting new clients, so they must be strategic in terms of crafting messages that will appear on their websites (Mason & Wright, 2011; Turner, 2011). In addition to providing a variety of appeals regarding medical facilities, staff, and services, medical tourism websites typically include other appeals, such as the opportunity to travel or the benefits of recuperating from medical procedures in a beautiful location (Lunt et al., 2012; Penny, Snyder, Crooks, & Johnston, 2011; Sobo et al., 2011).

Given this financial interest in attracting new global customers, many medical facilities around the world often employ medical tourism brokers to develop websites in other languages and to market them to specific countries. According to Penney et al. (2011), medical tourism brokers are agents who specialize in making international medical care arrangements for patients. In addition, since they are a key source of information for these patients, they appear to play an important role in communicating the risks and benefits of undergoing surgery or other procedures abroad to their clientele. For example, medical tourism brokers (via websites) typically answer questions from prospective customers, help them make travel arrangements, and/or act as customer service liaisons between the consumer and the medical facility abroad (MacReady, 2007; Turner, 2011). In addition, medical tourism broker websites typically present basic information about medical procedures and services offered by overseas medical facilities. Within the context of medical tourism, patients are essentially consumers who purchase a variety of services, including travel arrangements, accommodations, medical procedures, and services related to postoperative care (e.g., nursing services etc.).

While the availability and cost of worldwide medical tourism services may certainly provide several potential benefits for consumers, a number of researchers, providers, and government agencies have expressed concerns about the possible risks associated with medical tourism. These include the risk of infections during postoperative care, procedural risk, medical complications, and the lack of legal recourse if a patient wishes to pursue malpractice litigation (Hopkins, Labonté, Runnels, & Packer, 2010). Any surgery carries with it a certain degree of risk, and there is always the possibility of anesthesia complications, blood clots, uncontrolled bleeding, and human error during surgery, as well as delayed healing and infection after surgery (Hopkins et al., 2010). Medical tourism carries additional risks, including language and cultural misunderstandings between providers and patients, risks associated with lengthy flights postoperatively, difficulties obtaining follow-up care, and the danger of infectious disease transmission (Hopkins et al., 2010; Lunt et al., 2012).

Previous studies have found that medical tourism websites tend to present content that emphasizes benefits of health-related services while downplaying potential risks (Mason & Wright, 2011; Mason, Wright, & Bogard, 2011; Turner, 2011). However, empirical findings remain relatively limited in this area, and more research is needed to examine additional persuasive appeals and features of medical tourism websites that are used to implement a benefit-oriented frame. In particular, there is a need to assess the relationship of these appeals to the types of medical procedures and services that are being promoted by the medical tourism facility (via medical tourism broker websites). This is imperative because while the legislative procedures and regulations for medical procedures vary greatly from country to country, there is no universal rule governing the medical content materials that are posted on the World Wide Web.

Moreover, other features of medical tourism websites may be emphasized (i.e., framed) by medical tourism brokers to make the information appear more credible, including incorporating new media features, such as access to videos of provider and patient testimonials, links to YouTube videos of positive news stories about medical tourism, blogs, podcasts, and links to Facebook and Twitter groups focused on medical tourism. The ways in which new media features are

being used in medical tourism brokerage websites to possibly enhance the credibility of the gain-framed messages imbedded within these websites has not been examined in previous work.

The purpose of this exploratory study was to extend previous work by examining characteristics of gain-framed persuasive messages embedded within medical tourism broker websites designed to attract customers to medical tourism services from a framing theory perspective. Specifically, the researchers were interested in examining how types of persuasive appeals may vary when associated with specific medical procedures. In addition, there is a need to better understand the role of new media features within these websites and the relationship between the type of new media features and persuasive appeals. Toward that end, we first discuss framing theory and its application to the study of medical tourism websites. Next, we present a content analysis of medical tourism broker websites, key findings, and implications of the findings for scholars interested in how medical tourism websites frame messages, limitations, and directions for future research.

REVIEW OF LITERATURE

Framing Theory

Widely used in social sciences, "frame" has been regarded as the cognitive schemata of interpretation, the central organizing idea or story line to locate, identify, label, and provide meaning to a specific issue (Gamson & Modigliani, 1989; Goffman, 1974). Entman (1993) argues that framing means to "select some aspects of a perceived reality and make them more salient in a communicating text" (p. 52). An increase in salience can enhance the probability for receivers to perceive the information, discern meaning, process it, and store it in memory (Entman, 1993; Fiske & Taylor, 1991). Therefore, framing researchers pay attention to the salience of different media frames of a single issue (Zhou & Moy, 2007). Framing theorists argue that the media not only set the public's agenda about what issues are important to think about, but also tell people how to think about an issue by selectively highlighting certain aspects (Peng & Tang, 2010).

Media, health, and advertising researchers are often interested in framing effects because the manner in which information is presented has been shown to influence consumers' decisions and judgments toward products (for a review of framing research, see Levin & Gaeth, 1998). Framing research typically focuses on the way the presentation of information in gain- versus loss-frames scenarios affects an individual's cognitions, intentions, and dispositions toward health-related behaviors or products (e.g., Block & Keller, 1995; Rothman, Martino, Bedell, Detweiler, & Salovey, 1999).

Gain and Loss Message Frames

The effects of gain- and loss-framed messages are based on the tenets of Kahneman and Tversky's (1979) prospect theory, which posits that people's choices under uncertain situations depend largely on how their consequences are framed. More specifically, people tend to be risk-averse when the outcomes are framed as gains while they tend to be more willing to accept risks (risk-seeking) when the outcomes are framed as losses. The theory lends itself well to understanding the effects of message framing on health-related persuasion, as it explains how people perceive and make behavioral decisions under risk situations (Kahneman & Tversky, 1974).

Numerous studies point to the conclusion that loss-framed messages are effective when promoting detection health behaviors (e.g., Meyerowitz & Chaiken, 1987) while gain-framed messages are effective for conveying health prevention behaviors (e,g., Detweiler, Bedell, Salovey, Pronin, & Rothman, 1999). For example, Meyerowitz and Chaiken (1987) found that compliance toward a breast self-examination advocacy message was higher when it was framed in terms of the losses (i.e., you can lose several potential health benefits by failing to spend only 5 minutes each month doing BSE. Do not fail to take advantage of this opportunity) compared to when framed in terms of gains (i.e., you can gain several potential health benefits by spending only 5 minutes each month doing BSE. Take advantage of this opportunity). On the contrary, Detweiler et al. (1999) found that gain-framed messages were more effective in persuading people to use sunscreen to prevent skin cancer than loss-framed messages. However, more recent findings show results contradicting the premises of prospect theory. A recent meta-analysis of 53 studies found that the significance of the advantage of loss-framed messages over gain-framed messages for disease detection behaviors was quite small, and only statistically significant for breast cancer detection but not for any other specific detection behaviors (O'Keefe & Jensen, 2009). Still, Rothman et al. (2006) propose that using gain-framed messages to promote prevention behaviors and loss-framed messages to promote detection behaviors is well founded, with the recognition that the "predictive value of the distinction between prevention and detection behaviors rests on the assumptions regarding how people construe engaging in these two classes of behavior" (p. 208).

Medical tourism websites appear to differ from traditional health information websites in the sense that their primary objective is to attract patients or potential patients (as consumers) into visiting and choosing their facility and medical services, as opposed to simply providing information about various types of medical conditions and medical procedures. Therefore, the traditional premises of gain and loss message frames for promotion versus detection behaviors may apply differently for medical tourism websites. Instead, it may very

well be that gain-framed messages dominate for medical tourism websites because the brokers fear that providing any information illustrating the risks or malevolent outcomes from undergoing medical procedures at a foreign facility could potentially scare away patients. Indeed, previous research has found that medical tourism websites highlight the beneficial outcomes of the health-related services while downplaying any potential risks (Mason & Wright, 2011; Turner, 2011).

Medical Tourism Websites

Pachisa (2007) identified messages within medical tourism websites that appear to attract consumers to seeking medical services abroad. Pachisa (2007) found that lower cost of services is often the most attractive feature to consumers, and messages about reduced cost are prominent within medical tourism websites (Mason & Wright, 2011). In addition, Pachisa (2007) found that lack of wait time, quality of service, and travel opportunities are attractive to potential consumers. However, there are a number of negative aspects of medical tourism, including the fact that 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. Moreover, most countries that offer highly attractive medical procedures offer little malpractice recourse, and offer the risk of potential exposure to viruses in postoperative care (Mason & Wright, 2011).

RESEARCH QUESTIONS

Given the growth of medical tourism and medical tourism broker websites, there is a need to examine characteristics of gain-framed persuasive messages embedded within medical tourism broker websites designed to attract customers to medical tourism services, particularly in terms of examining how types of persuasive appeals may vary when associated with specific medical procedures. In addition, there is a need to examine whether certain persuasive appeals are associated with new media features embedded within these websites. Toward that end, this exploratory study addressed the following research questions:

RQ1: What are the types of procedures available on medical broker websites?
RQ2: What are the new media functions that are available on medical tourism broker websites?
RQ3a: What types of persuasive appeals are used to attract clients on medical tourism broker websites?
RQ3b: What is the dominant type of persuasive appeal?
RQ4a: What types of patient benefits appear on medical tourism broker websites?
RQ4b: What is the dominant patient benefit?
RQ5: What types of risks to patients are discussed on medical tourism broker websites?
RQ6: What is the relationship between medical procedures and appeals on medical tourism broker websites?
RQ7: What is the relationship between medical procedures and benefits on medical tourism broker websites?
RQ8: What is the relationship between persuasive appeal and new media functions on medical tourism broker websites?
RQ9: What is the relationship between medical procedure and new media functions on medical tourism broker websites?

METHODS

Website Selection Criteria and Sampling Procedures

The following criteria were used for website inclusion in the content analysis for the current study: (a) The website must be in English, (b) the website's primary goal is the offering of medical tourism services, and (c) the website must be a broker website, which provides consumers with detailed information, such as available medical treatments, destination (e.g., country) of the facility, mention of personalized services, and information about financing and insurance options. We hypothesized that specific websites will frame the portrayals of medical tourism in a way that maximizes benefits while minimizing risks. Prior to collecting data, we defined the main webpage for the medical tourism website as the unit of analysis, based on previous research that suggests main page content draws viewers to subsequent pages and because visitors would be exposed to the main page even if they did not explore additional links (Mason & Wright, 2011; Ribisl, Lee, Henriksen, & Haladjian, 2003). All hyperlinks stemming from the main webpage were omitted from this investigation. However, the authors explored information from some of the links from the main page in cases where further clarification was needed.

In an effort to identify medical tourism websites for inclusion in this study, we first conducted a search using the keywords *medical tourism, medical tourism broker, medical tourism services, health tourism, health services overseas, healthcare abroad,* and related terms on two prominent search engines (Yahoo! and Google). In addition, both search engines are likely starting points for individuals who are seeking information about medical tourism. In terms of selecting appropriate websites, the researchers selected only those medical tourism broker websites that appeared to provide services (such as answering questions about medical tourism facilities and making arrangements for clients), as opposed to websites that featured discussions or news articles about medical tourism). After identifying duplicate websites from each search engine and eliminating websites unrelated to medical tourism within the U.S. domain, the search yielded 114 websites that met the inclusion criteria. However, after eliminating inactive websites, only 91 of these websites were included in the final sample.

Coders, Training, and Intercoder Reliability

Two trained graduate students independently coded 10 randomly selected websites (11%) from the pool of 91 websites for intercoder reliability testing. Intercoder reliability was calculated using Scott's pi formula, and all variables established sufficient intercoder reliability coefficients, which ranged from .93 to .84.

Unit of Analysis

The unit of analysis was the main page of the medical tourism website. Main pages serve as a viable unit because the content on the main pages draws viewers to subsequent pages (Mason & Wright, 2011), but more importantly they are the place for initial exposure regardless of additional information searching (Ribisl et al., 2003).

Variables

Medical procedure. Medical procedure was coded as either present or absent for the following: cosmetics (cosmetic surgery, cosmetic dental); diagnostic (computed tomography [CT] scan, x-ray, magnetic resonance imaging [MRI], exercise stress testing, biopsy, ultrasound); medical (cataract surgery, gastric bypass/banding, hernia repair, dermatology, colon polyp removal, in vitro fertilization, vasectomy, colonoscopy, varicose vain removal, orthopedic surgery); alternative and holistic medicine (yoga, medical spa treatment, massage, Ayurveda); dental (general dental, oral surgery); major medical (joint replacement, knee replacement, hysterectomy, mastectomy, stem cell therapy, spinal repair, heart surgery, organ transplant); and prescription drugs (antibiotics and pain medications).

Persuasive appeals. To assess the persuasive appeals that appeared within the medical tourism websites, we utilized a typology of persuasive appeals stemming from Mason and Wright's (2011) study. Persuasive appeals were coded as either present or absent for the following categories: patient testimonial; medical expertise (e.g., the medical provider's testimonial, notification of medical accreditation such as American Medical Association, and offering physician and staff biographies); convenience (e.g., offering free Quotes and emphasizing the accessibility of product and service); and third-party endorsement (e.g., business accreditation, and media endorsement). After each persuasive appeal was coded, the coders then coded for the dominant persuasive appeal. This was determined by counting the frequency of each individual appeal. When the frequency count was identical, the dominant appeal was determined by analyzing the salience of the appeal by examining the placement (e.g., if it appeared first) and the length (e.g., if more words or longer sentences were used to appeal the viewer).

Medical benefits. For the assessment of medical benefits mentioned within the websites, the researchers drew upon a typology of medical benefits within medical tourism websites originally developed by Pachisa (2007) and extended by Mason and Wright (2011). Each benefit was coded as either present or absent for the following categories: low cost; no waiting time; high quality services; access to latest technology; physician expertise; personalized service; convenience; and travel opportunity. As with the persuasive appeal, after each benefit was coded, the coders then coded for the dominant benefit. The same criteria were utilized to determined the dominant benefit.

Medical risks. The coders also examined whether the website displayed any information regarding potential risks or complications associated with the medical procedures. As with medical benefits, typologies originally developed by Pachisa (2007) and extended by Mason and Wright (2011) were adapted for the present study. Each risk was coded as either present or absent for the following categories: postoperative care risk; procedural risk; lack of legal recourse; and likelihood of medical complications.

New media features. The study also examined whether these medical tourism websites utilized different types of new media features that are prevalent online. Features such as chat room, blog, podcast, embedded video (e.g., YouTube video), e-mail contact address(es), Twitter link, Facebook link, and connect function (i.e., share on social media) were coded as either present or absent.

RESULTS

Among the 91 medical tourism websites, 46.2% of them were sites from Latin America and the Caribbean ($n = 42$), followed by Central Asia (27.5%, $n = 25$), Eastern Europe (18.7%, $n = 17$), and Africa (3.3%, $n = 3$). Four websites (4.4%) did not mention the country of the medical tourism site.

The first research question asked about the different types of medical procedures that are available in medical tourism broker websites. Cosmetic surgery ($n = 75$) was the most frequently appearing procedure among the websites, with 82.4% of the websites offering the service. General dental (59.3%, $n = 54$) and cosmetic dental were also popularly promoted (48.4%, $n = 44$), followed by services such as orthopedic surgery (40.7%, $n = 37$), anti-aging services (40.7%, $n = 37$), gastric bypass (49.5%, $n = 45$), and heart surgery (38.5%, $n = 35$). Medical services such as colon removal (1.1%, $n = 1$), while minimal, also appeared on the websites. Some additional procedures that were not initially coded for also appeared on the websites: neurosurgery (5.5%, $n = 5$), cancer treatment (5.5%, $n = 5$), laser hair transplant (5.5%, $n = 5$), ophthalmology (3.3%, $n =3$), comprehensive medical checkups (3.3%, $n =3$), surrogacy (1.1%, $n = 1$), and da Vinci robot surgery (1.1%, $n = 1$). Finally, neither providing prescription antibiotics (0%, $n =$

0) nor providing prescription pain medication (0%, n = 0) appeared on any of the medical tourism websites. Table 1 illustrates the comprehensive list of medical procedures offered in medical tourism broker websites.

RQ2 asked about the different types of interactive new media functions that were utilized in medical tourism broker websites. Podcasts were the most popular new media function: 97.8% of the medical tourism websites utilized podcasts (n = 89). Blogs were also popular, with 84.6% of medical tourism websites having them (n = 77), followed by e-mail contact information.

RQ3a asked the types of persuasive appeals that appeared on the medical tourism broker websites. Of the appeals, patient testimonial was most popular (49.5%, n = 45), followed by the convenience appeal (35.2%, n = 32) and medical expertise (29.7%, n = 27). Specifically, medical accreditation (20.9%, n = 19) appeared most frequently within the medical expertise appeal, while free quotes appeared most frequently (34.1%, n = 31) for the convenience appeal. Business accreditation (16.5%, n = 15) was slightly more popular than media endorsements (14.2%, n = 13) for third-party endorsement appeals.

RQ3b asked what the dominant appeal of the medical tourism broker website was. Frequency analyses showed that convenience was the dominant appeal for 37.4% of the websites (n = 34), followed by medical expertise (21.3%, n = 21), and patient testimonial (22%, n = 20). Meanwhile, 17.6% of the websites did not have a dominant appeal (n = 16).

RQ4a asked the types of benefits that were promoted on the medical tourism websites. Emphasizing the low cost of the procedures appeared most frequently (84.5%, n = 77), followed by quality service (74.7%, n = 68), and travel opportunity (60.4%, n = 55).

RQ4b asked the dominant benefit for the websites. As with the dominant appeal, emphasizing the low cost of the procedures appeared most frequently (56%, n = 51), followed by quality, personalized service (23.1%, n = 21), travel opportunity (15.4%, n = 15), and physician expertise (5.5%, n = 5).

RQ5 examined the different types of risks that were mentioned in the medical tourism broker websites. The majority of the websites rarely presented any potential risks associated with the medical procedures offered in their websites. Only 3.3% of the websites talked about postoperative complications (n = 3), while medical complications were not mentioned in any of the websites (0%, n = 0). Table 2 illustrates the comprehensive findings for RQ2, RQ3a, RQ4a, and RQ5.

RQ6 asked about the association between the dominant type of appeal and the type of medical procedure promoted on the broker websites. The results of a chi-squared test showed that there is a significant difference in the dominant type of the appeal and the type of the medical procedure for joint replacement surgery [$\chi^2(3) = 11.606$, $p < .01$] and knee replacement [$\chi^2(3) = 8.821$, $p < .05$]. When the website offered joint replacement surgery, the dominant appeal most frequently promoted medical expertise (38.5%, n = 10), followed by patient testimonial (34.6%, n = 9), and convenience (19.2%, n = 5%). Approximately 13% of the websites did not offer a dominant appeal (12.5%, n = 2) when joint surgery was offered.

For knee replacements, the dominant appeal most frequently promoted medical expertise (37.5%, n = 9), followed by patient testimonial (33.3%, n = 8), and convenience (20.8%, n = 5). Approximately 13% of the websites did not offer a dominant appeal (12.5%, n = 2) when knee replacement surgery was offered.

RQ7 asked the about the association between the dominant type of the benefit and the type of the medical

TABLE 1
Types of Medical Procedures in Medical Tourism Broker Websites

Medical Procedure	*n (Total N = 91)*	*%*
Cosmetic surgery	75	82.4
General dental	54	59.3
Gastric bypass	45	49.5
Cosmetic dental	44	48.4
Orthopedic surgery	37	40.7
Anti-aging services	37	40.7
Heart surgery	35	38.5
In vitro fertilization	29	31.9
Cataract surgery	26	28.6
Joint replacement surgery	26	28.6
Dermatology service	26	28.6
Knee replacement surgery	26	28.6
Oral surgery	25	27.5
Spinal repair	21	23.1
Organ transplant surgery	13	14.3
Stem-cell therapy	13	14.3
Ayurveda	13	14.3
Hernia repair	11	12.1
Medical spa service	11	12.1
MRIs	11	12.1
Vasectomy	10	11
Varicose vain removal	10	11
Hysterectomy	10	11
LASIK	10	11
CT scans	8	8.8
Exercise stress relief	8	8.8
Ultrasound	7	7.7
Biopsy	5	5.5
Colonoscopy	5	5.5
Neurosurgery	5	5.5
Cancer treatment	5	5.5
Laser hair transplant	5	5.5
Ophthalmology	3	3.3
Comprehensive medical checkups	3	3/3
Yoga meditation services	2	2.2
Massage services	2	2.2
Colon removal	1	1.1
Surrogacy	1	1.1
Da Vinci robot surgery	1	1.1
Prescription antibiotics	0	0
Prescription pain medication	0	0

TABLE 2
Interactive Features, Appeals, Benefits, and Risks in Medical Tourism Broker Websites

Interactive Features	*n (Total N = 91)*	*%*
Podcasts	89	97.8
Blogs	77	84.6
Email contacts	72	79.1
YouTube videos	67	73.6
Social media Connect	67	73.6
Twitter	63	69.2
Facebook	59	64.8
Appeals:		
Patient testimonials	45	49.5
Convenience	32	35.2
Medical expertise	27	29.7
Third party endorsement	24	26.4
Benefits:		
Low cost	77	84.5
Quality service	68	74.7
Travel opportunity	55	60.4
Personalized service	44	48.4
Physician expertise	43	47.7
Latest technology	36	39.6
No waiting time	23	25.3
Convenience	23	25.3
Risks:		
Post-operative complications	3	3.3
Procedural risks	2	2.2
Lack of legal recourse	0	0
Medical complications	0	0

procedure. In terms of the dominant benefit, there was no significant difference in the type of the dominant benefit by the procedure [$\chi^2(8) = 15.33$, $p > .05$]. However, when examining each benefit separately, the benefit of no waiting time was emphasized significantly more frequently when the medical tourism site offered CT scanning services ([$\chi^2(1) = 6.435$, $p < .05$]; 62.5%, $n = 5$), MRIs ([$\chi^2(1) = 5.676$, $p < .05$]; 54.5%, $n = 6$), exercise stress services ([$\chi^2(1) = 4.078$, $p < .05$]; 57.1%, $n = 4$), ultrasounds ([$\chi^2(1) = 8.553$, $p < .01$]; 71.4%, $n = 5$), gastric bypass surgery [$\chi^2(1) = 4.982$, $p < .05$]; 69.6%, $n = 16$), colonoscopy ([$\chi^2(1) = 8.389$, $p < .01$]; 80%, $n = 4$), knee replacement ([$\chi^2(1) = 4.648$, $p < .05$]; 43.5%, $n = 10$), spinal repair ([$\chi^2(1) = 4.469$, $p < .05$]; 42.9%, $n = 9$), and organ transplant ([$\chi^2(1) = 6.555$, $p < .05$]; 53.8%, $n = 7$). Meanwhile, the benefit of quality service appeared significantly more frequently when the medical tourism site offered joint replacement surgery ([$\chi^2(1) = 5.958$, $p < .05$]; 92.3%, $n = 24$) and knee replacement surgery ([$\chi^2(1) = 4.954$, $p < .05$]; 91.7%, $n = 22$). Emphasizing the latest technology appeared more frequently in a statistically meaningful way for varicose vain removal ([$\chi^2(1) = 4.354$, $p < .05$]; 70%, $n = 7$). In addition, cosmetic dental ([$\chi^2(1) = 5.921$, $p < .05$]; 34.1%, $n = 15$) and general dental ([$\chi^2(1) = 5.958$, $p < .05$]; 92.3%, $n = 24$) appeared more frequently in a statistically meaningful way for physician expertise. Finally, the benefit of convenience appeared more frequently in a statistically meaningful way for massage services ([$\chi^2(1) = 6.046$, $p < .05$]; 100%, $n = 2$).

RQ8 asked the about the association between the type of the medical procedure and the use of interactive new media functions. The results of chi-squared tests showed that there is a statistically significant difference in the type of the medical procedure and the social media feature. Specifically, this was the case when the procedures were exercise/stress relief [$\chi^2(1) = 4.379$, $p < .05$], biopsy [$\chi^2(1) = 8.090$, $p < .01$], ultrasound [$\chi^2(1) = 4.397$, $p < .05$], colon removal [$\chi^2(1) = 5.561$, $p < .05$], colonoscopy [$\chi^2(1) = 8.090$, $p < .01$], and CT scans [$\chi^2(1) = 4.331$, $p < .05$].

Podcasts were also frequent in a statistically meaningful pattern for websites that mentioned exercise stress relief [$\chi^2(1) = 5.155$, $p < .05$], biopsy [$\chi^2(1) = 7.801$, $p < .01$], ultrasound [$\chi^2(1) = 5.155$, $p < .05$], colon removal [$\chi^2(1) = 44.994$, $p < .001$], and colonoscopy [$\chi^2(1) = 7.801$, $p < .01$].

For e-mail contact addresses, biopsy [$\chi^2(1) = 4.901$, $p < .05$], colon removal surgery [$\chi^2(1) = 3.832$, $p < .05$], and Ayurveda [$\chi^2(1) = 4.002$, $p < .05$] were also frequent in a statistically meaningful pattern.

For Twitter, websites that mentioned cataract surgery [$\chi^2(1) = 6.319$, $p < .05$], gastric bypass surgery [$\chi^2(1) = 5.482$, $p < .05$], vasectomy [$\chi^2(1) = 4.506$, $p < .05$], colonoscopy [$\chi^2(1) = 6.020$, $p < .05$], orthopedic surgery [$\chi^2(1) = 4.555$, $p < .05$], joint replacement [$\chi^2(1) = 6.319$, $p < .05$], knee replacement [$\chi^2(1) = 5.659$, $p < .05$], and spinal repair [$\chi^2(1) = 12.424$, $p < .001$] utilized Twitter channels more often in a statistically significant pattern.

When websites utilized Facebook, those that mentioned biopsy [$\chi^2(1) = 4.665$, $p < .05$], ultrasound [$\chi^2(1) = 4.374$, $p < .05$], cataract surgery [$\chi^2(1) = 5.572$, $p < .05$], hernia repair [$\chi^2(1) = 4.449$, $p < .05$], colonoscopy [$\chi^2(1) = 9.775$, $p < .01$], and spinal repair [$\chi^2(1) = 5.784$, $p < .05$] utilized Facebook channels more often in a statistically significant pattern.

Lastly, for social media connect functions, websites that mentioned biopsy [$\chi^2(1) = 7.835$, $p < .01$], cataract surgery [$\chi^2(1) = 7.334$, $p < .01$], gastric bypass [$\chi^2(1) = 5.962$, $p < .05$], in vitro fertilization [$\chi^2(1) = 4.936$, $p < .05$], colonoscopy [$\chi^2(1) = 7.835$, $p < .05$], joint replacement [$\chi^2(1) = 7.334$, $p < .01$], knee replacement [$\chi^2(1) = 9.371$, $p < .01$], and spinal repair [$\chi^2(1) = 13.310$, $p < .001$] utilized social media connect functions more often in a statistically significant pattern.

RQ9 examined the association between the type of the appeal and the use of interactive social media functions. Findings from the chi-squared analysis revealed that when websites offered the social media connect function, patient testimonial [$\chi^2(1) = 3.865$, $p < .05$], medical expertise [$\chi^2(1) = 9.374$, $p < .01$], and third-party endorsement

[$\chi^2(1) = 9.371, p < .01$] appeals were used more often than not in a statistically significant pattern. Meanwhile, the convenience appeal was used more often than not for websites that offered e-mail contact options [$\chi^2(1) = 5.442, p < .05$], while third-party endorsement appeal was used more often than not for websites that offered blog links [$\chi^2(1) = 4.756, p < .05$], podcasts [$\chi^2(1) = 5.709, p < .05$], and embedded YouTube videos [$\chi^2(1) = 12.967, p < .001$].

DISCUSSION

The purpose of this exploratory study was to explore the benefits and risks featured in medical tourism broker websites, types of persuasive appeals within these websites, relationships among types of appeals and specific types of health-related services offered, and the role of new media features from a framing theory perspective. In this section, we explore the implications of the findings for framing theory and the study of medical tourism websites. In addition, we discuss practical implications of the findings, limitations of the study, and directions for future research.

According to framing theory, the presentation of the health issue can largely influence how the audience understands, and subsequently makes decisions and judgments toward, the issue (Scheufele & Tewksbury, 2007). For this reason, the present study used framing as the theoretical foundation to examine the ways medical tourism broker websites included or excluded information to construct a specific reality that may influence its viewer's decisions on using medical services that are available overseas. Consistent with previous findings (e.g., Chang, 2007; Mason & Wright, 2011), the present study also found that these medical tourism broker websites highly emphasize benefits while downplaying the risks almost altogether. This is especially alarming when considering the wide range of procedures and services that these medical tourism broker websites provide. Findings from this research showed that numerous medical tourism broker websites offer complicated and highly advanced medical procedures such as spinal cord repair, organ transplant surgery, stem cell therapy, joint and knee replacement surgery, and neurosurgery. The majority of these websites failed to report any procedural, postoperative, or legal concerns associated with the procedures. Not only is this problematic because it can poorly educate potential patients and leave them in life-threatening conditions after the surgery, but strikingly highlighting the low cost benefit of the procedure and the convenience and quality of the service using appeals such as patient testimonials and doctor quotes also raises ethical and legal concerns of the practice in the larger scheme of events.

In terms of the specific benefit and appeals, although past research indicates gain frames are effective with products associated with low perceived risk (Meyerowitz & Chaiken, 1987), while loss frames are effective with those associated with high risks, this pattern appeared to be nonexistent for medical tourism broker web sites. As illustrated earlier in this article, although many of the procedures that were offered in these websites carry a great deal of health risk for patients, the websites dominantly focused on the positive attributes of benefit and appeal. Despite the great importance of postoperative care, procedural risk, and potential medical complications for making informed decisions about undergoing a medical procedure, these issues rarely appeared on these websites. Almost half of the websites used patient testimonials, and emphasizing the medical expertise of the physician or providing third-party endorsements such as emphasizing the facility being covered in the media, or being accredited by the business bureau appeared to be immensely popular. Taking a deeper look into these specific appeals, medical accreditation appeared most frequently within the medical expertise appeal while business accreditation was slightly more popular than media endorsements for third-party endorsement appeals. This points to a conclusion that even when medical tourism broker sites use various types of appeals to persuade potential to undergo the procedures, they tend to provide superficial messages that praise the qualifications of the physician rather than providing in-depth information that would allow potential patients to make a more educated judgment about the credibility and expertise of medical personnel before deciding to make the trip. Furthermore, the high reliance on patient testimonials also becomes a problem because the testimonials offer little information on the actual procedure itself or the qualifications of the physician, but rather focus on the positive experience (e.g., low-cost, personalized, hotel-like service) or the exotic location of the procedure. This again may serve as a strategic disturbance from making the potential patients deeply scrutinize or critically process the benefits and risks associated with the medical procedure they are about to undergo.

In terms of the interactive new media functions, the medical tourism websites offered an array of features for patients to interact and share the information. Podcasts were the most popular new media function, with close to 98% of the websites utilizing the feature. E-mails to get free quotes and YouTube videos showcasing the facility were also very popular. While still popular, contrary to other fields of strategic communication such as product advertising or public relations, Twitter handles and Facebook pages were the least popular types of interactive new media functions. This may be due to the fact that these media channels are highly social, allowing the users to share their experiences and disseminate information in a democratic manner. Given the nature of medical tourism as relatively new, and the negative connotations associated with it, the broker websites may have been hesitant to provide such options to potential patients, as such options could be more harmful than beneficial. Instead, they focus on channels that allow them to showcase the quality of amenities that they have by using videos, or offering a convenient tool for patients to contact in order to get

"free quotes" for their low-cost, yet supposedly high-quality, service.

Limitations and Future Research

The exploratory nature of this study comes with several limitations. As with the nature of content analyses, this study is largely descriptive in terms of understanding how gain- and loss-framed messages are utilized for medical tourism broker websites. Future research is needed to understand message frame effects for medical tourism broker websites through survey and experimental research. Specifically, it is important to gain a better understanding of how consumers evaluate the quality of information about medical procedures and potential risks/benefits when making decisions about whether or not to use these services. In addition, more research is needed to understand individual motives for using the medical tourism services and how the framing of messages may motivate or deter decisions to use these services. According to Helble (2011), patients seeking for health care abroad have various push and pull factors, as well as varying degrees of socioeconomic concerns. For example, patients might seek treatment abroad because the medical procedure is not available in their own country for legal or cultural reasons (e.g., sex-change surgery and stem-cell injections), but also because the financial burden of health care is excessive for them when seeking care domestically. Meanwhile, affluent patients may seek treatment abroad where hospitals are better equipped and have well-trained medical experts. Such varying degrees of individual motivations for seeking medical services abroad can have a moderating effect on the persuasive power of these message frames. Moreover, it would be helpful to gain a better understanding of how medical tourism websites may use new media features (such as embedded videos with testimonials from patients, links to accreditation agencies, etc.) as a way to circumvent directly communicating with consumers about potential risks. Surveys or interviews with medical tourism brokers or medical tourism broker website developers could provide insights into the specific marketing goals of medical tourism facilities. Additionally, a comparison of the frames, appeals, and the interactive features offered in international medical tourism broker sites and mirroring facilities in the United States would also be beneficial for a more comprehensive understanding of the dynamics of medical tourism websites.

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