

Is it Real? Qualitative Framing Analyses of the Depiction of Fibromyalgia in Newspapers and Health Websites

Joy L. Rodgers¹ and Mari L. Zapata Ramos²

¹University of Florida

²University of Puerto Rico

Abstract

Purpose: This two-phase project employed qualitative framing analyses to explore how fibromyalgia has been framed in some of the top sources of U.S. health information and how these sources address treatments related to fibromyalgia. **Methods:** Phase 1 of the project examined 95 stories and articles published between January 1, 2007, and October 15, 2010, in eight elite U.S. newspapers and five most-trafficked health websites to determine the dominant framing of fibromyalgia in each source. Phase 2 analyzed 146 stories and articles published between January 1, 2007, and May 15, 2013, in 15 top-circulation U.S. daily print and online newspapers and five popular health websites. Phase 2 was conducted to examine changes in the dominant framing of fibromyalgia since Phase 1, and identify new frames in the ongoing debate about whether fibromyalgia is a medical or mental condition. **Results:** Project findings suggest a lessening in the debate insofar as the overall media representation shifted from a depiction of fibromyalgia as a mental to a medical condition. Moreover, changes found between the two phases in the identification of the frames demonstrate the evolving public discussion surrounding fibromyalgia amid FDA approval of drugs specifically for the treatment of the condition. **Conclusion:** Thus, the marketing of fibromyalgia-specific drugs may be a factor contributing to the legitimization of the controversial condition.

© 2013 Californian Journal of Health Promotion. All rights reserved.

Keywords: : fibromyalgia, health, debate, framing theory, health communication

Introduction

Fibromyalgia is distinguished by chronic, widespread pain and pain sensitivity that by some estimates affects as many as 12.3 million adults in the United States (“First Test,” 2013). Women account for between 80% and 90% of those diagnosed (Centers for Disease Control and Prevention, 2010; Glattacker, Opitz, & Jäckel, 2010). Diagnostic criteria for fibromyalgia include the presence of 11 out of 18 tender points (Wolfe, et al., 1990). However, more recent guidelines suggest less emphasis on tender point counts (Wolfe, et al., 2010). Almost all fibromyalgia patients further complain of poor sleep, fatigue, anxiety, and distress (Anderson & Winkler, 2006; Dupree Jones, Adams, Winters-Stone, & Burckhardt, 2006). These additional characteristics have been included in preliminary 2010 fibromyalgia

diagnostic criteria (Wolfe, et al., 2010). The cause of fibromyalgia is unknown, and some medical professionals question whether fibromyalgia with its vague and broad combination of symptoms can be classified as a disease (Chitale, 2008). The main question related to fibromyalgia relates to its undetermined physiological origin, leading some medical practitioners to suggest that pain associated with fibromyalgia is psychological.

Fibromyalgia in the Media

While the debate over the existence of fibromyalgia has been long-standing (Wallace, 1997), the question seems to resurface in media announcements of new treatments. The FDA approval of three drugs for the treatment of fibromyalgia – Lyrica in 2007, Cymbalta in 2008, and Savella in 2009 – and the subsequent marketing of these drugs has fueled the debate.

Indeed, the headline on a January 14, 2008, *New York Times* story by Alex Berensen read: “Drug Approved. Is Disease Real?” and the headline on a January 16, 2008, online ABC News article by Radha Chitale stated: “Like Chronic Pain, Fibromyalgia Debate Persists.” Physician treatment of patients is further exemplified in the headline “Fibromyalgia: Patients Say Many Doctors Don’t Take Them Seriously,” which appeared on a May 31, 2009, *Sacramento Bee* story by Sam McManis.

Framing Theory and the Media

A key theory in the study of selection and interpretation of news is framing (Borah, 2011; Reese, 2001; Van Gorp, 2007). Goffman (1974) introduced the notion of frames in referring to “schemata of interpretation” that allow individuals to “locate, perceive, identify, and label” occurrences within their immediate experience as well as the world at large (p. 56). Similarly, Entman (1993) defined framing as “to select some aspects of a perceived reality and make them more salient in a communicating text” (p. 52). Cappella and Jamieson (1997) further argued that framing refers to placing more attention on certain features of a phenomenon while minimizing other features.

Framing has been used in studies on media coverage on a wide range of issues, such as politics (Cappella & Jamieson, 1996; Scheufele, 2000), stem cell research (Nisbet, Brossard, & Kroepsch, 2003), and health (Pratt, Ha, & Pratt, 2002; Shih, Wijaya, & Brossard, 2008). Critical to message production, framing may not only positively or negatively influence an argument but also help define social issues through the prominence or credibility given to the frame (Rothman, Bartels, Wlaschin, & Salovey, 2006). According to a 2011 survey by the Pew Research Center’s Project for Excellence in Journalism and the Pew Internet & American Life Project, newspapers tie with the Internet as the top source for news about housing, schools, and jobs, and with television as the main source for local political news. Pew Research Center surveys have found that 80% of Internet users – 59% of U.S. adults – look online for health information, with specific diseases or conditions and treatments or procedures among the most

commonly researched topics (Fox, 2011). Thus, health communicators have an opportunity to influence news frames by working to reframe a health issue to not only define a social problem and attribute responsibility for the problem and its solutions but also help establish a dominant public dialogue and discourse.

The Present Study

Given that fibromyalgia is viewed from two distinct perspectives, the aim of this project was to examine how fibromyalgia has been framed in prominent sources of health information. Specifically, the project was conducted in two phases with each phase employing a qualitative framing analysis of textual information found in top-circulation print and online newspapers and health websites to gain insight into how fibromyalgia was represented (Hertog & McLeod, 2001, p.147). Framing analysis may involve an inductive or deductive approach (Semetko & Valkenburg, 2000). The goal of the inductive approach is to identify all possible frames through a loosely defined set of presuppositions of the frames (Semetko & Valkenburg, 2000). In contrast, the deductive approach aims to examine the occurrence of frames by predefining the frames, or using a strong set of presuppositions (Semetko & Valkenburg, 2000). Thus, research questions for this project broadly centered on the identification of the dominant framing of fibromyalgia on health websites and in newspapers and the relationship of the dominant framing in the two sources of information. Phase 2 of the project also examined how the dominant framing of fibromyalgia has changed and sought to identify new frames that may have occurred since the Phase 1 study. Specific research questions were:

1. What was the dominant frame of fibromyalgia in newspaper stories?
2. What was the dominant frame of fibromyalgia in information provided by health websites?
3. How do the frames in the newspaper stories relate to the content and framing of information provided by health websites?
4. How has the framing of fibromyalgia changed for both newspapers and health websites since the Phase 1 study?

Methods

Each phase used a qualitative framing analysis to identify how fibromyalgia was represented in newspapers and on health websites. While the protocols for both phases essentially were the same, the newspapers and health websites examined and the time periods studied differed.

Sample

News stories, features, and website content were identified for both phases using a keyword search for “fibromyalgia” in headlines and titles. The sample population in each phase comprised stand-alone news and feature stories published in the news, health, or science sections of the newspapers and press releases, research reports, and fact sheets to include frequently asked questions posted on health websites. Opinion/editorials, letters to the editor, non-news stories (sports), book reviews, slide shows, videos, obituaries, polls, comment pages, and links to other online sites were excluded from both phases. Articles of 60 or fewer words to include calendar events and brief items appearing as part of a news roundup also were excluded.

Phase 1. The Phase 1 study entailed an analysis of articles from eight elite newspapers (Husselbee & Stempel, 1997) and five top health websites (Consumer Reports WebWatch, 2007) over a 3½- year period between early 2007 and late 2010. The newspapers chosen for analysis were: the *Atlanta Journal-Constitution*, the *Boston Globe*, the *Chicago Tribune*, the *Christian Science Monitor*, the *Los Angeles Times*, *The New York Times*, *USA Today*, and *The Washington Post*. The health websites with searchable databases identified for review were: NIH (National Institutes of Health), WebMD, RealAge, AOL Health, and Drugs.com.

Phase 2. In Phase 2, news and features stories published in the 15 highest-circulation online and print newspapers in the United States (Lulofs, 2013) and articles posted on the five “Most Popular Health Sites” (“Top 15”, 2013) over a 6½-year period from 2007 to 2013 were analyzed. The newspapers chosen for analysis were: *The Wall Street Journal*, *The New York*

Times, *USA Today*, *Los Angeles Times*, *The Washington Post*, *Denver Post*, *Chicago Tribune*, *Houston Chronicle*, *Orange County Register*, *Newark Star-Ledger*, *Tampa Bay Tribune*, *The Philadelphia Inquirer*, *San Diego Union-Tribune*, *St. Paul Pioneer Press*, and *Salt Lake City Deseret News*. The top five health websites chosen for review were selected using a ranking study of the 15 most-popular sites as measured by traffic (“Top 15”, 2013). From the ranking study, the top five sites with searchable databases were chosen for review. They were: NIH (National Institutes of Health), WebMD, Yahoo! Health, Mayo Clinic, and MedicineNet.com.

Data Collection

January 1, 2007, signifies the beginning time frame in each phase for the collection of news articles and website content related to fibromyalgia. Researchers chose this start date because it represents a milestone period in the treatment of fibromyalgia. With the FDA’s June 2007 approval of Lyrica, discussions related to fibromyalgia have increased. October 15, 2010, and May 15, 2013, reflected the end dates of data collection for each phase.

Phase 1. The initial Phase 1 search for articles and stories between January 2007 and October 2010 generated 150 newspaper stories and hundreds of website articles. However, the sample was reduced to 43 newspaper stories and 52 website articles after exclusions and duplications were eliminated. Therefore, the final sample consisted of 95 articles and stories.

Phase 2. The Phase 2 search for articles and stories for the January 2007 to May 2013 time frame yielded 59 newspaper stories and hundreds of website articles. The sample was reduced to 39 newspaper stories and 107 website articles after exclusions and duplications were eliminated. Thus, the final sample consisted of 146 articles and stories.

Unit of Analysis

The unit of analysis for both phases was the individual article or story, with an examination of the text and headlines of all articles and stories. In each phase, 10% of the articles were

coded by both researchers to ensure inter-coder reliability, which was calculated at 0.87 for Phase 1 and 0.95 for Phase 2 using Holsti's method (Neuendorf, 2002). The articles and stories for each phase were divided between two coders, who read the stories and articles and then completed a detailed coding worksheet to examine: publication type; publication name; publication date; story length (in words); section where article appeared; type of item (i.e., news, feature); title or headline; main idea; secondary idea; suggestion of fibromyalgia as a medical condition; suggestion of fibromyalgia as a mental condition; no suggestion of fibromyalgia as a medical or mental condition (neutral); primary treatment of fibromyalgia; other treatments; sources directly quoted or paraphrased; and frames identified.

Results

Phase 1 Results

Phase 1 served as a preliminary study to ascertain the dominant framing of fibromyalgia in newspapers and health websites. Frames identified in Phase 1 were used in Phase 2 to track changes in the framing over time.

The final sample ($N=95$) comprised 43 stories from U.S. newspapers and 52 articles from

health websites (Table 1). The average length of the stories was 658 words.

The majority of the stories and articles ($n=47$, 49.5%) were written or reviewed in 2010, with 26 (27.4%) in 2009 and 15 (15.8%) in 2008. The fewest number of stories ($n=7$, 7.4%) were from 2007. Features ($n=39$, 4.1%) and news ($n=32$, 33.7%) were the most frequent type of articles and stories found. Seventeen (17.9%) of the stories and articles were informational items and three (3.2%) were medical reference. Four items comprised the "other" category, which encompassed columns, commentary, expert advice, and highlights.

The Phase 1 study identified five dominant frames – emotion, debate, treatment, credibility, and informative – in the portrayal of fibromyalgia (Table 2). For newspapers, the No. 1 frame was a tie between emotion and debate, with 11 stories (25.6%) each. The No. 2 frame in newspapers also was a tie, with 10 stories (23.3%) each for treatment and credibility. Rounding out the newspaper frames for Phase 1 was informative with four stories (9.3%). In contrast to newspapers, emotion was the No. 5 frame identified in websites ($n=10$, 19.2%), with debate taking the No. 2 position ($n=19$, 36.5%).

Table 1

Description of Final Sample, Phase 1 (N=95) and Phase 2 (N=146)

Phase 1			Phase 2					
Source	<i>n</i>	%	Source	<i>n</i>	%	Source	<i>n</i>	%
Newspapers			Newspapers			Newspapers (continued)		
Atlanta Journal-Constitution	1	2.3	The Wall Street Journal	3	7.7	Orange County Register	2	5.1
Boston Globe	2	4.7	The New York Times	1	2.6	Newark Star-Ledger	2	5.1
Chicago Tribune	4	9.3	USA Today	1	2.6	Tampa Bay Tribune	2	5.1
Christian Science Monitor	1	2.3	Los Angeles Times	3	7.7	The Philadelphia Inquirer	1	2.6
Los Angeles Times	6	14.0	The Washington Post	1	2.6	San Diego Union-Tribune	8	20.5
The New York Times	13	30.2	Denver Post	1	2.6	St. Paul Pioneer Press	2	5.1
USA Today	8	18.6	Chicago Tribune	6	15.4	Salt Lake City Deseret News	4	10.3
The Washington Post	8	18.6	Houston Chronicle	2	5.1			
Websites			Websites					
NIH	1	1.9	NIH	3	2.8	Total:		
WebMD	17	32.7	WebMD	4	3.7	Newspapers, Phase 1	43	100.0
Real Age	7	13.5	Yahoo Health	54	50.5	Newspapers, Phase 2	39	100.1*
AOL Health	12	23.1	Mayo Clinic	10	9.4	Websites, Phase 1	52	100.0
Drugs.com	15	28.8	MedicineNet.com	36	33.6	Websites, Phase 2	107	100.0

*Result of rounding

The treatment frame placed No. 3 in websites ($n=18$, 34.6%) and credibility was No. 4 ($n=23$, 25.0%). Finally, the informative frame, which was the least-dominant in newspapers, took the No. 1 position in websites, with 26 (50%) of the articles reviewed exhibiting this frame.

Table 2

Dominant Newspaper and Website Frames

Frame	Newspaper		Website	
	Phase 1 (Rank)	Phase 2 (Rank)	Phase 1 (Rank)	Phase 2 (Rank)
	<i>n</i> / %	<i>n</i> / %	<i>n</i> / %	<i>n</i> / %
Informative	(3) 4 / 9.3	(1) 35 / 89.7	(1) 26 / 50.0	(1) 91 / 85.1
Treatment	(2) 10 / 23.3	(2) 29 / 74.4	(3) 18 / 34.6	(2) 67 / 62.6
Credibility	(2) 10 / 23.3	(3) 23 / 59.0	(4) 13 / 25.0	(3) 43 / 40.2
Debate	(1) 11 / 25.6	(4) 14 / 35.9	(2) 19 / 36.5	(5) 17 / 15.9
Emotion	(1) 11 / 25.6	(5) 13 / 33.3	(5) 10 / 19.2	(4) 24 / 22.4
Economic	N/A	(6) 11 / 28.2	N/A	(6) 1 / 0.9

Phase 2 Results

The final sample ($N=146$) consisted of 39 stories from U.S. newspapers and 107 articles from health websites (Table 1). The average length of the articles was 562 words. The majority of the stories and articles ($n=33$, 22.6%) were written or reviewed in 2012, followed by 32 (21.9%) in 2010; 28 (19.2%) in 2011; 18 (12.3%) in 2009; 15 (10.3%) in 2008; and 12 (8.2%) in 2013. The fewest number of stories ($n=8$, 5.5%) were from 2007 (Table 2). News ($n=52$, 35.6%) items were the most frequent type of stories and articles found. Feature articles accounted for 40 (27.4%) of the total number of articles, with medical reference and informational items each accounting for 27 (18.5% each) of the total.

Dominant Frames

The following sections describe the results of the Phase 2 study in the identification of the five frames from Phase 1 and a new frame of economics (Table 2).

Informative. The most-frequent frame in newspapers was informative ($n=35$, 89.7%), characterized by stories that provided basic

information to consumers, such as new developments related to the approval or recall of drugs or criticisms of drugs suggested for the treatment of fibromyalgia. One illustration of the informative frame in newspapers appeared in a 2010 *San Diego Union-Tribune* story by Matthew Perrone headlined “Group Urges Recall of Drug for Fibromyalgia.” Another example of the informative frame was seen in a 2007 *Bloomberg News* article published in the *Salt Lake City Deseret News* headlined “Seizure Drug May Treat Fibromyalgia.” Articles that further characterized (“triaged”) fibromyalgia and its symptoms and “diagnosis” also exemplified the informative frame. Informative also was the most-frequent frame in health websites ($n=91$, 85.1%). Similar to newspapers, this frame included articles that addressed new research on fibromyalgia and developments in treatment options, including FDA drug approvals as depicted in headlines from WebMD articles stating “FDA Panel Rejects Xyrem as Fibromyalgia Treatment” (McMillen, 2010) and “FDA OKs Cymbalta for Fibromyalgia” (Hitti, 2008). Articles that described fibromyalgia or served to define fibromyalgia, its causes, who it affects, and other statistics also distinguished the informative frame on health websites. Additionally, the informative frame included frequently asked questions and tips and advice on such things as finding the right doctor and how to increase energy, as well as key characteristics of fibromyalgia such as “tender points.”

Treatment. In newspapers, treatment was the second-most-frequent frame ($n=29$, 74.4%). The treatment frame was characterized by stories that highlighted both pharmacological and non-pharmacological therapies designed to not only provide relief from fibromyalgia symptoms but also improve quality of life and cope with its symptoms. Frequent drug treatments mentioned in newspaper stories included the prescription medications Lyrica, Cymbalta, and Savella. Exercise was among the most frequent non-pharmacological treatments cited, specifically, tai chi, which “may raise pain thresholds and help break the ‘pain cycle,’” (Roan, 2010). Some other non-pharmacological treatments mentioned less frequently included vitamin and

other supplements, talk therapy, medical marijuana, meditation, biofeedback, water therapy, and acupuncture. In health websites, the treatment frame also was the second-most frequent ($n=67$, 62.6%). The treatment frame in health websites depicted much more diverse treatments than newspapers, including drugs such as Xyrem, Tramadol, Lyrica, Cymbalta, Savella, Nabilone, Prozac, Effexor, Ultram, Ultracet, Naltrexone, Flexeril, Gabapentin, tricyclic antidepressants, selective serotonin reuptake inhibitors, and non-steroidal anti-inflammatory drugs (NSAIDs). Non-drug treatments on the websites also included exercise (water aerobics, strength and weight training; swimming; walking; yoga; and tai chi), as well as alternative treatments such as cognitive behavioral therapy, physical therapy, acupuncture, meditation, massage, chiropractic, marijuana, vitamin supplements, and herbs.

Credibility. The third-most-frequent frame in newspapers was credibility ($n=23$, 59.0%). The credibility frame was exemplified by investigative research and the expertise of the sources quoted or paraphrased in stories. Examples of expert sources included medical practitioners (rheumatologists, psychologists, and neurologists), directors, and researchers at medical centers and academic institutions (Mayo Clinic and Tufts Medical Center) and drug companies (Eli Lilly and Pfizer); peer-reviewed research journals such as the *New England Journal of Medicine*; and associations devoted to health (National Institutes of Health and Centers for Disease Control and Prevention) and fibromyalgia (Arthritis Foundation and National Fibromyalgia Association). The credibility frame also was the third-most-frequent frame ($n=43$, 40.2%) in health websites. Similar to the newspaper stories, credibility in website content was characterized by the expertise of sources and exemplified in quotes from university researchers, physicians, psychologists, and clinical practitioners; association leaders and directors from the FDA, National Center for Complementary and Alternative Medicine, NIH, National Women's Health Information Center, National Fibromyalgia Association, Mayo Clinic, American Pain Society, and American College of Rheumatology; and by references to

journals such as *The Journal of Pain* and *The Journal of Clinical Sleep Medicine*.

Debate. The fourth-most-frequent frame in newspapers was debate ($n=14$, 35.9%). The debate frame addressed questions surrounding the existence of fibromyalgia and its causes, as well as the difficulty in treating fibromyalgia patients. Example statements and quotes representing the debate frame in newspaper stories include: "Say 'chronic fatigue syndrome' and 'fibromyalgia,' and many physicians just wince. They still don't take the diagnoses seriously, but it's time they did" (Ondash, 2007); "for many patients, the Pfizer drug is validation that they have a real medical condition, an acknowledgment they've long fought to obtain" (Dwass, 2008); and "two drugmakers spent hundreds of millions of dollars last year to raise awareness of a murky illness, helping boost sales of pills recently approved as treatments and drowning out unresolved questions – including whether it's a real disease at all" (Perrone, 2009). In health websites, debate was the fifth-most-frequent frame ($n=17$, 15.9%). As with newspapers, content on the health websites related to the debate frame underscored the inherent uncertainty and mystery surrounding fibromyalgia and its causes and treatments, as well as questions about its medical status. Examples of the debate frame found on websites included statements such as: "fibromyalgia remains a poorly understood and hard-to-treat disorder" (Boyles, 2009); "doctor insisted that it was 'all in your head'" (Eglash, 2013); and "not every doctor understands fibromyalgia well" (Davis, 2010). Further examples of the debate about the existence of fibromyalgia and the effect on patients include: "One of my best friends doesn't believe I have it. His wife, who is a doctor, told him men can't get it, that it is in my head" (McMillen, 2011) and "the top misconception is that people think fibromyalgia isn't a real medical problem or that it is 'all in your head'" (Mayo Clinic, 2012).

Emotion. In newspapers, the emotion frame was the fifth-most represented ($n=13$, 33.3%). The emotion frame included stories that related to the frustrations and misunderstandings patients and their families face in dealing with fibromyalgia

pain and associated symptoms and disorders, as well as social stigma. For example, a 2012 *Chicago Tribune* article by Terri Yablonsky Stat stated: “I didn’t understand fibromyalgia or what my wife was going through. It’s a natural reaction to say, ‘Come on, there’s no way you feel as bad as you say you’re feeling.’” Unlike newspapers, emotion was the fourth-most-frequent frame in health websites ($n=24$, 22.4%). Emotion was represented by the difficulty of diagnosis of fibromyalgia and its association with other illnesses. As a 2011 *MedicineNet* story by Bill Hendrick stated, “It took two long, painful years and countless doctor visits before I was diagnosed with fibromyalgia, but our survey respondents had an even lengthier process – their average time to receive a diagnosis was three years.”

Economic. The Phase 2 study revealed one additional frame over Phase 1. An economic frame characterizing business and financial aspects of fibromyalgia was found in 11 newspaper stories (28.2%) and one health website article (0.9%). The economic frame included stories that addressed monetary and non-monetary expenses incurred by patients such as time spent on doctor visits and costs of drug and non-drug treatments. Pharmaceutical companies’ stock prices for fibromyalgia drugs also characterized the economic frame. Examples of the economic frame included these statements from a 2009 *San Diego Union-Tribune* story written by Michael Kahn: “Fibromyalgia syndrome is also associated with high direct and indirect disease-related costs” and “effective treatment of fibromyalgia syndrome is therefore necessary for medical and economic reasons.”

Differences Between Phases 1 and 2

Although the conceptualizations of the frames identified in Phase 1 were the same as the frames depicted in Phase 2, the framing of fibromyalgia changed somewhat between the two phases (Figure 1). For example, in Phase 1, the top-ranked frames for newspapers were emotion and debate, each with 11 articles. The

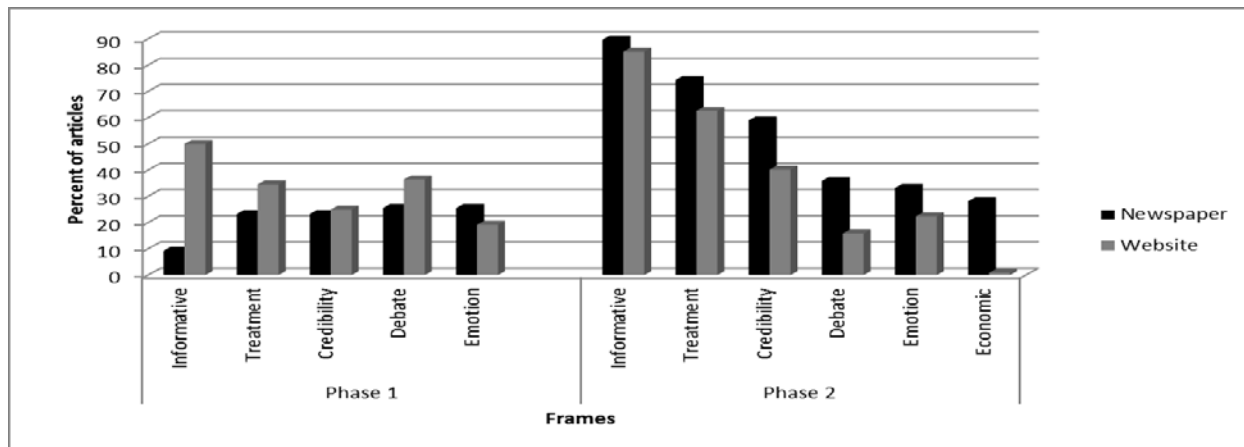
credibility and treatment frames followed with 10 articles each, and the last frame was informative with four articles. However, in Phase 2, the informative frame moved from the bottom to the top spot as the most-frequent frame found in newspapers. In the Phase 1 study, the treatment and credibility frames tied for the No. 2 position. Phase 2 revealed a separation of the frames, with the treatment frame ranking second and credibility, third. The top-ranked debate frame in Phase 1 moved down in Phase 2, to the fourth-most-frequent frame. Finally, what had been considered Phase 1’s most widely used frame, emotion, was the least-frequent newspaper frame in Phase 2.

In terms of health websites, the informative frame remained the most dominant, with 91 articles identified in Phase 2 and 26 stories in Phase 1. However, the treatment frame ($n=67$) found in Phase 2 supplanted the debate frame ($n=19$) from Phase 1 to become the second-most-frequent. The treatment frame ($n=18$) in Phase 1 occupied the No. 3 position, which in Phase 2 was held by credibility ($n=43$). In the Phase 2 study, the emotion frame ($n=24$) moved into the No. 4 position, a spot held by the credibility frame ($n=13$) in Phase 1. The debate frame, which was the second-most-dominant on health websites in Phase 1 ($n=19$), moved down to the least-dominant frame in Phase 2 ($n=17$). Thus, fewer health websites were framing fibromyalgia from a debate standpoint in favor of treatment options and an emotional point of view. Moreover, the additional economic frame identified in Phase 2 appeared more frequently in newspapers than websites ($n=11$ and 1, respectively).

In addition to the identification of frames, the suggestion of whether fibromyalgia was a medical or mental condition also was examined. Variations in perceptions were noted between the two phases in both newspapers and health websites (Table 3). In the Phase 1 study, newspapers showed a strong stance (by choosing one or the other) in whether fibromyalgia was considered a medical or mental condition.

Figure 1

Phases 1 and 2 percentage of articles per frame and source. This figure illustrates the dominant framing of fibromyalgia in newspapers and health websites and the differences found between the two phases.



Thirty-two (74.4%) newspaper articles considered fibromyalgia a medical condition and almost half that ($n=17$, 39.5%) considered fibromyalgia a mental condition. Six (14.0%) newspaper articles positioned fibromyalgia neutrally, mentioning both medical and mental aspects of the condition. In contrast, some websites presented fibromyalgia as either both or neither a medical nor a mental condition. However, in general, websites positioned fibromyalgia as a mental condition ($n=37$, 71.2%) rather than a medical condition ($n=14$, 26.9%). Conversely, in the Phase 2 study, 23 (59.0%) newspaper articles, hinted that fibromyalgia was a medical condition, while 19 (48.7%) articles suggested fibromyalgia was a mental condition, and 11 (28.2%) articles remained neutral. In terms of health websites, 44 (41.1%) articles implied fibromyalgia as a medical condition, while 35 (32.7%) articles indicated fibromyalgia was a mental condition, and 48 (44.9%) articles were neutral. These percentages do not add up to 100% because some articles suggested fibromyalgia could be both mental and medical.

Discussion

The numerous channels in which health

Table 3.

Classification as a Medical or Mental Condition

	Newspapers		Websites	
	Phase 1 <i>n</i> / %*	Phase 2 <i>n</i> / %*	Phase 1 <i>n</i> / %*	Phase 2 <i>n</i> / %*
Medical	32 / 74.4	23 / 59.0	14 / 26.9	44 / 41.1
Mental	17 / 39.5	19 / 48.7	37 / 71.2	35 / 32.7
Neutral	6 / 14.0	11 / 28.2	0 / 0.0	48 / 44.9
Total	55	53	51	127

*Percentages do not total 100 because some articles suggested fibromyalgia could be both mental and medical.

information is presented and acquired necessitates an understanding of the consistency or variance of information sources. In terms of the information on the debate that surrounds fibromyalgia, this project was able to provide some insight. While the differing views on fibromyalgia and its status as a physical or psychological condition are generally known, this project went beyond an exploration of those personal opinions to an examination of how top health-information sources promulgate this debate. The project examined how fibromyalgia has been framed as a condition both in

newspapers and on health websites and how these sources addressed treatments related to fibromyalgia. The project sought to identify the dominant frames in newspapers and health websites, and to compare and contrast the frames found in each. On the whole, newspapers tended to provide information that told a story in a trustworthy manner and represented current aspects of the issue. Health websites tended to provide information that was more educational.

Is Fibromyalgia Newsworthy?

Newspaper editors and reporters have ground rules for what defines news that often represent an informal or unwritten code within news organizations (Harcup & O'Neill, 2001; O'Neill & Harcup, 2009). The rules stem from daily practice and knowledge gained on the job. Several studies have looked at Galtung and Ruge's (1965) original delineation of the 12 factors of news values to further refine or identify news values (Cohen & Young, 1973; Harcup & O'Neill, 2001; Herbert, 2000; O'Neill & Harcup, 2009). While traditional news values such as conflict, emotion, impact, prominence, novelty, immediacy, and proximity (Harrower, 2007; Itule & Anderson, 2003) continue to focus on events that raise awareness of societal problems and their inherent consequences, a 2012 study by Strömbäck, Karlsson, and Hopmann found the most important properties of what makes news are that the event is "sensational and unexpected, dramatic and thrilling, (and) that it is an exclusive news story" (pp. 725-726). Additionally, in looking at news values in today's digital environments, Strömbäck et al. (2012) further found no suggestion of differences between traditional and online media, stating: "Despite all that has been written about the impact of digital media and online publishing on journalism, thus far such differences do not appear to translate into how journalists perceive the importance of various event properties when deciding what's news" (p. 726).

Given that the American College of Rheumatology estimates that fibromyalgia affects more than 12.3 million people in the United States, which is comparable to the number of people affected by cancer, and the

high average yearly associated medical costs of fibromyalgia, which range from \$4,800 to \$9,300 ("First Test," 2013), fibromyalgia would seem to meet the criteria for a societal issue worthy of newspaper coverage. However, this project revealed far fewer newspaper stories on fibromyalgia have been published than have been posted on health websites. Forty-three (45.3%) newspaper stories out of the total 95 for newspapers and health websites were found in Phase 1 of the project and 39 (26.7%) of the total 146 in Phase 2. This finding suggests an underrepresentation of the issue of fibromyalgia in mainstream media.

Is Conversation Shifting?

One of the most frustrating aspects of fibromyalgia for patients is the long length of time to diagnosis and the poor treatment from doctors who may not be well-informed about fibromyalgia and, as a consequence, doubt the legitimacy of fibromyalgia and patients alike (NIAMSD-US, 2011). Both the debate and emotion frames identified in this project would appear to bear this out, especially in Phase 1 in which debate and emotion tied as the most-dominant frame in newspapers. However, in Phase 2, the debate and emotion frames moved down in ranking to Nos. 4 and 5, respectively. The downgrading of these two frames could spell good news for fibromyalgia sufferers, indicating increased awareness and acceptability of fibromyalgia not only in mainstream media but also among medical practitioners.

Journalistic objectivity is tied to organizational routines, whereby reporters strive to provide balanced or alternative views by quoting a topic "expert" on both sides of an issue (Calder, Richter, Burns, & Mao, 2011). For example, if fibromyalgia advocates gain news media attention, a reporter might contrast their statements with quotes from opponents that may cast doubt on the advocates' position. As seen in the high number of opposing expert sources and officials directly quoted or paraphrased in the articles, objectivity in the media corresponds directly with the credibility frame identified in this project. Furthermore, deadlines are becoming tighter as more newspapers are moving online. Journalistic routines are

intensifying, with reporters more apt to “go by the book” (Calder et al., 2011, p. 12). As such, the media’s reliance on official sources may account for the movement of the emotion frame from the top position in Phase 1 of this project to the bottom in Phase 2.

The main purpose people are driven toward health websites is to seek out information, especially as it relates to specific diseases, conditions and treatments or procedures (Fox, 2011; Rains & Donnerstein Karmikel, 2009). Therefore, the finding of the informative frame as the most dominant in both phases of this project was not surprising. Health websites also tend to provide health information as a means of education. For example, the health websites examined in this project contained sections within the news articles that were based on tips, basic information, and definitions, rather than providing information about the state of the condition (whether people considered fibromyalgia a medical or mental condition) or feature stories about people living with fibromyalgia as newspapers presented.

Medical or Mental Condition?

Finally, given the apparent difficulty in classifying fibromyalgia, treatment options also may become a challenge. In health website articles depicting fibromyalgia as a medical condition, pharmacological treatments were predominant among options listed. Conversely, non-pharmacological options were predominant in articles characterizing fibromyalgia as a mental condition. Many of these non-drug alternatives, such as acupuncture, herbs, and tai chi, can be traced to Eastern medicine, which is closely tied to mind-body-spirit treatments for mental well-being. When pharmacological options were mentioned in articles suggesting fibromyalgia as a mental condition, they tended to be antidepressants that treat psychological aspects of the condition. Although this project’s Phase 1 characterization of fibromyalgia as a mental condition shifted to a more neutral stance in Phase 2, more than one-third of the articles still portrayed fibromyalgia from a mental standpoint. Besides the physical pain and discomfort inherent in fibromyalgia are psychological stressors such as poor sleep,

fatigue, and cognitive difficulties that may lend support for the depiction of fibromyalgia as a mental condition (Campos & Vazquez Rodriguez, 2011; Salgueiro, Buesa, Bilbao, & Azkue, 2012). Thus, this finding is cause for concern for fibromyalgia advocates, who may be looking to health websites as a tool for disseminating information.

Limitations

This project is not without limitations. Further examination is needed to determine how fibromyalgia is being framed or viewed in other health websites and blogs, specifically those related to fibromyalgia. Also, qualitative research is inherently subjective, meaning results may vary among different researchers. Future research could expand on the findings presented here by looking for additional support of how fibromyalgia is considered by medical science journals versus personal health websites and by incorporating resources that weren’t investigated in this project, such as blogs, videos, and slideshows. Also, future research could use this project as a model for a framing analysis on how fibromyalgia is viewed as a primarily women’s condition and how that is more closely associated with a mental condition.

Conclusions and Implications

Findings from this project suggest the lack of consensus in the classification of fibromyalgia as a condition is beginning to diminish. Phase 1 demonstrates that the two sources people refer to most frequently, online newspapers and websites (Pew Research Center, 2011), do not agree on whether fibromyalgia is a medical condition (newspapers) or mental condition (websites). Two years later, Phase 2 demonstrates that both sources of health information more frequently classify fibromyalgia as a medical rather than a mental condition, lessening the debate previously identified. This project also helps to further support the notion that frames function as organizing and interpretive mechanisms (Gamson & Modigliani, 1987). Explicitly, the frames identified in this project highlight the evolving public discussion surrounding fibromyalgia and the shifts that have taken place in two important information sources since FDA approvals of drugs specifically made for the

treatment of a condition that has been steeped in controversy.

The marketing of drugs such as Lyrica, Cymbalta, and Savella for the treatment of fibromyalgia seems to be helping the shift of fibromyalgia toward a legitimate medical condition. This project has shown how in a time

frame of two years (from 2011 to 2013), fibromyalgia went from being characterized as debatable, viewed by some as a mental condition and by others as a medical condition, to being considered medical by the most-sought-out sources of health information: newspapers and health websites. Nevertheless, this suggestion will require future exploration.

References

- Anderson, F. J., & Winkler, A. E. (2006). Benefits of long-term fibromyalgia syndrome treatment with a multidisciplinary program. *Journal of Musculoskeletal Pain, 14*(4), 11-25
- Berensen, A. (2008, January 14). Drug approved. Is disease real? *The New York Times*.
- Bloomberg News. (2007, June 12). Seizure drug may treat fibromyalgia. *Salt Lake City Deseret News*.
- Borah, P. (2011). Conceptual issues in framing theory: A systematic examination of a decade's literature. *Journal of Communication, 61*(2), 246-263.
- Boyles, S. (2009, January 13). *Antidepressants help treat fibromyalgia*. Retrieved May 2013, from WebMD: <http://www.webmd.com/fibromyalgia/news/20090112/antidepressants-help-treat-fibromyalgia>
- Calder, M. J., Richter, S., Burns, K. K., & Mao, Y. (2011). Framing homelessness for the Canadian public: The news media and homelessness. *Canadian Journal of Urban Research, 20*(2), 1-19.
- Campos, R. P., & Vazquez Rodriguez, M. I. (2012). Health-related quality of life in women with fibromyalgia: Clinical and psychological factors associated. *Clinical Rheumatology, 31*(2), 347-355. doi: 10.1077/s10067-011-1870-7
- Cappella, J. N., & Jamieson, K. H. (1996). News frames, political cynicism, and media cynicism. *Annals of the American Academy of Political and Social Science, 546*, 71-84.
- Cappella, J.N., & Jamieson, K.H. (1997). *The spiral of cynicism: The press and the public good*. New York, NY: Oxford University Press.
- Centers for Disease Control and Prevention. (2010). *Fibromyalgia (Arthritis)*. Retrieved September 26, 2010, from Centers for Disease Control and Prevention: <http://www.cdc.gov/arthritis/basics/fibromyalgia.htm>
- Chitale, R. (2008, January 16). Like chronic pain, fibromyalgia debate persists. *ABC News*. Retrieved September 25, 2010, from <http://abcnews.go.com/Health/PainManagement/story?id=4138715&page=1>
- Cohen, S., & Young, J. (1973). *The manufacture of news*. Thousand Oaks, Calif.: Sage Publications Inc.
- Consumer Reports WebWatch. (2007, July 31). *HealthRatings.org revisits the 20 most-trafficked health information sites* [research report]. Retrieved October 15, 2010, from: <http://www.consumerwebwatch.org/view-article.cfm?id=10819&at=5104050>
- Davis, J. L. (2010, November 10). *Finding Dr. Right for your fibromyalgia*. Retrieved May 2013, from WebMD: <http://www.webmd.com/fibromyalgia/features/finding-dr-right-for-your-fibromyalgia>
- Dupree Jones, K., Adams, D., Winters-Stone, K., & Burckhardt, C. S. (2006). A comprehensive review of 46 exercise treatment studies in fibromyalgia (1988-2005). *Health and Quality of Life Outcomes, 4*(67). doi: 10.1186/1477-7525-4-67
- Dwass, E. (2008, May 12). Flexing against chronic pain: Regular, moderate exercise can help ease some symptoms of fibromyalgia and arthritis, studies show. *Los Angeles Times*.
- Eglash, J. (2013, January 5). *Relieving symptoms of fibromyalgia: The secret is balance*. Retrieved May 2013, from Yahoo! Health: <http://health.yahoo.net/articles/musculoskeletal/relieving-symptoms-fibromyalgia-secret-balance>
- Entman, R. M. (1993). Framing: Towards clarification of a fractured paradigm. *Journal of Communication, 43*, 51-58.

- First Test to Objectively Diagnose Fibromyalgia Now Available. (2013, March 4). *Business Wire*. Retrieved July 4, 2013, from <http://www.businesswire.com/news/home/20130304005617/en/Test-Objectively-Diagnose-Fibromyalgia>
- Fox, S. (2011, November 22). *Pew Internet: Health*. Retrieved February 15, 2012, from Pew Internet & American Life Project: <http://www.pewinternet.org/Commentary/2011/November/Pew-Internet-Health.aspx>
- Galtung, J., & Ruge, M. H. (1965). The structure of foreign news. *Journal of Peace Research*, 2(1), 64-91.
- Gamson, W.A., & Modigliani, A. (1987). The changing culture of affirmative action. In R.G. Braungart & M. M. Braungart (Eds.), *Research in Political Sociology*, 3, 137-177.
- Glattacker, M. M., Opitz, U. U., & Jäckel, W. H. (2010). Illness representations in women with fibromyalgia. *British Journal of Health Psychology*, 15(2), 367-387. [pdf]
- Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. Cambridge, MA: Harvard University Press.
- Harcup, T., & O'Neill, D. (2001). What is news? Galtung and Ruge revisited. *Journalism Studies*, 2(2), 261-280.
- Harrower, T. (2007). *Inside reporting: A practical guide to the craft of journalism*. New York, NY: McGraw-Hill.
- Hendrick, B. (2011, May 13). *Chronic pain of fibromyalgia takes toll on everyday life*. Retrieved May 2013, from MedicineNet.com: <http://www.medicinenet.com/script/main/art.asp?articlekey=144432>
- Herbert, J. (2000). *Journalism in the digital age*. Woburn, MA: Focal Press.
- Hertog, J. K., & McLeod, D. M. (2001). A multiperspectival approach to framing analysis: A field guide. In S. D. Reese, O. H. Gandy Jr., & A. E. Grant (Eds.), *Framing public life: Perspectives on media and our understanding of the social world* (pp. 139-161. Mahwah, NJ: Lawrence Erlbaum Associates.
- Hitti, M. (2008, June 16). *FDA OKs Cymbalta for fibromyalgia*. Retrieved May 2013, from WebMD: <http://www.webmd.com/fibromyalgia/news/20080616/fda-oks-cymbalta-for-fibromyalgia>
- Husselbee, L. P. & Stempel, G. H. (1997). Contrast in U.S. media coverage of two major Canadian elections. *Journalism & Mass Communication Quarterly*, 74(3), 591-601.
- Itule, B. & Anderson, D. (2003). *Newswriting and reporting for today's media*. New York, NY: McGraw-Hill.
- Kahn, M. (2009, January 13). Antidepressants ease fibromyalgia pain-study. *San Diego Union Tribune*.
- Lulofs, N. (2013, April 30). *Top 25 U.S. Newspapers for March 2013*. Retrieved March 2013, from Alliance for Audited Media: <http://www.auditedmedia.com/news/blog/top-25-us-newspapers-for-march-2013.aspx>
- Mayo Clinic. (2012, July 12). *Fibromyalgia misconceptions: Interview with a Mayo Clinic expert*. Retrieved May 2013, from Mayo Clinic: <http://www.mayoclinic.com/health/fibromyalgia/AR00056>
- McManis, S. (2009, May 31). Fibromyalgia: Patients say many doctors don't take them seriously. *The Sacramento Bee*. Retrieved June 15, 2013, from <http://search.proquest.com/docview/455804323?accountid=10920>
- McMillen, M. (2010, August 10). *FDA panel rejects Xyrem as fibromyalgia treatment*. Retrieved May 2013, from WebMD: <http://www.webmd.com/fibromyalgia/news/20100820/fda-panel-rejects-xyrem-as-fibromyalgia-treatment>
- McMillen, M. (2011, April 13). *How fibromyalgia affects men*. Retrieved May 2013, from WebMD: <http://www.webmd.com/fibromyalgia/features/how-fibromyalgia-affects-men>
- National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMSD-U.S.). (2011). *Questions and answers about fibromyalgia*. Bethesda, MD: National Institutes of Health, Department of Health and Human Services, National Institute of Arthritis and Musculoskeletal and Skin Diseases.
- Neuendorf, K. A. (2002). *The Content Analysis Guidebook*. London: SAGE Publications.
- Nisbet, M. C., Brossard, D., & Kroepsch, A. (2003). Framing science: The stem cell controversy in an age of press/politics. *Harvard International Journal of Press/Politics*, 8(2), 36-70.
- Ondash, E. (2007, October 14). Studies validate CFS, fibromyalgia. *San Diego Union-Tribune*.

- O'Neill, D., & Harcup, T. (2009). News values and selectivity. In K. Wahl-Jorgensen & T. Hanitzsch (Eds.), *Handbook of journalism studies* (pp. 161-174). New York: Routledge.
- Perrone, M. (2009, February 9). Disease may not be real, but the drug profits are: Industry funds awareness of, and demand for, fibromyalgia pills. *Houston Chronicle*.
- Perrone, M. (2010, January 20). Group urges recall of drug for fibromyalgia. *San Diego Union-Tribune*.
- Pew Research Center. (2011, September 26). *How people learn about their local community*. Retrieved February 15, 2012, from Project for Excellence in Journalism-Pew Internet & American Life Project: <http://pewresearch.org/pubs/2105/local-news-television-internet-radio-newspapers>
- Pratt, C., Ha, L., & Pratt, C. (2002). Setting the public health agenda on major diseases in Sub-Saharan Africa: African popular magazines and medical journals, 1981-1997. *Journal of Communication*, December, 889-904.
- Rains, S. A., & Donnerstein Karmikel, C. (2009). Health information-seeking and perceptions of website credibility: Examining Web-use orientation, message characteristics, and structural features of websites. *Computers in Human Behavior*, 544-553.
- Reese, S. D. (2001). Prologue-framing public life: A bridging model for media research. In S. D. Reese, O. H. Gandy Jr., & A. E. Grant (Eds.), *Framing public life: Perspectives on media and our understanding of the social world* (p.416). Mahwah, NJ: Lawrence Erlbaum Associates.
- Roan, S. (2010, August 18). Tai chi improves symptoms of fibromyalgia. *Los Angeles Times*.
- Rothman, A. J., Bartels, R. D., Wlaschin, J., & Salovey, P. (2006). The strategic use of gain- and loss-framed messages to promote healthy behavior: How theory can inform practice. *Journal of Communication*, 56(s1), S202-S220.
- Salgueiro, M., Aira, Z., Buesa, I., Bilbao, J., & Azkue, J. J. (2012). Is psychological distress intrinsic to fibromyalgia syndrome? Cross-sectional analysis in two clinical presentations. *Rheumatology International*, 32(11), 3463-3469. doi: 10.1007/s00296-011-2199-x
- Scheufele, D. A. (2000). Agenda-setting, priming, and framing revisited: Another look at cognitive effects of political communication. *Mass Communication and Society*, 3(2-3), 297-316.
- Semetko, H. A., & Valkenburg, P. M. (2000). Framing European politics: A content analysis of press and television news. *Journal of Communication*, 50(2), 93-110.
- Shih, T.-J., Wijaya, R. & Broussard, D. (2008). Media coverage of public health epidemics: Linking framing and issue attention cycle toward an integrated theory of print news coverage of epidemics. *Mass Communication and Society*, 11(2), 141-160.
- Strömbäck, J., Karlsson, M., & Hopmann, D. N. (2012). Determinants of news content. *Journalism Studies*, 13(5-6), 718-728.
- Top 15 Most Popular Health Websites (May 2013). *eBizMBA*. Retrieved May 2013 from: <http://www.ebizmba.com/articles/health-websites>
- Van Gorp, B. (2007). The constructionist approach to framing: Bridging culture back in. *Journal of Communication*, 57, 60-78.
- Wallace, D. J. (1997). The Fibromyalgia Syndrome. *Annals of Medicine*, 29(1), 9-21.
- Wolfe, F., Smythe, H. A., Yunus, M. B., Bennett, R. M., Bombardier, C., Goldenberg, D. L. ... Sheon, R. P. (1990). The American College of Rheumatology 1990 criteria for the classification of fibromyalgia: Report of the Multicenter Criteria Committee. *Arthritis & Rheumatism*, 33, 160-172.
- Wolfe, F., Clauw, D. J., Fitzcharles, M., Goldenberg, D. L., Katz, R. S., Mease, P. ... Yunus, M. B. (2010). The American College of Rheumatology preliminary diagnostic criteria for fibromyalgia and measurement of symptom severity. *Arthritis Care and Research*, 62(5), 600-610.
- Yablonsky Stat, T. (2010, June 2). Fibromyalgia symptoms can hurt patients, their marriages. *Chicago Tribune*.

Author Information

* Joy L. Rodgers, Ph.D.

College of Journalism and Communications

University of Florida

P.O. Box 118400

Gainesville, FL 32611-8400

352-682-8495 (cell) / 352-392-1794 (fax)

roddersj@ufl.edu

Mari Luz Zapata Ramos, Ph.D.

College of Business Administration

University of Puerto Rico, Mayagüez Campus

P.O. Box 9000

Mayagüez, PR 00681

787-832-4040 ext. 2095

maril.zapata@upr.edu

*corresponding author