Drug Injury Advertising

Jesse King & Elizabeth Tippett

Drug injury advertising, which solicits consumers for lawsuits against drug and medical device manufacturers, is a $114 million business. Yet little is known about how consumers respond to the medical information contained in those ads. This research applies insights from the field of marketing to the drug injury advertising context and further tests those insights through two experiments. Results suggest that some consumers are deceived by drug injury ads and that some types of advertising are more deceptive than others. We also find that deceptive drug injury ads have a stronger influence on consumer risk perceptions and behavioral intentions. These effects can be mitigated through educational interventions or competing advertisements promoting the drug. Additionally, we find some evidence of a “spillover effect,” where unaffected groups nevertheless perceive increased risk. We situate this research within the factual and legal background for drug injury advertising, as well as the extant scientific literature. We conclude with a discussion of the regulatory implications of the study.

I. Introduction

On June 23, 2017, a subcommittee of the House Judiciary Committee held an oversight hearing on attorney ethics relating to drug injury advertising. The term “drug injury advertising” refers to attorney advertisements soliciting viewers for potential lawsuits against drug companies and medical device makers. The advertisers hope to recruit consumers that have suffered a

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particular adverse medical event after taking a prescription drug or using a medical device. To capture viewers’ attention, these advertisements sometimes include strong cautionary language about the dangers of a particular drug, like “medical alert” or “FDA Warning.”

The hearing, which included testimony from one of us, reflected the difficult policy questions and conflicting interests surrounding the regulation of drug injury advertising. The ads disseminate drug safety information to consumers, which may help inform consumer decision making. At the same time, if these ads lead consumers to overestimate drug risks, the ads could distort consumer medical decisions.

The hearing included testimony from two doctors, who tried to encourage patients worried by drug injury ads to comply with their prescribed drug regimen. Each reported that a patient had died after discontinuing medication in response to a drug injury ad. The hearing also included testimony from an attorney ethics lawyer, who complained about the picayune nature of existing attorney ethics rules around advertising and cautioned lawmakers against further regulation.

Our testimony sought to provide context about the drug injury advertising market, its regulation, and the limited scientific research to date. This article draws upon and further elaborates upon that testimony. It also adds to the scientific literature through two experimental studies on how consumers respond to drug injury advertising. This research is modeled on theory and research from the marketing field, but designed to

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3 These adverse medical events are also known as “adverse drug reactions”. WORLD HEALTH ORG., INTERNATIONAL DRUG MONITORING: THE ROLE OF NATIONAL CENTERS, WORLD HEALTH ORG. TECH REP. NO. 498 (1972).


6 Fleming, supra note 5; Kutinsky, supra note 5.

answer several legally relevant questions: (1) Are viewers misled by drug injury advertisements?  (2) Are some drug injury advertisements more misleading than others? (3) Do drug injury advertisements influence consumer risk perceptions and behavioral intentions? (4) Can educational interventions reduce the extent to which viewers are misled by drug injury advertisements? and (5) Does competing content from other sources mitigate the influence of drug injury advertising?

Overall, results suggest that consumers are sometimes deceived by drug injury advertising. While consumers were almost always able to identify the sponsor of an ad for soap or a direct-to-consumer pharmaceutical ad (97%), some viewers were confused about the sponsor of the drug injury advertisement, ranging from 16% of participants (for a transparent ad) to 28% (for a deceptive ad). As we explain below, this failure may substantially impair consumers’ ability to contextualize the medical information in the advertisement.

Results also suggest that the most deceptive advertisements also had a greater influence on viewers’ risk perceptions and behavioral intentions, suggesting that the questionable content influences how viewers feel and potentially even behave with respect to the drug. We also observed a so-called “spillover” effect — where perceptions of increased risk “spilled over” beyond the population affected by the risk. The presence of a spillover effect suggests that attorney ads could be distorting patient risk perception.

Results also reveal some approaches to mitigate the effect of drug injury advertisements on risk perceptions. The presence of a competing pharmaceutical ad in some respects cancelled out the effect of the drug injury ad. Pharmaceutical companies thus may have the means to counteract some of the effects of drug injury ads, albeit at considerable expense. Educational interventions also reduced confusion about the sponsor of the ad, as well as their influence on risk perceptions and behavioral intentions. This suggests that a disclaimer-based approach might help, although further research is warranted as to the size, prominence, sequence, and content of disclaimers.

This article proceeds as follows: Part II provides relevant context by describing the market for drug injury advertising and how it is regulated. Part III describes extant scientific literature on drug injury advertising, and Part IV applies research from the field of marketing to help theorize how consumers are responding to the ads. Part V describes the methodology for the study and Part VI summarizes the results. Part VII discusses the regulatory implications.
II. Factual and Legal Context

A. The Market for Drug Injury Advertising

Drug injury advertisements seek to recruit viewers for mass tort lawsuits against pharmaceutical companies and medical device manufacturers. These lawsuits are typically pled as “failure to warn” cases, alleging the manufacturer knew or should have known about a particular risk associated with the drug and disclosed it on the drug’s label.⁸

Drug injury advertisers (and lawyers) learn about undisclosed drug risks from a number of sources. When a patient suffers an adverse medical event after taking a drug, that event is often reported to the Food and Drug Administration (FDA) for inclusion in an adverse event database.⁹ Researchers draw from that data, or from medical records, in their studies on adverse events.¹⁰ Legal advertisers monitor scientific publications regarding adverse events and then sponsor advertising asking viewers if they have suffered the adverse event described in the literature.¹¹ Legal advertisers may also sponsor advertising following action by the FDA — for example, where the FDA demands that a pharmaceutical company add additional warnings to the drug label.¹² When new adverse events come to light, it is very rare for the drug to be recalled from the market entirely.¹³ As a result, almost all drug injury ads involve drugs or medical devices that are still

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¹⁰ Id. at 4.
¹¹ David N. Juurlink et al., The Effect of Publication on Internet-Based Solicitation of Personal-Injury Litigants, 177 CAN. MED. ASSOC. J. 1369, 1370 (2007).
¹⁴ LEWIS GROSSMAN, PETER BARTON HUTT & RICHARD MERRILL, FOOD & DRUG LAW: CASES AND MATERIALS 1303-04 (3d ed. 2007) (most recalls are “voluntary” in the sense that the manufacturer will recall the drug at the FDA’s request); Michael T. Roberts, Mandatory Recall Authority: A Sensible and Minimalist Approach to Improving Food Safety, 59 FOOD & DRUG L.J. 563 (2004).
available on the market, and that could influence the medical decisions of some viewers.

The content of drug injury advertising is relatively homogenous, but the delivery and framing of that content is more variable. Our previous research examined the content of attorney advertising broadcast in 2009. Overall, the ads tended to focus heavily on the adverse medical event associated with the drug at issue. Ads devoted far more time, and content, to discussing adverse events, with a median of 20 seconds devoted to adverse events, compared to 2 seconds for benefits/use of the drug.

While all of the ads included in that research discussed adverse events associated with the drug, only about half mentioned the benefit or use of the drug. Only 39% of ads advised viewers to consult a doctor, which was often displayed in small print on the screen. Most of the ads tended to reveal themselves as attorney advertising within the first few seconds. However, a subset of the advertisements in the study – about 20% – appeared to mimic public service announcements, with cautionary language like “FDA warning” “consumer alert” or “medical alert.” This subset of ads also tended to delay their disclosure that the ad was sponsored by an attorney. In a few of the ads, the attorney sponsor was never disclosed.

As a whole, drug injury advertising has not changed significantly since that original content analysis. For example, one recent advertisement involving the anti-coagulant, Xarelto included the following language:

Have you taken the blood thinner Xarelto? If so, please listen carefully. Xarelto, a new blood thinner on the market since 2011 has caused incidents of uncontrollable bleeding, hemorrhaging, and even death. The makers of Xarelto sold the drug

15 Tippett, Medical Advice from Lawyers, supra note 2, at 7.
16 Id. at 21.
17 Id. at 21.
18 Id.
19 Id. at 20.
20 Id. at 29.
21 Id. at 26.
22 Id. at 28.
23 Id. at 30.
knowing that it had no antidote to reverse its blood thinning effects. If you've suffered hemorrhaging, gastrointestinal bleeding, stroke or if a loved one has died after taking Xarelto, call 1-888-294-9999 now to see if your case qualifies for substantial cash compensation.

Likewise, the use of cautionary language and medical imagery remains common, although some ads do so without obscuring the identity of the advertiser. Figures 1-3, below, are screenshots of advertising broadcast in 2015/2016 and illustrate the diversity of ways that advertisers use fear-based appeals, references to medical/government authorities, and stark imagery to capture viewer attention.

Figure 1

![Figure 1](image1.png)

Figure 2

![Figure 2](image2.png)

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25 Id.
26 Id.
Unlike class action claims, plaintiffs in a mass tort claim are not jointly represented by a single law firm. Instead, mass tort claims aggregate individual lawsuits, where each plaintiff has their own lawyer. Thus, a mass tort claim involving hundreds or thousands of plaintiffs may also involve scores of lawyers. Successful mass tort claims can be valuable for the attorneys involved because they are typically compensated on a contingency fee. This incentive supports a lively market where advertisers compete to identify the most valuable plaintiffs for promising (or well-established) mass tort claims. Over the course of a year, about 53,000 drug injury advertisements are broadcast on national cable and broadcast networks. This figure, which amounts to about 145 ads per day, does not include local broadcast figures. Kantar Media estimates the aggregate cost of those ads at around $114 million.

The advertising market is quite concentrated, with the top three advertisers representing about 50% of the overall advertising volume. (See Table 1). The top ten advertisers

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27 Id.
28 Fed. R. Civ. P. 23(g).
30 Rheingold, supra note 29, at § 7:5 (“Rare is the mass case in which there is only one law firm representing all plaintiffs. In some mass litigations, there may be thousands of law firms[.]”)
31 Task Force on Contingent Fees of the A.B.A.’s Tort Trial & Insurance Practice Section, Contingent Fees in Mass Tort Litigation, TORT TRIAL & INS. PRAC. L.J. 108 [hereinafter Task Force on Contingent Fees].
32 Tippett, Subcommittee Testimony, supra note 24.
33 Id.
account for 72% of all advertising volume.\textsuperscript{34} The top advertisers are not limited to law firms. In particular, the number three advertiser (Gold Shield Group), the number four advertiser (Knightline Legal), and the number ten advertiser (Relion Group) are private companies. The Gold Shield Group is a trademark owned by MCM Services Group LLC,\textsuperscript{35} a “lead management” company providing advertising services for lawyers.\textsuperscript{36} Based on its marketing materials, it appears to produce advertising content and provide ad buying services for individual law firms.\textsuperscript{37} Knightline Legal is a trademark owned by a California LLC.\textsuperscript{38} Its website disclaims that it is “not a law firm or referral service and does not provide legal representation”.\textsuperscript{39} Relion Group is a Delaware Corporation with headquarters in California. Its disclaimer provides that it “is a consolidated group of participatory attorneys.”\textsuperscript{40}

\textsuperscript{34} Id.; \textbf{GOLD SHIELD GROUP}, Registration No. 4684241.
\textsuperscript{35} Id.; \textbf{MCM SERVS. GROUP}, http://mcmservicesgroup.com/ (last visited June 19, 2017).
\textsuperscript{37} Tippett, Subcommittee Testimony, supra note 24; \textbf{KNIGHTLINE LEGAL}, Registration No. 4643581.
\textsuperscript{38} Tippett, Subcommittee Testimony, supra note 24; \textit{Disclaimer}, \textbf{KNIGHTLINE LEGAL}, http://www.knightlinelegal.com/disclaimer.
\textsuperscript{39} Tippett, Subcommittee Testimony, supra note 24; \textit{Disclaimer}, \textbf{RELION GROUP}, http://www.reliogroup.com/disclaimer; Del. Dep’t of St., Div. of Corps., File No. 5378204, Relion Medial Group, Inc., incorporated Aug. 5, 2013; \textbf{RELION MEDIA GROUP}, Registration No. 3970426 (listed at same address).
Table 1. Most Prolific National Advertisers, 2015/2016

<table>
<thead>
<tr>
<th>Advertiser</th>
<th>Number of Advertising Spots Aired</th>
<th>Percentage of National Advertising Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PULASKI LAW FIRM</td>
<td>11,491</td>
<td>21%</td>
</tr>
<tr>
<td>2. GOLDWATER LAW FIRM</td>
<td>10,298</td>
<td>19%</td>
</tr>
<tr>
<td>3. GOLD SHIELD GROUP</td>
<td>5,538</td>
<td>10%</td>
</tr>
<tr>
<td>4. KNIGHTLINE LEGAL</td>
<td>3,636</td>
<td>7%</td>
</tr>
<tr>
<td>5. FERRER, POIROT &amp; WANSBROUGH</td>
<td>1,974</td>
<td>4%</td>
</tr>
<tr>
<td>6. AKIN MEARS LAW FIRM</td>
<td>1,828</td>
<td>3%</td>
</tr>
<tr>
<td>7. DRISCOLL FIRM</td>
<td>1,119</td>
<td>2%</td>
</tr>
<tr>
<td>8. GOZA &amp; HONNOLD ATTORNEYS</td>
<td>1,049</td>
<td>2%</td>
</tr>
<tr>
<td>9. AVRAM BLAIR &amp; ASSOCIATES</td>
<td>955</td>
<td>2%</td>
</tr>
<tr>
<td>10. RELION GROUP</td>
<td>948</td>
<td>2%</td>
</tr>
</tbody>
</table>

The remaining top advertisers appear to be law firms. However, some of these top advertisers do not appear to litigate many cases. For example, a search for the firm name in Bloomberg dockets produced few results for the Pulaski Law Firm, Goldwater Law Firm, and Driscoll Firm. Others in the top ten litigated with greater frequency — for example, Ferrer, Poirot & Wansbrough appeared in 331 cases in a 5 year period, and Goza & Honnold in 710 cases. Conversely, some of the less prolific advertisers were heavy litigators. For example, the Levin Papantonio Thomas Mitchell Rafferty & Proctor firm sponsored fewer than 300 advertising spots, but appeared in more than 2,500 cases since 2012. The firm, Freese and Goss, sponsored only 7 advertising spots, but appeared in more than 1,900 cases.

The disconnect between litigation filings and advertising – as well as the presence of non-law firm advertisers – suggests that the mass tort market has become somewhat specialized. Some law firms (and corporations) specialize in producing and financing advertising spots, while others specialize in litigating. This market will thus require some form of transaction between the advertiser that generated the lead, and the litigator that files the claim. The nature of these transactions are not widely known, as they exist in a regulatory ambiguous space within attorney ethics rules. Generally, the players appear to avoid

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41 Tippett, Subcommittee Testimony, supra note 24.
42 Dataset on file with author.
43 See also Tippett, Medical Advice from Lawyers, supra note 2, at 8-9.
44 See discussion, infra, Part VII.
ethics scrutiny by treating both the advertising firm and the litigating firm as jointly responsible for the case, in exchange for paying the advertising firm a percentage of the fee eventually recovered in the case. These complex transactions are not apparent from the content of the ad, which, as discussed in greater detail below, may hinder consumers’ ability to infer the pecuniary motives of the advertiser and contextualize the medical information in the advertising.

B. Legal Rules

Attorney advertising is currently regulated at the state level, through attorney ethics rules. While state attorney ethics rules vary, all states regulate attorney advertising in some way. All states include some form of prohibition on false or misleading advertising. Some statutes also impose specific requirements on advertisers, such as requiring them to list the firm name or address. States have not adopted rules specific to drug injury advertising. We are also aware of no instance in which a state bar took action against an attorney for false or misleading content in a drug injury ad.

In recent decades, state bars have not aggressively enforced prohibitions on false or misleading advertising. A 2002 study by Frank Zacharias found high levels of non-compliance in attorney advertising in the local phone book and virtually no efforts on the part of state bars to enforce them. Consequently, ethics jurisprudence regarding false or misleading advertising tends to be somewhat sparse. State ethics boards have found that content that suggests the advertisement has a public purpose – such as “legal helpline” or “public service” – is misleading because it suggests a charitable or government affiliation. Likewise, attorney advertising can be misleading where its format serves to obscure its purpose, such as a print ad labeled

45 Task Force on Contingent Fees, supra note 31 (advertisers “will refer their cases in bulk to other lawyers who specialize in handling mass tort claims. The original [advertising] lawyers will make the referrals in return for a percentage of the new lawyer’s percentage and perhaps some reimbursement of costs.”).
46 Tippett, Medical Advice from Lawyers, supra note 2, at 31.
47 Id. at 32. See also 2015 Report of the Regulation of Lawyer Advertising Committee, supra note 7, at 21.
“public service announcement” advising drivers on behavior at drunk driving checkpoints. Similarly, a website offering to “match” consumers with attorneys after filling out a form was deemed misleading where it failed to disclose that consumers would be matched with the attorney who purchased the exclusive right to receive referrals from a particular zip code. Nevertheless, because drug injury advertisements have never been the subject of state ethics opinions, it is difficult to know how state bars would apply their rules to drug injury advertising.

Attorney advertising is protected under the First Amendment as commercial speech. The First Amendment places an outer limit on states’ ability to regulate drug injury advertising. In general, state regulation of attorney advertising must pass the so-called Central Hudson test: the state must “assert a substantial interest” that is “directly advanced” by the speech restriction. However, false or misleading speech is not protected under the First Amendment.

In assessing state regulation of attorney advertising, the Supreme Court has on occasion opined as to whether it considered particular content misleading. In the 1985 Zauderer case, the Supreme Court did not require that a statement be overtly false to qualify as misleading. Rather, a statement can be misleading through omission: it deemed the statement, “if there is no recovery, no legal fees are owed” misleading because it failed to disclose that the consumer would be liable for costs. In doing so, the court looked past the literal content of the statement, which was truthful – in fact, no legal fees would be owed absent recovery. Instead, the Court considered the implication of the statement and reasoned that consumers would infer from the statement that they would incur no out-of-pocket costs in connection with the litigation. The Court reached this conclusion without extrinsic evidence that individuals were actually misled, reasoning: “When the possibility of deception is

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50 Tippett, Medical Advice from Lawyers, supra note 2, at 35; Fla. Bar v. Doe, 634 So.2d 160, 161 (Fla. 1994).
54 Id. at 593.
56 Id.
57 Id.
as self-evident as it is in this case, we need not require the State to ‘conduct a survey of the . . . public before it [may] determine that the [advertisement] had a tendency to mislead.’” However, if the misleading character of a statement is not apparent, it must be supported by some evidence of deception or harm.58

The Federal Trade Commission (“FTC”) also has jurisdiction over attorney advertising.59 Its authority derives from the FTC Act, which provides that “unfair methods of competition in or affecting commerce and unfair or deceptive acts or practices in or affecting commerce, are hereby declared unlawful.”60 False advertising that is “misleading in a material respect” is included in the Act’s definitions of “unfair or deceptive acts or practices”.61 The FTC’s broad purpose is not limited to protecting consumers from purchases arising from deception. Instead, it broadly safeguards “consumer sovereignty.”62 Consequently, the FTC has jurisdiction over all forms of broadcast advertising, including advertising from lawyers. However, it has generally declined to intervene regarding attorney advertising, consistent with its stated policy of deferring to state and local agencies.63

The Food and Drug Administration (“FDA”) has not regulated drug injury advertising, although it regulates direct-to-consumer pharmaceutical advertising, which contains some of the same content. In fact, the FDA may not have jurisdiction over drug injury advertising because its authority only extends over advertising that is “issued or caused to be issued by the manufacturer, packer, or distributor with respect to that drug.”64

59 21 U.S.C. § 52 (2012). In an interview with a Wall Street Journal reporter, an FTC official conceded that the agency has jurisdiction over drug injury ads and stated that the agency has “never pursued an investigation or action against mass tort attorney ads”. Sara Randazzo & Jonathan Rockoff, Have You or Your Loved Ones Been Hurt by This Ad? Congressman Wants to Know, WALL STREET JOURNAL, April 14, 2017, https://www.wsj.com/articles/have-you-or-your-loved-ones-been-hurt-by-this-ad-congressman-wants-to-know-1492162205.
63 Tippett, Medical Advice from Lawyers, supra note 2, at 40 (“the FTC has not inserted itself into the regulation of attorney advertising beyond commenting on proposed attorney advertising rules that it deems overly restrictive”); FED. TRADE COMM’N, FREQUENTLY ASKED QUESTIONS: A GUIDE FOR SMALL BUSINESS, GENERAL ADVERTISING POLICIES (2008), available at 1998 WL 207800, at *2; Randazzo & Rockoff, supra note 59.
Overall, state attorney ethics boards are most clearly responsible for regulating attorney advertising, which are subject to rules regarding false and misleading content. However, this regulation is somewhat theoretical because they have never been specifically applied to drug injury advertisers through disciplinary proceedings or opinion letters.

This study, in addition to filling gaps in the scientific literature, serves to answer two questions relevant to legal policy making. In particular, whether consumers are misled by drug injury advertising, and whether some advertisements are more misleading than others. If the answer to either question is no, it would suggest a poor case for regulatory action. There is no harm for regulators to address if consumers are not misled. Conversely, regulation would be futile if consumers are misled regardless of the content, since no improvements to the ads would benefit consumers. By contrast, if the deception can be attributed to the content of the ad, nudging advertisers toward less deceptive content might ultimately benefit consumers.

III. Literature Review

Research on drug injury advertisements is quite limited. A handful of studies have been conducted on the influence of drug injury advertisements involving pelvic mesh, which has been the subject of considerable advertising volume. A survey-based study by Koski et al. asked urology patients how they first learned about pelvic mesh. Those who recalled first learning about the mesh through drug injury ads expressed more doubts about its safety. Patients in Koski’s study also indicated that drug injury ads were more influential than other sources of information, including medical professionals. Tenggardjaja et al. suggested that drug injury ads may both inform and misinform viewers. Patients that reported getting their information primarily from television (and were presumably exposed to drug injury advertising) were more likely to remember FDA announcements regarding pelvic mesh. However, they were also more likely to incorrectly believe that pelvic mesh had been subject to a product recall by the FDA.

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66 Id.
67 Id.
69 Id.
70 Id.
In a recent study, co-authored with several physicians, we examined the relationship between patient exposure to drug injury ads and perceptions of pelvic mesh.\textsuperscript{71} We also asked patients about whether they previously had surgery involving pelvic mesh and previous visits to a urologist.\textsuperscript{72} We found that exposure to drug injury advertising was quite high – 88\% of respondents reported having seen a drug injury advertisement involving pelvic mesh over the past six months.\textsuperscript{73} The frequency of exposure was also quite high, with 75\% of respondents reporting having seen such ads over the prior week.\textsuperscript{74} Respondents had ambivalent attitudes towards drug injury advertising, rating them roughly in the middle of the scale we provided on credibility, reliability and truthfulness.\textsuperscript{75} Personal experience with pelvic mesh surgery was the best predictor of a patient’s perceptions — those who had undergone surgery reported that surgery was less risky and more beneficial than other patients.\textsuperscript{76} Results suggested that greater exposure to drug injury advertising predicted higher risk perceptions, but did not reliably predict perceptions about the benefits of surgery.\textsuperscript{77} By contrast, a past visit with a urologist did not reliably predict patient risk perceptions. However, such patients tended to view mesh surgery as more beneficial.\textsuperscript{78}

The study provides some insight into how patients process different sources of information relating to medical risks. Patients appear to trust their own experience and knowledge above all. However, when assessing information from third parties (doctors and drug injury ads) they appear to be retaining the primary message conveyed by each information source — in the case of doctors, the potential benefits of surgery, and in the case of drug injury ads, the risks. It may also be that patients retain the information that is novel from each source. Given the near universal exposure to the ads, they may first learn about risks from drug injury ads, which they retain, and which is reinforced through each viewing. Through a doctor’s visit, they may first learn about the benefits of treatment, which are largely omitted from drug injury ads.\textsuperscript{79}

\textsuperscript{71} Elizabeth Tippett, Jesse King, Vincent Lucente, Sonia Ephraim, Miles Murphy & Eileen Taff, Does Attorney Advertising Influence Patient Perceptions of Pelvic Mesh?, 111 UROLOGY 65 (forthcoming 2018).
\textsuperscript{72} Id.
\textsuperscript{73} Id.
\textsuperscript{74} Id.
\textsuperscript{75} Id.
\textsuperscript{76} Id.
\textsuperscript{77} Id.
\textsuperscript{78} Id.
\textsuperscript{79} Tippett, Medical Advice from Lawyers, supra note 2, at 21.
Other studies have taken different methodological approaches. A study sponsored by Jannsen Pharmaceuticals examined adverse event reports from the FDA to identify cases in which patients appear to have stopped taking medication in response to drug injury advertising. They identified thirty one patients that suffered serious adverse events, including a stroke, blood clot, and paralysis. They also identified two patients that died. A study by Tippett and Chen examined one year of Medicare reimbursement data to assess whether prescription rates changed following drug injury advertising for the drug at issue. Drug injury advertising was strongly correlated with FDA regulatory action involving the drug at issue, such as a drug relabeling or requiring the manufacturer to adopt Risk Evaluation and Mitigation Strategies (“REMS” status). Results also found that FDA action was associated with a reduction in the level or trend of the prescription rate. However, no such reduction in the level or trend was observed in connection with high rates of attorney advertising.

We are not aware of any experimental studies involving drug injury advertisements. However, a survey sponsored by the United States Chamber of Commerce included a quasi-experimental component. The survey involved 500 respondents that took a drug featured in attorney advertising. Before showing participants a drug injury ad, researchers asked how participants would respond if the drug had been featured in such an ad. Forty-four percent predicted they would be “very concerned” if they saw such an ad, and 42% predicted that they would be “concerned but not very concerned.” Twenty-nine percent predicted they would “definitely” or “probably” stop taking the drug immediately, and 9% predicted they would

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81 Id. It was unclear in the subcommittee hearings whether the doctors were describing the same patients referenced in the Jannsen Pharmaceuticals study or whether they represented additional cases. See Subcomm. Hearing, (testimony of Dr. Shawn Fleming) supra note 5; Subcomm. Hearing (testimony of Dr. Ilana Kutinsky), supra note 5.
82 Id at 248.
83 Chen & Tippett, supra note 12, at 1170.
84 Id. at 1172.
85 Id. at 1172.
86 Id. at 1173.
88 Id. at *1.
89 Id. at *12.
90 Id.
“definitely” or “probably” reduce the amount of medication they took.91

Study participants were then shown a drug injury ad that featured the drug they were taking. Respondents were then asked again how concerned they were and whether they would change their behavior.92 Respondents were less concerned by the ads than they had predicted, with only 17% reporting they were “very concerned” and 39% “somewhat concerned”.93 A similar proportion of respondents said they would “definitely” or “probably” discontinue the medication (26%, compared to 29% prior to the video).94 However, a much larger proportion reported that they would “definitely” or “probably” decrease the amount of medication they took (58%, compared to 9% prior to watching the video).95 These results tentatively suggest that viewers are somewhat skeptical of drug injury ads, and less alarmed by them than they predict. However, rather than rejecting the information in the ads outright, participants appear to discount it, and settle on an apparent “compromise” in the form of reducing the amount of medication they take. Consumers were poor at predicting this reaction to drug injury ads. They may not give the decision to reduce medication usage the same consideration as the seemingly more consequential decision to discontinue a drug entirely. Nevertheless, reducing the amount of medication taken could itself have important medical consequences and merits further study.

Overall, extant research suggests that drug injury advertising might influence patient attitudes and behavioral intentions. However, the observational nature of the studies limits causal inferences to be drawn from them. Consumers receive drug information from multiple sources beyond drug injury ads – the media, the internet, medical professionals, the FDA, as well as family and friends.96 Without experimental research, it is difficult to measure the influence of each source on consumer decision making. Lastly, extant research cannot measure the differential effects of advertisements, which vary in content. For example, the previously discussed content analysis of ads suggests that some ads are more misleading than others – where many are transparent, others obscure their sources and purpose.97 It may be that the misleading ads influence consumer

91 Id. at *13.
92 Id. at *14-15.
93 Id. at *14.
94 Id. at *15.
95 Id. at *15.
96 Chen & Tippett, supra note 12, at 1171.
97 Tippett, Medical Advice from Lawyers, supra note 2, at 26.
behavior to a greater extent than those that are more transparent.

IV. Theoretical Model

Although few studies have examined drug injury advertising specifically, the field of marketing has developed sophisticated theory, around how consumers process marketing messages and the various ways in which consumers can be misled. We summarize the relevant theory from the marketing field below and then describe how we apply that theory to the drug injury context in our study design.

A. Insights from the Field of Marketing

The prevailing marketing theory for understanding consumer persuasion and deception was articulated in a 1994 article by Marian Friestad and Peter Wright.\textsuperscript{98} Friestad and Wright presented a “Persuasion Knowledge Model” (“PMK”), where the advertiser engages in a “persuasion attempt” with respect to a consumer.\textsuperscript{99} In their model, consumers do not approach these interactions with a blank slate. Rather, consumers apply their (1) substantive knowledge about the topic, (2) their knowledge about the advertiser, and (3) their knowledge about persuasion tactics.\textsuperscript{100} The term, "persuasion tactics" refers to “how, when and why marketers try to influence them.” \textsuperscript{101} Consumers develop knowledge about persuasion tactics through folk knowledge and personal experience. This knowledge enables them to “cope” with persuasion attempts with greater sophistication over time.\textsuperscript{102} Consumers “access persuasion knowledge . . . whenever they want to understand what is going on as they observe advertisements, sales presentation, or the behaviors of service providers.”\textsuperscript{103}

Consumers use their knowledge to “maintain control over the outcome[s] and thereby achieve whatever mix of goals is salient to them.”\textsuperscript{104} They identify a persuasive attempt as such, and interpret and evaluate it based on what they know about past persuasive attempts, the motives of the advertiser, and facts or experiences that are inconsistent with what the agent is

\textsuperscript{99} Id. at 2.
\textsuperscript{100} Id. at 2-4.
\textsuperscript{101} Id. at 1.
\textsuperscript{102} Id. at 3.
\textsuperscript{103} Id.
\textsuperscript{104} Id.
telling them. Consumers then apply various coping tactics in response, such as ignoring the message, discounting it, or weighing it against counterarguments. A coping attempt may also occur prior to, or following the message – such as conducting research to investigate a marketer’s claim. Consumers also develop “tactic recognition heuristics” through which they use “one or two features of a persuasion attempt” to identify a particular tactic – for example, “the presence of . . . a celebrity, someone in a business suit, or someone show in a laboratory - signals that the advertiser is trying to get me to trust what they say.”

Friestad and Wright also introduce a concept known as the “change of meaning” principle, referring to the moment a consumer recognizes the persuasive intent of an interaction or identifies the tactic used in a persuasive attempt. This flash of recognition changes the meaning of the message consumers receive and how they respond. A consumer might process a message naively until the consumer recognizes a persuasive tactic, which then colors the consumer’s interpretation of the whole encounter (the “change of meaning”). Once the change of meaning occurs, the consumer might apply a coping mechanism, such as ignoring or dismissing the message. Following the change of meaning, consumers might also change their opinion of the advertiser, similar advertisements, and the product at issue. As Schul later theorized, a change of meaning tends to color the consumer’s assessment of the entire persuasive attempt, not just the portion of the message that

105 Id. at 3-4.
108 Friestad & Wright, supra note [98], at 11.
109 Id. at 11.
110 Id. at 12-13.
111 Id. at 13.
112 Id.
113 Boush et al., supra note 107, at 97; Yaacov Schul et al., How people cope with uncertainty due to chance or deception, 43 J. OF EXPERIMENTAL SOC. PSYCHOL., 91, 101 (2007) (when study participants instructed that the some of the results of the game they were playing may have been the result of
may be deceptive. The degree to which a consumer will discount a message following a change of meaning will depend on how much the consumer believes he has been influenced by the message and the extent to which that influence is consistent with the consumer’s goals. Consumers who believe they have been strongly influenced by a message inconsistent with their goals will discount the message.

The “change of meaning” principle explains why consumers vary their response to a marketing message and also why even small changes result in different responses. Friestad and Wright explain, “[s]omeone who is deflected from using their tactic knowledge will behave differently than they do when they can actively use that knowledge. When an [advertiser]’s general persuasive intent . . . is successfully obscured by the [advertiser], a [consumer’s] thinking and behavior may differ from their thinking and behavior in situations in which the same feature is used but the [advertiser’s] intent is apparent.”

The PKM also explains why consumer responses may differ following repeat exposure to the message – a consumer sensitized to the persuasive intent in a particular ad incorporates that into their knowledge about the advertiser, and applies the same level of skepticism to future advertisements from that source. However, consumers are also vulnerable to a countervailing psychological principle known as the “truth effect”, where they tend to infer that a statement is more truthful following repeated exposure to it.

Following the PKM, marketing researchers have sought to identify “the situational factors that suppress otherwise accessible persuasion knowledge” as well as advertising “behavior[s] that disguise a tactic”. Marketing theory further elaborates upon different types of deceptive tactics, intended to impede a consumer’s ability to apply appropriate coping
debception, participants essentially ignored other information that otherwise would have been helpful in winning the game).

114 BOUSH ET AL., supra note 107, at 97. By contrast, consumers have difficulty discounting messages they believe were not very effective. Id. at 98.
115 Friestad & Wright, supra note 98, at 14.
116 Peter R. Darke & Robin J.B. Ritchie, The Defensive Consumer: Advertising Deception, Defensive Processing, and Distrust, 44 J. OF MARK. RES. 114, 114 (2007) (“deceptive advertising engenders distrust, which negatively affects people’s responses to subsequent advertising from both the same source and second-party sources.”).
118 Friestad & Wright, supra note 98, at 14.
strategies. The following deception tactics are particularly relevant to the drug injury advertising context:

• “Misrepresentations of bad things that might happen if the consumer does [not] buy the marketed product.”\textsuperscript{119} This tactic works by creating “mental simulations of future events” – a mental process that consumers tend to use in making decisions.\textsuperscript{120} These marketed simulations tend to rely heavily on fear-based and threatening messaging,\textsuperscript{121} “lay[ing] out an over-simplified, inaccurate and, often downright dangerous set of actions” that could have been avoided by heeding the advertiser’s message.\textsuperscript{122}

• Fear appeals. Fear appeals encompass advertising that features some form of threat. The “threat is an appeal to fear, a communication stimulus that attempts to evoke fear response by showing some type of outcome that audience (it is hoped) wants to avoid”.\textsuperscript{123} Existing research suggests that fear appeals increase interest in the advertisement and are persuasive.\textsuperscript{124} The use of emotional content focuses and holds consumers’ attention.\textsuperscript{125}

• “Mimicking: showing the false through imitation[.]”\textsuperscript{126}

• The “Omega strategy” – reducing consumer resistance to the message. One means of doing so is to “redefine the sales interaction”, for example, “an insurance agent [that] calls not to sell you insurance, but to help you assess the ways your assets might be at risk.”\textsuperscript{127}

• “Incorporat[ing] fake cues that misleadingly imply “authority” to consumers . . . creat[ing] the impression that

\textsuperscript{119} \textbf{BOUSH ET AL.}, supra note 107, at 43.
\textsuperscript{120} \textit{Id.} at 60.
\textsuperscript{121} \textit{Id.} at 61.
\textsuperscript{122} \textit{Id.} at 61.
\textsuperscript{123} Sara J. Blissm, Robin L Snipes & Michael S. LaTour, \textit{Don’t be afraid to use fear appeals: An experimental study}, 36 (2) \textit{J. OF ADVERTISING RES.} 59-68 (1996).
\textsuperscript{124} \textit{Id.}; Mike Allen & Kim Witte, \textit{A meta-analysis of fear appeals: Implications for effective public health campaigns}, 27 (5) \textit{HEALTH EDUC. & BEHAV.} 591-615 (2000).
\textsuperscript{126} \textbf{BOUSH ET AL.}, supra note 107, at 44.
\textsuperscript{127} Eric Knowles & Jay Linn, \textit{Alpha and Omega Strategies for Change}, in \textbf{RESISTANCE AND PERSUASION} 123 (2003).
this speaker is a true authority on the topic . . . [to] create a favorable state of mind.”128

- Framing effects – “focus[ing] on only one or a few aspects of a more complex decision problem” and “representing the losses and risks associated with a product in a biased incomplete way.”129

- Deceptive implied claims. Marketing research suggests that consumers “treat strongly implied (probabilistic) claims as equivalent to directly asserted (certain) claims, as they store the claims in memory.”130

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128 BOUSH ET AL., supra note 107, at 50. The use of authority to persuade originates from Robert Cialdini’s book, Influence (1984). The FTC regulates some appeals to authority through what is known as the “substantiation doctrine”, where advertisers must have a factual basis for claims, where the amount of evidence required to support a claim depends on the type of claim made. SPANOGLÉ ET AL., supra note 61, at 67. In particular, when advertisers suggest their claims are backed by scientific evidence — through use of phrases such as “tests prove” or “studies show”, the FTC expects such claims to be backed up by “two well-controlled clinical studies, or ‘competent and reliable scientific evidence”. Sterling Drug Inc. v. F.T.C., 741 F.2d 1146 (9th Cir. 1984). For example, in an advertisement for aspirin, the FTC noted visual aspects of the advertisement that suggested scientific support for the advertisers claims that it was superior to competitor products. Id. The visuals suggested such support by including pictures of unspecified medical and scientific reports, and through the use of a “serious tone” or “scientific aura” and a background of shelves holding “ponderous books.” Id. Similarly, in a case against pomegranate juice maker POM Wonderful, the advertiser suggested that its just “prevented or reduced the risk of heart disease, prostate cancer and erectile dysfunction.” In re POM Wonderful, LLC, F.T.C. Docket 9344, Final Decision & Order, January 10, 2013, www.ftc.gov/os/adjpro/d9344/index.shtm. This suggestion arose in part from “express language about study results” but also “medical imagery such as a blood pressure cuff, or the depiction of the caduceus, a well recognized symbol of the medical profession.” In that case, the FTC applied the two-well controlled clinical studies standard.

129 BOUSH ET AL., supra note 107, at 62. See also DANIEL KAHNEMAN, PAUL SLOVIC & AMOS TVERSKY, JUDGMENT UNDER UNCERTAINTY: HEURISTICS AND BIAS (1982).

130 BOUSH ET AL., supra note 107, at 165. The Federal Trade Commission prosecutes deceptive implied claims. For example, it found foodmaker Kraft in violation of the FTC Act for the implied claim that its cheese slices “contained the same amount of calcium as five ounces of milk” and that they “contain more calcium than do most imitation cheese slices.” Kraft Inc. v. F.T.C., 970 F.2d 311 (1992). Although they did not make either statement explicitly, Kraft implied as much through a visual image of milk pouring into a glass until it reached 5 ounces, which then turns into a package label for the cheese. Id. at 315. The advertising also stated that Kraft “has five ounces per slice” - which was an accurate depiction of product ingredients but failed to take into account the loss of calcium during processing. Id. at 314. The ads also included the statement that competitors had “hardly any” calcium, alongside a nearly empty glass of milk. Id. That implication, the FTC claimed, was false because each individual slice only contained 70% as much calcium as 5 ounces of milk. Id. at 315. The implication that competitor
• “Deceptive disclosure tactics” which, “[a]ppe[a]r to disclose something while really trying to conceal it”. This primarily consists of delaying disclosure as long as possible, delaying the consumer’s suspicion of deception as long as possible, or delaying the consumer’s discovery that “no meaningful disclosure” will be made.\textsuperscript{131} The purpose of doing so is to forestall the disclosure until “earlier deception tactics ha[ve] created a solidified favorable inclination” toward the advertiser’s message.\textsuperscript{132} This might involve “distract[ing] consumers away from the damaging disclosure” through size, vividness, noise, novelty, or stimuli “related to basic wants and needs, such as safety”.\textsuperscript{133}

B. Applying Marketing Insights to the Drug Injury Context

The PKM offers a number of insights that can be applied to drug injury advertising. First, the PKM suggests that consumers are not helpless when confronted with drug injury advertising. The folk knowledge and personal experience consumers have acquired enables them to evaluate medical information from an attorney advertisement differently from personal advice they receive from a doctor. While consumers infer the doctors’ advice is based on their medical expertise (and unlikely to be primarily motivated by profit), they might treat medical information from a lawyer with greater skepticism. The PKM also suggests that consumers are better equipped to evaluate drug injury advertising when they have a clear sense of the sponsor’s identity and the sponsor’s pecuniary motive. They may use knowledge about the sponsor and their persuasive intentions to discount or ignore certain information. Their knowledge about the sponsor may also lead them to be more vigilant regarding persuasion tactics, and more likely to experience a change of meaning in connection with the advertising.

However, consumers may be limited in their ability to cope with the message and apply their persuasion knowledge where the advertiser uses deceptive tactics, as previously summarized. Many drug injury advertisements appear to contain numerous deceptive tactics, sometimes used in combination. They often include some element of fear appeals, through repetition of the

\textsuperscript{131} BOUSH ET AL., supra note 107, at 42; Campbell, supra note 106, at 227.
\textsuperscript{132} \textit{Id.}
\textsuperscript{133} \textit{Id.}
medical adverse events associated with the drug in question. The adverse event often appears in large font on the screen, as well as in the narration. Advertisers also use visuals to represent these adverse events, such as a picture of a man clutching his chest overlaid with a picture of a heart monitor; a picture of a figure lying in a hospital bed with a concerned loved one sitting by their bedside; or an x-ray image of a skeleton. These advertisements also provide mental simulations of the adverse events, asking viewers if they have taken the drug, and then referring to the medical events, and suggesting that one follows the other. The heavy focus on adverse events also represents a framing effect, where then focus is on the risks of the drug, sometimes without any reference to the condition it serves to treat, the benefits it might provide, or the risks associated with discontinuing the medication.

Drug injury advertising also commonly includes misleading appeals to authority, suggesting that the advertisement or the information in the advertising originates from the government or medical authorities. The spokesperson for the ad will sometimes stand in what appears to be a surgical suite or medical center. Other times, a spokesperson in a suit appears next to text on a screen, mimicking the format of a television newscast. As previously noted, advertisements sometimes reference the FDA or use the term “medical alert.” They can also include medical symbols and imagery, diagrams of the human body depicting internal organs or veins, or footage of a surgery. In their most extreme form, such appeals to authority mimic non-advertising formats, or even an Omega strategy that masks the persuasive goal – suggesting the advertising has a public purpose rather than a pecuniary one.

Deceptive disclosure tactics are also common among drug injury advertisements, with disclaimers in small font such as “this is an advertisement.” As previously discussed, some ads that mimic public service announcements also delay disclosing their sponsor until the end. Although a later disclosure would theoretically trigger a “change of meaning” that could prompt consumers to reconsider the entire advertisement, the deceptive content may also inhibit consumers from experiencing a change of meaning at all. Overall, drug injury advertising tends to do a poor job of conveying the advertiser’s referral-based profit motive. At best, advertisements may include subtle references to referrals through disclaimers in small print at the end of the advertisement, or make reference to a “network of attorneys.” In the absence of transparent disclosures of the attorneys’ pecuniary motives, clearly identifying an ad as associated with a particular law firm, and/or making frequent reference to “attorneys”, “law firm”, “lawyers” or “lawsuits” at least allows
consumers the opportunity to identify a lawyer as the ad sponsor and consider their own skepticism towards lawyers generally. Consumers can then better cope with the advertisement and evaluate all of the ad’s content with enhanced skepticism and scrutiny.

The PKM also explains some of the observed results in extant research on drug injury advertising. Consumers appear to respond differently to drug safety information depending on the content of the information they receive, the source from which it is received, and their reaction to the persuasive tactics used. Consistent with our *Urology* study, patients appear to have incorporated the benefit-related information from conversations with their doctors, while incorporating risk-based information from the drug injury advertisements. Consumers also appear to approach drug injury advertisements with some skepticism. The small absolute number of patients reported in the Jannsen Pharmaceutical study who discontinued their medication and later suffered an adverse medical event could mean that many patients choose to ignore or discount the information in drug injury advertisements because they disbelieve the source of the medical information. Likewise, the Chamber of Commerce study also suggests that consumers were skeptical of the advertisements.

Marketing research also explains why consumers in the Chamber of Commerce survey were unable to predict their inclination towards reducing their medication intake after they watched the ad. Consumers apparently believed that they were not particularly influenced by the ads, which led them to discount the medical information to a much smaller degree than if they believed they had been more affected. The ads then apparently influenced their behavioral intentions regarding how much medication they planned to take.

Lastly, the marketing literature provides some insight into the results from the Tippett and Chen study on Medicare drug prescription rates. Consumers appeared to respond differently to the same information when it originated from the FDA versus drug injury advertising. FDA action produced a

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135 See Burton & Peacock, *supra* note 80 and accompanying discussion.
137 Id.
138 Id.
negative trend in prescriptions, which was not observed for drug injury advertising. Consumers – and the doctors who prescribe their medication – perceive the FDA to be a more credible source of information than attorney advertisers. Consumers then act on FDA information, while taking a more measured or cautious approach when similar information is conveyed through drug injury advertising.

The current research serves to apply marketing theory to the drug injury advertising context more directly. First, extant research on drug injury advertising has treated drug injury advertising in a monolithic way. However, some ads contain considerably more deceptive content than others. As previously discussed, some drug injury ads are very transparent from the outset that they originate from an attorney (“transparent ad”), while others seem to masquerade as public service announcements (“deceptive ad”). Marketing theory predicts that consumers will respond differently to the ads containing deceptive content because they will struggle to recognize the persuasive intent or tactics used by the advertiser. Those employing more deceptive tactics will have a greater influence on consumer risk perceptions and attitudes because consumers will have more difficulty applying their persuasion knowledge and source knowledge in that context. Our first experiment thus compares how consumers respond to a transparent ad compared to a deceptive ad. We predict that consumers are more likely to be deceived by an ad with deceptive tactics than a more transparent one. We test this hypothesis by asking viewers to identify the sponsor of the ad and measure the frequency with which they answer the question correctly.

We also assess whether educational efforts can mitigate or offset deceptive content. Marketing research suggests that deceptive content prevents consumers from experiencing a “change of meaning” regarding persuasion tactics used against consumers. Where consumers do not experience a change of meaning, they are much less likely to discount the medical information conveyed in the advertisement. Marketing theory would predict that an educational intervention – in our case, a set of written instructions prior to viewing the ad – would help inoculate viewers against persuasion tactics, essentially furnishing a “change of meaning” prior to viewing the ad. Consequently, marketing research would predict that participants who received the educational intervention would be less affected by the medical information in the drug injury advertisement.

140 Chen & Tippett, supra note 12; Koski, supra note 65; Tegggardjaja, supra note 68.
Next, we attempt to measure whether drug injury advertising influences risk perceptions beyond a level that is warranted by medical evidence. Although prior research finds some evidence of increased risk perceptions from drug injury advertisements, it does not differentiate between warranted and unwarranted increases in risk. We disaggregate the two by measuring a so-called “spillover effect”, which refers to increased risk perceptions among patient populations unaffected by the particular risk. Spillover effects are typically observed where a particular drug risk only affects a small subpopulation but others outside that population behave as though the risk affects them. For example, following FDA warnings about a suicide risk for teenagers taking antidepressants, prescription rates dropped for the general population. In our second study, we test for a spillover effect by presenting participants with a drug injury ad involving the antidepressant, Paxil, which is purported to present a risk to the fetus of pregnant women. To the extent that participants who are not female believe they have an increased risk after seeing the drug injury ad, it would suggest a spillover effect.

Lastly, we investigate how consumers respond to different sources of drug safety information by comparing participant responses to drug injury advertisements to their responses to direct-to-consumer (“DTC”) pharmaceutical advertising, which contains some content similar to drug injury advertising, but ultimately delivers the opposite message – that the drug at issue is beneficial and safe. As the PKM suggests, consumers operate in complex media environments, obtain their information from many sources, and apply their persuasion knowledge to those sources. We expect that when shown alone, a DTC advertisement will lead consumers to perceive a medication as more favorable, offering more benefits and posing fewer risks. We expect a drug injury advertisement to produce the opposite effect, reducing favorability and benefit evaluations while

141 Tippett et al supra note 71.
143 Valuck et al., supra note 142.
increasing perceived risk. The combination of conflicting information from viewing both the DTC and drug injury advertisements should become integrated, leading to risk judgments that are higher than the DTC advertisement alone would produce but lower than the drug injury advertisement alone would produce. Exposing consumers to one or both of the two types of ads in an experimental setting allows us to test both the direction of the effect of each, and the size of the effect.

IV. Methodology

A. Study 1.

Our first study contrasts two real drug injury advertisements involving the drug Reglan (metoclopramide). Both ads were broadcast on television (see Appendix B for a transcript and images from each advertisement). Both of the advertisements are around 30 seconds long. Each advertisement warns viewers that Reglan is associated with tardive dyskinesia and that consumers injured by Reglan may have a claim for financial compensation. The transparent advertisement features the sponsoring attorney’s name in a phone number appearing in large font on the bottom quarter of the screen (1-800-Call-Ken) and remains on the screen throughout the advertisement. The name of the sponsoring attorney’s law firm appears in a small font above the phone number. The sponsoring attorney also appears during the advertisement and identifies himself as “attorney Ken Nugent.”

By contrast, the deceptive advertisement does not reveal that it is sponsored by a law firm until the last two seconds of the advertisement and only does so in barely legible font on the bottom of the screen. Although the deceptive advertisement prominently features a telephone number throughout the advertisement, the number does not reveal the sponsor of the advertisement (1-800-CAUTION). The deceptive advertisement begins with the words “CAUTION” appearing in bright red letters. The ad then asks if the viewer has taken Reglan, and describes the symptoms of tardive dyskinesia. One portion of the deceptive advertisement includes a picture of a man apparently doubled over in pain. We expect the cautionary language and imagery, combined with the delayed and inconspicuous disclosure of the advertisement’s sponsor, to obscure the persuasive intent of the deceptive advertisement.

We predict that consumers may misidentify the purpose and sponsor of the deceptive ad relative to the transparent one. To the extent consumers misidentify the sponsor of the advertisement as an entity other than a lawyer, they may be
more likely to avoid seeking treatment or discontinue otherwise beneficial treatment. In this study, we test if behavioral intentions towards using Reglan differ between the two advertising types.

We further predict that educational efforts to explain the purpose of the advertising may increase the likelihood that consumers correctly identify the purpose of the advertisements. As such, Study 1 also considers different educational efforts. One educational effort focuses on the positive benefits of attorney advertising: educating the public, providing redress for victims and holding pharmaceutical companies accountable for undisclosed risks. The other focuses on the pecuniary motives of the ad’s sponsor, describing how attorney advertisers profit through their referrals or by recovering a contingency fee when the case is settled or litigated. Also included is a control group that does not receive any educational information about the advertisements. We expect educational efforts will increase the rate at which consumers correctly identify a lawyer as the sponsor of a drug injury advertisement. We also expect that explaining the purpose of these types of advertisements will lead consumers to feel less susceptible to the side effects associated with the medications.

Participants. 381 native English speaking MTurk workers received $0.50 (U.S.) each for their participation. Of these, 12 participants (3.15% of sample) were removed because they experienced problems with the task. Slightly more men (54.2%) participated and the mean age of participants was 35 (range: 18 to 79 years).

Procedure. The study featured a 3 (instructions: control vs. profit motive vs. pro-consumer motive) x 2 (advertisement type: transparent vs. deceptive) between participants design. All participants initially received instructions that they would be viewing a television advertisement.

Those assigned to both instruction conditions (profit motive and pro-consumer motive) received instructions explaining that the advertisement was sponsored by a lawyer and that the purpose of the advertisement was to “recruit consumers for a lawsuit.” In both conditions participants were instructed that “Consumers harmed by the medication may have a valid lawsuit against the drug manufacturer for failing to disclose the risk of the medical problem.”

Those assigned to the to the profit motive condition were also informed that advertising lawyers usually refer the case to other attorneys and are compensated based on the volume of
referrals their advertising generates. Those assigned to the pro-consumer motive conditions were instructed that the advertisements are beneficial for consumers because they recover money for injured patients and inform the public about important drug safety information. Finally, those assigned to the control condition did not receive any information about the purpose of the advertisement and were instead told that they would watch an advertisement that had run during an episode of “Dancing with the Stars” and were provided a description of the television show (see full instructions of each condition in Appendix A).

After reading the instructions, participants were shown one of two existing television advertisements soliciting consumers for lawsuits against the manufacturers of Reglan. Those assigned to the transparent advertising condition were shown an advertisement that clearly identifies the sponsoring law firm and did not feature words such as “caution” or “warning”. Those assigned to watch the deceptive advertisement were shown an advertisement that did not clearly identify the sponsor of the advertisement and featured a number of cautionary statements.

Measures. After viewing the advertisements, all participants were asked to evaluate the risks (not at all risky / very risky), benefits (not at all beneficial / very beneficial) and their overall attitudes (I like it / I dislike it; Favorable / Unfavorable; Good / Bad) towards Reglan on 7pt scales. In addition, participants were asked to “Consider if you, personally, took Reglan. What is the percentage chance that you would develop tardive dyskinesia?”

In order to evaluate if participants understood the source of the advertisement they watched, they were asked the identify the sponsor of the advertisement. Options included: “The Food and Drug Administration (FDA),” “the government,” “an attorney or law firm,” “a pharmaceutical company,” “I don’t know,” and an open response “other” option. All options except “an attorney or law firm” were coded as a misidentification.

Participants then answered a set of questions about how likely they were to perform a set of behaviors if they “personally needed and were prescribed Regan” (7pt scale Very unlikely/Very likely). These items included two items related to using the medication (“Fill a new prescription for Reglan from your doctor” and “Refill a prescription for Reglan that you are already taking”) and three items relating to additional research on the medication: (“Research Reglan to learn more about the medication,” “Ask your doctor about the advertisement,” and
“Call the number in the advertisement.”) Finally, all participants completed a measure of advertising skepticism.\textsuperscript{145}

\textbf{B. Study 2}

In the second study we consider how drug injury advertisements and DTC pharmaceutical ads, in combination and individually, might affect evaluations of a medication. We also test for the previously discussed spillover effect by using ads involving the anti-depressant, Paxil.

\textit{Participants.} 389 native English speaking MTurk workers received $0.50 (U.S.) each for their participation. Of these, 5 participants (1.29\% of sample) were removed because they experienced problems viewing the videos. Of the remaining 384 participants, slightly more were women (52.9\%) and the mean age of participants was 35 (range 18 to 75 years). Three female participants indicated that they were currently pregnant.\textsuperscript{146}

\textit{Procedure.} Participants were assigned to a 2 (DTC advertisement: present vs. absent) x 2 (Drug injury advertising: present vs. absent) between subjects design. All participants were informed that they would view two advertisements. First, participants either watched an existing DTC advertisement for the medication Paxil or an existing advertisement for a household surface cleaner (Clorox Clean-Up). Then, participants either viewed an existing drug injury advertisement or an existing advertisement for Dove soap. The drug injury advertisement focused on recruiting women who used Paxil while pregnant and subsequently delivered a child with birth defects. It was similar in format to the “deceptive” drug injury advertisement featured in study 1 by featuring a number of warning statements, focusing on the side effects of the medication and failing to disclose that the advertisement was sponsored by an attorney until the end (the sponsoring attorney was only disclosed in the onscreen text).

\textit{Measures.} After viewing both advertisements all participants were asked to evaluate the risks, benefits and their overall attitudes towards Paxil using the same scales from study 1. Items measuring behavioral intentions toward the same set of behaviors as those in study 1 (e.g., “fill a new prescription for Paxil from your doctor”) were also included. In addition,\textsuperscript{146}


\textsuperscript{146} Note, these three pregnant women were included in the analyses reported in study 2. The analyses were also performed without including these women and the reported pattern of significant results do not change.
participants were asked to “consider if you personally took the medication Paxil. What is the percentage change that you would experience an adverse side effect?”

Participants were asked to classify each advertisement they watched as (a) a public service announcement, (b) a lawyer advertisement, (c) an advertisement from a pharmaceutical company, (d) an advertisement for a cleaning product or (e) an advertisement for soap. Finally, all participants completed the advertising skepticism scale\textsuperscript{147} that was used in the first study.

V. Results

A. Study 1 Results

\textit{Sponsor of advertising}. A hierarchical binomial logistic regression was conducted to assess whether the transparency of the advertisement, instructions provided to the participants and the transparency x instruction interaction, significantly predicted whether participants correctly classified the sponsor of the advertisements as a lawyer or misidentified the sponsor. Misidentifications were classified as either identifying the ad sponsor as someone other than a lawyer or indicating “I don’t know” when asked to identify the sponsor of the ad. See the rates of correct and incorrect identification by condition in Table 2.

<table>
<thead>
<tr>
<th>Instructions</th>
<th>Transparent</th>
<th>Deceptive</th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
<td>Correct</td>
<td>Incorrect</td>
<td>Correct</td>
</tr>
<tr>
<td>Control</td>
<td>49</td>
<td>9</td>
<td>48</td>
</tr>
<tr>
<td>Profit Instructions</td>
<td>56</td>
<td>1</td>
<td>56</td>
</tr>
<tr>
<td>Pro-Consumer Instructions</td>
<td>58</td>
<td>7</td>
<td>47</td>
</tr>
<tr>
<td>Total</td>
<td>163</td>
<td>17</td>
<td>151</td>
</tr>
</tbody>
</table>

The main effects logistic regression model was found to be statistically significant, $X^2(3) = 16.36, p = .001$. The model explained 7.6% (Nagelkerke $R^2$) of the variance in correctly classifying advertisements and correctly classified 85.1% of cases. Results indicated that the different instruction conditions influenced the likelihood of participants correctly identifying the advertisements; \textit{Wald} $X^2 (2) = 7.88, p = .019$. Those assigned to the control condition misidentified the attorney ads at a higher rate than those assigned to either the pro-consumer or profit

\textsuperscript{147} \textit{Id.}
instruction conditions; $b = -.83$, $Wald X^2(1) = 7.65$, $p = .006$. There was no difference in the rate of correctly identifying attorney advertisements between the pro-consumer and profit instruction conditions; $b = .22$, $Wald X^2(1) = .28$, $p = n.s$. Those participants who received either the pro-consumer or profit oriented instructions were 1.24 times as likely to correctly classify the advertisement relative to those in the control instruction condition.

Advertisement type also significantly influenced the likelihood of correctly classifying the advertisement; $b = .88$, $Wald X^2 (1) = 7.75$, $p = .005$. Those encountering a transparent advertisement were 2.42 times more likely to correctly classify the advertisement as those who encountered a deceptive advertisement. The interaction between the ad type and instruction conditions was not significant ($p > .10$).

These results suggest that the instructional conditions improved the rate at which participants correctly identified the source of the advertisement. They also suggest different educational messages may improve consumers’ ability to correctly identify the sponsor of different forms of drug injury advertisements. Although not tested, it is possible that consumer education featuring both descriptions may improve consumers’ ability to correctly identify both types of drug injury advertisements.

**Evaluations of Reglan.** A series of 3 (instructions: control vs. profit motive vs. pro-consumer motive) x 2 (advertisement type: transparent vs. deceptive) analyses of covariance (ANCOVAs) with advertising skepticism, and gender as covariates were conducted for the variables measuring evaluations of Reglan (i.e., overall evaluation, risk, benefit). Gender was significantly related to both overall attitudes and benefits, with women expressing more favorable attitudes towards Reglan than men. However, neither the type of advertisement, nor form of instruction was found to significantly affect any of the measures. These results suggest that participants’ evaluations of Reglan were not affected by the advertising example (transparent vs. deceptive) they watched.

However, a main effect of instructional condition was observed on estimates of how likely participants believed they were to develop tardive dyskinesia from taking Reglan ($F(2, 354) = 3.65$, $p = .03$). Both those assigned to the profit motive

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148 Note, these analyses were also performed with gender as a fixed factor and gender was not found to significantly interact with any of the independent variables.
instructions ($M = 20.77$) and those assigned to the pro-consumer instructions condition ($M = 21.93$) indicated that the likelihood of experiencing this side effect was less than those assigned to the control condition ($M = 28.17$). In other words, those who were not provided any instruction regarding the purpose of the advertisement estimated that they were more likely to experience this adverse side effect. No other significant main effects or instruction x advertising type interaction was observed. This result suggests that consumers may discount the personal risks associated with the medication when they are made aware of the purpose underlying drug injury advertising.

**Behavioral Intentions.** Another set of ANCOVAs were conducted on the set of behavioral intentions. A significant main effect of advertising type was observed for both items related to using Reglan. Participants indicated that they were both less likely to fill a new prescription for Reglan ($F(1,358) = 9.26, p < .01$) and to refill an existing prescription $F(1,358) = 7.09, p < .01$) for Reglan after watching the deceptive drug injury advertisement relative to the transparent advertisement. Neither the main effect of instructions nor the instructions x advertising type interaction were significant for these behavioral intentions. This result suggests that advertisements framed as warnings (e.g., similar to the deceptive drug injury advertisement used in this study) may encourage consumers to stop taking (or fail to start taking) medications.

The provision of instructions to participants produced an observable effect for one of the three behavior items relating to information seeking: intention to “research Reglan to learn more about the medication”; $F(2,354) = 3.65, p = .027$. Those assigned to the control condition indicated that they were less likely to research the medication ($M = 5.82$) than those assigned to the profit motive instruction condition ($M = 6.24$). No significant differences were observed between the pro-social instruction condition ($M = 6.14$) or either of the other two conditions. This result suggests that educational efforts that focus on making consumers aware of how lawyers may profit from drug injury advertising may encourage consumers to learn more about the medications featured in those advertisements.

Overall, these results support our hypothesis that consumers may be confused by certain drug injury advertisements. While the two advertisements did not lead to different evaluations of the medication and its overall risks and benefits, those who watched the deceptive advertisement indicated that they were less likely to either fill a new prescription or refill an existing prescription for Reglan. This finding is concerning because it suggests that after viewing drug
injury advertisements that appear to be public health warnings consumers may decide to avoid taking the featured medication. The two instructional conditions were found to improve the rate at which participants correctly identified the sponsor of the drug injury advertisements but did not affect evaluations or behavioral intentions towards the medication.

Providing information about the purpose of these advertisements was found to increase the likelihood that participants would seek additional information about the medication and to reduce the perceived likelihood of experiencing the primary side effect discussed in the advertisements. Both of these effects are encouraging as they suggest that educational efforts may lead consumers to discount apparent warnings in drug injury advertising and encourage them to seek additional information.

B. Study 2 Results

Sponsor of advertising. Most participants (97.7% or 375 of 384) correctly classified the first advertisement (97.9% for the DTC advertisement, and 97.5% for the Clorox advertisement). In contrast, only 84% (323 of 384) of participants correctly identified the second advertisement (93.7% for the soap advertisement but only 75.1% for the drug injury advertisement). This finding supports those of study 1, participants appear to be confused about the sponsor of the deceptive drug injury advertisements.

Evaluations of Paxil. A series of 2 (DTC advertisement: present vs. absent) x 2 (Drug injury advertising: present vs. absent) analyses of covariance (ANCOVAs) with advertising skepticism, and gender as covariates were conducted for the variables measuring evaluations of Paxil (i.e., overall evaluation, risk, benefit). The presence of a DTC advertisement increased perceived benefit ($M = 4.57, SD = 1.51$) relative to when the DTC advertisement was not shown ($M = 3.80, SD = 1.36$); $F(1, 367)=28.49, p < .01$. The presence of the drug injury advertisement produced the opposite effect. Participants perceived Paxil to be less beneficial when shown the drug injury advertisement ($M = 3.77, SD = 1.54$) than when the advertisement was not shown ($M=4.56, SD=1.31$); $F(1, 367)=30.17, p < .01$. No DTC x drug injury advertisement interaction was observed. No gender differences on perceived benefits were observed.

Note, these analyses were also performed with gender as a fixed factor and gender was not found to significantly interact with any of the independent variables.
Main effects were observed for the drug injury advertisement but not a DTC advertisement on perceptions of risk. Those viewing the drug injury advertisement perceived Paxil to be riskier \( (M = 5.32, SD = 1.40) \) than those who did not \( (M = 4.37, SD = 1.24) \); \( F(1,367)=47.89, p < .01 \). There was also a main effect for gender on risk perceptions. Women indicated that Paxil was riskier \( (M = 5.04, SD = 1.38) \) than men \( (M = 4.63, SD = 1.41) \); \( F(1, 367)=7.86, p = .01 \). These main effects were qualified by a significant DTC x Drug injury advertisement interaction (see Figure 4); \( F(1,367)=4.66, p = .03 \). When the drug injury advertisement was absent, the presence or absence of the DTC advertisement did not affect risk. However as expected, viewing the DTC significantly lowered risk perception among those also viewing the lawyer advertisement \( (M = 5.07, SD = 1.39) \) relative to those who did not view the DTC advertisement \( (M = 5.56, SD = 1.37) \). This finding suggests that the DTC advertisement established knowledge structures regarding risks associated with Paxil that were resistant change from the drug injury advertisement.\(^{150}\) However, it is important to note that those who viewed the drug injury advertisement (in any condition) indicated that Paxil was riskier that those who did not view the drug injury advertisement.

### Table 3: Mean Risk Perceptions

<table>
<thead>
<tr>
<th>Advertising Condition</th>
<th>Mean Risk Perception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug Injury Ad Only</td>
<td>5.56</td>
</tr>
<tr>
<td>Drug Injury Ad and Pharmaceutical Ad</td>
<td>5.07</td>
</tr>
<tr>
<td>No Drug Injury Ad (with or without pharmaceutical ad)</td>
<td>4.37</td>
</tr>
</tbody>
</table>

Favorability measures closely matched benefit perceptions. Significant main effects for DTC \( (F(1, 367) = 15.42, p < .01) \) and drug injury \( (F(1,367) = 63.29, p < .01) \) advertisements were observed on favorability evaluations. Those watching the DTC advertisement \( (M=3.88, SD=1.62) \) liked Paxil more than those who did not see the DTC advertisement \( (M=3.31, SD=1.42) \). Conversely, those who viewed the drug injury advertisement indicated that they held less favorable attitudes of Paxil \( (M=2.99, SD=1.54) \) relative to those who did not see the drug injury advertisement \( (M=4.16, SD = 1.31) \). Again, no significant gender effects were observed on attitudes towards Paxil.

A main effect of gender was observed on estimates of how likely participants believed they were to develop experience side effects from taking Paxil (F(1, 364) = 11.64, p < .01). Female participants (M=33.87, SD=26.66) indicated that they were more likely to experience side effects from taking Paxil than men (M=24.59, SD=25.36). No other significant effects were observed.

**Behavioral Intentions.** Another set of ANCOVAs were conducted on the set of behavioral intentions. Significant main effects of the DTC advertisement (F_{new prescription} (1,367)=7.69, p =.01; F_{refill prescription} (1,367)= 8.06,p < .01) and the drug injury advertisement (F_{new prescription} (1,367)=23.83, p < .01; F_{refill prescription} (1,367)= 14.99,p < .01) were observed for both items related to using Paxil. In both cases, the DTC advertisement increased the likelihood that participants would (re)fill a Paxil prescription, whereas the presence of the drug injury advertisement decreased the likelihood that participations would (re)fill a Paxil prescription. These main effects were qualified by a significant DTC x drug injury advertisement interaction for both items; F_{new prescription} (1,367)=9.62, p <.01; F_{refill prescription} (1,367)= 5.94, p = .02.

Intentions to use Paxil closely mirrored the effects observed among risk perceptions. In the absence of the drug injury advertisement, the DTC advertisement had little effect on likelihood to fill or refill a prescription. However, when the drug injury advertisement was shown, participants were less likely to fill a prescription if they had not seen the DTC advertisement relative to those who saw both the drug injury advertisement and the DTC advertisement. This finding again suggests that the drug injury advertisement more strongly increases perceived risk when not accompanied by a counterargument. Of the three behavioral items related to further investigating the medication, the only significant effect that was observed was that of the drug injury advertisement on the intention to “ask your doctor about an advertisement;” F(1,367)=16.52, p < .01. Those who viewed the drug injury advertisement indicated that they were more likely to talk to their doctor than those who did not see the drug injury advertisement.

Findings from the second study reinforce those from the first by providing clear evidence that deceptive drug injury advertisements are likely to be misidentified and serve to increase the perceived risks associated with the medications they feature. The drug injury advertisement caused Paxil to be perceived as riskier and participants indicated that they were less likely to start or continue taking Paxil after viewing a drug injury advertisement. Importantly, these effects were observed among consumers for which the risks featured in the drug injury advertisement did not apply. Although women indicated greater
risks and likelihood of experiencing side effects if they took Paxil, the effect of the drug injury advertisement on evaluations or behavioral intentions towards Paxil did not depend upon gender. Thus, results suggest a spillover effects from drug injury advertisements into non-patient populations.

VI. Discussion & Regulatory Implications.

Results suggest that some consumers are in fact misled by drug injury advertising. Of the four types of advertisements included in these studies – a DTC pharmaceutical ad, a bleach advertisement, a soap advertisement and a drug injury advertisement – the drug injury ads produced the highest rates of misidentification. This was especially so for the deceptive ads. The deceptive Reglan ad in Study 1 produced misidentification rates of 28%, while the deceptive Paxil ad was misidentified by 25% of participants. This misidentification rate is especially egregious given that the instrument did not ask participants to identify an individual sponsor (e.g. The Law Firm of Ken Nugent), but just the type of advertisement (e.g. “The first advertisement was a lawyer advertisement.”)

Table 4: Rates of Sponsor Misidentification in Studies 1 & 2

<table>
<thead>
<tr>
<th>Type of Advertisement</th>
<th>Rates of Sponsor Misidentification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transparent Ad With Education About Attorney’s Profit Motive</td>
<td>1.8%</td>
</tr>
<tr>
<td>Direct to Consumer Pharmaceutical Advertising</td>
<td>2.1%</td>
</tr>
<tr>
<td>Advertisement for Bleach</td>
<td>2.5%</td>
</tr>
<tr>
<td>Advertisement for Soap</td>
<td>6.4%</td>
</tr>
<tr>
<td>Transparent Ad With Education About Attorney’s Public Service</td>
<td>10.8%</td>
</tr>
<tr>
<td>Deceptive Ad With Education About Attorney’s Public Service</td>
<td>12.9%</td>
</tr>
<tr>
<td>Transparent Ad (No Education)</td>
<td>15.5%</td>
</tr>
<tr>
<td>Deceptive Ad With Education About Attorney’s Profit Motive</td>
<td>17.6%</td>
</tr>
<tr>
<td>Deceptive Ads (No Education)</td>
<td>25% - 28%</td>
</tr>
</tbody>
</table>

Educational interventions were somewhat effective at reducing rates of misidentification, both for the transparent advertisement and the deceptive advertisement. Educational instructions about the attorney’s profit motives for the transparent ad brought rates of misidentification down to levels similar to that for DTC pharmaceutical advertising and for consumer products. However, for the deceptive ad, educational instructions were only able to bring misidentification levels down in the range of the transparent ad without disclosures.
When consumers are unable to recognize a drug injury ad as a form of attorney advertising, it has important implications for their ability to process the persuasive content. If they mistakenly believe, as some participants did, that the advertisement is a public service or government announcement, or originates from the manufacturer, they will process the medication information without the benefit of important knowledge about the advertiser. Consumers may also be less likely to apply their persuasion knowledge, on the assumption that the public entity has no pecuniary motive, or perhaps that the manufacturer has been forced by a government agency to issue corrective advertising. This too may limit their ability to "cope" with the medical information.

Results also provide some support for the proposition that the deceptive advertisement (especially with no additional disclosures) had a greater influence on consumers than the transparent ad. Viewers of the transparent ad, or the deceptive advertisement with additional disclosures, appear to have discounted the risk-related information in the ad, evaluating the drug as less risky than those who viewed the deceptive ad in isolation. The deceptive ad also had a stronger influence on participants' willingness to fill a Reglan prescription, which was unaffected by additional disclosures. However, one of the two disclosures did appear to increase motivation to conduct further research.

Results also suggest that drug injury ads may be somewhat more persuasive than DTC pharmaceutical ads, as an additional pharmaceutical ad did not produce an observable difference in risk perceptions and behavioral intentions compared to the control. By contrast, drug injury ads on their own had a strong influence on risk perceptions and behavioral intentions, which were only somewhat mitigated by pharmaceutical ads. How drug injury advertising is affected by counterarguments remains an important direction for future research. However, the difference in the effects of drug injury advertising relative to DTC advertisements could be related to the higher rate of misidentification among the drug injury advertisements. As discussed above, if consumers are unable to understand the persuasive intent and tactics of such advertising, they are less able to effectively cope with those persuasive attempts.

Lastly, results suggest that deceptive ads may produce some spillover effects. (A deceptive ad was used in Study 2.) Paxil posed no risk for men based on the adverse event described in the drug injury advertisement. Although men estimated they would be less likely to experience side effects than women, and viewed Paxil as less risky, the drug injury advertisement...
appears to have ultimately affected their behavioral intentions. Drug injury ads led both men and women to reduce their reported likelihood of filling or refilling a prescription for the drug by statistically similar amounts. This suggests that drug injury ads in some cases may lead to unwarranted increases in risk perceptions and inappropriately influence the behavioral intentions of populations for whom the risks presented in the advertisements not apply.

The results offer a number of implications for regulating drug injury advertisements. First, they offer some initial evidence in assessing the tradeoff between regulation focused on reducing deceptive content versus regulation that demands the inclusion of disclaimers. For example, the American Medical Association has recommended that all drug injury advertisements include a disclaimer that viewers should not discontinue medication without first consulting their doctor.151 These types of disclaimers may help consumers activate their source knowledge and persuasion knowledge and thereby consider the context in which medical information is presented. However, disclaimers are also somewhat limited in what they can achieve. The “disclaimers” used in Study 1 included a written instruction that participants were instructed to review before watching the ads. This likely represents a greater level of prominence and salience than the average disclaimer would produce; most disclaimers are less conspicuous. The disclaimer here was successful in helping participants identify the sponsor of the ad and also proved helpful for the transparent ad. Nevertheless, the disclaimer did not mitigate the influence of the deceptive ad on behavioral intentions towards filling a prescription.

The differences observed between the transparent ad and the deceptive ad in this case suggests that ad content can have a marked difference in how consumers process the persuasive content of messages and ultimately on their behavioral intentions. This suggests that regulators might usefully focus their efforts on reducing deceptive content in drug injury advertisements. State bars could do so in a manner consistent with the Association of Professional Ethics Lawyers’ recommendation that state bars streamline ethics rules to a simple prohibition on false or misleading content.152 Rather than adopting new rules, they could simply step up enforcement of rules prohibiting false or misleading advertising. Further,

they could issue advisory opinions applying the false or misleading standard to drug injury ads. Finally, they could also selectively enforce the false or misleading prohibition for the worst content on the market.

Doing so would require state bars to take the initiative to identify the worst offenders and take action against them. This would require a change to their current approach to disciplinary matters, which relies on complaints by clients and competitors. As discussed in prior research, neither clients or competitors have an incentive to complain about drug injury advertising. Competitors of drug injury advertisers are unlikely to complain lest they draw attention to their own advertising practices. Consumers most likely to be harmed by the ads are not potential clients of the advertiser, but instead those influenced by the ads to reduce or discontinue a drug (or refuse a doctor's recommendation to begin treatment). As we have discussed herein, these consumers may not even realize that they have been influenced by the ads, or that they constituted attorney advertising. Had they been aware of the source of the ads and the advertisers’ pecuniary motives, they likely would have discounted the information and avoided influence. Moreover, these consumers are unlikely to know or recall the name of the advertiser’s sponsor once they realize they have been influenced, and indeed, the influence may have resulted from cumulative exposure to the advertising. Even if they could identify a specific advertiser responsible for their decision, they would not know to complain to the state bar, nor be able to identify the state in which the firm is located. In other words, the absence of complaints does not necessarily reflect the absence of harmed consumers, but instead may be the result of other barriers to complaining.

States are also limited in their ability to enforce prohibitions on false and misleading advertising against the deceptive advertising described here. First, the presence of corporate entities on the list of most prolific advertisers creates a regulatory challenge for ethics boards. Corporate entities have no bar license to threaten. Even referral networks present regulatory challenges. Although theoretically made up of individual lawyers, it is not at all clear which of the individual lawyers could or would be held responsible for the ads. Second, the large advertising market described herein is national in nature. Consumers in many states are affected by advertising originating from a firm in another state. Because the primary

153 Tippett, supra note 2 at 40-41.
154 Id at 41.
threat wielded by state bars is the ability to revoke or suspend an individual attorney’s license, the non-licensing state is largely powerless to do anything about the advertising.

Consequently, meaningful change may require help from the FTC. The FTC can take action against the worst actors, whether it be law firms or corporate entities. The FTC is better positioned to act with respect to national advertising campaigns because its jurisdiction extends beyond individual states. The FTC also brings considerable expertise in deceptive advertising drawing upon its decades of experience in that realm.

Lastly, further deregulation of attorney ethics rules around referral fees, when coupled with stringent rules regarding disclosure, may help consumers activate their persuasion knowledge in responding to drug injury ads. As previously described in Part II, only some drug injury advertisers litigate cases with any frequency. Others would appear to generate revenue through complex referral arrangements with litigators, styled as “joint representation.” However, the nature of these referral arrangements are not at all apparent from the advertisements themselves. Although this non-disclosure may in part be a deceptive advertising tactic, it may also reflect advertiser concern about running afoul of ethical rules regarding referrals.

State rules regarding attorney referral fees vary somewhat, but have historically prohibited referral fees that exceed reimbursement for advertising costs.\(^{155}\) In 2012, the ABA modified commentary to its Model Rule of Professional Conduct 7.2, which allowed lawyers to purchase referrals through “lead generation services.”\(^{156}\) Even assuming that drug injury advertisers qualify as “lead generation services,” the 2012 exception includes a number of limitations. The lead generator cannot suggest that “it is recommending the lawyer” receiving the referral, nor that it has “analyzed a person’s legal problems when determining which lawyer should receive the referral.”\(^{157}\) These limitations may be inconsistent with current referral practices among drug injury advertisers. In addition, not all states permit the use of “lead generation services”, and apply

\(^{155}\) Model Rules of Prof’l Conduct r 7.2.


\(^{157}\) Id.
stringent restrictions on referral services.\textsuperscript{158} In light of these restraints, drug injury advertisers may decide to continue their complex fee-sharing arrangements,\textsuperscript{159} which are difficult to explain to consumers.

Complex fee sharing arrangements – particularly when they are not meaningfully disclosed in an advertisement – obscure advertisers’ persuasive intent. If consumers cannot glean the advertiser’s pecuniary motive, or even that they have a pecuniary motive, they will be less likely or able to bring their persuasion knowledge to bear. This may account for some of the increased influence of the deceptive ad compared to the transparent ad, and also why providing consumers with education around the purpose of the ad helped to mitigate the effect of the deceptive ad.

Overall, consumers would be best served if they clearly understood the business model of the advertiser. Consumers generally have good mental schema for understanding the motives of litigators. When they see a lawyer featured on a screen looking for clients, they can infer that the lawyer benefits financially from the additional business, whether it be from hourly fees or a contingency fee. This essentially reflects the content of the “transparent” ad featured in our first study. Ideally, a similar level of transparency could be applied for firms – and third party corporations – that base their business primarily on referrals. This would involve explaining to viewers that their business specializes in finding injured consumers, and receiving a fee to refer them to other lawyers. Finders’ fees and referral fees represent a common business model in other industries, for example, ‘headhunters’ in the human resources context. Consumers have a context for understanding these business arrangements, and can then place the medical information within a larger narrative of the advertisers’ business interests.

At least in the drug injury context, allowing such referral arrangements, provided they are prominently conveyed to viewers in their advertising, would help to mitigate some of the

\textsuperscript{158} See e.g., MD. CODE ANN., MD RULES ATTORNEYS, r 19-307.2 (West 2017); VA. CODE ANN. RULES OF PROF’L CONDUCT r 7.3 (Sest 2017); N.J. STAT. ANN. RPC 7.2 (West 2017); N.M. STAT. ANN. NMRA 16-701 (West 2017).

\textsuperscript{159} Fee sharing arrangements are also regulated by states, following ABA Model Rule of Professional Conduct 1.5. These rules require that “(1) the division is in proportion to the services performed by each lawyer or each lawyer assumes joint responsibility for the representation; (2) the client agrees to the arrangement, including the share each lawyer will receive, and the agreement is confirmed in writing; and (3) the total fee is reasonable.”
medical side effects of drug injury advertising. In sum, increased enforcement of existing prohibitions on false and misleading advertising, when coupled with some deregulation of referral fee arrangements, would be beneficial to consumers without impairing the market for drug injury advertising.

VII. Conclusion

This research draws from theory and research in the marketing field to shed light on how consumers respond to drug injury advertising. We find that deceptive drug injury advertising has a stronger influence on consumers than transparent advertising. Deceptive drug injury advertising may ultimately distort how consumers make decisions about whether to take the drug that has been featured in the ad. Nevertheless, educational efforts, and counterarguments appear to mitigate some of this effect.

Marketing theory suggests that some of the effect of the deceptive marketing can be explained by some consumers’ failure to identify the advertiser and their pecuniary motives. When consumers misunderstand the source of an advertisement, they may not be able to apply their knowledge and skepticism of that source, and identify the persuasive tactics used in the ad. Reducing the influence of drug injury advertising may therefore involve interventions designed to make the advertiser’s motives more transparent. Further research is warranted on the particular content within drug injury ads that is most harmful (or helpful) to consumers in processing and responding to the medical information contained therein.

While we do not explore the effect of such a rule on other aspects of the consumer transaction, such as the representation consumers receive following the referral, we urge state bars to explore the possibility.
Appendix A: Study 1 Instruction Conditions

Profit Motive Instructions

In a moment, you will watch an advertisement that was paid for by a lawyer. The purpose of the advertisement is to recruit consumers for a lawsuit. In particular, the lawyer is looking for consumers that experienced a particular medical problem after taking a prescription drug. Consumers harmed by the medication may have a valid lawsuit against the drug manufacturer for failing to disclose the risk of the medical problem.

If the consumer has a valid lawsuit and contacts the lawyer in the advertisement, the lawyer's firm might then represent the viewer in a lawsuit. However, most advertising lawyers do not represent the consumers they recruit. Instead, advertising lawyers often sell their names to other law firms that will actually litigate the case.

The lawyers that run the advertisements are paid for their referrals. The more consumers they recruit, the more they are paid. Other law firms are willing to pay for referrals because they will eventually receive a portion of the money their clients recover from drug manufacturers.

Pro-consumer motive instructions

In a moment, you will watch an advertisement that was paid for by a lawyer. The purpose of the advertisement is to recruit consumers for a lawsuit. In particular, the lawyer is looking for consumers that experienced a particular medical problem after taking a prescription drug. Consumers harmed by the medication may have a valid lawsuit against the drug manufacturer for failing to disclose the risk of the medical problem.

These advertisements are beneficial for consumers for a number of reasons. First, lawyers representing injured consumers in lawsuits against drug manufacturers help consumers recover money for their injury and the pain and suffering they have experienced. These lawsuits help to hold drug manufacturers accountable for the harm they have caused. In addition, such lawsuits provide economic incentives for drug manufacturers to carefully disclose the risks of the medications they manufacture.

Second, these advertisements help inform the public about important drug safety information. Lawyers who purchase
these advertisements typically base their content of their advertisements on announcements or warnings issued by the Food & Drug Administration (FDA) or based upon very large scientific studies. Therefore, these advertisements help patients by making them aware of the risks associated with certain medications.

Control condition instructions:

In a moment, you will watch an advertisement that was run during an episode of “Dancing with the Stars.” The show pairs a number of well known celebrities with professional ballroom dancers, who each week compete by performing one or more choreographed routines that follow the prearranged theme for that particular week.

The dancers are then scored by a panel of judges. Viewers are given a certain amount of time to place votes for their favorite dancers, either by telephone or (in some countries) online. The couple with the lowest combined score provided by the judges and viewers is eliminated. This process continues until there are only two or three couples left; when they have competed for the last time one couple is declared the champion.

Versions have also been produced in dozens of countries across the world. As a result, the series became the world's most popular television program among all genres in 2006 and 2007, according to the magazine Television Business International, reaching the Top 10 in 17 countries”
## Appendix B: Study 1 Drug Injury Advertisements

### Transparent Reglan Advertisement:

<table>
<thead>
<tr>
<th>Role</th>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Announcer</td>
<td>“If you have taken the drug Reglan this message is for you.”</td>
</tr>
<tr>
<td>Female Announcer</td>
<td>“If you or a family member have taken the drug Reglan and have been diagnosed with Tardive Dyskinesia call attorney Ken Nugent right now.”</td>
</tr>
<tr>
<td>Ken Nugent</td>
<td>I’m attorney Ken Nugent if you or a loved one has taken this drug and were injured call us right now. You may be entitled to financial compensation.</td>
</tr>
<tr>
<td>Female Announcer</td>
<td>“If you have taken the drug Reglan and have been diagnosed with tardive dyskinesia call attorney Ken Nugent right now. Call 1-800-CALL-KEN, that’s 1-800-CALL-KEN.”</td>
</tr>
</tbody>
</table>
### Deceptive Reglan Advertisement:

<table>
<thead>
<tr>
<th>Female Announcer</th>
<th>“Caution! Have you or a loved one taken the prescription drug Reglan to treat stomach problems, acid indigestion, or heartburn?”</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Caution! The use of Reglan may be linked to serious side effects - Tardive Dyskinesia, involuntary arm movements, facial grimacing or protrusion of the tongue.”</td>
<td></td>
</tr>
<tr>
<td>“If you took the prescription drug Reglan and suffered any of these symptoms you could have a claim to compensation.”</td>
<td></td>
</tr>
<tr>
<td>“Call today. Call 1-800-CAUTION, 1-800-CAUTION”</td>
<td></td>
</tr>
</tbody>
</table>