Severe Allergies, Price Increases, and Supply Shortages: How News and Frames of the 2016 EpiPen Crisis Continue the Conversation of U.S. Pharmaceutical Pricing

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Abstract

Controlling pharmaceutical prescription costs has been an interest in the United States for decades. In 2016, EpiPen experienced a 600% price increase. This exploratory framing study focuses on news coverage of EpiPen’s price increase and related pharmaceutical price increase stories through analyzing three U.S. television news programs’ coverage. Within 30 news segments that discussed EpiPen or medication price increases, analysis revealed four frames: economic, attribution of responsibility, morality and human interest, and conflict and powerlessness. This study provides a larger understanding of how the crisis of medication price increases is understood and implications for practitioners and individuals aiming to make medications more accessible.

Introduction

In January 2017, President Donald Trump put pharmaceutical drug companies in the spotlight when he stated that they were “getting away with murder” and vowed to bring drug prices and spending down (Johnson, 2017, para. 1). Years prior to President Trump’s call to the pharmaceutical industry, the Clinton administration introduced a healthcare reform bill that attempted to eliminate pharmaceutical manufacturers’ tax breaks and accused the industry of profiting from ill Americans (Fritz, 1993). Pharmaceutical drug pricing has been an issue on both sides of the political aisle reentering public discourse every few decades.

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Beginning in 2016, the pharmaceutical company Mylan and its well-known brand medication EpiPen experienced a pharmaceutical crisis. The crisis first began with a price increase driven by the company’s CEO, Heather Bresch. After buying the rights to EpiPen in 2007, Mylan slowly increased the price of the medication from approximately $100 for two auto-injectors to a current price of around $650 to $700 (Anderson, 2020; Pollack, 2016). Following this price increase, EpiPen also experienced an availability shortage due to manufacturing issues. EpiPen is the lead brand name epinephrine auto-injector medication for severe allergic reactions, which result in anaphylaxis and possibly death if not treated right away by medical professionals (Medline Plus, 2018). In 2015, more than 3.6 million EpiPen prescriptions were written and 70% of those were for commercially insured patients (Rockoff, 2016). In 2018, there were about 2 million EpiPen prescriptions (Epinephrine summary for 2018, n.d.). The decline in prescription rates is likely due to the increase in popularity of competitor generics (Mangan, 2017). Because such a large segment of the population uses EpiPen, the purpose of this study was to analyze the EpiPen pricing and product shortage crisis through how it is framed in television news.

Pricing in the pharmaceutical industry is mostly unregulated in the United States (Drake & Uhlman, 1993), allowing pharmaceutical companies to essentially set their own prices. Though there have been proposed government bills in recent congressional sessions to curb drug prices, no single solution has been found (Hancock, 2017). Many Americans only encounter issues associated with high prices when they are trying to gain access to a life-saving medication from a doctor or pharmacy. Those without insurance feel the pain of high medication prices more often. Depending on the insurance formulary tier of the required medicine, even insured Americans could be monetarily affected (AARP Bulletin, 2017). The EpiPen crisis is a recent example of rising medication prices. Studying how it is framed can shed light on an issue often kept out of the public domain. Public interest communications is, simply put, communication on behalf of the public (Fessmann, 2017). Keeping an issue such as medication prices out of the public domain serves the public relations efforts of pharmaceutical companies.

Due to the nature of news acting as a fourth estate (Hirst, 2013), news outlets should not be participating in the public relations efforts of pharmaceutical companies. Instead, news coverage of an issue such as medication price increases should act in the interest of the public and aim to create change regarding the issue at hand (Fessmann, 2017). Framing research indicates that news frames suggest to audiences ways to interpret an issue or event (Scheufele & Tewksbury, 2007). Also, framing choices affect public opinion about who is responsible for causing and solving social issues, such as rising medication prices (Iyengar & Kinder, 1987).

The current study delves deeper into the 2016 EpiPen crisis and how it was framed on television news. The study deploys a framing analysis of television news stories from the major national news networks that covered the Mylan EpiPen price hike and shortage. Medication prices impact drug access and availability, among other considerations, which have major impacts on the health of individuals and communities, keeping medication prices in line with the aim of public interest communications (Fessmann, 2017). Understanding the frames that enter public discourse is essential to crafting public interest communications campaigns that can then
create change in the organizational structures that dictate who can and cannot have access to life-saving medications (Fessmann, 2017).

Literature review

Media framing and health news

News frames combine information into a package that can influence audiences and how they think about an issue (Scheufele & Tewksbury, 2007). According to Entman (1993), frames define problems, provide causes, make moral judgments, and suggest solutions. Frames ultimately render information more accessible to audiences and applicable to their own experiences (Scheufele & Tewksbury, 2007). News can act as a frame builder and a frame setter influencing not only message creation, but also the effects of message exposure by introducing both the issue and its relevant considerations. News can be a frame builder and setter especially for issues that seem to come about suddenly, such as the EpiPen price hike and shortage (Scheufele & Tewksbury, 2007).

Previous studies have indicated there are common frames used by the news media (Neuman et al., 1992; Semetko & Valkenburg, 2000). In studying how the citizens in democracies make sense of the political world by reinterpreting the information provided by the mass media, Neuman et al. (1992) determined five common frames used by news media and audiences for discussing current affairs: human impact, powerlessness, economics, moral values, and conflict. The human impact frame focuses on individuals and groups affected, providing a face and emotional angle to the topic. The powerlessness frame looks at the dominant forces over less empowered individuals or groups. The economic frame centers profits and losses or how an event will economically affect individuals, groups, organizations, regions, or even countries. The moral frame makes indirect references to religious tenets or moral guidelines. Finally, the conflict frame emphasizes problems among people, organizations, or countries but can also be used to establish a sort of contest with winners and losers (Neuman et al., 1992). In a study of how European political news was framed in press and televised news, Semetko and Valkenburg (2000) found that serious news outlets used the attribution of responsibility frame most frequently. The attribution of responsibility frame, defined as attributing causing or solving an event or issue to a government, individual, or group, was most used in national print and television news (Semetko & Valkenburg, 2000).

According to Coombs and Holladay (2004), a crisis can be defined as “an event for which people seek causes and make attributions” (p. 97). Using this definition, prescription medication price increases such as with the EpiPen can be classified as a crisis for both the pharmaceutical company and those taking the medication. Following Christiano and Neimand (2017), this crisis could thus be considered a public interest communications crisis depending on how it is handled. How the media frame a crisis event, the cause of the crisis, and the actor responsible for the...
event influences the public’s understanding of the event as well as the impression of the organizations involved (Coombs, 2006). According to Iyengar (1991), there are two distinct news frames to consider while dealing with crises: the episodic frame and the thematic frame. The episodic frame focuses on certain individuals or specific events and the thematic frame places issues at the societal or governmental level. Additionally, the solutions to these issues can be at the individual or societal level. The news media’s framing choices ultimately affect public opinion about who is responsible for causing and solving social issues, such as rising medication prices (Iyengar & Kinder, 1987). The framing used by the media to cover the EpiPen price increases potentially accomplishes considerations 8 and 9 in Downes’ (2017) considerations for building positive change through public interest communications: increasing awareness about those who work in the public policy process and pushing organizations missions (and actions) to serve the social good.

In a review of framing research, de Vreese (2005) argued that framing studies should specify the conditions in which frames emerge and how they help form public opinion. The news media, well recognized as frame creators, are often intermediaries used to cover and translate vital health information into easily understood forms for the public. According to Viswanath et al. (2008), community health sources and the media organization together set the health news agenda, and because reporters need health experts to explain technical information, sometimes a story may be cut and not part of that day’s news cycle. Reporters without training in the health field rely on health experts for reporting health news stories. Moreover, health reporters will cover a story based on audience interest, the reporter’s ability to humanize the topic, and the ability to shoot video for a specific topic (Tanner, 2004).

Often, while reporting health information, news organizations’ choice of frames depends on the size and ownership of the organization and the education level of the reporter. According to Wallington et al. (2010), for health reporting, privately-owned organizations valued educating people to make informed decisions as well as providing entertainment; small media organizations valued developing the public’s health and science literacy. In terms of using frames, large organizations used the economic frame often and the human-interest angle less often. Large organizations are also more likely to use the controversial news angle (Wallington et al., 2010).

Medication prices and health-industry responsibility

Previous research has explored the intersection of framing and healthcare in the United States. In a study of media framing regarding who is responsible for rising healthcare costs, Kim et al. (2015) considered five potential causes (patients, providers, insurance companies, government, and pharmaceutical companies) and the frequency of these causes in news coverage from 1993 to 2010. Among the five main cause areas, pharmaceutical companies were least mentioned, though there was a focus on this specific cause from 1998-2002. Kim et al. (2015) suggested the increased mention of pharmaceutical companies was due to the 2000 election, which centered the
Typically, media coverage of pharmaceutical companies focuses on novel treatments and their availability. New treatments can have very high per patient/per treatment price tags. For example, hepatitis C treatments cost about $84,000 per treatment, and a cholesterol drug costs almost $15,000 per patient (Leopold et al., 2016). According to Drake and Uhlman (1993), drug companies can circumvent government price holds through their patents for chemical compounds. When a patent expires, generic versions of the medicine come to market and the drug company selling the brand name medication increases prices to make up for lost market share. Furthermore, the U.S. Supreme Court previously ruled that pharmaceutical companies’ pricing information is proprietary, so they do not have to reveal it to the public (Drake & Uhlman, 1993).

Though prescription drug companies charge high costs for their medications, they are mentioned least frequently as a cause for rising costs and are recognized instead for their corporate social responsibility (CSR) efforts abroad (Kim et al., 2015). For example, Novartis Pharmaceuticals’ CSR efforts include the Healthy Family Initiative in India that provided health education to 24 million people and diagnoses and treatment to 2.5 million people (Novartis, 2016). Although these efforts seem to do good, Dutta (2019) argued that they do not actually create lasting change, stating, “Development and public good are often paradoxically co-opted within efforts of community relations and CSR to strategically achieve goals of privatized organizational effectiveness” (p. 53). Although pharmaceutical companies participate in CSR abroad, the topic of prescription medications and pricing is often treated in a traditional public relations style as opposed to public interest communications as a way to build trust in the community (Fessmann, 2017). In this way, according to Fessmann’s (2017) delineation of the differences between public relations and public interest communications, focusing on public relations with U.S. audiences allows Big Pharma to continue its business practices—including raising medication prices—while participating in public interest communications would force them to potentially change their structures.

The United States is one of the few industrialized nations that does not control medication prices, unlike other countries with national healthcare systems. Pharmaceutical companies often give reasons for the exorbitant prices for their products. For example, the allergy pill Claritin’s price was raised 13 times in five years (Angell, 2004). Other more recent medication price increases include Deraprim, which went from nearly $14 per pill to $750 per pill, and insulin, which cost $21 in 1999 and is now over $300 (Pollack, 2015; Rajkumar, 2020). The reason for price increases is mainly for investment into research and development (Lueck, 2003). Although prices continue to rise, there have been some recommended strategies to cope with the rising costs: industry offering to reduce prices; government agencies mandating discounts for Medicare Part D and lawsuits against pharmaceutical companies; insurance companies mandating use of generics, requiring prior authorization, and co-payment plans; patients going abroad for cheaper medicines or forgoing treatment; and implementing price control regulations (Leopold et al.,
2016). Each of these has major implications for the U.S. healthcare system and the individuals whose lives often depend on medications with high price tags. However, the issue of prescription medication prices in the United States does not just affect the individuals taking the medications, or even those fighting for lowered costs; it also impacts prescription drug companies, the pharmacies that carry medications, insurance companies, and many others. In this way, the issue of medication price increases fits with Fessmann’s (2016) definition of public interest communications, which involves “the development and implementation of science-based, strategic communications with the goal of significant and sustained positive behavior change or action on an issue that transcends the particular objectives of any single organization” (p. 16). Medication prices affect a host of people and organizations, and the topic is much larger than any of the single players in the arena.

Previous literature on agenda building indicates that the amount of news coverage an issue receives does not equate to the seriousness of the issue at hand (Kim et al., 2011; Shoemaker & Reese, 1991; Tanner & Friedman, 2011). The media will heavily cover an issue when events are deemed newsworthy and are thought to attract audience interest (Kim et al., 2015). The decisions a journalist makes in terms of what to cover and how to cover it contribute to the ideas citizens and policymakers have about an issue, such as the EpiPen price increase and shortage, and will therefore impact how they respond to the issue (Kim et al., 2002; Scheufele & Tewksbury, 2007).

The aforementioned areas of scholarship jointly inform the current study about the EpiPen price increase and product shortage. Due to the seemingly politically charged focus rising medication prices have recently taken, and the fact that this topic has not been studied widely, established frames from Neuman et al. (1992) and Semetko and Valkenburg (2000) served as a basis for the current analysis of framing medication pricing in the United States. Based on previous research, the following research question guided the study:

**RQ:** How has the topic of medication price increases been framed using the previously determined frames of human impact, powerlessness, economics, moral values, conflict, and attribution of responsibility?

**Method**

**News segment selection**

Evening television news was selected as a medium for analysis because evening network news programs averaged about 5.2 million viewers in 2017 and 5.3 million viewers in 2018 (Pew Research Center, 2019). The average audience size for evening news was larger than morning news programs, which averaged 3 million viewers (Pew Research Center, 2019). More specific statistics for each of the major three network news outlets also indicate high viewership. For the
2017-2018 season, ABC and NBC’s evening news programs each had more than 8 million viewers and CBS’s evening news program had more than 6 million viewers. NBC led the key 25 to 54 demographic with ABC and CBS in second and third place, respectively (Katz, 2018). Because of the high viewership numbers for evening news as compared to morning news and the high viewership for each of the three main networks’ evening news programs, news segments from these networks were selected for inclusion because it was likely more Americans saw the news as presented by these networks. The Internet Archive was used to access the news segments on EpiPen’s price increase.

The news segments under study ranged in air date from August 2016 to the end of November 2018. August 2016 was chosen as the start date for data collection because, according to Czarnecki (2016), the EpiPen crisis began in the news cycle when Senator Bernie Sanders tweeted out an NBC news story reporting the price hike. In May 2018, the FDA announced a manufacturing shortage of the EpiPen and the approval of a generic epinephrine auto-injector (Scutti, 2018; U.S. Food and Drug Administration, 2018). November 2018 was chosen as the end month because healthcare and medication prices were one of the key issues across the country leading up to the 2018 election (Brownstein, 2018). Including coverage up to this date helps place EpiPen’s price increase within a larger national conversation on medication pricing.

The Internet Archive search was completed using an advanced search allowing the researcher to input the chosen start and end dates and the desired networks. Keywords used in the search were “EpiPen,” “EpiPen shortage,” “drug/pharmaceutical price increase,” and “Mylan Pharmaceuticals.” The original sample totaled 151 news segments. All clips were reviewed to ensure the news segments were stories dedicated to the topic. Items were removed from the final sample if: they were a Direct to Consumer (DTC) commercial; they did not discuss medication prices within the news segment; they discussed a medication that was not EpiPen; or there were multiple videos uploaded that contained the same segment that just played in a different media market. For example, if the same news segment was categorized under the station call letters WCAU and KPNX, then only one was included. The final sample totaled 30 news segments.

Coding

All segments in the final sample (n = 30) were viewed multiple times. Coding was then completed using a coding sheet (see Appendix). Each reference to pharmaceutical companies, EpiPen, allergies, pricing, and shortage was coded separately in case any given news clip contained instances relating to multiple themes and frames. Coded topics included information such as air date, reporter, headline, and illustrative elements such as charts, quotes, and illustrations. Interview sources for the news story were noted as well as described. Lastly, the researcher noted the frames and framing techniques that appeared in the segments using the previously determined frames from Neuman et al. (1992) and Semetko and Valkenburg (2000). To ensure rigor as well as verification and trustworthiness of the results, analyses were conducted throughout the process from the start of data collection to the writing of the final study.
Results

The final sample included 30 news segments from ABC, CBS, and NBC’s evening news programs. Six segments came from ABC, seven from CBS, and 17 from NBC. Twenty-three of the news segments were specifically about the EpiPen. The rest of the segments covered drug pricing in America more generally. These stories were focused on reaction to the EpiPen price increase such as insurance companies dropping coverage of the medication, ways to find more affordable medications, and potential government solutions. In the analysis, four frames were identified: the economic frame, attribution of responsibility, morality and human interest, and conflict and powerlessness.

The results section explores each of the frames present in the news coverage of the EpiPen price increase. Each section of the results covers the respective frame in more detail and includes examples. A breakdown of how often each frame appeared in the sample is included in Table 1 at the end of the results.

Economic frame

The economic frame appeared in EpiPen news coverage in two ways: discussions of profits and losses for Mylan and the impact for those affected, specifically the families who rely on EpiPen. For Mylan, the economic frame focused on how the price increases of EpiPen allowed Bresch to make approximately $19 million per year. Even though EpiPen is costly for consumers, the active ingredient epinephrine itself costs only around $3 and the high cost to consumers derives instead from the plastic auto-injector (“EpiPen Makers Surprise Move,” 2016). Mylan could monopolize the epinephrine auto-injector market after the FDA removed a competitor’s product. In a Securities and Exchange Commission filing for Wall Street, Bresch noted that investors would see opportunities for a price per EpiPen increase (“EpiPen Makers Surprise Move,” 2016). In one story, Martin Shkreli, the ex-CEO of Turing Pharmaceuticals who made headlines for raising the price of the HIV medication Deraprim, came to Mylan’s defense stating, “Mylan [the company] is a good guy. They have one product where they are finally starting to make a little bit of money and everyone is going crazy over it” (“Soaring Costs,” 2016b,16:43). Additionally, when Mylan announced it would offer a generic version of the auto-injector at $300, Meg Tirrell of CNBC argued that Mylan did not help change the current situation, noting, “It is an identical product and they are calling it an authorized generic. In this case Mylan still has the whole market of the generic and of the branded” (“EpiPen Makers Surprise Move,” 2016, 10:43).
For the average consumer of EpiPen, the economic frame focused more so on product affordability. During the news segments on Bresch’s Congressional hearing, the senators focused on how the medicine was kept out of reach of the average consumer such that Mylan could maximize profits at the expense of the consumers (“Congress Grills CEO,” 2016). One mother was worried about how she would be able to afford her son’s EpiPen over time if the prices continued to increase. As a result, she turned to a pharmacy that imported the medicine from Canada and could therefore offer a lower price (“Outrage over 400% EpiPen,” 2016). Additionally, Julie Brown, a University of Washington pediatric E.R. doctor, noted how the price increases have prevented the medicine from being available to those who need it, stating, “I’ve heard numerous stories of people who have actually chosen to go without an auto-injector at all because they simply couldn’t afford one” (“Congress Grills CEO,” 2016, 17:52). When the generic epinephrine auto-injectors were announced, concerns arose regarding both price and ease of use. Mylan’s generic cost $300, CVS’s generic cost $110, and Teva Pharmaceuticals had not yet announced its price. Some parents featured in these segments were worried about the generics being affordable and easy to use; one parent who was trained in using CVS’s generic did not find it easy to use and was not comfortable letting her child use it (“Cheaper Competitor to Costly EpiPen,” 2017). One reporter even worried that parents may stick to the brand they know rather than use the cheaper generic option, thereby defeating the affordability of the generics (“EpiPen Maker’s Surprise Move,” 2016).

**Attribution of responsibility**

Overall, insurance companies, drug makers, and pharmaceutical benefits managers blamed each other for high medication prices, each refusing to claim responsibility. For the EpiPen crisis, Bresch and Mylan Pharmaceuticals attempted to blame the overall healthcare industry. To defend the price increase, Mylan released a statement noting that the higher price “better reflects important product features and value the product provides” (“Outrage over 400% EpiPen,” 2016, 17:57). Instead, when interviewed, Bresch claimed the price hike was the result of too many middlemen demanding a part of the profits, stating, “The reality is in the brand pharmaceutical market this isn’t an EpiPen issue, this isn’t a Mylan issue, this is a healthcare issue” (“EpiPen Outrage,” 2016, 02:33). In this example, attribution of responsibility displaced blame to the healthcare industry as a whole and included Mylan as one of many actors impacted by larger problems in the industry.

The responsibility frame centered Congress and the President as agents to help solve the issue of rising medication prices. Congress was mentioned as focusing on price controls to benefit Americans, as many Congress members viewed the issue as price gouging and benefitting the pharmaceutical company and its executives over the American public (“Congress Grills CEO,” 2016; “Outrage over 400% EpiPen,” 2016) and discount coupons from Mylan were seen as a public relations stunt (“EpiPen Outrage,” 2016). Presidential solutions were mentioned in stories centered on the Republican-proposed national healthcare bill to replace the Affordable
Healthcare Act. The proposed solutions included allowing the government to negotiate lower prices. When price controls were brought up as a possible solution, Bresch said, “I hope not. I don’t think the answer is price controls. There are outliers grabbing headlines, but it is not the answer” (“Skyrocketing Costs,” 2016, 18:28). Solutions proposed for Big Pharma included hastening approval for generic drugs, justifying price increases, and approving imported medications. In early 2018, President Trump’s proposed healthcare plan aimed to rectify the issue by requiring DTC ads to include medication costs, banning the pharmacist gag rule, and providing companies with incentives to cut list prices and out-of-pocket costs.

Morality and human-interest frames

The morality and human-interest frames emerged when parts of the news stories emphasized that children use EpiPen most often. To do so, news segments introduced viewers to families who relied on EpiPen to make sure their children stay alive. For example, two of CBS Evening News’ stories followed a family with a young daughter, whose life was saved twice because of EpiPen. They describe what happened as she experienced anaphylactic shock, recalling, “her lips turned blue, she started swelling. She wasn’t able to breathe” (“Soaring Costs,” 2016a, 16:17). The parents said they often lived in fear wondering if their daughter had her EpiPen. One mother affected by the EpiPen price increase called EpiPen “a life-or-death medicine” (“Soaring Prices,” 2016, 10:58). She described the struggle of listening to her child go through anaphylactic shock and knowing that it is up to her (the parent) to administer the drug. All the parents interviewed did whatever they could to make sure their children stayed alive. This type of parental involvement also was reflected in the story about the EpiPen shortage. In this story, two mothers were interviewed about their difficulties trying to locate the medicine. One mother made clear the necessity of EpiPen, explaining, “You have to have it if you have a severe allergy” (“Critical EpiPen Shortage,” 2018, 16:31). Another mother expressed difficulty finding the medicine, “I started calling, and calling, and calling, and it didn’t matter who I called Walgreens, CVS, Tomthom, Albertson, nobody had it” (“Critical EpiPen Shortage,” 2018, 16:36).

Conflict and powerlessness frames

The conflict frame present in these news segments seemed to pit pharmaceutical companies and insurance companies against each other, where patients became the victims. In other words, the news segments that used these frames depicted the EpiPen price increase as something that individuals and families could not control and to which they could only react. They were smaller players in a larger competition between the pharmaceutical companies and the insurance companies. In one example, it was reported that insurance companies were dropping coverage of 200 common medications with the goal of forcing makers to stop the dramatic price increases. Even Cigna, an insurance company serving 86 million customers, announced it would stop covering EpiPen under its insurance plans. The individuals who rely on these medications were
left wondering how they would afford them in the battle between the insurance and pharmaceutical companies. Insurance companies stopped coverage of medications, including EpiPen, to encourage pharmaceutical companies to stop dramatic price increases (“Hundreds of Prescriptions,” 2016). Additionally, high deductible insurance plans were emphasized meaning patients would be covering more of the cost for the medicine than in other types of plans (“Soaring Prices,” 2016).

Although many stories depicted the patient or family as powerless in the larger conflict between insurers and Big Pharma, other stories instead focused on ways patients derived power in an unfair situation. These stories focused on laws and policies that affected patients’ access to medications and the potential for direct action. For example, one such story focused on the gag clause, which prevented pharmacists from telling patients if they were paying the lowest price for a medication (“New Law Allows,” 2018). This story advised patients to circumvent the gag clause by directly asking pharmacists about the lowest possible price for a given medicine. Later stories reported on a new law, signed by President Trump, banning the pharmaceutical gag clause (“New Law Allows,” 2018). Additionally, stories on medication prices educated patients on ways to help cut the cost of their medicines by using manufacturer coupons and shopping around at different pharmacies (“Finding the Cheapest Prices,” 2017). Overall, in these stories, patients were depicted as largely powerless against the pricing conflict between pharmaceutical companies and insurance companies, though some of the information provided (such as the gag clause, manufacturer coupons, and going to different pharmacies) did give patients a potential sense of power in a situation they could not otherwise control.
Table 1

Frequency of Frames and Frame Characteristics in EpiPen Coverage on ABC, CBS, and NBC

<table>
<thead>
<tr>
<th>Frame identified</th>
<th>Topic identified within frame</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
<td>Profits and losses for Mylan</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Cost and affordability for families</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>9</td>
</tr>
<tr>
<td>Attribution of responsibility</td>
<td>Health care industry (e.g., Mylan, benefits managers)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>The government and policymakers</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>8</td>
</tr>
<tr>
<td>Morality/Human interest</td>
<td>Children and families who use EpiPen</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4</td>
</tr>
<tr>
<td>Conflict/Powerlessness</td>
<td>Patient as victim (result of pharma versus insurance; pharmaceutical company/manufacturer error)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Patient as powerful (if they do X)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>9</td>
</tr>
</tbody>
</table>

Discussion

Although this study of pharmaceutical medication pricing was exploratory in nature, the findings contribute to understandings of how crises are framed by the media. Understanding the frames used can provide an avenue for understanding how audiences are led to think about an issue, which can then serve as a potential catalyst for change. This study deployed previously determined news frames from Neumann et al. (1992) and Semetko and Valkenburg (2000). Using frames from these previous studies provided further confirmation regarding the longevity of the frames and allowed for greater understanding of a topic that has not been widely studied. Therefore, the results reflect how audiences are led to think about the issue of EpiPen pricing; how the public understand the issue can serve as a catalyst for change through the work of public interest communicators.

This study has impacts for framing theory, public interest communications, and crisis communications. Regarding the EpiPen price increase, the news media used all the common news frames: economic, attribution of responsibility, morality/human interest, and conflict/powerlessness. The economic frame appeared most often. The crisis was mainly attributed to problems with the U.S. healthcare system in general; specifically, pharmaceutical prices have gone unregulated by the government, which leaves pharmaceutical companies to
make their own pricing decisions. Therefore, the media framing situated Bresch and pharmaceutical company greed as the main actors responsible for the price increase.

Additionally, the EpiPen price increase was framed using both episodic and thematic frames (Iyengar, 1991). Episodically, news coverage focused on specific families and children affected and Bresch. The episodic coverage also focused on the economic impact for the families involved. Thematically, news coverage situated the price increase at both societal and government levels. At the societal level the coverage highlighted affected families, and at the government level coverage included governmental hearings, laws, and other governmental limitations and ideas that impacted the crisis. In terms of finding solutions for the price increase, coverage showed that many families were powerless to the whims of their insurance companies. Even individual-level solutions (e.g., using manufacturer coupons or rebates) were construed as insufficient solutions in the long term. Therefore, the government was depicted as having to step in and find long-term solutions for the pricing crisis. The news coverage indicated that many of the potential government-level solutions, including those discussed by President Trump, have not been implemented, which could lead to future price increases. However, some government-level solutions (e.g., reversing the pharmacist gag rule) have helped patients affected by the price increase.

Implications

The results of the current study support findings from previous literature. As with the EpiPen crisis, medication price increases are likely to be covered in news (Tanner, 2004) because there is a large audience interest. EpiPen constitutes 87% of all prescribed epinephrine auto-injectors, totaling approximately 3.6 million kits (“Soaring Prices,” 2016), though generic auto-injectors are gaining in popularity (“Epinephrine Usage Summary for 2018,” n.d.; Mangan, 2017). Additionally, humanizing the EpiPen story is possible because of the large number of children and families who use the product and are affected by the price increase. The results also support previous work indicating that the economic frame is often used by large news organizations to report health news and that the human interest and morality frames are used less frequently (Wallington et al., 2010).

Drake and Uhlman (1993) described how, when generic versions of a medication are put on the market, the company that owns the brand name medication will raise prices of its medicine to make up for lost market share, but the EpiPen price increase does not seem to follow this trend. Specifically, Mylan introduced its own generic version at a lower cost because of its brand name’s increased price. Additionally, the news stories, which discussed the generic versions of the epinephrine auto-injectors, expressed concern that the generic versions of the medication would not help the situation because parents often chose to continue with the brand name with which they were familiar.
In terms of medication pricing issues overall in the United States, the stories that aired during the EpiPen coverage indicate that there was a larger competition at play between the pharmaceutical companies and insurance companies, which had negative implications for the patients involved. Legislative wins such as the ban on the pharmacist gag rule worked in the favor of patients, so parents especially could afford their children’s medications. Additionally, in terms of ways of coping with rising costs for EpiPen (Leopold et al., 2016), patients often went without the medication, again putting the child patient’s life at risk. Previous scholarship (Kim et al., 2011; Shoemaker & Reese, 1991; Tanner & Friedman, 2011) indicates news coverage of a topic does not always equate to the gravity of the issue. The coverage of the EpiPen price increase fits this description especially considering the small amount of evening news coverage it received. Journalists covered the EpiPen crisis heavily in August 2016 and then only sporadically until November 2018.

Although the economic frame was prominent in the news coverage, the moral focus of the pricing increase could potentially have had more influence on how the public and policymakers viewed this issue, therefore setting the agenda for how pharmaceutical pricing was handled. The moral and human-interest focus was not necessarily a main frame of each story. Instead, the moral and human-interest frames were added by comments parents made in interviews and the statements from Senators in the Congressional hearings. Morality was also apparent through the mentions that children were the primary consumers of EpiPen. Focusing on children in these stories, and the idea that medication should not be kept from innocent children whose lives are put at risk if that occurs, is a prime example of moral values in these news stories. The economic framing of the EpiPen could indicate that the journalists were aiming to make citizens and policymakers more aware of high medication prices and their effects, possibly to help create policy change around the issue. In this way, public interest communicators can use the coverage of this issue to build on sentiment created through the framing choices made by news organizations to create what Coffman (2002) calls a public will campaign aimed at mobilizing public action for policy change.

Pharmaceutical prices in the United States have been a focus of presidential administrations since President Clinton’s healthcare reform bill that attempted but failed to make change in the pharmaceutical industry (Fritz, 1993). Ultimately, not much has been accomplished to help make medications more affordable and the pharmaceutical industry remains largely unchecked. We are reminded of this when events such as the EpiPen price hike become part of the news cycle. Framing makes current issues more salient to audiences and provides a toolkit for thinking about such issues. Understanding the frames used and the solutions presented in the news coverage is an important starting point for activists and communicators looking to create long-term policy change as well as campaigns to educate patients and families. Though pricing models appear difficult to control, a continuous campaign might focus on long-term institutional change while also pushing for smaller-scale behavioral changes among individual consumers.
Limitations

This study set out to describe the frames journalists used when reporting on the EpiPen price increase. This study is exploratory in nature and focused on the framing of one specific instance of a much larger topic. Therefore, results are only specific to the EpiPen price increase and are not generalizable to other medication price increases or related topics. Choosing to focus on the EpiPen price increase allows for a better understanding of this specific case and provides greater insight into an issue not often discussed in the public discourse. Other limitations of this study are related to the make-up of the sample. The final sample \((n = 30)\) included video news clips from three different major-network evening news programs. Many of the videos included in the sample came from NBC’s *Nightly News with Lester Holt*. Though CBS and ABC are also represented in the sample, there is unequal representation; this may be attributed to CBS and ABC’s relative lack of coverage of the EpiPen pricing issue and related stories on medication pricing. Additionally, the sample size is small but indicative of the nature of television news in general. Evening news programs are typically 30 minutes in length with one space for commercials; actual news reporting time is about 22 minutes (Hallin, n.d.; “Press Coverage of the News,” n.d.; Thoman, n.d.). Stories are often reported in less than 45 seconds to allow for coverage of a variety of topics (“Press Coverage of the News,” n.d.). Due to news values (Zajechowski, n.d.) and EpiPen’s possibly being deemed less newsworthy by the reporters, producers, and others at the networks, its coverage may have been cut in favor of other news events especially after it was covered at length during the end of August 2016.

Future research

Due to the limited focus of this study, more research in pharmaceutical price increases is needed. One area of potential further inquiry is an analysis of the real effects that the frames found in stories such as the EpiPen coverage have on how citizens and policymakers respond to current issues (Kim et al., 2002; Scheufele & Tewksbury, 2007). The EpiPen price increase is just one example of medication price increases in the United States. Future research could explore price increases of other medications beyond the scope of the current study, such as insulin and Turing Pharmaceuticals’ Deraphrim. An additional area of inquiry could focus on differences in reporting about various medication price increases. Such inquiry could provide more consistent evidence about the frames journalists use while reporting on this topic.

As mentioned, the sample in this study was limited to three networks’ evening news shows. Other studies could focus on other networks (such as CNN, Fox, and MSNBC) and how framing choices shift with the political leanings and audiences of various television news networks. Future studies also might consider morning television news shows, which typically air for longer periods and can cover news events from many different angles. It is possible that morning news shows framed the EpiPen price increase in other ways or focused on different characteristics of
the crisis, such as potential solutions. Additional inquiry also could focus on print news coverage of the topic, which may have framed the coverage differently. These areas of inquiry would build on the foundation provided by this study and could offer other valuable insights on pharmaceutical companies and the healthcare industry.

Finally, future research is necessary to explore how demographic variables such as race play into the topic of medication price increases. In all the segments included in the sample, the patients and families interviewed appeared to be Caucasian, though the impacts of medication price increases are not limited to this racial group. It is necessary to understand how such issues affect minority groups and to further investigate why minority groups were not present in these stories.

Conclusion

The effort to control the cost of pharmaceutical prescriptions has been an important topic to patients, politicians, insurance companies, and other healthcare players for decades, from the Clinton administration to the Trump administration and beyond. Television news media have been critical for the discussion of these healthcare topics. This framing study explored the evening news coverage in the United States about the 2016 EpiPen price increase and shortage crisis. Analysis revealed four common frames: economic, attribution of responsibility, morality and human interest, and conflict and powerlessness. The most common frames for this news event were economic and attribution of responsibility. Frames of human interest and morality were more common among the people interviewed. Other news segments highlighted the conflict and powerlessness frames of medication pricing coverage, showing patients and families as victims in this situation while also providing potential suggestions to take control of the situation.

Reporting this news event mainly from the economic frame can affect how policymakers and the public understand the issue and choose to solve it. Framing the topic in such a way allows news outlets to take part in a larger conversation about the nature of healthcare and how it helps and hurts patients. By bringing up this topic in the news, the media are act as the fourth estate and raise awareness about the issue of medication prices in the United States. Doing this potentially allows for a public will campaign that can mobilize for policy change regarding pharmaceutical companies and medication prices that can make medications more accessible and benefit healthcare for all. The EpiPen price increase is just one example in a growing trend of pharmaceutical price increases that have major implications for healthcare in the United States. Considering news framing on these topics is important for individuals looking to create change in this area, whether it is in policy change or educational campaigns for patients. Understanding how people in the United States are taught to think about the issue of medication pricing can help to create change so that medications, especially those that are critical and potentially lifesaving, are accessible for all.
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Appendix

Coding Sheet

1. Item ID (also include link to the source for the episode in Internet Archive)
2. Network (ABC, CBS, NBC)
3. Date of broadcast (MM/DD/YYYY)
4. Reporter name
5. Graphic elements included in the clips
   a. Graph (Describe)
   b. Illustration (Describe)
   c. Pull Quote (Describe)
   d. Other (Describe)
6. Lead of news segment
7. Overview/Summary of news story
8. Rising medication prices mentioned? Y/N
   a. How?
9. EpiPen mentioned? Y/N
   a. How?
10. Sources used in story and direct quotes from the segment (e.g., a parent, a doctor, etc.)
11. Framing category/Type used—Choose from below definitions:
   a. Economic frames discuss profits and losses or how an event will economically affect individuals, groups, organizations, regions, or even countries (Neuman et al., 1992)
   b. Attribution of responsibility frame is defined as attributing causing or solving an event or issue to a government, individual, or group, was most used in national print and television news (Semetko & Valkenburg, 2000)
   c. The moral frame makes indirect references to religious tenets or moral guidelines (Neuman et al., 1992)
   d. The human impact frame focuses on individuals and groups affected, providing a face and emotional angle to the topic (Neuman et al., 1992)
   e. Conflict frame emphasizes problems among people, organizations, or countries but can also be used to establish a sort of contest with winners and losers (Neuman et al., 1992)
   f. The powerlessness frame looks at the dominant forces over less empowered individuals or groups (Neuman et al., 1992)
12. Why did you choose the frame you did? Explain reasoning, provide quotes that illustrate the frame chosen.