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Indirect audiences and conflicting narratives about oral contraception: Emergent coverage of "the pill" in *The New York Times*, 1951–1965

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Abstract

When the first oral contraceptive pill was approved in the United States in 1960, scientific information for potential users was scant. Newspapers were one of the few sources of lay pill-related content. This study offers a critical-rhetorical analysis of the earliest *New York Times* coverage of the oral contraceptive pill ($N = 292$), to assess how audiences were guided to understand and interpret this new technology. Findings reveal that, of the major news genres represented (e.g. stock, religion, and science reports), all provided indirect information about the pill for potential consumers, with conflicting news-genre-specific narratives highlighting the pill's: (a) volatility and unpredictability, (b), divisiveness and complexity, and (c) placement within the trajectory of scientific progress, respectively. Lay people interested in using the pill were not primary audiences for this coverage but were, instead, unintended or secondary audiences, and evidence of women's thoughts or professional opinions about the pill were rarely included.

Keywords

gender and science, health communication, public understanding of science, rhetoric of science and technology, science journalism

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When oral contraceptive pills first went on the market in the United States in 1960, there was sparse information available to those considering taking the pills themselves. Media's obscenity laws and norms of propriety kept the subject on the periphery in much coverage (Bailey, 2010). Direct-to-consumer advertising for pharmaceuticals was illegal, although early birth-control firms engaged in public-relations campaigns to position their brand names and products before consumers tacitly (Greene and Herzberg, 2010). In theory, individuals could obtain scientific information about what came-to-be-known simply as "the pill" from physicians (May, 2010: 2), but this required an often costly and time-consuming medical visit. It also required that physicians themselves were knowledgeable about the latest findings and clinical recommendations, and that they were willing to discuss—let alone prescribe—the pill in consultation (Cornish et al., 1963). Research suggests that, in fact, many physicians at the time were not willing to discuss oral contraception with patients, and that the general lack of scientifically accurate information about the pill for potential users was part of the impetus behind the Boston Women's Health Book Collective's decision to publish *Our Bodies, Ourselves* in 1970 (Hayden, 1997). Moreover, not until 1965 did the US Supreme Court rule that married women could not be denied contraceptive care, and not until 1972 did it rule similarly for unmarried women, which meant that clinical contraceptive-care discussions and even mainstream discourses during this era were limited and often legally fraught (Appleton, 2016).

To date, many popular accounts of the pill's development and US Food and Drug Administration (FDA) approval have touted the freedom and reproductive agency it seemed to offer women (Watkins, 1998). But what these accounts have not considered as closely is the information-gathering processes that lay people needed to undergo in deciding if the pill was something they could—or should—take; especially as concerns about the pill's safety and relationship to thromboembolic disease, cancer risk, and cancer protection emerged in the first years of its availability (Lackie and Fairchild, 2016). In this context, trusted national newspapers, such as *The New York Times*, were sources that many turned to because, first, they were widely available and embedded in civic culture. Second, although they were subject to the same censorship and propriety restrictions of other media sources, their mission to cover the gambit of politically and culturally relevant topics meant that information about controversial issues were nonetheless covered in one form or another (see, for instance, Krall, 2023; Soderlund, 2002).

Despite the role *The Times* and other newspapers played at this pivotal moment in reproductive history, information about how the pill was discussed and characterized by *The Times* has yet to be fully explored. This study offers a critical-rhetorical analysis of the 292 earliest *Times* articles covering the pill, spanning from 1951—when the pill was under development and merely speculative—to 1965—when 27% of all US women reported using the pill and an associated "revolution in contraception" was well underway (Watkins, 2016: 48; Westoff and Westoff, 1968: 64). We find that, of the three major news genre categories represented, including stock reports, religious articles, and science coverage, three distinct and often conflicting narratives about the pill emerged related to the pill's: (a) volatility and unpredictability, (b) divisiveness and complexity, and (c) placement within the trajectory of scientific progress, respectively. The conflict among these narratives likely had a great deal to do with the fact that pill users were not the primary intended audience. Readers interested in learning about the pill from these articles would have done so from the position of indirect audiences, garnering bits and pieces of insight that was either not intended for them at all or coded for them as secondary readers.

Ultimately, we argue that this identified legacy of indirect, misaligned communication about oral contraception specifically, and reproductive technology more generally, lives on in the present day as access to direct, targeted, and scientifically grounded educational information about sex has long been inadequate and is now in decline still more (Adler et al., 2023; Lindberg and Kantor,

2022). In what follows, we review literature on the pill and its early media coverage, before identifying the study's methodology and research design. Then, we delineate the study's findings in light of the three major news genres reporting on the pill during this period, the three conflicting narratives of the pill that those genres put forward indirectly for potential pill users, and the gender representation of journalists, article sources, and experiential accounts. Finally, we consider the implications of our findings concerning historical public understandings of reproductive health and science, and the contemporary need for targeted, comprehensive, and scientifically accurate narratives in sexual- and reproductive-health education and mainstream news media.

1. The pill, information-seeking, and early media coverage

Before the oral contraceptive pill became available in the United States, contraceptive technology was limited primarily to condoms, diaphragms, spermicides, and—to a lesser extent—the rhythm-method (Tone, 2002). Each of these had to be employed at the time of intercourse and were discussed in US mainstream newspapers primarily in light of associated social controversies rather than the details of use (Garner, 2015). The pill distinguished itself by promising a uniquely female-controlled technology of contraception—albeit one requiring a medical doctor's prescription (Bailey, 1997)—that did not have to be used immediately before sex but, instead, was to be taken orally for a series of days. The synthetic hormone progestin in Enovid, the first approved version of the pill for contraceptive purposes, suppressed ovulation and thereby prevented conception. Large-scale human trials for the pill began in 1956 in Puerto Rico. Research by Ramíez de Arellano and Seipp (1983) has since called into question the ethicality and scientific accuracy of said trials as participants were vulnerable and impoverished, did not receive complete information about potential health risks, and were largely dismissed when they reported side effects. Ultimately, the decision to write-off participant reports as either psychosomatic or negligible contributed to the pill's connection to cases of thromboembolic disease and associated deaths beginning in the 1960s (Gordon, 2007). In this context, even the most informed accounts of the pill featured in scientific, medical journals at this time were inaccurate to a certain degree, and mainstream accounts were, likely, even more so.

Throughout this period, birth-control activist Margaret Sanger worked to circulate so-called scientific information about contraception as a form of "family planning," using media ranging from magazines and newspapers to radio and film to do so (Parry, 2013; Watkins, 1998: 19). She channeled the era's zeitgeist celebrating scientific progress and the possibilities of preventive, daily pharmaceuticals (Watkins, 2016: 43–46), successfully lobbying for the development of the pill by identifying funders to support the research necessary to bring it to fruition (Huss and Dwight, 2018). Sanger came to believe that the eugenic reasoning and associated logics of racial, ethnic, and class hierarchy, as well as concerns about a perceived world population problem, would drive support for the pill in ways that appeals to women's sexual and reproductive agency would not. The information she dispersed was steeped in said logics, all the while invoking contraception and "family planning" methods generally, rather than the pill and its use specifically (Watkins, 1998: 40). In this respect, as much as Sanger was interested in pill development, her efforts did not emphasize public education or individual information-seeking concerning the pill.

By contrast and as the trials in Puerto Rico unfolded, some coverage of the pill did start to emerge in US mainstream media where it could be more readily accessed by lay readers. Existing research offers insight into this coverage's content. Both Watkins (1998) and Flamiano (2000) found that women's magazines published sometimes detailed coverage discussing the pill. Their work suggests that several early articles published in *Good Housekeeping, Ebony*, and *Mademoiselle* were some of the first sources of direct reproductive-health news in mainstream US media, and that these stories were "noteworthy" for their "scientific and factual focus" (Flamiano, 2000: 81).

It should be noted that mid-century women's magazines would not have reached the broader audience for those interested in pill use, especially because early-to-mid twentieth-century men—who often had greater access than women to information about sex and tended to be more at-ease discussing sexual issues, particularly as this talk aligned with social understandings of masculinity—often considered themselves responsible for learning about contraception, and many women reported leaving it to them to find and assess contraceptive information (Fisher, 2006; Fisher and Szreter, 2003).

By the turn into the 1960s, research demonstrates that mainstream, national newspapers were a broadly available source of information about the pill, even if they did not bill themselves as such. Garner and Michel (2016) found that, in 1959—just one year before the pill was approved by the FDA—national, US newspapers regularly reported on contraception in general, if not on the pill specifically. These articles were not focused overtly on scientific reporting or health and risk recommendations. Instead, these articles offered content that assumed the widespread use of birth control, considered the morality of contraception in terms of religious doctrine, and justified discussions of contraception in light of a perceived world population crisis. In a study focused on the pill specifically, Kruvand (2012) provided a comparative, mixed-method overview of coverage of the pill in *The New York Times* from 1960 to 2010. Findings revealed that, during the 1960s specifically, religious officials were the most common source type, women sources were almost nonexistent, and—across some articles—a news frame or theme related to scientific progress was prevalent. In a related study, Ortiz-Gómez and Ignaciuk (2015) found that coverage of the pill in Spanish daily newspapers during the 1960s and 1970s also featured primarily religious figures and male doctors as sources, and that coverage was more heterogeneous and positive than might be expected under the government's regime.

This research demonstrates that coverage in the early days of the pill's development and approval did—indeed—run in mainstream newspapers, and not just in the United States, and that there were several common tropes related to almost-exclusively male sources and religious accounts featured therein. In this way, it offers a foundation for tracing the larger narratives and associated content communicated in mainstream newspapers at this time about the pill, particularly through the lens of lay readers who may have been looking for scientific information about the pill for their own use. Moreover, this scholarship invites analysis of the specific news genres through which early information about the pill was featured in mainstream news coverage, particularly in light of the perspective that Hopwood et al. (2015) champion that the "practices of communication" (as implicated in particular genres, media, and "narratives that plot human action in space and time") must be central to the study of reproductive health and history (pp. 380, 390). Given that "health" was not yet a recognized genre or beat in such outlets at mid-century and even science coverage was still coming into its own, insight into which types of news genres tended to cover the pill—and how—is needed to help illuminate the targeted primary audiences for this news and why specific information about the pill (such as its scientific validity or risk profile) was included or not. Research demonstrates that the genre in which news is reported plays a major role in the characterization of the issues under discussion, the degree to which scientific information is featured, and the consistency of narratives across and between coverage (Clark and Illman, 2006; Leiva and Kimber, 2022).

In light of this research, this study posits the following research questions:

RQ1: What were the major news genres represented by articles discussing the pill in *The New York Times* from 1951 to 1965?

RQ2: What specific narratives and types of information did coverage provide about the pill for potential users?

2. Method

Data collection

Data collection involved a systematic search through the ProQuest Historical Newspapers: The New York Times database. *The New York Times* was analyzed because it has been considered the country's "newspaper of record" for the last century and a half (*Encyclopaedia Brittanica*, 2025). Following a review of historical analyses of this topic and time period, initial keywords were identified and included: oral contraceptive, hormonal contraceptive, the pill, birth control pill, birth prevention, and family planning. Each author searched a 5-year period from January 1, 1945, to December 31, 1965, for these terms, with two overlapping years that all four authors coded to establish validity.

Following this initial sweep of the database, validity checks among authors and time-periods, and review of identified articles' content, we identified additional keywords to ensure that no appropriate articles were excluded. We added the following terms and returned to the database to search for those keywords: chemical birth control, oral birth control, artificial birth control, artificial birth prevention, and contraceptive control. After reviewing the collected articles, we removed articles that did not explicitly reference hormonal contraceptives, meaning articles discussing only birth control or family planning in general were removed.

In total, we identified 292 articles that fit the inclusion criteria. Roughly 6% of the sample (18 articles) was from the 1950s and preceded regulatory approval of oral contraceptives in 1960, while 94% of the sample (274 articles) was from 1960 to 1965.

News genre analysis

We categorized each article in terms of publication date and the central news genre it represented. We defined and operationalized specific news genres by drawing from Van Leeuwen's (2008) delineation involving "texts and communicative events" understood as "pieces of interaction that create specific kinds of relations between their interactants, and fulfil specific communicative functions," and considering the primary inquiry of each article (p. 346). We used this guide to code organically for specific news genres represented in the sample, which included: stock reports (e.g. financial analyst reports for companies and investors), religious coverage (e.g. articles that focused first and foremost on religious issues), science-oriented articles (e.g. coverage featuring scientific investigation as the primary emphasis), domestic political news, and international political news. We then focused on articles representing the top three news genres including: stock reports, religious coverage, and science-oriented articles.

Specific news genres have historically been gendered in terms of their authors and representations, with, for instance, financial news written by and targeting men almost exclusively, and domestic news targeting, and more likely to be written by, women (Golia, 2016; Greenwald, 1990). In light of research demonstrating that journalists' gender can be related to potential gender bias in reporting, as well as the degree to which scientific information is incorporated (Leiva and Kimber, 2022; Rodgers and Zhang, 2006), we also coded each article for whether there was a named author and, if so, whether the name seemed male-presenting or female-presenting according to mid-twentieth-century US social norms, largely following Huber's (2023: 1026) method but with a distinct historical sensibility. We noted, too, whether articles referenced a female-presenting source in the article or otherwise discussed women substantively as these markers reveal who and what is denoted as central to the scientific conversation at hand (Conrad, 1999).

Critical rhetorical analysis

We employed a critical-rhetoric analytic lens to investigate articles representing the top three news-genre categories. A critical-rhetoric orientation entails the identification and categorization of relevant rhetorical "fragments" (in this case, early *Times* articles discussing the oral contraceptive pill) representative of the central questions and overarching discourses at the core of the inquiry (McGee, 1990: 279; McKerrow, 1989). Our core inquiry in this study was to assess how early *Times* articles characterized and narrated the oral contraceptive pill. We worked iteratively across articles in each news genre category searching for patterns related to types of information (i.e. scientific, cultural, moral), content themes, rhetorical figures, and—most importantly—overarching narratives about the pill, pill users, the pill's relationship to scientific information and inquiry, and other pill-oriented topoi. We also engaged in an ongoing comparative process between this analytical work and the findings that emerged through the news-genre analysis to consider patterns related to intended audience, potential secondary or unintended audiences, and direct versus indirect information about the pill.

3. Analysis

Three major news genres emerged in our analysis related to the stock market, religion, and science. In the following sections, we consider how articles reported in these specific genres narrated the pill and what sorts of information they provided lay readers interested in using the pill themselves.

Stock reports: The pill as volatile and unpredictable

Over 40% ($n = 124$) of the articles in this sample were stock reports, with a primary focus on stock market performance and an intended audience of investors and businesspeople. Science was discussed in this category only obliquely in terms of, for instance, predictions about how an ongoing empirical study's outcome might affect regulation or consumer action. The first stock report mentioning the pill in *The Times* was not published until 1962, two years after the FDA approved the pill as a contraceptive (and in time for associated stocks to make their mark on the financial scene). What this means is that, while stock reports were not the first news genre discussing the pill, several years into the pill's introduction into US mainstream discourse, stock reports, largely devoid of scientific framing, were the most common mechanism for communicating about the pill in this context. What readers learned about the pill from these articles—notably that the pill itself was volatile, unpredictable, and in-need of definition—had much to do with the genre and style of stock reports at the time. Such reports tended to include additional information about the products and consumers represented by referencing specific stocks, targeting male corporate-elite audiences, and featuring male authors and sources almost exclusively (Islam, 2002; Leiva and Kimber, 2022).

The earliest *Times* stock reports discussing the pill mirrored the language and style of other such reports published in news outlets more broadly. In our sample, all of the bylines suggested a male or unspecified author, though there was one exception in 1964, when the byline was "Elizabeth M. Fowler" (Fowler, 1964: F10). Notably, Fowler's report alone focused on "leisure shares" (e.g. stocks associated with leisure products and services related to recreation) about which, as one interviewed analyst noted, "'nobody cares'" (p. F10). None of the sources cited were women and none of the content spoke to women's experiences or expertise substantively. As in other stock reports published in *The Times*, the stock reports in our sample included a competitive characterization of the exchange wherein companies and investors were pitted against each other. Speculation

about future earnings was central, including estimates about how the "market for oral contraceptives this year would reach $40 million at the manufacturers level" (Bedingfield, 1964: 43). Of secondary concern in these articles were the products, services, and consumers represented by stocks, as an article from early 1964 elucidates: "Much of the market strength in Searle, *incidentally*, comes from its sales of Enovid, a birth-control pill" (Vartan, 1964: 43 [emphasis added]). Journalists assumed that readers did not consume these articles to learn about the pill but that they might find it helpful to acquire information about the pill (and related scientific findings) in passing for use in navigating the market.

The language employed in stock reports of the pill was largely normative in terms of references to stocks' economic movement, with frequent climbs, summits, tumbles, drops, gains, slips, and slides. However, the pill's coverage was uniquely focused on the product's volatility and instability, and readers were led via this characterization to associate volatility and unpredictability with the stocks at hand, and with associated products and intended users. Any stock "even remotely connected with oral contraceptives" (Metz, 1963: 62), was labeled not just a "volatile stock" but *the* most volatile stock (Nuccio, 1964: 32). Syntex, which produced steroids used in the pill, was described as "gyrating wildly on the American Stock Exchange" (Kennedy, 1964: 35), a suggestive verb traded out in other reports for rocketing, flurrying, and swinging spectacularly. Pill-related stocks were characterized as breaking records, serving, at one point, the "largest daily advance ever made by a stock on the exchange" (Hammer, 1965: 59) and requiring special intervention when "trading in Syntex shares became so hectic early last year that the American exchange set up a separate post on its floor to handle the activity" (*New York Times*, 1965a: 116). Rapid price fluctuations for stocks associated with the pill were represented as mysterious or a "wonder" (Vartan, 1963a: F8), rather than something that could be anticipated. The underlying message was that such stocks (and associated products and consumers) did not follow expected patterns of activity and were therefore especially risky for investors.

The tendency toward discussion of speculation and even rumor in stock reports took—in the context of the pill—a stereotypically gendered and romance-oriented turn, wherein "Rumor-Prone Stocks" (*New York Times*, 1965a: 116) were characterized as "'an attractive speculative commitment" (Vartan, 1963b: 39) promising "fireworks" (*New York Times*, 1964a: 30). The stocks themselves, and by proxy their products and intended consumers, were characterized as "hot" (Fowler, 1964: F10), and the subject of "'scads' of rumors" (Smith, 1963: 56). Unnamed sources provided speculative insight, such as an aside that "a source familiar with the research activities at G. D. Searle was skeptical of a pill that would allow predictable ovulation cycles" (Metz, 1964: 53), suggesting false promises and unsavory, surreptitious dealings. These portrayals played into stereotypes about contraception in general as a less-than-wholesome, unpredictable product category.

But regardless of the sensationalized tone exhibited in some articles, more than half of the articles nevertheless provided additional definitional information about the pill that offered readers basic insight into oral contraceptives. These articles recognized the need all readers had for information concerning this newly developed technology, and some provided details that would have been useful specifically for potential users, albeit without tying those details explicitly to scientific evidence. One of the earliest articles explained,

> It was not revealed whether a prescription would be necessary to buy the pill. It will be the second antipregnancy pill available to the public. More than a year ago a similar product, Enovid, was marketed by G.D. Searle & Co. of Chicago. (*New York Times*, 1962b: 50)

Later, when a new type of pill was released, several articles noted what made this oral contraceptive unique, explaining it:

> will be available for prescription by physicians within a few days. Mead Johnson said the new product is the first sequential oral contraceptive to be marketed in the United States . . . a white tablet containing an estrogen is taken for 16 days and a pink tablet containing estrogen and a progestogen is then taken for five days. (*New York Times*, 1965b: 28)

Although articles buried these notes in the content of reports, readers could find some substantive information about how to take the pill there.

Some articles referenced the regulatory process and emergent concerns about potential benefits and risks of pill use. These pieces attributed stocks' shifts in valuation to impending FDA approval of a given pill or the release of associated medical reports or endorsements. Discussions of impending regulatory approval included assurances of the products' safety, wherein it was claimed,

> A new oral contraceptive pill has been declared safe by Government officials, an official of the Ortho Pharmaceutical Corporation of near-by Raritan said today. The official said that the Food and Drug Administration had sanctioned the sale of the synthetic hormone called norethindrone. (*New York Times*, 1962b: 50)

Drops in price were also explained in terms of safety concerns. One article noted that a stock decline "came on the heels of a report that physicians in England had questioned whether an oral contraceptive pill might be associated with potentially fatal blood clots in women who become pregnant at a later date" (Rutter, 1962: 26). This discussion of the medical reception of the pill was warranted in these articles by related shifts in stock prices. The reports did not provide a complete scientific or medical overview of oral contraceptives. They did, however, provide secondary readers with heuristics about what to look for if they were to consider pills for their own use, though they made this offering in the context of reports that also framed pill-related stocks as volatile and unpredictable and that spoke to male businesspersons. In this respect, they offered readers an imperfect starting point for deciphering the pill as an emergent technology that was probably not appropriate and safe for personal use.

Religious coverage: The pill as divisive and complex

Slightly over 15% ($n=45$) of the earliest *Times* coverage of the pill was represented by religious coverage, which appealed to science only minimally. Although there were fewer articles associated with this news genre, religious coverage was more likely to be long-form, covering multiple pages of in-depth text, and spanning almost the entirety of the time period explored (1954 to 1965). Primarily, religious coverage focused on Catholicism, though Protestantism and Judaism were discussed as well. In terms of form and content, religion-oriented articles represented the pill as divisive and complex or confusing, but also as related to women's experiences and expertise. Religious coverage was the only category that substantively featured women's first-person accounts or recognized their personal or professional knowledge as related to the pill. In total, six articles mentioned women's experiences or perspectives, two women were cited as expert sources, and two articles were written by female journalists.

Religious coverage highlighted the divisive, controversial nature of the pill. Titles highlighted the "Foes of Birth Control" (*New York Times*, 1964d: 5), and how there was a "Debate to Be Pressed" (Doty, 1964: 1) and "an opposition view . . . expressed" (*New York Times*, 1964b: 8). Disagreement provided the central action in articles, with emphasis on tensions between Planned Parenthood and the Catholic Church, Protestantism or Judaism and the Catholic Church, and different actors within the Catholic Church. One article declared, characteristically, "The birth control

problem will remain a divisive factor in Roman Catholic-Jewish relations for some time to come" (Dugan, 1965: 32), and another juxtaposed the "traditional Vatican view" that "abstinence is the only legitimate method of avoiding conception" with the idea that abstinence itself can be harmful in marriage and, therefore, projecting that "a completely harmless tablet or injection will be developed" to solve this dilemma once and for all (*New York Times*, 1954: 14).

Although rifts between parties were identified across articles, the specific points of disagreement were characterized as complex and difficult to ascertain. While interpreting an argument between John Rock (a Catholic doctor and renowned reproductive health specialist who played an active role in the development of the pill and authored a highly publicized and controversial mainstream book endorsing the pill in 1963; Marsh and Ronner, 2008) and Rock's Bishop, one author observed:

> It is an intellectual adventure to discover, indeed, that the words used by Dr. Rock's Bishop—Richard Cardinal Cushing, Archbishop of Boston—in describing Dr. Rock's book are interpreted by [Rock's] severest critics as condemnation and by his strongest supporters as a commendation. (Barrett, 1963a: 12)

In another article, "a Washington psychiatrist" and "member of the special papal commission studying birth control" demanded clarification about terms before considering the propriety of oral contraceptives, noting, "'For example, there is no agreement between physicians and theologians on definitions of sterilization, nature and contraception. These terms need definition before we really can begin to understand'" (Cogley, 1965: 42).

The pill was repeatedly characterized as not just divisive but also inherently puzzling. A number of diverse actors were described as "confused" or "uncertain" about the pill as it tested the limits of Catholic doctrine. These accounts of complexity and associated confusion were furthered by attempts by medical experts to reconcile religious doctrine with the pill's biochemical actions. To support his claim that the "oral pill" would ultimately "be accepted by the Catholic Church," Rock was said to contend that the pill:

> prevents reproduction by changing the time sequences in the body's functions. The rhythm method [sanctioned by the Church] depends on the secretion of progesterone from the ovary. The pill duplicates this action. Therefore, he argues, the physiology in the rhythm technique is identical to that brought about by the steroid compound. (*New York Times*, 1963: 6)

Other articles simplified what was essentially Rock's religious reclamation of science (Taragin-Zeller et al., 2024), by explaining, "some theologians assert that the contraceptive pills do not sterilize but only postpone ovulation, thus producing a safe period similar to the natural one. Thus, it cannot be considered an artificial contraceptive, they contend" (*New York Times*, 1964e: 3), and still others decried the pill as a contraceptive but complicated this ruling with the caveat that "medicines effective in correcting menstrual disorders might, in the eyes of the Roman Catholic Church, be used legitimately, even if temporary sterility was a side effect" (*New York Times*, 1958a: 47). The level of knowledge assumed about Catholic doctrine and biochemistry was extensive in these cases and, likely, well beyond the capacity of lay readers looking for information about pill use.

The upside of this focus on divisiveness, complexity, and even confusion was that these articles were more likely than those in any other news-genre category to provide multiple points-of-view, including that of lay and professional women. Several articles quoted as sources Catholic women who were resistant to the Church's hesitancy to approve the pill's use. One woman drew from the topoi of scripture to argue:

> the Holy Family of Nazareth was a small family. One Child. And if it is said that because this Child was God there was no need for others, it might also be said that 14 children do not add up more nearly to composing God than do four. Or one. (Barrett, 1963b: 12)

Another expressed doubt that the Catholic Church ever would entertain arguments in favor of the pill, explaining, "'When the Catholic Mother of the Year turns out to be a woman with three children instead of eight or nine, I'll believe the church word has reached down to my level,' a mother in Chicago said, smiling" (p. 12). Yet another article further illustrated women's perspectives on the pill—and the degree to which Catholic women were willing to question and resist Church sanctions—by describing a scene wherein a new pill dispensary was disavowed during a Church service. It was observed,

> many of the women in the church looked in surprise at one other; they whispered, they talked excitedly after the mass about the wonderful new place where they could learn how to prevent babies—and early the next morning many of them were part of the queue at the clinic. (Barrett, 1963c: 18)

These accounts directly from—and about—women provided an alternative story to readers about the norms of pill use and the extent to which Church teachings went unchallenged. It is possible that these narratives were intended by their authors to function as coded messages about the acceptability and feasibility of pill use for religious people.

This interpretation seems likely in light of articles that interviewed and otherwise discussed the work of female health advocates and doctors, such as "Mrs. Celestina Zalduondo," the executive director of the Family Planning Association in Puerto Rico, who spoke about the high rates of pill use among married Catholic women in the area (Barrett, 1963c: 18). Coverage was also given to Dr. Anne Biezanek—a British physician, mother of seven, and avowed Catholic—who operated a birth-control clinic and was therefore refused communion. One article observed,

> At her clinic in Wallasey, Dr. Biezanek fits contraceptive devices, distributes birth-control pills, offers to discuss birth-control problems with husbands and tells women that if they feel the use of contraceptives is not a sin they are not obliged to tell their confessor. (*New York Times*, 1964c: 31)

This portrayal positioned Biezanek as a medical expert and actor in her own right, one who prescribes birth-control pills, offers medical (scientific) information, and also reasons with patients about reconciling pill use with faith. Readers would have glimpsed, in this coverage, a sense of the pill as something to grapple with outside the dictates of the Church and male leaders. Although her testimony could have been forwarded as scientific in nature, given her profession, the emphasis in these articles was instead on her views concerning religious morality, which was upheld as something of a precursor to scientific knowledge and understanding.

Science reports: The pill as evidence of scientific progress

The third most prevalent news genre was science and scientific reporting ($n=29$), with articles spanning the entirety of the timespan sampled (from 1951 to 1965). Articles in this category concerned themselves overtly with providing readers with scientific evidence concerning the pill and—unlike the other two major genres—discussed the pill for the sake of scientific inquiry first and foremost. They were written entirely by male or unnamed authors, with only one article mentioning women's experiences and citing a woman as a source. In terms of narrative, they characterized oral contraceptives as positioned within the linear scope of scientific progress and as a reasoned response to global population concerns. The majority of science reporting articles

discussed in some detail one or more specific scientific study having to do with the pill. Headlines highlighted associated terms such as "studies," "tests," and "scientists," while the articles themselves delineated what or who was being investigated and the professional groups overseeing, questioning, or funding research. One representative piece explained, "A new oral contraceptive named nor-ethin-drone, has prevented pregnancy in 210 women during a four-year period of clinical evaluation, it was reported at the recent clinical meeting in Chicago of the American College of Obstetrics and Gynecologists" (*New York Times*, 1962c: E9). Other articles reported on regulatory approval from the FDA following such studies and emphasized "its efficacy and safety as a contraceptive" (Schmeck, 1961: 31).

These accounts of the study and approval of the pill were enveloped in an overarching narrative of scientific progress. Retrospective pieces upheld "the development of an effective oral contraceptive pill" as evidence that "progress" was underway (Laurence, 1959: E9), while other articles offered definitive summaries of complex scientific scenarios, explaining, "specialists agreed that great progress had been made in the search for a practical oral contraceptive" (King, 1960: 41). Even reports that mentioned side effects or risks did so primarily within a broader narrative of scientific progress that downplayed concerns.

Most science reports justified research on the pill in light of global population concerns, rather than, for instance, concerns about women's health or reproductive agency. References to overpopulation involved bleak projections and calls for urgency among researchers and funders. One article noted,

> Dr. Abraham Stone . . . said the population of the world was increasing at a rate faster than ever, while the fertility of the soil was rapidly declining. Millions of persons, he asserted, already were living at a mere subsistence level, constantly faced with actual starvation. (*New York Times*, 1951: 15)

A sense of urgency was imbued into these accounts as "overpopulated countries wishing to reduce increasing birth rates" (p. 15), were discussed in terms of an impending "population bomb" wherein "birth-control measures," including the pill, were situated as crucial to avoiding an "explosion" in population that "will prove more dangerous than all the stockpiles of atomic and hydrogen bombs" (*New York Times*, 1959: E9). The reasoning driving these accounts espoused stratified reproductive policies according to factors such as nation-of-origin, race, ethnicity, and socioeconomic status (Colen, 1986; Ginsburg and Rapp, 1995), thereby shifting the impetus of the conversation about who would use the pill from consumers in the United States and Europe to those in territories (e.g. Puerto Rico) and locales (e.g. "the Far East") seen as overcrowded, under-resourced, and therefore risky. This, despite the fact that discussion of the pill's use in so-called impoverished countries (where, in fact, much research about the pill was ongoing) was frequently tempered by concerns that the pill's cost would be prohibitive in those contexts.

Science reporting also included extensive "chemical rhetoric," which involves the use of "chemical terms, tropes, figures, appeals, and narratives" in non-expert contexts and thereby facilitates scientific thinking and reasoning among lay populations (Jensen, 2021: 431). Chemical rhetoric in these articles functioned pedagogically by introducing the names of specific hormones (characterized as chemicals produced naturally by the body) and synthetic chemicals (characterized as chemicals created in a lab and introduced in the body via the pill to prevent conception). This discourse offered, by far, the most straightforward information about female reproductive biology in light of the pill across the news coverage analyzed. One article explained, "The drug is a synthetic compound, chemically related to sex hormones, that halts production of eggs in the female ovary, Dr. Rock said. Egg production resumes when the pill-taking stops, he declared" (*New York Times*, 1958b: 25). Although this discussion of egg "production" would be more

accurate if described as "release," chemical rhetoric functions as a non-expert and therefore not necessarily technically precise use of chemical appeals. In this case, it performs a pedagogical function not by being to-the-letter about female reproductive physiology but by providing readers with a general sensibility about how the pill's ingredients act in relationship to bodily processes.

In the above example, the pill's synthetic chemicals were described as "related to" or otherwise mirroring the body's own so-called natural chemicals. This close relationship between what the body is said to do on its own chemically and what science can help the body to do chemically functions to situate the pill as not much different from what happens in the body unfettered and, at the same time, capable of improving significantly the so-called natural female experience. Synthetic chemicals in the pill were upheld in several articles as an elixir for the limits of "natural" female reproductive health. One piece summarized a named (male) doctor's opinion that "a chemical or other agent might be found for blocking the action of the 18 compound and might thus provide the means for correcting some cases of infertility" (Osmundsen, 1961: 28). Still another speculated, "A woman's child-bearing years might be extended past the age of 60 owing to use of oral contraceptive pills" (*New York Times*, 1962a: 48).

These conjectures aligned with the science reports' underlying narrative of progress and provided an impetus for readers to lean into the positive findings in these studies about the pill rather than to linger on hesitations or concerns. Those looking for information about the pill for their own use would have found useful (though almost entirely positive and therefore inaccurate) scientifically oriented information in these articles, but there is little evidence that the articles' authors necessarily intended to meet that particular audience's informational needs.

4. Discussion

Our research identifies the top three news genres that early articles covering the pill in *The New York Times* employed, including stock reports, religious coverage, and science news. This sheds light on the articles' primary targeted audiences, none of which included potential pill users directly, and reveals that only articles in the science genre included substantive (though biased) scientific information about the pill. Articles published as stock reports—the most common news genre represented—targeted corporate elite businessmen and were seemingly written by men almost exclusively. Stock reports did not include female sources or content discussing women's point-of-view or experiences, and their mention of science had to do with regulatory and commercial responses to scientific rulings about the pill. Religious coverage and science news were more open in terms of framing of audiences as potentially including both men and women, though neither targeted pill users directly, were authored by more than a few female journalists, or included many female sources or accounts of women's perspectives or experiences. The slight exception was that religious coverage seemed a bit more likely to include what might be coded messages targeting potential pill users. These messages may have provided readers with a sense that other religious people were using the pill—despite what the Church dictated—and that they had evaluated for themselves the morality and viability of that decision to seek out more specific, scientific information about the pill. To gain access to these indirect messages, audiences would have had to read the articles closely, but it is possible that they garnered insight about the experience of deciding to use the pill from this content. Science reports included the most detailed information about the pill's action and function in relationship to bio-physiology, and so there is the possibility that readers acquired helpful and scientifically valid information about the pill in relationship to their own use therein. But this content—unlike some of the religious content—did not seem to be coded for potential pill users as secondary audiences but seemed to function unintentionally to meet some of the

informational needs of consumers, and it was biased in that it underplayed risk concerns and negative findings.

Despite the lack of direct communication in these articles for potential pill users—something that is generally to-be expected given that newspapers did not consistently employ patient/consumer framings until several decades later (Hallin et al., 2013)—all three news genres did offer relatively clear narratives of the pill to which consumers could have had access, albeit not without some careful, close reading on their part. Stock reports characterized the pill, its associated stocks, and its users as volatile and therefore risky (thereby tapping into both long-standing and emergent stereotypes about women as hysterical or hormonal; Koerber, 2018), though they did not provide applicable scientific information about what the risks or benefits were for users. Stock reports also leaned into romanticized, gendered language to characterize the pill, and worked to define the pill according to what investors might need to know. In this way, this genre's coverage lends credence to research contending that a lack of female journalists in any one area can perpetuate gender-biased news (Leiva and Kimber, 2022), though it does not uphold the idea that, historically, male authors are more likely to employ scientific references across the board. Those searching for insight about the pill in stock coverage would have garnered a wary sense about the pill without the information necessary for contextualizing and evaluating that wariness in terms of the pill's risks and benefits.

Religious coverage emphasized the idea that the pill was divisive and controversial, as well as complex and confusing, which aligned with stock coverage focused on the pill's volatility. This pattern, wherein twentieth-century media tended to situate contraception as a source of confusion, has also been identified by other scholarship (Fisher, 2006), and its identification invites continued research about how appeals to complexity and associated confusion may function to disserve public communication efforts about reproductive health. What set religious coverage apart from the other news genres is that, in light of its focus on controversy, it was most likely to include multiple points-of-view and, in some few but important cases, those perspectives came from women. With a smattering of quotes from lay and professional women, readers could get the sense that women's views and experiences concerning the pill were valid and that consideration of the pill could be grounded in women's own lived experiences and sensibilities, though their positions as scientific experts were minimized in these accounts. This insight was shrouded in long-form articles with extensive quotations on religious doctrine from male religious leaders and Catholic doctors, which would have downplayed its impact, though not without potentially reaching more than a few knowing readers with something like a rhetorical "wink" (Morris, 2002: 230). These articles did not provide much by way of scientific information beyond Rock's quite vocal attempts at religious reclamation of science (Taragin-Zeller et al., 2024), but they sometimes pointed the way to clinics and practitioners who could provide such information.

Narratives of the pill in science news articles involved themes that have been identified in existing research as well, such as appeals to scientific progress and warrants concerning a perceived global population crisis (Garner and Michel, 2016; Kruvand, 2012). We found, also, that scientific progress appeals were buttressed by a good deal of chemical rhetoric, which positioned the synthetic chemicals in the pill as a supernatural elixir. While frequently substantiated by scientific evidence and reasoning, this characterization of the pill (and the science that created it) stood in contrast to stock report messages concerning the pill's risks and volatility. Science articles reasoned that, if the pill was the result of science's inevitable progress, then its risks could not be serious, and they failed to give a comprehensive picture of the pill's failures and risks to users. Potential pill users may have come away from these articles convinced that the pill was safe and effective, even if that message was not necessarily designed or intended for them (especially with said articles' promotion of stratified reproduction wherein impoverished individuals in other

countries were identified as those who needed to be kept from reproducing; Colen, 1986; Ginsburg and Rapp, 1995).

To put these early narratives of the pill into perspective, it is important to emphasize that health was not one of the top three news genres represented in this sample, let alone reproductive or sexual health. This is because health as a separate news genre or beat did not emerge in mainstream news until around the end of the twentieth century when, first, science news became increasingly medicalized and, then, articles with a medical bent came to be understood as separate from science-specific coverage (Dunwoody, 2008). Indeed, research demonstrates that it was not until the 1980s that national US newspapers consistently addressed readers as patients or consumers of health and medical information (Hallin et al., 2013). In this light, while these early narratives of the pill were not necessarily unique in their time for their failure to explicitly target potential pill users, their indirect and oblique coverage of the pill illustrate the harms of this reporting trajectory. Readers would have been able to acquire information about pill use from this coverage only in terms of broad characterizations, conflicting narratives, unintentional messages, or coded and therefore circuitous communication. That this particular health-oriented messaging was specifically about sexual health likely only served to encourage journalists and news agencies to bury further any applied information about the pill (including associated scientific evidence) that might have otherwise been included. And while the lack of direct information about the pill in terms of health is not surprising in this coverage given norms of reporting at the time, the overall lack of direct health information is somewhat surprising in light of the era's broader reputation as the "golden" age of medicine (Burnham, 1982: 1474). In this specific case, newspapers did not seem to play a major role in communicating the era's dedication to individual health via pharmaceuticals and other medical innovations and technologies, though continued research is needed to explore whether this was true beyond the context of issues related to sex and reproductive health.

Today, research demonstrates that the most effective, successful sexual and reproductive health communication is direct while also being contextually and culturally responsive, comprehensive and scientifically validated, and targeted at those who need it (Mastro and Zimmer-Gembeck, 2017; Wu and Pask, 2024). Research also demonstrates that such communication is rare and that the fallout is widespread in terms of misinformation, medical distrust, and poor health outcomes (Chou et al., 2020; Cullinan, Zimdars, and Na, 2024; Woodruff, 2019). The indirect legacy of early reproductive health news persists in this sense. Research into direct versus indirect mainstream news coverage of reproductive health and technological issues in the twenty-first century is needed to assess whether the same tropes of unintentionality, opacity, and coded messaging exists, and to assess if and how science is referenced or leveraged therein. Given the highly contentious landscape of contemporary, US reproductive politics (Smith-Jones, 2023), it is likely that such coverage remains more indirect than not, even as newspapers and other mainstream media in general has become far more health- and consumer-focused. This functions to disserve those most in need of applied, scientific information concerning reproductive and sexual health. As Edwards (2022) illustrated in a study comparing news coverage of the 1918 flu pandemic and the 2020 COVID-19 pandemic, much can be gained from considering how historical events and associated media coverage shape contemporary practices and public understandings. In the case at hand, calls for direct, scientifically grounded reproductive-health news coverage in the twenty-first century can be made exponentially more powerful when the history and potential harms of indirection—as evidenced in this early sample of *Times* articles on the pill—are articulated in full.

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