

Gendering Health: The Reinforcement of Gender Stereotypes in Prescription Pharmaceutical Advertisements

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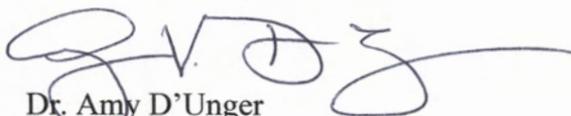
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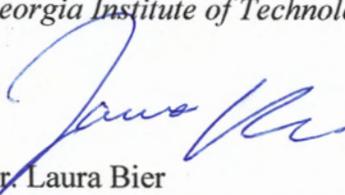
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Abstract

The media has the power to influence what gender norms people internalize. When prescription direct-to-consumer advertisements (DTCA) use gender stereotypes to market and sell drugs, dominant gender notions of what is appropriate are reinforced. While previous studies analyzed prescription DTCA and media reinforcements of gender stereotypes separately, this study added to the literature by addressing the intersection of these two fields. This study was content analysis of 152 prescription product advertisements in four magazines whose readership is highly gendered, *Cosmopolitan*, *Family Circle*, *WIRED*, and *Popular Mechanics*, from January 2014 to December 2014. Based on the theory of social constructionism and medicalization, this paper analyzed the types of prescription products being advertised to women as compared to men and how these advertisements portrayed gender stereotypes through the status positions of the characters displayed. The results of this study indicated that prescriptions directed to *Cosmopolitan*'s readers were predominately for preventing pregnancy, relegating women's health to reproduction issues. Prescription advertisements in *Family Circle* were for a diverse range of products aimed at a diverse patient population, which implies that women have the primary responsibility over not only their own health but also the health of other family members, including their children and even family pets. Only the magazines with predominantly female readership included mental health advertisements, which points towards the tendency of associating women with emotional problems. This bias may also reinforce stigmas associated with men seeking psychiatric help. Prescription drugs marketed directly to men had a higher percentage of lifestyle products than any other type of prescription for both male-targeted magazines analyzed in this study. The findings indicate that the types of prescription drugs advertised to men reinforce stereotypical notions of masculinity through assertions that the

medical maintenance of sexual prowess should be valued over treatments for other types of diseases. While 75% of the men in WIRED were in paid professional status positions, women's status positions more frequently portrayed them as multiple status positions, with a substantial number of advertisements associating women with motherhood.

Introduction

The United States and New Zealand are the only industrialized nations that allow direct-to-consumer advertising (DTCA) of prescription products (Block, 2007, p.511). Traditionally, prescription drugs were only advertised to medical professionals, but marketing campaigns are now bypassing doctors by advertising directly to consumers, even though prescription products still need to be ordered by a doctor. Companies argue that their advertisements are educational and empower people with under-diagnosed conditions to seek treatment and take charge of their own healthcare (Kontos & Viscwanath, 2011). However, there are many drawbacks to advertising directly to consumers. Critics of DTCA argue that marketing prescription products directly to consumers encourages patients to ask for drugs that they do not need (Findlay, 2001). Furthermore, when DTCA's messages use gender stereotypes to increase demand for their product, companies reinforce traditional notions of what it means to be masculine and feminine in American society. This can place restrictions on what types of consumer goods people deem necessary for men compared to women. This research study identified if DTCA of prescription drugs in magazines with highly gendered readerships reinforced gender stereotypes. This study sought to find how prescription DTCA may reinforce gender stereotypes and to discover what assumptions were made about men and women based on the kinds of drugs advertised. This study also addressed the possible negative effects of prescriptions advertisements that perpetuate gender stereotypes.

The effects of DTCA of prescription drugs can have many consequences. It may prompt a patient to ask for a drug by name -- even if alternatives such as lifestyle changes or generic drugs may be equally effective -- or it may place pressure on doctors to give a certain prescription (Main, Argo, & Huhmann, 2004; Findlay, 2001). Prescription drugs advertised

directly to consumers may also leave people with unrealistic expectations of the effectiveness of prescription products and an underestimation of the risks involved with taking commercially advertised drugs (Kaphingst & DeJong, 2004; Holmes & Desselle, 2004). Furthermore, images in the media both reflect societal values and reinforce existing systems of inequality (Kimmel and Aronson, 2008, p.364). This has the potential to prompt people to modify their behaviors in order to mimic stereotypes depicted by the media (Döring & Pöschl, 2006, p.173).

To investigate how contemporary drug advertisements perpetrate gender stereotypes, this study analyzed prescription DTCA in magazines with highly gendered audiences. This research study examined not only what types of prescriptions drug companies promoted, but also what gendered messages drug advertisements marketed directly to the public conveyed. A goal was to analyze the differences in the types of medications advertised in men's magazines and women's magazines to determine how marketing schemes contribute to the gendering of health conditions.

While previous research has analyzed separately the problems of prescription DTCA (Mintzes, 2012; Block, 2007; Main, Argo, & Huhmann, 2004; Kaphingst & DeJong, 2004) and gender stereotyping in the media (Tan, Shaw, Cheng, & Kim, 2013; Vokey, Tefft, & Tysiaczny, 2013; Luyt, 2012; Nam, Lee, & Hwang, 2010; Ricciardelli, Clow, & White, 2010; Royo-Vela, Aldas-Manzano, Küster, & Vila, 2007; Döring & Pöschl, 2006; Hovland, McMahan, Lee, Hwang, & Kim, 2005; Furnham & Farragher, 2000; Belknap & Leonard, 1991), there has not been substantial research analyzing the use of gender stereotypes in prescription DTCA.

Identifying the gendered messages displayed in prescription DTCA can potentially show insights into not only how the media incorporates gender stereotypes into the promotion and use of pharmaceutical drugs and devices, but also how pharmaceutical advertisements maintain the status quo of gender norms and values in our society.

Theoretical Frameworks

Social Construction of Disease

Illness is more than just physiology because the meanings associated with illness are socially constructed. While there are multiple ways to define the social construction of disease and illness, this study follows the view that “social constructionism examines how individuals and groups contribute to producing perceived social reality and knowledge” (Conrad & Barker, 2010, p.S67). Brown (1995) described “divergent” meanings of the social construction of disease and illness as: a “sociology of the body” that “is concerned with symbolism,” a “sociology of science approach” that takes a “science in action” attitude, and an “understanding of how health and illness are rife with biased definitions and forms of social control” (p.34-36).

Disease categories are shaped by ideas of what is and is not socially acceptable or socially desired (Conrad & Barker, 2010, p.S68). For example, “social construction of the body” and “the social construction of sexual dualism – femininity and masculinity” create ideas regarding the “‘natural’ functioning” of people’s sex hormones and how deviating from this “proper” configuration is construed as disease (Riska, 2010, p.158-159). “Representations of the hormonal bodies of men” and women also lead to a lifestyle approach to reaching these “normal” body standards and even enhancing them (Riska, 2010, p.159). On the assumption that “sex is a natural act,” which implies that there is no ‘natural’ reason for decline,” erectile dysfunction is increasingly thought of as a disease in need of treatments like Viagra (Loe, 2004, p.34).

A study by Fishman & Mamo (2001) found that advertising for Viagra and the Eros device for treating female sexual dysfunction (FSD) found that marketing for these medical products supported “normative gender ideals by enacting dominant cultural narratives of

masculinity, femininity, and male and female sexuality” (p.179). When “cultural narratives of normative gender” frame “sexuality in such a way that reinforces certain kinds of masculinity, femininity, and (hetero)sexuality” then “‘atypical’ gender and sexual expressions, desires, and appearances” are marginalized (Fishman & Mamo, 2001, p.179). Prescription marketing can “reify cultural ideologies about ‘what counts’ as legitimate and appropriate sexuality” (Fishman & Mamo, 2001, p.179).

“Certain illnesses have particular social or cultural meanings attributed to them,” and they may be stigmatized, contested, or labeled as “disabling” (Conrad & Barker, 2010, p.S69 & p.S71). These social contexts are important to consider because “these cultural meanings have an impact on the way the illness is experienced, how the illness is depicted, the social response to the illness, and what policies are created concerning the illness” (Conrad & Barker, 2010, p.S69). For example, media depictions of obesity and eating disorders “attribute overweight to bad individual choices and tend to treat binge eating disorder as ordinary and blameworthy overeating,” and this effects minorities and people in the lower socioeconomically class who are disproportionately affected by obesity because “such reporting reinforces social stereotypes of fat people, ethnic minorities, and the poor as out of control and lazy” (Saguy & Gruys, 2010, p.231).

Feminist Approaches to the Social Construction of Medical Knowledge

Because medical knowledge is socially constructed, it is not unbiased or without inherent values, and “medical ideas have been shown to support gender, class, and racial-ethnic inequality” (Conrad & Barker, 2010, p.S73). Biological sex differences do not predetermine our society’s ideas about gender or its ideals of masculinity and femininity because gender is also socially constructed. However, medical knowledge used to determine how ‘normal’ bodies

should be constituted inscribes gendered meanings “through past and present medical discourse and practice, and, in turn, functions to naturalize gender inequality” (Conrad & Barker, 2010, p.573).

Martin (1991) describes how the medical discourses of eggs and sperm in both scientific and popular literature portray gender stereotypes that imply that male biological processes are of higher value than female biological processes and that “women are less worthy than men” (p.486). Martin (1991) relays how knowledge of the body is conveyed in the context of cultural beliefs about gender roles, such as how medical discourses often portray the females’ egg as frail and dependent while describing sperm as having made the “decision” to “penetrate the egg” like a decisive, powerful, corporate manager (p.490-491). The social belief system appears in science as “biologists have lent their support to the notion that the human female, beginning with the egg, is congenitally more dependent than the male” (Martin, 1991, p.491). The gendered qualities prescribed to an interaction between a “damsel in distress” egg and “heroic” sperm “cannot be proved to be dictated by the biology of these events” (Martin, 1991, p.491). Furthermore this discourse has the potential to reinforce inequality because “endowing egg and sperm with intentional action, a key aspect of personhood in our culture, lays the foundation for the point of viability being pushed back to the moment of fertilization,” which will “likely lead to greater acceptance of technological developments and new forms of scrutiny and manipulation, for the benefit of these inner ‘persons’” (Martin, 1991, p.500). Additionally, the masculine images in science can “shape perceptions of girls’ and women’s’ abilities to be scientists” (Sismondo, 2010, p.42). Men are more likely to be in positions with the power to change these dialogues, as “women are quite unlikely to be gatekeepers: editors of major journals, chairs of important scientific boards, etc.” (Sismondo, 2010, p.40).

Similar to medical discourses in printed literature, medical advice to pregnant women to limit certain behaviors out of possible health risks for their fetuses, such as avoiding alcohol, “reflects marked cultural anxieties about women’s sexual and social freedoms” and encourages women to subscribe to ideals of femininity (Conrad & Barker, 2010, p.S73). When women defy dominant ideals of femininity, such as displaying anger, frustration, and aggression, this deviation is sometimes used as evidence as a disorder, such as in the case of premenstrual syndrome (PMS) (Conrad & Barker, 2010, p.S73). Placing the blame on individual women for fetal alcohol syndrome distracts “from the well-established links among class, race, and birth outcomes,” and “framing anger in women as evidence of the disease PMS, to be treated with antidepressants, trivializes the impact of gender inequality on women’s daily lives” (Conrad & Barker, 2010, p.S75). Women’s bodies are also increasingly medicalized and stigmatized, such as in the case of Late Luteal Phase Dysphoric Disorder (LLPDD) that Figert (1995) describes as “a gendered artifact related to [the...] control of women’s bodies [...] in a gendered struggle against the effect of labeling all menstruating women as potentially ‘crazy’” (p.62).

Medicalization

Medicalization describes how life events, such as aging and childbirth, can be brought under medical purview, managed by medical practitioners, and “defined and treated as medical problems, usually in term of illness and disorders” (Conrad, 2007, p.4). Making physical states into illnesses can be profitable for those in the position to treat those illnesses. Prescription companies’ direct-to-consumer advertising of drugs not only generates profits for pharmaceutical companies but it also contributes to the process of medicalization.

The pharmaceutical industry in particular has “become one of the most influential players in contemporary medicalization” by the process of “pharmaceuticalization” (Barker, 2011,

p.834). Pharmaceuticalization refers to “the process by which social, behavioral or bodily conditions are treated, or deemed to be in need of treatment/intervention with pharmaceuticals by doctors, patients, or both” (Bell & Figert, 2012, p.775-776). In pharmaceuticalization, “human conditions, capabilities and capacities” are transformed “into opportunities for pharmaceutical intervention” (Gabe, Williams, Martin, & Coveney, 2015, p.193). Arguably, pharmaceutical companies have now “displaced physicians as a main driver of the medicalization process” (Gabe et al., 2015, p.193).

Medicalization disproportionately affects “women’s problems” (Conrad, 2007, p.10). While the traditional body often is construed as a male body that makes women “‘naturally’ different,” women are also vulnerable to medicalization because “their social roles expose them to medical scrutiny, and they are often in a subordinate position to men in the clinical domain” (Conrad, 2007, p.24). “Women’s natural reproductive functions (e.g., pregnancy, childbirth, menstruation) are routinely medicalized” and changes that are common aspects of our lives are treated as cases requiring medical intervention, such as prescribing hormone replacement therapy to treat menopause (Conrad & Barker, 2010, p.S74).

The boundaries of diagnoses can also be expanded to include larger markets of patients. For example, the pharmaceutical maker Pfizer transformed Viagra from a “drug intended for older men with chronic erectile problems” into a drug implied to benefit “any man, regardless of age” through its advertising campaigns (Conrad & Barker, 2010, p.S74). Viagra and other erectile dysfunction (ED) drugs are also examples of “case studies [that] demonstrate how medicalization increasingly occurs when performances of masculinities fail – in schools [Attention Deficit Hyperactivity Disorder] (ADHD), in the military [Posttraumatic Stress Disorder] (PTSD), and in bed (ED)” (Clarke, Mamo, Fosket, Fishman, & Shim, 2010, p.28). ED

as a disease instead of a normal life state of impotence is also an example of how “the public’s tolerance of mild symptoms has decreased, spurring a ‘progressive medicalization of physical distress in which uncomfortable body states and isolated symptoms are reclassified as diseases’” (Conrad, 2007, p.6). Medicalization suggests ‘proper’ behavior and medical intervention for the individual while “downplaying the social context of complicated problems” in which the individual lives (Conrad and Barker, 2010, p.S75). Our cultural predisposition to medicate with drugs largely ignores or distracts from larger societal social changes.

Literature Review

Direct-To-Consumer Advertising

There is a substantial body of research investigating different aspects of medical direct-to-consumer advertising. Previous research has addressed the effects of advertising prescription products directly to consumers who are lacking in medical knowledge (Mintzes, 2012; Frosch, Krueger, Hornik, Cronholm, & Barg, 2007; Lyles, 2002); the various types of prescription products advertised to different groups of consumers (Omonuwa, 2001; Woloshin, Schwartz, Tremmel, & Welch, 2001; Parker & Delene, 1999); and the types of messaging used in DTCA to get people to encourage their doctors to prescribe the advertised prescription (Limbu, Huhmann, & Peterson, 2012; Frosch et al., 2007; Holmes & Desselle, 2004; Main, Argo, & Huhmann, 2004).

While previous studies analyzed problems associated with prescription DTCA, there is a deficit in the research literature regarding the gendered nature of prescription direct-to-consumer advertising. One common problem with DTCA is that it encourages the use of drugs in inappropriate groups by implying that prescriptions can improve the symptoms in a broader range of people than they can actually help. Prescription DTCA encourages the approach, “better to err on the side of overtreatment,” despite negative medication side effects (Mintzes, 2012, p.265). For example, while antidepressants have been shown to cause adverse effects such as sexual dysfunction, weight gain, and sleep disturbance (Ferguson, 2001, p.22), one study found that 94% of patients receiving antidepressants because they requested them after seeing DTCA do not actually meet the criteria for a diagnosis of depression (Block, 2007, p.511). However, studies such as Block’s (2007) do not take gender into account. While the U.S Congressional Budget Office and Pharmaceutical Research and Manufacturers of America (PhRMA) claim that

prescription DTCA is beneficial due to its ability to increase treatment and drug regimen compliance, research data show that this additional treatment may be inappropriate in many cases (Mintzes, 2012, p.267). While not currently thoroughly examined in the literature, finding that pharmaceutical companies disproportionately target one gender for certain drugs could mean that the targeted group is more vulnerable to being prescribed inappropriate drugs.

Gender Stereotyping

While previous studies have investigated prescription DTCA and gender in the media separately, prior research has not analyzed gender stereotyping in prescription DTCA. Using Erving Goffman's gendered categories (1979, p.28-83), previous content analyses of advertisements have sorted gender stereotypes in advertising using the categories of relative size, the feminine touch, functional ranking, intra-family relations, the ritualization of subordination, and licensed withdrawal (Tan et al., 2013; Nam, Lee, & Hwang, 2011; Döring & Pöschl, 2006; Millard & Grant, 2006; Baker, 2005; Hovland et al., 2005; Lindner, 2004).

Gender role stereotyping generally portrays women in more dependent and subservient positions and places men outside of the home in more authoritative and controlling positions (Nassif & Gunter, 2008, p.753). Gender stereotypes set up a dichotomy that tends to put women in "passive 'being' roles" and men in powerful "active 'doing' roles" that show independence, aggression, strength, and expertise (Paff & Lakner, 1997, p.32). The stereotypical man follows ideals of hegemonic masculinity. The stereotypically ideal man is in control, stoic, tough, competitive, successful, heterosexual, and sexually driven (Luyt, 2012, p.36). Hegemonic masculinity entails characteristics such as "athletic prowess" and aggressiveness, including proving hegemonic masculinity by acting "violently towards what is regarded as 'feminine'" (Cheng, 1999, p.295). Hegemonic masculinity also presumes the perspective of "Euro-American

males” that are white, “able-bodied, heterosexual, Christian,” and between the ages of 20 to 40 (Cheng, 1999, p.295). In contrast, women are stereotypically homemakers who highly value their family relationships and care for the weak (Royo-Vela et al., 2007, p.380). The stereotypical woman subscribes to the ideals of emphasized femininity, which “is a kind of gender performance that accommodates hegemonic masculine interests and desires” (Cheng, 1999, p.295). Emphasized femininity is the subordinated corollary construction to hegemonic masculinity and presumes that there are only “two separate, opposite gender roles” and that the categories in this dichotomy are “separate and marked differently” and strive “to hold a hierarchy of male power in place” (Wohlwend, 2009, p.65). Emphasized femininity “stresses gender differences and legitimates the construction of girls as objects of display” (Wohlwend, 2009, p.65).

Studies of pharmaceutical advertisements directed at doctors through medical journals have found that drug advertising’s character “representations are inconsistent with reality,” thereby causing doctors to associate certain illnesses with gender-based portrayals instead of with facts, which may also be the case in advertising to the general public (Cambronero Saiz, Ruiz Cantero, & Papi Galvez, 2012, p.470). Inaccuracies in the dissemination of knowledge, whether directed at medical professionals or at a lay audience, are examples of how diseases are socially constructed and how the media contributes to illness associations.

While individual women may resist stereotypical portrayals, “the individual freedom to interpret is overstated because people are reacting to symbols with important cultural status that others (producers) have created” (Milkie, 2002, p.842-843). Producers – such as the producers of DTCA – decide what ideas are selected, emphasized, and presented in the media, thereby painting a specific world that is resistant to change (Milkie, 2002). While there is resistance to

unrealistic ideals and the media's harmful portrayals of a narrow version of femininity, "millions of women [...] buy into these absurd ideals at the same time that we resent them and think they are utterly ridiculous and oppressive" (Douglas and Michaels, 2004, p.4).

The purpose of this study is to evaluate the gendered messages used in magazine advertisements, particularly as it interacts with disease type. While previous studies analyzed television DTCA, the focus of this study is on prescription DTCA in magazines because the printed page tells a condensed story that has an "equivalent impact on recipients" to that of television marketing campaigns (Döring & Pöschl, 2006, p.173). Although previous research has either studied how advertisements utilized gender stereotypes or the types of prescriptions advertised and appeals used to market these drugs, the intersection of these fields has not been investigated.

Methods

To investigate how prescription DTCA reinforced gender stereotypes, this study conducted a content analysis of four highly gendered magazines: *Cosmopolitan*, *Family Circle*, *WIRED*, and *Popular Mechanics*. *Cosmopolitan* is an example of a women’s magazine because it has 80.92% female readership (Holmes & Desselle, 2004, p.85). *Family Circle*’s readership’s is also 90% women (Woloshin et al., 2001, p.1142). *WIRED* was classified in previous content analyses as a men’s magazine (Vokey, Tefft, & Tysiaczny, 2013, p.567). This is consistent with *WIRED*’s self-report of having a male majority audience with 51% of its audience demographics between the ages of 18 and 34 years old (Condé Nast, 2014). *Popular Mechanics* also self-reports that its audience is 83.2% male (Hearst Corporation, 2014a, p.7).

This study analyzed prescription DTCA from the *Cosmopolitan*, *Family Circle*, *WIRED*, and *Popular Mechanics* issues appearing between January 2014 and December 2014 (see Table 1). Because eye-tracking studies have found that many readers do not attempt to read an advertisement’s brief summary and only process the visual image and headline, content analysis of the prescription advertisements in the current study focused on the advertisements’ headings and pictures (Main, Argo, & Huhmann, 2004, p.129). This study analyzed advertisements based on the types of medications marketed and the status positions of the characters used.

Table 1: Total number of prescription DTCA in each magazine

Magazine Title	Total Number of Prescription Product Claim Advertisements
<i>Family Circle</i>	101
<i>Cosmopolitan</i>	25
<i>WIRED</i>	4
<i>Popular Mechanics</i>	15

Process

The prescription product claim DTCA advertisements were located by manually going through all the pages in the 12 issues of *Cosmopolitan* produced in 2014, the 12 issues of *Family Circle* published in 2014, 12 issues of 2014's *WIRED*, and the 11 issues of 2014's *Popular Mechanics*, totaling over 6,000 pages. Product claim prescription advertisements were marked with sticky notes and scanned to have access to an electronic copy. The drug type and character status position was entered and organized for analysis in Microsoft Excel along with the citation information. If an advertised prescription could be categorized in multiple ways, then it was allowed it to hold multiple prescription types. If a character held multiple status positions, then all of the character's status positions were used in the analysis along with the character's gender. Both drugs and medical devices were used in this study.

Prescription Type

Previous researchers investigated the types of prescription products advertised directly to different groups of consumers, establishing classes systems for the use of various kinds of medications (Omonuwa, 2001; Woloshin et al., 2001). Pinto (2000) classified DTCA prescription drugs into six product classes: chronic nonlife-threatening, chronic life-threatening, mental health, bacterial infection, life change, and lifestyle choice (p.601). While Pinto (2000) does not address gender differences in DTCA, this study uses Pinto's ideas about life-threatening diseases, lifestyle drugs, and mental health treatments to analyze what type of drugs are advertised to predominantly male readerships and predominantly female readerships. Although their study did not incorporate any gender analysis, Holmes & Dessel's (2004) therapeutic drug classes of chronic nonlife-threatening, chronic life-threatening, mental health, infection (those that provide a "cure of acute infections"), life change, and lifestyle choice also helped to inspire

the prescription product type categories used in this study (p.89). Holmes & Desselle and Pinto's category of nonlife-threatening disease (e.g. rosacea or allergies) is similar to this study's life-limiting disease (Holmes & Desselle, 2004, p.89; Pinto, 2000, p.601). The risk reduction category used in this study is similar to the "disease prevention" direct-to-consumer drug type categorize used by Woloshin et al. (2001, p.1144).

This study coded medications' advertised product purposes into the following categories: acute disease, risk reduction, mental health, lifestyle enhancement, chronic life-limiting disease, and chronic life-threatening disease. In contrast to chronic disease in which the illness occurs over an extended period of time, acute diseases are defined as "diseases that strike suddenly and disappear quickly" (Weitz, 2013, p.11). Mental health encompasses diseases with psychological components, including depression, mood disorders, and attention deficit hyperactivity disorder (ADHD). Lifestyle enhancement products serve social purposes, including prescriptions that address sexual dysfunctions and those that regulate family planning. Risk reducing products are those that treat risk factors for other diseases. For diseases that patients experience through direct symptoms and impact on daily lived experiences, this study labeled the advertisements as treating life-limiting diseases; when these diseases are associated with symptoms that could directly lead to serious situations that endanger a person's life, such as an asthma attack that cuts off a person's air supply, the condition was categorized as a life-threatening disease.

Characters

This study analyzed the context in which the prescription advertisements situated characters. A person's social status, or position in society, shapes a person's roles. Roles are comprised of the sets of obligations, behaviors, and privileges attached to each person's social status. This study's character status position analysis adapts a modification of the coding scheme

that categorized roles as professional/occupational, familial, recreational, and decorative used by Tan et al. (2013, p.239). This study's categorization is similar to the roles of autonomous ("including worker, professional, and celebrity") and familial analyzed in Furnham & Farragher's study on gender stereotyping in television advertisements (2000, p.420-421).

The characters in this study were coded into the following roles: child, parent/grandparent, partner, friend, professional, patient, engaged in recreational activity, and decorative model. In this study, if the character appeared to be a minor, the character was coded as a child. Characters were considered to be a parent or grandparent if there was both an adult and child featured in the advertisement or if words such as "baby" or "grandmother" were used. When two characters were affectionately touching each other, they were both categorized as partners. If a character was wearing a wedding ring on their left hand, the character was considered a partner. If there was more than one character in an advertisement but they were not touching each other and there was not an indication of multiple generations, the characters were coded to be friends. If a character was in business clothing or in pursuit of some occupational or educational activity, the character was considered a professional. In advertisements that pictured a medical encounter, medical providers were considered professionals and the character that was being counseled was a patient. If a character was engaged in a leisure activity, such as going to the movies or playing baseball, then he or she was considered to be engaged in a recreational activity. If there was no setting or the context in which the character was in was not clear, the character was considered as a model and therefore serving a decorative feature in the advertisement.

Results

Analyzed Feature: Types of Prescriptions

Types of Prescriptions in *Family Circle*

Family Circle had prescription advertisements from every treatment category. The most represented category was life-limiting disease treatments, at 32% of the advertisements, which included advertisements for conditions such as hot flashes, constipation, overactive bladder, and constant dry eye (see Table 2). Life-threatening disease treatments represented 24% of the prescription advertisements in *Family Circle*, which included treatments for asthma, Chronic Obstructive Pulmonary Disease (COPD), and diabetes. Lifestyle treatments made up 19% of the prescription advertisements, including four advertisements for permanent birth control and fifteen ads to treat painful sexual intercourse. Risk reduction prescriptions comprised 16% of the prescription advertisements and included treatments for weight loss, osteoporosis, and dog parasite protection. Mental health advertisements were 11% of the total advertisements, including five advertisements for antidepressants and four advertisements for treating childhood Attention Deficit Hyperactivity Disorder (ADHD). There were three Duavee advertisements for the life-limiting symptom of hot flashes and the risk reduction treatment of preventing bone loss. The smallest treatment category was that for acute disease with only two Tamiflu advertisements for the flu. More information on *Family Circle*'s advertisements can be found in Appendix A.

Table 2: Types of Prescriptions in Each Magazine

	Total Number of Ads	Acute	Mental Health	Lifestyle	Risk Reduction	Life Limiting	Life Threatening
<i>Family Circle</i>	101	2%	11%	19%	16%	32%	24%
<i>Cosmopolitan</i>	25	0%	20%	80%	0%	0%	0%
<i>Popular Mechanics</i>	15	0%	0%	60%	40%	27%	0%
<i>WIRED</i>	4	0%	0%	100%	0%	0%	0%

Types of Prescriptions in *Cosmopolitan*

Mental health prescription products represented 20% of the prescription advertisements in *Cosmopolitan* and family planning products (lifestyle treatments) represented 80% of the prescription advertisements in *Cosmopolitan*. The five mental health advertisements in the 12 2014 issues of *Cosmopolitan* were for Pristiq, which is an antidepressant. There were six *Cosmopolitan* birth control advertisements for the Skyla IUD, one advertisement for the Paragard IUD, five advertisements for the monthly NuvaRing birth control product, and eight family planning Nexplanon implant advertisements. Information on *Cosmopolitan's* advertisement types can be found in Appendix B.

Types of Prescriptions in *Popular Mechanics*

Of the 15 prescription advertisements in *Popular Mechanics*, 60% featured lifestyle products, 40% features risk reduction drugs, and 27% were life-limiting disease drug treatments. *Popular Mechanics's* lifestyle treatments included three advertisements for Axiron to treat low testosterone and six advertisements to treat erectile dysfunction. Viagra advertisements composed two of the nine lifestyle treatments. The four Cialis advertisements claimed that their product treats both erectile dysfunction (ED) and the urinary symptoms associated with benign prostatic hyperplasia (BPH), and therefore were classified under both the lifestyle and life-limiting disease categories. The six Eliquis advertisements marketed their drug as a way to reduce readers' risk of having a stroke. Information on *Popular Mechanic's* advertisement types can be found in Appendix C.

Types of Prescriptions in *WIRED*

All of the prescriptions advertised in *WIRED* were for the lifestyle enhancing products Viagra, which treats erectile dysfunction in men (see Appendix D).

Character Contextual Status Positions

Status Positions in *Family Circle*

Seventy-eight out of 101 prescription advertisement in *Family Circle* included women characters. Seventeen advertisements had either mothers or grandmothers, 15 had spouses, 16 portrayed women as friends, 16 advertisements showed women as professionals, six showed women as patients in the doctor-patient relationship, 28 were engaged in recreational activities, and 22 showed women as decorative models without additional contextual information (see Table 3). The eight BREO advertisements, which direct consumers to buy Chronic Obstructive Pulmonary Disease (COPD) medication, also showed women as volunteers for their community gardens (GlaxoSmithKline, 2014, p.38-39). The eight Prolia advertisements quoted Bythe Danner, the “award winning actress” as saying, “I have osteoporosis. I also play many roles in life, including active grandmother. I take Prolia to help strengthen my bones,” which demonstrated that a woman can be both a professional actress and a parent (Amgen Inc., 2014, p.80). Other advertisements showed women in professional clothes, such as the two Relpax advertisements for migraine pain relief and three Abilify antidepressant advertisements (Pfizer Inc., 2014a, p.87; Otsuka America Pharmaceutical, Inc., 2014a, p.133).

Table 3: Women’s Status Positions

	Total Number of Ads with Women	Parent	Partner	Friend	Professional	Patient	Recreational	Model
<i>Family Circle</i>	78	22%	19%	21%	21%	8%	36%	28%
<i>Cosmopolitan</i>	25	40%	44%	16%	56%	0%	68%	16%
<i>Popular Mechanics</i>	6	0%	67%	0%	0%	0%	100%	0%
<i>WIRED</i>	0	0%	0%	0%	0%	0%	0%	0%

Family Circle displayed a diverse range of both women and men. Twenty of the 101 prescription advertisements in *Family Circle* had men characters, four advertisements showed

them as fathers, six advertisements featured men as partners, six advertisements presented men as friends, three had male professionals, one showed a man sick with the flu, six presented men engaged in recreational activities, and six advertisements used men as decorative models (see Table 4). *Family Circle* featured the male friends featured alongside women companions engaged in a recreational activity, such as the two Restasis chronic dry eye advertisement where the characters were in a movie theater and the two Aubagio multiple sclerosis advertisement where a group is having a picnic in the park (Allergan Inc., 2014, p.55; Genzyme Corporation, 2014, p. 72-73). When *Family Circle* featured men as decorative models it tended to be a way to emphasize the prescription itself, such as the two Humalog KwikPen advertisements for diabetes treatment that feature a man holding the insulin injector (Eli Lilly and Company, 2014a, p.35). Two of the three male professionals were doctors advising a depressed woman and one was an architect who promoted the Humalog KwikPen product (Otsuka America Pharmaceutical, Inc., 2014b, p.101; Eli Lilly and Company, 2014b, p.105).

Table 4: Men’s Status Positions

	Total Number of Ads with Men	Parent	Partner	Friend	Professional	Patient	Recreational	Model
<i>Family Circle</i>	20	20%	30%	30%	15%	5%	30%	30%
<i>Cosmopolitan</i>	1	0%	0%	100%	0%	0%	100%	0%
<i>Popular Mechanics</i>	13	0%	69%	0%	31%	0%	69%	0%
<i>WIRED</i>	4	0%	50%	0%	75%	0%	25%	0%

Status Positions in *Cosmopolitan*

All 25 advertisements in *Cosmopolitan* contained women characters. Ten of the advertisements featured women as parents, 11 advertisements presented women as partners, four advertisements displayed women as friends, 14 portrayed women as professionals, 17

advertisements showed women engaged in recreational activities, and four used women as decorative models.

Women characters in *Cosmopolitan* filled multiple status positions simultaneously. The eight Nexplanon advertisements indicated women fulfilling partner roles by saying their product can be used so the woman can “fall in love,” but also “get a job” as a professional and engage in recreational adventures because “pregnancy prevention” can lead a woman to instead “take a trip” (Merck & Co., 2014a, p.90). One birth control treatment NuvaRing advertisement showed a woman’s mind containing her role as a mother and partner through her child’s drawing of her and her partner while simultaneously showing she has responsibilities to her friends by having a party on her calendar and glittery shoes to wear (Merck & Co., 2014b, p.160-161). This same NuvaRing advertisement also showed that a woman trying to balance her professional life with her personal life (hobbies and pet care responsibilities) requires an alarm clock to stay on schedule (Merck & Co., 2014b, p.160-161). A second NuvaRing advertisement showed the woman thinking about her photo booth pictures with her partner next to her and her graphs on her laptop for her professional career (Merck & Co., 2014c, p.167).

The only man that appeared in *Cosmopolitan* was featured in a Pristiq antidepressant advertisement as a friend and engaged in a recreational walk through the park (Pfizer, 2014b, p.147).

Status Positions in *Popular Mechanics*

There were six women characters featured in the *Popular Mechanics* advertisements. The women in the four erectile dysfunction (ED) and benign prostatic hyperplasia (BPH) treatment Cialis advertisements acted as both heterosexual partners and were recreationally lounging with their male counterparts (Eli Lilly and Company, 2014c, p.60). The woman photographer in the

two Eliquis advertisements for stroke risk reduction classified as recreationally engaged in a hobby (Bristol-Myers Squibb Company, 2014a, p.26-27).

There were 13 advertisements in *Popular Mechanics* that featured male characters. Two of the three Axiron advertisements for treating low testosterone and three of the six Eliquis advertisements featured men wearing wedding rings and, therefore, their characters classified under the partner category. The Axiron male construction worker featured in two advertisements, the male paleontologist featured in one Eliquis advertisement, and the man working in his home office in one of the two Viagra advertisements for ED treatment classified as professionals (Eli Lilly and Company, 2014d, p.44-45; Bristol-Myers Squibb Company, 2014b, p.50-51; Pfizer Inc., 2014c, p.27). The man refereeing baseball in the one Axiron advertisement, the man playing basketball in the three Eliquis advertisements, and the man recreationally lounging on the beach in the one Viagra advertisement classified as engaged in recreational activities (Eli Lilly and Company, 2014e, p.28-29; Bristol-Myers Squibb Company, 2014c, p.19; Pfizer Inc., 2014d, p.32-33). Four of the 15 (27%) of the advertisements featured men playing sports.

Status Positions in *WIRED*

There were no women characters in *WIRED* magazine, but all of the four prescription advertisements found featured men characters. One of the four Viagra advertisements for ED treatment in *WIRED* featured a man recreationally mountain climbing (Pfizer Inc., 2014e, p.55). The male professional in two of the four Viagra advertisements men who was wearing a wedding ring indicated that he was a partner in his personal life (Pfizer Inc., 2014f, p.35). Adding the advertisement with the male professional working from his home office to the three mentioned above, 75% of the advertisements in *WIRED* featured men in professional settings (Pfizer Inc., 2014g, p.59).

Discussion

The findings indicate that prescription DTCA does reinforce gender stereotypes. In both the types of drugs marketed to women compared to men and the advertisements' depictions of men and women. The prescription types and status positions depicted reflected beliefs that men are less likely to visit their doctors for reasons such as seeking mental health care, given that mental health advertisements only appeared in the women's magazines, but that men might be more likely to ask their doctor for medications that could reinforce their masculinity, such as drugs for erectile dysfunction and testosterone increasing products. Medication advertisements reinforced emphasized femininity, such as seeing women as caregivers, reinforcing beliefs about women's beauty standards, and expecting women to be willing to perform heterosexual sexual acts. Gender stereotypes were also bolstered by showing men more often in masculine professional business status positions.

The kinds and number of different categories of drugs also differed based on gender. *Family Circle* had 101 prescription advertisements across all six product type categories. *Cosmopolitan* had 25 advertisements from the lifestyle and mental health category types. *WIRED* had only 4 advertisements that were all for Viagra, and *Popular Mechanics* had 15 advertisements under the lifestyle, risk reduction, and life-limiting categories. The fact that there was fewer prescription advertisements directed at men is consistent with the fact that "men are less likely than women to directly ask physicians about their health problems" (Bird & Rieker, 1991, p.752). This was represented in there being women patients seeking medical help depicted in the advertisements, but the male patients were not at their doctor's office. The only example in any of the four studied magazines of a male patient was for a Tamiflu treatment for the flu where the man was at home sick in bed, as opposed to the Tamiflu advertisement with a woman patient

who was seeking help at her doctor's office (Genentech USA, Inc., 2014a, p.80-81; Genentech USA, Inc., 2014b, p.40-41). The total number of advertisements in either woman's magazine individually was greater than the number of advertisements in the men's magazines combined. The disproportionate amount of advertisements directed at women implies that marketers believe that women will be more likely to seek healthcare products than men.

Women's magazines tended to depict women in a multitude of status positions, but men's magazines depicted women more often in relation to men. *WIRED* implied that women were not important by not including women in any of its prescription advertisements, even though women represent half of the population and 31% of *WIRED*'s reader demographics (Condé Nast, 2014, p.1). In *Popular Mechanics*, women were only present as partners or as engaged in recreational activities. While 30% of the men in *Family Circle* were depicted as friends of women, 30% of the men in *Family Circle* were depicted as partners, and the only man in *Cosmopolitan* was featured as a friend and dog walking buddy to two women, *Popular Mechanics* reinforced gender stereotypes by having 67% of the women depicted as partners to men (Pfizer Inc., 2014b, p.147). The *Popular Mechanics* female partners were all in Cialis advertisements as heterosexual sexual partners to men thus implying that women are mostly needed for men's sexual satisfaction even though women comprise 16.8% of *Popular Mechanics*'s readership (Hearst Corporation, 2014a, p.7). Also, *Popular Mechanics* depicted 100% of their women characters as engaged in recreational activities, even though there is a substantial "leisure gap" between men and women where women have less time than men to engage in recreational free time (Hochschild & Machung, 1989, p.4). Part of what contributes to this leisure gap is society's expectation that women will come home after their jobs and be the primary caregiver for their household.

Women as Caregivers

The prescription advertisements reinforced stereotypically gendered notions of women as family caregivers through the use of particular imagery in *Family Circle* and *Cosmopolitan*. Only the magazines targeted at women featured children and dogs in their imagery, even though the readers of *WIRED* and *Popular Mechanics* may also have families and pets. The majority (56.4%) of *Popular Mechanics*'s male readership is married, and 40.6% of *Popular Mechanics*'s readership has children (Hearst Corporation, 2014, p.7). There were no parental status positions for either men or women displayed in either of the men's magazines, but *Family Circle* depicted 22% of the women as parents and 40% of the women in *Cosmopolitan* held parent status positions. While the percentage of advertisements featuring mother imagery was higher in *Cosmopolitan*, this is because of the high number of advertisements in *Family Circle*, since numerically *Family Circle* had a greater total number of advertisements with mothers with 17 advertisements as compared to *Cosmopolitan*'s 10 advertisements with parental status positions. However, the large percentage of advertisements in *Cosmopolitan* featuring mother imagery suggests that pharmaceutical marketers expect that women will want to start families at some point in their lives, which reinforces the feminine ideal of the importance of motherhood and caring for children.

The one man depicted in *Cosmopolitan* was depicted as a dog owner but not a father, and the four advertisements in *Family Circle* that featured a father character next to the mother character on their bed with their three children were marketing Essure, which is a permanent birth control method (Pfizer Inc., 2014b, p.147; Bayer, 2014, p.53). Even for *Family Circle* that was the only magazine to depict a father with his children, women as parents were more frequently the case. The complete absence of depictions of men as taking on childcare responsibilities reinforces the idea that these activities fall under women's purview. *Popular*

Mechanics did not feature any children in their advertisements, even though 40.6% of their readers are parents (Hearst Corporation, 2014a, p.7).

The fact that the only depiction of men with children in any of the four magazines in this study is associated with fertility could potentially hurt men who are or want to be stay-at-home fathers because the media is not showing them in these roles (Bayer, 2014, p.53). This comes as the number of stay-at-home fathers is growing, such as the increase of 84,000 more stay-at-home fathers in 2012 than in 2002 (Solomon, 2014, p.52). Exclusively displaying women as parents reinforces stereotypical notions of hegemonic masculinity and emphasized femininity, given that the “everyday tasks of mothering are taken to be ‘natural’ expressions of femininity,” while men face the “traditional tasks of fatherhood [... of] begetting, protecting, and providing for children” under a definition of masculinity that depends “on not doing the things that mothers do” (Coltrane, 1989, p.473).

Seeing women in caretaking roles instead of men parallels larger American society where women more often than men have “to adapt their work efforts to [meet] familial demands” (Maume, 2008, p.273). For example, married women also devote more time to housework than married men, despite the majority of women being full-time workers (Sayer & Fine, 2010, p.259). While there is a wage gap in the workplace where women earn less than men, there is also “a ‘leisure gap’” where women do more housework and childcare than men, which results in less free time to themselves at home (Hochschild & Machung, 1989, p.4). This experience for women is referred to as the “second shift” because “most women work one shift at the office or factory and a ‘second shift’ at home” (Hochschild & Machung, 1989, p.4). Having to balance both paid employment and family responsibilities can be stressful. Having to work at a job only to go work at home is a substantial “source of overload and conflict for women” and is

“detrimental to women’s mental health” (Rout, Cooper, & Kerslake, 1997, p.264). Cumulative stress burdens, “the sum of acute and chronic stresses,” are typically higher in women, and the cumulative stress burden, which can result from working a fulltime job while also being the primary caregiver at home, “is a powerful predictor of ill health” (Weitz, 2013, p.42-43). The majority of women with infants “return to work by the time their baby is 3 months old” (Marshall & Tracy, 2009, p.380).

The types of prescriptions advertised also reinforced gendered notions of women’s family responsibilities in ways that are different than men’s expectations. Prescriptions for drugs given to children or to dogs were only found in *Family Circle* and were not found in either *Popular Mechanics* or *WIRED*, implying that women are responsible for their children and pets in unequal work patterns. Women are the more likely than men to assume primary responsibility for their child’s healthcare (Isacco & Garfield, 2010, p.111). Marketing Quillivant XR for children and NexGard and Trifexis for parasite protection in ways directed exclusively at women in *Family Circle* reinforced the feminine ideal of the female caretaker.

Status positions displayed in prescription advertisements also reinforce gender stereotypes. Drug marketing often shows women more often than men as “experts on home medical care, often as mothers caring for ill children” (Craig, 1992, p.303). Research has found that “drug advertisers take advantage of stereotypical images of women as home medical caregivers,” which reinforces stereotypical beliefs that are harmful to women and their health (Craig, 1992, p.303). For example, in a Quillivant XR advertisement in *Family Circle* Pfizer (2014h) shows a woman as being the one to solve a boy’s Attention Deficit Hyperactivity Disorder and as the ‘expert’ on how to help care for children in need (p.89).

Mental Health Marketing

The gender stereotype of women being emotionally unstable was also reinforced through advertisements of mental health prescription products that were only marketed to women. Eleven percent of the prescriptions in the women's magazine *Family Circle* were for mental health products. The only products for children were mental health prescriptions and were targeted at *Family Circle's* mainly female audience, which follows a history of mothers being blamed for their children's mental health problems (Maldonado & Winick, 2003, p.190). The types of mental health products in *Family Circle* were: five Abilify antidepressant advertisements, four Quillivant XR advertisements for children's Attention Deficit Hyperactivity Disorder (ADHD) medication, and two advertisements for Seroquel XR, used to treat bipolar disorder. Since males can suffer from depression, bipolar disorder, and ADHD, it would have been appropriate for these drugs to have also been advertised in the men's magazines, yet neither of the men's magazines featured these or any other medications for mental illnesses. Studies in Canada and New Zealand found that the "lifetime prevalence rates of mental illness are the same" in men and women (Wilhelm, 2009, p.102). While "men have lower rates of depression than women," "the actual experience" of unipolar depression is similar for both men and women, and "there are no gender differences in rates or experience of bipolar depression" (Wilhelm, 2009, p.102). Men with depression face "psychosocial barriers to seeking help" and "men are usually wary about talking about their depression" (Wilhelm, 2009, p.102). Ignoring men's depression may contribute to the fact that men have higher suicide rates than women (Stack & Wasserman, 2009, p.13).

Twenty percent of the prescription advertisements in the women's magazine *Cosmopolitan* were for the antidepressant Pristiq, and three of the five Pristiq advertisements featured a mom with her son. The heading above the sad windup doll mom of the Pristiq

advertisements reads, “Does depression hold you back from what you enjoy?” and in the mirror the windup doll sees herself enjoying time with her son (Pfizer Inc., 2014i, p.105; Pfizer Inc., 2014j, p.153). Repeatedly featuring a mother and child in these advertisements makes the assumption that most women want children. Featuring the parent dynamic instead of a professional status position can be seen as implying that a woman’s dedication to her family is what she enjoys most and that her depression will negatively impact her ability to perform her feminine mothering duties, even though it would be equally true to say that women’s professional careers can also be affected by depression. “Work” is first on the list of aspects of life that Pristiq is claiming to treat in the fine print of the advertisement: Pristiq “has been shown to help improve patients’ ability to function vs. sugar pill as measured by the SDS total score, which includes: Work, Social life/Leisure activities, Family life/Home responsibilities” (Pfizer Inc., 2014i, p.105).

Prescription Types Reinforce Beauty Standards

The fact that the only advertisements for prescription weight reduction occurred in *Family Circle* coincides with unrealistic beauty standards for women. The fact that the majority of the actresses in *Family Circle*, *Cosmopolitan*, and *Popular Mechanics* appear to be thinner than the average American woman also supports unrealistic beauty standards. This can be a problem because “in the contemporary United States, thinness is associated with high social status and taken as evidence of moral virtue,” which contributes to inequalities (Saguy & Gruys, 2010, p.231). The break that exists between women and DTCA, “between an idealized image and the reality of their own appearance,” contributes to body image and mental health problems (Milkie, 2002, p.841).

Body images issues may also be compounded when women face weight stigmatization that is reinforced by appealing to a health approach that places the blame for obesity on the individual rather than the contributing factors in society. The headline in the weight reduction Belviq advertisement in *Family Circle* warns readers that “You could be carrying more than just extra weight,” which induces fear that the consumer’s body may have hidden illnesses that need to be discovered (Arena Pharmaceuticals GmbH, 2014, p.124-125). While advertisers like to “market uncertainty as worry,” this attempt to “motivate individuals to adopt healthier behaviors” has negative public health implications because “stigmatization of obese individuals threatens health, generates health disparities, and interferes with effective obesity intervention efforts” (Dumit, 2012, p.60; Puhl & Heuer, 2010, p.1019).

Other advertisements that highlighted the importance of appearance and beauty standards include the *Family Circle* advertisement for Otelza. Text in the advertisement stated that “When people see your psoriasis, before they see you. Hello Otelza,” thus reinforcing the idea that outer appearances are more important in American society than inner beauty (Celgene Corporation, 2014, p.71). The marketing of this product implied that the “redness, thickness, and scaliness of plaque psoriasis” is worse than the potential for “suicidal behavior,” given that it warns “Otelza is associated with an increase in adverse reactions of depression” (Celgene Corporation, 2014, p.71).

Types of Prescriptions Advertised to Women: Locus of Responsibility for Contraception

The fact that family planning prescriptions only appeared in the women’s magazines reflects larger societal problems regarding holding men more accountable for birth control, which is embedded within a contentious history of advertising contraceptives. In 1873, the Comstock Act of 1873 classified contraceptive information and materials as obscene, enacted

criminal penalties for distributions of information or materials related to birth control through the federal mail. Up until the 1960s Supreme Court law, there were federal and state laws banning the use of birth control (Clemmitt, 2005, p.577). Prescription family planning precautions tend to fall on the responsibility of women due to social norms and gendered expectations. While the United States Food and Drug Administration (FDA) approved the first birth control pill on May 9, 1960, since then no FDA approved male oral contraceptive has followed despite a “birth control pill for men” being forecasted since the 1960s (Linden-Ward & Green, 1993, p.335; Southam, 1965, p.166).

Contraceptives in *Cosmopolitan*

In addition to *Cosmopolitan*'s not bringing men into the family planning process, *Cosmopolitan*'s direct-to-consumer prescription advertising contributes to the medicalization of the normal life process of menstruation and the ability to control pregnancy. Eighty percent of the prescriptions advertised in *Cosmopolitan* were for birth control drugs and technology. This implies negative messages about its female audience and implies that the primary medical intervention for a young woman should be control over her fertility. *Cosmopolitan* targets a younger audience and self-reports 56% of their surveyed audience to be women between 18 and 34 years old (Hearst Corporation, 2014b). The fact that the vast majority of prescriptions directed towards young women are for birth control purposes implies that the locus of sexual responsibility for avoiding unplanned pregnancies lies overwhelmingly with women, and this is reinforced by the arrangement of there being no men in any of *Cosmopolitan*'s birth control advertisements, although presumably the women are having heterosexual relations if they are at the risk of becoming pregnant.

Furthermore, while these advertisements use “feminist tenets of control and choice” to market contraceptives, there are in fact three gatekeepers to oral contraceptives: the prescribing doctor who must write the prescription, the insurance company that helps cover the cost of the prescription, and the pharmacy that must keep the medication in stock (Medley-Rath & Simonds, 2010, p.785). In order to obtain control over their reproductive systems, women in fact give up some control, especially with the long-term implants and intrauterine devices (IUDs) that a woman cannot remove herself and must have her doctor remove for her, thus guaranteeing her birth control compliance.

All of the birth control products in *Cosmopolitan* were for long-term use, which implies that either women are forgetful or cannot follow simple contraceptive instructions. Thirty-five percent of the contraceptive advertisements (7 of 20 prescriptions) in *Cosmopolitan* were for IUDs, including six Skyla IUDs which last for 3 years and one ParaGard IUD that provides protection for 10 years. Forty percent of the contraceptives advertisements (8 of 20 prescriptions) in *Cosmopolitan* were for Nexplanon, which is a birth control implant that must be inserted and removed by a medical professional and provides protection from pregnancy for 3 years. Twenty-five percent of the contraceptive advertisements (5 of 20 prescriptions) in *Cosmopolitan* were for NuvaRing, which a woman a woman inserts herself every month rather than taking an oral contraceptive pill every day. The fact that none of the contraceptives advertised in *Cosmopolitan* were for daily use reinforces the gender stereotype of women as “incompetent” (Coughlin, 1994, p.59). The predominance of birth control advertisements in *Cosmopolitan* even though 61% of *Cosmopolitan*'s readership is unmarried also implies that women are having sex outside of marriage (*Cosmopolitan*, 2009, p.1).

Family Planning in *Family Circle*

The trend of marketing long-term birth control products continued into *Family Circle* where the only family planning advertisement was for Essure, which is a permanent birth control procedure performed by the woman's doctor. Essure was also the only birth control advertisement in any of the magazines in this study to feature a male character, which could have been an attempt at acknowledging men's part in family planning. However, vasectomy as a safe and permanent birth control option performed on a man's body instead of the woman's body was never marketed, implying that birth control is a woman's responsibility. There are also problems with this particular birth control form being advertised because of Essure's safety concerns. The FDA reconvened its Obstetrics and Gynecology Devices Panel after "women with Essure implants [...] reported large numbers of adverse events [...] including incomplete procedures, tubal perforations, intractable pain and bleeding leading to hysterectomies, possible device-related deaths, and hundreds of unintended pregnancies" (Dhruva, Ross, & Garipey, 2015, para.3).

Race and Predominantly White Characters

The small number of non-white people in the advertisements in this study reflects larger social problems of not valuing people of color. None of the 19 advertisements in the men's magazines had people of color in them. Only five advertisements in *Cosmopolitan* had non-white characters, which were all African American women in birth control advertisements. Only 4 advertisements of the 101 advertisements in *Family Circle* had non-white characters. The *Family Circle* advertisements included one African American young girl in the ADHD Quilivant XR medication, two advertisements with an African American woman sitting outside marketing Estrin for painful sex after menopause, and one Tamiflu advertisement with an ill African American woman in her doctor's office for treating the flu. The fact that the highest

concentration of advertisements with people of color were for birth control products is problematic, given the controversial history of contraception being connected to the promotion of “black genocide” (Caron, 1998, p.545). Having the only non-contraceptive prescriptions with non-white characters be for women having sex and for children’s ADHD medication implies that women of color are not appreciated in non-sexual capacities and that children of color are seen as needing to “improve [their] attention and behavior” (Pfizer Inc., 2014k, p.91). There were no men or boys of color in 145 prescription advertisements in this study, which also implied that males of color were unvalued.

Sexism and Stereotypes Hurt Men

While gender equity is often about women, such as when the “contraceptive equity movement” objected to health insurance companies covering Viagra for men while not covering birth control for women, gender studies also encompasses discussions about masculinity and how traditional gendered notions negatively affect men (Loe, 2004, p.60). Prejudice, gender stereotyping, and discrimination on the basis of sex that make up sexism are things that affect all people regardless of their gender identity. American culture pressures boys and men to feel like they need to have certain physical attributes, such as being tall and muscular, as well as behaving in certain ways, such as being involved with sports. Society expects men to express their manhood as determined by the hegemonic masculinity model, including having lots of sex. Men also are expected to emotionally feel in certain ways, such as discounting their fears and feeling like they aren’t supposed to cry or be vulnerable or be the protected rather than the protector in a relationship. This socialization may lead men to feel that they should avoid or delay seeking advice from their doctor because it would be them asking for help or to feel that if they do go to the doctor that they should gather enough information beforehand to make a prescription request.

Many of these pressures pose themselves as being opposite to women when it would be better if everyone could live in a world where it is widely recognized that there is more than one way to be a man or a woman and that all people have combinations of feminine and masculine traits along a continuum, as opposed to a strict binary. The effects of sexism can seriously impact the lives of both women and men. For example, there have been men who were raped and not believed because of cultural assumptions that men want sex all of the time and, therefore, must have wanted it rather than have been forced. For example, men in the military greatly underreport being victims of sexual assault due to “fearing that they would be punished, ignored or ridiculed if they reported the attacks” (Dao, 2013, p.A12).

These sets of sexist beliefs are reinforced through the media. The fact that all of the prescription advertisements in *WIRED* were for Viagra assumes that men are mostly interested in sex rather than recognizing the complexity of people’s lives. This one-dimensional assumption of men’s exclusive focus on sexuality is reverse sexism because it reinforces dangerous and wrong beliefs that men should be able to perform sexually in order to be masculine. Theodore James Skovranek, a male sexual assault victim, questioned his manhood after he was told that his assault “was not a big deal” (Dao, 2013, p.A12). Men are expected to “always be ready for sex and to be the aggressors in sexual relationships” (University of Michigan, 2016, para. 9). Sexism is evident in what is not present as well as what does appear in men’s magazines. Men love their pets and children, but the advertisements in the men’s magazines were completely devoid of these characters. Not only were there no pet or child characters in either *Popular Mechanics* or *WIRED*, but also the type of products marketed indicated a lack of consideration for these parts of men’s lives. There were no advertisements for prescription products for pets or advertisements for children’s ADHD medicine in either *Popular Mechanics* or *WIRED*.

Low Testosterone as a Disease

Masculine ideals are presumed in an advertisement for a drug targeted to men that treats low testosterone in males (e.g. Axiron), however no claims are made in the January 2014 advertisement in *Popular Mechanics* as to why low testosterone might be a problem (Eli Lilly and Company, 2014e, p.28-29). No benefits other than increasing testosterone levels are put forth to justify taking a product that might increase the user's risk of prostate cancer, cause blood clots, or cause breathing problems. The reader is assumed to know already why it is detrimental to a man's life to have a low level of testosterone, even though the advertisement does not indicate what the symptoms of low testosterone might be. The message being inaccurately conveyed makes a direct connection between the character's predominantly male profession of refereeing baseball, his masculinity, and his testosterone level. Testosterone naturally and normally declines as men age and it is not necessarily pathology. The Mayo Clinic Staff (2015) warns, "health benefits of testosterone therapy for age-related decline in testosterone aren't as clear as they may seem" and that "a blood test is the only way to diagnose a low testosterone level" because all of the symptoms could easily be caused by alternative conditions, "including medication side effects, obstructive sleep apnea, thyroid problems, diabetes and depression" (para. 3 & 13). The Axiron advertisement also has to disclose that it is a controlled substance available by prescription only because "it contains testosterone that can be a target for people who abuse prescription medicines," meaning that the company openly admits that people who do not have a disease are susceptible to wanting to take this product for non-medicinal benefits, such as enhanced athletic performance (Eli Lilly and Company, 2014e, p.28-29).

Low testosterone and other diseases whose treatments were advertised are examples of medicalization. Since "all men go through a profound decline of their androgen production,

[including testosterone production,] from middle age on” and “the measure and meaning of testosterone levels remain contentious issues,” the advertising of low testosterone medication may be contributing to the medicalization of a natural male aging process (Conrad, 2007, p.30). Conrad argues (2007) that both the trend towards more testosterone therapy “technological advances made in the pharmaceutical realm” and the growing distribution of these treatments enable the medicalization of declining testosterone levels (p.31). “Men become complicit in their own medicalization” because “testosterone is often portrayed as a miraculous substance, with amazing power to restore or enhance masculinity” (Conrad, 2007, p.33). For example, the two Axiron advertisements in *Popular Mechanics* that read “Less energy, moodiness and low sex drive could be a sign of low testosterone. Ask your doctor if Axiron is right for you” connect the low testosterone treatment to being able to increase “sex drive” in men who use their product (Eli Lilly and Company, 2014d, p.44-45). The growing sensation with testosterone products and erectile dysfunction has “spurred on the masculinity industry” in which “masculinity [is] for sale” as a commodity (Loe, 2004, p.173-174).

Prescriptions for Sex

In particular, many of the drugs advertised were not only products that contributed to medicalization, but specifically lifestyle drugs centered on heterosexual sexual intercourse. Lifestyle drugs made up significant percentages in every magazine studied: 19 of the 101 advertisements in *Family Circle* (19%), 20 of the 25 advertisements in *Cosmopolitan* (80%), 9 of the 15 advertisements in *Popular Mechanics* (60%), and 4 out of 4 advertisements in *WIRED* (100%). Of the 19 lifestyle advertisements in *Family Circle*, 4 were for permanent birth control and the other 15 advertisements were for treating painful sex after menopause, implying that the reader was sexual active or has the expectation of having sex. All 20 of the lifestyle

advertisements in *Cosmopolitan* were for family planning, implying that the women were engaging in sex with men that could result in pregnancies. Six of the 9 lifestyle advertisements in *Popular Mechanics* were for treatment of erectile dysfunction, implying the reader's desire to be sexually active. All of the advertisements in *WIRED* were for the lifestyle drug Viagra that also treats erectile dysfunction and "is one of the 'party drugs' of our times" when used recreationally (Albaugh, & Kellogg-Spadt, 2003, p.75).

American society in the 21st century has a "quick-fix pill culture that normalizes prescription drugs for lifestyle" reasons (Loe, 2004, p.170). The "masculinity crisis" driven by the pharmaceutical manufactures encourages "unattainable standards related to sex and gender" and creates "performance anxiety" (Loe, 2004, p.173). Loe (2004) calls the phenomena of "worrying about ED may in fact cause ED" a "nocebo effect" because "the more anxiety a corporation can produce, the larger its market" (p.54). Erectile dysfunction prescriptions like Cialis market themselves to male readers by saying, "you can be ready anytime the moment is right with a free 30-tablet trial of Cialis for daily use" (Eli Lilly and Company, 2014c, p.60-61). However, in *Family Circle* the marketing conversation was not about how to be masculine by requiring "daily use" of ED medication, but instead was about the pharmaceutical manufacturer of Viagra sending women the message that they need to also be ready for heterosexual vaginal intercourse: "When a kiss may turn into more than a kiss. Over time, ESTRING (estradiol vaginal ring) 2 mg may provide relief for many women who experience painful sex after menopause" (Eli Lilly and Company, 2014c, p.60-61; Pfizer Inc., 2014l, p.111). "Over time" implies that even though the sexual intercourse is painful that the woman reader should keep having sex that physically hurts her with the hope that with Pfizer's product eventually the sex

will stop causing her physical pain, which may be accompanied by emotional pain (Pfizer Inc., 2014l, p.111).

Not all women like that ED medication “turns inactive husbands into sexualized animals,” and some older women feel “frustrated and ‘worn out’” and are “collectively rethinking marriage, male potency, and traditional gender roles in the Viagra era” (Loe, 2004, p.111-112). “Hundreds of thousands of women” are angry that ED medications and their marketing campaigns exert “various social pressures to be sexual – [these older women are] insisting that they are ‘tired,’ they have ‘earned a rest,’ and they have ‘done their [marital] duty’” (Loe, 2004, p.113). At the same time that *Popular Mechanics* promoted ED prescriptions to older men, there was a simultaneous market for older women, whom may be having sex with men on ED drugs, in the field of treating painful sex after menopause. Fifteen advertisements in *Family Circle* were for treating painful sexual intercourse. The married woman with grey and white hair who was prominently showing her wedding band endorsed in the Osphena advertisement that “sex after menopause shouldn’t have to hurt” (Shionogi Inc., 2014a, p.33). Osphena also reminded women that “painful sex after menopause isn’t sexy” (Shionogi Inc., 2014b, p.94-95).

The female readership of *Cosmopolitan* was presumed to be having potentially procreative sexual intercourse. The fact that 80% of the prescription advertisements in *Cosmopolitan* were for family planning products assumes that younger women are mostly interested in sex rather than recognizing the full complexity of women’s lives with regard to the type of prescriptions advertised. The NuvaRing birth control vaginal ring advertisement with a woman with her mouth open saying “Oh” under the phrase “‘Isn’t it tricky to get that in there?’”

made women sound ditsy and uncomfortable with referring to their own anatomy as something other than “there” (Merck & Co., 2014d, p.141).

Professional Roles Distribution

The way in which the advertisements presented characters also supported traditional gender divisions of labor by more often including men as working professionals and women as parents, which reinforced stereotypical notions of hegemonic masculinity and emphasized femininity. *WIRED* featured men as professionals in 75% of their advertisements and *Popular Mechanics* featured men as professionals in 31% of its advertisements with men in them, even though neither magazine featured women as professionals. The businessmen shown in the Viagra *WIRED* advertisements and *Popular Mechanics*' male professions of construction, paleontology, and baseball referring were all masculine professions (Eli Lilly and Company, 2014d, p.44-45; Bristol-Myers Squibb Company, 2014b, p.50-51; Eli Lilly and Company, 2014e, p.28-29). While *Family Circle* showed men as professionals in 15% of their advertisements that featured men, *Family Circle*'s featuring 21% of their women as professionals, and *Cosmopolitan*'s featuring women as professionals in 56% of their advertisements, the percentages are all lower than *WIRED*'s 75% of its advertisements featuring men as professionals. While *Cosmopolitan* used parental imagery to describe its women as mothers in 40% of its advertisements, neither the men's magazines nor *Cosmopolitan* ever featured men as fathers, and *Family Circle*'s depiction of men as fathers in 20% of the advertisements was less than its depiction of women as mothers in 22% of its advertisements. These depictions of women as parents and men as professionals promotes gendered expectations of women in caretaking roles at the absence of having men involved in family responsibilities and promotes hegemonic masculine assumptions about men as being masculine professional providers instead of nurturers.

Gender and Health

Both biology and social contexts contribute to people's health and well-being. American women have longer life expectancies than men, but "women experience higher morbidity and psychological distress" (Bird & Reiker, 1991, p.746). Gender "creates different risks and protections for physical illnesses, produces different behavior when ill, elicits different responses in health care personnel" and impacts treatment priorities (Lorber & Moore, 2002, p.3). Bird and Reiker (1991) suggest the framework of "amplification" to explain how biological sex differences can be "exacerbated by the social organization of men's and women's lives" (p.750-751). For example, while women's higher risk for depression and "men's tendency toward more physically aggressive behavior" might have roots in some biological basis like differences in sex hormones, these traits "are reinforced (if not created) through a lifetime of gender socialization" that "encourages women to accommodate others and allows men to express anger and frustration more readily than women" (Bird & Reiker, 1991, p.751). These gender stereotypes hinder people's health. Women's stress, such as family stress from societal expectations of being the primary caretaker of household work and childcare, suggest a "gendered nature of the relationship between stress and illness" (Bird & Reiker, 1991, p.750). Men's socialized tendency towards aggression hurts men; for example, "clinicians believe that men are not interested in seeking psychosocial support for problems such as prostate cancer through support groups, despite the fact that men are less likely than women to have a support network" (Bird & Reiker, 1991, p.753). That "men are also more likely to be violent both with women and with other men" can be "linked to men's greater risk of injury," and "women's higher rates of health care utilization are in part due to the physical and psychological consequences of men's violent behavior" (Bird & Reiker, 1991, p.750).

Policy Recommendations

The pharmaceutical industry organization Pharmaceutical Research and Manufacturers of America (PhRMA) claims that their voluntary recommendations in their PhRMA Guiding Principles on Direct to Consumer Advertising about Prescription Medicines “reflect [their] commitment to improving the educational value of prescription medicine advertisements” (2013, para. 4). However, these guidelines only explicitly limit DTCA images and themes by saying that companies should evaluate whether or not “the advertisement, taken as a whole, is sexually explicit in nature such that it is not suitable for children” (Pharmaceutical Research and Manufacturers of America, 2008, p.14). The open boundaries of these guidelines allow prescription marketers to use emotional ploys by appealing to stereotypically gendered beliefs rather than strictly providing educational information about their product. The findings of this study could inform policy decisions about these guidelines to discourage the use and reinforcement of gender stereotyping in DTCA. Since companies are not required to follow PhRMA’s guidelines, integration of restrictions on gendered messages would also be beneficial in other pharmaceutical regulatory organizations, such as the Food and Drug Administration (FDA), which oversees the marketing of prescription drugs to ensure that DTCA is accurate and not misleading.

Implications for Daily Life

DTCA is ubiquitous in everyday life. It is important to recognize what products are being pushed onto the public because prescriptions in particular have become “part of the normal routine” (Loe, 2004, p.169-170). Something that the general public needs to realize is that many of these products that companies are trying to convince people that they need, people actually do not need. Not only do prescription direct-to-consumer advertisements lead to increased

medicalization, they also amplify gender differences and contribute to reinforcements of gender stereotypes. As the media, including prescription DTCA, socializes men to conform to standards of hegemonic masculinity, men's health can be negatively affected by the stress of feeling like they have to be professional providers or they have to always be ready for sex or they should not be nurturing, all of which is not true and does not have to be the case. At the same time, women can feel additional pressure to disproportionately take care of their families out of expectations reinforced by prescription DTCA character images and prescription types implying that they should carry out emphasized femininity. Advertisements directed at men and women accentuated existing beliefs about gender in American society in ways that can lead to negative health outcomes and that maintained traditional gender norms and values that can limit men and women's abilities to grow as people.

Appendix A - Diseases Represented in Each Treatment Type in *Family Circle*

Treatment Type	Advertised Purposes	Product Names
Acute	Flu	Tamiflu (2 ads)
Life-Limiting	Multiple Sclerosis Overactive Bladder Hot Flashes Constipation Fibromyalgia Migraines Chronic Dry Eye Psoriasis	Aubagio (2 ads) Botox (5 ads) Brisdelle (3 ads) Duavee* (3 ads) Linzess (6 ads) Lyrica (3 ads) Relpax (4 ads) Restasis (5 ads) Otezla (1 ad)
Lifestyle	Permanent Birth Control Painful Intercourse	Essure (4 ads) Estring (6 ads) Osphena (5 ads) Premarin (4 ads)
Life-Threatening	Asthma Chronic Obstructive Pulmonary Disease (COPD) Diabetes	Advair (1 ad) Dulera (2 ads) Symbicort (3 ads) BREO (8 ads) Humalog KwikPen (6 ads) Invokana (2 ads) Januvia (2 ads)
Mental Health	Depression Attention Deficit Hyperactivity Disorder (ADHD) Bipolar Disorder	Abilify (5 ads) Quillivant XR (4 ads) Seroquel XR (2 ads)
Risk Reduction	Weight Loss Parasite Protection Osteoporosis Prevent Bone Loss	Belviq (1 ad) NexGard (1 ad) Trifexis (3 ads) Prolia (8 ads) Duavee* (3 ads)

*represents same advertisement being presented under two categories

Appendix B - Diseases Represented in Each Treatment Type in *Cosmopolitan*

Treatment Type	Advertised Purposes	Product Names
Acute	None	None
Life-Limiting	None	None
Lifestyle	Family Planning	ParaGard (1 ad) (10 year use) Skyla (6 ads) (3 year use) Nexplanon (8 ads) (3 year use) NuvaRing (5 ads) (monthly use)
Life-Threatening	None	None
Mental Health	Depression	Pristiq (5 ads)
Risk Reduction	None	None

Appendix C - Diseases Represented in Each Treatment Type in *Popular Mechanics*

Treatment Type	Advertised Purposes	Product Names
Acute	None	None
Life-Limiting	Benign Prostatic Hyperplasia (BPH)	Cialis* (4 ads)
Lifestyle	Erectile Dysfunction (ED) Low Testosterone (Low T)	Viagra (2 ads) Cialis* (4 ads) Axiron (3 ads)
Life-Threatening	None	None
Mental Health	None	None
Risk Reduction	Prevent Strokes	Eliquis (6 ads)

*represents same advertisement being presented under two categories

Appendix D - Diseases Represented in Each Treatment Type in *WIRED*

Treatment Type	Advertised Purposes	Product Names
Acute	None	None
Life-Limiting	None	None
Lifestyle	Erectile Dysfunction (ED)	Viagra (4 ads)
Life-Threatening	None	None
Mental Health	None	None
Risk Reduction	None	None

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