

MPC MAJOR RESEARCH PAPER

Picture-Perfect Vitamins:
The Semiotics of Health Supplement Marketing on Instagram

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The Major Research Paper is submitted in partial fulfillment of the requirements for the degree of Master of Professional Communication.

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August 1, 2019

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Acknowledgments

I want to thank my supervisor, Dr. Jessica Mudry, for her constant guidance, feedback, and support. Her expertise of food and communications has been invaluable towards the research and writing of this MRP. Thank you.

I would also like to thank my second reader, Dr. Carolyn Kane, for her valuable feedback and comments.

Abstract

This major research project (MRP) explores the semiotics of health supplement marketing on Instagram. Specifically, this MRP examines the visual social media marketing techniques utilized by vitamin supplement companies in health images on Instagram, and the images communicated messages and implications. Through a qualitative content analysis case study approach, two vitamin supplement companies Instagram images were analyzed and compared: Sugar Bear Hair and Ritual. An image analysis guided by Roland Barthes semiotic theory of myth was conducted on 20 images posted on each company's Instagram profile on and before April 1, 2019. The results suggest that health brands use a variety of visual marketing techniques to market their brands and products to users on social media, such as colours, influencers, and computer-generated imagery. In addition, the communicated messages in health images, or the "Barthian" myths as referred to in this study, exaggerate and differ from the scientific evidence surrounding the efficacy of vitamin supplements. Lastly, the myths derived from the images have the potential to confuse consumers, which may lead to health repercussions. This research contributes to the field of health communications as it builds upon literature that has found that marketing health via traditional and social media can be misleading and that organizations and brands on social media can do more to communicate necessary and accurate health messages.

Keywords: semiotics, health supplement marketing, Instagram, social media, images, vitamin supplement companies, Roland Barthes, myth

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Introduction

In the era of social media, images must look picture-perfect. From photos of colourful smoothie bowls to jaw-dropping, exotic travel destinations, images are strategically curated, styled, and edited to ensure maximum visual stimulation and user engagement on social media. Users go to great lengths to snap the picture-perfect photo for social media; they risk their lives taking photos hanging off of sky-high cliffs and moving trains, and others visit places only because of their trendy photogenicity. The term “Instagrammable” has even been adopted to describe a moment or thing photogenic enough to post on to the photo-sharing platform, Instagram. Images on social media are held to high aesthetic standards as any user becomes both a photographer and a critic.

Organizations and brands from varying industries are utilizing social media, all looking to catch the eyes of audiences in different ways. Perhaps one of the least expected industries on social media is the health industry—a conglomerate of organizations and brands that provide or sell health-related services and products. Given the health industry’s rather serious agenda to improve and affect the health and wellbeing of consumers, silly photos, memes, and emojis can make social media appear playful rather than educative and credible but even the health industry can benefit from social media’s different affordances. Now, health images of pharmaceuticals to abdominals can be viewed on social media in the palm of one’s hand.

The advent of the social media has provided a new arena for health communications, as it “provides large opportunity for health promotion, enabling public health professionals to reach out far and wide and directly to the public” (Gupta, Tyagi & Sharma, 2013, p. 293). Social media also provides large opportunity for health brands to reach potential consumers with their health products and services. Harnessing the inexpensive online tools for health communications is

advantageous because “social media can bring the whole health industry at one’s fingertips by networking with other industry leaders and showcasing potential customers their mission and greatest assets in a visual medium” (Gupta et al., 2013, p. 294). Additionally, “with the baby boomer generation retiring and a new generation taking up the role adoption of social media can give an organization strategic and competitive advantage in connecting and retaining patient population” (Gupta et al., 2013, p. 295). To use social media effectively, organizations and brands are advised to carefully choose their strategies because social media content can be short lived and grabbing the attention of a vast audience is a challenge that public health agencies can face (Gupta et al., 2013, p. 301).

Different social media platforms afford different forms of marketing based on the design of the platform. Instagram, for instance, “combined with the smartphone on which it runs, is an image machine that stimulates and captures the productive activity of producing, circulating, and attending to images” (Carah & Shaul, 2016, p. 71). When it comes to visual marketing, Instagram is a powerful tool as users of the platform can be enticed by or exposed to businesses and organizations strategically curated images. Among the businesses and organizations using Instagram as a marketing tool are direct-to-consumer vitamin supplement companies like Sugar Bear Hair, which sells hair vitamin supplements, women’s multivitamin supplements, and sleep vitamin supplements and Ritual, which sells women’s multivitamin supplements and prenatal vitamin supplements. These companies are unique as they market directly to their end-consumers through Instagram. The direct-to-consumer model differs from the typical business-to-business model because it does not involve another party, such as a retailer or wholesaler, between the manufacturers and consumers like the business-to-business model (Chen, 2019). Sugar Bear Hair and Ritual have both received attention for the visual aesthetics of their vitamin supplements and

social media content. Sugar Bear Hair’s Tiffany-blue, bear-shaped hair vitamin gummies have been endorsed on Instagram by members of the Kardashian and Jenner families who have hundreds of millions of followers on the platform, and Ritual’s clear capsules enclosed with gold oil and vitamins that you can see are strategically a part of the company’s transparent, “good-looking science” policy and marketing aesthetic (Ritual, n.d.).

Currently, the vitamin supplement industry is worth billions despite insufficient scientific evidence to suggest that taking vitamins supplements when eating healthy is guaranteed to improve one’s health or protect one from certain diseases (Caulfield, Clark, McCormack, Rachul, & Field, 2014). The value of vitamin supplements has also been heavily debated and not only in the scientific community; “with health, wealth, and power at stake, more players enter the battle: other scientists, manufacturers, pharmacists, physicians, policy makers, politicians, vitamin retailers, and consumers themselves” (Apple, 1996, p. 2). Despite lack of evidence and controversy, the global vitamin and dietary supplement industry is worth billions (Caulfield et al., 2014). In Canada, vitamin and mineral sales produced \$518.4 million in revenue in 2017, and in the United States, revenue from vitamin and nutritional supplement production reached \$30.7 billion in 2018 (Statistica, 2019a; Statistica, 2019b). This calls the common practise of vitamin supplement companies and the information and content they communicate and market into question.

Through a comparative case study of Sugar Bear Hair and Ritual vitamin supplement companies, I will explore how vitamin supplements are marketed on social media through images. Both Sugar Bear Hair and Ritual are direct-to-consumer vitamin supplement companies with large Instagram followings—Sugar Bear Hair with 2.5 million followers and Ritual with 121 thousand followers— that leverage the platform to visually market their health brands and

products online. The perceived target audience for both companies is also the same: females of the Millennial and Generation Z cohorts, which will be discussed at length later in this study. Drawing from Roland Barthes semiotic theory of myth, I will analyze and decode the myths derived from the Instagram images and examine their relation to scientific evidence. My case study will essentially highlight the construction of myth in social media image marketing within the vitamin supplement industry.

The study aims to answer the following research questions:

RQ1: How do health companies visually market their products and brands on Instagram?

RQ2: What are the “Barthian” myths constructed in the marketed images, and how do they compare to the scientific evidence surrounding the efficacy of vitamin supplements?

RQ3: What are the possible implications of the “Barthian” myths on consumers knowledge of the efficacy of vitamin supplements and the appropriate consumption of vitamin supplements?

Literature Review

This literature review will provide a synthesized discussion on the research related to my topic in the following four sections: 1) Social Media Health Communications and Marketing, 2) The Construction of Myth in Image Marketing, 3) Marketing Vitamins and Other Dietary Supplements via Traditional Media, and 4) Marketing Food and Drugs on Social Media, Instagram.

Social Media Health Communications and Marketing

The following section provides an overview of social media health communications and marketing and outlines research on healthcare organizations and health-related organizations use of social media. A study conducted by Klassen et al. (2018) identified and quantified the social media strategies utilized by the ten most popular lifestyle and food brands and six health promotion organizations on Facebook and Instagram. From their analysis, the authors found that health promotion organizations use the following marketing strategies on the platforms: providing statistics and facts, using a serious tone, and including informational posts that linked to more informational sources; “however, these posts had minimal engagement from fans” (Klassen et al., 2018). On the other hand, the lifestyle brands analyzed use a more positive tone and focus on building relationships with users, which is “advantageous” because “positive emotion-inducing strategies were associated with more interactions on Facebook and Instagram” (Klassen et al., 2018). Overall, the authors suggest that health promotion organizations should “tailor [social media content] to suit not only the target audience but also, the social media channel being used” (Klassen et al., 2018). In addition, “health promotion practitioners and organizations can learn from other types of brands and consider using few statistics and more positive content to relay healthy eating messages” (Klassen et al., 2018).

Heldman, Schindelar, and Weaver (2013) also discuss how public health organizations can use social media better to engage audiences. The authors note, “social media are designed to be engaging, but often are used as a mechanism by public health organizations and practitioners for mass information dissemination rather than engaging audiences in true multi-way conversations and interactions” (Heldman et al., 2013, p. 1). Thackeray, Neiger, Smith, and Van Wagenen’s (2012) study also found that public health agencies reach on social media is limited because they disseminate information rather than engaging with audiences. To better engage with audiences on social media, Heldman et al. (2013) propose seven principles of social media engagement that public health organizations should follow. Some of the principles outlined are: “listening to social media conversations, engaging with influencers and their conversations, creating opportunities for users to engage with [the] organization and for users to engage with each other, and welcoming and soliciting user-generated content” (Heldman et al., 2013, p. 6-8). The authors highlight that one of the most important reasons that social media engagement should be taken advantage of by public health organizations is the “potential impact on health behavior change” (Heldman et al., 2013, p. 10).

Gupta et al. (2013) highlight certain health organizations that appear to be using social media marketing effectively. In their report, the authors discuss the use of “social media marketing in health promotion and education” through a series of six case studies informed by an extensive literature search and the six different types of social media according to Kaplan and Haenlein: collaborative projects, blogs and microblogs, content communities, social networking sites, virtual game worlds, and virtual social worlds (Gupta et al., 2013, p. 293). The first case study on content community discusses the Centers for Disease Control and Prevention (CDC) and how they used social media and content communities during the H1N1 flu outbreak to “share

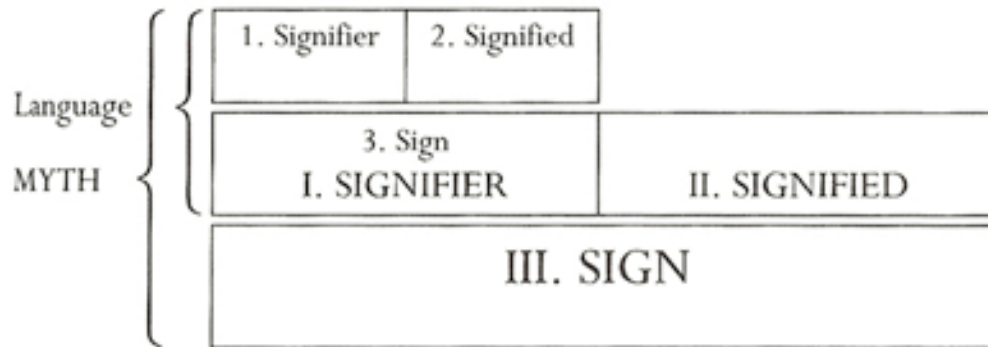
important information about the swine flu, answering to people's query and concern and induced trust among the users" (Gupta et al., 2013, p. 296). The authors note that the CDC has "risen like a star in the web 2.0 movement, as the centre has been wildly active and successful in utilizing social media to raise awareness of recent public health problems and crises" (Gupta et al., 2013, p. 295). The third case study on social networking sites discusses the Mayo Clinic's successful use of Facebook. The clinic uses the platform to connect with users online, share patients and employees' stories, and post health information (Gupta et al., 2013). Although social media has provided large opportunity for the public health community, Gupta et al. (2013) also note, "like every coin has two sides... [social media's] cautious use is imperative to prevent colossal damage" (p. 301).

The Construction of Myth in Image Marketing

Drawing from structural linguist Ferdinand de Saussure's work on semiology, Roland Barthes developed the semiotic theory of myth. In "Myth Today," Barthes (2009/1973) defines myth as a "type of speech" that "can consist of modes of writing or representations; not only written discourse but also photography, cinema, reporting, [etc.]" (p. 261). Barthes (2009/1973) takes Saussure's linguistic sign system composed of the signifier and the signified and extends it to include myth, as he argues for a second-order of signification from the first. The first-order signification derived from a sign is the literal meaning, whereas the second-order signification is myth—the ideologically motivated message. Barthes (2009/1973) describes myth as a "peculiar system, in that it is constructed from a semiological chain that existed before it: the first-order signification" (p. 263). Myth's objective is to appear innocent and neutral rather than strategically motivated and constructed to persuade an audience (Barthes, 2009/1973, p. 266).

Barthes' visual representation of the two-level, first and second-order semiological system is included in Figure 1 below:

Figure 1. Barthes' Semiological System



Source: Barthes, R. (2009). Myth Today. In J. Storey (4th Ed.) Cultural Theory and Popular Culture: A Reader (261-269). Pearson Education Limited. (Original work published in 1973).

Barthes provides an example of myth in his essay when he discusses the cover of a *Paris-Match* magazine. On the cover, Barthes (2009/1973) describes the image depicting “a young Negro in a French uniform saluting, with his eyes uplifted, probably fixed on a fold of the tricolour [flag]” (p. 265). The image depicts both first-order and second-order significations. The first-order signifies: “a black soldier giving the French salute,” whereas the second-order signifies myth: “France is a great Empire, that all her sons, without any colour discrimination, faith-fully serve under her flag, and that there is no better answer to the detractors of an alleged colonialism that the zeal shown by this Negro in serving his so-called oppressors” (Barthes, 2009/1973, p. 265). The cover uses the mode of photography to signify myth to persuade the audience of a specific ideology—in this case, French imperialism— while maintaining the appearance of something innocent (Barthes, 2009/1973). The long, exploitative history of French colonialism is suppressed in the image.

Myth is present in advertising as signs in advertisements are not only used denote something, but also to “trigger a range of connotations attached to the sign” to persuade an

audience of an idea or feeling surrounding a product, service, or brand (Bignell, 2002, p. 16).

Bignell (2002) provides an example of a shoe advertisement featuring a person stepping out of a Rolls-Royce vehicle. The advertisement “not only denotes the shoes and the car, but attaches connotations of luxury...suggesting mythic meaning in which the shoes are a privileged way of life” (Bignell, 2002, p. 16). With myth, “any material can be arbitrarily endowed with meaning” (Barthes, 1973/2009, p. 262). The shoes in the advertisement are endowed with mythic meaning of luxury because the sign of Rolls-Royce has been endowed with luxury.

A study conducted in 2004 analyzed 26 images of pharmaceutical advertisements in *BMJ* medical journal geared towards doctors. The study aimed to determine how drug advertisers use imagery to construct myth—drawing from Barthes’ theory of myth—and how the myths can have potentially misleading associations between diseases and drugs (Scott, Standford, & Thompson, 2004). From their image analysis, the authors found, “myth is often deployed in drug adverts to depict exaggerated therapeutic efficacy and that doctors should be aware of this” (Scott et al., 2004, para. 1). The pharmaceutical advertisements were found to use erotic imagery as marketing tactics, such as a half-naked woman with exposed breasts in an ad promoting the chemotherapy drug called Taxotere (Scott et al., 2004). The associations between the diseases and the products were marketed to appear “natural, unmotivated by commercial interest” (Scott et al., 2004, para. 16). The authors call for a need “to raise awareness of mythology in drug advertising, which may lead to doctors being better able to resist misleading promotion” and for closer regulations of these journals (Scott et al., 2004, para. 17).

Marketing Vitamins and Other Dietary Supplements via Traditional Media

Apple explores vitamins in American culture and the different reasons why Americans buy them in *Vitamina*. In the academic manuscript, Apple (1996) discusses advertising’s role in

the growth of vitamins sales (p. 182). In the 1920s and 1930s, pharmaceutical companies advertised vitamin supplements in magazines such as *Good Housekeeping* and *Parent's Magazine* that “prided themselves on attracting a specific audience: middle-class women, usually mothers” (Apple, 1996, p. 18). These pharmaceutical companies advertised their vitamin products using scientific claims, the “reason why,” and the “negative appeal” approaches (p. 19). The reason why approach consists of advertisements that stress “the results of a given purchase more than the actual product itself” and the negative appeal approach consists of advertisements that emphasize “the disadvantages of not having purchased the advertised product” (p. 19). Apple (1996) points to the similarities between the two approaches, as they draw on emotion and intellectual arguments to convince the reader to purchase products.

Science was also strategically used for advertising vitamin supplements, as the dominant ideology during the 1920s and 1930s was “scientific motherhood” (Apple, 1996, p. 19). Scientific motherhood referred to the conflicting idea that women were independent and strong, as they stayed home to take care of “all things domestic” and yet, dependent and weak as they “needed the assistance of media and scientific experts in order to carry out their maternal duties successfully” (Apple, 1996, p. 19). This idea was exploited in the pharmaceutical industry’s vitamin advertisements, along with “the emotions of fear, hope, and guilt” (Apple, 1996, p. 20).

In the late 1930s, a vitamin supplement company called Vitamin Plus advertised their supplements as a beauty aid and were available in the cosmetics section of department stores (Apple, 1996). The vitamins were targeted at middle-class women and “not people with gross vitamin deficiencies” (Apple, 1996, p. 29). In their advertisements, the company claimed that their products would help women’s makeup, hair, and nail polish stay set (Apple, 1996). Later, the company agreed, in discussion brought by the Federal Trade Commission, to halt their

advertising because their claims lacked scientific evidence (Apple, 1996). Despite the issue, the company's vitamins continued to be sold "until at least 1960" (Apple, 1996, p. 30). Apple (1996) highlights the similarities between the vitamin advertisements from the 1920s and 1930s and the vitamin advertisements at the time of writing her manuscript as both "draw on culturally accepted images of women and men, placing them in situations recognizable to readers" and "engage the emotions of the readers with positive and negative appeals; they play on people's fears and desires and...they're selling hope" (p. 31).

Before supplements reach consumers in Canada, they must undergo a pre-market review by the Natural and Non-prescription Health Products Directorate "to assure Canadians that label information is truthful and that health claims are supported by the appropriate scientific evidence" (Temple, 2013, p. 172). But in an analysis of dietary supplement advertising via traditional media in Canada, it appears that the regulators of dietary supplements are "asleep at the controls" because dietary supplement marketing is "misleading," "dishonest," and "widespread" (Temple, 2013, p. 172). Temple (2013) analyzed popular dietary supplements in advertisements found in Canadian health food stores, pharmacies, supermarkets, newspapers, magazines, TV advertising, and multilevel marketing and found that the marketing of dietary supplements is focused primarily on maximizing sales and profits (p. 172). In addition, to sell the products the "marketers of dietary supplements frequently used scientific evidence the way a drunk uses a lamppost: more for support than illumination" (Temple, 2013, p. 172). Temple (2013) highlights the need for the public to be aware of these marketing and advertising issues and seek credible sources for health information rather than advertisements.

Misleading supplement marketing is also highlighted in a study conducted by Basch, Roberts, Ethan, and Samayoa-Kozlowsky (2014) who examined the marketing techniques used

to promote children's vitamin supplements in advertisements found in three parenting magazines. The authors found that most of the advertisements depicted vitamin supplements that were similar in "texture to candy, created to encourage consumption (Lam et al., 2013)" and used cartoon characters "to influence children's brand preference and product recognition (Mehta, 2012; Federal Trade Commission, 2012)" (Basch et al., 2014, para. 14). In addition, the authors found that the advertisements did not include any informational messages such as warnings or recommended dosages (Basch et al., 2014, para. 14). Basch et al. (2014) argue that the marketing tactics and "candy-like appearance" of the supplements "may contribute to the risk of children's overconsumption of these products" (para. 14).

In a similar, cautionary train of thought to Basch et al. (2014), Toronto's medical officer of health (2019) has outlined the potentially dangerous and misleading marketing and appearance of cannabis edibles and other cannabis products in the wake of the legalization of cannabis in Canada. In the Report for Action, the officer recommends, "edible cannabis products that are particularly appealing to children due to their colour or shape (e.g. gummy bear, lollipop), should be prohibited" (Medical Officer of Health, 2019, para. 4). In addition, the officer recommends, "cannabis product labelling to include: a) Dosing information for vape cartridges...b) Warning on cannabis vape cartridges that the product has a high THC content; c) Health warning messages" (Medical Officer of Health, 2019, para. 4). Like the Report for Action, this MRP can act as a cautionary tale and advise best practise of vitamin supplement marketing, given its potentially dangerous impact on consumers.

According to Caulfield et al.'s (2014) study, how supplements are framed in the media is also misleading. In the study, Caulfield et al. (2014) analyzed 294 newspaper articles' representations of vitamin D supplements and found that vitamin D supplementation is framed in

misleading and asymmetric ways. It was determined that the majority of articles were framed in support of vitamin D supplementation even though “the state of the existing evidence around the health benefits of vitamin D supplementation is...unsettled” (Caulfield et al., 2014, p. 2).

Another problem was that a lot of the articles suggest that it is difficult to obtain vitamin D from diet alone but contrastingly, some articles claim that supplementation through diet and sun exposure is preferable to supplementation, and 25 percent of the articles claim that more research on vitamin D supplementation is necessary (Caulfield et al., 2014, p. 4). The authors conclude that the popular press is, in part, “helping fuel the demand for vitamin D supplements and the confusion about its value” (Caulfield et al., 2014, p. 6).

Misleading and asymmetrical supplement marketing is worthy of critique and analysis, as vitamin supplement advertising in print and television has been found to have an effect on consumer demand and consumption of vitamin supplements (Eisenberg, Avery, & Cantor, 2017, p. 42). In Eisenberg et al.’s (2017) study, the authors found that “advertising is driving the demand for [vitamin] products, with large and robust effects in the medium of print” (Eisenberg et al., 2017, p. 42). Misleading advertising “could make consumers vulnerable to claims of efficacy and improved health, which might cause significant market inefficiencies if consumers are making purchase decisions based on these claims” (Eisenberg et al., 2017, p. 30).

Marketing Food and Drugs on Social Media, Instagram

There is an overarching theme from the research collected that suggests that certain social media strategies used to market food and drugs can cause health-related implications and mislead users. The lack of adequate regulations on social media is also discussed as problematic.

Vassallo et al. (2018) conducted a study that explored food marketing on Instagram. One of the objectives of Vassallo et al.’s (2018) study was to determine the marketing strategies used by 15

of the most popular food and beverage brands— which are considered “junk food” brands like Burger King and Dominos— on Instagram. A primary finding from the study was that the brands use “a high frequency of targeted and curated posts that manipulate consumer emotions” through strategic marketing tactics like colours, celebrity endorsements, branded characters, and symbols (Vassallo et al., 2018, para. 5). For example, the authors found that the energy drink brands analyzed focused their marketing on “the symbolic uses of their products via extreme sports, rather than including any information on what their product actually is, looks, or tastes like” (Vassallo et al., 2018, para. 34). The authors argue that public health bodies should develop counter-marketing campaigns against unhealthy food and beverage marketing (Vassallo et al., 2018).

Barry et al. (2018) conducted a content analysis of alcohol advertisements on Instagram. From their analysis, the authors found that the images analyzed had a high production value, “frequently featuring color, texture, shine, and contrast” (Barry et al., 2018, para. 18). In addition, “many of the posts used product appeals and physical benefits to consumption” (Barry et al., 2018, para. 18). The posts also depicted rewarding appeal characteristics: positive emotional experiences, achievement, individuality, and camaraderie (Barry et al., 2018). Uncommon in the posts was the use of characters and youth-oriented genres (Barry et al., 2018, para. 18). The findings that Barry et al. (2018) draw particular concern towards are the posts with messages “which youth may be especially vulnerable: positive emotional experiences, friendship, individuation and achievement” (para. 27). Barry et al. (2018) highlight how research has shown that exposure to certain alcohol brands advertisements increases “brand-specific underage alcohol consumption (Ross et al., 2014)” (para. 30).

Miller (2013) explores the impact of social media marketing on health by analyzing “whether and how social media marketing [on Facebook, Youtube, and Twitter] may have an effect on the health of impressionable consumers” (p. 363). Miller (2013) contends that social media “are facilitating the propagation of negative as opposed to positive health promotion” (p. 362). For example, McDonald’s Facebook page was found to have nine times more Facebook “likes” than “three of the largest humanitarian organizations in the world combined” (Miller, 2013, p. 366). The most significant difference between McDonald’s and the humanitarian organizations analyzed is the content that they promote—the humanitarian organizations promote health and McDonald’s promotes its products (Miller, 2013, p. 363). Miller (2013) emphasizes: “It is not the intent of this author to excoriate McDonald’s...in their marketing strategies but rather to demonstrate the contrast in seeming consumer prerogatives across social media” (p. 366). For future research, Miller (2013) suggests that measuring the effects of social media marketing and detailing “what can possibly be done to mitigate the negative health influences of large, social media platforms as is currently being leveraged by large business entities” will be important to understand consumer impressionism on social media and the impact of social media marketing on health (p. 367).

The lack of effective regulations on social media is also discussed as problematic in relation to electronic direct-to-consumer (eDTC) drug advertising, which is only legal in the United States and New Zealand (Liang & Mackey, 2011). A 2011 study looked into the prevalence of direct-to-consumer drug advertising on social media of the top 10 global pharmaceutical corporations and the top 10 grossing medicines worldwide in 2009. Using Facebook, Twitter, Friendster, and Youtube as social media platforms for analysis, the study found that the companies eDTC advertising reach is not limited to the United States and New

Zealand but rather, “appears to offer no access restrictions to non-US users” (Liang & Mackey, 2011, para. 19). The authors discuss the regulatory challenges of eDTC drug advertising on social media as advertisements can “spread to anyone, anywhere with an Internet connection,” which can pose problems like inappropriate medication use, overconsumption, and increased spending on brand name drugs (Liang & Mackey, 2011, para. 21 & 6).

Dunlop, Freeman, and Jones (2016) also discuss the issues with the unrestricted nature of social media in relation to unhealthy food and beverage marketing. The authors summarize the evidence around unhealthy food and beverage marketing—such as alcohol and tobacco—on social media and how it affects youth and their health (Dunlop et al., 2016). One of the problems with alcohol marketing is that not only has it been linked with drinking initiation but also, underage users on social media are able to view alcohol marketing despite the age restrictions set on certain platforms (Dunlop et al., 2016, p. 40). On Facebook, alcohol advertisements and alcohol brands are only visible to users over the legal drinking age in their country of residence, and even though Facebook asks users to input their ages when creating a profile, “there is currently no process to verify the accuracy of this information” (Dunlop et al., 2016, p. 39). Due to the lack of effective regulations on social media, the authors note that youth and their parents should be educated on social media marketing so that youth can be “media-literate consumers” because exposure to such advertising “may have a negative impact on young people” (Dunlop et al., 2016, p. 44).

The literature review provides relevant insight and context for this MRP, as it not only describes the landscape of social media health communications and marketing but also, outlines how organizations and brands have utilized mythology, imagery, traditional media, and social media to market their health products and brands. The literature review also outlines the

problems with social media marketing and its potential repercussions for consumers health. The information derived from the literature review will provide a foundation for the analysis and discussion of findings.

Methodology: Data Collection

In this project, I collected images posted on Sugar Bear Hair's (@sugarbearhair) and Ritual's (@ritual) Instagram profiles. I collected 40 images —20 from each company— consecutively, published on and before April 1, 2019. The date established is arbitrary, but it provided an exact starting point for the data collection. Collecting images published consecutively provided an unbiased data collection approach; however, only the images that featured the company's vitamin supplements were analyzed as this is the scope of the study and research questions. Sugar Bear Hair also sells sleep vitamin supplements but for the purposes of this study, only the images that featured the company's hair vitamin supplements and women's multivitamin supplements were collected and analyzed, as it allowed for a more direct comparison and analysis to Ritual's products. In addition, Sugar Bear Hair's sleep vitamin supplements are a recent addition to the company and have not been marketed as much as the company's other two supplements. Ritual posts images of product advertisements on their Instagram page, such as images of billboard ads and subway ads. These images have been excluded from the data collection as the focus of this study is images created specifically for Instagram. Videos featuring vitamin supplements posted on Sugar Bear Hair's and Ritual's Instagram profiles were also excluded, as the focus of this study is still imagery.

Method of Analysis

This project is a qualitative content analysis case study, as I analyzed and explored the communicated messages derived from the marketed images of the two vitamin supplement companies. The analysis is guided by Barthes' semiotic theory of myth. Because Instagram is a dominantly photo-sharing platform, analyzing imagery from a semiotic perspective provides insight into the messages that are visually and linguistically communicated through the signs and

symbols in the images. Drawing from Barthes' (2009/1973) two-level semiological sign system, I analyzed each image based on two components: denotative (first-order signification) and connotative (second-order signification). The denotative consisted of describing the literal happenings in the image based on the signs and symbols present, the positions of the signs and symbols, and the words in the images and in the captions of the images. The connotative drew from the denotative and consisted of analyzing and describing what the images communicate through the display of the signs and symbols. The myth is the connotation derived from the image, which is discussed in detail but also, classified into broader theme(s) that emerged from the analysis. The results from the semiotic analysis of each image were individually recorded and charted. The chart utilized for the semiotic image analysis and an explanation of its contents is provided in Table 1, and an example analysis of an image from Sugar Bear Hair's dataset can be found in Table 2. The complete image analysis charts can be found in Appendix A.

Table 1. Semiotic Image Analysis Chart Description

Denotation	Connotation	Myth(s)
This category describes what appears to be occurring in the image through the display of the signs and symbols present in the image, along with the position of the signs and symbols. Signs and symbols include words, colours, objects, people, etc.	This category describes what ideas and feelings the image appears to be communicating through the signs and symbols. The caption of the image is utilized for interpreting the context of the image and the connotation.	This category describes the myth(s) present in the image, derived by broadening the connotation(s). Also included is the message that the company appears to be selling to the consumers/users.

Figure 2. Sugar Bear Hair Instagram Image



Sugar Bear Hair Caption: The SugarBear combo pair 💕🐻 @natashaglez SugarBearHair.com #sugarbearhair. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 2. Semiotic Analysis of Figure 2

Denotation	Connotation	Myth(s)
A young, white female influencer (@natashaglez: 11k followers) with long brown hair tilts her head to the side, holding one blue hair vitamin gummy and one coral pink women's multivitamin gummy with her teeth. The female appears to be smiling and wearing white clothing. White curtains and a white chair make up the background of the image. Despite the image being mostly white, the influencer's brown hair and the blue and coral pink vitamins are the colours that stand out in the image. The caption denotes that the hair supplement and women's multivitamin supplement is the combo/pair in the image.	The influencer takes the two vitamin gummies in combination, as they are in her mouth, indicating consumption, and she is happy, as she is smiling. The influencer's long, brown hair stands out in the mostly white image and draws attention, as to link the vitamin gummies to her hair. The emoji of the two hearts in the caption of the image appears to indicate that the combination of the two vitamin gummies is a lovely match/pair.	Happiness, beauty The myths in this image are happiness and beauty. The consumer that buys the two vitamin supplements and takes them in combination will be happy and have long, beautiful hair like the influencer in the image.

The audience was an important consideration when analyzing the connotations of the images, as the myths put forth have been constructed to work on Sugar Bear Hair's and Ritual's audiences. As mentioned in the introduction, the perceived target audience for both companies are Millennial and Generation Z women. The Pew Research Centre defines Millennial as anyone born between 1981 and 1996 and Generation Z as anyone born between 1997 and 2012 (Dimock, 2019). Given the young adult influencers and models that appear in both companies Instagram images and the playful and trendy visual and linguistic Instagram captions and content, the age cohort of the target audience is perceived to be young adults. The signs and symbols, such as the young influencers and models in the Instagram images, appear to be a reflection of both companies target audiences. Although a few images on Ritual's Instagram profile feature apparent Generation Xs (people born between 1965 and 1980) the dominant, target age groups appear to be Millennials and Generation Zs, as revealed in the dataset from this study (Dimock, 2019).

The gender of the target audience is perceived to be women because both companies Instagram images feature feminine signs and symbols, such as feminine colours and objects, and female influencers and models. In addition, Sugar Bear Hair sells Women's Multi supplements made especially for women and does not sell supplements made or at least marketed especially for men. In addition, Ritual only sells supplements made for women: Essential for Women and Essential Prenatal. As the researcher in this study, my credibility is established based on the fact that I am a woman of the Millennial cohort. Therefore, the analysis in this study is conducted from the perspective of the companies perceived target audience, which allows for a more accurate interpretation of the myths put forth in the images.

By analyzing the images denotations, I was able to answer the first research question of how health companies visually market their products and brands on social media. The signs present in the images, such as the colours, objects, graphics, people, etc. aided in determining the visual tactics that the health companies are using to market their brands and products to users on Instagram. By analyzing the connotations of the images, I was able to determine the myths in the images and compare them to the scientific evidence surrounding the efficacy of vitamin supplements. By analyzing and exploring the connotations of the images I was also able to answer the third research question of what the possible implications of the myths are in regards to consumer's knowledge of the efficacy of vitamin supplements and the appropriate consumption of vitamin supplements.

A limitation to my method is the interpretive nature of analyzing images connotations and myths. Each image may be interpreted and analyzed differently and vary from person-to-person based on subjective factors such as age, education, gender, culture, race, and financial status. To address this limitation, the captions of the images aided in determining the context of the images to better determine the probable, intended connotations put forth by Sugar Bear Hair and Ritual in each image. In the instances where the images captions did not reflect the image, the most immediately apparent connotations were interpreted from the perspective of each company's target audience. The myths and connotations discussed in this study are apparent connotations and myths and are not fact.

Findings and Analysis

In my analysis, I will answer each research question individually, outlining the results revealed from the semiotic content analysis of Sugar Bear Hair's and Ritual's Instagram images. Similarities and differences between the findings from the two vitamin supplement companies will be outlined and discussed.

RQ1: How do health companies visually market their products and brands on Instagram?

To answer the first research question, the denotations from the semiotic analysis of Sugar Bear Hair's and Ritual's Instagram images have been drawn, as the analysis revealed the visual signs and symbols utilized for marketing. The findings discussed are ones revealed in two or more images to draw and discuss apparent patterns and trends. The analysis of Sugar Bear Hair's dataset reveals the following visual marketing tactics in their Instagram images: colours, influencers, aesthetic objects, shapes, and computer-generated imagery. Ritual's denotative analysis reveals similar findings to Sugar Bear Hair but also differing ones. Ritual's dataset reveals the following visual marketing tactics in the company's images: colours, influencers, aesthetic objects, computer-generated imagery, lighting, and models. Below are the results discussed in more detail, broken down by each of the findings. The findings that overlap between the two companies are discussed in conjunction and the ones unique to each company follow, beginning with Sugar Bear Hair.

Findings: Colours

The strategic use of colours by Sugar Bear Hair and Ritual is apparent from the denotative analysis. The findings reveal that the most apparent colours in Sugar Bear Hair's Instagram images are baby blue and baby/coral pink. Blue stands out in almost all of the images analyzed, and pink stands out in fourteen of the images analyzed. Blue appears in the images

through the label on the hair vitamin supplement bottle, the hair vitamin supplements, some of the image's backgrounds, and the objects featured in some of the images. Pink appears in the images through the background colour of some images and the colour of some of the objects featured in the images. Coral pink is featured through the colour of the women's multivitamin supplements and the label of the bottle of women's multivitamin supplements. Because blue and pink are majorly apparent in the images analyzed, they appear to be dominant colours for the brand. Colour contrast is also evident in Sugar Bear Hair's Instagram images as the majority of the backgrounds in the images are plain, solid colours, which make the bright blue and pink vitamin supplements in each image stand out. In the images featuring influencers, the background of the image along with the influencer's apparel is often white or neutral in colour, making the colour of their hair and the vitamin supplements stand out through colour contrast.

The most apparent colour in Ritual's Instagram images is yellow. For the purposes of this study, gold is also classified as yellow. Yellow stands out in almost all of the images analyzed and appears to be a dominant colour for the brand. Yellow appears through the background colour of some of the images, the yellow/gold women's multivitamin and prenatal vitamin supplements, and the yellow objects featured in some of the images. Although all of the images feature the yellow/gold women's multivitamin supplements and prenatal supplements, the colour of the supplements did not readily stand out in one of the images analyzed (Figure 29).

Influencers

Influencers are apparent in Sugar Bear Hair's and Ritual's Instagram images, as revealed by the denotative analysis. Within the field of marketing, an influencer is defined as "a person who is able to generate interest in something (such as a consumer product) by posting about it on social media" ("Influencer," n.d.). An extension to the definition is: "people who have built a

sizeable social network of people following them...they are seen as a regard for being a trusted tastemaker in one or several niches” (De Veirman, Cauberghe, & Hudders, 2017, para. 2).

Because it is difficult to discern an influencer from a general user when content is posted on a company’s Instagram profile, the users tagged in the images with over 1000 followers from the dataset are classified as influencers, and images that tag a user with less than 1000 followers are classified as user-generated in this study. Eighteen of Sugar Bear Hair’s images reveal an influencer or an image created by an influencer and four of Ritual’s images depict an influencer or an image created by an influencer. One image from Ritual’s dataset appears to be a user-generated image, as the user tagged has less than 1000 followers. An apparent similarity between the influencers in the companies’ images is that they are all young females, appearing to be of the Millennial or Generation Z cohorts. The influencers are also of different, visual races.

Aesthetic Objects

Aesthetic objects are apparent in both Sugar Bear Hair’s and Ritual’s Instagram images. In this study, aesthetic objects are recognized as objects that are “pleasing in appearance” (“Aesthetic,” n.d.). Some of the images analyzed from Sugar Bear Hair’s dataset feature the following aesthetically-pleasing objects: cotton candy, furry, bear-shaped pouches, flowers, rainbows, candy, art supplies, decorative desserts, snacks, and coloured hair. Some of the images analyzed from Ritual’s dataset feature the use of the following aesthetic objects: glass boxes, yellow/gold foil, mint leaves, and silk pyjamas. Sugar Bear Hair’s and Ritual’s vitamin supplements can also be classified as aesthetically pleasing objects, which are featured in each photo analyzed.

Computer-Generated Imagery

Sugar Bear Hair and Ritual post images with apparent computer-generated imagery (CGI), which are images with “special visual effects created using computer software” (“CGI,” n.d.). One image with CGI from Sugar Bear Hair’s dataset is Figure 6, which is a CGI image of a bottle of Sugar Bear Hair’s hair vitamin supplements with rainbows and vitamin supplement gummies exploding out of it. An example of a CGI image from Ritual’s dataset is Figure 27, which digitally copies a photograph of a hand holding two of Ritual’s supplements three times. A limitation to these findings is not being able to discern CGI in images that may have it.

Differing Marketing Tactics: Shapes

The denotations analyzed from Sugar Bear Hair’s dataset reveals vitamin supplements placed in creative and unique visual shapes. For example, the hair vitamin supplements and women’s multivitamin supplements in Figure 5 are placed in a heart shape and in Figure 13, the hair vitamin supplements are placed in a rainbow arc position. The images analyzed from Ritual’s dataset did not depict vitamin supplements placed in different shapes.

Shadows

Ritual’s denotative analysis depicts the use of lighting techniques, such as shadows in some of the images analyzed. For example, half of the background in Figure 37 is a shadow, and Figure 22 uses shadows to simulate a knife and fork. The shadows are lighting techniques presumably used to create visually stimulating images and specific messages, which are discussed later in this study. Sugar Bear Hair’s denotative analysis did not reveal the obvious use of shadows.

Models

Ritual's dataset depicts the use of models in their Instagram images. In this study, models do not include influencers or tagged individuals but unnamed and untagged individuals that are featured in the photos. Half of the photos analyzed feature a female model. Figure 24, for example, features a female model holding up a clear folder. The model's face is not visible, but her hair, arm, and hand are. Sugar Bear Hair's denotative analysis did not reveal models in the Instagram images but rather, influencers as discussed earlier.

Discussion

The findings from the denotative analysis are similar to the findings from Vassallo et al.'s (2018) content analysis of junk food brands' Instagram images. For all the brands included in their study, Vassallo et al. (2018) found that colours were strategically used in the images. The denotative analysis from this study also reveals the strategic use of colours. Blue and pink were two colours commonly found in Sugar Bear Hair's photos as was yellow in Ritual's. From taking a visit to each of the company's websites, it appears that Sugar Bear Hair's brand colours are blue and pink and Ritual's is yellow, along with navy blue, which was not commonly featured in the Instagram images analyzed.

Similarly, Barry et al.'s (2018) study found that the alcohol advertisements on Instagram analyzed strategically used colours and contrast, which "captures attention (Donohew et al., 1998; Lang, 2006; Niederdeppe et al., 2007; Rossiter, 1981) and increases recall and positive attitudes toward the product (Donohew et al., 1998; Gorn, Chattopadhyay, Yi, & Dahl, 1997; Palmgreen et al., 1995; Stephenson, 2002; Stephenson, 2003) as long as overall visual complexity is not too high (Pieters, Wedel, & Batra, 2010, para. 27)." Not only are the colours in Sugar Bear Hair's and Ritual's Instagram images arguably used to capture attention— as they are

bright and stand-out—but also, they are used to create positive associations for the brand and their products.

The bright yellow in Ritual’s images draws attention and creates positive attitudes towards the brand, as the colour is commonly associated with positive feelings and characteristics like sunshine, happiness, warmth, and youthfulness. As a health brand that sells women’s multivitamin supplements for “your healthiest future” and prenatal supplements for “prepping your body for pregnancy, nourishing your health, and supporting your baby’s development” yellow sparks optimism for a better and healthier future, especially attractive to health-conscious audiences (Ritual, n.d.). According to a study conducted by The Halo Group in 2013, millennials appear to be the most health-conscious age group (Menayang, 2017). Generation Z has also been found to be concerned about their health; according to a 2015 survey conducted by *USA Today* reporter Bruce Horowitz, “the most health-centric group of consumers is Generation Z” (Watson, 2015). Yellow is a colour well-suited for Ritual’s optimistic health mission and for their youthful and optimistic target audience.

Sugar Bear Hair’s baby blue and baby pink colours in the Instagram images analyzed resemble colours often associated with newborns in Western culture (Lobue & Deloache, 2011). Baby blue is symbolic of a baby boy and baby pink of a baby girl, and “parents commonly dress their baby girls in pink and their baby boys in blue” (Lobue & Deloache, 2011, p. 656). The use of the two “baby” colours can be perceived as an infantilization of the audience by Sugar Bear Hair. The *Cambridge Dictionary* defines the term infantilize as: “to treat someone as if that person were a child, with the result that they start behaving like one” (“Infantilize,” n.d.). Through the two baby colours, Sugar Bear Hair’s audience is treated child-like and assumed to have child-like interests, as they are used to attract their audience and create positive impressions

of their brand and products. The assumption that the two baby colours will attract their young adult audience is to assume that their audience is attracted to child-like things like child-like colours.

Women are also the dominant perceived sex of Sugar Bear Hair's target audience, and there is a long-standing history of the infantilization of women in the media. Goffman (1979) explored the display of gender in Western media advertisements and found that women in advertisements are depicted as subordinate to men, are infantilized through the way they are positioned as "body clowns," and are dressed less seriously than men, for example (p. 51). Women's interests and desires are treated baby-like through the use of the two baby colours in Sugar Bear Hair's images as if these are the colours that will attract the young, female audience to images of vitamin supplements.

The baby blue and baby pink colours are also candy-like, as they resemble artificially coloured candy. In some of the images analyzed, the colours are depicted as candy, such as Figure 2A, which features baby pink cotton candy with blue hair vitamin supplements and other baby blue, pink, and yellow candies propped on top of the cotton candy. The candy-like colours of the blue and pink in the images infantilize the audience, as children are often attracted to candy and candy is often marketed towards children. Through the infantilization of the audience, Sugar Bear Hair posits itself in the position of a parent, one that knows and wants better for their child; this parent wants them to purchase Sugar Bear Hair vitamin supplements.

Vassallo et al.'s (2018) findings of athletes and celebrities in the Instagram images analyzed are comparable to the findings of influencers featured in the images analyzed in this study. Like athletes and celebrities, social media influencers are persuasive and have large followings on social media. The influencers in both datasets are all young females, reflective of

the Sugar Bear Hair's and Ritual's target audience. As Jin, Muqaddam, and Ryu (2019) cite: "The perceived realness of those non-traditional stars...result in higher purchase intention of the products they endorse, because consumers personally identify with them and try to imitate them (Tran and Strutton, 2014)" (para. 9). Social media influencers are arguably more relatable to consumers than traditional celebrities who are influential but may appear distant due to their social and financial statuses. Jin et al. (2019) also found, "consumers exposed to Instagram celebrity's brand posts perceive the source to be more trustworthy, show more positive attitude toward the endorsed brand, feel stronger social presence...than those consumers exposed to traditional celebrity's brand posts" (para. 3). Influencers put forth a "word-of-mouth" type of marketing, like one would receive from a friend and therefore, there is a "perceived realness" by consumers towards influencers (Jin et al., 2019). All but two of Sugar Bear Hair's images featured an influencer or an image created by an influencer, signifying the use of influencers as a significant visual social media strategy for the brand.

Vassallo et al. (2018) found that some of the brands analyzed are developing new products based on "their photogenicity and ability to trend on Instagram" (para. 38). An example the authors provide is Starbucks and their Unicorn Frappuccino, "with a Starbucks spokesperson stating that 'the look of the beverage was an important part of its creation, our inspiration came from the fun, spirited and colorful unicorn theme food and drinks...trending on social media (Kulp, 2017)'" (Vassallo et al., 2018, para. 38). Like Starbucks, Sugar Bear Hair's and Ritual's vitamin supplements and the objects featured in their Instagram images are photogenic and aesthetically-pleasing. Figure 2A, for example, features a photo of a photogenic "SugarBear cotton candy unicorn" (@sugarbearhair). An image that features blue vitamin gummies propped on top of pink, "unicorn" cotton candy against a bright blue background is both highly

stimulating and has the potential to trend on social media. These findings are also similar to Basch et al.'s (2014) study, as the authors found that the children's vitamins in the advertisements analyzed had a candy-like appearance. Figure 2A makes the vitamin supplements look like aesthetically-pleasing candy, along with a few of the other images analyzed from Sugar Bear Hair's dataset.

Ritual also uses aesthetically pleasing objects in their images such as Figure 23, which features a bottle of the vitamin supplements in a glass box that sparkles. The use of computer-generated imagery by both brands, shadows and female models by Ritual, and positioning vitamin supplements in different shapes by Sugar Bear Hair also presents unique beauty aesthetics that contribute to the brands overall Instagram profile aesthetics. Sugar Bear Hair's Instagram profile aesthetic appears to be a playful fantasy/candy-land meanwhile, Ritual's aesthetic appears to play on the "cool," happy, transparent, and scientific aesthetic. Unlike Klassen et al.'s (2018) study that found that health promotion organizations use a serious tone in Facebook and Instagram posts, the visual marketing strategies found from the denotative analysis depict the use of positive tones, which contributes to both Sugar Bear Hair's and Ritual's overall Instagram profile aesthetic.

RQ2: What are the myths constructed in the marketed images, and how do they compare to the scientific evidence surrounding the efficacy of vitamin supplements?

The second research question is answered by discussing the connotations drawn from the semiotic analysis of Sugar Bear Hair's and Ritual's Instagram images, which are classified into broader themes for discussion. The analysis of Sugar Bear Hair's dataset reveals the following myths constructed in their Instagram images: happiness, beauty, playfulness, junk food, self-love, self-care, purity, perfection, cuteness, wellness, and kindness. Ritual's connotative analysis reveals the following myths constructed in their Instagram images: superiority, self-care, transparency, luxury, strength, naturalness, playfulness, beauty, admiration, casualness, and purity.

Below are the myths discussed and analyzed in more detail, broken down by each of the findings. Due to the many myths derived from the connotative analysis, only the myths communicated in more than one image from either of the companies will be outlined to draw and discuss patterns and trends. The myths that overlap between the two companies are discussed in conjunction and the myths unique to each company follow, beginning with Sugar Bear Hair.

Myths: Beauty

Seventeen of Sugar Bear Hair's images and two of Ritual's images connote the myth of beauty. In Sugar Bear Hair's images, beauty is connoted through the female influencers that are featured in the majority of the images. The influencers facial expressions signify female beauty as they appear to be posing like beauty models, highlighting their physical beauty like their hair and facial features. One of Ritual's images also features an influencer that signifies female beauty due to her model-like pose and alluring facial expression. Other images from Sugar Bear

Hair communicate beauty in relation to their vitamin products, like Figure 10 that features the hair vitamin supplements on beautifully decorated ice cream.

The myth of beauty, more specifically, the myth of female beauty has been discussed at length by Naomi Wolf in *The Beauty Myth*. Wolf (1991) writes,

The ideology of beauty is the last one remaining of the old feminine ideologies that still has the power to control those women whom second wave feminism would have otherwise made relatively uncontrollable: It has grown stronger to take over the work of social coercion that myths about motherhood, domesticity, chastity, and passivity, no longer can manage. (p. 10)

Like scientific motherhood, which was the dominant feminine ideology during the 1920s and 1930s that vitamin advertisers took advantage of when advertising vitamin supplements to mothers, beauty is apparent in Sugar Bear Hair's and Ritual's Instagram images, which is a feminine ideology that today's modern woman is arguably controlled by (Apple, 1996, p. 10). The female influencers featured in Sugar Bear Hair's and Ritual's images are all physically beautiful, as they are youthful, their hair and makeup are perfectly styled, and their alluring and happy facial expressions highlight their physical beauty. But as Wolf (1991) writes, "the beauty myth is always actually prescribing behaviour and not appearance" (p. 13). To be beautiful like the influencers in the images, vitamin supplements are signified as the gateway—purchasing and taking the supplements is the behaviour required. Instead of outright claiming that the supplements will make consumers beautiful, female beauty is signified "softly," through the female influencers, as they are symbols of female beauty in the context of the images (Scott et al., 2014).

Barthes (2009/1973) writes that myth is “a type of speech chosen by history” and “myth transforms history into nature” (p. 261). On a similar train of thought, Wolf (1991) writes: “‘Beauty’ is a currency system like the gold standard. Like any economy, it is determined by politics, and in the modern age in the West it is the last, best belief system that keeps male dominance intact” (p. 12). Beauty is a myth determined and chosen by history—in this case, male-dominated political history— and it appears as natural as beautiful, female influencers advertising vitamin supplements. Beauty is a myth propelled in the Instagram images analyzed, fitted for the female target audience and their desires or at least the desires put on them by society. Beauty is also signified in relation to the appearance of each company’s vitamin supplements. In some of the images, the supplements are displayed in ways that highlight their appearance; perhaps the idea signified is that ingesting a beautiful product on the inside will make one beautiful on the outside. After all, the beautiful influencers ingest the beautiful supplements.

Playfulness

Playfulness is a myth apparent in seven of Sugar Bear Hair’s images and one of Ritual’s images. Playfulness is communicated through playful captions that personify the vitamin supplements and the positioning of the vitamin supplements in different, playful shapes like rainbows, as depicted in some of Sugar Bear Hair’s images. Figure 34 from Ritual’s dataset playfully personifies the multiple bottles of vitamin supplements in the image as a “gang” through the image’s caption. Through the myth of playfulness, the brands’ personalities appear fun and light-hearted.

Playfulness is a myth that infantilizes the young female target audience, as the myth assumes that their audience’s interests and behaviours are similar to those of a child and that

playfulness would attract their audience to the brands and their health products. As discussed earlier in this study, women have been infantilized by the media (Goffman, 1979). The young female audience is treated child-like through the myth of playfulness, which reinforces the notion and stereotype that women are child-like and subordinate to other authority figures.

Self-Care

The myth that vitamin supplements equate to self-care and are self-care essentials is majorly apparent in Sugar Bear Hair's and Ritual's datasets. Self-care, in the context of this analysis, refers to "care for oneself...specifically: health care provided by oneself often without consultation of a medical professional" ("Self-care," n.d.). Eight of Sugar Bear Hair's images and ten of Ritual's images connote self-care. Through Sugar Bear Hair's images captions that use words such as "wellness," "support healthy hair," "nourish," and "nutrients," self-care is connoted and related to the vitamin supplements featured in the images. The vitamin supplements are marketed as healthy, and since vitamin supplements do not need to be administered by physicians, they are a part of a healthy, self-care routine. Figure 28's caption from Ritual's dataset reads, "Start your week strong #takeyourvitamins," and the accompanying image features two of Ritual's supplements placed under every day of the week with a hand grabbing onto a supplement under the label marked as "Sunday." The image connotes the idea that Ritual's supplements should be a part of a daily, self-care routine and that consumers should take vitamin supplements and more specifically, Ritual's vitamin supplements. In other words, to take care of one's self is to take two of Ritual's vitamin supplements every day.

The myth that taking vitamin supplements equates to or is reflective of self-care is not new. Apple (1996) discusses how studies conducted in the late 90s showed that people who took vitamin supplements were more "health-oriented in other aspects of their lives; they were less

likely to smoke, exercised more, and dieted more than non-users” (p. 194). These people were called the “take-charge” consumers by marketing periodicals, as they were the consumers who “took responsibility for their own health” (Apple, 1996, p. 194). A consequence of this myth was that “‘taking care’ translated into supplementing the diet with vitamins (Phillips, 1985)” (Apple, 1996, p. 194).

The myth of self-care is evident in recent contexts as well. Drawing from other works, Caulfield et al. (2014) note, “the current cultural context emphasizes the importance of actively taking personal responsibility for one's health” (p. 1). A 2018 study that surveyed Italian students’ habits and beliefs about food supplements found that the main reasons the students took food supplements were because they believed they would “enhance mental performance or enhance well-being” rather than filling nutrient gaps as scientific evidence proves (Sirico et al., 2018, p. 5). Also, the students who took supplements but were not enrolled in health or medical fields at school took them because they believed that they would prevent illness (Sirico et al., 2018, p. 1). The authors discuss how the results “indicate a striking difference between the evidence-based and personal reasons for supplement use” and call for “an improvement in education about diet supplementation” (Sirico et al., 2018, p. 1). Essentially, students took supplements because they believed that they equated to proper self-care rather than considering the scientifically-based evidence surrounding their efficacy.

Sugar Bear Hair’s and Ritual’s Instagram images connote self-care in relation to their supplements, but just because someone takes vitamin supplements does not necessarily mean that they are taking care of their health or are healthy. It is also worth noting how the companies construct self-care in images that are targeted at a young female audience. In the late 90s, vitamins were targeted at middle-class mothers and not people with “gross vitamin deficiencies”

who require vitamin supplementation (Apple, 1990, p. 29). A young female audience is arguably not the audience with significant vitamin deficiencies but as Wolf (1991) writes, “health makes good propaganda” (p. 226). Proper female self-care is connoted as taking the companies vitamin supplements and “who can argue with health?” (Wolf, 1991, p. 227).

Purity

Two of Sugar Bear Hair’s images and one of Ritual’s images connote purity. Through the use of white flowers, Sugar Bear Hair connotes purity, and the white bedsheets and caption, “Starting Fresh” in Ritual’s Figure 40 also connotes purity. The colour white is commonly associated with purity, and purity is closely associated with traditional feminine ideology. Purity in Western society is often discussed in relation to a woman’s sexuality and the idea that pure women are chaste women, such as discussed and critiqued in Valenti’s (2009) *The Purity Myth*, which she notes hurts young women. Valenti (2009) argues,

"Virgin" is a designation for those who meet a certain standard of what women, especially young women, are supposed to look like. As for how these young women are supposed to act? A blank slate is best. (p. 20)

In in the context of the images analyzed, the company's vitamin supplements are made appear pure and that they are a part of a pure life. Although times have arguably evolved from the traditional feminine ideology of purity, what remains the same has been chosen by history: the historical myth that young women are to be pure. The only thing that has changed is what purity looks like—in this case, taking the company’s vitamin supplements, which stand as symbols of purity.

Differing Myths: Happiness

Happiness is a myth majorly apparent in Sugar Bear Hair's Instagram images. Seven of the images analyzed connote happiness, which is signified through the use of influencers that appear smiling and the blue smiley-faced, bear-shaped pouch featured in some of the images. Happiness is arguably used to allude to the consumer that they will experience happiness when they purchase and ingest the company's vitamin supplements.

The myth of happiness has been discussed at length by Sonja Lyubomirsky in *The Myths of Happiness*. Lyubomirsky (2013) writes:

Nearly all of us buy into what I call the myths of happiness—beliefs that certain adult achievements...will make us forever happy and that certain adult failures or adversities ...will make us forever unhappy. This reductive understanding of happiness is culturally reinforced and continues to endure, despite overwhelming evidence that our well-being does not operate according to such black-and-white principles. (p. 1)

What happiness is and looks like is constructed by society, and in Sugar Bear Hair images it is constructed to look like purchasing and taking Sugar Bear Hair's supplements. But like the evidence that proves that our happiness does not operate on "such black-and-white principles," the scientific evidence surrounding the efficacy of vitamin supplements also does not operate on such black and white principles (Lyubomirsky, 2013, p. 1). The myth of happiness attracts the consumers "culturally reinforced" desires for happiness, as opposed to attracting consumers based on scientifically-based evidence.

Junk Food

The idea that Sugar Bear Hair's vitamin supplements are junk food is signified in four of the Instagram images analyzed. Figure 10, for example, features the hair vitamin supplements on

top of ice cream cones with the caption “SugarBears as snacks.” The myth constructed in Figure 10 is that the hair supplements are snacks and taste and look like sweet, decorative desserts. This particular myth moves away from scientific evidence surrounding the efficacy of vitamin supplements, as vitamin supplements are not candy and do not scientifically “work” like candy. Basch et al. (2014) also found that the vitamin supplements in the advertisements analyzed were marketed as candy. The only difference between Basch et al.’s study and this one is that the supplements Basch et al. (2014) analyzed were children’s vitamins whereas in this study, the vitamins are perceived to be made for an audience older than children. The depiction of the supplements as junk food can then be said to infantilize the audience, as discussed earlier in this study.

Self-Love

Self-love is a myth apparent in Sugar Bear Hair’s Instagram images. In this study, self-love is referred to as the “love of self” and “an appreciation of one’s own worth or virtue” (“Self-love,” n.d.). Three of Sugar Bear Hair’s images depict the myth of self-love, as the images connote the idea that the vitamin supplements equate to or will lead to self-love. Figure 3’s caption, “To love one’s hair is to love Sugar Bear Hair” and image of a female influencer with a hair vitamin supplement in her mouth connotes that the influencer loves her hair because she loves and takes the brand’s hair vitamin supplements. The influencer appears to symbolize a female with self-love.

The beauty myth is not unrelated to the myth of self-love, as the idea that females want to love themselves but need the aid of vitamin supplements to achieve self-love perpetuates the beauty myth. Wolf (1991) writes, “A consequence of female self-love is that the woman grows convinced of social worth. Her love for her body will be unqualified, which is the basis of female

identification” (p. 144-145). In the images posted by Sugar Bear Hair, female self-love is depicted as something that is transactional. Self-love can be purchased simply by buying and ingesting the vitamin supplements. After such acts, the female consumer will be convinced that they have achieved self-love and social worth, but social worth is really commercial and market worth.

Superiority

Superiority is a myth constructed in six of Ritual’s Instagram images, and it signifies the idea that Ritual’s supplements are superior in how they work and that consumers should buy them because of their superiority to other supplements. For example, Figure 21’s caption connotes the idea that the prenatal supplements are super heroic like Superman, as the caption swaps “Superman” for “Essential Prenatal.” In the image, two prenatal supplements are placed up to the sky, as if they are a superhero with flying powers. In this way, the supplements “powers” or how they work are compared to Superman—they are superhuman. The myth of superiority exaggerates the scientific evidence surrounding the efficacy of vitamin supplements, as scientific evidence does not conclusively prove that vitamin supplements work superiorly or even benefit a healthy individually (Caulfield et al., 2014).

Transparency

Three of Ritual’s images signify the myth of transparency. Not only are the vitamin supplements themselves transparent in appearance but also, transparency is signified in the images to connote that the brand is transparent with consumers. The specific ideas that Ritual appears to be selling to their consumers is that the brand is transparent with them in regards to the ingredients in their supplements, how they make their supplements, and that they have

nothing to hide from their consumers, which is why consumers can trust their brand and products.

A 2016 study conducted by Label Insight on *How Consumer Demand for Transparency is Shaping the Food Industry* found, “women are more likely to value label transparency.”

Because Ritual sells supplements made for women, transparency is a fitting strategy given the current research surrounding their consumers value of transparency. Christensen and Cornelissen (2015) discuss transparency as a myth—in line with Barthes’ notion of myth— and a metaphor. The authors note,

Either due to legal, social and public pressure or by the design of their own making, organizations of today are subject to the ideal of and the desire for increased transparency...As such, transparency has obtained a status in contemporary society much like religious principles (Hood, 2006) or, as we shall argue, *myths*. ” (Christensen & Cornelissen, 2015, p. 132-133)

One of the way’s transparency is put forth is through metaphors, such as “visual metaphors around an all-seeing and thus all-knowing vantage point...so that all there is to see and know about an organization is offered up to an individual” (Christensen & Cornelissen, 2015, p. 145).

Ritual communicates transparency through visual metaphors such as transparent vitamin supplements and transparent glass boxes. However, just because Ritual connotes its brand and supplements as transparent does not mean they are transparent, as “a specific transparency metaphor such as ‘seeing is knowing’ is obviously a falsehood” (Christensen & Cornelissen, 2015, p. 145). Transparency is a myth that does not necessarily mean that the brand is transparent, nor does it equate to the better efficacy of their vitamin supplements.

Luxury

Luxury is a myth constructed in two of Ritual's Instagram images. In the images, Ritual's vitamin supplements and brand are connoted as luxurious. The silk night robe featured in Figure 25 and the gold foil in Figure 34 connote luxury, as both materials are commonly associated with luxury in Western society. Figure 34's caption also connotes luxury, as Ritual explains why their supplements cost more than drugstore supplements. Essentially, the consumers are paying more for the supplements because they are high-end, quality products.

It is significant that Ritual's target audience are females because the myth of luxury must work on them. In a study conducted by Stokburger-Sauer and Teichmann (2013), the authors found: "women have more positive attitudes toward luxury brands than men and are thus a valuable target segment," and "only for female consumers, luxury brands provide more uniqueness, status and hedonic value than non-luxury brands" (para. 1). Connoting their products and brand as luxurious can work in Ritual's favour as female audiences positively perceive and value luxurious brands (Stokburger-Sauer and Teichmann, 2013). Not only are Ritual's supplements relatively expensive compared to drugstore vitamin supplements—as they cost about a dollar a pill—but also, the brand visually communicates luxury through different signs and symbols featured in the images to play on this idea, even though luxury does not necessarily mean that the products are, in fact, better in efficacy.

Discussion

Sugar Bear Hair's and Ritual's Instagram images appear to communicate myths that cannot be scientifically proven or guaranteed. The companies cannot scientifically prove or guarantee that their consumers will look or feel beautiful after buying and taking their supplements, like the influencers in some of the images signify, nor can they prove or guarantee

that their vitamin supplements will make consumers happy, pure or practice adequate self-care. Some of the myths, like playfulness and junk food, differ from the scientific evidence surrounding the efficacy of vitamin supplements because they are unrelated to science and scientific evidence. Therefore, the myths either exaggerate or differ from the scientific evidence surrounding the efficacy of vitamin supplements, as Sugar Bear Hair and Ritual appear to communicate myths that connote their supplements as something other or more than scientific evidence can prove.

A similarity between the myths revealed in this study is that they appear to be reflective of positive marketing appeals rather than negative appeals, which Apple (1996) discussed advertisers used in the late 90s, in addition to positive appeals. Rather than using fear to sell vitamins to consumers, the myths target consumers hopes and desires. The myths also communicate the positive benefits of consuming their supplements for consumers as opposed to communicating the consequences of not purchasing the supplements. As the literature review outlined, using a positive tone and positive emotion-inducing strategies in Facebook and Instagram posts has been found to be associated with more user-engagement (Klassen et al., 2018). Barry et al.'s (2018) study found that positive emotional experiences were depicted in almost fifty percent of the Instagram images of alcohol advertisements analyzed, which the authors drew concern towards as positive emotional experience messages are ones that youth may be vulnerable to.

The myths revealed in this study are strategically constructed for the companies young female audience, as their desires and hopes for female beauty, self-care, self-love, purity, happiness, luxury, superiority, and transparency are targeted and exploited through the signs and symbols that signify the myths. Like Scott et al.'s (2004) study that found, "drug advertising uses

strong imagery to fabricate mythical associations between medical conditions and branded drugs,” Sugar Bear Hair and Ritual use strong imagery to construct mythical associations between certain feelings and ideas and their vitamin supplements and brands. The audience is also infantilized through the myths of junk food and playfulness, which reinforce female stereotypes and agree with the infantilization of women in the media. Although all the myths revealed in this study appear positive in nature, they target women’s vulnerabilities, hopes, and desires with exaggerated and differing myths from the scientific evidence surrounding the efficacy of vitamin supplements. The myths also reflect the broader issues brought by capitalist and feminine ideology.

When it comes to images, myths are difficult to prove because they are not explicitly written down, as the companies that put them forth aim to hide them, and make them appear “natural” and not motivated by monetary gain (Barthes, 2009/1973, p. 266; Scott et al., 2014). As Scott et al. (2004) highlight, “In law and science, words are precise and accountable, justified by evidence. In advertising, the image is ambiguous and unaccountable. It makes its “killing” (an aggressive metaphor for selling) softly” (para. 16). The female influencer who is smiling, holding a bottle of Sugar Bear Hair supplements in an Instagram post appears happy because of the supplements that have worked on her and not because she is paid to promote them by the brand. Happiness appears to be her “natural” reaction. Barthes (2009/1973) writes, “Semiology has taught us that myth has the task of giving a historical intention a natural justification, and making contingency appear eternal. Now this is the process exactly that of bourgeois ideology” (p. 60). Sugar Bear Hair and Ritual as the capitalists in this study construct myths that appear “naturally” positive rather than strategically motivated by commercial interest. Additionally, the

exploitation of traditional feminine ideologies by both brands has a “natural” justification: self-love, self-care, beauty, happiness, etc.

RQ3: What are the possible implications of the myths on consumers knowledge of the efficacy of the vitamin supplements and the appropriate consumption of vitamin supplements?

A possible implication of the myths is that they can confuse consumers in regards to the efficacy of vitamin supplements and the appropriate consumption of vitamin supplements. As discussed in the previous research question, the myths exaggerate and differ from the scientific evidence regarding the efficacy of vitamin supplements and they exploit the emotions of the consumers through positive marketing appeals. Consumers may believe that Sugar Bear Hair's and Ritual's supplements will have positive benefits, like make them happy or beautiful, but myths like these are not based on scientific evidence, and even though they may appear innocent and natural they are strategically motivated to sell the supplements (Barthes, 2009/1973, p. 266). Similarly, Scott et al.'s (2004) study found that clinicians may be confused by misleading advertisements of pharmaceuticals because the myths put forth by the advertisers use persuasion as opposed to rational argument and "depict exaggerated therapeutic efficacy: armed with such drugs, the clinician can liberate patients from the oppression of disease and restore them to normality" (para. 15).

Basch et al.'s (2014) study found that the prevalent themes used to market children's vitamins in magazines to parents were "peace of mind" and prevention of illness. These themes, Basch et al. (2014) argue, may "influence parents to consider a daily supplement as a substitute for foods that provide these nutrients naturally" even though the Dietary Guidelines for Americans recommends, "nutrient needs should be met by consuming foods not through the use of vitamins or dietary supplements (U.S. Department of Health and Human Services, 2010)" (para. 15-16). Like the myths revealed in this study, the marketing themes used by the advertisers may confuse consumers into thinking that supplements should be substituted for

food even though scientific evidence suggests that food over supplements should be ingested to supply the body with nutrients. The myths may also confuse consumers into thinking that the supplements will do things for them and their health other than scientific evidence proves.

The myths can also potentially confuse consumers in regards to the appropriate consumption of vitamin supplements. Some of the myths in Sugar Bear Hair's images, such as the myth of junk food, can negatively affect consumers as the myth can potentially lead to the overconsumption of supplements. Junk food and overeating often go hand-in-hand and marketing the vitamin supplements as such may lead consumers into believing that they can indulge in the supplements, as one often does with junk food. These findings are similar to Basch et al.'s (2014) study as the authors found that the marketing of children's vitamins as candy can potentially lead to overconsumption because the marketing is "created to encourage consumption (Lam et al., 2013, para. 14)." The authors draw concern towards this type of marketing because it can lead to poisoning (Basch et al., 2014). As discussed in the literature review, Miller's (2013) study contends that social media marketing is facilitating "the propagation of negative as opposed to positive health promotion," as posts by McDonald's, which feature unhealthy foods, receive more user engagement than health promotion organizations' content (para. 1). Although marketing vitamin supplements as junk food may lead to more user engagement for Sugar Bear Hair because of visual appeal, it may also propagate negative health promotion and behaviour (Miller, 2013).

What is confusing about a myth like self-care, as revealed in both datasets, is that it can potentially lead consumers to equate self-care with vitamin supplement consumption. Some of Ritual's images appear to communicate that their women's multivitamin supplements should be ingested daily even though one might already meet their daily recommended servings of

vitamins with food or may not need supplementation at all. The consumer's vitamin intake may then exceed the scientifically recommended dosage one requires per day.

Ritual's images are less concerning and implicative when it comes to communicating the appropriate consumption of vitamin supplements, as many of Ritual's images signify two vitamin supplements as a single dose through visual and linguistic signs. The company also does not connote myths like junk food, which can possibly confuse consumers into believing that they can overconsume the supplements or treat them like junk food. Although Ritual's images are less concerning in regards to communicating the appropriate consumption of vitamin supplements, they are more concerning in implicating themselves as a scientific authority, as depicted through some of the captions of the images that use science to connote certain myths, like self-care and luxury.

Both companies do not communicate any warning messages, which is another potential implication of the myths, as it may lead consumers to believe that the vitamin supplements do not have any potential health consequences. Similarly, Caulfield et al.'s (2004) study found that most of the newspaper articles analyzed did not discuss the harms of over-consuming vitamin D (Caulfield et al., 2014, p. 4). Additionally, Basch et al.'s (2014) study found that there were no warning or dosage messages in the children's vitamin advertisements analyzed. The authors state, "Given the high number of reports to poison control centers for pediatric overconsumption of children's supplements, there is evidence that a need exists to warn consumers that these products are not risk-free" (Basch et al., 2014, para. 14). Even Toronto's Medical Officer of Health stresses the need for warning and dosage message for cannabis product labelling (Toronto's Medical Officer of Health, 2019). The myths of superiority and luxury as revealed in Ritual's dataset, for example, may lead consumers to think that there are

no potential risks of the vitamin supplements because they are high-end products with superior ingredients. Consequently, these myths, along with the others revealed in this study, can potentially lead to health problems.

Conclusion

This MRP aimed to determine the visual social media marketing techniques and the “Barthian” myths and their implications in health images on Instagram. The dataset was able to provide answers to all three of the proposed research questions through a comparative case study of Sugar Bear Hair and Ritual vitamin supplement companies. The image analysis was guided by Barthes (2009/1973) semiotic theory of myth, as it aided in determining the signs, symbols, and myths in the images analyzed.

Pertaining to the first research question, this study reveals that health brands use a variety of visual marketing techniques on Instagram to market their products and brands. The denotative analysis concludes that health brands are posting images that feature the strategic use of colours, influencers, aesthetic objects, and computer-generated imagery, as both datasets reveal. Differing from Sugar Bear Hair’s dataset is the use of lighting and models, which was revealed only in Ritual’s dataset. The significance of these findings is that health brands are using visual marketing strategies to not only catch the eyes of their audiences but also, suit the social media platform being used: Instagram, which Klassen et al. (2018) suggest that health promotion organizations should do. In addition, the visual marketing techniques strategically target their audiences perceived values and behaviours, which is another suggestion proposed by Klassen et al. (2018).

Numerous myths were revealed in the Instagram images analyzed, with the most prominent between the two companies being beauty, playfulness, self-care, and purity. Other myths were happiness, junk food, and self-love, which were revealed only in Sugar Bear Hair’s dataset. Myths unique to Ritual were superiority, transparency, and luxury. What is significant about the myths revealed in this study is that they appear to either exaggerate or differ from the

scientific evidence surrounding the efficacy of vitamin supplements. Also, all the myths reflect positive marketing appeals, which allow the myths to maintain the appearance of something innocent rather than driven by capitalist ideology.

One of the implications of the myths on consumers knowledge of the efficacy of vitamin supplements is that they can confuse consumers. Consumers may be confused in regards to what the vitamin supplements can do for them and their health, and they may purchase supplements based on the myths, which may further contribute to the confusion about vitamin supplements value and their efficacy (Caulfield et al., 2014, p. 6). Sugar Bear Hair's images appear more implicative than Ritual's in regards to communicating the appropriate consumption of vitamin supplements, as Ritual visually and linguistically communicates dosage messages of their supplements. However, both companies do not communicate any warning messages, which may be problematic for consumers health (Basch et al., 2014). The lack of dosage and warning messages may signify that the vitamin supplements are harmless and without risk.

Social media is an unrestricted platform and even when regulations are put in place, there are loopholes around them (Dunlop et al., 2016). The same can be said for the marketing regulations put in place by the Canadian Natural Health Products Directorate, as the regulators of health product marketing are "asleep at their controls" (Temple, 2013). Because health images on Instagram may communicate messages that can confuse consumers, consumers should become active myth readers (Barthes, 2009/1973, p. 267). It is in consumers' best interests to critically analyze marketed images of vitamin supplements on social media. Vitamin supplement brands should also do more to visually and linguistically communicate warning and dosage messages in their social media images to prevent improper vitamin supplement use.

This study provides relevant insight into the field of social media health communications and marketing, which is best described as “scanty” (Gupta et al., 2013). To my knowledge, this is the first study to analyze the visual marketing of vitamin supplements on Instagram. For future research, studies can look to analyze the effects of visual social media vitamin supplement marketing on consumers brand and product impressions and purchase intentions. Researchers can also investigate the visual marketing of vitamin supplements on different social media platforms and health images targeted at different demographics and genders, as this study only analyzed health brands targeted at a presumably young female audience. This study was limited in scope as it only analyzed and compared two vitamin supplement companies. Subsequent research can extend the scope of health brands analyzed to include a more extensive and wider variety.

Appendix A: Sugar Bear Hair's and Ritual's Images and Semiotic Analysis

Figure 1.



Sugar Bear Hair Caption: The SugarBear combo pair 💕🐻 @natashaglez SugarBearHair.com #sugarbearhair. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 1. Analysis of Figure 1

Denotation	Connotation	Myth(s)
A young, white female influencer (@natashaglez: 11k followers) with long brown hair tilts her head to the side, holding one blue hair vitamin gummy and one coral pink women's multivitamin gummy with her teeth. The female appears to be smiling and wearing white clothing. White curtains and a white chair make up the background of the image. Despite the image being mostly white, the influencer's brown hair and the blue and coral pink vitamins are the colours that stand out in the image. The caption denotes that the hair supplement and women's multivitamin supplement is the combo/pair in the image.	The influencer takes the two vitamin gummies in combination, as they are in her mouth, indicating consumption, and she is happy, as she is smiling. The influencer's long, brown hair stands out in the mostly white image and draws attention, as to link the vitamin gummies to her hair. The emoji of the two hearts in the caption of the image appears to indicate that the combination of the two vitamin gummies is a lovely match/pair.	Happiness, beauty The myths in this image are happiness and beauty. The consumer that buys the two vitamin supplements and takes them in combination will be happy and have long, beautiful hair like the influencer in the image.

Figure 2.



Sugar Bear Hair Caption: SugarBear cotton candy unicorn spotted! 🦄🐻 Nourish those unicorn locks from within! @naqibj 💖 #sugarbearhair. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 2. Analysis of Figure 2

Denotation	Connotation	Myth(s)
A hand holds up a cone of pink cotton candy that has nine hair vitamin gummies and other colourful candy propped on top of it. An upside-down ice cream cone is placed on top of the cotton candy. The background of the image is blue, and the colours that stand out in the image are blue and pink. The caption denotes that the image is of a “SugarBear cotton candy unicorn” and that the supplements in the image are nourishing for one’s hair from the inside. The image appears to be created by an influencer/content creator (@naqibj:2K followers).	The company’s hair vitamin gummies are connoted as candy, indicated by the caption that names the creation: “SugarBear cotton candy.” The brand appears playful, as cotton candy is commonly found at carnivals and festivals, which is associated with play. The caption also connotes that the upside-down ice cream cone on top of the cotton candy makes the creation look like a unicorn, a fictional animal often associated with playfulness, fantasy, and beauty. The caption also connotes that the hair vitamin gummies that look like candy are healthy, as they “nourish” one’s hair from within.	Playfulness, candy, self-care, beauty The myths in the image are playfulness, candy, self-care, and beauty. The brand appears playful, using mythical unicorns in their caption and presenting their supplements as “unicorn” candy. The consumer that takes the candy-looking, “nourishing” supplements will be taking care of the health of their hair, exhibiting self-care. The supplements are also propped onto aesthetically appealing candy, signifying beauty along with the idea that one can attain beauty ideals by eating candy.

Figure 3.



Figure 3: Sugar Bear Hair Caption: To love SugarBearHair is to love one's hair 💖🐻😍
 @leidivaniaofficial #sugarbearhair. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 3. Analysis of Figure 3.

Denotation	Connotation	Myth(s)
A young, black female influencer (@leidivaniaofficial:12.5K followers) with black curly hair holds a blue hair vitamin gummy with her teeth, between her lips. In one arm, the influencer holds a furry blue, bear-shaped pouch that has a smiley face. The influencer has an alluring facial expression. The background of the image is white, but the colours that stand out in the image are blue and black (the influencer's hair). The caption of the image denotes that to love the brand means to love one's hair and also, that the influencer's hair is a result of the vitamin gummies and nothing else (such as good genes).	The influencer takes the hair vitamin gummies, as one is propped in her mouth, indicating consumption. The influencer feels beautiful and alluring, as her facial expression and pose signify. Happiness is also signified from the bear pouch featured in the image as it has a smiley face on it. The influencer's black hair stands out in the image and draws attention, as to link the hair vitamin gummies to her hair. The caption in relation to the image appears to connote that the influencer has self-love because she loves her hair and Sugar Bear Hair's hair vitamin supplements.	Beauty, happiness, self-love The myths in the image are beauty, happiness, and self-love. The consumer that takes Sugar Bear Hair's hair vitamin supplements will love their hair and exhibit self-love. The consumer will also look and feel beautiful, like the influencer in the image, and happy, like the bear's face on the pouch.

Figure 4.



Sugar Bear Hair Caption: Healthy hair starts from within! SugarBearHair hair vitamins give you the nutrition you need to help support healthy hair! 💕🐻 @dudabrnd_ #sugarbearhair.

Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 4. Analysis of Figure 4

Denotation	Connotation	Myth(s)
A young, white female influencer (@dudabrnd_: 105K followers) holds two hair vitamin gummies in one hand and her long, red hair in the other. The two vitamin gummies are held up to the influencer's lips, which are in a smiling position. The female has a content/happy facial expression, as her eyes are closed and she is smiling. The female also wears glasses, has red eyeshadow, and has a tattoo of an extra-terrestrial on her wrist. The background of the image and the influencer's apparel is white, but the colours that stand out in the image are red and blue. The caption of the image denotes	The influencer takes the hair vitamin gummies, as they are positioned up to her lips signifying consumption. The vitamins are the reason the influencer is happy with her hair, as she holds her hair while holding the vitamin gummies up to her lips while smiling. The blue vitamins and the influencer's red hair stand out in the image as if to link the two together. The caption, in relation to the image, appears to connote that the influencer started having healthy hair when she started taking Sugar Bear Hair's hair vitamin gummies. In addition, the idea that the hair vitamins provided the influencer with the nutrition she needs on the inside to	Happiness, self-care, beauty The myths in the image are happiness, self-care, and beauty. The consumer that takes the hair supplements will be taking care of the health of their hair and in turn, will be happy and look and feel beautiful hair, like the influencer in the image. Internal happiness is also signified as being able to be achieved by taking the vitamin gummies, which will lead to external beauty.

that healthy hair starts on the inside, and the brand's hair vitamins are nutritious and support healthy hair.	support healthy hair on the outside. The influencer is an example of female beauty and someone who achieved the ideal by taking care of their health/hair through supplementation.	
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Figure 5.



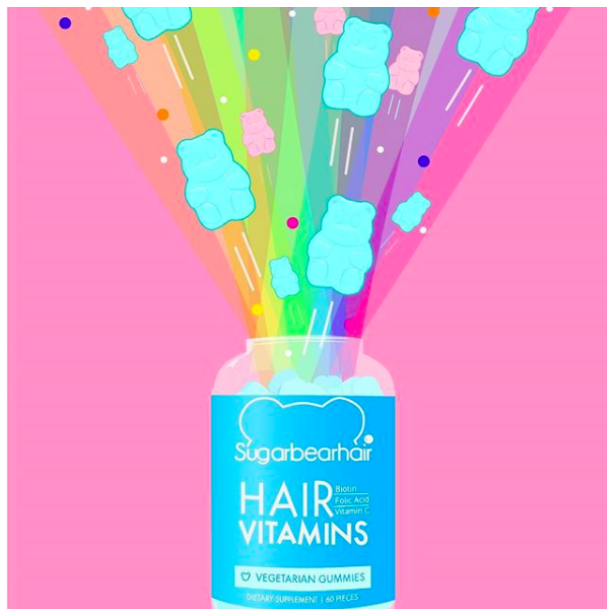
Sugar Bear Hair Caption: SugarBear loving your hair + total body 💕🐻 @glowwithlondon #sugarbearhair. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 5. Analysis of Figure 5

Denotation	Connotation	Myth(s)
Fifteen blue hair vitamin gummies and fifteen coral pink, women's multivitamin vitamin gummies are placed in the shape of a heart around three bottles of vitamin gummies: two women's multivitamin bottles (one large and one small bottle) and one large bottle of hair vitamin gummies. A wooden hairbrush is placed on the right, a blue bear-shaped pouch with a smiley face is placed on the left, and a bouquet of white flowers are placed in the upper right. The background of the image is white, but the colours that stand out in the image are blue and coral pink. The image appears to be created by an influencer/content creator (@glowwithlondon:1536 followers). The caption denotes that the brand provides products for the consumer so	The hair vitamins and women's multivitamins will make one happy with their hair and body, like the bear's face on the pouch, pure, like the white flowers, loved, as indicated by the shape of the heart, and taken care of, as indicated by the hairbrush that signifies smoothing/fixing. The caption, in relation to the image, also connotes that taking the two supplements is to "love" one's hair and body.	Happiness, purity, self-care, self-love The myths in this image are happiness, purity, self-love, and self-care. The consumer that buys and takes Sugar Bear Hair's hair vitamin supplements and women's multivitamin supplements will be happy, pure, and exhibit self-love and self-care over their health, hair, and body.

that they can fully love their hair and body.		
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Figure 6.



Sugar Bear Hair Caption: Explosion of flavors in every bottle of SugarBear vitamins! 💕🐻
 SugarBearHair.com. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 6. Analysis of Figure 6

Denotation	Connotation	Myth(s)
A computer-generated image of a bottle of Sugar Bear Hair’s hair vitamin gummies placed against a bright pink background. Blue and pink vitamin gummies and rainbows are exploding out of the bottle. The colours that stand out in the image are pink and blue, along with the rainbow pattern. The caption denotes that Sugar Bear Hair supplements are tasty and flavourful.	Sugar Bear Hair is connoted as a brand that is playful, as indicated by the exploding rainbows, bear-shaped gummies, and the playful caption. The rainbows and bear-shaped gummies also connote beauty, as they are colourful and designed by computer-generated imagery for visual appeal. Also, a rainbow is often associated with beauty.	Playfulness, beauty The myths in the image are playfulness and beauty. The brand is playful, has a “beautiful” brand aesthetic, and its supplements are aesthetically beautiful, as depicted by the aesthetically appealing rainbows and colours in the image. One can achieve beauty by ingesting the beautiful supplements.

Figure 7.



Sugar Bear Hair Caption: Hair game = A+ 🐻💕 @septembrenell #sugarbearhair. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 7. Analysis of Figure 7

Denotation	Connotation	Myth(s)
A young, white female influencer (@septembrenell: 529K followers) with long brown hair looks to the side posing and holding a bottle of Sugar Bear Hair's hair vitamins gummies in one hand. The influencer appears to have an alluring facial expression. The influencer wears makeup, a pink top, and is posing against a white background. The colours that stand out in the image are blue, brown, and pink. The caption denotes that the influencer's hair "game" is an A+.	The hair vitamin supplements make the influencer feel beautiful, as she holds the bottle while posing with an alluring facial expression. The caption, in relation to the image, appears to connote that the influencer's hair is beautiful (an A+) because of the hair vitamin gummies, as she holds them on display. The "A+" also signifies that the influencer has beautiful hair, as she receives a perfect score for it.	Beauty, perfection The myths in the image are beauty and perfection. The consumer that buys and takes the hair vitamin supplements will have beautiful and perfect hair, like the influencer in the image. Female beauty is also signified through the influencer's apparent cosmetic makeup and large lips.

Figure 8.



Sugar Bear Hair Caption: Gathering of the SugarBears 🍭🐻💕@naqibj #sugarbearhair. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 8. Analysis of Figure 8.

Denotation	Connotation	Myth(s)
Multiple hair supplements and women’s multivitamin supplements are propped up and positioned as if the bear-shaped gummies are speaking to one another. A pink and yellow windmill made out of an ice-cream cone and art supplies and other colourful candies are also featured in the image. The background of the image is bright blue, and the colours that stand out in the image are blue, pink, and yellow. The image appears to be created by an influencer/content creator (@naqibj: 2K followers). The caption denotes that the supplements are “gathering.”	The caption, in relation to the image, playfully personifies the hair vitamins as if they were bears “gathering” in a candy-land. “Candy-land” is also signified by the lollipop emoji in the caption and the colourful candies and art supplies in the image. The supplements also look like candy, as they are tossed amongst other candy in the image. The rainbow-like colours also connote playfulness.	Playfulness, candy The myths in the image are playfulness and candy. The consumer that buys the supplements is buying into a playful brand with supplements that look and taste like candy.

Figure 9.



Sugar Bear Hair Caption: Healthy hair starts from within @jenafrumes 💕🐻 #sugarbearhair. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 9. Analysis of Figure 9

Denotation	Connotation	Myth(s)
A young, black female influencer (@jenafrumes: 3.5 million followers) with curly, brown and blonde hair looks straight at the camera while holding up a single blue hair vitamin gummy in her hand. The influencer appears to have a happy and confident facial expression. The influencer is wearing makeup, jewellery, and a plain grey t-shirt against a seemingly white background. The colours that stand out in the image are blue, yellow, and brown. The caption denotes that healthy hair starts from the inside, which the hair supplements can provide.	The influencer is happy and confident because of the hair vitamin gummies, as she is smiling while holding up the blue hair gummy. The vibrant blue colour of the gummy and the colour of the influencer's hair stand out in the otherwise plainly-coloured image, as if to link the two together. The caption, in relation to the image, signifies that the influencer's "healthy" hair is a result of the hair supplements and that her hair became healthy when she started taking care of her hair by taking the supplements.	Happiness, self-care, beauty The myths in the image are happiness, self-care, and beauty. The consumer that buys and takes Sugar Bear Hair's hair vitamin gummies will have healthy hair and will be taking care of the health of their hair, exhibiting self-care. In turn, the consumer will feel and look happy and beautiful, like the influencer in the image.

Figure 10.



Sugar Bear Hair Caption: SugarBears as snacks 🍪💕 SugarBearHair.com #sugarbearhair @christinascupcakes. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 10. Analysis of Figure 10

Denotation	Connotation	Myth(s)
Five ice cream cones with pink ice cream, gold flakes, blue, decorated macarons, and Sugar Bear Hair's hair vitamin supplement gummies are propped on to ice cream stands. One blue hair vitamin gummy is placed on each ice cream. The vitamin gummies are also tossed underneath the ice cream cones. The background of the image is light pink, and the colours that stand out in the image are blue and pink. The image appears to be created by an influencer/content creator (@christinascupcakes: 243K followers). The caption denotes that the vitamins are displayed as snacks.	Sugar Bear Hair connotes its hair vitamin gummies as snacks in the image, as signified by the ice cream featured in the image and the caption that calls the supplements "snacks." The vitamins are also depicted as beautiful, as they are placed on top of aesthetically-pleasing desserts.	Snack, beauty The myths in the image are that the hair vitamin gummies are snacks, and the brand and its supplements are beautiful. The consumer that buys the hair vitamins is buying a snack that tastes as good as it looks. Also, ingesting a beautiful product can make one beautiful on the outside.

Figure 11.



Sugar Bear Hair Caption: Hair love 💕 🐻 @jekscoreana SugarBearHair.com #sugarbearhair. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 11. Analysis of Figure 11

Denotation	Connotation	Myth(s)
A young, Asian female influencer (@jekscoreana: 519K followers) with long, dark hair holds a bottle of Sugar Bear Hair's hair vitamin gummies up to the side of her head. The influencer appears to have a happy/content facial expression, as her eyes are closed and her lips are in a smiling position. The influencer wears coral pink lipstick, white apparel, and is posing against a white background. The colours that stand out in the image are blue and brown. The caption denotes that the image depicts someone who loves their hair.	The hair vitamin gummies are the reason the influencer is happy with her hair, as she places the bottle of hair vitamins up to her hair while smiling. The colour of the influencer's hair and the colour of the bottle of supplements stand out in the image as if to link the two together. The caption, in relation to the image, implies that the influencer loves her hair because of the vitamin supplements. The female influencer is also a symbol of female beauty, as she wears cosmetic makeup and has long, beautiful hair.	Happiness, self-love, beauty The myths in the image are happiness, self-love, and beauty. The consumer that buys and takes the hair vitamin gummies will be happy, love their hair and exhibit self-love, and look and feel beautiful, like the influencer in the image.

Figure 12.

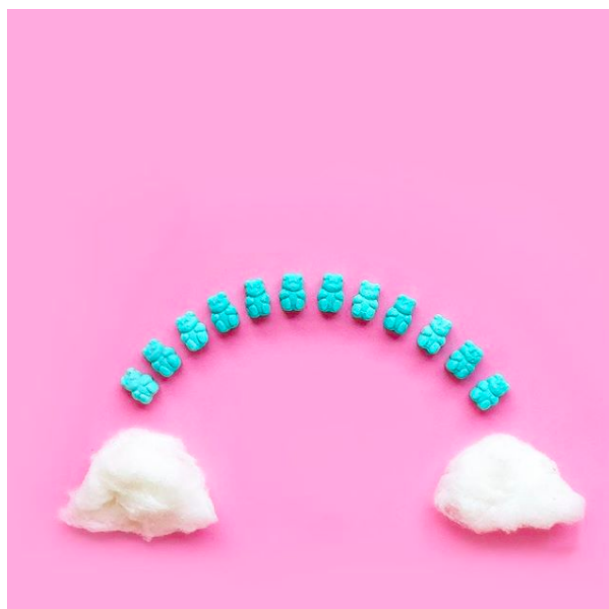


Sugar Bear Hair Caption: Coordinated dance of healthy hair by The SugarBears 💕🐻
 SugarBearHair.com #sugarbearhair. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 12. Analysis of Figure 12

Denotation	Connotation	Myth(s)
Multiple Sugar Bear Hair hair vitamin gummies are tossed around a white marble background. A single white flower is centred in the image with five blue hair vitamin gummies placed on each of the flower's petals. The caption denotes that the vitamin gummies are positioned in a "coordinated dance of healthy hair." Despite the image being mostly white, the colour that stands out in the image is blue.	Sugar Bear Hair's hair vitamin gummies lead to healthy hair, as signified by the caption. The hair vitamin gummies are also personified in the caption as if they were bears dancing a "coordinated dance of healthy hair." The personification of the vitamins makes the brand appear playful. The marble background and the white flower signifies aesthetic beauty and purity.	Self-care, playfulness, beauty, purity The myths in the image are self-care, playfulness, beauty, and purity. The consumer that buys the hair vitamin gummies is buying healthy vitamins for their hair and will be exhibiting self-care over the health of their hair. The consumer is also buying into a playful brand with beautiful hair gummies that can make one achieve beautiful hair on the outside.

Figure 13.



Sugar Bear Hair Caption: What’s at the end of the SugarBear rainbow 🍷🐻 @riddz93 #sugarbearhair.
Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 13. Analysis of Figure 13.

Denotation	Connotation	Myth(s)
Twelve hair vitamin gummies are positioned in the shape of a rainbow. At each end of the rainbow are white clouds. The background of the image is bright pink, and the colours that stand out in the image are blue, pink, and white. The image appears to be created by an influencer/content creator (@riddz93: 20.5K followers). The caption denotes a question that asks the reader what is at the end of a “SugarBear rainbow.”	The caption, in relation to the image, connotes that healthy hair is at the end of a “SugarBear” rainbow. It is often said that there is a pot of gold at the end of a rainbow, which in this case appears to be healthy hair, as the vitamin supplements featured in the image are hair vitamin supplements. Sugar Bear Hair also appears playful as a brand in the image, as it places its vitamins in a rainbow shape, as a rainbow is often associated with play. Sugar Bear Hair’s vitamins are also connoted as beautiful, as rainbows are a symbol of beauty.	Self-care, playfulness, beauty The myths in the image are self-care, playfulness, and beauty. The consumer that buys the hair vitamin gummies is buying into a playful brand with hair supplements that lead to healthy hair and control over the health of one’s hair. Also, the brand is associated with aesthetic beauty, as its supplements are positioned in the shape of a rainbow. Ingesting beautiful supplements can make one beautiful on the outside.

Figure 14.



Sugar Bear Hair Caption: SugarBears in vacay! 💕🐻 #sugarbearhair @aureliestory. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 14. Analysis of Figure 14

Denotation	Connotation	Myth(s)
A white, female influencer (@aureliestory: 135K followers) with long, dark hair sits on the ledge of a bathtub while holding and looking at a bottle of Sugar Bear Hair's hair vitamin gummies. At the ledge of the bathtub rests a blue, bear-shaped pouch and another bottle of the hair vitamins. Around the bathtub are green plants, a plate of tropical fruits, and white and yellow walls. The influencer wears all-white. The colour that mainly stands on in the image is blue. The location of the image appears to be a vacation destination, as indicated by the image's caption that denotes that the supplements are on vacation.	The influencer takes Sugar Bear Hair's hair vitamin supplements on vacation as part of a self-care essential/routine, as indicated by the caption that signifies the location being a vacation destination and the image that locates the influencer in the bathroom, which is often a location where self-care takes place. Sugar Bear Hair is also connoted as a playful brand, as the bear-shaped hair vitamin gummies are personified in the caption as if they are on vacation with the influencer.	Self-care essential, playfulness The myths in the image are self-care and playfulness. The consumer that buys the hair vitamin gummies is buying a self-care essential that can and should be taken on vacation, as the influencer in the image has. The consumer is also buying into a playful brand.

Figure 15.



Sugar Bear Hair Caption: SugarBears being born 🐻💕💕 @medovnik_cake #sugarbearhair. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 15. Analysis of Figure 15

Denotation	Connotation	Myth(s)
Colourful bunny, egg, and strawberry-shaped cookies, pink candies, and blue hair vitamin gummies are positioned around a blue background. Three hair vitamin gummies are individually placed on top of the bunny and strawberry-shaped cookies as if they are being “born” by the cookies and as indicated by the caption. The colours that stand out in the image are blue, pink, green, and white. The image appears to be created by an influencer/content creator (@medovnik_cake: 4K followers).	The hair vitamin gummies are personified as if the bunny and fruit-shaped cookies are bearing them. The personification of vitamins makes the brand appear playful. Also, the personification of the bears as babies makes them cute, and the positioning of the vitamins with the cookies and candy makes the vitamins look like beautifully-decorated dessert.	Playfulness, cuteness, dessert, beauty The myths in the image are playfulness, cuteness dessert, and beauty. The consumer that buys the hair vitamin gummies will be buying into a playful brand with cute and aesthetically appealing dessert-like vitamin gummies.

Figure 16.



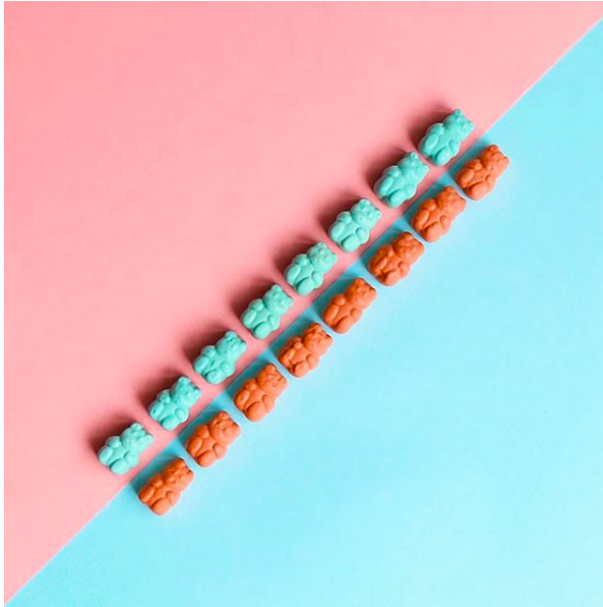
Sugar Bear Hair Caption: Contest Winners! : @izzweird @homan__10 @chantysmile@mandkello @its_c.h.r.i.s.s Check IG story for contest! 🌈Vegan Women's Multi for complete total body wellness 🌱🐻💕 @woloviec #sugarbearhair. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 16. Analysis of Figure 16

Denotation	Connotation	Myth(s)
A young, white female influencer (@woloviec: 116K followers) with short, brown hair holds two of Sugar Bear Hair's women's multivitamin supplements in her hands and one in her mouth while posing with an alluring facial expression. The background of the image is white, but the colours that stand out are brown (the influencer's hair) and coral pink (the vitamin gummies). The caption indicates contest winners for a Sugar Bear Hair Instagram story contest and that the multivitamin supplements are	The caption, in relation to the image, connotes that the influencer has total body wellness because she consumes the supplements, as she is holding them in her hands and in her mouth, signifying consumption. The influencer is an example of someone with total body wellness and someone who takes care of their health, as she takes supplements. She is also a symbol of female beauty, as she models the supplements as if they were a beauty product and has an alluring facial expression.	Beauty, wellness, self-care The myths in the image are beauty, wellness, and self-care. The consumer that buys the multivitamins will have complete total body wellness, like the influencer in the image, because they will be taking care of their health. The consumer will also look and feel beautiful, like the influencer in the image.

meant for complete total body wellness.		
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Figure 17.

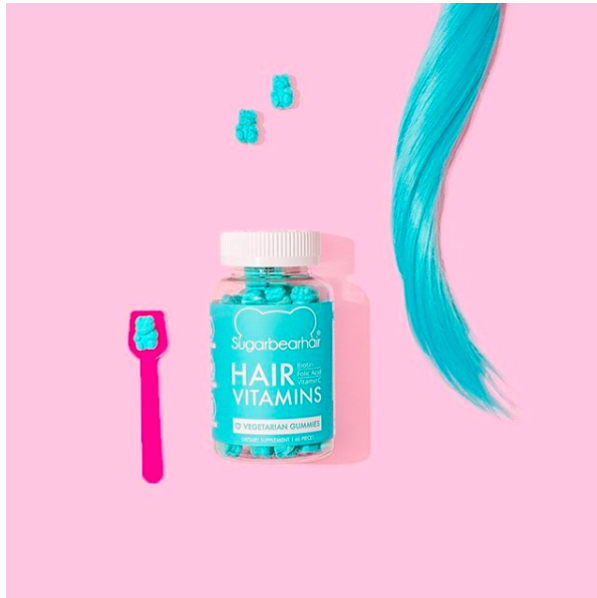


Sugar Bear Hair Caption: Hair + Multi = 💕🐻👁️ @sincerely_mels #sugarbearhair. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 17. Analysis of Figure 17

Denotation	Connotation	Myth(s)
Eight hair vitamin gummies and eight women's multivitamin gummies are positioned in diagonal lines parallel to each other. Half of the background is coral pink, and the other half is bright blue, divided diagonally. The blue gummies are positioned on the pink half of the background, and the coral pink gummies are positioned on the blue half of the background. The colours that stand out in the image are pink and blue. The image appears to be created by an influencer/content creator (@sincerely_mels: 226K followers). The caption denotes an equation where the hair supplements plus (+) the multivitamin supplements equal (=) the three emojis in the caption (two hearts, a bear, and a heart-eyed smiley face).	The combination of hair vitamin supplements and the women's multivitamin supplements ("hair + multi") is lovely, as implied by the double heart emoji in the caption. The combination is also aesthetically pleasing and beautiful, as indicated by the heart eye emoji in the caption, which links to the display of the colours and the position of the vitamin gummies in the image.	Beauty The myth in the image is beauty. The combination of the two supplements are beautiful aesthetically, and the consumer should buy both of the vitamin supplements because they look beautiful together and can make one look beautiful on the outside too.

Figure 18.



Sugar Bear Hair Caption: Blue bears for the hair 🐻💕@mariannetaylor #sugarbearhair. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 18. Analysis of Figure 18

Denotation	Connotation	Myth(s)
A bottle of hair vitamin supplements is centred in the image, a pink ice cream spoon with a hair vitamin gummy on it is to the bottle's left, two hair vitamin gummies are atop the bottle of vitamins, and a stroke of blue hair is to the bottle's right. The background in the image is pink, and the colours that stand out in the image are pink and blue. The image appears to be created by an influencer/content creator (@mariannetaylor: 7K followers). The caption denotes that the blue supplements are meant for supporting the health of one's hair.	The blue hair vitamin gummies will make one have beautiful hair, like the stroke of blue hair featured in the image. The brand's aesthetic is also signified as beautiful, as the colours featured in the image are bright and stand out.	Beauty The myth in the image is beauty. The gummies are beautiful and aesthetically pleasing, like the blue hair and the colours featured in the image. Also, ingesting the beautiful vitamins will make one have beautiful hair on the outside.

Figure 19.



Sugar Bear Hair Caption: Letting the locks flow 💕🐻 @leisurely.layne #sugarbearhair. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 19. Analysis of Figure 19

Denotation	Connotation	Myth(s)
A white, female influencer (@leisurely.layne: 13.3K followers) with long, blonde hair holds a bottle of hair vitamin supplements and women's multivitamin supplements in her hands. The influencer's eyes are closed, and her lips are in a smiling position, indicating a happy/content facial expression. The influencer wears a white top with polka dots. The background of the image is white, but the colours that stand out are yellow/blonde, blue, and coral pink. The caption denotes that the vitamins help hair grow.	The hair vitamin gummies and the women's multivitamin gummies are the reason why the influencer is happy and smiling. The colour of the influencer's hair and the bottles of supplements stand out in the image as if to link the two together. The caption, in relation to the image, signifies that the supplements are the reason why the influencer's hair is long, as they helped her hair grow. Essentially, the influencer looks and feels happy and beautiful because of the supplements.	Happiness, beauty The myths in the image are happiness and beauty. The consumer that buys and takes the two vitamin supplements will be happy and have long, beautiful hair like the influencer in the image.

Figure 20.



Sugar Bear Hair Caption: Amazing illustration! 💕🐻 SugarBearHair.com #sugarbearhair @pretty_little_face. Source: <https://www.instagram.com/sugarbearhair/?hl=en>

Table 20. Analysis of Figure 20

Denotation	Connotation	Myth(s)
A computer-generated image of a pink, star-shaped mirror with “stay sweet” written on it. In the background of the image are illustrations of the hair vitamin gummies with pink, blushing cheeks and smiley faces. Three illustrations of different bottles of beauty products are also in the image. The background of the image is blue, and the colours that stand out in the image are pink, blue, and white. The image appears to be created by an influencer/content creator (@pretty_little_face: 20.3K followers). The caption denotes that the brand thinks the illustration is “amazing.”	Sugar Bear Hair as a brand, along with their hair vitamins supplements are sweet. In order to “stay sweet,” one can include the hair vitamin supplements as part of their beauty routine as the bottles of beauty products and the mirror are beauty items. Sweetness is also associated with kindness. The brand is connoted as kind, as they complement and repost the influencer/content creator’s image.	Beauty, kindness The myths in the image are beauty and kindness. The consumer that buys the supplements is buying into a sweet/kind brand. Also, the consumer is buying a product that is not only aesthetically beautiful but also, a product that can lead to external beauty.

Figure 21.



Ritual Caption: It's a bird, it's a plane, it's Essential Prenatal ☁️. Source: <https://www.instagram.com/ritual/?hl=en>

Table 21. Analysis of Figure 21

Denotation	Connotation	Myth(s)
A hand holds two of Ritual's prenatal supplements up to a blue, scattered cloud sky. The dominant colours in the image are blue, white, and yellow. The caption denotes that the Essential Prenatal vitamins are the supplements in the image.	Ritual's prenatal supplements are super heroic like Superman, as indicated by the caption that takes the popular quote and swaps "Superman" for "Essential Prenatal."	Superiority The myth in the image is superiority. Ritual's prenatal vitamin supplements are super heroic, like Superman and will come to the rescue, like a superhero.

Figure 22.



Ritual Caption: Your mom and dad gave you your genes (thanks, guys), but what you eat can affect how those genes work 🧬 Basically, you can't change your DNA sequencing, but how genes are expressed can be affected. One of the ways to change this is our nutrient intake. For example, the vitamin D you're getting regulates expression of genes involved in calcium absorption. Just something to geek out over this afternoon 🤓 [Bouillon 2003 332; Verstuyf 2010 140; Wasserman 1990 99]. Source: <https://www.instagram.com/ritual/?hl=en>

Table 22. Analysis of Figure 22

Denotation	Connotation	Myth(s)
Two of Ritual's multivitamin supplements are placed on a white dinner plate against a yellow background. A shadow of a hand holding a knife and a fork appear in the image, hovering over the plate. The shadows are positioned towards the two supplements, as if ready to cut into them with the utensils. The colours that stand out in the image are yellow and white. The caption denotes that one way to change one's DNA sequencing is to change one nutrient intake.	The image, in relation to the caption, connotes that changing one's nutrient intake and how one's genes are expressed can be done by taking two of Ritual's women's multivitamin supplements. The supplements on the dinner plate with the shadows of a knife and fork hovering over them connote the idea that the supplements are nutritious and healthy, like food and are a part of a healthy, self-care routine. Two supplements are also visually signified as one dose/meal.	Self-care The myth in the image is self-care. To take care of one's health and how one's genes are expressed and affected can be done by taking two of Ritual's supplements, as they change one's nutrient intake. The caption uses science to signify that the vitamins are a scientifically approved self-care essential.

Figure 23.



Ritual Caption: Clear as day ☀️. Source: <https://www.instagram.com/ritual/?hl=en>

Table 23. Analysis of Figure 23

Denotation	Connotation	Myth(s)
A bottle of Ritual women's multivitamin supplements is placed in a clear, shiny glass box against a bright, yellow background. The dominant colour in the image is yellow. The caption denotes that it is clear as day time.	Ritual is a transparent brand, as signified by the caption that visually plays on the word "clear," along with the glass box and the transparent bottle of vitamin supplements, which also connote transparency. Ritual is connoted as a brand with nothing to hide as everything is "clear as day" in the image. Also, the supplements are connoted as superior, as they are put in a glass box as if on display or to be protected.	Transparency, superiority The myths in the image are transparency and superiority. Ritual's vitamin supplements are transparent in their ingredients and in appearance. They are also superior, as they are put in a glass box that sparkles/shines.

Figure 24.

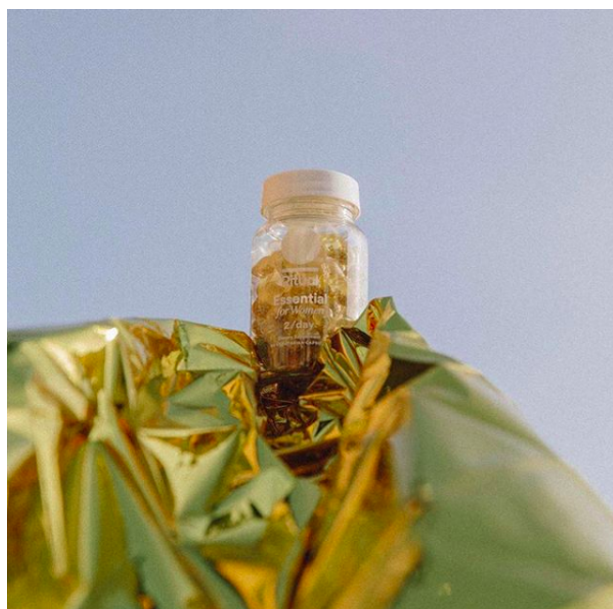


Ritual Caption: Clearly on track ✓. Source: <https://www.instagram.com/ritual/?hl=en>

Table 24. Analysis of Figure 24

Denotation	Connotation	Myth(s)
Multiple of Ritual's women's multivitamin supplements are scattered at the bottom of a transparent folder, which holds a calendar. The folder is held up by a female model, whose face is not visible but is wearing a yellow sweater. The image includes a digitally written message: "Take 2" and an arrow pointing from the supplements to the message. The dominant colours in the image are yellow, blue, and white. The caption denotes that the female model in the image is "clearly" on the right path/track.	The image, in relation to the caption, connotes the idea that staying on track of one's health is to take two of Ritual's vitamin supplements every day. Two vitamin supplements are connoted as one dose through the "Take 2" message written in the image. The play on the word "clearly" and the clear folder in the image connotes the brand as transparent.	Self-care, transparency The myths in the image are self-care and transparency. The consumer that buys the supplements and stays on track of their health (by taking two of the supplements every day) exhibits self-care. The consumer that buys the supplements is also buying into a brand that is transparent, as is signified by the transparent signs and symbols in the image.

Figure 25.



Ritual Caption: Let's talk about 💰. People have asked why our vitamin doesn't cost the same as a generic multi in a drugstore. Basically, that would be like comparing a scooter to a bullet train. Often, generic multi's may use cheaper ingredients and possibly even be missing nutrients like Omega-3s. Multis are meant to cover the gaps in your diet, but when you look at the data, less than 5% of women get the recommended 250mg per day of DHA. So why isn't that in most multis? We formulated a product based on what women were missing from their diets (along with a few other things like genetic variations). The result is something very different than many of the generic multis — you're riding in scientific style TBH. Source: <https://www.instagram.com/ritual/?hl=en>

Table 25. Analysis of Figure 25

Denotation	Connotation	Myth(s)
A bottle of Ritual's women's multivitamin supplements is placed on top of a hill made of gold foil. The background of the image is white, but the dominant colour that standouts is gold/yellow. The caption denotes that Ritual's supplements are more expensive because they are made of better ingredients than generic multivitamins found in department stores.	The caption, in relation to the image, connotes that Ritual's multivitamin supplements are more expensive because they are made from better ingredients, comparable to gold. Gold also connotes luxury and signifies that Ritual's supplements are luxurious. In addition, Ritual's supplements are worth praising, as they are put atop a hill made of gold foil—they are superior in how they look and work.	Luxury, superiority The myths of luxury and superiority are connoted in the image. Ritual's supplements are made of ingredients comparable to gold and are superior because they are unlike other supplements on the market. The caption also uses science to explain why the

		supplements are superior and luxurious.
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Figure 26.



Ritual Caption: Handing you a healthy reminder 🙌 #takeyourvitamins. Source: <https://www.instagram.com/ritual/?hl=en>

Table 26. Analysis of Figure 26

Denotation	Connotation	Myth(s)
A hand holds two of Ritual's multivitamins supplements. The dominant colours in the image are gold/yellow and black. Tagged in the image is a social media user (@tinm94: 128 followers). The caption denotes that the brand is reminding the reader to take their vitamin supplements.	The image, in relation to the caption, signifies that taking Ritual's supplements and taking vitamins more generally is healthy and essential. Also, two of Ritual's supplements are connoted as one dose, as the hand in the image is holding two supplements as if to remind the reader to take their next dose of vitamin supplements.	Self-care The myth in the image is self-care. Ritual's supplements are connoted as a self-care essential. The consumer that takes vitamin supplements, more specifically, two of Ritual's supplements per dose is actively taking care of their health.

Figure 27.



Ritual Caption: On repeat . Source: <https://www.instagram.com/ritual/?hl=en>

Table 27. Analysis of Figure 27

Denotation	Connotation	Myth(s)
Four copies of a hand holding up two of Ritual’s multivitamin supplements against a blue background are featured in the image. The first hand includes a graphic of a red circle with the number one. The dominant colours in the image are blue, white, and red. The caption denotes that the supplements are meant to be taken on repeat.	Two of Ritual’s vitamin supplements should be taken every day/on repeat, as indicated by the caption and the image in relation to the caption. The first hand in the image has a number 1 in a red circle above the supplements, indicating Day 1. In this way, the image connotes that the supplements are essential, and that they should be taken every day.	Self-care essentials The myth in the image is that the vitamin supplements are self-care essentials. The consumer that buys the supplements and takes them “on repeat,” every day is actively taking care of their health.

Figure 28.



Ritual Caption: Start your week strong #takeyourvitamins. Source: <https://www.instagram.com/ritual/?hl=en>

Table 28. Analysis of Figure 28

Denotation	Connotation	Myth(s)
Two of Ritual’s multivitamin supplements are placed under a label for each day of the week, against a yellow background. A hand grabs one of the two vitamin supplements placed under the label “Sun,” indicating Sunday. The dominant colour in the image is yellow. The caption denotes that in order to start a week off strong one must take their vitamins.	The image, in relation to the caption, connotes that vitamin supplements are essential (#takeyourvitamins) and that two of Ritual’s vitamin supplements should be taken every day, as signified in the image by the two supplements placed under each day of the week. The model, whose hand is in the image, appears to be starting the week off strong because she is grabbing onto a Ritual vitamin supplement under the day labelled as Sunday. She is starting her daily self-care routine with strength.	Self-care essential, strength The myths in the image are self-care and strength. The consumer that takes vitamin supplements and more specifically, two of Ritual’s vitamins every day is actively taking care of their health. Also, to take vitamin supplements is to lead a healthy and robust lifestyle.

Figure 29.

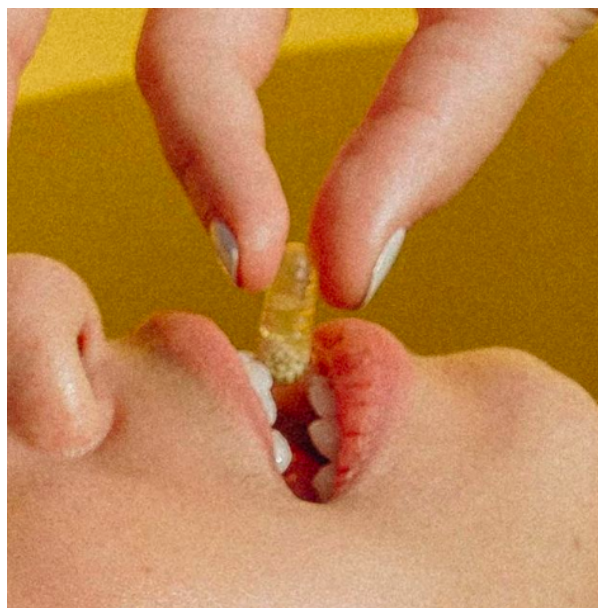


Ritual Caption: *Attempts to sniff phone screen*. Source: <https://www.instagram.com/ritual/?hl=en>

Table 29. Analysis of Figure 29

Denotation	Connotation	Myth(s)
Ritual's multivitamin supplements placed on mint leaves (one on each leaf) against a white background. The dominant colours in the image are white and green. The caption calls on the sense of smell and the action of trying to smell one's phone screen to "smell" the image.	The image, in relation to the caption, connotes that Ritual's multivitamin supplements smell like mint leaves, as the caption calls on the sense of smell. The supplements are also connoted as natural like mint leaves, as they are placed on top of mint leaves as if to signify a relation.	<p>Nature/Natural</p> <p>The myth in the image is that of Ritual's vitamin supplements being natural because they smell and are composed of ingredients that are natural, like mint leaves. The consumer that buys the supplements is buying a natural health product.</p>

Figure 30.

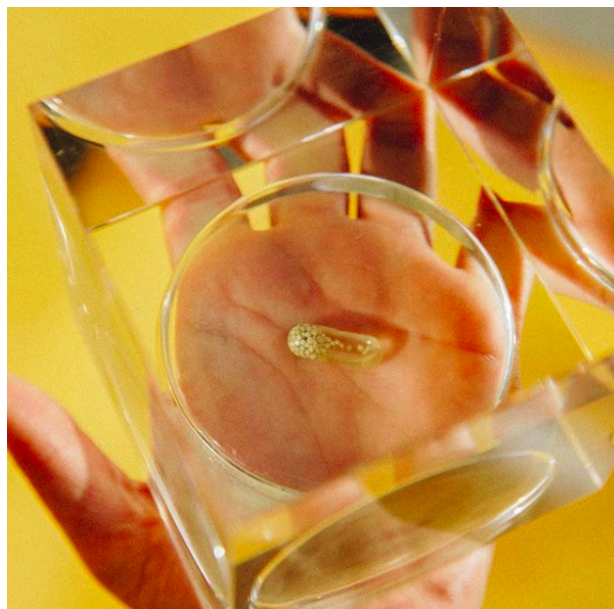


Ritual Caption: Multivitamins: food your body doesn't get from food. Think of it this way — taking EFW is like a nutrient insurance plan. In the areas where your food falls short, getting support from our multivitamin helps give your body the nutrients it's hungry for. Cha-ching 🥳. Source: <https://www.instagram.com/ritual/?hl=en>

Table 30. Analysis of Figure 30

Denotation	Connotation	Myth(s)
Two fingers place one of Ritual's vitamin supplements in the mouth of a female model whose face is only visible from the nose down and is positioned horizontally. The background of the image is yellow, and the dominant colours in the image are white and yellow. The caption denotes that multivitamins are food one's body does not get from food and that taking Ritual's multivitamins supplements is a nutrient insurance plan that gives one's body the nutrients they need. "Cha-ching" denotes saving money or that the supplements are a good purchase.	The image, in relation to the caption, connotes that Ritual's multivitamin supplements should be taken— like the female model in the image appears to be doing— as a security health measure because food can fall short. Taking Ritual's supplements is to provide oneself with the necessary security over their health and therefore, the supplements are an excellent financial investment.	Self-care The myth in the image is self-care. Taking Ritual's vitamin supplements is to invest in and take care of one's health. The consumer that buys the supplements is investing in their health, and the supplements are worth the money.

Figure 31.



Ritual Caption: Let's be clear — forms matter:

- Vitamin K: K2MK7 vs K1
- Folate: Methylated Folate vs Folic Acid
- Omega-3s: DHA vs ALA
- B12: Methylated B12 vs Cyanocobalamin B12
- Boron: Calcium Fructoborate vs Borate Salts
- Iron: Ferrous Bisglycinate Chelate vs Ferrous Fumarate
- Vitamin E: Mixed Tocopherols vs Alpha
- Vitamin D: D3 vs D2
- Magnesium: Dimagnesium malate vs Magnesium Oxide

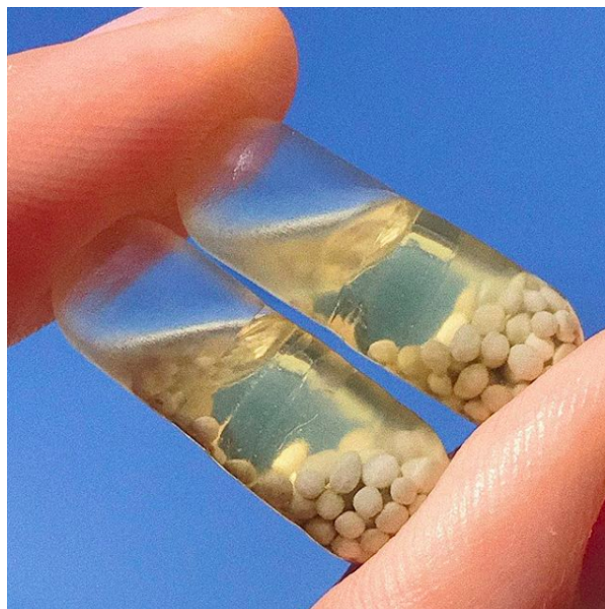
Source: <https://www.instagram.com/ritual/?hl=en>

Table 31. Analysis of Figure 31

Denotation	Connotation	Myth(s)
A hand holds a glass box over a single Ritual multivitamin supplement. The glass box magnifies the supplement. The background of the image is yellow, which is the dominant colour in the image. The caption denotes that it is evident that the forms of nutrients and	The image, in relation to the caption, connotes that Ritual's women's multivitamin supplements are made of better/the right forms of nutrients, and the company is transparent in the ingredients the supplements are composed of, as indicated by the caption: "let's be clear." In the image, a single vitamin supplement is placed under a glass box, which connotes transparency as one can see through the transparent glass	Transparency, superiority The myths in the image are transparency and superiority. Ritual is transparent/clear in regards to what their supplements are made of (better forms of nutrients) using science to back themselves up. Buying Ritual's supplements is buying supplements made of superior, quality ingredients because they

vitamins that supplements are composed of matter.	box and see the vitamin supplement's components/forms.	are made of better forms of nutrients, and Ritual knows the forms that matter.
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Figure 32.



Ritual Caption: Think of the little beadlets inside Ritual capsules as tiny tablets, but with an upgrade 🙌

Regular tablets mix everything together, meaning they can interact with each other. But Ritual’s beadlets are layered. Starting with a perfectly spherical core of cellulose (plant fiber), we spray on the Vitamin B12 and MTHF (Methylated Folate) first, since they are in small amounts. On top of that the Iron and Boron are sprayed on, and finally the Magnesium, which makes up most of the beadlet.

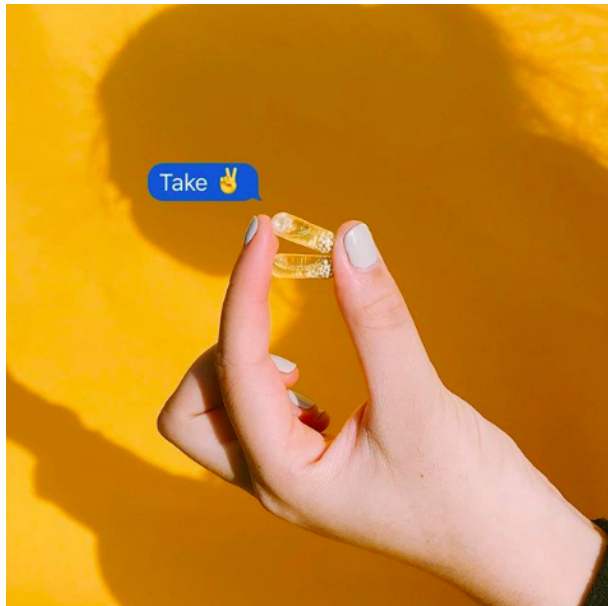
Finally, the beadlets are sealed to resist oil, like a shrink-wrap. When the beadlets are swimming in the oil inside Ritual capsules, they are not touching the more sensitive fat-soluble nutrients, meaning the ingredients stay fresh.

Source: <https://www.instagram.com/ritual/?hl=en>

Table 32. Analysis of Figure 32

Denotation	Connotation	Myth(s)
Two fingers hold up two of Ritual’s women’s multivitamin supplements against a sky-blue background. The dominant colours in the image are blue and gold/yellow. The caption denotes that the components in Ritual’s supplements are an upgrade, and the caption explains how the supplements are made.	The image, in relation to the caption, connotes that Ritual’s ingredients are high in quality, as indicated by the caption and uses words like: “upgrade,” “fresh,” “perfectly spherical core of cellulose.” The caption also uses scientific terms to explain what the supplements are made from and what make them superior.	Superiority The myth in the image is superiority. Ritual’s supplements are made up of high-quality ingredients, and the consumer should buy them because they are an upgrade from traditional supplements.

Figure 33.



Ritual Caption: Don't leave it on read #takeyourvitamins. Source: <https://www.instagram.com/ritual/?hl=en>

Table 33. Analysis of Figure 33

Denotation	Connotation	Myth(s)
A hand holds two of Ritual's women's multivitamin supplements between two fingers against a yellow background. A shadow of a female is also featured in the background. A blue bubble, simulating a text bubble appears over the supplements with "Take" and an emoji of a hand throwing up a peace sign beside it. The dominant colour in the image is yellow. The caption denotes that it is essential to not forget to take one's vitamins like it is important not to forget to reply to a text message.	The image, in relation to the caption, connotes that one should not forget to take their vitamin supplements and specifically, two of Ritual's vitamin supplements because they are self-care essentials, as indicated by the hashtag in the caption. Vitamin supplementation is not something that should be ignored or forgotten like a text message that is left on "read." Two of Ritual's women's multivitamin supplements are connoted as one dose, as indicated by the word and emoji in the image that signify, "Take 2."	Self-care essential The myth in the image is self-care. The consumer that buys and takes Ritual's vitamin supplements is buying a self-care essential.

Figure 34.



Ritual Caption: Gang's all here 🍷. Source: <https://www.instagram.com/ritual/?hl=en>

Table 34. Analysis of Figure 34

Denotation	Connotation	Myth(s)
A female model, whose face is not visible in the image, wears navy blue silk pyjamas while holding multiple bottles of Ritual's women's multivitamin supplements. The dominant colours in the image are navy blue, white, and gold/yellow. The image denotes that the bottles of supplements are a "gang."	The image, in relation to the caption, connotes Ritual as a playful brand, as the caption personifies the bottles of supplements as a "gang." The peace-sign emoji is also playful. Additionally, the image connotes luxury, as the apparent silk pyjamas signify a luxurious material. The multiple bottles of supplements also connote luxury, as one with excess money to spend can afford to buy multiple bottles of Ritual's supplements at a time.	Playfulness, luxury The myths in the image are playfulness and luxury. The consumer that buys the supplements is buying a luxurious product from a luxurious and playful brand.

Figure 35.



Ritual Caption: Taken seconds after [@hana.huss](https://www.instagram.com/hana.huss) said we were “The glow up from Flintstones chewables.” ✨ Source: <https://www.instagram.com/ritual/?hl=en>

Table 35. Analysis of Figure 35

Denotation	Connotation	Myth(s)
A female influencer’s (hana.huss: 2K followers) hand holds a bottle of an almost empty bottle of Ritual women’s multivitamin supplements between two fingers. The background of the image is white, and the dominant colours that stand out in the image are gold/yellow, white, and black. The image features a quote by the influencer who said that Ritual’s supplements are “a glow up,” meaning more attractive, than Flintstones chewables.	The image, in relation to the caption, signifies a positive transformation for the influencer who went from consuming Flintstones chewable vitamins to Ritual’s vitamins. A “glow up” signifies a positive transformation/change where someone looks better than they did previously. Also, because the bottle of supplements is almost empty, this signifies that the influencer has consumed the supplements and has perhaps experienced a “glow up” herself.	Superiority, beauty The myths in the image are superiority and beauty. Ritual’s supplements are more attractive and superior to Flintstones chewables, and the consumer is buying a superior and beautiful product that will make one beautiful on the outside, i.e. experience a “glow up” themselves.

Figure 36.



Ritual Caption: *nudge nudge*. Source: <https://www.instagram.com/ritual/?hl=en>

Table 36. Analysis of Figure 36

Denotation	Connotation	Myth(s)
A white, female model holds two of Ritual's supplements over her eye. The influencer wears a black t-shirt, gold earrings, and has her hair up in a bun. Over the influencer's face is a written message of: "Take your vitamins" in a curved-shaped line. The background of the image is yellow, and the colours that stand out in the image are white, yellow, and black. The caption denotes a reminder.	The image, in relation to the caption, connotes that vitamin supplements and more specifically, two of Ritual's vitamin supplements should be taken regularly, as indicated by the caption that reminds ("nudges") the reader to take their vitamins, along with the message: "take your vitamins." The female model in the image appears to be a reflection of the type of person that should take their vitamins as part of a self-care routine: a young female. Two of Ritual's supplements are also visually connoted as one dose in the image.	Self-care essential The myth in the image is self-care. The consumer should remember to take their vitamin supplements and specifically, buy and take two of Ritual's vitamin supplements because they are self-care essentials.

Figure 37.



Ritual Caption: Never too late to #takeyourvitamins, right? Source: <https://www.instagram.com/ritual/?hl=en>

Table 37. Analysis of Figure 37

Denotation	Connotation	Myth(s)
Two of Ritual’s vitamin supplements are placed on a white background; however, half of the image’s background is a shadow. The supplements appear to be glowing in the image. A social media influencer/content creator is tagged in the image, who appears to be the creator of the image (@soft_when_ripe: 2K followers). The caption denotes a question posed by Ritual that asks the audience to agree with them with the fact that it is never too late to take one’s vitamins, especially when they are Ritual’s vitamin supplements.	The image, in relation to the caption, connotes that it is never too late—day or night—to take two of Ritual’s vitamin supplements. The half shadow/half white background connotes night and day. The hashtag in the caption also connotes that taking vitamin supplements is essential for self-care. The vitamin supplements are also glowing, connoting that they are worthy of praise/admiration. Two of Ritual’s supplements are also visually connoted as one dose in the image as the caption signifies that it is time to take two of Ritual’s supplements.	Self-care, admiration The myths in the image are self-care and admiration. Not only should the consumer take vitamin supplements for self-care but also, Ritual’s supplements should be taken, and it is never too late to do so. In addition, the consumer will be buying and taking supplements that are amazing in how they work.

Figure 38.



Ritual Caption: Kicking it with @thewellnessrookie_ 🐦. Source: <https://www.instagram.com/ritual/?hl=en>

Table 38. Analysis of Figure 38

Denotation	Connotation	Myth(s)
A female influencer's hand (thewellnessrookie_: 9K followers) holds a bottle of Ritual vitamins supplements, which is centred in the image. Visible is a part of the influencer's legs, which are crossed. The influencer is wearing blue jeans and white sneakers. The background in the image is white, and the colours that stand out in the image are yellow, blue, and white. The caption denotes that the brand is "hanging out" with the influencer.	The influencer's dress is casual, as indicated by the sneakers and jeans, and the caption also signifies a laid-back vibe through the message: "kicking it." The signs and symbols connote that the brand is casual and taking its vitamin supplements is a casual, "cool," and laid-back thing to do, which the influencer showcases.	Casualness The myth in the image is casualness—taking vitamin supplements is a casual and laid-back thing to do, like "kicking it."

Figure 39.



Ritual Caption: Enjoy your weekend ✓ #takeyourvitamins ✓. Source: <https://www.instagram.com/ritual/?hl=en>

Table 39. Analysis of Figure 39

Denotation	Connotation	Myth(s)
A black, female influencer (@ceciliagorgon: 15.2K followers) with black, curly hair holds a bottle of Ritual's supplements with one hand while posing. The influencer has an alluring facial expression. The background of the image is white, and a green plant is visible in the image. The colours that stand out in the image are black (the influence hair) and yellow. The caption denotes a to-do list where the influencer has checked off enjoying her weekend and taking her vitamin supplements.	The caption connotes that like enjoying one's weekend, taking Ritual's vitamin supplements is essential and should be on one's to-do list. The influencer reflects someone who has these two things on and crossed off her to-do list. Another idea connoted in the image is that the vitamin supplements will make one look and feel beautiful, like the influencer who is alluring and models the supplements.	Self-care essential, beauty The myths in the image are self-care and beauty. The consumer that buys the supplements will be actively taking care of their health (which is essential as signified by the hashtag in the caption) and will look and feel beautiful, like the influencer in the image.

Figure 40.



Ritual Caption: Starting fresh ☁. Source: <https://www.instagram.com/ritual/?hl=en>

Table 40. Analysis of Figure 40.

Denotation	Connotation	Myth(s)
A bottle of Ritual's women multivitamin supplements is placed on a white bed sheet. The bedsheet makes up the background of the image. The colours that stand out in the image are white and yellow/gold. The caption denotes that the bottle of vitamin supplements is a fresh bottle.	Starting fresh is connoted as starting a new bottle of Ritual's vitamin supplements. Starting a new bottle of supplements is also signified as pure, as the bottle of supplements lays on top of white bed sheets—the colour white often symbolizes purity.	Purity The myth in the image is purity. Starting to take Ritual's supplements or starting new bottle of their supplements is to start fresh/pure and it evokes that the vitamins are pure.

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