

An analysis of 6 decades of hygiene-related advertising: 1940-2000

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Objectives: To describe and analyze trends in hygiene-related advertisements and examine potential social and regulatory changes that might be associated with these trends.

Methods: From 1940 to 2000, advertisements in January issues of 2 widely read magazines were analyzed every fifth year, and 2 additional magazines only available from 1960 to 2000 were also analyzed every fifth year. In a content analysis, the total number of advertisements were determined and specific advertisements were grouped into categories (personal hygiene, dishwashing, laundry, and house cleaning) and further examined for the presence of 4 key claims (aesthetics, health effects, time-saving, and microbial effects).

Results: From 1940 to 2000 for all magazines combined, 10.4% of the advertisements were devoted to hygiene products. After 1960 there were significantly fewer hygiene advertisements as compared with 1940 to 1955, and there was a significant increase after 1980 ($P < .00001$). Throughout all 6 decades, most advertisements related to personal hygiene. There were no significant differences over time in the proportion of advertisements that made claims related to health, microbial effects, or aesthetics, but significantly more advertisements before 1960 made time-savings claims ($P = .009$).

Conclusions: This content analysis reflects a cyclical attention in consumer advertising to personal and home hygiene products during the past 6 decades, with a waning of interest in the decades from 1960 to 1980 and an apparent resurgence of advertisements from 1985 to 2000. The potential contributions of federal regulatory bodies and societal changes (eg, new marketing strategies and options, product development, new and re-emerging infectious diseases, increasing concern about antimicrobial resistance, and increasing recognition that infectious diseases are unlikely to be eradicated) to these marketing trends are discussed. (Am J Infect Control 2001;29:383-8.)

In the past 3 decades there has been a proliferation in product and brand options for personal hygiene and home cleaning. Concurrently, regulators such as the Food and Drug Administration and Environmental Protection Agency have been increasing scrutiny of health promotion and disease prevention claims made by manufacturers of such products.¹ Further, it is quite possible that the public's interest in and awareness of the role of the home environment and personal cleanliness have changed throughout the years.

One of the important means by which the public is informed and influenced in their choices of hygiene

products and practices is through advertising. Some have postulated that advertisements may simply reflect current and changing public interest and/or may actually serve to change opinion and ultimately buying practices (that is, advertising serves as a mirror of public interest, need, perception, and/or demand).²⁻⁶ Hence, an analysis of changing trends in advertising is 1 reflection of the current state of public opinion on health issues. The role of advertising and marketing on a variety of health issues such as prescription drug use, nutrition, sexual roles, and health-seeking behaviors has been studied.^{4,7-9} To our knowledge, however, there has not previously been a content analysis of recent trends in advertising related to personal and home hygiene products in lay journals. The purposes of this exploratory survey were to describe and analyze the trends in hygiene-related product advertisements in selected lay journals and to examine potential social and regulatory changes that might be associated with these marketing trends.

METHODS

Sample

Four magazines (*Ladies' Home Journal*, *Good Housekeeping*, *Family Circle*, and *Reader's Digest*) were

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Table 1. Hygiene-related advertisements by journal

Period	Percentage (No. hygiene ads/total ads)				
	LHJ	GH	FC	RD	Total
1940-1955	13.9 (56/402)	21.5 (61/284)	9.3 (17/182)	Not available	15.5 (134/868)
1960-1975	6.6 (19/290)	13.6 (38/279)	3.4 (10/295)	6.5 (14/215)	7.5 (81/1079)
1980-2000	9.1 (31/341)	11.1 (58/524)	8.9 (25/281)	6.4 (13/204)	9.4 (127/1350)
Totals	10.3 (106/1033)	14.4 (157/1087)	6.9 (52/758)	6.4 (27/419)	10.4 (342/3297)

LHJ, Ladies' Home Journal; GH, Good Housekeeping; FC, Family Circle; RD, Reader's Digest.

Table 2. Trends in ad claims over time

Period	Categories of advertising claims: percentage (No. of hygiene ads/total ads)			
	Microbial effects	Health effects	Aesthetics	Time-saving
1940-1955	14.9 (20/134)	7.5 (10/134)	74.6 (100/134)	23.1 (31/134)
1960-1975	14.8 (12/81)	3.7 (3/81)	71.6 (58/81)	6.2 (5/81)
1980-2000	13.4 (17/127)	5.5 (7/127)	64.6 (82/127)	4.7 (6/127)
	$P = .93$	$P = .51$	$P = .20$	$P < .001$

selected for analysis because they have been published for several decades and are widely read by individuals likely to be involved in home hygiene practices, such as homemakers. For convenience, data were collected from the January issues every fifth year (eg, 1940, 1945, 1950) based on the availability of the magazine. Advertisements in *Good Housekeeping* and *Ladies' Home Journal* were analyzed from 1940 to 2000. For *Reader's Digest* and *Family Circle*, advertisements were analyzed from 1960 to 2000 and 1950 to 2000, respectively. The January 1960 and 1990 *Family Circle* issues were not available for analysis.

Data collection procedure

Hard copies or microfiche copies of the journals were obtained from the New York City Public Library. Both the number of hygiene product advertisements and the total number of advertisements in each issue were recorded. Each hygiene product advertisement was grouped into 1 of 4 categories (personal hygiene, dishwashing, laundry, or house cleaning) depending on its main focus. Examination of hygiene advertisements was limited to products such as soaps, detergents, and other cleaning agents and excluded equipment such as mops, sponges, and toothbrushes. In addition, we did not attempt to analyze nonadvertisement published hygiene-related articles.

Next, each hygiene advertisement was examined for the presence of 4 key claims being made for the products: aesthetics, health effects, time-saving, and microbial effects. For example, if a hygiene advertisement claimed

that a product produced characteristics that were described as "fresh," "clear," or "sparkling," then it was coded in the "aesthetics" category. If the advertisement referred to microbial effects or related concepts such as germs, microbes, bacteria, or viruses, it was coded for "microbial effects." The key claim "health effects" was indicated by a direct claim of "health" benefits, and an advertisement was coded for "time-saving" if the product was described with words such as "saves time," "speedy," "fast," or "quick."

Interrater reliability was conducted on a subset of the magazines for 1 year. Reviewers categorized all advertisements independently, on separate days, with the following levels of agreement: 98.2% agreement on total number of hygiene ads, 98.0% agreement on total ads, and 100% agreement on categorizations of the hygiene ads.

Statistical analysis

The Fisher exact test or the Pearson χ^2 test was used to determine whether there was a significant difference in the proportions of hygiene advertisements over time and between journals. All statistical analyses were performed with STATA software (Stata Corporation, College Station, Texas).

RESULTS

Numbers of advertisements by journal are summarized in Table 1. For every fifth year between 1940 and 2000, 10.4% (342/3297) of advertisements in January issues of all magazines combined were devoted to

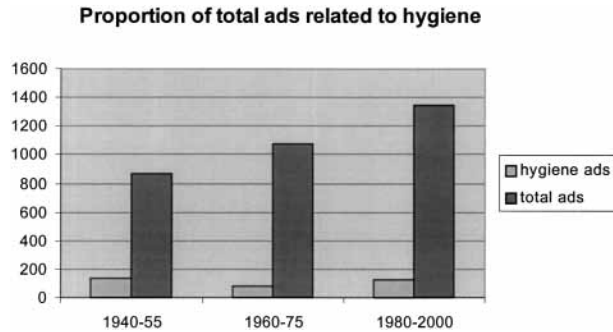


Fig 1. Pearson χ^2 : $P < .00001$ when comparing 1940-1955 with later years.

hygiene products—the largest proportion of which occurred in 1940 to 1955 (15.4%) when compared with 1960 to 1975 (7.5%) and 1980 to 2000 (9.4%) ($P < .00001$) (Fig 1). For all time periods, personal hygiene advertisements were the most frequent type, advertisements for cleaning and dishwashing products were relatively stable over time, and there was a slight dip in advertisements related to laundry during the period of 1970 to 1985. Types of products advertised varied significantly over time but in no apparent pattern ($P = .009$) (Fig 2).

For all time periods, the majority of claims made for products related to their aesthetic characteristics (eg, bright or sparkling). Few advertisements ($< 8\%$) in any time period made claims regarding health effects of their products (eg, makes the user healthier). There were no significant changes over time in advertising claims for microbial effects, health effects, or aesthetic characteristics, but claims about the time-saving characteristics of products were significantly fewer after 1960 (5.3%) as compared with 1940 to 1955 (23.1%; $P < .0001$) (Table 2).

DISCUSSION

Social changes and hygiene marketing

The marketing of sanitary goods began in the late 1800s before wide acceptance of the germ theory of disease. As the germ theory attained greater acceptance, methods to identify microorganisms were developed, and aggressive public health campaigns to reduce infectious diseases such as tuberculosis fueled advertising campaigns for new and improved hygiene-related products during 1885 to 1915.¹⁰ By the early 1900s products such as ammonia, borax, and laundry and toilet soap were being heavily advertised in the Sears catalogue. During the early to mid-1900s, soap manufacturing in the United States increased by 44%, and both bath and laundry facilities became more readily available.^{11,12} During this period, there were also major improvements in water supply, refuse disposal, and sewage systems. Concomitant with these changes in

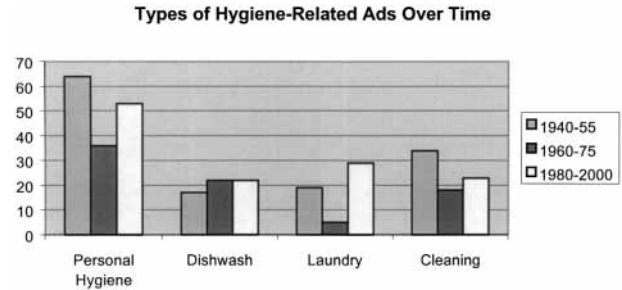


Fig 2. Pearson χ^2 for trends over time: $P = .009$.

individual and environmental hygiene, the death rates from infectious diseases decreased significantly. In fact, this major decline in mortality was evident before the widespread use of effective medical therapies for infectious disease.¹³

After 1940, the popular interest in diseases attributed to poor hygiene began to wane, but in the 1950s polio outbreaks recaptured the momentum.^{14,15} Further discovery and widespread use of antibiotics and vaccines in the 1960s and 1970s heralded an era in which the eradication of infectious disease as a primary cause of morbidity and mortality was predicted and celebrated. As a result, there was less emphasis on individual responsibility for the prevention of infectious diseases and an increased burden on public health agencies. The public health infrastructure shifted toward community-wide interventions, with lessening attention to personal hygiene and the home environment.¹³ More recently, the attention is again shifting toward the individual's role in reducing risk of transmission of infectious diseases. This trend has been attributed to the HIV epidemic, re-emergence of tuberculosis, the continued emergence of new infectious diseases, and increasing concern and public awareness of antibacterial resistance and major outbreaks of foodborne and waterborne illnesses.^{10,16,17}

More recently, it appears that a similar trend as that observed in the early 1900s is occurring, that is, a greater focus on products related to health and disease prevention.¹⁸ The market for home hygiene products, which grew by 81% from the late 1980s to the early 1990s, reflects this return of public concern for protection against infectious disease.¹⁹ The promotion and sales of products is one important determinant of a culture's awareness of perceived or real health benefits.¹⁵ For example, a recent study showed that schoolchildren gather information about bacteria and viruses from television advertisements for toothpaste and household cleaners.²⁰ Moreover, advertisements and other media may have an important impact on health behavior.²¹

In a 1998 Gallup Study of Consumer Awareness and Perception of Antibacterial Products, 33% of con-

Table 3. Regulatory agencies related to marketing of hygiene products and proposed rules

Type of product regulated	Federal agency (Web address)	Relevant proposed rules
Cleaning products	Consumer Product Safety Commission (http://www.cpsc.gov/)	Federal Hazardous Substances Act, July 13, 1960 (http://www.cpsc.gov/businfo/fhsa.pdf)
Hand hygiene products	Food and Drug Administration (http://www.fda.gov/default.htm)	Federal Food, Drug and Cosmetic Act, 1938 (http://www.fda.gov/opacom/laws/fdrgact.htm) Over-the-counter topical antimicrobial products and drug and cosmetic products. Federal Register (21 CFR Part 333); 39(179), Sept 13, 1974. Topical antimicrobial drug products for over-the-counter human use; tentative final monograph for health care antiseptic drug products. Federal Register (21 CFR Part 333); 43 (4), Jan 6, 1978. Alcohol drug products for topical antimicrobial over-the-counter human use. Federal Register (21 CFR Part 333); 47 (99), May 21, 1982. Topical antimicrobial drug products for over-the-counter human use; tentative final monograph for first aid antiseptic drug products. Federal Register (21 CFR Parts 333 and 369); 56(140), July 22, 1991. Tentative final monograph for health care antiseptic drug products. Federal Register (21 CFR Parts 333 and 369); 59(116), June 17, 1994.
Disinfectants	Environmental Protection Agency (http://www.epa.gov/)	Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 1947 (http://www.epa.gov/region5/defs/html/fifra.htm) Statement on antimicrobial-treated articles (eg, cutting boards, plastics, paints), Sept 1997 (http://www.epa.gov/oscpmont/sap/1997/september/1097trtd.htm)

sumers expressed the need for antibacterial cleansers to protect the home environment from bacterial and viral pathogens and 26% believed that antibacterial soaps or body cleaners are needed to avoid microbial contamination on the skin. Additionally, 66% of adults reported that they were either very or somewhat concerned about exposure to bacteria and viruses, 40% believed these microorganisms were becoming more widespread, and 72% believed that some bacteria are growing resistant to antibiotic treatment. Among adults who believed that bacteria are becoming resistant, approximately one third reported being seriously concerned about this issue.²²

This content analysis assessed 1 medium for communicating public health messages: advertising in popular lay journals. Public concern about infectious disease transmission before the antibiotic era is reflected in the fact that the highest proportion of hygiene adver-

tisements was from 1940 to 1955. Variations over time may reflect not only a waxing and waning of public attention to hygiene but also a variety of factors such as competition among marketers, cost of advertising, changing demographics of readership of various lay magazines, product innovations, and availability of other media for advertising. All of these factors could affect the desire or ability of hygiene product marketers to advertise in magazines. Hence, in addition to reflecting a waning of interest in hygiene from the 1960s through the 1980s, the decrease in hygiene advertisements may indicate a shift in advertising to television or other media during this period.

It should also be noted that only the January issue of each magazine was analyzed every fifth year, and therefore seasonal variations were not considered. The hygiene product advertisements during this 1-month period may over-represent seasonal differences in

advertising, such as a greater focus on hygiene products geared toward flu and cold season. In addition, the sampling period may under-represent hygiene product advertisements that focus on spring cleaning or other seasonal marketing differences.

The variation in the proportion of advertisements related to different types of products (ie, personal hygiene, dishwashing, laundry, general cleaning) may reflect the introduction of new products into the marketplace, since the trends observed were in no discernible pattern (that is, increasing or decreasing consistently across time periods).

Regulatory changes and hygiene marketing

The regulation of labeling for over-the-counter hygiene products is complicated by the fact that at least 3 different governmental agencies are involved (Table 3). Cleaning products fall under the purview of the Consumer Product Safety Commission and are regulated primarily under the Federal Hazardous Substances act, which went into effect July 13, 1960. The timing of this regulation coincides with a significant decline in the number and proportion of magazine advertisements devoted to hygiene. The provisions of the Act, however, are extremely general because the regulation encompasses hundreds of products including, for example, antifreeze, bicycles, charcoal briquettes, heaters, pacifiers, refrigerator doors, spot removers, toys, video games, and writing instruments in addition to cleaning products. Additionally, if the Act had an impact on marketing, one would expect a decline in advertisements specifically related to cleaning claims, but these claims remained fairly stable during the 6 decades examined. Therefore, there is little evidence that this legislation had much impact on marketing for cleaning products.

Products used for hand hygiene are regulated by the Food and Drug Administration under the Federal Food, Drug and Cosmetic Act of 1938. In addition, major proposed rulings that may have affected manufacturing and marketing for over-the-counter products were published in the Federal Register in 1974, 1978, 1991, and 1994. There was no significant reduction in the numbers of personal hygiene advertisements during the time period studied. However, if there were an effect of these proposed rules on advertising, it would likely be on the nature of the claims for products rather than in the number of ads. There was no difference in the numbers or proportions of personal hygiene advertisements making microbial or health claims during this period.

Oversight of disinfectants for use on environmental surfaces is the responsibility of the Environmental Protection Agency under the Federal Insecticide, Fungicide, and

Rodenticide Act, enacted in 1947. We were unable to find any changes or updates in this act that might have had an impact on advertising of such products, except a 1997 statement (not a ruling) noting that there is no evidence of a beneficial effect of antimicrobial-treated products such as cutting boards, paints, wall coverings. Overall, we concluded that for this limited sample of magazines there was little, if any, evidence that trends in marketing of hygiene products during the past 6 decades were attributable to changes in federal regulations.

SUMMARY

Many have called for more scholarly attention to the role of advertising in transmitting public health messages.^{2,5,21-26} Marketing campaigns, for example, have successfully contributed to combating tobacco consumption.²⁷⁻²⁹ It has been suggested that communication and collaboration between manufacturers and media are needed to inform consumers adequately about the benefits and risks of home hygiene products and for developing regulations concerning the definition of words used to characterize their microbial effects, such as "antimicrobial," "antibacterial," and "sanitization."²²

On the basis of this content analysis, we conclude that there was a waning in hygiene advertising between 1960 and 1999, which may be due to several factors, including the increasing availability of other marketing media such as television and computers. In addition, this reduction in advertising coincided with (and perhaps reflected) a general societal complacency regarding the transmission of infectious diseases, which appears to be reversing in more recent years. Further studies are needed to determine what impact hygiene-related advertising has on hygiene product choices and subsequent health behaviors and effects.

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