WHAT TELEVISION TEACHES ABOUT PHYSICIANS AND HEALTH

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The U.S. Surgeon General's recent call for reordering health priorities (1) concluded that culturally sustained behavioral and lifestyle factors account for as much as half of U.S. mortality.

A shift in health priorities to cultural and behavioral research highlights the central role of television in socializing individuals and stabilizing lifestyles. The success or failure of educational and informational efforts depends largely on the cultural context into which they are injected. Few educators can succeed without knowing what the obstacles are. That means being aware of what other relevant patterns of messages and images television discharges into the mainstream of common consciousness.

Unlike other media, television is used relatively nonselectively. Most viewers watch by the clock rather than by the program. Television watching is like a ritual. It involves the average American household for 6 1/2 hours a day in a stable and repetitive world of shows, news, and commercials designed to hold and sell the largest possible public at the least possible cost. Its entertainment programs and commercials, with potential health (and other) lessons embedded in them, reach tens of millions of viewers. Even more importantly, these messages reach viewers who otherwise do not expose themselves to such information.

While single programs and isolated messages or even campaigns may be submerged in the daily and weekly rhythm of the television ritual, the recurrent patterns of health information in regular programming become parts of the inescapable mainstream of our widely shared symbolic environment.

This is a review of what we know about these patterns and their lessons for viewers. The source of research results not otherwise cited or specifically identified is a pilot study we have conducted for the National Institute of Mental Health (2).

What Viewers See

The world of prime-time (8 to 11 p.m.) and of children's weekend-daytime (8 a.m. to 2:30 p.m.) network dramatic programming is by and large a man's world of action, power, and danger. Our annual analyses since 1967 of nearly 5,000 major and some 14,000 minor characters, in over 1,600 programs, reveal these consistent patterns: Men outnumber women at least three to one; young people comprise one-third of their real numbers; characters over 65 years of age make up 2% of the television population but 11% of the real world's; professionals, law-breakers, law-enforcers, and entertainers greatly outnumber all other working people; crime is at least 10 times as frequent as in the real world; and an average of 5 acts of violence per hour of prime-time and 18 acts per hour in chil-

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dren's weekend-daytime programs victimize half of the major characters of prime time and over two-thirds in children's time programs (3).

This violence is rarely followed by pain or suffering. On the average, only about 6% of major characters need any medical treatment. Specific diseases hardly exist in prime time. A special analysis of programs that include elderly characters indicated that such programs are no more likely to show ailments than the others. Of the specific health problems shown, digestive disorders led with 10% followed by heart disease with 7%, and stroke with 6%. A regular viewer of these programs would see an average of three illnesses of all types in one week of prime-time viewing. The most frequent—stomach problem—would be seen once every three weeks. Infectious diseases, pneumonia, or diabetes were never shown in our analysis of 520 characters who appeared on dramatic programs that included elderly characters.

Mental Illness

Our studies found that about 17% of prime-time programs involve some significant depiction or theme of mental illness (4). About 3% of major characters are identified as mentally ill, as mental patients, ex-mental patients, and so on. In the late evening, with more violent programming, the percentage is twice as high.

In spite of their relatively small numbers, the mentally ill individuals on T.V. are the most likely to be portrayed as both perpetrators of violence and as victims. Out of all prime-time dramatic characters, 40% of—if we may use the term—"normals" are violent but 73% of those characterized as mentally ill are violent. Forty-four percent of the "normals," as opposed to 81% of the mentally ill, become victims of violence.

Television Physicians

Professionals play a disproportionately large role in the world of television. Health professionals (primarily physicians and nurses) dominate the ranks of professionals, numbering almost five times their real-life proportions. Only criminals or law enforcers are more numerous than health professionals in the world of television, despite the paucity of sick characters.

The typical viewer sees about twelve physicians and six nurses each week on prime-time alone, including three physicians and one nurse in major roles. By comparison, a scientist will be cast in a major role once every two weeks. Visible as health professions are in prime-time, they are virtually absent from weekend-daytime (children's) programs.

About 9 out of 10 television physicians are male, white, and young or middle-aged. Nearly all nurses are female and young or middle-aged; 9 out of 10 are white.

Physicians probably fare best of all occupations on television. McLaughlin (4) found that they are easily accessible to patients, command nurses (who never disobey their orders), advise each other, but rarely receive advice from patients or orders from superiors and, when they do, often disregard them.

Warner's (5) study of another sample of prime-time "doctor shows" confirmed these findings and also noted that 61% of the physicians' duties were performed during house calls or in the field. The television physician, Warner found, thrives on private relationships with patients, and wields absolute authority over auxiliary medical personnel, but is rarely shown at home or with a spouse or family of his own. Television physicians give advice and orders twice as frequently to female patients or to patients' wives as to male patients themselves.

Nutrition in programs and commercials

The quantity and quality of food commercials on children's television were well-documented in research conducted through the 1970s. During a year the average child viewer will see about 22,000 commercials, 5,000 of

them for food products, over half of which are high-calorie, high-sugar, low-nutrition items (6). Barcus found that 67% of Saturday morning commercials (7) and over half of general children's program commercials (8) were for sugared cereals, candy bars, and other sweets, usually presented as snacks to be eaten between meals. While dietary goals recommended by the U.S. Senate Select Committee on Nutrition and Human Needs (9) urged reduction in the consumption of refined and other processed sugars, most food commercials directed at children promote the use of such sugars. Masover and Stanler's (9) 1978 report for the U.S. Senate Select Committee found that 70% of food ads promoted products high in fats, cholesterol, sugar, and salt, while only 3% were for fruits and vegetables. Another study by Mauro and Feins (10) found that only 7% of commercials promoted dairy products, fruits, and breads, and that most of the rest were devoted to the easily mass-produced and profitably marketed, but low-nutrition, packaged products. A comprehensive review of much of the relevant research (11) concluded that "television advertising researchers have developed a sophisticated technology aimed not only at selling products to children, but also aimed at socializing these children to eventual consumer roles."

Food products, however, are not found only in commercial messages. Our pilot study (which examined the portrayal of eating, drinking, nutrition, and safety in a week-long sample of prime-time and weekend-daytime (children's) programming and is being reported in this paper) of a typical week's prime-time network dramatic programs reveals that eating, drinking, or talking about food occur nine times per hour. More than three-quarters of all dramatic characters, or some 25 each night, eat, drink, or talk about doing so, often more than once. Weekend morning programs present an additional 84 instances of eating and/or drinking, or nearly four per hour. (Interestingly, this is less than half the prime-time rate, although food and drink commercials dominate "children's" advertising).

Prime-time nutrition is anything but balanced or relaxed. Grabbing a snack (39% of all eating-drinking episodes) is virtually as frequent as breakfast, lunch, and dinner combined (42%). In weekend-daytime children's programs, snacks go up to 45% and regular meals decline to 24% with "other meals" making up the rest. The snack is fruit in only four or five of these episodes.

In episodes involving drinking, the most prevalent beverages are alcoholic. Coffee and tea are next.

A similar analysis of a week's prime-time programs by White and Sandberg (12) confirmed that one-third of the prime-time program diet consists of alcohol and coffee.

Although most of the attention of nutritionists focused on television commercials, Kaufman's (13) comparative study found that, in fact, there are more representations in programs than in commercials. Furthermore, the nutritional value of program references is no greater than that of commercials.

Kaufman analyzed 10 top-rated prime-time programs and the commercials included in them. She found that by far most references to beverages (particularly alcoholic) and to sweets were in program content. On the other hand, commercial references to fruits and vegetables outweighed program references to these foods by a ratio of better than three to one. A point-by-point comparison of television eating behavior along nutritional guidelines exposed the contradictions between the dramatic requirements and motivations (such as reward, punishment, bribe), and recommended eating habits.

Breed and DeFoe (14) found that alcoholic beverages not only outnumber other beverages consumed on television but that the pattern of drinking on TV is virtually the inverse of the pattern in daily life. Alcohol drinking

acts were more than twice as frequent as the second ranking coffee and tea, 14 times as frequent as soft drinks, and more than 15 times as frequent as water. Of all identifiable alcoholic beverages, 52% were hard liquor, 22% were wine, and 16% were beer.

The most frequent reason given for drinking on television is a personal crisis, according to Breed and DeFoe. Drink was a means of dealing with crisis or tension in 61% of significant incidents. Leading guest actors in prime-time series drank in a crisis 74% of the time. Lesser characters drank for social and other reasons. Only a few "bad" characters used alcohol to manipulate other people.

Our pilot study results show that although over one-third of all major characters are shown drinking, only about one percent are portrayed as having a drinking problem or being alcoholics. At any rate, drinking on television is not only prevalent, it is also generally condoned.

What Viewers Say and Do

Jeffery, et al.'s (15) comprehensive review of studies on the impact of television advertising on children's eating behavior concluded that advertising researchers have developed sophisticated techniques aimed not only at selling but also at socializing children to consumer roles that, stabilized by a lifetime of television reinforcement, may well resist attempts at modification.

It is essential, therefore, to learn what such attempts are up against. What are the health implications of television viewing *per se* and of exposure to health-related messages, such as those we have discussed above, embedded in daily television fare? What informational states, conceptions about health, and practices relating to health does television viewing tend to cultivate in different groups of viewers?

There are indications that exposure to television's portrayal of health matters contributes to the public's health-related knowledge and behavior. It should be stressed that although these findings are preliminary, they affirm the idea that television has tremendous potential impact on the public health status and that this problem merits concentrated and sustained research.

Among children, Leaman (16) found that fourth and sixth graders who watch more television have lower levels of nutritional knowledge. Moreover, the nutritional value of the children's diets seemed to vary inversely with amount of viewing.

Other, more indirect, pieces of evidence suggest that unhealthy practices may accompany reliance upon television for health information. In the General Mills study (17), respondents were given a list of 16 information sources (e.g., physicians, friends, families, television programs, popular books on health, etc.), and asked which were their "two or three main sources" of health information. "Television programs" were the second most cited source (chosen by 31%), led only by "physicians and dentists" (chosen by 45%). All other sources were chosen by less than 30% of the sample.

More importantly, those who did choose television programs (vs. those who did not) manifest a distinct profile. Table 1 shows that in most demographic groups (defined by sex, social class, and place of residence), those who chose television programs are significantly more likely to be categorized as "complacent" (vs. "concerned") on health attitudes; as holding "old" (vs. "new") health values; as being "nonexercisers" in regard to physical fitness; and as being "poorly-informed" (vs. "well-" or "somewhat-informed") in terms of health information. The latter two —not exercising and being less informed— show particularly strong and consistent associations with choosing television, across subgroups.

These data cannot support the argument that television contributes to poor health rou-

Table 1

Health values, behaviors, and information for do and do not select television as one of two or three "main sources of information," from a list of 16 sources.

	% who are complacent			% with Old health values			% who are Nonexercisers			% who are Poorly Informed			Base N
	TV chosen	TV not chosen	gam.	TV chosen	TV not chosen	gam.	TV chosen	TV not chosen	gam.	TV chosen	Tv not chosen	gam.	(± 5)
Social Class													
Lower	63	70	.14	7	11	.24	62	60	-.04	24	48	.49***	(380)
Middle	69	76	.17**	14	18	.14*	55	73	.38***	18	29	.30***	(1207)
Upper	70	80	.27**	7	14	.34**	50	60	.21**	13	24	.36***	(539)
Residence													
Central city	70	72	.04	10	30	.57***	60	68	.18*	22	43	.46***	(704)
Urban	68	77	.22***	15	16	.02	54	65	.22***	16	26	.28***	(978)
Rural	66	76	.22**	8	4	-.37*	56	73	.36***	13	21	.30***	(702)
Sex													
Male	73	72	-.04	13	20	.24***	51	69	.36***	23	33	.25***	(1026)
Female	64	78	.32***	11	13	.12	60	68	.16***	13	26	.42***	(1359)

* $p < .05$
** $P < .01$
*** $P < .001$

Data Source: General Mills/Yankelovich, Skelley and White, 1979.

tines and lack of awareness of health information (although they are consistent with such a notion). But they do suggest that those who credit television as a main source of information, even with other variables held constant, are not among the more health-minded segments of the population.

Other surveys, which include a measure of amount of daily television viewing, echo these patterns and provide more hints about the possible consequences of television viewing on health. A 1979 study conducted by the Roper Organization for Virginia Slims asked:

> Here are some statements different people have made about their weight and eating habits. Which one of these statements comes closest to being right about you:
>
> I'm not concerned about weight, I eat and drink whatever I want, whenever I want (31%);
>
> I'm not concerned about weight but I'm a little careful about what I eat and drink (31%);
>
> I diet occasionally to keep myself trim (23%);
>
> I pretty much stay on a diet all the time (15%).

The first choice clearly represents the most complacent outlook on diet and nutrition. Our analyses lend support to the notion that television may cultivate this perspective. Those who watch more television are significantly more likely to select the first response (see Table 2).

"Mainstreaming" health conceptions

While this association holds up within most subgroups, there are interesting exceptions. The baselines and the intensity of the relationship do show some fluctuation across a range of groups, much of which may be explained by a process we call "mainstreaming" (18). "Mainstreaming" implies that some differences deriving from other factors may be reduced or even eliminated among those who watch more television (heavy viewers) (19). Groups who share a relative commonality of outlooks cultivated by television (the "mainstream" view) will often show weak or no

Table 2

Relationship between amount of television viewing and nutritional complacency.

	Total		*Television Viewing*					
			Light		*Medium*		*Heavy*	
	%	*N*	%	*N*	%	*N*	%	*N*
I'm not concerned about weight, I eat whatever I want, whenever I want	31	(1142)	28	(284)	31	(510)	35	(348)
I'm not concerned about weight, but I'm a little careful about what I eat and drink	31	(1132)	33	(335)	30	(489)	31	(308)
I diet occasionally to keep myself trim	23	(842)	24	(242)	25	(408)	20	(192)
I pretty much stay on a diet all the time	15	(535)	16	(166)	14	(234)	14	(135)
Total	100	(3651)	100	(1027)	100	(1641)	100	(983)

$X^2 = 21.42$, d.f. = 6, p = .001
gamma = −.07, p = .001 (tau)

Data Source: Virginia Slims/The Roper Organization, 1979

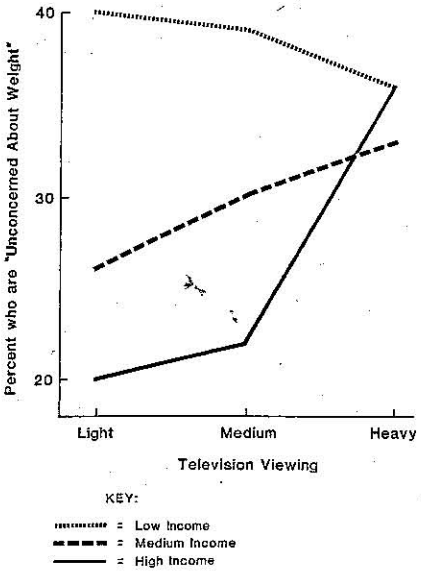
associations between amount of viewing and a given perspective. But strong relationships may be found for those groups whose lighter viewers do *not* share that outlook. Thus, cultivation may often imply a convergence into a more homogeneous "mainstream," rather than absolute, across-the-board increments.

Figure 1 presents graphic illustration of the concept of "mainstreaming" in this context. The figure shows the relationship between amount of viewing and being particularly unconcerned about diet and nutrition, by respondents' income levels. We see that the association is essentially zero for low-income respondents; if anything, they show a slight *negative* relationship. In other words, within the most complacent (i.e., low) income group, television may be associated with greater awareness.

Light viewers with middle or high incomes are relatively less likely to be complacent about their eating habits, yet we find strong relationships with complacency for heavy viewers within the higher-income groups. Clearly, heavy viewing goes with a more homogeneous "mainstream" of relatively strong nutritional complacency.

Our study of adolescents (20) found that about 83% say they "usually eat" while watching television. The tendency to eat while viewing increases as adolescents mature: 74% of sixth graders, 82% of seventh graders, 84% of eighth graders, and 91% of tenth graders say they eat while watching television.

Figure 1
Illustration of "Mainstreaming": Association between Amount of Viewing and Nutritional Complacency, by Income Level.



To conclude, television viewing is deeply integrated into different styles of life, with powerful implications for health practices. Television programs are a frequently cited source of health information; those who choose them, and/or heavier viewers, seem relatively neglectful and complacent about their physical well-being, are less informed about health, and exercise less.

The pattern of findings, including our own pilot study, indicates that television viewing is associated with a convergence of the heavier viewers upon paradoxical and disjointed "mainstream" conceptions and practices. Characteristic features are poor nutritional knowledge and behavior, general complacency about health, and high confidence in the medical community.

The cultivation of ignorance and neglect, especially among the otherwise relatively enlightened viewers, coupled with an unrealistic belief in the magic of medicine, is likely to perpetuate unhealthy lifestyles, hurt patients and health professionals, and frustrate efforts at health education. If culturally sustained health hazards are the new frontier in health promotion and disease prevention, there is a need for greater mobilization of effort and resources in a central sector of that frontier: television. ∞

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