

Direct-to-consumer print ads for drugs: Do they undermine the physician-patient relationship?

Among the many messages in DTC print ads is: communicate with, and listen to, your physician

Practice recommendations

- Messages about physician-patient communication found in prescription direct-to-consumer advertising (DTCA) uphold rather than undermine the physician's control.
- Keep in mind that patients encouraged by DTCA to ask you about prescription drugs are not necessarily demanding prescriptions.
- Be sure to discuss with patients who inquire about advertised products their risks and side effects—topics largely ignored by print DTCA messages.

Abstract

Background Critics of DTCA contend it alters physician-patient communication by promoting greater patient participation and control. We assessed the nature of messages in print DTCA to identify potential guidelines they may provide to consumers for communicating with physicians.

Methods We analyzed all unique advertisements (ie, excluded ads repeated across issues or magazines) in 18 popular magazines (684 issues) from January 1998 to December 1999 ($n=225$). We identified every statement that referred

to physicians, and within that set, statements that focused on physician-patient communication. Each communication-related statement was coded as a message to consumers about communication in terms of cues suggesting who should initiate communication, who should be in relational control, and appropriate interaction topic(s).

Results More than three-quarters (83.8%) of the advertisements' statements referring to physicians focused on physician-patient communication ($M=2.6$ per ad; $SD=1.8$). Most (76.1%) of these messages explicitly or implicitly promoted consumers initiating communication, but cast the physician in relational control (54.5%). The most frequently suggested interaction topics were clinical judgments of the product's appropriateness (41.8%) and information about the product (32.1%).

Conclusions Typical direct-to-consumer print ads contain multiple messages about communicating with physicians. The patterned nature of these messages appears to promote social norms for consumers' communication behavior by repeatedly implying the appropriateness of consumers initiating interaction, physicians maintaining relational control, and avoiding negative consequences of advertised drugs as conversational topics.

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A recent medical journal debate focuses on effects of direct-to-consumer advertising of prescription drugs (DTCA) on the physician-patient relationship.¹⁻¹¹ Both sides contend that DTCA alters consumers' communication behavior, and, ultimately, relationships with physicians, by encouraging greater patient participation and control. Increasingly, patients *are* asking physicians about advertised products and doctors do feel pressured to prescribe.¹²⁻²⁰ Thus, research to date has indicated that social norms for physician-patient communication are changing, but has not accounted for DTCA's features that focus directly on physician-patient communication. This study examines DTCA's references to physician-patient communication that may imply guidelines for consumers' interaction behavior.

Pro and con opinions. Opinions vary regarding DTCA's effects on health care and public health.²¹ Critics disagree about DTCA's effects on cost (including time),^{1-3,8,10,22-27} consumers' knowledge,^{2,24-25} and health care quality.^{1,3,4,24-25} Advocates view DTCA as empowering patients to partner with physicians,^{4,24} initiate discussion,²⁵ show interest, and ask questions.^{27,28} Opponents say DTCA undermines the relationship,^{2,24,29,30} by overloading physicians with time-consuming questions they are unprepared to answer,^{25,31} creating pressure to prescribe, and increasing patient demand that yields inappropriate prescribing.³²

The issue centers on who should be "in charge." Proponents tend to value patients' empowerment,^{4,33} opponents generally advocate physicians' authority.³⁴ However, both sides agree that DTCA influences patients to communicate more actively and take greater control.

Ultimate goal of DTCA. Because obtaining prescription drugs requires physicians' cooperation, DTCA's aims differ from traditional advertising. Successful ads must both attract consumers to products and facilitate consumers gaining physicians' cooperation. Even "sold" consumers may not have the communication skills to inter-

act appropriately and persuasively with physicians. Thus, to succeed commercially, DTCA must encourage particular consumer communication behaviors.

Establishing who is in control. Physician-patient relationships are developed and maintained largely via communication patterns. Communication patterns associated with physician-patient relationship models differ, largely, in terms of *relational control*.^{35,36} Relational control, accomplished through communication, "refers to the process of establishing [who has] the right to direct, delimit, and define the actions of the dyad," in this case, the physician-patient relationship.³⁷

*Paternalism*³⁶ casts the physician in control of information and decisions, and the patient as expected to cooperate.³⁸

*Participatory models*³⁵ reflect a partnership with relatively equal power evident in mutual information sharing and exploration of alternatives.³⁸

Consumerism places control in patients' hands; consumers may bargain and engage actively in communication, but theoretically they control final decisions and may demand particular treatment regimens.³⁶

Are DTCAs "training" consumers?

Previous content analyses of DTCA focus on marketing factors (eg, ad frequency, product type)^{39,40} and on appeals, motivators, or inducements for consumers,³⁹⁻⁴¹ but do not address DTCA's statements about physician-patient communication.⁴² When social cognitive theory is applied to DTCA, it suggests that DTCA may "train" consumers by providing models or examples from which to learn vicariously, while associating those models with positive outcomes or rewards, and the advertised drug, thus motivating consumers to seek the product.⁴³ Thus, DTCA may encourage specific communication behaviors as the means to acquire advertised products. If so, its influence may lie less in its educational function than in its social training function.

Although medical information may help consumers establish credibility and arm them with medical content for discussion,

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Social norms for patient communication with physicians are changing, but DTCA impact has not been addressed

DTCA's statements about communication may imply guidelines for interacting appropriately with physicians. An ad that reads, "Ask your doctor about drug X," explicitly provides a model opening line and contains implicit messages about who *should* initiate interaction (the consumer, encouraged to ask), who *should* have control (the doctor, upon whom the patient depends for an answer), and *appropriate* interaction topics (drug X). This interpretation of DTCA's messages is rooted in relational communication theory and research; a consumer urged to "ask" a physician is cast as "one-down"³⁷ or dependent on the physician for an answer. Alternatively, a consumer urged to "tell" a physician is portrayed as "in charge." A message to "discuss" a matter with a physician indicates shared control.

The aim of our study. Our general question was: "What social norms regarding physician-patient communication does print DTCA suggest to consumers?" Specific research questions were:

How frequent are references to physicians in print DTCA?

How frequent are messages about physician-patient communication in print DTCA?

Within messages about physician-patient communication, what guidelines are implied, and with what frequencies, regarding: (a) who should initiate interaction, (b) who should have relational control, and (c) appropriate topics for interaction?

■ Methods

Sample

We examined all DTCA in 18 popular magazines (684 issues) from January 1998 to December 1999. We followed Bell, Kravitz, and Wilkes's procedures to ensure a diverse sample of publications.³⁹ Thirteen magazines were selected to represent the highest-ranked lay magazines (based on advertising pages sold) in specified categories; 5 additional magazines were selected to represent diverse populations. They were business (*Business Week*), fishing/hunting/guns

(*Field & Stream*), food/wine (*Gourmet*), home (*Better Homes and Gardens*), men (*GQ*), music (*Rolling Stone*), news and opinion (*Time*), parenting (*Parents*), personal finance (*Money Magazine*), sports (*Sports Illustrated*), tabloid/general editorial (*Reader's Digest*), women (*Vogue*), and medicine/health (*Prevention*); and ethnicity (*Ebony* and *Hispanic*), age (*Modern Maturity* and *New Choices for the Best Years*), and sexual orientation (*The Advocate*). We identified 994 product-specific and reminder ads for 83 drugs addressing 15 types of medical conditions.²² (Product-specific ads identify products by name and use and are subject to FDA monitoring guidelines.²² Reminder ads simply identify products by name, without identifying use or related claims, risks, etc.) After eliminating duplicates, the sample of 225 advertisements was analyzed.

Coding systems

The unit of analysis for this investigation was a statement focusing on physician-patient communication. For each advertisement, we first identified statements referencing physicians. (Although we included the terms "health provider" and "health professional" as references to physicians, all but 4 ads used the terms "physician" or "doctor.")

Next, among references to physicians, we identified statements focusing on physician-patient communication (eg, "ask your physician," "your doctor will tell you"). For these statements, we developed a coding system to reflect types of messages implied regarding physician-patient communication by systematically reviewing 25% of the sample, while considering relational control theory.³⁷ Specific categories of messages, examples, and rules for coding were developed for 3 variables: (a) who should initiate communication, (b) who should take control, and (c) appropriate communication topic(s). Categories for each variable were mutually exclusive and exhaustive.

Upon completing development of the coding system, we applied it to the full sample of statements focusing on physician-

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More than three quarters of communication references in DTCA encouraged consumers to initiate communication

TABLE 1

References to physician(s) and to communication with physician(s) by medical condition

MEDICAL CONDITION	N*	PHYSICIAN REFERENCES		COMMUNICATION REFERENCES	
		M	SD	M	SD
Allergies	35	1.83	.95	1.74	.89
Cancer	5	4.00	.71	3.20	.45
Cardiovascular	14	6.29	1.44	4.86	1.03
Dermatologic	12	3.58	2.81	2.00	1.04
Diabetes	15	5.93	4.28	5.27	.77
Gastrointestinal/nutritional	14	2.43	1.09	2.07	.83
HIV/AIDS	39	1.92	1.48	1.79	1.28
Infectious (non-HIV)	8	2.63	1.85	2.63	1.85
Musculoskeletal	14	2.64	.63	2.14	.66
Obstetric/gynecologic	22	2.36	1.65	2.09	1.41
Psychiatric/neurologic	16	4.06	1.69	2.94	1.06
Respiratory	4	4.00	1.63	3.00	1.63
Tobacco/addiction	8	4.38	.74	4.13	.64
Urological	13	3.69	2.06	2.85	1.07
Undisclosed	6	.17	.41	.17	.41
TOTAL	225	3.06	2.30	2.55	1.82

*N refer to number of advertisements.

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Most DTCA messages placed physicians in control

patient communication. In addition, for each statement, the medical condition for which the drug was advertised was coded (14 disclosed conditions and a category for undisclosed conditions). Details of the coding system are available from the authors.

Initiating communication. Who should initiate communication was coded as (a) *explicit* directives to the consumer to initiate communication (eg, “ask your doctor,” “tell your doctor”), (b) *implicit* directives to the consumer to initiate communication (eg, “see your doctor about drug X,” “check with your doctor”), (c) references to doctor-initiated communication (eg, “your doctor will tell you,” “adhere to your doctor’s recommendations”), or (d) messages referencing both parties, implying either could initiate communication (eg, “my doctor and I agreed,” “you and your doctor must carefully discuss”).

Relational control. Consistent with

relational control theory,³⁷ who should be in control was coded as (a) patient control (eg, “tell your doctor,” “let your professional know”), (b) physician control (eg, “ask your doctor,” “check with your doctor”), or (c) shared or unclear control (eg, “talk to your doctor,” “discuss with your doctor”).

Appropriate interaction topics.

Suggested interaction topics were coded as (a) side effects, (b) risks of product use, (c) general product information, (d) clinical judgments (ie, determining appropriateness for the patient), or (e) topic unspecified or unclear (included multiple topics).

Coding procedures

A coder was trained, and initially acceptable inter- and intra-rater reliability levels were established. To eliminate effects due to particular magazines, products, etc, the 225 ads were placed in random order. The

TABLE 2

**References regarding who initiates communication:
Percentages by category**

MEDICAL CONDITION	N*	EXPLICIT	IMPLICIT	PHYSICIAN	EITHER
Allergies	61	80.3	8.2	3.3	8.2
Cancer	16	37.5	12.5	37.5	12.5
Cardiovascular	68	89.7	1.5	4.4	4.4
Dermatologic	24	54.2	20.8	20.8	4.2
Diabetes	79	53.2	8.9	29.1	8.9
Gastrointestinal/nutritional	29	72.4	3.4	6.9	17.2
HIV/AIDS	70	81.4	2.9	4.3	11.4
Infectious (non-HIV)	21	100.0	0.0	0.0	0.0
Musculoskeletal	30	60.0	3.3	23.3	13.3
Obstetric/gynecologic	46	63.0	0.0	2.2	34.8
Psychiatric/neurologic	47	61.7	8.5	27.7	2.1
Respiratory	12	58.3	25.0	16.7	0.0
Tobacco/addiction	33	54.5	12.1	30.3	3.0
Urological	37	75.7	5.4	10.8	8.1
Undisclosed	1	100.0	0.0	0.0	0.0
TOTAL	574	69.7	6.4	14.1	9.8

* N refers to number of references to physician-patient communication. Codes: Explicit = explicit directives to patients to initiate communication; Implicit = implicit directives to patients to initiate communication; Physicians = references to physician initiated communication; Either = either party can initiate communication.

coder independently coded the randomly-ordered sample of 225 advertisements. In addition, to assess reliability, the coder re-coded (and the second author coded) a randomly selected subset of 25 ads. Final intra-rater reliabilities (percentage of agreement) and inter-rater reliabilities (Cohen's kappa) were: initiator of interaction: 93.8%, $\kappa=.93$; relational control: 90.6%, $\kappa=.89$; and interaction topic: 92.2%, $\kappa=.92$.

■ Results

References to physicians

The number of references to physicians per ad ranged from 0 to 12; the average exceeded 3 (TABLE 1). All but 4.4% of ads made reference to physicians. The major exception, mostly reminder ads for undisclosed conditions, contained little text. Numbers of references to physicians varied by disclosed medical condition, from lows

of less than 2 (allergies, HIV/AIDS), to a high exceeding 6 (cardiovascular).

Physician-patient communication messages

The number of statements that focused on physician-patient communication ranged from 0 to 10 per ad. Most references to physicians (83.8%) focused on communication; typically ads contained more than 2 communication messages. Average numbers of communication messages varied by disclosed medical condition, from less than 2 (allergies, HIV/AIDS), to a high exceeding 5 (diabetes).

Cues regarding how to communicate with physicians

Who should initiate interaction. More than three quarters (76.1%) of communication references indicated that consumers should initiate communication; most did so explicitly (69.7%) (TABLE 2). The percent-

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DTCA steers topics toward products' benefits and away from deficits

TABLE 3

References indicating relational control by medical condition:
Percentages by category

MEDICAL CONDITION	N*	CONSUMER	PHYSICIAN	SHARED
Allergies	61	11.5	52.5	36.1
Cancer	16	18.8	31.3	50.0
Cardiovascular	68	38.2	42.6	19.1
Dermatologic	24	0.0	75.0	25.0
Diabetes	79	8.9	69.6	21.5
Gastrointestinal/nutritional	29	0.0	65.5	34.5
HIV/AIDS	70	10.0	51.4	38.6
Infectious (non-HIV)	21	38.1	61.9	0.0
Musculoskeletal	30	26.7	56.7	16.7
Obstetric/gynecologic	46	2.2	17.4	80.4
Psychiatric/neurologic	47	23.4	53.2	23.4
Respiratory	12	16.7	75.0	8.3
Tobacco/addiction	33	21.2	57.6	21.2
Urological	37	5.4	73.0	21.6
Undisclosed	1	0.0	100.0	0.0
TOTAL	574	15.5	54.5	30.0

* N refers to number of references to communicating with a physician.

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Patients' questions may simply indicate a desire for greater participation, and not a demand for a prescription

age of explicit directives to consumers to initiate communication varied widely by condition, from 37.5% (cancer) to 100% (non-HIV infection, undisclosed conditions). More than 50% of communication references, in all conditions except cancer, explicitly indicated the consumer as initiator. Implicit directives to consumers to initiate communication ranged from 0% (non-HIV infection) to 25% (respiratory).

Relatively few messages indicated the physician as initiator (14.1%), varying by medical condition from 0% (non-HIV infection, undisclosed) to 37.5% (cancer).

Messages indicating either party could initiate communication appeared in less than 10% of the statements (9.8%) and varied by medical condition from 0% (non-HIV infection, respiratory, undisclosed) to 34.8% (obstetric/gynecologic); this type of message appeared in less than 10% of communication messages in ads for 10 conditions.

Who should have relational control. The majority (54.5%) of communication

messages placed physicians in control (TABLE 3). Nearly one third (30%) indicated shared (or unknown) control, while only about 15.5% cast consumers in control. However, relational control cues varied widely by medical condition. Physicians were cast in exclusive control in ads for undisclosed conditions (100%), although these numbers were small. For disclosed medical conditions, physician control ranged from 17.4% (obstetric/gynecologic) to 75% (dermatologic, respiratory). Consumer control ranged from 0% (gastrointestinal/nutritional, dermatologic, and undisclosed) to 38.2% (cardiovascular). One of the most striking differences due to medical condition occurred for obstetric/gynecologic ads, in which shared/unknown control dominated (80.4%).

Appropriate interaction topics. The most frequently suggested interaction topic was clinical appropriateness (41.8%), followed by general product information

TABLE 4

Suggested topics for physician-patient communication by medical condition: percentages by category

MEDICAL CONDITION	N*	CLINICAL	GENERAL	SIDE EFFECTS	RISKS	UNKNOWN
Allergies	61	32.8	59.0	0.0	4.9	3.3
Cancer	16	50.0	12.5	12.5	6.3	18.8
Cardiovascular	68	54.4	20.6	19.1	2.9	2.9
Dermatologic	24	20.8	37.5	8.3	0.0	33.3
Diabetes	79	55.7	24.1	12.7	6.3	1.3
Gastrointestinal/nutritional	29	24.1	44.8	0.0	0.0	31.0
HIV/AIDS	70	32.9	41.4	10.0	0.0	15.7
Infectious (non-HIV)	21	28.6	38.1	19.0	0.0	14.3
Musculoskeletal	30	26.7	40.0	6.7	23.3	3.3
Obstetric/gynecologic	46	23.9	26.1	2.2	41.3	6.5
Psychiatric/neurologic	47	44.7	19.1	12.8	19.1	4.3
Respiratory	12	66.7	16.7	8.3	8.3	0.0
Tobacco/addiction	33	63.6	27.3	0.0	3.0	6.1
Urological	37	54.1	27.0	2.7	2.7	13.5
Undisclosed	1	0.0	100.0	0.0	0.0	0.0
TOTAL	574	41.8	32.1	8.5	8.5	9.1

* N refers to number of references to physician-patient communication. Codes: Explicit = explicit directives to patients to initiate communication; Implicit = implicit directives to patients to initiate communication; Physicians = references to physician initiated communication; Either = either party can initiate communication.

(32.1%) (TABLE 4). Fewer than 1-in-5 suggested topics focused on products' negative aspects (8.5% each for side effects and risks). For 9.1% of the statements, no topic was suggested, or the suggested topic was unclear. Suggested topics varied by disclosed medical condition. Clinical judgment accounted for 30% or more of suggested topics in most disclosed medical conditions, ranging from 20% (dermatologic) to 67% (respiratory). General information accounted for 25% or more of suggested topics in most of the disclosed conditions, ranging from 12.5% (cancer) to 59% (allergies). The topic of side effects ranged from 0% (allergies, gastrointestinal/nutritional, tobacco/addiction, undisclosed conditions) to 19.1% (cardiovascular). Similarly, the topic of risks ranged from 0% (5 conditions) to 41.3% (obstetric/gynecologic). Follow-up analyses revealed that when the suggested topic was

negative (risks or side effects), in only 10 of 98 cases (10.2%) was the physician indicated as initiating communication.

Discussion

Typical DTCA contains multiple messages about physician-patient communication. The primary way that DTCA may endorse a participatory model is via messages that encourage consumers to initiate conversations with physicians about products. About 70% of communication references explicitly direct consumers to do so. Otherwise, ads do not encourage consumers' control. In fact, nearly 55% of communication references cast the physician in control, while only 15% placed the consumer in control. Thus, DTCA reinforces physicians' relational control while encouraging consumers to initiate communication.

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DTCAs do not urge patients to take control, or undermine physicians' prescribing authority

DTCA steers conversation topics toward products' benefits and away from their deficits. Ads most often suggest products' medical utility and appropriateness as topics (ie, general information, clinical judgments), while avoiding negative topics (ie, side effects, risks).

DTCA's communication lessons for practice

Present results have implications for physician-patient interaction. First, to the extent that DTCA influences patients' communication behavior, physicians increasingly may encounter patients who initiate communication by asking questions, often about advertised drugs. Some physicians may see such questions as requests or even demands for those drugs. Physicians report feeling pressure to prescribe products about which patients inquire;⁹ thus, patients merely asking more questions may be perceived as "demanding."⁴⁴

However, physicians often perceive "patient demand" when patients have *not* specifically asked for a drug.⁴⁵ Physicians may want to check their perceptions before acting on them, recognizing that such questions may indicate patients' preferences for a more participatory model, which, in turn, is associated with greater patient satisfaction.^{46,47} Physicians desiring to avoid conflict when patients ask questions might encourage their participation rather than assuming "patient demand" or feeling pressure to alter prescribing behavior.

Second, despite some physicians' concerns, DTCA's communication messages do *not* encourage patients to take relational control, nor do they undermine physicians' prescribing authority. Theoretically and ethically, physicians remain in control of decisions, including prescribing, by serving as learned intermediaries or "conduits of information between manufacturers and patients."⁴⁸ Practically, physicians remain in control because their cooperation is necessary, even in cases where patients actively seek particular prescriptions.

Third, if DTCA influences patients' choice of communication topics, patients

may fail to inquire about drugs' risks or side effects, a finding especially important in light of evidence indicating that consumers tend to not retain DTCA's *risk information*.⁴⁹ Physicians need to be alerted to these trends so they ensure that conversations with patients include explicit discussion of drugs' side effects and risks.

Limitations

This study has several limitations. First, we analyzed print DTCA only. Generalizing findings to television and Internet DTCA may not be possible.

Second, our sample, dated from 1998 to 1999, may differ systematically from current ads. However, our study does provide a theoretically-driven methodology for assessing, and understanding the implications of, changes in advertising strategies across time and media.

Third, we analyzed marketing efforts targeting consumers. Physicians are exposed to numerous pharmaceutical marketing efforts that may contain messages regarding physician-patient communication.

Fourth, we limited analysis of relational communication to relational control; communication theory and research considers additional relational dimensions (eg, affiliation, trust) that likely influence the physician-patient relationship. Finally, we identified DTCA messages that *may* influence consumers' behavior; we did not investigate actual behavioral changes associated with exposure to DTCA. ■

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CONFLICT OF INTEREST

The authors have no conflict of interest to declare.

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When inquiries are made about a drug, be sure to address side effects, which patients may ignore

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FAST TRACK

Our findings regard print DTCA only, and may not be relevant to TV and Internet DTCA