Emphasizing “Communication” in Health Communication

By Roxanne Parrott

Interest in health communication inside and outside the field of communication has grown over the past 2 decades. In the Healthy People 2010 objectives, for example, a chapter on health communication appeared for the first time since the 1979 adoption of this framework to provide a national prevention agenda. Within the chapter, health communication is defined as follows:

the art and technique of informing, influencing, and motivating individual, institutional, and public audiences about important health issues. The scope of health communication includes disease prevention, health promotion, health care policy, and the business of health care as well as enhancement of the quality of life and health of individuals within the community. (U.S. Department of Health and Human Services, 2000)

Such an encompassing definition has at its core a focus on the strategic design and use of communication, which this review will demonstrate depends on knowledge based in understanding the more informal and less intentional communication processes relating to health. Moreover, when communication is emphasized in health communication, it becomes evident that communication behavior is and should be a priority in health communication research and practice, as communication behavior contributes to vital health outcomes. Sometimes, communication behavior directs positive health behavior; at other times, it contributes to behavior with negative health outcomes. Often, communication behavior itself is the direct descendant of positive or negative health status, or is importantly affected by health status. Ultimately, strategic health communication seen from the vantage of communication emphasizes the reality that people’s physical and mental well-being depends far more on the ability to manage health day-to-day than on the teachable moments that occur via health promotion and education or via medical interaction.

Health communication covers a broad range of topics, as stated in the opening definition, including disease control and prevention, emergency preparedness and response, injury and violence prevention, environmental health, and workplace safety and health. Health promotion activities at the national level reflect a devel-
opmental life-span perspective, focusing on adolescent health, aging and elderly health, bone health, breastfeeding, men’s health, women’s health, school health, minority health, and reproductive health. In turn, these broader content areas are comprised of more specific topics, illustrated on the Centers for Disease Control and Prevention (CDC) website with injury and violence prevention and control, for example, encompassing dating violence, intimate partner violence, sexual violence, as well as youth and workplace violence foci, homicides, suicide, and traumatic brain injuries (http://www.cdc.gov). The breadth of the scope of health communication implicitly acknowledges that strategic communication to achieve health aims requires an ecological approach that is defined in a 2003 Institute of Medicine Report in the following way:

An ecological model assumes that health and well being are affected by interaction among multiple determinants including biology, behavior, and the environment. Interaction unfolds over the life course of individuals, families, and communities, and evidence is emerging that societal-level factors are critical to understanding and improving the health of the public. (Gebbie, Rosenstock, & Hernandez, 2003, p. 32)

For the sake of parsimony, the research and practice of health communication within communication arts and sciences are often organized contextually, as illustrated by the Handbook of Health Communication (Thompson, Dorsey, Miller, & Parrott, 2003). The applied dimension of health communication becomes most evident when presented in this fashion, but the more unique contributions and insights gained about communication behavior may be less obvious. Given this article’s aim to identify hallmarks of health communication associated with emphasizing communication and a framework for future theorizing and research, I advance a multiple discourse approach to health communication, focusing on communication behavior as it relates to being well and well-being, including verbal, nonverbal, and visual communication and their impact on mental and physical health.

Multiple Discourses in Health Communication

A key part of the doctor-patient encounter is the giving of a name to the patient’s illness by the physician. Personal, professional, societal, and bureaucratic factors influence physicians in their choice of a name and the manner in which they present these words to the patient. The effect of the illness name on the individual patient may be determined not only by individual experience and knowledge, but also by social, cultural, and economic factors. (Wood, 1991, p. 534)

Health communication coalesces around identifying the boundaries and scope of a condition, person, professional, or situation associated with health or health care, giving meaning to health status by “naming and defining its cause” (Thompson, 2000, p. 3). As suggested by Wood in the previous quotation, personal, pro-
fessional, societal, bureaucratic, individual, social, and cultural variables contribute to communication associated with the goal of “naming.” As summarized in the review to follow, published research in international and national communication journals between 1985 and 2003 supports the validity of organizing health communication around these factors into three spheres of influence: societal discourse, expert discourse, and lay discourse. Societal discourse about health and health care in the U.S. focuses on the allocation and use of scarce resources, such as dollars for research, monies for health care delivery, and time, as shaped by political, religious, and organizational agendas to derive and deliver health knowledge and services to the American public. Expert discourse focuses on the understanding and use of the derived or expert information and knowledge about health and health care associated with informing, motivating, and profit making that guide individuals’ informed decision-making about health. Lay discourse focuses on the understanding and use of more indigenous knowledge sources and experiential information regarding health and health care derived from cultural, social, and individual arenas that guide individual behavior with health and health care outcomes. A unifying aim associated with the study of discursive practices and communication processes across these domains is ethical decision-making. Moreover, health communication, more versus less explicitly, attributes responsibility for health and health care to the individual or society, reflected in public health communication, medical interaction, and self-management discourse. Table 1 summarizes this framework for health communication.

Public Health and Risk Communication

Why certain disorders are quickly accepted as ‘public health’ conditions is not completely understood. However, disease burden, rapid change in disease incidence (suggesting preventability), and public and private concern about risk are three essential characteristics that define a public health disorder. (Glasgow, Wagner, Kaplan, Vinicor, Smith, & Norman, 1999, p. 159)

Much of the published health communication research focuses on public health and/or risk communication, acknowledging an emphasis on population-based decision-making. Whereas public health communication focuses more directly on disease burden defined by numbers of individuals affected or likely to be affected, risk communication research addresses issues of probability and magnitude of a negative event or hazard that threatens the public’s safety to justify the allocation of resources for research and control (Covello, 1992). An examination of the top nine actual causes of death in the U.S. for the year 2000 reveals that many may be amenable to public health and/or risk communication interventions:

- tobacco (435,000),
- poor diet and physical inactivity (400,000),
- alcohol consumption (85,000),
- microbial agents (e.g., influenza and pneumonia, 75,000),
- toxic agents (e.g., pollutants and asbestos, 55,000),
- motor vehicle accidents (43,000),
- firearms (29,000),
- sexual behavior (20,000) and illicit use of drugs (17,000). (http://www.cdc.gov/nccdphp/factsheets/death-causes2000.htm)
## Table 1. Illustrative Research Foci Within a Multiple Discourse Approach to Health Communication

|--------------------------------------|--------|----------|--------|-----|----------|----------|--------|-----|--------|----------|--------|-----|--------|----------|--------|-----|--------|
## Table 1. Continued

| Medical Interaction | Verbal         | Societal       | Political | Examine lawmakers’ debate of drug prescription program’s merits.  
Religious: Review how parish nurses talk to church members about health check-ups.  
Organizational: Assess hospital spokesperson’s confirmation of West Nile Virus cases. |
|---------------------|----------------|---------------|-----------|------------------------------------------------------------------|
|                     | Expert         |               | Informational | Evaluate understanding of clinic poster about West Nile Virus symptoms.  
Motivational: Describe how pediatrician tells parents that local child has West Nile Virus.  
Commercial: Examine bug spray company’s use of physician promoting their product. |
| Lay                 | Cultural: Analyze culture of groups who avoid formal health care.  
Social: Code parents’ talk with children about visits to the doctor.  
Individual: Analyze patient narratives of illness. |
|                     | Nonverbal Societal |               | Political | Examine physicians’ nonverbal behavior as they testify to Congress.  
Religious: Analyze physicians’ nonverbal behavior as they pray with patients.  
Organizational: Correlate clinic staff vocalic behaviors with patient satisfaction. |
|                     | Expert |               | Informational | Evaluate physician eye gaze and patient recall of diagnosis information.  
Motivational: Assess physician nonverbal rapport behaviors and patient compliance.  
Commercial: Review environmental artifacts in ads with physician spokespersons. |
| Lay                 | Cultural: Compare proxemic behavior of different cultural groups in medical interviews.  
Social: Assess body lean of mother and teen talking to doctor about safer sex.  
Individual: Analyze patient eye gaze aversion during medical examinations. |
| Visual              | Societal |               | Political | Count number of billboards with images of physicians and nurses.  
Religious: Assess Catholic-based hospital images of health care providers.  
Organizational: Analyze TV prime-time drama depictions of health care in emergencies. |
|                     | Expert |               | Informational | Count front page stories about health care that include photographs.  
Motivational: Review images of psychiatry associated with news reports.  
Commercial: Survey hospital cafeteria placement of high fat versus low fat foods. |
| Lay                 | Cultural: Code race and ethnicity of physicians in medical school recruitment brochures.  
Social: Examine sources for job support depicted in ads to recruit nurses.  
Individual: Identify movies that depict physicians’ experiences with illness and care. |
## Table 1, continued

<table>
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<tr>
<th>Self-Management</th>
<th>Verbal</th>
<th>Societal</th>
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<tr>
<td></td>
<td>Political: Examine mothers’ testimony about need for playground safety inspections.</td>
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<td>Religious: Review church leaders’ sermons for references to sanctity of life.</td>
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<td>Organizational: Identify school-based messages about support for nutritional lunches.</td>
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<td>Expert</td>
<td>Informational: Code American Cancer Society volunteer messages to cancer survivors.</td>
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<td>Motivational: Evaluate online chat room exchanges about safer sex.</td>
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<td>Commercial: Assess shoppers’ purchase behavior based on nutrition information.</td>
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<td>Lay</td>
<td>Cultural: Review prenatal care recommendations of different ethnic groups.</td>
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<td>Social: Code AIDS care partners’ conversations with family members.</td>
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<td>Individual: Evaluate search behavior of mothers who seek online health information.</td>
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<td>Nonverbal</td>
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<td>Political: Evaluate threat gestures used by citizens protesting new landfill.</td>
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<td>Religious: Examine haptic behaviors of priests with laity when talking about abortion.</td>
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<td>Organizational: Correlate physical attractiveness ratings of coaches with youth drug use.</td>
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<td>Expert</td>
<td>Informational: Describe nonverbal behaviors of extension agents during safety trainings.</td>
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<td>Motivational: Relate time teachers spend on extracurricular activities to student drug use.</td>
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<td>Commercial: Conduct field observation of condom purchasers’ nonverbal behaviors.</td>
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<td>Lay</td>
<td>Cultural: Compare eye gaze behaviors of different ethnic groups as they talk about drugs.</td>
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<td>Social: Assess parental nonverbal displays when youth ask about sex.</td>
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<td>Individual: Compare nonverbal behavior of female and male teens talking about partying.</td>
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<td>Visual</td>
<td>Societal</td>
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<td></td>
<td>Political: Examine frequency and images of citizens protesting limits on health care.</td>
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<td></td>
<td>Religious: Evaluate religious brochures for pictures of unwed mothers.</td>
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<td></td>
<td>Organizational: Judge consistency of parks and recreation safety signs and advice.</td>
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<tr>
<td>Expert</td>
<td>Informational: Code the number of bathrooms with condom machines.</td>
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<td>Motivational: List the locations where pictures of alcohol appear on a university campus.</td>
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<td>Commercial: Describe posters in gun shops with images of women and pistols.</td>
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<td>Lay</td>
<td>Cultural: Record the race of those depicted in news stories about interpersonal violence.</td>
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<td></td>
<td>Social: Count number of teens wearing armbands to signify abstinence from drug use.</td>
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<tr>
<td></td>
<td>Individual: Count number of female victims of interpersonal violence depicted in news.</td>
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In these realms, health communicators working from a predominant paradigm of communication have made significant contributions, as the following summary illustrates.

The aims associated with societal discourse in public health and risk communication include setting priorities for health research and policy, which in turn will determine what science will be available to form the basis for evidence on which to promote the public’s health. From the vantage of communication studies, the underlying communication processes that contribute to decisions such as funding for cancer research and prevention are of interest. Published public health communication research has illustrated the role of technical versus political arguments to justify reproductive choice versus control policies and practice (Stearney, 1996), arguments about conscience to examine euthanasia (Hyde & Rufo, 2000), as well as debates about environmental tobacco smoke and subsequent policy (Moore, 1997). An ongoing theme in research that examines societal discourse about the public’s health relates to a possible role for media violence in real violence (e.g., Dee, 1987). The protection of children has been invoked as an argument to support policy, sanctions, and compliance related to media violence and public health (Potter & Warren, 1996), suggesting what type of appeal could be successful in achieving limits in this domain and perhaps others where statistical evidence may fail.

Societal discourse examined in risk communication research suggests similar insights about public communication relating to how media covers environmental risks such as geological radon (Sandman, Weinstein, & Klotz, 1987) versus natural disasters (Sood, Stockdale, & Rogers, 1987) or unnatural disasters, including Three Mile Island (Rubin, 1987) and Chernobyl (Friedman, Gorney, & Egolf, 1987; Gale, 1987). The public depends upon these stories to inform them about risk and decisions to address risk, with the agenda-setting role of media revealing parallels to the public health agenda (e.g., Pratt, Ha, & Pratt, 2002). Journalists vary in their views of the quality associated with covering environmental risk (Salomone, Greenberg, Sandman, & Sachsman, 1990), recognizing that risk analysis skills and news values both contribute to construction of such news (Wilkins & Paterson, 1987). Here, too, the implied direction for a program of communication research relates to an examination and evaluation of the quality of reporting from the perspective of both experts and lay audiences, with parallel activities associated with an examination and evaluation of training to develop risk communication and interventions to explore improvements.

Public communication about disease causation and the inherent links to societal versus individual responsibility has also sometimes been examined in published communication research, emphasizing that too little attention has been given to the communication processes associated with forming these beliefs about responsibility (Kirkwood & Brown, 1995). These macroillness causation beliefs implicitly form a backdrop for more specific illness causation beliefs. Environmental communication, for example, has been found to play an important role in forming beliefs about biosocial connections to disease causation (Backes, 1995), such that beliefs about responsibility differ for audiences exposed to environmental communication as compared to those who have not had such exposure. The
public who forms beliefs about biosocial connections to disease causation may make efforts to hold institutions accountable for contributing to environmental hazards and support limits on construction associated with environmental harms, for example, linking these to their own well-being. Whether this happens, however, has not been examined, despite its relevance to civic engagement processes in addition to public health.

Very little communication research has been published regarding public health organizations or the delivery of public health services. One published study compared a network of Cancer Information Service (CIS) providers, a geographically dispersed governmental health information program, and a new organizational form with results demonstrating that organizational attributes significantly impact the diffusion of preventive innovations (Meyer, Johnson, & Ethington, 1997). The reorganization of public health at the service and delivery levels in this nation since the events of September 11th, 2001, begs for greater understanding relating to organizational aspects of communicating about public health and risks. Published communication research has demonstrated that public meetings to convey risk information associated with occupational safety and health contributed to citizen satisfaction (McComas, 2003). An analysis of 9-1-1 calls (Tracy & Tracy, 1998a, 1998b) illustrated the value of examining more microlevel communication processes to contribute to a holistic understanding of public health and risk communication. More research of this type might enhance efforts to communicate with the public during emergencies and also enrich communication theory relating to the explanation of outcomes associated with crisis communication.

Far more published public health and risk communication research coalesces around the dissemination of science associated with health and risk than exists to explain the influence of societal discourse on the origins of this knowledge base. In fact, this is one of the two realms most identified with health communication (Thompson, Robinson, Anderson, & Federowicz, in press). Deficits in outcomes associated with health education, which emphasizes activities to contribute to learning and learning experiences that support voluntary adoption of behaviors positively relating to health (Green, 1984; Green, Kreuter, Deeds, & Patridge, 1984), and health promotion have generated interdisciplinary interest in search of explanations. Communication offers a discipline with potential to open wide possible explanations, as health promotion is hampered by an incomplete understanding of how to mix approaches used by different disciplines, of how to combine intervention channels for greatest effect, and of how their social and political environments affect the long-term sustainability of new programs. (Foerster, Kizer, DiSogra, Dileep, Krieg, & Bunch, 1995, p. 124)

Innovative health communication models associated with formation of health-related behaviors and intentions have been advanced in relation to organ donation (Kopfman & Smith, 1996; Kopfman, Smith, AhYun, & Hodges, 1998; Morgan & Miller, 2002), sun protection (Parrott, Monahan, Ainsworth, & Steiner, 1998), recycling (Krendl, Olson, & Burke, 2002), and AIDS prevention (Sheer & Cline, 1994). Multiple strategies to achieve risk communicator aims (Rowan, 1991) have
shown positive effects for environmental risk communication on incineration practices (Renz, 1992) and perceptions of personal relevance related to the environmental impact on regional ecosystem management (Cantrill, 1998). Health communicators have also advanced use of innovative methods to get at risk orientation (Peterson et al., 1994) and emphasized the role of theory in the design of campaign evaluation (Hornik & Yanovitsky, 2003). The impact of theory to direct strategic public health and risk message design (Fishbein & Yzer, 2003; Valente, Paredes, & Poppe, 1998) has been examined with regard to youth smoking prevention (Burke, Becker, Arborgast, & Naughton, 1987), skin cancer prevention (Buller, Borland, & Burgoon, 1998), and drug use prevention (Harrington et al., 2003; Lorch et al., 1994), as well as perceived costs and benefits associated with reporting about hazards in risk communication (Singer & Endreny, 1987). These published studies illustrate direct links to some of the most common causes of death previously cited.

Often used unsuccessfully in health promotion, published communication research that examines fear appeals has also emphasized the importance of theory to guide strategic message design. Greater attention on distinguishing fear as an affective response from threat as a cognitive motivator and the attributes of messages that contribute to perceived risk (Trumbo, 2002) or perceptions of susceptibility, severity, and efficacy (Dorsey, Miller, & Sherer, 1999; Rimal, 2001; Rimal & Real, 2005; Roberto, Meyer, Johnson, & Atkin, 2000) has been emphasized. The sensation value of antidrug PSA message features (Morgan, Palmgreen, Stephenson, Hoyle, & Lorch, 2003), efforts to understand message processing (Stephenson & Palmgreen, 2001), and quantitative data in news reports have been examined for their possible impact on threat perceptions (Berger, 1998, 2001). In turn, published public health and risk communication research in this realm has illustrated the use of fear appeals to promote safer sex (Witte, 1992; Witte & Morrison, 1995), performance of testicular self-exam (Morman, 2000), responsible drinking (Slater, Karan, Rouner, & Walters, 2002), and immunizations (Smith, 1997).

Beyond formation and change objectives, strategic efforts to focus on resistance to persuasion in health message design have applied inoculation theory to adolescent smoking (Pfau & Van Bockern, 1994; Pfau, Van Bockern, & Kang, 1992), offering a framework to understand the lack of robust findings relating to other youth antismoking and “just say no” campaign messages (e.g., Reardon, Sussman, & Flay, 1989). A focus on resistance to persuasion implicitly demands attention to counterarguments and messages. Public health communication research has evaluated messages associated with alcohol (Snyder & Blood, 1992) and tobacco advertising (Altman, Slater, Albright, & Maccoby, 1987; Weis & Burke, 1986), as well as visual communication about appearance and body image distortions (Myers & Biocca, 1992), sexual etiquette in teen magazine narratives (Garner, Sterk, & Adams, 1998), and front page New York Times’s stories about suicide (Wasserman, Stack, & Reeves, 1994). Some communication modalities have been found to be associated with pervasive countermessages, including music videos’ prevalent use of physical aggression (Smith & Boyson, 2002), computer game and website violence (Slater, 2003), and even children’s TV programming’s violent portrayals (Wilson, Colvin, & Smith, 2002). Strategically designed public health
communication competes with health-related information found in entertainment outlets that range from magazines (Johnson & Meischke, 1993) to soap operas (Greenberg & Busselle, 1996). Each of these published studies contributes to a more holistic understanding of the message environment in which strategic health communication must compete.

An examination of the importance of the channel used to communicate strategically designed public health and risk messages has been considered with regard to radio and gun trigger-lock use (Roberto, Myers, Johnson, Atkin, & Smith, 2002), interpersonal influence and alcohol intervention (Thomas & Seibold, 1994), coaches as role models and youth sun protection (Parrott & Duggan, 1999), and worksites for promoting organ donation (Morgan et al., 2002). Use of interactive computer programs to reach adolescents (Hawkins, Gustafson, Chewning, Bosworth, & Day, 1987) and cues to action relating to HIV test counseling (Mattson, 1999) have also been examined to consider the role of modality on behavior. Campaign channels have been found to vary in effectiveness for reach, specificity, and impact (Schooler, Chaffee, Flora, & Roser, 1998) in health campaigns. From such research, ethics associated with public health communication interventions (Guttman, 1997) takes on specific meaning relating to precise issues such as exposure (Donohew, Lorch, & Palmgreen, 1998; McKnight, 1988), as well as health literacy (Jones, 1988) and values explicitly or implicitly associated with health messages (Vanderford, Smith, & Harris, 1992).

Significant contributions associated with public health and risk communication also emerged from a review of published research in communication journals that examined lay discourse about physical and mental health. Cultural beliefs and practices may predict and explain use of some communication modalities over others, for example, as illustrated in efforts to reach Asian American heterosexuals with AIDS education (Brown, 1992). Social networks affect communication and health behaviors, with gendered communication giving insights about construction of meaning for HIV/AIDS (Cline & McKenzie, 1994), as well as drug resistance (Hecht, Trost, Bator, & MacKinnon, 1997). Greater understanding about social norms around alcohol consumption (e.g., Rimal & Real, 2003) affirms the role of perceptions about expectancies within one’s social group that may overshadow rational decision-making. The study of resistance strategies, including teen talk and metaphors about drug and alcohol use (Alberts, Miller-Rassulo, & Hecht, 1991; Krizek, Hecht, & Miller, 1993), has been used to contribute to drug prevention message design, while talk about AIDS may be similarly used to increase condom use. Some published communication science research has found that “better safe than sorry” is more effective than “I’m afraid I might get AIDS from you” (Reel & Thompson, 1994). These bases of knowledge may be used to guide the strategic design of more ecologically sound message interventions. In a similar vein, research that finds that how realistic young adults perceive alcohol PSAs to be impacts their motivation to process messages (Andsager, Austin, & Pinkleton, 2001) and contributes both to explanations about less effective messages and the ability to design more effective messages. Moreover, the influence of families on dietary behavior requires innovative approaches accounting for bidirectional impacts (Rimal & Flora, 1998). Recognition that parent-child interac-
tion patterns relate to physical abuse, also a public health problem (Wilson, 2000), has contributed to planning efforts relating to this realm, but the relative lack of such research provides another avenue for future health communication work.

At the individual level, personal experiences, traits, and communication behaviors contribute to the explanation and prediction of exposure to and the effects of health and risk information, motivation to act on the information, and responses to commercial messages relating to a health topic (McLaurin, 1995). Adolescent sensation-seeking, for example, contributes to the likelihood that particular messages will be attended to and have subsequent effects (Greene, Kremar, Rubin, Walters, & Hale, 2002; Sheer, 1995). This has proven invaluable for understanding outcomes associated with antimarijuana media messages (Stephenson, 2003; Stephenson et al., 1999). Individual religious beliefs impact illness causation perceptions (Parrott et al., 2004), with likely implications for the exposure to and effectiveness of health messages. Individual media use patterns have demonstrated that reading sports magazines positively relates to body satisfaction for adolescent females aged 10–19 years whether they participate in sports or not (Harrison & Fredrickson, 2003), exposure to social issue TV programming shapes attitudes about rape (Wilson et al., 1992), children's exposure to images of bereavement impacts beliefs about death (Moore & McE, 1987), and observation of soap operas shapes perceived norms about sex, contraception, and STDs (Lowry & Towles, 1989). Media consumption also relates to eating disorders (Harrison & Cantor, 1997; Harrison, 2000) and body image (Botta, 1999; David & Johnson, 1998).

In sum, gaps in understanding regarding societal discourse associated with public health and risk communication limit the scope of strategic activities that can be implemented to impact elite opinion and motivate policy change to guide institutional behavior, or to increase civic engagement in health policy and health care reform. This likely comprises an area in which research efforts that form intersections between communication arts and sciences would be productive. For health promoters and educators, published communication research makes evident that a focus on behavior change as an objective should be broadened to consciously and strategically differentiate between change, formation, and resistance behavioral objectives in public health and risk communication. Moreover, a focus on health behavior change may lose sight of the vital role of communication behavior both in terms of media use patterns and individual communicator competence. As summarized with regard to lay discourse and adolescent drug use resistance strategies, the change to be promoted based on such research is communication behavior that decreases the likelihood of habits with harmful health outcomes.

Medical Interaction

Medical students tend to be bored by and are even a little contemptuous of the study of social medicine and public health . . . [they] realize that it is individual people, not populations that are ill and in need of treatment. For this reason...it is likely that medical education will for many years to come remain centered upon personal rather than social medicine. (Woodward, 1994, p. 389)
Health communication that focuses on medical interaction is distinguished from public health and risk communication largely by reference to a focus on the individual interacting with a medical professional rather than a population-based perspective associated with epidemiological data (Gwyn, 2002). The pursuit of health communication associated with public health and risk versus medical interaction has seldom intersected. Partly, this occurs because the goals for each are different. In reality, however, physicians are an important source for health education and promotion, though they have little time to do either (Thompson & Parrott, 2002), and public health and risk communication often includes, “Tell your doctor,” as a prescriptive component of the messages.

Communication training became part of formal medical education (Mischler, 1984) in tandem with the 1910 Flexner report, which led to the reorganization of medical education (Flexner, 1910). As with public health and risk communication, great gaps in understanding exist with regard to societal discourse about medical interaction in which aims relate to allocating resources to provide formal health care and standards for medical testing and education. The study of political discourse about Medicaid has well illustrated the fact that support for asthma research, for example, preceded policies associated with treatment, and both have impacted what medical professionals have to say about the condition (Gillespie, 2001). Whether citizens recognize this and become involved in advocacy efforts has not been examined. An analysis of free market discourse and its relation to health care reform provides a provocative starting place for understanding gaps in individual citizen knowledge and advocacy skills relating to health care (Conrad & Millay, 2001). At the organizational level, change in the organization of health care has generated considerable research, with the study of civic discourse and managed care bioethics illustrating a macro-perspective around citizen rights with regard to health care (Bracci, 2001), whereas analysis of the ideology versus practice of medical education (Scheibel, 1996) demonstrates gaps between the ideals expressed as goals and the realities translated into educational settings.

A description of resource allocation in medical practice comprised one of the earliest foci in the area of published communication research associated with the organization and delivery of health care in the U.S. (Pendleton, 1985). Research also spotlighted the ethics and value dimension that implicitly underlies treatment recommendations and decisions (Arnow & Droge, 1988; Reich, 1988; Smith, 1985, 1988). Debate about telemedicine forms an intersection between politics and the delivery of care, illustrating societal decision-making processes associated with one option that could increase access, particularly for the elderly (Greenberger & Puffer, 1989). Communication about advance care planning research also reveals intersections between policy and organizational practice that ultimately affect how individuals cope with medical uncertainties (Hines, 2001).

Published communication research makes apparent the importance of dyadic communication in organizations associated with the delivery of health care and medical interaction, demonstrating the impact of manager communication on nurse morale (Camden & Kennedy, 1986), nurse-physician communication on perceptions of confirmation versus disconfirmation (Garvin & Kennedy, 1986), and hospital-based nursing on role development (Apker, 2001). These studies might fruit-
fully be translated to change an organizational environment where nurse recruitment has become increasingly difficult. The impact of managed care settings for community health initiatives (Medved et al., 2001), the communication processes associated with interdisciplinary health care teams (Ellingson, 2003), communication networks within nursing homes (Sachweh, 1998), and communication-related staff problems in geriatric health care organizations (Coffman, 1992) have been examined as well. These studies suggest how organizational communication impacts member accountability, effort, and excuse-making, outcomes with direct links to attributions of responsibility.

Research that demonstrates how pediatric nurse communication complemented by organizational media reminders contributed to parental role performance for hospitalized children (Adams & Parrott, 1994) supports the cost effectiveness of rather simple communication interventions for improvement in nurse and parent satisfaction. Other research demonstrating the importance of a supervising physician for managing difficult patient situations also has had direct economic advantages that might be invoked to support maintaining the practice of having supervising physicians (Pomerantz, Fehr, & Ende, 1997). The analysis of images of health care portrayed on TV (Turow & Coe, 1985) and images of psychiatry associated with Hinckley trial coverage (Sharf, 1986) both suggested that how health care is portrayed in the media contributes to audience perceptions regarding health care in the United States.

Although a relatively large body of published research in communication has dealt with how the science of public health and risk is communicated, fewer publications in communication journals have addressed the message level with regard to medical interaction. Perhaps this is partially owing to the establishment of Health Communication as a journal with particular interest in publishing medical interaction research, as illuminated in a review of the journal’s contents (Beck, Benitez, Edwards, Olsonk, Pai, & Torres, 2004). Information exchange in medical interaction is a primary focus when messages are evaluated, focusing on how patients describe illness, for example (Pettegrew & Turkat, 1986), and demonstrating information’s role in reducing uncertainty (Sheer & Cline, 1995). Findings associated with published communication research regarding information seeking have shown the value of negotiation of problem presentation in at least two areas: (a) by parents during pediatric encounters (Stivers, 2001) and (b) in transitioning to physical exam from history taking (Robinson & Stivers, 2001). In considering the vital aim of medical interaction to support informed decision-making, published research reports of differences in perceived information adequacy have suggested two more areas for theory development and practice: (a) for seeking informed consent to the elderly and chronically ill (Hines, Badzek, & Moss, 1997) and (b) for skills training to increase competence during medical interaction (McGee & Cegala, 1998).

The vital role of nonverbal communication for health communication outcomes has mostly been considered in health communication research focused on medical interaction. Physician nonverbal expressiveness has been found to impact patient recall (Bush, 1985) and emotional displays contribute to perceptions of professionalism (Morgan & Krone, 2001). Patients' nonverbal behaviors associated
with demonstrative suffering illuminate how a patient may give information about symptoms without expressing it verbally (Heath, 2002). Specific attention has been given in communication research to the role of provider stigma behaviors associated with giving information about one’s HIV status (Agne, Thompson, & Cusella, 2000), as well as outcomes associated with disclosure about sexual abuse and the attending physician during medical encounters (Beach & LeBaron, 2002). These important findings based on individual interactional levels represent important translational research opportunities. Additional research in this area has provided insights about how talk, gaze, and body orientation direct doctor-patient consultation (Robinson, 1998), as well as how nonverbal communication may motivate patients to provide information about concerns not directly related to the health topic but likely to impact health behaviors, including insurance and psychosocial frames (Duggan & Parrott, 2001).

In the realm of lay discourse associated with medical interaction, motivation for verbal communication, which may be related to cultural or social experiences, has been found to impact medical interaction (Kim et al., 2000), but relatively few published communication studies have examined culture’s influence on medical interaction and outcomes. Physicians appear to adopt nonverbal behavior patterns that correlate with characteristics of patients (Street & Buller, 1988), illustrating the importance of examining communication behavior as an outcome that may be explained by reference to group membership, which may then be explored for its attending impact on interactional outcomes. For example, nursing home residents’ communication with peers and staff contribute to nursing home adjustment (Sigman, 1986), while the existence of personal relationships in a retirement community enhances adjustment to that life transition (Williams & Guendouzi, 2000). At the individual level, inconsistent nurturing relates to need for and responsiveness to drug treatment programs (Le Poire, 1995). Lay attitudes about health care have been found to be shaped by media use, with greater overall consumption relating to pessimism about health care in the U.S. (Culbertson & Stempel, 1985) while exposure to TV talk shows functions as an informal type of therapy (Peck, 1995). At a more macrolevel, experiences of AIDS patients and involvement in advocacy efforts impact communication with providers (Brashers, Haas, Klinge, & Neidig, 2000).

In sum, gaps in understanding regarding societal discourse associated with medical interaction limit the scope of translational activities that might enhance both policymakers’ and citizens’ abilities to understand and be actively involved in national health care reform. Organizational discourse associated with the delivery of formal health care in the U.S. reveals compelling results that communication behavior makes important contributions to outcomes. The research associated with communicating information in medical interaction makes apparent that the promise related to individual counseling that might contribute to physical and mental health will be fulfilled in concert with “talk.” In turn, talk requires awareness and attention to verbal and nonverbal behavioral competence for all parties, and medical interaction research enriches the meaning and opportunity for theoretical insights in this realm. Contributing to such competence may be individual personal relationships or experiences, including exposure to media or cultural
beliefs about the role of medicine in health and health care, associated with gaining skills to both participate in and understand medical interaction.

Self-Management Discourse

Health communication that focuses on self-management discourse is distinguished from public health and risk communication and from medical interaction largely by reference to individuals in situ rather than interacting with public and medical systems of health. The increase in self-management discourse parallels the evolution from infectious disease and acute care for physical and mental health to living with chronic diseases and conditions that range from diabetes, cancer, and HIV to arthritis, visual and hearing disabilities, and heart conditions requiring implements such as pacemakers. The diabetic, for example, assumes the mantle of managing life in ways that limit events likely to arouse the need for treatment. These include taking medication, testing glucose levels, exercising, and maintaining an appropriate diet.

The field is relatively devoid of work regarding societal discourse associated with self-management of well-being, as with public health and risk communication, and medical interaction published communication research. Such research would suggest how communication is used in efforts to gain societal resources to support individuals living with chronic health conditions and diseases at the policy, organizational, and religious levels. Self-management discourse at the societal level has been examined in published research about environmental advocacy efforts (Cantrill, 1993), revealing citizens’ efforts to manage the environment as a backdrop for well-being. Communication research has also demonstrated the importance of advocacy efforts of AIDS care partners in the management of living with AIDS (Miller & Zook, 1997). Bathhouse communication has been found to contribute to condom use (Elwood, Greene, & Carter, 2003), illustrating how organizations in the public sphere, without directives from institutions or enforcement authority, support self-management of health. On the other hand, work-family policies have been shown to exist, giving the appearance of support for self-management of well-being within families, but organizational norms often inhibit use (Kirby & Krone, 2002). Efforts to train in interpersonal communication have been examined with regard to responses to the Americans With Disabilities Act, supporting the reality that individuals often need such support to exercise rights granted by social policies (Braithwaite & Labrecque, 1994).

With regard to the dissemination of expert discourse associated with information, motivation, and commercial messages, the public’s understanding of science contributes importantly to the ability to manage well-being. Hence, one of the most important realms of research associated with a self-management approach is communicating about science. Research has demonstrated, for example, that lay audiences believe more risk is associated with science and technology when applied to them than applies to the science itself, with overall attitudes about science generally impacting beliefs about risk for new science and technology (Priest, 1995). This finding may be used to illustrate missed opportunities associated with theory and application of health communication research across the multiple discourse spheres. The finding also offers an explanation for countless situations in
public health and medical interaction, as illustrated by reference to clinical trials in which the public may support such research at a global level but resist personal enrollment. Perceived risk may contribute to less enrollment unless doctors are able to address such concerns with eligible patients during medical interaction or public health and risk messages address these issues explicitly.

The availability of health information provides an important avenue to manage physical and mental health. Internet access has been examined for its capacity to satisfy health information needs, as illustrated in one study of stay-at-home moms seeking health information (Tardy & Hale, 1998); other research has asserted the importance of informational adequacy for the Web to provide the means to manage well-being (Dutta-Bergman, 2003). Information fulfills one form of social support and, when combined with emotional and instrumental forms, has been found to help breast cancer survivors manage uncertainty in their daily lives (Ford, Babrow, & Stohl, 1996). The absence of social support, on the other hand, has been directly linked to psychosocial problems (Segrin, 2003). Linking these two realms, Internet access and social support, it is perhaps not too surprising that an increasing number of cancer patients have been found to go online to seek social support (Wright, 2002). Coping among older adults has also been found to be enhanced by computer-mediated social support (Wright, 2000), with strategic efforts designed to develop an optimal match between support needs and computer-mediated communication support communities (Turner, Grube, & Meyers, 2001).

Lay discourse associated with self-management of physical and mental health reveals the vital role of family, but also demonstrates gaps in communication research associated with culture. Family as a social unit has been found to contribute to cancer patient psychosocial adjustment (Gotcher, 1993), but poses dialectical tensions for adult survivors of sexual abuse (Ford, Ray, & Ellis, 1999). Partners importantly contribute to maintenance of sobriety (LePoirre, Hallett, & Erlandson, 2000), mother-daughter communication patterns relate to suicide (Miller, 1995), and demonstrations of negative reciprocity relate to spousal abuse (Sabourin, 1995; Stamp & Sabourin, 1995). Other research demonstrates how teenage girls manage talk about menstruation (Kissling, 1996) and the emphasis on the relational contexts that accompany drug resistance (Trost, Langan, & Kellar-Guenther, 1999).

At the individual level, a substantial volume of published communication research has demonstrated the impact of communication behaviors on health outcomes. Verbal aggression, for example, has been associated with individual distress (Kinney, 1994), social skills’ deficits have been found to relate to depression (Segrin, 1992) and psychosocial problems (Segrin & Flora, 2000), and gaps in argumentative skills form a relevant issue associated with interspousal violence (Infante, Chandler, & Rudd, 1989) and interpersonal disputes (Infante, Rancer, & Jordan, 1996). On the other hand, communication competence contributes to the availability of and satisfaction with one’s social support (Query, Parry, & Flint, 1992). Continued exposure to particular images of a situation or group contributes to physiological desensitization and judgments about female victims of violence (Linz, Donnerstein, & Adams, 1989).

The collection of published research that relates a health condition to communication behaviors also forms a foundation for attending to these issues to en-
hance individual self-management of well-being. The physical realms that have been examined in this regard include being hearing impaired (Pichora-Fuller, Johnson, & Roodenburg, 1998), being a disabled person seeking help (Braithwaite & Eckstein, 2003; Thompson & Cusella, 1988) versus able-bodied and seeking to reduce uncertainty about being disabled (Grove & Werkman, 1991), and being an older adult (Dickson, Markman, & Shern, 1990). The mental realms include Alzheimer’s or dementia (Baxter, Braithwaite, Golish, & Olson, 2002; Orange, Van Gennep, Miller, & Johnson, 1998), and the psychological issues evaluated include being a survivor of acquaintance rape (French, 2003). Chronic illnesses generally (Hayden, 1993) and specifically, including HIV/AIDS (Brashers et al., 2000; LePoire, 1994; Pittman & Gallois, 1997, 2000) and diabetes (Pryor & Mengel, 1987), have also revealed specific insights about lay audiences that may contribute to understanding how people manage physical and mental well-being in their day-to-day lives and the impact of specific conditions on the ability to interact with information sources ranging from Internet to telephone.

In sum, the published health communication research in ICA and NCA journals makes evident that a strong knowledge base has been accumulated in efforts to address the role of communication for naming and explaining health status. Scholars have considered strategic message design and dissemination, the organization and delivery of health care, and habit-forming communication between friends and in families. Consistent patterns, as well as unique characteristics, have been identified in public health and risk communication, medical interaction, and self-management discourse. The findings suggest a number of directions for consideration of communication’s contribution to the study of health communication.

**Overarching Issues in Health Communication Theory and Practice**

With this review of published communication research as a backdrop, several issues will be examined: (a) As a multidisciplinary pursuit, what role has communication research played in health communication; (b) as an applied communication pursuit, what lessons have been learned for health communication by applying a communication framework; and (c) as a basic communication science pursuit, what lessons have been learned for communication through the pursuit of health communication. Integrated throughout discussion of these issues will be recommendations for future research in health communication.

**Health Communication as a Multidisciplinary Pursuit**

One way to see the breadth of disciplines involved in health communication and the meaning ascribed to its pursuit is to review the membership of the National Academies of Sciences’s (NAS) Institute of Medicine (IOM) committee that wrote the report, *Speaking of Health: Assessing Health Communication Strategies for Diverse Populations* (IOM, 2002). The NAS, which by authority of a charter granted by Congress in 1863, advises the federal government on scientific and technical matters and is comprised of scholars who serve in efforts to bridge research and practice at the highest levels of government decision-making. The establishment
of the IOM in 1970 identified the review and recommendations associated with examining scientific and technical matters relevant to the public's health as a specific function. Hence, the establishment of an IOM committee to address health communication acknowledges the area as having promise associated with its science and technical aspects for improving the health of U.S. citizens.

Members of the IOM committee that examined health communication strategies for diverse populations came from schools of public health, communication, and community health, as well as departments of psychology, anthropology, and communication, and were joined by representatives of such organizations as the National Cancer Institute and the Tomas Rivera Policy Institute. Two of the committee members, Robert Hornik and Everett Rogers, are well-known within the International and National Communication associations (IOM, 2002, p. v). A review of the 45 pages of references, including approximately 720 citations, gives some sense of what such a group accepted into evidence for discussion of the core issue. Only two citations represent work published in NCA journals, with one article focused on feminist standpoint theories (Hallstein, 1999) and the other on the communication of evidence and counter persuasion (McCroskey, 1970). Two additional citations come from ICA journals and were included in the previous review of published research. These included an article focusing on the rhetoric of responsibility (Kirkwood & Brown, 1995) and the research that compared campaign channels with regard to reach, specificity, and impact (Schooler et al., 1998).

The lack of additional evidence from published communication research relates undoubtedly to numerous issues, with one being the previously noted relative absence of published studies about culture and health communication and the committee's charge to examine strategies to reach “diverse populations.” A primary reason for the formation of the committee was “the fact that shaping interventions to conform to specific cultures is often done in the absence of evidence and with no evaluation is of concern” (IOM, 2002, p. xv). A second is the reality that when multiple disciplines converge to represent a topic, limited time and space force difficult choices. Nonetheless, a preemptory focus on media strategies within the report overall conveys some sense of what other disciplines expect communication science to contribute to such a discussion. Further analysis of the evidence represented by citations included in the report revealed that one came from *Journalism and Mass Communication Quarterly* (Slater et al., 1996), with the *Journal of Health Communication* represented by references associated with the Internet (Cassell, Jackson, & Cheuvront, 1998; Chamberlain, 1996; Shaw, McTavish, Hawkins, Gustafson, & Pingree, 2000; Smaglik et al., 1998) and media advocacy (Winett & Wallack, 1996). *Health Communication* was represented by one reference associated with message sensation value (Palmgreen et al., 1991). Several books written by communication researchers also contributed to the evidence assembled for deliberation, including Guttman’s *Public Health Communication Interventions: Values and Ethical Dilemmas* (2000) and Hornik’s edited volume, *Public Health Communication: Evidence for Behavior Change* (2002). Beyond these, there is a heavy emphasis on self-efficacy, tailoring of health messages, and social marketing.
The absence of references to interpersonal communication in the IOM report and the emphasis on social marketing and tailoring approaches reveals one gap in multidisciplinary health communication pursuits yet to be bridged. Constructs that bear on the topic of health communication strategies for diverse populations include stigma, privacy, and self-disclosure (including revealing versus concealing) norms that contribute to topic approach versus avoidance, for example. Public health professionals have not previously included a formal component related to communication in their education and training, and may therefore lack an appreciation for interpersonal communication and research. Gaps related to this absence were identified following some of the events of September 11th. The shortcomings that were identified went beyond the design of public health communication and risk messages, although these were of concern. A core concern was the credibility of public health and its representatives. I served on another IOM committee responsible for writing the report, *Who Will Keep the Public Healthy? Educating Public Health Professionals for the 21st Century* (Gebbie et al., 2003), for which a primary recommendation was made to add communication as a core area for training among public health professionals. As outlined in the discussion of the recommendation, the success of public health and risk communication likely includes attention to issues such as the credibility of public health spokespersons, which depends partly on knowledge about nonverbal communication. As an elected member of IOM’s Health Promotion and Disease Prevention Board, I continue to advocate for consideration of these and other relevant communication issues derived from communication arts and sciences, having given presentations to the Board about the meaning and use of statistical versus narrative forms of evidence and the design of health messages when the science is uncertain. Future research and practice for health communication as a multidisciplinary approach hopefully will include a continuing role for communication scientists who may draw from these experiences.

*Health Communication as an Applied Communication Pursuit*

As observed throughout this review, health communicators often prioritize health behavior as an outcome, sometimes substituting behavioral intentions or other health behavior stand-ins. In the application of communication theory to health settings, the significance of communication behavior emerges time and again across public health and risk communication, medical interaction, and self-management discourse domains. A common vocabulary associated with health communication across these domains of interest would include communication and social interaction skills, sometimes associated with self-efficacy and one’s confidence in the ability to negotiate condom use, the ability to refuse tobacco and drugs, the ability to talk with one’s doctor (McGee & Cegala, 1998), or the ability to argue with one’s spouse without leading to violence (Whitchurch & Pace, 1993). Future health communication research might profitably examine how to tailor (Kreuter & Strecher, 1996) health messages based on individual argumentation or other social interaction skills (Greene & Burleson, 2003). There is room within a transtheoretical model (Prochaska, Redding, Harlow, Rossi, & Velicer, 1994) to demonstrate whether interaction skills are transfunctional or transcontextual in relation to being well
and well-being. Might it be that some audiences have difficulty moving from contemplation to action because they do not have the skills to accomplish the task? Would someone who has the ability to argue be more skilled in making use of public health and risk communication, participate actively in medical interaction, and manage day-to-day well-being? Are such citizens the ones more likely to participate as consumer liaison advocates at the National Cancer Institute (http://www.la.cancer.gov).

It has become quite popular to identify core competencies associated with an area. In 2002, for example, *The American Journal of Health Studies* published “Health Education Responsibilities and Core Competencies.” A review of the list demonstrates virtually overlapping competencies between health education and health communication. These include the ability to “obtain health-related data about social and cultural environments, growth and development factors, needs and interests” with such subcompetencies as “conduct health-related needs assessment in communities.” To apply a communication behavior framework to such analysis and make the realm of health communication competencies unique in comparison to health education competencies would encompass assessments of skills such as these: (a) bringing a topic to the floor with a powerful source who averts eye gaze, (b) understanding news values and their impact on public communication, (c) interpreting nonverbal behaviors and identifying cultural differences associated with touch and proxemics, and (d) advocating for public health.

Returning to the opening definition of health communication as a strategic pursuit, research that applies communication theory and practice in health communication offers support for many future initiatives with potentially positive health outcomes. Interpersonal violence prevention, for example, appears to be an arena where a sufficient knowledge base of published communication research (e.g., Roberto, Meyer, Boster, & Roberto, 2003; Sabourin, Infante, & Rudd, 1993; Sabourin & Stamp, 1995) suggests strategies for public health and risk communication (e.g., Mulac, Jansma, & Linz, 2002), medical interaction, and facilitation of managing life to avoid future events. A developmental life-span perspective should be applied in this arena, acknowledging the need to address youth and bullying, for example, differently than approaches for domestic violence, though both may benefit from a focus on communication skills. Comforting messages, too, may be important skills associated with this line of health communication research (Bippus, 2002; Samter, Burleson, & Basden-Murphy, 1989).

Societal discourse in the political realm should be examined with an eye toward unfunded mandates that do little to advance awareness of interpersonal violence, an absence of organizations to support strategic responses, and the treatment of this issue within religious settings as taboo. At the level of medical interaction, health care providers may need training associated with the leakages associated with nonverbal behaviors when a patient discloses abuse. For everyday citizens, more efforts to distinguish good Internet information from bad regarding how to manage interpersonal violence and support systems may contribute to well-being in this arena. These represent innovative translational opportunities for health communicators.
Other arenas where future research that applies communication theory to health communication relate to how lay audiences understand and apply technical information, including the use of geospatial information. Such mapping has begun to appear with increasing frequency on Internet sites associated with health behaviors and outcomes, with novel approaches to identifying the influence of social networks mapping where people go to share information about a chronic disease and treatment or prevention as illustrated by reference to Type 2 diabetes and socio-spatial knowledge networks (SSKNs; Cravey, Washburn, Gesler, Arcury, & Skelly, 2001). Some health planning is being based on the use of geospatial information systems (GIS; Kim, Gatrell, & Francis, 2000). How do planners understand, interpret, and use GIS plots? What heuristics function to guide decision making in this area with use of visual data? Affective responses associated with this and other forms of health information would also benefit from careful analysis of a range of possible emotions, with applications here as well relying on communication research to guide the hypotheses (e.g., Dillard, 1994).

Direct to consumer marketing online is another area where communication research suggests important avenues to explain and predict outcomes, including users’ awareness of source layering. Attempts to develop stable criteria for assessing online health information have identified source as the most important indicator of the veridicality of downloaded information (e.g., Rieh & Belkin, 1998). In an effort to classify the various possible source attributions, Sundar and Nass (2000, 2001) distinguished between visible sources such as gatekeepers, technological sources such as the medium (internet and computer), and receiver sources (oneself, other net users). In reality, multiple source attributions are simultaneously made salient on the Web, representing a kind of “source layering.” Users’ inability to parse the various layers may lead to source confusion, thereby complicating the identification of the psychological locus of credibility and other assessments involved in processing the obtained information. Such confusion may contribute to reactance, to loss of confidence in the site’s content, or to further searching and subsequent judgments. Applied to health information-seeking, this, too, suggests an area for future research associated with organizational sites, including the National Cancer Institute, for example, as well as commercial sites designed to make products and testing directly available to health consumers.

Health Communication as a Basic Research Pursuit
Health communication research and practice advance understanding about the relationship between communication processes and individual physical and potentially mental well-being, often through the application of knowledge about social interaction skills. The pursuit of health communication research, however, contributes to communication science in a number of realms as well. Health communication in particular addresses the two broad areas of “information” and “exposure.” An integrative perspective regarding information that has been advanced in a number of specific health realms is problematic integration theory, which addresses the too frequent reality (with regard to health) of diverging probability and value judgments (Babrow, 1992). A developmental life-span perspective regarding the meaning of well-being (Holladay, 2002; Hummert, Shaner, Garstka, &
Henry, 1998) and message production associated with responding to the problematic nature of information (Nussbaum & Baringer, 2000) may enrich the basic understanding of communication science in this regard. Some of the findings related to disclosure and boundary management associated with health communication (Petronio & Kovach, 1997), including individual experiences of disclosing HIV test results (Greene & Serovich, 1996) and sexual abuse (Petronio, Reeder, Hecht, & Ros-Mendoza, 1996), offer both an enhanced understanding of communication as science and perhaps an explanation for why information may be difficult to integrate. Might findings associating stigma and social distance with threats to identity (Zoller, 2003) offer an explanation for why a woman who thinks she might have breast cancer avoids going to the doctor to be examined? Such women may be faced with the challenge of integrating information about the possible loss of a breast and associated femininity with information that cancer survival depends on early diagnosis.

Beyond the verbal, nonverbal, and visual content realms of strategic communication lies the heart of the matter of exposure. As Hornik (2002) observed,

Most of the innovative work in public health communication has focused on the problem of developing high quality messages reflecting particular evidence about the underpinnings of health behavior. This has been a good thing. At the same time, there has been less attention to the problem of exposure to those messages and how to make sure that a large part of the target audience is exposed to program messages, repeatedly. (p. 13)

At present there is no communication theory to explain, for example, the process of naming, which is a meaning-making activity that comprises a core function of health communication. To continue the example of interpersonal violence as a future area of concentration for health communicators, some research has demonstrated how exposure to pornography contributes to acceptance of rape myths (Allen, Emmers, Gebhardt, & Giery, 1995). From such research, the necessity of evolving not only theory but method to address both strategic and counter messages becomes apparent. The research associated with exposure to and uses of TV violence suggests strategies to derive both theory and measurement (Smith, Nathanson, & Wilson, 2002) related to media use and interpersonal outcomes (Kremar & Greene, 1999) with a developmental perspective again forming a core premise (Kremar & Cooke, 2001). Moreover, the reality that implicit messages associated with exposure require theoretical and methodological attention has been illustrated by reference to the use of humor, for example, to camouflage televised violence (Potter & Warren, 1998).

Research in entertainment-education activities illustrates a strategy that controls for some of the content to which individuals are exposed, once more illustrating by reference to health communication research lessons learned about communication science, including how to use one's knowledge gains about audience involvement to enhance educational opportunities (Sood, 2002), leveraging the use of narratives (Slater & Rouner, 2002), evolving theory in entertainment media use for strategic aims (Singhal & Rogers, 2002; Sypher et al., 2002), while attempting to derive strategies to achieve collaborative aims.
(Bouman, 2002) and cautioning that overuse may contribute to saturation effects (Sherry, 2002).

**Final Thoughts**

An intercultural glimpse into how the elderly communicate in China and its relation to mental health (Cai, Giles, & Noels, 1998) suggested why health communication researchers should broaden insights beyond physical health and well-being. Communication affects mental health, and in the first decade of the 21st century, public health communication promotes understanding about signs and symptoms associated with depression. At the same time, advertisers promote drug therapies to relieve the symptoms, likely increasing willingness to address mental health during medical interaction and opening wide opportunities to lessen the stigma long associated with mental conditions and to examine the societal and personal importance of mental health. To do so better represents well-being, thereby fulfilling the ethical responsibility that most health communicators take as an integral part of their pursuits.

Health communicators also must find strategic ways to examine the economic model of health and health care in the United States. As Americans spend a lower percentage of disposable income on food, they coincidently are becoming overweight and obese. Energy-dense foods, however, are the lowest cost option for consumers and include refined grains as well as fats and added sugars, such that an association between poverty and obesity may be mediated by this finding (Drewnowski & Specter, 2004). An economic model forms a foundation for many decisions relating to health and health care in the U.S. “An ounce of prevention. . . . What are the returns” illustrates this principle with an examination of 19 topics, ranging from bicycle-related head injuries to colorectal cancer to low birth weight and smoking (U.S. Department of Health & Human Services, 1999). For example, with regard to Pap tests for cervical cancer screening among women:

Screening average-risk, asymptomatic women aged 20 through 75 years every 3 years costs $14,000 per life-year gained. The cost of annual screening of the same population is approximately $40,000 per life-year gained (US$1987) when compared with a no-screening strategy. (CDC, 1999, p. 3)

Hence, public health communication messages associated with promoting cervical cancer screening now promote receipt of this test every 3 years versus annually. This likely introduced into medical interaction some confusion for women who want to know why. No published communication research has examined medical interaction for the impact associated with these societal-level decisions, including how it affects women’s information-seeking, confidence in their own abilities to act appropriately, or trust in the health care system and doctors.

A third broad issue for health communicators to address in the years to come is the absence of published communication studies that address informed consent. Informed consent is the communication process associated with informed decision-making and informed choice, which require knowledge about communica-
tion and knowledge about health to predict and explain outcomes. The area of informed consent broadly defined is one that future research in health communication should acknowledge as an area where significant contributions might be made. By definition, informed consent is health communication. One cannot give consent without communication, and the core of informing toward the aim of consent relates to the individual’s physical and mental well-being, that is, risk. The voluminous body of research being accumulated in the domain of informed consent is woefully devoid of input from health communicators.

In conclusion, communicating about health implicitly reflects multiple discourses but usually only explicitly addresses one component at a time. As Sharf observed in 1993, "Doctors and patients do not talk with one another in a vacuum. These encounters occur within professional, institutional, political, and sociocultural contexts that should be taken into account as communication scholars interpret and evaluate this discourse" (Sharf, 1993, p. 6). Seemingly too little progress has been made to address this issue directly, though Williams and Coupland (1998) acknowledged the vital role of sociopolitical framing on communication and aging research, establishing a foundation for conceptualizing such study. I advance a framework that focuses less on context and more on the discourses that, although occurring in those contexts, are not bound to context, as religious discourse enters the professional realm and vice versa, for example. Research in health communication with an emphasis on communication processes associated with our international and national communication associations in public presentation and publication forums seeks to improve understanding about the patterns of influence common across these levels of influence, enhancing prediction and explanation associated with communication about health. The integration and application of communication frameworks to well-being hence should continue to have an important role inside and outside the discipline of communication arts and sciences.

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