The Art of Health Promotion

practical information to make programs more effective

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Strengthen Context to Enhance Health Promotion Effectiveness

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Introduction

There once were two friends who heard a joke that was absolutely hilarious. One was a great storyteller, very animated with a terrific sense of timing. The other was a brilliant guy who really appreciated and understood good humor, but couldn't tell a joke to save his life. Every time the first guy repeated the joke, his listeners practically rolled on the floor with laughter. But whenever his friend tried to tell it, people just stared at him. The joke fizzled like flat soda. The information was transferred, but the delivery didn't produce any laughing, the desired behavior change.

That's the way it is in the world of health management and health promotion as well. It doesn't matter how great your programs or information are, or how sound their theoretical underpinnings. If your work is delivered in a pedestrian manner, it will have little impact on the populations you want to affect. It is like seeing a movie with a good story but lousy acting and an implausible script.

This issue of *The Art of Health Promotion* will focus on one strategy to improve our delivery, generating better outcomes; contextual enrichment, or in our nomenclature, creating "Microcultures of Meaning" (MOMs). There is a diverse set of academic disciplines that provide the theoretical underpinnings to effectively create MOMs such as ethnography, counseling, anthropology, and Neuro-Linguistic Programming. This article helps to define MOMs and introduce key theoretical concepts associated with the MOM Methodology. In addition, we will discuss how a MOM can be applied in building practical applications that can be used in our field. Our desire is to engage our own health promotion community in exploring both the opportunities and limitations of this approach.

The Theoretical Concept

What is a MOM and How Do They Happen? A Micro-culture of Meaning is a place—real or virtual—where people with a perceived common background, purpose, and/or concerns interact. Depending on the community's needs and the originator's goals, MOMs can be designed to help people take action toward a variety of objectives including problem-solving, finding information, changing health behaviors, developing skills, advocating for change, or finding support.

The primary function of a MOM is to provide a context that can help people learn and take action. As Richard Bandler and John Grinder, the co-developers of Neuro-Linguistic Programming, write, "Every experience in the world, and every behavior, is appropriate given some context, some frame" (Bandler, R. and Grinder, J, 1982). Without that frame, information remains indigestible to the user, providing no fuel to take action. Words and concepts like "health," "support," "care," and "diet," can mean a multitude of different things with a whole raft of attached feelings, depending upon the life experiences, culture, and demographics of the individual people hearing them. Our job as health professionals, then, is to help create that context where individuals can

In This Issue

access their own new and useful meaning for healthy behavior change. We can do this by providing opportunities for those individuals to be 'surrounded' by others with similar life experiences pertinent to the user as defined by the user; to be immersed in a community of people who are demonstrating success at learning and working through the struggle of changing health behaviors.

The concept of MOM affecting health behavior is not new. "Walk a mile in my shoes" is an old saw. Indeed, one of the best-known examples is Alcoholics Anonymous. For nearly 70 years, this loosely woven, worldwide network has been providing a place where people with like experiences and concerns can support one another in contemplating, making, and maintaining change. And these communities are able to differentiate into very specific sub-communities so that participants feel as though they are with a group that understands them. For example, rather than just going to an AA meeting, in some large cities it is possible to attend a non-smoking, Spanish speaking, gay & lesbian, AA meeting. "My shoes" can range from jackboots to pumps to Tevas, and anything in between.

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Disease-management support groups, parent education and parent support (PEPS) classes, teen peer counseling, and block-watch programs are similar examples of the way that people come together to create micro-cultures of meaning in support of each other's health. While a physician may tell a patient with diabetes how important it is to change his or her diet, it's often the diabetes support group or the friend at work that helps the patient understand how such changes can have a new and useful meaning in their everyday lives. While a police officer can tell individual citizens how to spot signs of street crime, it's the interaction at the block-watch meeting that gives neighbors the esprit de corps they'll need to take responsibility for the safety of the whole community.

What's Really New About MOM? What's new is the communication technology that allows us to create MOMs with broader reach, greater intensity of interaction, more relevance, and richer content. Opportunities for innovation include far more than standard web sites or telephone information lines that provide health information along with chat rooms or bulletin boards. We can now match the information to a "voice" that resonates, stimulating action regardless of location (unless geographic proximity is the critical desire for the user). Once we relied on "matchmakers" to connect people in marriage. Now, using a variety of community building strategies, creating personal profiles in online settings, and parsing tools, it's possible for individuals to search for others with characteristics that are important to them (non-smoker, likes to camp, left handed, funny) or focus on a common issue, increasing the odds that new acquaintances will hit it off. Besides matching people these same profiles can also be used to match highly resonant information/advice to the user at a content, style, and behavioral level. This same 'matchmaking' can also apply to health focused online communities creating lasting impact on people's perceptions and behaviors, on their sense of self-efficacy at any stage of the continuum of change. In this way, MOMs are not a new and competing theory of behavior change, but rather a vehicle for thinking through the most effective application of these theories.

The Scientific Rationale

Creating Context. To understand how organizations can create MOMs that deliver rich and powerful interventions, it helps to appreciate how communities naturally influence health behavior in the first place. One way is through the concept of social constructivism. As Jill Freedman writes in her book *Narrative Therapy: The Social Construction of Preferred Realities*, "The beliefs, values, institutions, customs, labels, laws, divisions of labor, and the like that make up our social realities are constructed by members of a culture as they interact with one another. That is, societies (communities) construct the 'lenses' through which their members interpret the world" (Freedman, 1996). We see this as a perspective for enriching a context in health promotion and empowering the intervention itself.

Why do We Value Context so Much? If we as health professionals want to affect a community's lenses and the ways in which its individual members influence each other's health beliefs and behaviors, our interventions have to happen within the context of that group's culture. Our best chance of affecting change occurs whenever individuals can connect around their need to share information and/or take similar actions; their need to find a sympathetic ear and voice for sharing their experiences of frustration or suffering, and their triumph over these difficulties, the understanding gained. That ear and voice needs to come from someone who is perceived as understanding their circumstances and competent to offer solutions. Figure 1 shows that people searching for answers often recognize the combination of information and relevant experience as wisdom. The relevant experience is manifest by people who fit a set

of criteria important to the person going through the change process. And when wisdom is offered along with relevant resources that are matched to individual preferences and needs, the individual has what he or she needs to more likely take action. In a simple form, Figure 1 contains the basic components required by individuals for creating context.

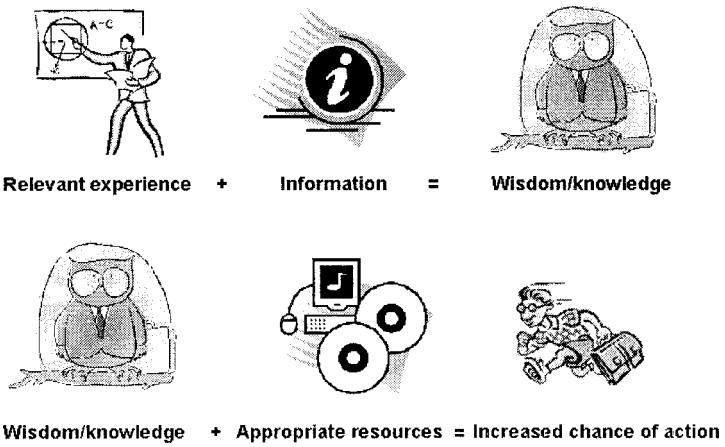
This context-based approach, which is the foundation of testimonials on TV Infomercials, can work equally well for health behavior interventions. For example, the first question often asked of a smoking cessation instructor is, "Did you smoke"? The experienced instructor not only says "yes", but then provides a few poignant example of their smoking to establish their credibility: 1) their history (three packs of Marlboros a day,) 2) their predicaments and struggles (catching my pants on fire in an expensive restaurant with a first date), and 3) their ultimate success (a week at the bottom of the Grand Canyon with no cigarettes, Zyban, a cessation instructor and a group of quitters). This information, much more than a masters degree in Public Health, establishes the Instructor as a source of wisdom or credibility. It allows the instructor to be a legitimate source of advice and relevant resources, whether that's stress management exercises, pharmaceutical support, behavioral intervention, or maintenance strategies.

Social Capital: How Bonding and Bridging Fit In

Since each community creates the "lense" for its members' understanding of reality and how to operate in it, we can take advantage of this process by creating MOMs that focuses that lense on specific health issues. We create these MOMs by providing "social capital," i.e., the social networks people use to connect. As Robert D. Putnam writes in his book *Bowling Alone: The Collapse and Revival of American Community*, there are two crucial types of social capital, bonding and bridging (Putnam, 2000).

Bonding capital allows a group to build identity by creating a sense of exclusivity from others via race, gender, class, membership, and so on. One example of the way health professionals take advantage of bonding capital is in the design of interventions for teens. In peer counseling, the program designer starts with the assumption that everyone in the group shares the same demographic of age, and that this is the key to sharing any information, advice, or support. Each teen leader and participant shares relevant experience because of his or her age and that age can supply a context for any of the information that's shared during the course of the program.

Figure 1: Creating Context



In contrast, bridging capital allows people to cross lines, building links between disparate groups for the purposes of taking action, accessing resources, and transmitting knowledge. "Bonding social capital constitutes a kind of sociological superglue, whereas bridging social capital provides a sociological WD-40," writes Putnam. Classic support groups demonstrate bridging social capital when they attract people from very diverse backgrounds to rally around a common issue. Weight Watchers, a worksite based aerobics program, and most group smoking-cessation programs are often examples of this. Another example within our own field is the advocacy work being done by the *American Journal of Health Promotion*. Supporters of increased funding for health promotion research come from many disciplines, overlapping at the level of common interest around furthering the field as a whole.

Though in different circumstances, a particular demographic or group identification may serve as either a bond or a bridge, each can have a powerful influence on individual and/or group behavior. And when working in combination, these two forms of social capital can be very powerful generators of (or detractors from) support and change.

One example of this mix of bonding and bridging capital can be seen in armed forces veterans' groups. At one level, just being a veteran puts you in an exclusive membership, creating a bond with other veterans. However, like so many other groups, veterans are categorized into many different bonding sub-groups. World War II vets and Vietnam vets typically view their own groups as very different from the other. But there's also a lot of bridging going on as well. Though veterans come from extremely diverse economic, cultural, and geographic backgrounds, their common war experiences can trump this diversity, creating a tremendously strong link, often demonstrated through poignantly joyful or painful sharing and storytelling when they meet. And while World War II and Vietnam-era vets were often agonizing-

ly alienated from one another by the impact of their worldviews, in more recent years, their common health issues have served to build bridges between them. Similar experiences with the trauma of war, and their shared need for health services related to those experiences, have resulted in the development of whole new category of diagnosis and treatment—that of post-traumatic stress disorder (PTSD). Twenty-three years ago Vet Centers were established for Vietnam era Veterans. Ongoing veteran advocacy and a four-year VA funded research project determined that there was a 15 percent incidence of PTSD in the Vietnam era combat veterans with an additional 11 percent manifesting symptoms. This effort culminated in 1995 when these services were finally extended to WWII, Korean, and other combat Veterans (Department of Veterans Affairs, 2003). The impact of this bridging around PTSD has been so significant that its recognition has moved beyond military experience; health care systems now view PTSD as a significant health issue attached to any traumatic event.

Whether we define our connections as bridging or bonding capital, it's clear that humans don't operate in a vacuum. Our decisions and actions generally happen within the context of some affinity group that provides support and, in essence, a general understanding of how we view reality and our behavior within that reality (Campbell, 1972). With technology, we can leverage this phenomenon and strengthen the contextual influence provided the group. This is accomplished by creating as many strands of capital (relevance and meaning) as we can. We can do it through carefully connecting the right message with the right person, or connecting the right people to generate the right message.

Narrative as a Mean to Transmit Social Capital. The first step in this process is to understand how social capital can be transmitted. From our earliest times, people have told stories that in essence explain their place in the universe. When the major technology of the day was fire, humans transmitted knowledge through oral history. Our stories have been shared as mythology, fairy tales, legends, or oral histories of whom we are and how to operate and act appropriately within our cultures. For instance, John Chapman (Johnny Appleseed) and Wyatt Earp were not fictional story characters, but actual people. However it is their stories, first spoken and then written, that have grown around them, that tell us about our own culture and individual characteristics. The historical accuracy of these stories is almost irrelevant. The power is in the messages they convey.

This concept is also true for an individual that is ill or faced with a major health issue. Arthur Frank, in "The Wounded Story Teller" explains that there is a, "need of ill people to tell their stories in order to construct new maps and new perceptions of their relationship to the world." And the need to tell this story is essentially a social one, suggesting that the story is acknowledged and understood by someone else, even if this acceptance and understanding is not "in person". (Frank, 1995) This is a critical understanding that we all too often miss in our delivery of healthcare information.

We tend to build our health communications with the exclusive focus on accuracy and precision. Far too often we have missed the need for story and context. The advent of new media hasn't changed this need. In the book *The Clue Train Manifesto*, Christopher Locke writes, "What if the real attraction of the Internet is not its cutting edge bells and whistles, its jazzy interface or any of the advanced technology that underlies its pipes and wires? What if, instead, the attraction is an atavistic throwback to the prehistoric human fascination with telling tales?" He goes on to say, "In sharp contrast to the alienation wrought by homogenized broadcast media, sterilized mass "culture", and the enforced anonymity of bureaucratic organizations, the Internet connects people to each other and provides a space in which the human voice can be rapidly rediscovered." (Locke, 2000) When you consider that other then pornography, health information is one of the leading reasons for coming to the net, a huge opportunity exists for creating the structure of the communications that facilitates contextual meaning whether online or in other modalities.

Two Approaches to Application

Overcoming the Limitations of technology to Create a "Virtual" MOM. In the past, health professionals have had some success creating MOMs to operate in real-world settings, delivering interventions via classes and meetings. Now, new media technologies like the Internet, wireless phones and Interactive Voice Response Systems (IVR or voice mail systems), and access to hugely powerful databases, offers significant promise of expanding the reach of such conversations and our ability to convert narrative into action. But as the concepts of social constructivism and social capital illustrate, MOMs can only influence an individual's health behavior if they help that individual to know others and to feel known or link them to a common cause; if they can filter critical information through the prism of these shared experiences, usually through the vehicle of narrative/story telling.

From a therapeutic perspective, the key to motivation is to demonstrate how a particular change of behavior, within a context that's meaningful to the individual and their reality, can provide a new and useful purpose. The problem is that unless we know a great deal about any individual, we don't have access to the context that will be effective in motivating behavior change. In individual counseling or face-to-face group interventions, it's possible to uncover this sort of frame of reference and the underlying meaning an individual

imputes on any given health behavior, and then use it effectively to intervene.

Such goals are difficult to accomplish given most current uses of new communication technologies. In fact, most of today's computer-mediated, IVR, or print health interventions tend to offer little more than one-way communication—the producer of the site provides static information about a health topic that goes from the site to the user, assuming that information will be sufficient to activate a behavior change. We know that all too often, it isn't sufficient.

Even websites that offer chat rooms and bulletin boards are limited. Postings are categorized by topic, and "off-topic" communication is discouraged. This makes it difficult for people to get to know one another the way they might during the general chit-chat that happens in the real world when groups get together. People may share details about their life circumstances or backgrounds that allow them to connect in an infinite variety of unpredictable ways. They may talk about their pets, kids, politics, or a local sports team. While such connections may seem inconsequential, over time they allow people to create smaller sub communities where they feel a sense of belonging. Without these connections, the bond to the group is only as strong as the participant's interest in the very specific thing that he or she came for. In the world of social support, such limited interest is rarely enough to sustain the relationship over the long-term. Depending upon the nature of the intervention, this may be fine. But in cases of chronic disease or health/support issues that have a long timeline, this can be a major barrier to success. The level of relationship needed to get an individual to practice simple behaviors like teeth brushing, is vastly different than the level of support needed to accomplish more complicated behaviors, like weight loss.

Groups also bond when individual members take responsibility for actions that benefit not only themselves, but also other members and the group at large with whom they feel connected. ("Pick me up on the way to the meeting." "Can you bring the sandwiches this time?" "Who's going to watch the kids?") This kind of shared activity helps group members commit to each other, to the group, and ultimately to the cause for which the group gathers. Because of the anonymity, remote location, and limited scope of most health-based online "communities," it would seem almost impossible for users to feel this sense of responsibility and commitment to other members. Although many websites refer to these areas as communities, their seeming limitations prevent them from becoming the kind of helpful, supportive environments we would characterize as effective MOMs.

Given the limitations of most computer-mediated health interventions to date, how can health professionals use new communications technologies to create true MOMs? We have experience with two modes of computer-mediated intervention delivery that attempt to do so. One is database-driven, tailored-messaging. The other is a self-identifying, interactive online community. Each has advantages and disadvantages. They also have the potential to be used in combination with each other. Entry into either of these two forms begins when the participant is sufficiently interested (contemplative) to at least come to the site. But from there the approach begins to diverge.

In the tailored MOM, the user starts by completing a detailed assessment (all at once or over the course of time) that allows the sponsoring organization to get to know the individual before providing them with information and resources. Users complete a questionnaire that collects data on any range of issues, such as: level of readiness to change, health beliefs, health status, health costs, family health history, age, reading level, interests, or preferred metaphors. This information can be used specifically to address the need to create a mix of bonding and bridging social capital throughout any messages that are generated.

In the self-identifying, interactive community MOM, the user may enter more tentatively (depending upon how the site is structured), checking out the structure and content of the site before volunteering much—if any—personal information. Such "window shoppers" can even choose to search for content that is based on information provided by people with whom they identify, the initial hooks for building social capital. However, if they wish to begin the more active process of interaction, they can then offer more information about themselves, their experiences, resources, and learning. In this way, the users can move from simply learning from "people like me," to connecting with "people like me."

Tailoring Your MOM. The tailored-messaging MOM uses the assessment data to supply messages that will predictably appeal to individuals. Over the course of the intervention, additional questions can be asked that can be used to acknowledge changes in the individual and allow for future content to be retailored. This iterative process continues to tighten the context of information provided to more closely resonate with the needs of the user. (Kreuter, 2000) This also acknowledges that the user has been heard and responded to accordingly. Research and program development in this area demonstrating the efficacy of this approach has been performed by groups at the University of Michigan, St. Louis University, MicroMass, and The NewSof Group. Such tailored messages can be incorporated in a variety of materials, including print newsletters, Web-based newsletters, emails, voice mails, kiosks, brochures, or calendars.

Tailored messaging starts with the practice of learning about the individual—if we understand, for example, your stage of readiness, your self-efficacy, or perceived barriers to success—we can then build intervention messages that will be resonant, significantly increasing the odds that you'll take action. Personal motivators, age, or hemoglobin A1c level, for example, might be used to tailor a newsletter for people with dia-

betes. One reader could receive messages about improving her health to be more active with her grandkids, while another gets messages about enjoying his golf game. A tailored nutrition Web site might be personalized to provide the harried working mom with quick, easy recipes her kids enjoy, while a childless couple with more time for cooking gets more complex gourmet recipes. The idea is to provide health information that fits into the context of people's lives and how they perceive themselves within that context.

Providing enriched context is also the goal of the online community MOM, which leverages the user's data to guide them toward information, people, and resources generated from subgroups that are formed based on factors that hold a high level of personal meaning for them. Unlike a tailored-messaging MOM, an interactive community MOM starts with the assumption that a properly constituted community—one designed to match people with perceived commonality—will be able to create and share pertinent content. Micro groups of people with the shared experiences and learning can be brought together to generate content that resonates for each community member. When appropriate additional information and/or resources can be added along with experiential information to insure accuracy as well as context, this can be used to generate content for a tailored-messaging MOM if desired. When CHESS (Comprehensive Health Enhancement Support Systems) programs are created, a crucial step in the process is personal interviews and a nominal group process with a sample of the user population to insure that all content is effectively directed to that (CHESS, 2003).

To create Micro-cultures of Meaning, the American Cancer Society's Cancer Survivors Network (www.acscsn.org or 1-877-333-HOPE) profiles individuals and directs them to content areas populated by others like them based on factors such as cancer type, stage of illness, age, and gender. Selected individuals that match in all of these categories (e.g., 40-50 years of age, male, colon cancer, in recurrence) are brought together for recorded sessions that are designed to sound like talk radio shows. Users can listen to these sessions, in which participants describe their experiences and respond to specific questions regarding issues they have previously identified as pertinent to them and the issues they're facing. By asking the right set of questions within the group, highly resonant answers can be generated. Users of a smoking cessation community site might be similarly profiled to share information based on age, gender, number of years smoking, number of times trying to quit, smoking triggers, type of tobacco used (cigarettes, brand, chew, cigars), and stage in their quitting process.

A positive feature of the tailored-messaging product is that it allows organizations to control the accuracy and appropriateness of all the content that's being delivered. Providers can be sure that medical information in messages is reviewed and approved by experts. Once the content is written, designed, and programmed, work on the product is essentially finished, except for periodic updates as scientific advances or timeliness requires. This contrasts with the user-supplied content that appears in the community MOM, which can be fluid and ever changing. Individual users usually share a wealth of personal health information and resources that isn't reviewed in advance unless the MOM is designed so that all content is reviewed and edited prior to posting.

While a pure tailored-messaging MOM requires less ongoing support than the online community MOM, its initial production can be quite costly and labor-intensive. A weight management intervention, for example, might have a newsletter that delivers ten interventions that address three of a possible ten topics in each newsletter. The messages for each topic could then be tailored by: 1) Prochaska's five stages of change, 2) three different reading levels, and 3) the participant's level of self-efficacy. Further micro-tailoring within these three macro levels could include: 1) perceived barriers, 2) gender, 3) age, 4) culture, and 5) five different hobbies. This model's potential combinations can generate literally millions of unique messages.

And still, the number of messages one can deliver using this method is limited—especially compared to the rich mix of personally relevant messages that might be exchanged between an instructor and a student in a classroom setting, or between support group members at an ongoing weekly meeting. And although tailored messages can appeal to various demographic groups or interest groups, it's impossible to fabricate the seemingly infinite range of "voices" that might ring true with the variety of people in any given user population. Tailored messaging must always be "scripted," and the content can only be as tailored as the individual is willing to share information for the profile. It therefore may lack the spontaneity of real human interaction. It can't possibly provide the kind of unique interchanges and unpredictably meaningful content that we hear in personal conversations. It is in these unscripted moments that last social capital can be built.

In contrast the creation of an online interactive community MOM allows people with common interests or needs to come together and provide information and support. Entry into this community can begin either by allowing individuals to simply "listen" to the stories and issues of "people like me" or, if they wish, they can connect with "people like me." They do this in much the same way that users introduce themselves to a tailored-messaging product. In other words, they complete a profile about themselves that asks a variety of questions having to do with demographics, health status, health beliefs, and so on. But rather than using this data to create tailored messages, the MOM matches them with content, resources or people to learn from. Members participate by sharing information, resources, stories, and

advice. Individuals can also be invited to create their own Web pages—places where they can share and respond to each other's personal journeys via narrative, poetry, photos, audio photos, or art. Thus, the producer creates the context for the users. Then the users create their own "tailored" content based on issues that are meaningful to them. This ongoing interaction between users also provides the information the MOM producers need to identify emerging needs, issues, and sub-communities from which additional content is recorded and transcripted for use within the community.

People who come together in a community-based online MOM that's focused on health behavior change, for example, might create a context for helping each other move along Prochaska's stages of change. Because users find themselves among others whose experience they understand and value, they can help each other with problems of self-efficacy, and they can provide each other with solutions to barriers. In this way, the online group becomes its own intervention delivery mechanism.

While the design of an online community MOM provides some structure, it also allows plenty of unstructured space—i.e., opportunities for self-expression, for users to choose their own topics for discussion, form their own subgroups. Unlike the tailored-messaging MOM, the producers don't have to presume to know what the community needs. The community, through the continually evolving creation of the space, will let them know. The community finds its own shared meaning in ways that tailoring may not predict.

In this way, the design of an online community MOM resembles a process model used in real-world organizational development and community building called "Open Space Technology." In this model, developed by Harrison Owen in the mid-1980s, people who are committed to solving a common problem gather together with an open agenda. (Owen, 1997) The meeting is then structured in a way that allows any one person or small group to discuss any topic that they think is pertinent toward solving the problem, creating self-forming communities, predicated on the concept that their common purpose (bridging capital) will bind them sufficiently to be effective in creating change. Operating on the key principle of "The Law of Two Feet," participants can move freely to groups where their needs are being met, often cross-pollinating groups with the information they perceive to be pertinent, they carry from one group to another. This process has been successfully used to bring together extremely disparate groups of people because it supports the creation of unique solutions to seemingly intractable problems.

An Example of a Community MOM Application: The Cancer Survivors Network (CSN). Creating an online interactive MOM that's both structured and open has proven to be an excellent strategy for the Cancer Survivors Network (CSN), a site that's in a constant state of creation as it seeks to better serve cancer survivors, their friends, family members, and caregivers. CSN's goal isn't so much to promote a single behavior change, as it is to provide ongoing support. That being the case, content generated by the CSN community needs to address the underlying issues that create and sustain support over long periods of time. The content is created using a well-designed process of questioning that surfaces the topics, people, resources, and solutions to problems that are critical for the specific micro groups to hear. Work in the field of family therapy has established the concept of questioning as an intervention. As therapists, Luigi Boscolo and Gianfranco Cecchin (Selvini Palazzoli, M., Boscolo, L., Cecchin, G., 1980) found that helping clients to focus on pertinent questions became more important than trying to design specific interventions for them. They discovered that "there seemed to be something transformative about the process of circular questioning itself. Asking questions seemed to foster an attitude of curiosity, or eagerness to learn more and more about family members' experience of the world and each other…. As family (community) members searched for answers to questions, they stepped into a reality that focused their attention on their interconnectedness, on how any single member's feelings and actions influenced and were influenced by the feelings and actions of the others" (Freedman, 1996).

In the case of CSN, questions have focused on the development of resiliency - an issue vital to a community involved in the sustained support of cancer survivors and their caregivers as opposed to structure around the Transtheoretical or Health Belief Models. CSN asks its members questions that are designed to address the three critical elements of resiliency (Coutu, 2002).

1) **Facing down reality.** Cancer survivors are reporting that participation in the CSN site is helping them to develop the ability to stop denying their illness and the new and frightening reality it can create. They say the site gives them the means they need to look at their predicament clearly and to conclude—with eyes wide open—that they can deal with it. We believe the tailored structure of the site helps to facilitate this usefulness. People who are facing down the illness of a child, for example, are in a much different situation than those who are facing down the illness of a parent. By allowing members to enter subgroups of the community where such issues are shared and understood, the MOM provides space for an individual to hear and absorb the crucial contextual information they need to deal with their situation.

   At the same time, the open nature of the site provides members with the opportunity to create ad hoc support groups that are highly aligned to their life circumstances. As a result, the group becomes a place where

people can share content (stories, information, strategies, and positive messages) that truly resonates for each member individually, giving them the courage and power they need to become resilient.

2) **Creating meaning from experience.** A cancer diagnosis, a serious accident, or any variety of traumatic situations can leave a person wondering, "Why me?" The survivors' response can range from succumbing to feelings of chaos and hopelessness, to finding or creating meaning in their predicament. Repeatedly, cancer survivors on CSN have said that although they would never have wished to have cancer, their lives are actually better for it. Their cancer experience has opened them up to a new understanding of their lives, their relationships, their work, and so on. Survivors are also reporting that participation in the CSN online community is giving them the opportunity to perform meaningful service, through educating others and offering emotional support.

3) **Constructing rituals of innovation.** Cancer survivors gain courage by looking at their situation and finding meaning in it. From this, many develop rituals of innovation to help them cope with the myriad of obstacles they may face. These rituals may be as simple as taking a nap when they are tired, always taking a partner to the physician to be sure the right questions are asked, something they would never have given themselves permission to do in the past. Support group participation, job sharing, yoga, writing poetry, or completing advanced directives may all be part of this ongoing process.

   Through participation on CSN, survivors are sharing these innovations with each other—an act that becomes a coping ritual in itself. An unpublished evaluation conducted internally by the ACS and NewSof have indicated that participants feel less isolated, have better coping skills and feel more likely to initiate personal behavior changes to support their survivorship.

It's possible for Web site producers to develop a group of tailored messages for each of these elements of resiliency. However, the messages would be one-directional, and couldn't by themselves create connections that maintain and expand support over time. We have found that with health issues that are chronic and/or generate emotional content, it is effective to bring like people together and encourage them to communicate with each other. In doing so, they have been able to generate a far richer web of questions, answers, and solutions than we as writers and producers could ever hope to create. More importantly, because this content is generated by the target group itself, the content is much more likely to be appropriate for the users. In turn this tends to generate more social capital, which binds the group together over time. At the same time, we have also learned that the interchanges that are developed in these communities can become the basis for ever more effective tailored messages, which can be used in pushed email correspondence that is designed to draw users back into the community.

In summary, by tailoring the composition of the group, providing structured but open space in which to interact, and asking the critical questions to initiate the process, our community-based MOM creates its own tailoring engine and a limitless variation of messages. Asking is more powerful than telling.

Unresolved Questions

The MOM methodology integrates many theoretical concepts and proven behavioral strategies into practical applications often leveraged by technology. The current reality is that MOMs will continue to proliferate in areas such as disease management and support-oriented electronic communities, as well as social groupings. Like any new idea or integrative methodology, there are many questions about the MOM methodology that lend itself to further research efforts. The MOM methodology places heavy emphasis on the importance of context in both effective communications and behavior change. Given the proliferation of advancements in communication technologies there is a need for further investigation about effectively creating context when developing interventions that use these technologies. In addition continued research is needed to address the following questions:

1. Can the same benefits be derived from electronic support–oriented interventions that are currently derived in group, facility-based interventions? We have seen hints of this in development of telephonic smoking cessation classes.
2. Are there specific attributes of a MOM that make it more effective or are they only effective given certain population or disease characteristics? Our experience would indicate that some key attributes might include the emotional connection of the individual with group. For example, what is it that creates instant affinity among Harley owners or Porsche owners and how does this relate to health-related groups?
3. Can the effectiveness of existing interventions improve through the application and incorporation of MOMs? At one level there is need for the technological reach component of value as well as the contextual component of value inherent in MOMs to be further studied. We have seen that some of these issues materialize in the business world through the integration of online and offline services. In many cases, stand-alone Internet offerings failed, but integrated Internet offerings with existing business lines have been very prosperous.
4. What new measurement capabilities or behavioral indices are needed to

expand our understanding about how MOM-related attributes contribute to better outcomes? Technology is allowing for more finite measure of interactions that have here-to-fore been unavailable to researchers. Interactions can include email messages, discussion board postings, and other activities showing involvement and participation in a MOM. As such, we can begin to quantify the level of interaction and determine if there are minimum thresholds of interaction that are necessary for the group effects of MOM to impact individual behavior.

It is difficult to format a formal research agenda to test the MOM's concept because it is so new. Important research questions will become more clear as the concept is applied.

Conclusion

In this article we have introduced the concept of **"Microcultures of Meaning"** (MOMs) and defined a MOM as a place—real or virtual—where people with a perceived common background, purpose, and/or concerns interact. The primary function of a MOM is to provide a context that can help people learn and take action.

Attributes that may contribute to developing an effective MOM may include:

- ✓ creating a credible voice that goes beyond typical informational approaches and includes narrative styles of information dissemination
- ✓ creating opportunities for bridging and bonding capital to develop within groups, and
- ✓ integrating other behavioral models into the overall framework of MOMs based on the desired outcome.

MOMs can move us from connecting the right message to the right person, to connecting the right people to generate the right message. As we better understand our need to connect with others, the power of storytelling to bridge this connection, and the means that new communication technologies offer to support this process, it opens us to a wide array of opportunities we can exploit.

We believe, that MOM has a lesson to teach us. The very structure, medium, and means with which we intervene can have as much impact as the information itself. We all have seen a great teacher inspire students, even with a terrible text, while a terrible teacher can take terrific materials and put students to sleep.

We would like to suggest that health professionals explore fields that seem disconnected from health promotion while paying particular attention to the nature of how individuals interact within communities and how such interactions create context for enabling behavior. The province of ethnography, rehabilitation, counseling, anthropology, and mass marketing may provide a new "lense" from which to view our efforts in health promotion particularly as technology is reshaping the ways in which we form and interact in communities.

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Selected Abstracts

The Behavior Change Consortium: setting the stage for a new century of health behavior-change research.

Ory MG, Jordan PJ, Bazzarre T.

The Behavior Change Consortium (BCC), a collective of 15 National Institutes of Health-funded behavior-change projects, was conceived with the goal of evaluating the efficacy and effectiveness of novel ways of intervening in diverse populations to reduce tobacco dependence, and improve physical activity, nutrition and other health behaviors. The purpose of this article is to provide a general introduction and context to this theme issue by: (1) reviewing the promises and chal-

lenges of past efforts related to promoting change for three key health behaviors; (2) reviewing successful intervention strategies and principles of health behavior change; (3) discussing major theoretical approaches for obtaining successful behavior change; (4) setting BCC activities within the context of recent recommendations for the behavioral and social sciences; and (5) providing an organizational framework for describing each of the projects within this consortium. In addition to the rich database on behavioral outcomes for tobacco dependence, physical activity and diet, the BCC represents a unique opportunity to share data and address cross-cutting intervention research issues critical for strengthening the field of behavior change research.

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Increasing social capital via local networks: analysis in the context of a surgical practice.

Thakur A, Yang I, Lee MY, Goel A, Ashok A, Fonkalsrud EW.

The relationship between social capital (support, trust, patient awareness, and increased practice revenue) and local networks (university hospital) in communities has received little attention. The development of computer-based communication networks (social networks) has added a new dimension to the argument, posing the question of whether local networks can (re-)create social capital in local communities. This relationship is examined through a review of the literature on local networks and social capital and a surgeon's practice management from 1990 to 2001 with respect to repair of pectus chest deformities. With respect to pectus repair there was a consistent but small number of new referrals (15-20 new patients/year), lack of patient awareness (eight to 12 self-referred patients/year), and modest practice revenue. Since the inception of an Internet website (social network) dedicated to pectus repair in 1996 there has been increased social participation (n = 630 hits/year to the website); facilitation of spread of information through E-mail messages (n = 430 messages/year); and a greater participation of groups such as women, minorities, adults, and those with disability (n = 120 patients/year). The dissemination of information via the local network has also allowed an "outward movement" with increased participation by interconnecting communities (n = 698,300 global Internet participants based on statistical ratios). We conclude that local networks have enhanced social networks providing new grounds for the development of relationships based on choice and shared interest.

Am Surg 2002 Sep;68(9):776–9.

Community of Communities: an electronic link to integrating cultural diversity in nursing curriculum.

Ryan M, Ali N, Carlton KH.

The inclusion of principles of diversity in nursing education has yet to reach expected levels of common understanding and value. Integration of human diversity is an expected outcome based on essentials for professional nursing education by the American Association of Colleges of Nursing. This article describes one approach that used electronic networking to integrate cultural diversity content into a graduate nursing curriculum. Regional networking among schools of nursing about cultural diversity resulted in the Community of Communities (COC) web page. The COC is a common electronic network that contains information and case studies based on a cultural assessment model. Modules in on-line courses are linked to a cultural module in the COC. Several applications are described herein. The COC modules were evaluated to determine if participants gained knowledge and insight into another culture. Findings suggested that students perceived that the COC modules increased the awareness culture plays in health care.

J Prof Nurs 2002 Mar-Apr;18(2):85–92

Receiving social support online: implications for health education.

White M, Dorman SM.

Online support groups are expanding as the general public becomes more comfortable using computer-mediated communication technology. These support groups have certain benefits for users who may not be able to or do not have the desire to attend face-to-face sessions. Online support groups also present challenges when compared to traditional face-to-face group communication. Communication difficulties may arise resulting from lack of visual and aural cues found in traditional face-to-face communication. Online support groups have emerged within health care as a result of the need individuals have to know more about health conditions they are confronting.

The proliferation of these online communities may provide an opportunity for health educators to reach target populations with specific messages. This paper reviews the development of health-related online support groups, examines research conducted within these communities, compares their utility with traditional support groups and discusses the implications of these groups for health education.

Health Educ Res 2001 Dec;16(6):693–707.

Who uses self-care books, advice nurses, and computers for health information?

Wagner TH, Hibbard JH.

OBJECTIVES: While evaluating the effect of a community-wide informational intervention, this study explored access, health, and demographic factors related to the use of medical reference books, telephone advice nurses, and computers for health information. METHODS: A random sample of households in the intervention city (Boise, Idaho) and two control cities were surveyed about their use of health information in 1996. Shortly thereafter, the Healthwise Communities Project (HCP) distributed health information to all Boise residents. A follow-up survey was conducted in 1998. Overall, 5,909 surveys were completed for a 54% response rate. RESULTS: The HCP intervention was associated with statistically significant increases in the use of medical reference books and telephone advice nurses. The increased use of computers for health information was marginally significant. Few access, health, or demographic factors were consistently associated with using the different resources, except that people with depression used more of all three information resources, and income was not a significant predictor. CONCLUSION: Providing free health information led to an increase in use, but access, health, and demographic factors were also important determinants. In particular, poor health status and presence of a chronic illness were associated with health information use. These results suggest that healthy consumers are less interested in health information, and it may take other incentives to motivate them to learn about prevention and healthy behaviors.

Int J Technol Assess Health Care 2001 Fall;17(4):590–600

Taking telehealth to the bush: lessons from north Queensland.

Watson J, Gasser L, Blignault I, Collins R.

Networking North Queensland (NNQ) was a two-year project to improve access to health services in rural and remote communities. The project involved email and Internet access in 61 communities, in a region almost three times the size of the UK. Videoconferencing equipment was also installed at 21 sites and a total of 197 h of videoconferencing was recorded at 10 of the remote sites over 12 months. As a result of the project, health consumers enjoyed improved access to medical, specialist, allied health and primary health services. In addition, health service providers had better access to reliable, up-to-date healthcare information via intranet and Internet services. Consideration of local issues—local needs and existing resources—was vital to the achievements of the project. Community involvement and community access were also important factors in its success.

J Telemed Telecare 2001;7 Suppl 2:20–3

A learning theory perspective on lapse, relapse, and the maintenance of behavior change.

Bouton ME.

Behavior change processes studied in the learning laboratory, such as extinction and counterconditioning, do not involve destruction of the original learning. Instead, they often result in new behavior that is strongly dependent on the current context, whether provided by external cues, internal state, recent events, or time. Lapse and relapse effects may therefore occur after various manipulations of the context. Theory and preliminary evidence suggests that long-term maintenance of changed behavior may be promoted by a number of factors, including situating the new learning in the most relevant contexts, providing retrieval cues after the new learning is complete, and varying the contexts in which the new learning takes place. Furthermore, because original learning is often more context free than the learning that replaces it, the most efficient way to reduce risk behavior in the general population may be to find ways to ensure that healthy behaviors and attitudes are learned first.

Health Psychol 2000 Jan;19(1 Suppl):57–63.