E-Health: How to Make the Right Choice

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TOPIC. The online health promotion phenomenon is a pivotal movement toward consumer empowerment. The challenges for the 21st century are to create meaningful, accurate online health communication interventions that successfully change behavior and improve health.

PURPOSE. The Internet is a valuable tool for health promotion, self-care tools, and decision aids components for a high-quality care. The nurse educator ensures e-health sites used meet the criteria for achieving optimal wellness for the consumer.

SOURCES. Published literature.

CONCLUSIONS. It is crucial for nurses to use reputable e-health sites for consumer engagement and education. Researchers and practitioners are exploring the phenomenon of e-health to gain a better understanding of how to engage these consumers in health behavioral change programs.

Search terms: Health behavior, health education, Internet

The transformation of health care into the next generation of a technology-rich environment is a challenge for the twenty-first century. The Internet is a valuable tool for nurses to promote consumer partnerships with self-care tools and decision aids components for high-quality care (Korp, 2006). It provides a new modality for outreaching the consumer and also enables online searches for health information. Engaging the consumer to become more involved in their own treatment and care can be accomplished by the health information (e-health). The e-health phenomenon impacts the relationship between nurse educator and the consumer. The consumer becomes a partner in managing their health and the nurse facilitates the learning process (Bastable, 2002).

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The vision for high-quality, safe, and efficient health care includes the e-health sites. The Healthy People 2010 focus on the quality of Web sites, health literacy, quality of interactions with providers, interventions, research, and evaluation of these programs (U.S. Department of
Health and Human Services, 2000). Nurses are concerned regarding the quality, accuracy, and the currency of e-health sites used for consumer education and as healthcare resource. The purpose of this article is to provide nurses with criteria on choosing the right e-health site to promote optimal wellness for the consumer.

Who Are the E-Health Users?

A study performed by the Pew Foundation estimates that 50% of Americans use the health Web sites for informed health decisions and 48% improved the way they take care of themselves. Another 92% found the information useful and 81% learned something new (Fox & Rainie, 2000). Subsequent findings in 2005 revealed that eight in 10 Internet users have looked for information regarding diet, fitness, drugs, health insurance, experimental treatments, and particular doctors and hospitals. The online health searchers are most likely women, Internet users younger than 65 years, college graduates, experienced users, and those with broadband access. The searches performed by 59% of women users have read up on topics such as nutrition compared with 43% of male users. According to Korp (2006), a Boston consulting group found that those with serious health needs were frequent users of online health sites.

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A Pew Foundation study confirmed that searching information is routine “in 55% of households with broadband connections. Home broadband has joined educational attainment, household income and age as the strongest predictor of internet activity” (Horrigan, 2008). Adults online access outside of home or work is (23%), at school (27%), other homes (26%) and libraries (26%). These users were of two types: those who connect from wherever they are and the poor who are dependent on places other than work or home for access (Harwood & Rainie, 2004).

Engagement of the E-Health Users

The use of the Internet for health promotion (e-health) has grown to 93 million Americans (Fox & Rainie, 2000). Reflecting the phenomenon are more than 1 billion Web pages on a variety of topics (Bastable, 2002). Researchers and practitioners are exploring the phenomenon of e-health to gain a better understanding of how to engage these consumers in health behavioral change programs. Engagement refers to a consumer’s participation in accessing, receiving, and continuing medical treatment as well as actively participating in disease management decisions. Nurturing consumer engagement will contribute to personal well-being, satisfaction with healthcare services, and self-efficacy or a sense of personal empowerment (Duffett-Leger, Paterson, & Albert, 2008).

It is crucial for nurses to use reputable e-health sites for consumer engagement and education. The use of credible e-health sites is important for several reasons (Bastable, 2002):

1. The large volume of consumers already searching the sites for health information: the nurse needs to be aware of the information on the sites to direct the assessment of consumers in identifying their learning needs.
2. Nurses must be aware of the consumer literacy skills: these can include lack of familiarity with computers, lack of skills for searching information, and inability to interpret and use content.
3. The nurse has information at his or her fingertips: this provides the opportunity to attract a large volume of consumers. These sites should prove credible to be beneficial to the consumer.

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Evers et al.’s review of 37 Web sites on health behavior change for disease prevention and management found areas of deficiency. A concern for a nurse health educator is the lack of evidence-based theory and individualized empirical tailoring (Evers et al., 2003). A tailored intervention is defined as “any combination of information or change” strategies intended to reach a specific consumer, related to the outcome of interest, and derived from individualized assessment (Duffett-Legar et al., 2008). The nurse interventions aimed at empowering consumers as partners in their care should follow principles of self-management. The nurse educator’s expanding role includes concepts of self-efficacy, stages of change, and motivational coaching. Lifestyle changes are the most difficult to make. If behavior changes are to be sustained, Web sites for health promotion and disease management must incorporate a theoretical model (Schenk & Hartley, 2002).

Theoretically Based E-Health

E-health interventions should be guided by evidence-based “best practices” adjunct to the consumer learning needs. A theoretical foundation incorporated into e-health supported with known concepts about health behaviors and Internet engagement is recommended (Duffett-Legar et al., 2008). Specific content is provided to consumers based on demographic and behavioral features. Theory can be applied to change aspects of different target behaviors (Evers et al., 2003). Tailoring theoretically derived online interventions enhances consumers’ engagement in making health behavior changes. The expanding role of a nurse educator’s use of e-health to promote health behavior change leads to integration of the cognitive models (Duffett-Legar et al., 2008). Several well-known cognitive models can be applied to e-health, but only the transtheoretical model (TTM) will be explored.

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The TTM, sometimes called the Stages of Change Model, describes an individual’s readiness to adopt a specific health behavior. A lifestyle change requires the individual to view wellness as important, achievable, and optimized. The TTM is composed of five stages of change to promote health by using the individual’s...
perception of personal health and risk of future illness as the focal point (Schenk & Hartley, 2002). The stages are dynamic, with individuals moving between them, depending on their individual circumstances.

**Stages of Change Model (Pro-Change Behavior Systems, Inc, 2008)**

**Stage 1: precontemplation (not ready).** Consumers at this stage do not intend to start the healthy behavior in the near future (within 6 months) and may be aware of the need to change. Consumers here learn more about healthy behavior and are encouraged to think about the pros of changing their behaviors and to feel emotions about the effects of their negative behavior on others. They are encouraged to become more mindful of their decision making and more conscious of the multiple benefits of changing an unhealthy behavior.

**Stage 2: contemplation (getting ready).** At this stage, consumers are intending to start the healthy behavior within the next 6 months. While they are usually now more aware of the pros of changing, their cons are about equal to their pros. This ambivalence about changing can cause them to keep putting off their actions.

**Stage 3: preparation (ready).** Consumers at this stage are ready to start taking action within the next 30 days. They take small steps that they believe can help them make healthy behavior a part of their lives. During this stage, consumers are encouraged to seek support and think about how they would feel if they behaved in a healthier way.

**Stage 4: action.** Consumers at this stage have changed their behavior within 6 months, and need to work hard to keep moving ahead. These consumers need to learn how to strengthen their commitments to change and to fight urges to slip back.

**Stage 5: maintenance.** Consumers at this stage changed their behavior more than 6 months ago. It is important for people in this stage to be aware of situations that may tempt them to slip back into doing unhealthy behavior, especially during stressful times.

The nurse educator must find health information for consumers at their level of readability and comprehension to ease the progression through these stages. Providing accurate and complete health information will lead to informed decision making. The nurse helps consumers to access, evaluate, and engage in discussions about e-health information (Bastable, 2002). Self-efficacy results from the ability to solve problems after searching for health information (Schenk & Hartley, 2002). Web-based health promotion interventions need to be relevant and functional for specific consumers. The nurse educator’s choice of a reparable e-health site needs to be guided by criteria to enhance the learning environment.

**Criteria for Choosing an E-Health Web Site**

Since guidelines are absent for health behavior change programs, the increasing number of health sites will require evaluation criterion (Evers et al., 2003). The impact of e-health has changed the traditional learning environment and the roles of the nurse educator (Bastable, 2002). The partnership between consumer and nurse creates a mutual respect for the knowledge and skills that both bring to a situation (Schenk & Hartley, 2002). Consumers are encouraged to increase their capacity to evaluate different information sources in relation to their own interest and needs (Korp, 2006). An established guideline for e-health sites would prove beneficial for both the nurse and the consumer.

A Robert Wood Johnson Foundation study identified and screened 273 Web sites using several criteria to determine whether the sites meet the minimal requirements for having the potential to change behavior. This revealed 37 Web sites on health behavior change for disease prevention and management met four of the five criteria. The five “A”s were used to measure effective health behavior change interven-
The five “A”s were used to measure effective health behavior change interventions on the Internet. The “A”s are advise, assess, assist, anticipatory guidance, and arranged follow-up.

The components needed to evaluate quality e-health sites will be discussed. Evers et al. (2003) describes the 5 “A”s as:

1. **Advise** is the relevance for the specific behavioral change: is the purpose of program intervention clearly stated and is the need to changed identified?
2. **Assess** evaluates for multiple factors that may impact behavioral change: is the assessment a reliable tool, what is the purpose, source, and the scientific basis of the assessment?
3. **Assist** is the feedback given based on responses to the assessments: is it a tailored intervention with individualized strategy to assist the consumer in meeting the recommendations? How many assist choices can consumers access? It includes bulletin board, self-monitoring, online expert advice, links to related sources, and e-mail reminders or newsletters.
4. **Anticipatory guidance** is engaging the consumer to stay motivated, manage temptation, and avoid a relapse of unhealthy behaviors: are these components present?
5. **Arranged follow-up** is staying in touch with the consumers: are reminders so consumers stay updated with the program sent? Are scheduled time frames offered? Are consumers encouraged to continue with the program?

Evers et al.’s (2003) health behavior change programs were also reviewed for not being previously discussed:

1. The **interactivity** of a site confirmed Ferney and Marshall’s (2006) findings on behavior change interventions and consumers preferences. This includes tools for self-report progress charting and goals setting. For support tools from e-mail, ask the expert and newsletters.
2. The **security** of a site in preventing unauthorized access.
3. The **confidentiality** of health sites must post privacy policy statements for consumers.
4. The **accountability** sites list contact information for consumers.
5. The **evaluation** tool allows consumers to provide feedback on the health behavior.

A noteworthy comment for the nurse educators regarding the components mentioned is that the list does not assure efficacy for the behavior change. This provides the minimal criteria needed for the potential for change to occur (Evers et al., 2003). Another important aspect of e-health review is determining the currency of the information. Nurse educators need to look for a creation or modification date or other signs for currency of the information (Bastable, 2002).

**Conclusion**

The importance of establishing guidelines for higher standards on e-health behavioral programs cannot be understated. E-health is a growing phenomenon that
can be used as a vehicle to bridge the gaps in health care. Consumers face challenges in comprehending the increased complexity of a fragmented healthcare system. How to obtain information on staying healthy, supported by a nurse educator using e-health sites, can alleviate many concerns for consumers.

Consequential to the e-health phenomenon is the changing relationship between nurse educator and consumer into a partnership in achieving optimal wellness. The consumer trend of searching online for health information needs to be meaningful, with the capacity for behavioral changes. Several components of what an e-health site should include are discussed; however, these criteria are minimal requirements for behavioral changes. This indicates that more research on the efficacy of the behavioral change programs is needed.

There is a lack of sufficient data for how consumers will engage with the Internet for behavior change programs (Duffett-Legar et al., 2008). Further exploration is needed on how cognitive theories developed before e-health sites became a teaching tool and made the conversion to technology. Multiple areas for future research can be identified such as how behavioral health outcomes are impacted when nurse educators use repairable e-health sites to enhance learning. The evolution has begun with the nurse educator leading the way to a technology-rich learning environment by empowering the consumer.

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References


