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Media Literacy and Health Promotion for Adolescents

Lynda Bergsma

College of Public Health, University of Arizona, Tucson, AZ, USA

Introduction

The mass media rank among the most important socialization agents influencing the health behaviors of today's youth, with some researchers estimating that youth spend 33-50% of their waking hours with some form of media (Strasburger and Wilson 2002). The impact of the media on health and the large amount of time adolescents spend with media make it critical to address related health concerns, especially because adolescents' developing brains are not adequately equipped to critically analyze and interpret the large number of mixed messages about health that they receive from the media. This essay examines the young field of health-promoting media literacy education research among youth, including theoretical foundations, issues of pedagogical approach and measurement, and recommendations for advancing the field in the next ten years.

The Adolescent Brain Response to Media Messages

Advances in developmental neuroscience show that heightened risk taking among adolescents results from the interaction of two brain networks. The first is the socio-emotional network that is particularly sensitive to social and emotional stimuli, such as those coming from rapid, exciting, visual media images. This network is located in the limbic area of the brain that is well-developed by early adolescence and becomes abruptly assertive on the brain at the onset of puberty. The second network is the cognitive-control network that regulates the executive functions of thinking ahead, planning, and self-regulation – those functions necessary to assess risk and make healthy decisions. This network is located largely in the neocortices of the brain and it matures gradually over adolescence and young adulthood, largely independent of puberty (Steinberg 2007).

Risk taking can be viewed as the product of a competition between the socio-emotional network and the cognitive-control network (Drevets and Raichle 1998). It is the lack of cross-talk between the two networks that results in adolescents acting on gut feelings without fully thinking. According to Steinberg (2007) "More than 90% of all American high-school students have had sex, drug, and driver education in their schools, yet large proportions of them still have unsafe sex, binge drink, smoke cigarettes and drive recklessly (often more than one of these at the same time)." Clearly, traditional educational/informational strategies are not enough to prevent unhealthy behaviors among adolescents. What is needed is a strategy founded on developing critical thinking to encourage greater cooperation/cross-talk between the two networks of the brain, starting early in adolescence. Health-promoting media literacy education is such a strategy.

Health-Promoting Media Literacy Education Research

Over the past 30 years, a small body of research on the effectiveness of health-promoting media literacy education has emerged, although the studies have been conducted with more or less rigor, achieved differing results, and many questions about effectiveness remain to be answered (Bergsma and Carney 2008).

Theoretical Foundations of Health-Promoting Media Literacy Education

There is currently no commonly accepted theory of health-promoting media literacy education, although Austin's "Message Interpretation Process" model, which posits that children interpret media messages through a process that incorporates both logical decision-making and emotional processing, has been used as the basis for a number of studies (Austin, Roberts and Nass 1990; Austin and Johnson 1997).

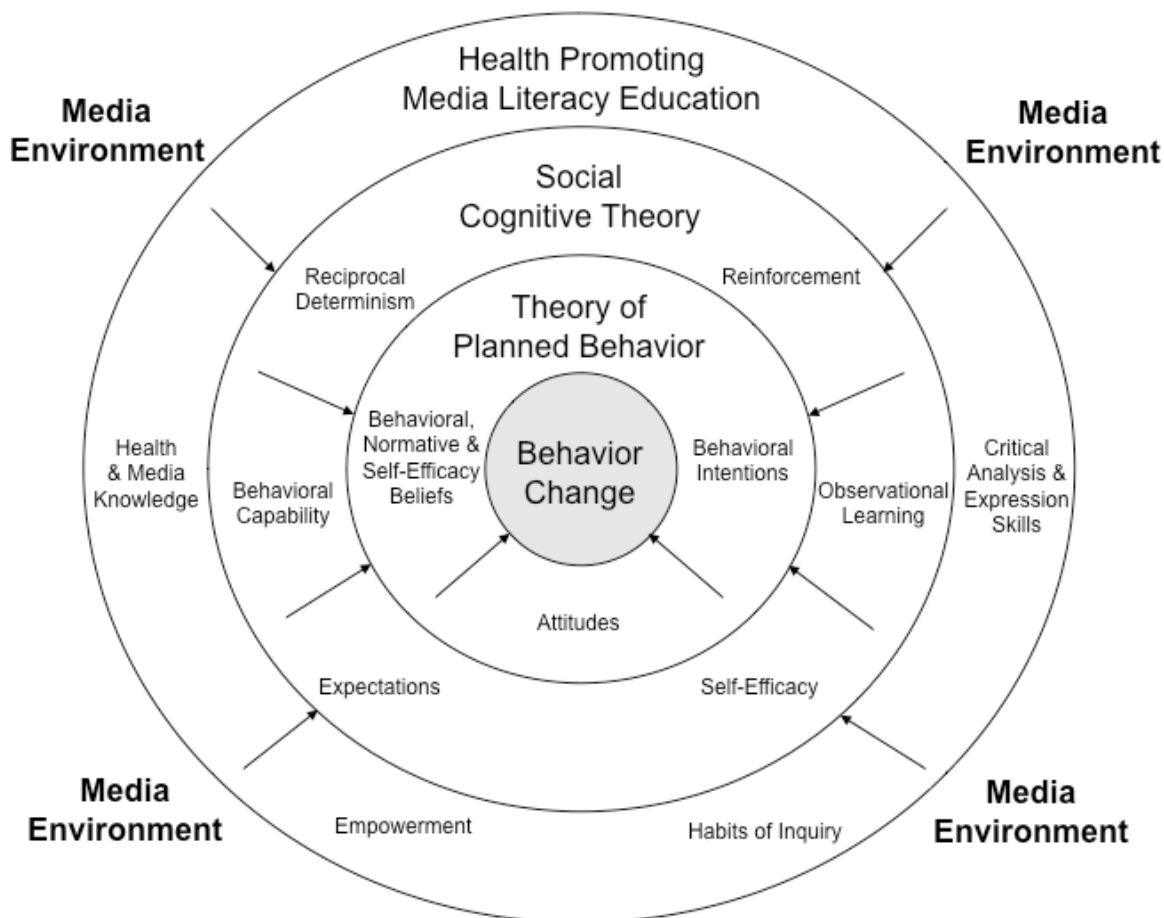
In an attempt to build a model of health-promoting media literacy education from a health promotion/health behavior, ecological perspective, Bergsma and Ferris (2011) have drawn from a combination of the Theory of Planned Behavior (TPB), in which a causal chain of beliefs, attitudes, and behavioral intentions drives behavior at the individual level, and Social Cognitive Theory (SCT) which explains that people are learning at the interpersonal level not only from their own experiences, but by observing the actions of others and the benefits of those actions (Glanz and Rimer 2005). SCT and TPB both contain the behavioral construct of self-efficacy or perceived locus of control, which falls within the category of individual empowerment.

Constructs of Health-Promoting Media Literacy Education

From a public health perspective, Bergsma (2004) shows that the pedagogical links between health promotion and media literacy can be traced to Freire’s (1970, 1973) empowerment education model. In addition to empowerment, three other constructs must be included within a health-promoting media literacy education intervention to change beliefs, attitudes, intentions, and behaviors. These include: 1) *knowledge about the media and the health issue* (Bergsma and Carney 2008), 2) *habits of inquiry*, and 3) *critical analysis and expression skills* (National Association for Media Literacy Education 2007).

Figure 1 presents a model for achieving behavior change in which the four constructs of health-promoting media literacy education act as buffering influences between the media environment in which one lives (outside the model) and the behavioral change constructs of the TPB and SCT.

Figure 1: Integrated Individual and Interpersonal Health-Promoting Media Literacy



Pedagogical Approach

Many of the studies on the effectiveness of health-promoting media literacy education conclude that media literacy education has significant potential to promote healthy knowledge, attitudes, and merits further study. Several questions remain, however, regarding which variables (e.g., length of intervention, age of participants, and type of instructor including peer-educators, researchers, or classroom teachers) contribute more or less to the effectiveness of health-promoting media literacy education (Bergsma and Carney 2008). One variable that is seldom examined is pedagogical approach. While the studies provide considerable information on what the intervention taught, they provide little, if any, information on how the intervention taught it. Yet successful health-promoting media literacy education results not so much from what is taught as how it is taught (Bergsma and Carney 2008), and as outlined in the *Core Principles of Media Literacy Education* (National Association for Media Literacy Education 2007), media literacy education must be grounded in inquiry-based, process-oriented pedagogy. Unfortunately, whether the pedagogical approach used in most published studies is one of inquiry or indoctrination is unclear. To greatly enhance the field of research on health-promoting media literacy education, future studies must provide more reliable information on the pedagogical approach of the intervention and examine it as a variable that affects outcomes.

Measurement Issues

A recent systematic analysis of health-promoting media literacy education research studies showed that the majority of outcomes involved knowledge and attitudes and revealed less about actually preventing or changing risky health behavior (Bergsma and Carney 2008). Some research suggests that health-promoting media literacy education interventions may be more effective in preventing unhealthy behaviors than changing them once they are established (Neumark-Sztainer, Sherwood, Collier, and Hannan 2000). Although most studies of health-promoting media literacy education interventions include some measure of attitudes and beliefs, measures of behavior are not as prevalent, and those studies that do address behavior change report mixed and sometimes incomplete results. Few studies report any results of change in behavioral intention, even though the Theory of Planned Behavior clearly identifies it as an important precursor to behavior change. In addition, studies often use different scales

to measure behavior change, making it impossible to compare them in any meaningful way. What is needed are more longitudinal studies to measure more concrete behavioral outcomes such as changes in body mass index or changes in daily dietary regimen to include more fresh fruits and vegetables and less processed foods. At the least, changes in behavioral intention should be measured with some follow up attempt to determine if such behavioral intentions become manifest.

In conclusion, more research is needed to examine many aspects of media literacy education that could be responsible for effectiveness, as well as clarify the outcome measures that best demonstrate the efficacy of health-promoting media literacy education. In addition, research that addresses a variety of adolescent public health concerns, like safe driving and increasing physical activity, is greatly needed. Growing the body of rigorous research in this field will help to improve media literacy education and advance it as a useful health promotion strategy for youth.

References

- Austin, E. W., and K. K. Johnson, 1997. "Effects of General and Alcohol-specific Media Literacy Training on Children's Decision-making About Alcohol." *Journal of Health Communication* 2: 17-42.
- Austin, E. W., D.F. Roberts, and C.I. Nass. 1990. "Influences of Family Communication on Children's Television-interpretation Processes." *Communication Research* 17(4): 545-564.
- Bergsma, L.J. 2004. "Empowerment Education: the Link Between Media Literacy and Health Promotion." *American Behavioral Scientist* 48: 152-164.
- Bergsma, L. J., and M.E. Carney. 2008. "The Effectiveness of Health Promoting Media Literacy Education: A Systematic Review." *Health Education Research* 23: 522-542.
- Bergsma, L. J., and E.S. Ferris. 2011. "The Impact of Health-promoting Media Literacy Education on Nutrition and Diet Behavior." In *Handbook of Behavior, Diet and Nutrition*, edited by V. R. Preedy, R. R. Watson & C. R. Martin, 3391-3411. Berlin, Germany: Springer Sciences+Business Media.
- Drevets, W. C., and M.E. Raichle. 1998. "Reciprocal Suppression of Regional Cerebral Blood Flow During Emotional Versus Higher Cognitive Processes: Implications for Interaction Between Emotions and Cognition." *Cognition and Emotion* 12: 353-385.
- Freire P. 1970. *Pedagogy of the Oppressed*. New York,

NY: Continuum.

Freire P. 1973. *Education for Critical Consciousness*.

New York, NY: Continuum.

Glanz, K., and B.K. Rimer. 2005. *Theory at a Glance:*

A Guide for Health Promotion Practice. (2nd ed.).

Washington, DC: National Cancer Institute, National Institutes of Health, U.S. Department of Health and Human Services.

National Association for Media Literacy Education.

2007. "Core Principles of Media Literacy Education in the United States." [http://namle.net/wp-content/uploads/2009/09/NAMLE-CPMLE-w-](http://namle.net/wp-content/uploads/2009/09/NAMLE-CPMLE-w-questions2.pdf)

[questions2.pdf](http://namle.net/wp-content/uploads/2009/09/NAMLE-CPMLE-w-questions2.pdf)

Neumark-Sztainer, D., N.E. Sherwood, T. Collier, and

P.J. Hannan. 2000. "Primary Prevention of Disor-

dered Eating Among Preadolescent Girls: Feasibil-

ity and Short-term Effect of a Community-based Intervention." *Journal of the American Dietetic Association* 100(12): 1466-1473.

Steinberg, L. 2007. "Risk Taking in Adolescence:

New Perspectives from Brain and Behavioral Science." *Current Directions in Psychological Science* 16(2):55-59.

Strasburger, V., and B. Wilson. 2002. *Children, Ado-*

lescents, and the Media. Thousand Oaks, CA: Sage Publications.