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Media Literacy and Health Education: What's the Prognosis?

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Media Literacy and Health Education: What's the Prognosis?

Kelly Mendoza

Abstract

An extensive review of literature for media literacy and health education is explored. The author defines media literacy and health education, discusses their roots in America, and examines the research on media literacy as an educational tool for health-related issues of drugs, alcohol, tobacco, body image, obesity, nutrition, eating disorders, illness, and sex, particularly in school curriculum for children, adolescents, and teens. Findings indicate a lack of cohesiveness in the research, and suggest a need for more consistent scholarly research.

Keywords: media literacy; health education

Living in a media-saturated society, there is no doubt that individuals, particularly young people, are inundated with media messages in their day-to-day lives. According to the Kaiser Family Foundation (1999), in the United States children on average spend 5.5 hours per day, outside of school work, engaging with media (such as television, internet, radio, magazines, newspapers, CDs, DVDs, books, video games). Three hours each day are spent watching television, and at this rate by the time a person reaches the age of 75 he or she will have spent nine full years of watching TV and two years watching TV advertisements (Kubey, 1998, 2004, 2005). People are entertained and informed by the media, but they also get information about social roles, ideals, and values from them. The media serve as a socializing agent, supplementing the influence of schools, parents, and religion in providing guidance about social roles, norms, attitudes, and behavior (Brown, 1998; Brown, Schaffer, Vargas, & Romocki, 2004; Galician, 2004a; Silverblatt, 2004; Thoman & Jolls, 2004). A part of the socialization of media is informing people, youth in particular, about health-related norms and behavior. In a survey of 12-19 year olds, Hampl, Wharton, Taylor, Winhma, Block, and Hall (2004) found that television's focus on sex appeal, thinness, and alcohol have a powerful impact on adolescents' self-esteem, body satisfaction and health behaviors. The media inform youth about health issues by either positively educating them about healthy decisions, or glamorizing unhealthy behavior such as violence, irresponsible sex, junk food, drugs, and alcohol (Heins & Cho, 2003; Rogers, 1996).

Health education, the process by which people learn to behave in a way that promotes, maintains, and restores health, helps young people develop responsibility for the health of themselves and their communities (Simons-Morton, Greene, & Gottlieb, 1995). Included in the curriculum of most schools is health education about emotional health and positive self image, care for one's body, physical fitness, alcohol, tobacco, and drug abuse, health misconceptions, nutrition and weight control, sexual relationships, disease, and safety (Simons-Morton et al., 1995). The influence of mass media on culture and health-related behaviors of youth has prompted health educators and health promotion practitioners to turn toward media literacy approaches. Media literacy is an educational approach that teaches people, youth in particular, to question media messages and examine about how they might be influenced by the media, and this approach is being combined with health education in teaching youth about healthy attitudes and behaviors. The Carnegie Council on Adolescent Development (1995) advocated that media literacy "may help protect young adolescents

against strong advertising pressures to smoke, drink, have sex or eat unhealthy foods" (p. 118).

Media literacy is an umbrella concept that encompasses different educational principles, philosophies, theories, methods, and goals, and advocates define it in a multitude of ways (Hobbs, 1998; Kubey, 1998; Zettl, 1998). The most widely used definition of media literacy emerged from the participants of the 1992 National Leadership Conference on Media Literacy, who defined the concept as the ability "to access, analyze, evaluate and communicate messages in a variety of forms" (Aufderheide, 1993, p. xx) and affirmed that "a media literate person . . . can decode, analyze, and produce both print and electronic media" (Aufderheide, 1997, p. 79). Based on models from British, Australian, and Canadian educators, they agreed that media literacy should include the following concepts:

1. media messages are constructed;
 2. media messages are produced within economic, social, political, historical and aesthetic contexts;
 3. the interpretative meaning-making processes involved in message reception consist of an interaction between the reader, the text and the culture;
 4. media have unique "languages," characteristics which typify various forms, genres and symbol systems of communication;
 5. media representations play a role in people's understanding of social reality.
- (Aufderheide, 1993, p. 2)

Variations of these concepts have been adopted by major media literacy advocates such as the Center for Media Literacy, the Alliance for a Media Literate America, and the National Telemedia Council (Considine, 2002). Media literacy education is more about education than about media; it expands literacy to include reading and writing through new communication tools and offers a new way to learn through an "inquiry-based, process-oriented pedagogy" (Thoman & Jolls, 2004, p. 21; Tyner, 1998). Most advocates agree that critical inquiry, the asking of questions about media texts, is (as Hobbs, 1998, p. 27, described) the "center pole of the media literacy umbrella" and that critical inquiry is the foundation of media literacy pedagogy (Alvermann & Hagood, 2000; Brown et al., 2004; Hobbs; Pailliotet, Semali, Rodenberg, Giles, & Macaul, 2000; Rogow, 2004; Silverblatt, 2004; Thoman & Jolls; Tyner). Applications of critical thinking skills to assess both the production and content of media messages serve as the foundation of media literacy principles.

The movement of media literacy education has been growing for 30 years (Kubey,

1998, 2004) and substantial progress and implementation has been made in the past 15 years abroad in English speaking countries such as the United Kingdom, Canada, and Australia (Alvarado & Boyd-Barrett, 1992). Media literacy has been established for all or part of K-12 education in these countries (Buckingham, 1998; Considine, 2002; Galician, 2004; Kubey, 1998, 2004). Unfortunately, the United States lacks a standardized nationwide implementation of media literacy education (Tyner, 1998). State standards are vague and inconsistent, and they do not enforce implementation, quality, or systematic assessment (Considine, 2002; Kubey, 2004; Thoman & Jolls, 2004). The National Communication Association (1996), (NCA), is the only organization to attempt a national certified standardization of media literacy education. Of the NCA's 23 standards presented for K-12 education, two (standard 22 and 23) apply to media literacy (Christ & Potter, 1998). The implementation of the NCA standards in K-12 or higher education curricula has not yet been examined. Then again, media literacy standards may have to begin from the micro level to the macro level, starting as a grassroots movement on behalf of educators who incorporate media literacy concepts into their curriculum, and hopefully working towards systemization (Hobbs, 1998).

Health educators have been leaders in media literacy, especially in the United States, because they believe that media literacy can help empower youth from passive spectators of media to active, self-governing citizens (Center for Media Studies, 2001).

Yet there is no review of the literature that has looked extensively at the state of media literacy and health education today. This review will look at media literacy-specific approaches, because although other health education approaches may include a focus on media, a media literacy approach is a unique one due to its core fundamental of critical thinking and its widely used five concepts as guiding principals for curriculum development (Aufderheide, 1993). In addition, because media literacy education is targeted mainly at youth, much of the following discussion will focus on children, adolescents, and teens, although there are some exceptions of research with adults.

The review will be split into two halves: history and research. The first half, history, will cover the history of media literacy and health education, discuss advocacy, and share the maturity of developments in organizations and curriculum. In the second half, research, the review will cover research in media literacy and health education in the areas of alcohol, tobacco, and drugs, body and nutrition, and sex and sexuality. Finally, a critical

evaluation of the literature will reveal avenues of future research in the areas of media literacy and health education.

Theoretical Review: History

In order to understand the state of media literacy and health education today, the beginnings of the partnership between the two should be considered. Examining the history of the development of these two fields, a call for advocacy from scholars and practitioners, and maturity development and curriculum from different organizations will provide a better foundation on which to analyze the specific research that has been done.

History

Although there were prior educational developments in media literacy, such as the Aspen Institute conference in 1992 where media literacy was defined, the connection between media literacy and health education was promoted in 1994 when President Clinton signed the “Goals 2000: Educate America Act” which served to review and certify state standards for educational content and student performance. This act provided more than \$400 million in funding to state and local school districts to develop education and performance standards in core subjects, and standards in the arts included media literacy concepts at K-12 levels (Heins & Cho, 2003). However, these standards were voluntary and media literacy implementation varied in schools. The federal government approached media literacy with a protectionist stance—it wanted to inoculate adolescents against unhealthy media messages in areas such as sexuality, violence, nutrition, body image, and alcohol, tobacco, and drugs.

In 1995, more than 300 scholars and activists met for the first expansive conference on media literacy, organized by the National Telemedia Council, held at Appalachian State University in North Carolina (Heins & Cho, 2003). Drug-prevention officials from the White House attended, and a post-conference meeting nurtured their cooperation with media literacy advocates.

Then in 1996, the Office of National Drug Control Policy brought together 75 substance abuse leaders and media literacy educators for a day to discuss the potential of media literacy as a method of substance abuse prevention (Center for Media Studies, 2001). This led to the Center for Substance Abuse Prevention, in 1997, to provide grants for several pilot projects that used media analysis and production in health prevention work with young people in schools and communities. The Centers for Disease Control and Prevention and Office of Smoking and Health in 1998 launched Media Sharp, a school curriculum for teens

that analyzed tobacco marketing (Centers for Disease Control and Prevention, n.d.). In this same year a conference of 400 media practitioners, educators, and public health officials met at the first National Media Education Conference under the theme, “Media Education: A Paradigm for Public Health.” Out of this conference grew the Partnership for Media Education (PME), which later evolved into the Alliance for a Media Literate America (ALMA), one of the leading organizations advocating media literacy today.

In 2000, a conference at the Center for Media Studies at Rutgers University, New Jersey, brought together leading media education and public health researchers who mapped future directions for research. Also in this year, the U.S. Department of Education began funding pilot projects using arts and media literacy to address violence issues in impoverished communities. The White House Office of National Drug Control Policy brought together leading health educators and media literacy experts to identify guidelines for media literacy and drug abuse prevention initiatives in 2001 (Office of National Drug Control Policy, 2001). The goals that came from this conference were to support media literacy and health practitioners, educate key decision-makers, and to make research in the effectiveness of media literacy and health interventions a priority (Center for Media Studies, 2001). A year later in 2002, the White House released a policy statement in support of media literacy education in teaching youth about drugs and alcohol. In this statement they moved from a more protectionist, media-bashing stance to recognizing the importance of media literacy in fostering critical thinking and healthy self esteem (Heins & Cho, 2003). Overall, the history of media literacy has been closely connected with health education and prevention.

Advocacy

Many organizations have advocated that media literacy can be an effective vehicle to teach health promotion and developed programs. In 1997, the American Academy of Pediatrics created a “Media Matters” campaign that provides educational resources for doctors and parents to become aware of the influence that media have on child development. They focused on the potential negative impact of media representations of tobacco, alcohol, and other drugs, aggression and violence, sex and sexual exploitation, obesity, and poor nutrition (American Academy of Pediatrics, 2005). One of their recommendations is that “pediatricians should encourage parents, schools, and communities to educate children to be media literate as a means of protecting them against deleterious health effects of media exposure” (American Academy of Pediatrics, 2001, p. 1224). Even though there has been

increasing awareness by pediatricians of the media's influence on children, less than one-third of pediatric residency programs in the United States teach future doctors about media exposure (Rich & Bar-on, 2001). Advocacy is needed by pediatricians and parents to work together teach health issues through media literacy to youth (Bar-on, 2000).

In addition to pediatricians, health educators in schools and communities found that media literacy can easily include aspects of health promotion because both movements have commonalities (Bergsma, 2004; Center for Media Studies, 2001; Gonzales, Glik, Davoudi, & Ang, 2004; Rich, 2004). For instance, both fields embrace the approaches of empowerment education and systemic change. Media literacy and health education programs that embrace empowerment education, a way for students to enact control and agency in their lives, can be effective in promoting personal and social change (Bergsma, 2004; Igoe, 1991; Wallerstein, 2002). Bergsma (2004), in an extensive review of the literature on health prevention, found that powerlessness is linked to poor health outcomes. She utilized Brazilian educator Paulo Freire's notion of empowerment education and systemic change as the foundation for health promotion and media literacy. Empowerment education is a sense of personal control and a proactive approach to life that "starts with the population to be educated's defining their own problems or issues and progresses through a process by which they develop new beliefs in their ability to influence their personal and social realms" (Bergsma, 2004, p. 154). Assuming that problems lie in the social, economic, and political realms of the system, she calls for systemic change and social action as ways to approach to media literacy and health education. She advocates public health officials and media literacy advocates to work together to fulfill empowerment education.

Furthermore, media literacy advocates have called for a greater inclusion of health education in the field. Yates (1999) discussed the positive role media literacy can have in the five health education-related areas of nutrition, sexual information, alcohol and tobacco, violence, and stress, and concluded that through a media literacy perspective, students learn to critically evaluate health messages. In their comprehensive review of the history of media literacy in America, Heins & Cho (2003) offered policy recommendations to inform the public and policymakers about media literacy education, one of which is, "Media literacy concepts should be integrated into language arts, social studies, visual art, health, and information technology curricula" (p. 1). In a framework for five conceptual approaches to communication, media literacy is one approach (the four others are persuasion, diffusion of

innovations, social marketing, and media advocacy) to health communication in the prevention of alcohol, tobacco, drug abuse among adolescents (Simons-Morton et al., 1997). Other advocates endorse the inclusion of media literacy in public health education, and an inclusion especially of health issues in media literacy (Broz, 2001; Center for Media Studies, 2001; Considine, 1995; Kubey, 2005). In fact, efforts are paying off in the United States, since health educators have been crucial leaders in developing media literacy programs targeted to students aged 11 to 13 (Center for Media Studies, 2001).

Maturity

The development of media literacy and health education as a combined field is maturing. Several government agencies and organizations have supported both fields, and numerous curricula and programs have been developed. Government agencies, who take more of a protectionist rather than empowerment approach, include the Office of National Drug Control Policy, The Center for Substance Abuse Prevention, and Centers for Disease Control and Prevention. These agencies endorse media literacy as a component of youth substance abuse prevention and have sponsored curricula that have been widely implemented but not formally evaluated (Kaiser Family Foundation, 2003). Other supporters included the National Institute on Drug Abuse, the National Highway Traffic Safety Administration, and the Office of Justice Programs in the Department of Justice (Heins & Cho, 2003). Private research foundations such as the Kaiser Family Foundation's Program for the Study of Entertainment Media and Health explore the role that mass mediated messages play in the lives of youth (Kaiser Family Foundation, 2005b).

One of the major undertakers of health promotion has been the New Mexico Media Literacy Project (NMMLP) an advocacy organization that teaches kids to be aware of and resist consumerism and addictive behavior promoted by television advertising. They hold workshops for teachers, parents and community leaders, create curricula, and their mission is to "lead a cultural revolution, a revolution concerned about the health of our children and our democracy" (New Mexico Media Literacy Project, 2005, p. 1). Starting in 1999 NMMLP also implemented a media literacy-based substance abuse prevention curriculum in six middle schools (Heins & Cho, 2005). Along the same lines, organizations such as the Action Coalition for Media Education, Alliance for a Media Literate America, Center for Media Literacy, Just Think Foundation, Media Education Foundation Media Education Lab, Media Literacy Clearinghouse, Project Look Sharp, all promote media literacy as a vehicle for health

education and wellness, and many have created curriculum for teachers, community leaders, parents, and religious leaders in areas of media violence, body image, nutrition, obesity, eating disorders, self esteem, sexual behavior, and drug, alcohol, and tobacco education.

The media literacy and health education movement was legitimized when for instance, a special double issue on the topic of media literacy was published in *American Behavioral Scientist* in September and October of 2004. In the October issue was a section of several articles devoted to media literacy and health, most of which came from an empowerment education perspective. A special issue of *The Journal of Adolescent Health* was published on youth and media, but in contrast, articles were largely protectionist in orientation (Heins & Cho, 2003).

Theoretical Review: Research

Now that the historical foundations and advocacy of media literacy and health education have been laid, the research that has been conducted on the effectiveness of these approaches will be explored. The research is broken down into three health-related topics of: alcohol, tobacco, and drugs, body and nutrition, and sex and sexuality.

Alcohol, Tobacco and Drugs

By far, the most comprehensive research has been done in the areas of alcohol and tobacco prevention for children and adolescents. As youth consume media messages of substance abuse, “their health-related beliefs, attitudes, and behavior may be influenced for better or for worse, depending on the nature of the portrayal” (Roberts & Christenson, 2000). Media literacy seems an appropriate avenue for substance abuse education. For example, the American Legacy Foundation’s *Truth* campaign, launched in 2000, engages in media criticism and empowerment of youth to expose deceptiveness and immorality of tobacco companies (American Legacy Foundation, 2004).

In examining alcohol and children, Austin & Johnson (1997a, 1997b) found media literacy training had both positive and delayed effects on children’s use of television portrayals of alcohol use. They evaluated media literacy training on third graders’ decision making for alcohol. They studied two groups who received media literacy training, but only one group watched clips of alcohol ads and discussed them in class. The treatment group had both immediate and delayed effects. They found short-term effects for understanding persuasive intent, realism, desirability, and social norms for alcohol use, and delayed effects of perceived realism and identification (Austin & Johnson, 1997a). In a different analysis of

the same study, Austin & Johnson (1997b) found immediate effects of increased understanding of persuasive intent, viewing characters as less similar to people they knew in real life, decreased desire to be like the characters, decreased expectation of a positive outcome from drinking alcohol, and less likelihood to choose a product with an alcohol-related logo on it. Delayed effects were a decrease in positive alcohol expectancies and decrease in likeliness to drink alcohol. The treatment was most effective in the treatment group, and more effective among girls than boys (Austin & Johnson, 1997b). Overall, media literacy training was found to increase children's understanding of the persuasive intent of alcohol ads and influence their decision-making about drinking alcohol (Austin & Johnson, 1997a, 1997b).

In another study, Austin, Pinkleton, Hust, and Cohen (2005) found positive results in a pretest-posttest, quasi-experimental study to evaluate a pilot test of a media literacy and anti-tobacco curriculum on youth. They found the training reduced youth's beliefs that most of their peers use tobacco, increased their understanding of advertising techniques, and increased their likelihood to participate in advocacy and prevention activities. Media literacy skills training combined with a motivational aspect, they found, was successful. In addition, they established reliable outcome measures for media literacy evaluations, but suggest future testing on the reliability and validity of those measures.

Similarly, an anti-tobacco media literacy curriculum for teenagers found that media literacy can be an effective approach for behavior change and decreasing pro-tobacco attitudes (Gonzales et al., 2004). Using a quasi-experimental design, researchers assessed changes in tobacco-related knowledge, attitudes, and behaviors among students exposed to an eight-week session curriculum in their health class. They found significant change in the posttest in outcome measures of knowledge about tobacco, attitudes, and behaviors as compared to the control group. A number of smokers (although a small amount) in the intervention group decreased tobacco use. They also suggested the curriculum could easily fit into other education classes besides health. On the whole they claimed, "This study provides evidence that a curriculum that integrates media literacy and health promotion gives high school students an opportunity to acquire the knowledge and skills needed to recognize a social pressure that goes beyond peer pressure, one that is woven into the very fabric of everyday youth culture and social norms (Gonzales et al., 2004, p. 198).

Furthermore, a peer taught media literacy education on tobacco had effects on

different states of an adolescents' decision-making process (Pinkleton, Austin, Cohen, and Miller, 2003). Researchers found teens who had not tried tobacco became more aware of and resistant to smoking and the persuasive intent of tobacco advertising. Of those teens who had tried tobacco, the peer taught media literacy education increased their awareness of how tobacco messages affect themselves and other teens. This group was less likely to identify with the characters in the tobacco ads, and they felt they were less susceptible to peer pressure to smoke (Pinkleton et al.).

In an evaluation of ATLAS, a team-centered media literacy intervention for high school male athletes, researchers found that after one year, the program decreased male athletes' intention to use steroids and reduction in their use of drugs such as marijuana, amphetamines, and narcotics (Goldberg, MacKinnon, Elliot, Moe, Clarke, & Cheong, 2000). Other long-term effects included fewer reports of drinking and driving. (This study also researched athletes' attitudes and behavior about dietary supplements and strength-training, which will be discussed in the following Body and Nutrition section).

Another study evaluated the effectiveness of a classroom-based alcohol prevention and vehicle safety program for elementary students (Bell, Kelley-Baker, Rider, & Ringwalt, 2005). The curriculum, developed by Mothers Against Drunk Driving, included media literacy skills as a small component among others such as knowledge and life skills. Of the fourth and fifth graders surveyed, they found only a marginally significant effect on media literacy skills (Bell et al.)

The only study done that looked at media literacy, tobacco, and adults was one on a group of migrant Hispanic farm workers. LaChusse (2001), in interviewing the farm workers, determined their media literacy skills and gathered information regarding their attitudes and beliefs around tobacco use. The results showed that the farm workers believed smoking is highly popular in the United States and a part of American culture, and also showed that their media literacy skills were low in understanding tobacco advertising and pro-tobacco attitudes among workers. The study revealed that this population needs basic media literacy skills regarding tobacco use (LaChusse, 2001).

The most qualitative, interpretive research done on media literacy and tobacco was Lederman, Lederman, & Kully's (2004) examination of ordinary, everyday life myths among college students regarding college drinking as a social norm. Using Plato's allegory of the cave, they compared college students' misperception of the reality of college drinking, as

portrayed through the media, to the prisoners in Plato's cave looking at a wall of shadows that they eventually believe to be real. Although most college students do not drink dangerously, news reports, media images, and extraordinary personal experiences create a misperception of drinking as the norm. The authors suggest that media literacy can help students to understand their co-construction of meaning of media messages, empower them to become critical thinkers about the media, and urge them to question what is represented as truth (Lederman et al., 2004).

These studies varied in participants, methodology, and media literacy interventions. Most of them pointed to the effectiveness of media literacy as an education tool about alcohol and tobacco. However, little research had been done on media literacy interventions for drug abuse education.

Body and Nutrition

The topic of body and nutrition includes issues such as body image, obesity, eating disorders, dieting, steroids, self esteem, and physical illness. The majority of research done on media literacy and body health had to do with the interrelated issues of body image, eating disorders, and self esteem. Excessive television viewing has been associated with obesity development and negative body image in adults (Wadsworth & Thompson, 2005), and children's excessive use of media, which targets kids with ads for candy, cereal, and fast food, is one contributor to the rising rates of childhood obesity (Kaiser Family Foundation, 2004). Scholars advocated that an integrated approach to these problems using media literacy can be an effective prevention tool for problems associated with eating disorders, obesity, and unhealthy weight loss (Irving & Neumark-Sztainer, 2002).

In looking at body image and college women, Irving & Berel (2001) explored whether three different media literacy interventions affected women's perceptions about an unrealistic thin ideal for women. They examined four different groups. One intervention was externally-oriented and challenged media through social activism, and another intervention was internally-oriented and focused on identifying and challenging faulty cognitions about beauty-related advertisements that could lead to negative body image. These two groups also watched Killbourne's (1995) "Slim Hopes" video, which illustrated unrealistic thin beauty ideals for women in advertising. The third group just watched the video and received no intervention, and a fourth group served as control and did not receive an intervention or watch the video. At the posttest, the first three groups showed an increase in skepticism

about the media's ideal of thin beauty, but there was no between-group difference on negative body image. All three groups, excluding the control group, reported greater media skepticism. Although the three interventions were effective in reducing women's belief that media images depicting a thin standard are realistic and similar to themselves, there was no other difference among the three different intervention types except that the externally-oriented group had less desire of looking like a fashion model (Irving & Berel, 2001).

Another studies looked specifically at high school females, in an evaluation of the effectiveness of a media literacy curriculum on body image and self-esteem. An evaluation of "Go Girls!" media literacy program created by the National Eating Disorders Association found that media literacy skills helped high school girls enhance their sense of self-acceptance and empowerment regarding unrealistic standards of women in the media and women's bodies (Piran, Levine, & Irving, 2000).

In a study of sixth-grade girls, the effectiveness of a media literacy-based curriculum on body image and self-esteem enhancement found no program effect (McVey & Davis, 2002). The "Every BODY is Somebody" curriculum, designed by the first author and colleagues, promoted body image satisfaction and aimed to prevent eating problems in young adolescent girls. A control and intervention group completed a body image satisfaction and eating problems questionnaire four times: before the program, one week after the program, six months later, and 12 months later. Researchers found no effect because both control and treatment groups showed an increase in body image satisfaction and decrease in eating problem scores over time. The results, they concluded, may have been influenced by other curriculum or outside factors (McVey & Davis).

One study of a group of male and female eighth graders examined the effectiveness of a media literacy, weight concern, and self-esteem program designed to reduce risk factors for eating disorders (Wade, Davidson, & O'Dea, 2003). Working with a control and treatment group, researchers found the media literacy treatment group had lower mean scores on weight concern than the control group; however, they did not find difference between self-esteem of both groups. It was concluded that media literacy programs combined with an interactive, student-centered framework can be a safe and effective way of reducing risk factors for eating disorders (Wade et al.).

All of the previous studies examined media literacy education with groups of female or mixed-gender participants, however, one study looked specifically at a group of males.

As mentioned in the Alcohol, Tobacco, and Drugs section, an evaluation of the ATLAS media literacy program for high school male athletes revealed not only a decrease in attitudes and behaviors for drugs and alcohol, but also skepticism about steroids and dietary supplement use and increase in knowledge about strength training. After one year, the athletes reported less intention to use steroids, less dietary supplement use, and improved nutrition behavior (Goldberg et al., 2000).

Although most media literacy and health education studies have looked at the effects on children and adolescents, Hindin, Contento, and Gussow (2004) evaluated the effects of a media literacy nutrition education curriculum on parents in Head Start programs. A pretest-posttest experimental design compared a control group who went through no curriculum to parents who participated in a four-week long food safety curriculum followed by a four-week media literacy nutrition education curriculum. The media literacy education included understanding persuasive techniques of commercials, the ability to distinguish truth claims in ads, and talking about ads with their kids when the kids make requests at the grocery store. They found that the media literacy intervention had significant effects in the parents' understanding of television advertisements, attitudes about television ads, outcome expectations, self-efficacy, television mediation behaviors with kids, and understanding food labels. Overall, the curriculum was successful and the authors advocate dietitians to utilize it and expand it to other forms of media besides television (Hindin et al.).

Switching gears from body image and nutrition to body-related issue of illness, Rich (2004) examined the effectiveness of a Video Intervention Assessment (VIA) on empowerment education for children and adolescents with asthma. VIA is a way in which children used visual illness narratives, through filming and recording aspects of their daily lives living with asthma, to document and make this information available to their clinicians. A major part of media literacy is not only media analysis but media production--making one's own media messages--and VIA explored the production aspects of media literacy. VIA was found to be an important research, education, policy-making, and advocacy tool to deliver better health care. By documenting the context of living with their illness, young patients were empowered to a position of equal authority in a relationship with clinicians that is often of unequal power (Rich).

Sex and Sexuality

The only research on sex and sexuality is a media literacy-based content analysis of advertisements (Merskin, 2004). Merskin's article on "Reviving Lolita" is a good start in examining the topic of sex through a media literacy lens. The author used Galician's (2004) model for media literacy and applies it to four fashion magazine ads featuring women. Galician's Seven-Step Disillusioning model is a media literacy approach to the analysis and criticism of messages. The ads were found to illustrate the sexualization of preadolescent and adolescent girls, eroticized portrayals encouraging sexual exploitation of girls, passivity and submissiveness, and fetishization of girls and women in ads. The conclusion was that these types of images encourage a climate that objectifies and devalues women and girls.

Although Merskin's (2004) content analysis sheds light on the portrayal of women in magazine advertisements, no research has been done on media literacy and sexual health interventions in school or community contexts. Sex and sexuality is an important health area to identify in this review because media literacy could potentially be an effective educational tool about sex. Sex on television is on the rise, for example, since 1998 the number of sexual scenes on television has nearly doubled (Kaiser Family Foundation, 2005a). Among the 20 most highly rated shows for teen viewers, only 10% of those with sexual content include a reference to sexual risks or responsibility during the episode (Kaiser Family Foundation, 2005a). Media literacy is believed to lead to a greater understanding of the stories that the media tell and the sources they use, but also can affect behavior and attitude change in areas of saying "no" to sex and negotiating condom use, for instance (Kawaja, 1994). The media can be used as an educational tool in promoting safe sexual health to youth (Escobar-Chaves, Tortolero, Markham, Low, Eitel, & Thickstun, 2005; Keller & Brown, 2002). Thus, more research on media literacy as a sex education approach is needed.

Critical Evaluation of the Literature

The literature on media literacy and health education reveals that the effectiveness of this approach is being explored in classroom and community settings, particularly with children and adolescents. The history shows that the development of these fields was highly correlated with support and funding from government agencies concerned with substance abuse, and that the most comprehensive research has been done on alcohol and tobacco. Scholars, pediatricians, educators, and community leaders advocate support for media literacy and health, and many organizations and individuals have developed curricula and programs

for schools. However, most of the curricula have not been formally evaluated, and the most significant gap in the literature is the lack of published research in scholarly journals, particularly in the communication field, that evaluate the effectiveness of different curricula in changing the health attitudes and behaviors of youth and adults.

Due to the fact that the history of media literacy showed much of the funding for research comes from government agencies, researchers need to further test media literacy as effective health promotion in order to secure more support and funding for future research. Individuals and organizations that provide funding for research will want to see that media literacy is a successful way to change attitudes and behavior about health issues. In particular, results from empirical studies that can be generalized to a larger population will be more persuasive to funders than content analyses or smaller scale qualitative studies. This is not to say that the two latter types of research are not useful or will not evolve an understanding of media literacy, but if media literacy and health promotion depend on support from government and schools, results from empirical studies will likely advance the field (Broz, 2001). In addition, local and state school systems looking to adopt media literacy approaches to health education will find empirically validated studies more convincing and credible than research not conducted in schools or communities, or that does not have the ability to generalize to a larger population. Many scholars agree that media literacy and health education greatly need more empirically evaluated studies (Alvermann, 2004; Brown, 1998; Broz; 2001; Gonzales et al., 2004; Hobbs, 2004; Kubey, 1998; Potter, 2004; Rogow, 2004; Yates, 1999).

In addition, if the communication field wants to claim media literacy as a communication-based approach, more research needs to be published in communication journals. A look at the reference list shows a publishing trend in health communication journals. Perhaps the link between media literacy and health education can be better cemented by partnering closely with the health communication field, a well-established area of study. If the field of “health communication is a specialty field of communication study that includes the media agenda-setting process for health issues; media advocacy for health . . . the design and evaluation of preventative health communication campaigns,” it seems an appropriate realm for media literacy advocates to work in (Rogers, 1996, p. 15).

Furthermore, although much of the research showed a somewhat significant effect of media literacy as a health education approach, the research conducted thus far is too eclectic

and inconsistent in its methodology, participants, and types of health issues explored. For instance, the few studies on media literacy and alcohol, tobacco and drug education range from empirical studies with third-graders and teenagers, to interviews with migrant farm workers. Although tobacco and alcohol has been explored, media literacy and drug abuse education has been examined in only one study (Goldberg et al., 2000). The studies on body image, eating disorders, and nutrition yielded mixed results, and it is uncertain how media literacy approaches are working in these areas. Rich (2004) examined media literacy as a teaching tool about illness, but there lacks any other studies on the topics of illness or disease. Utilizing media literacy to teach about sexual health virtually unexplored and, since many young people get information about sexual behavior from media such as television, this area greatly needs to be researched (Escobar-Chaves et al., 2005; Kawaja, 1994; Keller & Brown, 2002). Other health-related topics such as mental health, disease, fitness and exercise, safety, social and family issues, and disabilities, remain unexplored. There was, however, advancement in research methodology by Austin et al. (2005), who found a reliable outcome measurement for media literacy evaluations. They encouraged other researchers to utilize their instrument to further test its effectiveness. Though the research has begun to look at media literacy as a tool for education about health issues, with seemingly positive results, it is too eclectic and inconsistent to make any vast claims.

Once a more cohesive body of research has been done and more empirical testing of curriculum conducted, theoretical models of media literacy should follow. Although scholars are developing models and theories for media literacy, (see Brown et al. 2004; Meyrowitz, 1998; Pailliotet et al., 2000; Zettl, 1998), there lacks a universally agreed upon theoretical groundwork to evaluate the process of media literacy, particularly in a health education context. And while advocates align with either a protectionist or empowerment education approach, there is little research to back up the effectiveness of these different approaches in health prevention. A unified theory of media literacy would provide a model to help media literacy and health education scholars, teachers, and community leaders develop effective curriculum to implement in schools and communities, rather than the current hit-or-miss approach where researchers are implementing different curricula and testing their effects.

In closing, it seems that because a large part of the media literacy movement was tied with health advocacy, there would be more research on the effectiveness of media literacy as an educational tool in health prevention efforts at this point. The two fields are developing,

but in a haphazard way. The prognosis is not excellent, but with a good dose of scholarly research, consistency, testing, and finding the most effective approaches, media literacy and health education will flourish.

References

- Alvarado, M., & Boyd-Barrett, O. (1992). *Media education: An introduction*. London: British Film Institute.
- Alvermann, D. E. (2004). Media, information communication technologies, and youth literacies. *American Behavioral Scientist*, 48, 78-83.
- Alvermann, D. E., & Hagood, M. C. (2000). Critical media literacy: Research, theory, and practice in "new times". *Journal of Educational Research*, 93, 193-205.
- American Academy of Pediatrics. (2001). Media violence. *Pediatrics*, 108, 1222-1226.
- American Academy of Pediatrics. (2005). *Advocates for Media Education*. Retrieved November 1, 2005, from www.aap.org/advocacy/mmcamp.htm
- American Legacy Foundation. (2004). *About the American Legacy Foundation*. Retrieved November 1, 2005, from http://www.americanlegacy.org/americanlegacy/skins/alf/display.aspx?Action=display_page&mode=User&ModuleID=8cde2e88-3052-448c-893d-d0b4b14b31c4&ObjectID=e203e4bd-d5ac-4d5b-90ce-cfbfaf0e3db8
- Aufderheide, P. (Ed.). (1993). *Media Literacy: A Report of the National Leadership Conference on Media Literacy*. Aspen, CO: Aspen Institute.
- Aufderheide, P. (1997). Media literacy: From a report of the national leadership conference on media literacy. In R. Kubey (Ed.), *Media Literacy in the Information Age* (pp. 79-86). New Brunswick, NJ: Transaction.
- Austin, E. W., & Johnson, K. (1997a). Immediate and delayed effects of media literacy training on third graders' decision making for alcohol. *Journal of Health Communication*, 9, 323-349.
- Austin, E. W., & Johnson, K. K. (1997b). 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., Pinkleton, B. E., Hust, S. J. T., & Cohen, M. (2005). Evaluation of an American Legacy Foundation/Washington State Department of Health media literacy pilot study. *Health Communication*, 18, 75-95.
- Bar-on, M. E. (2000). The effects of television on child health: Implications and recommendations. *Arch Dis Child*, 83, 289-292.
- Bell, M. L., Kelley-Baker, T., Rider, R., & Ringwalt, C. (2005). Protecting

- You/Protecting Me: Effects of an alcohol prevention and vehicle safety program and elementary students. *Journal of School Health*, 75, 171-177.
- Bergsma, L. J. (2004). Empowerment education: The link between media literacy and health promotion. *American Behavioral Scientist*, 48, 152-164.
- Brown, J. (1998). Media literacy perspectives. *Journal of Communication*, 48, 44-57.
- Brown, J. D., Schaffer, R., Vargas, L., & Romocki, L. S. (2004). Popular media culture and the promise of critical media literacy. In S. F. Hamilton and M. A. Hamilton (Eds.). *The Youth Development Handbook: Coming of Age in American Communities*. Thousand Oaks, CA: Sage Publications.
- Broz, S. L. (2001). *Media literacy: A Review and Critical Assessment of its Diverse Literature*. Paper presented at the annual meeting of the Association for Education in Journalism and Mass Communication, Washington, D.C.
- Buckingham, D. (1998). Media education in the UK: Moving beyond protectionism. *Journal of Communication*, 48, 33-43.
- Carnegie Council on Adolescent Development. (1995). *Great Transitions: Preparing Adolescents for a New Century*. Washington, DC: Carnegie Council on Adolescent Development.
- Center for Media Studies. (2001). *Setting Research Directions for Media Literacy and Health Education*. Proceedings of the conference, Center for Media Studies, Rutgers University, New Brunswick, New Jersey. Retrieved October 9, 2005, from http://www.mediastudies.rutgers.edu/mh_conference/conf7012.pdf
- Centers for Disease Control and Prevention. (n.d.). *Media Sharp. Tobacco Information and Prevention Source (TIPS)*. Retrieved October 9, 2005 from <http://www.cdc.gov/tobacco/mediashrp.htm>
- Christ, W. G., & Potter, W. J. (1998). Media literacy, media education, and the academy. *Journal of Communication*, 48, 5-15.
- Considine, D. M. (1995). Are we there yet? An update on the media literacy movement. *Educational Technology*, 35, 32-43.
- Considine, David. (2002). Media literacy: National developments and international origins. *Journal of Popular Television and Film*, spring, 5p.
- Escobar-Chaves, S. L., Tortolero, S. R., Markham, C. M., Low, B. J., Eitel, P., & Thickstun, P. (2005). Impact of the media on adolescent sexual attitudes and

- behaviors. *Pediatrics*, *116*, 303-326.
- Galician, M. (2004). *Sex, love, and romance in the mass media: Analysis and criticism of unrealistic portrayals and their influence*. Mahwah, NJ: Lawrence Erlbaum.
- Goldberg, L., MacKinnon, D., Elliot, D., Moe, E., Clarke, G., & Cheong, J. (2000). The adolescents training and learning to avoid steroids program, *Archives of Pediatric and Adolescent Medicine*, *54*, 332-338.
- Gonzales, R., Glik, D., Davoudi, M., & Ang, A. (2004). Media literacy and public health: Integrating theory, research, and practice for tobacco control. *American Behavioral Scientist*, *48*, 189-201.
- Hampl, J. S., Wharton, C. M., Taylor, C. A., Winham, D. M., Block, J. L., & Hall, R. (2004). Primetime television impacts on adolescents' impressions of bodyweight, sex appeal, and food and beverage consumption. *British Nutrition Foundation Nutrition Bulletin*, *29*, 92-98.
- Heins, M., & Cho, C. (2003). *Media Literacy: An Alternative to Censorship*. (2nd ed.). Free Expression Policy Project. Retrieved October 9, 2005, from <http://www.fepproject.org/policyreports/medialiteracy.pdf>
- Hindin, T. J., Contento, I. R., & Gussow, J. D. (2004). A media literacy nutrition education curriculum for Head Start parents about the effects of television advertising on their children's food requests. *Journal of the American Dietetic Association*, *104*, 192-198.
- Hobbs, R. (2004). A review of school-based initiatives in media literacy education. *American Behavioral Scientist*, *48*, 42-59.
- Igoe, J. B. (1991). Empowerment of children and youth for consumer self care. *American Journal of Health Promotion*, *91*, 55-65.
- Irving, L. M., & Berel, S. R. (2001). Comparison of media-literacy programs to strengthen college women's resistance to media images. *Psychology of Women Quarterly*, *25*, 103-111.
- Irving, L. M., Neumark-Sztainer, D. (2002). Integrating the prevention of eating disorders and obesity: Feasible or futile? *Preventative Medicine*, *34*, 299-309.
- Kaiser Family Foundation. (1999). *Kids and Media @ the New Millennium*. Retrieved October 12, 2005, from <http://kff.org/entmedia/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=13>

- Kaiser Family Foundation. (2003). *Key Facts: Media Literacy*. Retrieved October 12, 2005, from <http://www.kff.org/entmedia/upload/Key-Facts-Media-Literacy.pdf>
- Kaiser Family Foundation. (2004). *The Role of Media in Childhood Obesity*. Retrieved October 12, 2005, from <http://www.kff.org/entmedia/upload/The-Role-Of-Media-in-Childhood-Obesity.pdf>
- Kaiser Family Foundation. (2005a). *Number of Sex Scenes Nearly Doubles Since 1998*. Retrieved November 1, 2005, from <http://www.kff.org/entmedia/entmedia110905nr.cfm>
- Kaiser Family Foundation. (2005b). *Children, Health and the Media: Fact Sheet Series*. Retrieved November 1, 2005, from <http://www.kff.org/entmedia/entmediafactsheetsseries.cfm>
- Kawaja, J. (1994). Process video: Self-reference and social change. In P. Riano (Ed.), *Women in Grassroots Communication: Furthering Social Change*. (pp. 131-148). Newbury Park, CA: Sage Publications.
- Keller, S. N., & Brown, J. D. (2002). Media interventions to promote responsible sexual behavior. *The Journal of Sex Research*, 39, 67-72.
- Killbourne, J. (1995). *Slim Hopes*. [Motion picture]. Northampton, MA: Media Education Foundation
- Kubey, R. (1998). Obstacles to the development of media education in the United States. *Journal of Communication*, 48, 58-69.
- Kubey, R. (2004). Media literacy and the teaching of civics and social studies at the dawn of the 21st century. *American Behavioral Scientist*, 48, 69-77.
- Kubey, R. (2005). Commentary: How media education can promote democracy, critical thinking, health awareness, and aesthetic appreciation in young people. [Electronic version]. *Similie*, 5, 1-7. Retrieved November 1, 2005, from <http://www.utpjournals.com/jour.ihtml?lp=simile/issue17/kubey.html>
- LaChausse, R. G. (2001). Attitudes toward tobacco advertising among Hispanic migrant farm workers. *Journal of Immigrant Health*, 3, 107-110.
- Lederman, L. C., Lederman, J. B., & Kully, R. D. (2004). Believing is seeing. *American Behavioral Scientist*, 48, 130-136.
- McVey, G. L., & Davis, R. (2002). A program to promote positive body image: A 1-

- year follow-up evaluation. *Journal of Early Adolescence*, 22, 96-108.
- Merskin, D. (2004). Reviving Lolita? A media literacy examination of sexual portrayals of girls in fashion advertising. *American Behavioral Scientist*, 48, 119-129.
- Meyrowitz, J. (1998). Multiple media literacies. *Journal of Communication*, 48, 96-108.
- National Communication Association. (1996). *Speaking, listening, and media literacy standards for K-12 education*. Annandale, VA: National Communication Association.
- New Mexico Media Literacy Project. (2005). *Our Mission*. Retrieved November 1, 2005, from <http://www.nmmlp.org/nmmlp.htm>
- Office of National Drug Control Policy. (2001). *Helping youth navigate the media age: A new approach to drug prevention*. Proceedings of The National Youth Anti-Drug Media Campaign Media Literacy Summit, White House Conference Center, Washington, D.C. Retrieved November 1, 2005, from <http://www.mediacampaign.org/>
- Pailliotet, A. W., Semali, L., Rodenberg, R. K., Giles, J. K., & Macaul, S. L. (2000). Intermediality: Bridge to critical media literacy. *The Reading Teacher*, 54, 208-219.
- Pinkleton, B., Austin, E., Cohen, M., & Miller, A. (2003). *Media literacy and smoking prevention among adolescents: A year-two evaluation of the American Legacy Foundation/Washington State Department of Health anti-tobacco campaign*. Paper presented at the International Communication Association, Health Communication Division, San Diego, CA.
- Piran, N. Levine, M., & Irving, L. (2000). "GO GIRLS! Media literacy, activism, and advocacy project," *Healthy Weight Journal*, November/December, 89-90.
- Potter, W. J. (2004). Argument for the need for a cognitive theory of media literacy. *American Behavioral Scientist*, 48, 266-272.
- Rich, M. (2004). Health literacy via media literacy: Video intervention/prevention assessment. *American Behavioral Scientist*, 48, 165-188.
- Rich, M., & Bar-on, M. (2001). Child health in the information age: Media education of pediatricians. *Pediatrics*, 107, 156-162.
- Roberts, D. F., & Christensen, P. G. (2000). *Here's looking at you, kid: Alcohol, drugs and tobacco in entertainment media*. National Center on Addiction and Substance

- Abuse at Columbia University and Kaiser Family Foundation. Retrieved October 9, 2005, from <http://www.kff.org/entmedia/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=13485>
- Rogers, E. M. (1996). The field of health communication today: An up-to-date report. *Journal of Health Communication, 1*, 15-23.
- Rogow, F. (2004). Shifting from media to literacy. *American Behavioral Scientist, 48*, 30-34.
- Silverblatt, A. (2004). Media as a social institution. *American Behavioral Scientist, 48*, 35-41.
- Simons-Morton, B. G., Greene, W. H., & Gottlieb, N. H. (1995). *Introduction to health education and health promotion*. (2nd ed.). Prospect Heights, Illinois: Waveland Press.
- Simons-Morton, B. G., Donohew, L., Crump, A. D. (1997). Health communication in the prevention of alcohol, tobacco, and drug use. *Health Education & Behavior, 24*, 544-554.
- Thoman, E. & Jolls, T. (2004). Media literacy--A national priority for a changing world. *American Behavioral Scientist, 48*, 18-29.
- Tyner, K. (1998). *Literacy in a Digital World*. Nahway, New Jersey: Lawrence Erlbaum Associates.
- Wade, T. D., Davidson, S., & O'Dea, J. A. (2003). A preliminary controlled evaluation of a school-based media literacy program and self-esteem program for reducing eating disorder risk factors. *International Journal of Eating Disorders, 33*, 371-383.
- Wadsworth, L. A., & Thompson, A. M. (2005). Media literacy: A critical role for dietetic practice. *Canadian Journal of Dietetic Practice and Research, 66*, 30-36.
- Wallerstein, N. (2002). Empowerment to reduce health disparities. *Scandinavian Journal of Public Health, 30* (Suppl. 59), 72-77.
- Yates, B. L. (1999). Media literacy: A health education perspective. *Journal of Health Education, 30*, 183-187.
- Zettl, H. (1998). Contextual media aesthetics as the basis for media literacy. *Journal of Communication, 48*, 81-95.