



3rd

Symposium on Addictive
& Health Behaviors Research

Health Behavior Intervention: Combining Research & Practice

Symposium Proceedings

September 24th & 25th, 2007

Amelia Island Plantation

Amelia Island, Florida

The 3rd Symposium on Addictive & Health Behaviors Research is hosted by the University of Florida's Addictive & Health Behaviors Research Institute and the Mayo Clinic, in partnership with the American Academy of Health Behavior.

Opening Comments: Chudley E. (Chad) Werch, Ph.D.

Professor & Director
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Good morning, everyone. Welcome to the 3rd Symposium on Addictive & Health Behaviors Research titled *Health Behavior Intervention: Combining Research and Practice*. Welcome also to the beautiful Amelia Island Plantation, Amelia Island, Florida. I'd like to extend a special welcome to our invited speakers, who represent some of the most prolific and influential addiction and health behavior researchers in the country, as well as internationally. These speakers were hand picked and come from throughout the U.S., including as far west as California, to the heartland state of Iowa, to the eastern states of New York and Massachusetts, and as far south as sunny Florida. Also, I'd like to welcome the more than two dozen health behavior researchers whose significant work was selected for presentation at tonight's poster session and reception. Finally, welcome to all registrants, including those who are returning from having attended previous Symposia, and those experiencing their first Symposium.

The 3rd Symposium on Addictive & Health Behaviors Research is the only professional meeting of its kind *dedicated* to providing a forum for the multi-disciplinary exchange of both scientific *and* application knowledge in *health behavior intervention*. This year's Symposium was developed to provide health professionals *and* researchers with contemporary research findings and practical solutions to developing, implementing, evaluating, and disseminating successful interventions for affecting addictive and health behaviors. Nationally renowned researchers will present scientific results on specific health behavior interventions, as well

as provocative theory, research, and policy recommendations that cut across multiple intervention types. The Symposium is a two-day meeting devoted to the exploration of health behavior interventions and programs, and the implications of non-intervention research for developing, testing, and disseminating efficacious health programs and policy.

The 3rd Symposium on Addictive & Health Behaviors Research is organized to permit maximum exposure and access to participating researchers. This is achieved through one-hour presentations by invited researchers, each followed by 15 minutes for Q and A. Then, scheduled roundtables allow smaller groups of attendees to meet with invited researchers for 35-40 minute sessions over lunch, with two sessions held during each period allowing participants to meet with up to four invited speakers during the course of the two-day Symposium. Finally, an evening reception is scheduled for tonight providing heavy hors d'oeuvres and complimentary beverages served to permit researchers and practitioners to socialize and network, while showcasing poster research presentations. Notice also that our first day is scheduled to end at 3:30pm to permit additional time for networking or enjoying the beautiful Amelia Island Plantation, including its beaches, miles of oak-hammocked walking and biking trails, golfing, fishing, shopping, or exploring the surrounding historic town of Fernandina Beach to the north, or Amelia Island State Park to the south, where you can ride horses on the beach overlooking the Atlantic Ocean. Please don't forget to return for our reception and poster research session at 6:00-7:30pm, however, as it is a highlight of this year's Symposium and an invaluable opportunity to network and socialize while taking in plenty of cutting-edge research on health behavior intervention.

The 3rd Symposium on Addictive & Health Behaviors Research is co-hosted by the University of Florida's Addictive & Health Behaviors Research Institute, and Mayo Clinic, in partnership with the American Academy of Health Behavior. I'd like to thank this year's sponsors, including the Mayo Clinic, the Addictive & Health Behaviors Research Institute, the University of Florida's Department of Health Education & Behavior, and College of Health and Human Performance, and the Brooks College of Health at the University of North Florida. Special thanks also to Symposium Planner Melissa Wezniak, Symposium Chairs Drs. Steven Ames and Michele Moore, and to all Session Chairs listed in your program agenda. Also, we are thankful to Heather Tyson at the University of Florida's Department of Conferences for her hard work in organizing our 3rd Symposium.

At this year's Symposium, a minimum of 11 contact hours of continuing education credits are provided for nursing, social work and mental health, health education, psychology, and medicine. Our thanks to Lynnette Pease at AHEC for taking such wonderful care of this important detail. If interested in obtaining educational contact hours, please sign up at the continuing education table for a nominal processing fee.

Lastly, I would like to go over a couple of logistics. We will start and end each session on time, so please do not be offended if we need to move on to the next session or event. There are various planned opportunities for everyone to ask questions and interact with speakers. Please turn off your cell phones or place them in vibrate mode so as not to interrupt our program. In addition, we will send all registrants a brief electronic evaluation to elicit feedback so that our next Symposium will be further improved. Please take a couple of minutes and complete the

survey when you receive it. We greatly appreciate your help.

So sit back, relax and enjoy... what hopes to be a very stimulating and valuable Symposium.



Session I: Kelly D. Brownell, Ph.D.

Professor of Psychology,
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A New and Important Frontier: Food and Addiction

The issue of food and addiction is prominent in the general culture. Terms like “chocoholic” and “food addict” are used frequently, addiction is a theme in diet books (e.g., *The Carbohydrate Addict's Diet*, *The 7-Day Low Carb Rescue and Recovery Plan*), best-selling weight loss books like the Atkins and South Beach speak of biological processes that make it difficult for people to control their eating, and the food industry exploits this public perception by making frequent use of concepts like craving (a Dunkin' Donuts ad for a chocolate chip cookie says “Cravings, Meet Your Maker”). In a Yale study being written for publication, 1,100 people in a nationally representative sample were asked to explain why obesity has become such a significant problem. The leading explanation was exposure to a toxic food environment (endorsed by 43% of the sample). 39% endorsed food addiction as a contributing factor.

Prominence in the social culture does not make food and addiction a scientifically viable concept. Science will ultimately

determine whether an addictive process can be triggered by food, its clinical and public health significance, which foods or food constituents are involved, and whether chemicals added to foods have addictive effects.

Much rests on the outcome of this science. Important lessons will be learned about the determinants of human dietary patterns, obesity, and addiction. Clinical interventions will be derived and tested. The legal and legislative landscape could be changed on issues such as marketing foods to children or selling certain foods in schools. And of course, the food industry has a key stake in this debate because of public opinion and the possibility of legal exposure and regulatory action.

Plausibility of the food and addiction concept comes from several quarters. Evolutionary biology would argue for biological cravings for foods high in energy density to survive periods of scarcity. Second is clinical plausibility - patients often use the language of addiction to describe their relationship with food.

The strongest evidence for plausibility is the science to date. Animal feeding and body weight studies have been done by those in the nutrition and obesity fields and human work has been done by addiction researchers. It converges on a robust theme – that there are behavioral and biological reactions to food that appear similar to those provoked by classic drugs of abuse such as morphine, nicotine, and alcohol. The field is relatively new however, and there are a great many unanswered questions, but the work thus far is both sound and provocative.



Session II: Michael G. Perri, Ph.D.

Professor and Associate Dean
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Improving the Long-term Management of Obesity

The prevalence of obesity in the U.S. has increased at an alarming rate. Data from national surveys indicate that the prevalence of adult obesity doubled between 1980 and 2002. Currently, 32.2% of the adult population is considered obese, and an additional 34.1% is considered overweight (Ogden, Carroll, Curtin, McDowell, Tabak, & Flegal, 2006). A combination of environmental factors appears responsible for this sharp rise, including: decreased physical activity related to greater mechanization at work and at home; increased availability of low-cost, palatable foods; higher energy intakes due to larger portion sizes; and the increased consumption of energy-dense foods (Hill, Wyatt, Reed, & Peters, 2003).

Obesity is directly associated with an array of health complications, including cardiovascular disease, diabetes, hypertension, hyperlipidemia, asthma, osteoarthritis, and breast, prostate, and pancreatic cancers (National Heart, Lung, and Blood Institute (NHLBI), 1998). Excess body weight is associated with premature death, disability, and reduced quality of life (National Heart, Lung, and Blood Institute (NHLBI), 1998). Weight loss can reverse many of the adverse effects associated with obesity. Reductions in body weight, even if modest (e.g., 5-10%), produce beneficial effects on hypertension, glucose intolerance, and hyperlipidemia, and the results from several recent trials have demonstrated the ability of weight-loss interventions to prevent the onset of diabetes

(Diabetes Prevention Program Research Group, 2002).

The clinical significance of weight reductions is determined by whether or not the weight loss is maintained over the long run. In most intervention studies, treatment ends after 4-6 months, and participants are then followed for an additional period. By 18 months following study entry, participants regain approximately 33% to 50% of their initial weight losses (Institute of Medicine (IOM), 1995). Moreover, longer-term follow-ups generally show a gradual but reliable return toward pretreatment weights (Institute of Medicine (IOM), 1995). A complex *interaction* of physiological, psychological, and environmental variables appears responsible for the difficulty in maintaining treatment-induced weight losses (Perri & Corsica, 2002). Physiological factors, such as decreased energy needs and a decrease in metabolic rate, prime the obese person for a regaining of lost weight. Continuous exposure to an environment conducive to sedentary lifestyle and rich in fattening foods, combined with a dieting-induced heightened sensitivity to palatable foods, further disposes the individual to setbacks in dietary control. Most obese persons cannot *on their own* sustain the substantial degree of psychological control needed to cope effectively with this unfriendly combination of biology and environment.

A variety of methods to improve the long-term effects of treatment have been evaluated (Perri & Corsica, 2002). Virtually all of these methods consist of adjuncts to “lifestyle” interventions, which use behavior modification procedures to produce changes in diet and physical activity (Shaw, O'Rourke, Del Mar, & Kenardy, 2005; Shaw, Gennat, O'Rourke, & Del Mar, 2006). Relapse prevention training, peer group meetings, telephone prompts by nontherapists, monetary incentives for weight loss or exercise,

supervised group exercise, the use of personal trainers, and the "availability" of portion-controlled meals do not appear effective in improving long-term outcome (Perri & Corsica, 2002). On the other hand, there is evidence suggesting that extending lifestyle treatment beyond 4-6 months through the use of weekly or biweekly sessions delivered in-person or via telephone may improve the maintenance of lost weight (Perri & Corsica, 2002; Shaw, O'Rourke, Del Mar, & Kenardy, 2005; Powell, Calvin, & Calvin, 2007). In addition, the long-term use of pharmacotherapy, particularly when combined with a strong program of lifestyle treatment, appears to improve long-term outcome (Padwal, Li, & Lau, 2003). Thus, the most pressing practical challenge is to convince health care professionals, obese individuals, and the general public that obesity is a complex, chronic condition that can be managed effectively through intensive programs of ongoing care.

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Session III: Thomas H. Brandon, Ph.D.

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Two Approaches for Preventing Smoking Relapse

Smoking cessation is only the first step toward tobacco abstinence. Tobacco smoking is characterized by a very high rate of relapse within the year following initial cessation. Approximately 90% of self-quitters subsequently relapse following any given quitting attempt, and even smokers who utilize the best interventions have a 70% of relapsing. The challenge of preventing relapse to substance abuse has received considerable attention over the past two decades, and most credible behavioral interventions now incorporate relapse-prevention elements. However, the vast majority of smokers attempt to quit smoking on their own, without enrolling in a behavioral intervention. These self-quitters, therefore, have not had the opportunity to benefit from advances in relapse-prevention techniques. For this reason, we developed a line of research designed to make relapse-prevention more accessible to self-quitters. Based on empirical research on smoking cessation and maintenance, as well as accepted relapse-prevention interventions, we created a series of eight self-help booklets, titled "Forever Free: A Guide to Remaining Smoke Free." We have now conducted and published results from two randomized controlled trials that demonstrate that these booklets significantly reduce smoking relapse among recent quitters through at least two years of follow-up. Although the booklets were designed to be distributed at regular intervals over the course of a year, our second clinical trial indicated that they were



equally effective when they were sent to smokers together as a single set. Moreover, economic analyses indicated that the booklets distributed in this way were extremely cost-effective, yielding a cost per quality-adjusted life-year saved of \$83 in that sample. We are currently testing a similar intervention tailored for pregnant and postpartum women, who have extremely high rates of smoking relapse within six months following childbirth.

The line of research described above represents one end of a continuum between minimal and intensive interventions in that it is a minimal, self-help intervention. An ongoing line of research represents the other end of the continuum. We are currently testing “cue-exposure therapy” as a component of an intensive treatment for tobacco dependence. Cue-exposure therapy is based upon principles of Pavlovian conditioning. The underlying assumption is that cues (“triggers”) associated with smoking (e.g., the sight of cigarettes or other smokers; food; alcohol; stress) become conditioned stimuli due to repeated pairing with cigarettes. These cues then are responsible for producing conditioned responses after smoking cessation. These conditioned responses are subjectively experienced as cravings to smoke, and they are responsible for a significant proportion of relapses. The goal of cue exposure therapy is to extinguish the conditioned responses by repeatedly presenting the cues without allowing the patient to smoke. We are currently testing this approach as part of a multicomponent treatment that also includes individual counseling and nicotine replacement therapy. In addition, we are drawing upon contemporary basic animal research on Pavlovian conditioning and extinction in an attempt to enhance the potency and generalizability of cue exposure therapy.



Session IV: K. Michael Cummings, Ph.D., MPH
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What the Marlboro Man Can Teach Us about Tobacco Control

While the last 50 years has witnessed a dramatic change in people’s attitudes toward and use of tobacco products, these changes have not come as quickly as one might’ve predicted given the overwhelming medical evidence regarding the risks of smoking. In designing the next generation of tobacco control interventions, public health practitioners would be wise to study what the cigarette companies did to respond to the smoking and health crisis over the past half century in order to stay in business. Not all cigarette companies have succeeded; some have faded away while others have grown. An analysis of industry marketing documents shows that those companies that have maintained or grown market share have been those that have successfully crafted marketing strategies effective with two key target groups - new smokers and concerned smokers. This presentation utilizes the framework of the “four Ps” of marketing - product, price, promotion, and placement- to analyze the success and failure of different cigarette marketing efforts over the past 50 years. This framework also provides a way to identify interventions that might be effective in reducing tobacco use in the future.

Designing products to meet consumer needs is essential to any successful product marketing effort. Cigarettes at their core are essentially products designed to deliver nicotine to consumers in an acceptable form.

However, the product has evolved in interesting ways over the past half century to address consumer needs. Today, there are over 1,200 varieties of cigarettes sold, each targeting a unique segment of the market. Examples of how cigarette makers have manipulated product design features, such as packaging, the length and diameter of the cigarette, and the use of filters and additives to help sell cigarettes to different target populations, are used to illustrate the importance of product design in cigarette marketing. By contrast, examples of the design and marketing of smoking cessation products will also be presented so the audience can compare the marketing of tobacco products with products intended to help smokers quit. The implications of product design will be discussed in regards to policies for regulating tobacco products and promoting smoking cessation.

Price is an important factor influencing demand for any consumer product, including addictive products such as tobacco. Internal industry documents confirm the observation that smokers, especially those who have less disposable income, are sensitive to variations in the price of cigarettes. Many studies have shown that young smokers are especially price sensitive, yet select their cigarette brand based on image rather than price. To help reduce the conflict young smokers experience between price and imagery, tobacco companies have devised clever marketing strategies to add value to the higher priced premium brands that teenagers want. These strategies have included promotions such as buy one pack, get one free, the offer of gifts in return for used cigarettes packs, and packaging cigarettes into smaller, more affordable units. Tobacco control interventions which restrict these types of marketing approaches have the potential to dramatically reduce cigarette consumption. Price is also a factor that influences the marketing of stop smoking interventions and is

one of the primary reasons that only a fraction of those attempting to quit use stop smoking medications that could help ease their withdrawal from nicotine.

Cigarette companies have always been among the earliest to pick up on new trends and exploit them through the mass media. In the 1930's, they were among the major advertisers on the radio. In the 1950's and 60's cigarette companies moved their advertising dollars from radio to television. When cigarettes ads were banned from the broadcast media in 1971, cigarette marketers shifted their ad spending to billboards, magazines, direct consumer marketing, and point-of-sale advertising. Cigarette makers were also quick to learn that sponsorship of sporting and cultural events could be more cost-effective than any 30-second television spot had ever been. Examples illustrating how cigarette companies adapted their advertising and promotional strategies to respond to public health critics, regulations, and the changing media habits of their consumers provide useful clues to inform public health practitioners about policies to restrict tobacco product marketing and the development of counter-marketing efforts.

Product placement refers to the location where tobacco products are offered for sale and placement of product advertising. Internal industry documents reveal a strategic interest in placing brands, promotions, and advertising in locations where specific groups congregate (e.g., youth, military personnel, minority groups). Recent studies have also focused on the impact of tobacco product placement through entertainment media, including the movies and the internet. Research is beginning to show that tobacco control interventions that limit the locations where tobacco products are sold, advertised, and used can be effective in lowering the demand for tobacco.

The research literature shows that the most effective tobacco control interventions have been those that increase the financial and psychic costs of using tobacco and limit the way tobacco products are advertised and promoted. Efforts directed at regulating tobacco products have so far not been very successful, and in some cases, such as the adoption of standardized product testing regimes, have done more harm than good as many smokers continued to smoke rather than quit under the illusion that lower machine measured tar levels equated to a healthier cigarette. Internal industry documents now reveal that cigarette makers were well aware of compensatory smoking, and even counted on it, in order to retain customers who they knew were addicted to nicotine and would simply alter how they smoke to maintain their daily nicotine delivery. The corporate documents provide a clear message to public health officials and political leaders, which is that no matter what the tobacco industry says, their actions are motivated by one thing—maximizing profits. The tobacco industry documents provide public health practitioners with an unprecedented opportunity to understand the motivations and methods of the industry’s marketing efforts. The only question that remains is whether public health groups will utilize the knowledge gained about the marketing of tobacco products to effectively regulate and counter the industry’s well-researched and well-financed efforts to maximize tobacco sales and hence profits.



**Session V: Gilbert J. Botvin,
Ph.D.**

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**Advances in School-Based Prevention:
Effects on Multiple Problem Behaviors**

Tobacco, alcohol, and illicit drug abuse continue to be serious public health problems. Etiology research indicates that these problems have their roots in adolescence and are the result of the complex interplay of a combination of risk and protective factors. Advances in prevention research have led to the identification of effective school-based approaches for reducing youth tobacco, alcohol, and illicit drug use (Botvin & Griffin, 2005). The most effective approaches typically target a comprehensive array of etiologic factors. Many of the same etiologic factors are associated with multiple problem behaviors. This suggests the exciting possibility that prevention approaches that are effective with one type of health-compromising behavior may be effective with other health behaviors.

One of the most extensively researched and effective school-based preventive intervention approaches is the *Life Skills Training* (LST) program. The LST approach was initially developed to prevent adolescent cigarette smoking. Later, material relating to alcohol and marijuana use was added. LST is a multi-component approach based on a person-environment interaction model. The first major component focuses on knowledge, normative expectations, and skills for resisting social influences to smoke, drink, or use illicit drugs. A second component focuses on personal coping skills such as decision-making, problem-solving, and managing stress and anxiety. The third component focuses on

general social skills such as complimenting, conversational skills, friendship building skills, and assertiveness. The LST approach has been tested in a series of carefully controlled group-randomized trials with different school populations and providers.

Studies testing the effectiveness of the LST approach have consistently shown that it can cut cigarette smoking in half among middle school students. Research has also demonstrated that LST can prevent the use of alcohol and illicit drugs. Follow-up studies have shown that when booster sessions are provided over one or more years, the prevention effects are durable and long-lasting (Botvin & Griffin, 2004). More recent research has demonstrated that LST can not only prevent the initiation of tobacco, alcohol, and illicit drug use. It has also been shown to prevent more serious forms of substance use including pack-a-day cigarette smoking, binge drinking, and poly-drug use. Finally, recent research has demonstrated that the LST approach can prevent methamphetamine use (Spath, Clair, Shin, & Redmond, 2006), aggression, violence, and delinquency (Botvin, Griffin, & Nichols, 2006), risky driving (Griffin, Botvin, & Nichols, 2004), and can decrease HIV risk among young adults (Griffin, Botvin, & Nichols, 2006).

Additional research is needed to further refine and extend existing prevention models, identify mediating mechanisms of effective approaches, and improve our understanding of effective strategies for disseminating evidence-based prevention programs. Further research is also needed to test the generalizability of current prevention approaches to a wide range of health behaviors.

While there has been considerable progress in prevention research, dissemination of evidence-based prevention programs has been slow. Schools should adopt, implement,

and institutionalize evidence-based drug abuse prevention approaches that teach a combination of health knowledge, attitudes, and general life skills. Moreover, in order to be optimally effective, schools should include booster sessions implemented over multiple years to increase the durability of prevention effects. Finally, research shows that school-based prevention programs targeting a comprehensive set of risk and protective factors can have an impact on multiple health behaviors. Therefore, schools should identify and utilize prevention programs with the potential of impacting on multiple health behaviors in order to maximize the use of available class time and scarce resources.

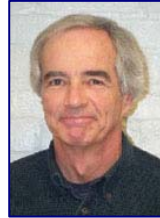
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analytic, theoretical, and dissemination issues unique to MRBC interventions will be discussed.



Session VII: Frederick X. Gibbons, Ph.D.
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Session VI: Judith J. Prochaska, Ph.D., MPH
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A Dual-focus, Dual-path Model for Health Intervention

Multiple Risk Behavior Change: What Most Individuals Need

The co-occurrence of risk behaviors -- such as tobacco and other substance use, poor quality diet, physical inactivity, stress and distress -- predicts the heightened risk of morbidity and mortality as well as increased health care costs. The majority of US adults meets criteria for two or more behavioral risk factors; yet, to date, most health promotion research has addressed risk factors as categorically separate entities.

Given a window of intervention opportunity, a higher impact paradigm is to target multiple behaviors. Growing evidence suggests the potential for multiple risk behavior change (MRBC) interventions to have much greater impact on public health than single-behavior interventions. This presentation will discuss the need for and evidence-base of interventions that target multiple risk behaviors. Recent innovative studies will be presented and methodological,

Until recently, most theories of health behavior were based on some version of the expectancy-value perspective. This approach assumes that all human social behavior is the result of a decision making process that involves consideration of behavioral options and their possible consequences-- a consideration that results in the formation of an *intention* to act or not act. In this sense, all behavior, including adolescent health behavior, is thought to be at least reasoned, or planned, if not rational.

Of late, an increasing number of theoretical models of adolescent decision making have taken a different perspective on adolescent health behavior, suggesting that it is often not reasoned (or intentional), let alone rational. These models, which are based on dual-processing theories from social-cognitive psychology, have important implications for interventions. One such model is the prototype/ willingness (P/W) model, which was developed as an alternative to the expectancy-value perspective, specifically with regard to adolescent health behavior. The P/W model is a modified dual-processing model that maintains there are two pathways to adolescent health behavior. The first, called the *reasoned* path, involves analytic

processing; it reflects the fact that some adolescent health behavior is, in fact, planned or intentional; some young people decide they want to use substances, for example, and they develop a plan to do so. The second path, called the social reaction path, involves more heuristic, or image-based processing. The proximal antecedent to behavior in this path is the construct behavioral willingness, defined as an openness to risk opportunity—what an adolescent would be willing to do under certain circumstances. The model suggests that interventions that target both pathways to behavior will be most effective.

The current talk will outline the P/W model and then focus on its implications for interventions and preventive-interventions intended to delay onset of risky behavior. Results of two longitudinal studies of psychosocial factors related to adolescent substance use will be presented. These studies supported the dual-pathway contention of the P/W model by demonstrating that various antecedents to substance use, including contextual risk, parent and peer influence, and individual difference factors, influence outcome (use) through both the reasoned and the reactive pathways. These studies also informed the development of a dual-focus preventive intervention—the Strong African American Families (SAAF) program—that was designed to target both paths to substance use (drinking). In particular, the curriculum addressed the adolescents’ risk prototypes (their perceptions of kids who drink) and their willingness to (interest in) drink—i.e., the social reaction path—and it addressed their parents’ more reasoned efforts to get their children to think about and anticipate risk situations ahead of time—i.e., the reasoned path. Assessment of the SAAF program indicated it was effective at delaying onset of drinking among these Black adolescents, and that its impact did follow both paths to outcome, as the P/W model would suggest.

Implications for future studies of adolescent decision making, specifically as it applies to health behavior, as well as future preventive-interventions intended to reduce risky health behaviors, are discussed.



Session VIII: Meg Gerrard
Professor of Health Psychology
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Using Social Images in Health Behavior Interventions

A major assumption of dual processing models of decision-making is that heuristic processing is image-based. Research on the prototype model of adolescent risk behavior in particular has demonstrated that children and adolescents have clear cognitive representations or social images (prototypes) of the type of person their age who engages in specific risk behaviors (e.g., the “typical” drinker their age), and these images are related to their subsequent behavior. Specifically, the more favorable their image, the more willing they are to accept the social consequences associated with the behavior, including being seen by others as someone who engages in the behavior. These images develop early--children have reliable images of smokers and alcohol users by age 7, and by age 10-11, these images are predictive of drinking and smoking four or five years later (age 15-16).

There is reason to believe that interventions designed to address these images are effective when administered at early ages. This presentation will review the major findings from this literature. There are, however, also elements of these images that suggest that they can be effective intervention

tools beyond adolescence, perhaps into early adulthood. First, consistent with the dual process perspective, experiential thinking is not replaced by more rational processes as a function of maturity – instead, both continue to operate into adulthood. Second, one’s self-image or *identity* tends to crystallize during early adulthood, and this process has an important effect on behavior, especially substance use. Thus, the impact of risk prototypes (vis a vis self-identity--e.g., “Am I the type of person who smokes/uses drugs/has casual sex?”) is likely to be very high in early adulthood. Third, early adulthood is a period during which there are major increases in risk opportunities.

The current presentation will discuss an ongoing program of studies of images related to college students’ and young adults’ risk behaviors. One series of studies of students and people who go to beaches has demonstrated that image-based interventions can reduce the favorability of the image of the typical person who sun bathes or uses a tanning booth. Furthermore, these changes in images mediate the decreases in self-reported tanning behavior. In addition, an intervention of sun protection behaviors within a very high risk group male road maintenance crews demonstrated that these workers’ images of men their age who do use sunscreen were relatively negative (e.g., their prototype was smart, but not very masculine or self-confident), but these images were also mutable. In fact, increases in the favorability of the image produced by the intervention were associated with changes in both self-reported UV protection and skin tone at a one year follow-up. In short, although it is difficult to alter representations of the type of person who engages in a risk or preventive behavior once the stable behavior pattern has been established, it is still possible to alter these images, and thereby alter the behaviors.



Session IX: Linda Carter Sobell, Ph.D., ABPP

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Nova Southeastern University

Self-Change: Processes and Implications for the Treatment of Addictive Behaviors

Although conventional wisdom has been that addictive behaviors generally require extended treatment to show meaningful change, two decades of research has demonstrated that short-term treatment and self-change can produce positive outcomes. Twenty years ago most research on recovery from addictive behaviors emanated from studies of individuals in treatment. Unfortunately, because the majority of those with a substance use disorder never enter treatment, drawing conclusions based on research from only treated individuals raises serious questions about the generalizability of those findings. Although the study of natural recoveries has received increasing attention, for many years the possibility of self-change was given little credence. Today, multiple and converging lines of evidence have demonstrated that self-change is an important and common pathway to recovery from most addictive behaviors. Self-change is also a recognized phenomenon in health and mental health problems. This presentation is intended to help people understand the importance of studying the process of self-change, particularly in relation to its implications for prevention and treatment of addictive behaviors. The mechanisms by which the self-change process occurs have started to be articulated and these explanations have direct implications for intervention and prevention efforts and will be discussed in an effort to help practitioners catalyze their clients’ motivation and commitment to change. Two large community mail interventions that

derived from the study of natural recoveries and designed to facilitate self-change will be discussed in relation to reaching individuals who otherwise would not access traditional treatment programs. Lastly, the public health implications of providing interventions outside of clinical settings will be discussed.



Poster Research Session

Amber Barnes, B.A., University of Florida. *Associations among Male Adolescent Body Image Satisfaction and Health Behaviors and Self-Images*

This study examined the body image satisfaction of adolescent males in relation to specific health behaviors and self-image.

Hui Bian, Ph.D., C.H.E.S., University of Florida. *Impact evaluation of a brief intervention promoting health behaviors with positive self-image for adolescents*

The purpose of this study was to evaluate the immediate impact of a brief intervention targeting multi-health behaviors of adolescents.

Heather Boggess, B.A., University of Florida. *Relationship of Self-Image to Drug Use among High School Students*

This study examined a range of self-image measures and their association with high school drug users and non-users.

Joan M. Carlson, M.S.W., Ph.D. Candidate, Florida State University. *A Systematic Review of Quantitative Studies Investigating the Efficacy of Brief Alcohol Interventions for College Students*

The purpose of this study was to review recent quantitative studies investigating the efficacy of brief alcohol interventions for college students.

Rita DeBate, University of South Florida. *From Research to Practice: Increasing Secondary-Prevention of Eating Disorders among Oral Health Care Professionals via a Web-based Resource Kit*

The purpose of this innovative project is to increase the oral-health care providers' capacity to deliver ED specific secondary-prevention.

Janine Delahanty, Ph.D., MDQuit Resource Center. *Using Statewide Surveys of Stages of Smoking to Track Initiation of Underage Youth*

The purpose of this study was to examine population shifts in the Stages of Smoking Initiation (SOSI) the over time among underage Middle (MS) & High school (HS) youth.

Tavis Glassman, M.S.Ed., M.P.H., University of Florida. *Using the Theory of Planned Behavior to Predict Extreme Ritualistic Alcohol Consumption on Game Day*

This study examined the drinking behavior of college students on "game day."

Elbert D Glover, Ph.D., University of Maryland. *A Multi-Center Phase 3 Trial of Lobeline Sulfate for Smoking Cessation*

The purpose of this study was to evaluate the safety and efficacy of sublingual lobeline sulfate for smoking cessation, with brief counseling.

Andrea I. Hart, M.P.H., C.H.E.S., University of Florida. *Associations Among Distal and Proximal and Health Behavior in Adolescents*

This study examined associations among proximal and distal spirituality and health risk and health promoting behaviors among an older adolescent sample.

Melissa M. Howard, Ph.D., University of West Florida. *Diversion of Prescription Drugs for Non-Medical use Among High School Seniors*

This study was designed to increase an understanding of where high school seniors obtain the prescription drugs they use for non-medical purposes.

J.B. Kingree, Ph.D., Clemson University. *Participation in Alcoholics Anonymous and Abstinence from Alcohol and Drugs following Treatment*

The current study expanded on the prior work by examining associations between participation in individual AA activities and substance use over a 6 month, posttreatment period.

Kelli A. Komro, M.P.H., Ph.D., University of Florida. *Effects of home access and availability on young adolescents alcohol use*

This study examined the effects of parental provision of alcohol and home alcohol accessibility on the trajectories of young adolescent alcohol use and intentions.

Erin Largo-Wight, Ph.D., C.H.E.S., University of North Florida. *The effectiveness of a participatory university recycling intervention on behavior change: The influence of perceived behavioral control*

This study was designed to assess the effectiveness of a participatory recycling promotion program at a university based on the Theory of Reasoned Action and Planned Behavior (TRA/TPB).

Mildred M. Maldonado-Molina, Ph.D., University of Florida. *Patterns of Alcohol Use Involvement Among Multi-ethnic Young Adolescents: An Application of a Latent Class Trajectory Model*

The present study extends the scientific knowledge about patterns of alcohol use trajectories among adolescents by identifying heterogeneous classes of alcohol use trajectories among multi-ethnic early adolescent youth.

Zendra Mathis, B.S.H., University of Florida. *Relationship of Sleep Patterns and Substance Use in Adolescents*

This study examined the relationship between sleep quantity and satisfaction and substance use among adolescents.

Michele Johnson Moore, Ph.D., University of North Florida. *Process Evaluation of a Brief Positive Communications Program to Promote Health and Reduce Substance Use Among College Students*

This study assessed acceptability and immediate outcomes of “Project Fitness,” a brief, theoretically-based multiple health behavior intervention aimed at increasing healthy behaviors while decreasing health risk behaviors among college students.

Ryan O'Mara, B.S., C.H.E.S., University of Florida. *Preliminary Evidence for Eliminating Drink Specials in Campus Communities*

The purpose of this pilot study was to determine whether drink specials are

independently associated with an increased risk of patrons exiting drinking establishments in a highly intoxicated state—defined as having a breath alcohol concentration (BAC) of 80 mg/dl or higher—the presumptive legal limit for driving under the influence of alcohol in the United States.

Robert Philen, Ph.D., University of West Florida. *Analysis of students' cultural models of drinking and related contexts and activities*

This research project investigates the basic content of students' shared understandings of alcohol, alcohol use, the behaviors and contexts associated with drinking, and how all of these relate to one another in students' conceptions.

Laura Plybon, Ph.D., Bethel College. *What's food got to do with it? Obesity and disordered eating behaviors in African American adolescent girls.*

The purpose of this study was to 1) examine associations between obesity and disordered eating and specific maladaptive coping outcomes seen in White females; and 2) assess if ethnic identity impacts obesity and disordered eating, as prior research in this area (e.g., Petersons, et al., 2000; Talleyrand, 1998) is equivocal.

Martie Skinner, Ph.D., University of Washington. *Protecting Children of Heroin Addicted Parents from Failure in Young Adulthood*

The objective of this study is to identify protective factors contributing to the successful development of young adult children of drug addicted parents.

Elliot Sklar, M.S., Ph.D. Candidate, Florida International University. *The Relationship of*

Fear of Intimacy, Body Image Avoidance & Body Mass Index

The purpose of this study was to examine the relationship between a fear-of-intimacy and body image avoidance (attitudinal and perceptual), and how these relationships may be affected by body mass index and by gender.

Monica C. Webb, M.P.H., University of Florida. *Oral Sex as a Feature of Problem Behavior Syndrome in Young Adulthood*

The purpose of this pilot study was to determine whether oral sex should be considered a factor/component of "problem behavior syndrome" in young adults.

Gary M. Reisfield, M.D., University of Florida. *Urine drug test interpretation: What do family medicine physicians know?*

The purpose of this study is to determine the level of urine drug test interpretive knowledge of family medicine physicians who use UDT to monitor adherence in their patients prescribed chronic opioid therapy.

Lindsay Taliaferro, Ph.D. Candidate, University of Florida. *High School Youth and Suicide Risk: Exploring Protection Afforded Through Physical Activity and Sport Participation*

This study examined the relative risk of hopelessness and suicidality associated with physical activity and sport participation.

Martie Thompson, Ph.D., Clemson University. *Risk factors for alcohol-involved sexual victimization*

The purpose of this study was to examine risk factors for SV among first-year college women, and if these risk factors differentially

predicted SVs not involving alcohol and SVs that did involve alcohol (AI-SV).

Alexander C. Wagenaar, Ph.D., University of Florida. *Effects of Mandatory Minimum Fine and Jail Penalties for DUI: Long-term Follow-up in 32 States*

The purpose of this study is to examine the effects of every statutory change in mandatory DUI fine and jail penalties across the 48 contiguous U.S. states from 1976-2002.

C.E. Chad Werch, Ph.D., University of Florida. *Effects of Brief Image-based Multiple Behavior Health Interventions for Older Adolescents Transitioning into Adulthood*

The purpose of this study is to evaluate the efficacy of brief image-based multiple behavior health interventions for youth transitioning into adult roles.



Closing Comments: Chudley E. (Chad) Werch, Ph.D.

Professor & Director
Addictive & Health Behaviors Research
Institute, University of Florida

Well, that concludes our 3rd Symposium on Addictive & Health Behaviors Research titled *Health Behavior Intervention: Combining Research and Practice*. Again, let me thank all of our outstanding invited researchers. Thanks as well to those researchers who presented their work during the poster session. Thank you to all attendees who made this Symposium a success. I hope you found the content of this year's Symposium professionally stimulating and valuable, the meeting format conducive to networking and socializing, and Amelia Island Plantation a beautiful place to learn and play.

Let me again thank our co-hosts, the Mayo Clinic and the University of Florida's Addictive & Health Behaviors Research Institute, as well as our partner, the American Academy of Health Behavior. Thanks to our sponsors, the University of Florida, the Mayo Clinic, and the University of North Florida, to our Program Planner, Symposium Chairs, Session Chairs, our Time and Room Monitors, Conference Manager, and to AHEC for processing our continuing education credits.

Just a reminder, we will be emailing everyone a very brief electronic evaluation survey to obtain your reactions to this year's Symposium and your recommendations for improving future Symposia. Please take a few minutes when you receive this survey and complete it for us. We greatly appreciate your help.

I hope you found the 3rd Symposium on Addictive & Health Behaviors Research a worthwhile forum for exploring some of the scientific and application knowledge of health behavior intervention. I also sincerely hope that our Symposium resulted in some new information or way of thinking that you will take back with you that will enhance your professional or personal lives.

I look forward to seeing you all again at our next Symposium. Travel safely!



Appendix: Symposium Attendees

Alan G. Alfaro, B.S.
Kimberly Lois Alfrey
Gretchen Ames, M.D.
Steven C. Ames, Ph.D.
Amber Barnes, B.A.
Ramona Bennett
Hui Bian, Ph.D.
Nancy Calhoun Birchall
Anne M Black
Justin Blanton, B.A.

Bryan J. Blissmer, Ph.D.
Heather Boggess, B.A.
Mary Lynn Bonnette, Ph.D.
Gilbert J. Botvin, Ph.D.
Thomas H. Brandon, Ph.D.
Kelly D. Brownell, Ph.D.
Joan Carlson, M.S.W.
Monifa Charles
William Chen, Ph.D.
Manette Cheshareck
Melaine Chin
Cathy Christie, Ph.D.
Edgar Covil
Joe Crozier, M.S.
K. Michael Cummings, Ph.D.
Janine Delahanty, Ph.D.
Tony Todd Delisle, M.S.
Virginia Dodd, Ph.D.
Steven Dolan, B.A.
Steve Dorman, Ph.D.
Deborah Ducett
Mary J. Foushi
Linda Marie Frazier-Roney
David L. Garison
Meg Gerrard, Ph.D.
Frederick X. Gibbons, Ph.D.
Gary A. Giovino, Ph.D.
Tavis Glassman, Ph.D.
Elbert D. Glover, Ph.D.
Jennifer Hamilton, B.A.
Andrea Hart, M.P.H., C.H.E.S.
James W. Henry
Rakinya Hinson
Melissa M Howard, Ph.D.
Trisha Howell, R.D.
Jennifer Hudson
Brian Hultgren, B.S.
Venise Jackson
Delores James, Ph.D.
Valarie L. James
Kip Kingree, Ph.D.
Kelli A. Komro, Ph.D.
Tiffany Kyle, Ph.D.
Magdala Labre, Ph.D.
Dinan Marie Lacaci
Erin Largo-Wright, Ph.D., C.H.E.S.
Mildred M. Maldonado-Molina, Ph.D.
Zendra Mathis, B.S.H.
Steven C. Matson, M.D.
Fonda McGowan
Alison Mendez, M.S.
Michele Moore, Ph.D.
Mitzy Ann Noisette, R.N.,B.C.

Thomas O'Brien
Ryan O'Mara, B.S., C.H.E.S.
Judy Olmos, R.N., C.C.R.P.
Rhonda Payne
Lynette Pease, B.S.H., C.H.E.S.
Michael G. Perri, Ph.D.
Robert C. Philen, Ph.D.
R. Morgan Pigg, Ph.D.
Steven B. Pokorny, Ph.D.
David L Powell
Judith Prochaska, Ph.D.
Gary M. Reisfield, M.D.
Thomas D. Rizzo, Jr, Ph.D.
Sadie Sanders, Ph.D.
Stacy Seikel, M.D.
Maryann C. Shahade, R.N., D.C.M.
Jiunn-Jye Sheu, Ph.D.
Valerie Shorter, Ph.D.
Britnee Skinner, B.S.H.
Martie Skinner, Ph.D.
Elliot Montgomery Sklar
Christina M. Smith
Linda Carter Sobell, Ph.D.
Mark Sobell, Ph.D.
Claudia Squire
Gary Stein
Lindsay A. Taliaferro, M.S., M.P.H.
Andrea M. Tavlarides
Jennifer Tempel
Karen Amber Terry
Dennis Thombs, Ph.D.
Martie Thompson, Ph.D.
Shalawa A. Triggs
Jill Varnes, Ph.D.
Sydney S. Vazquez
Deborah M. Vinci, Ph.D.
Mary Von Mohr, M.S.W.
Alexander C. Wagenaar, Ph.D.
Julia Watkins, Ph.D.
Monica Cecilia Webb, M.P.H.
Robert M Weiler, Ph.D.
Chad Werch, Ph.D.
Phil R. Werdell, M.A.
Melissa Wezniak, B.A.
Alvin Wong, M.S., C.H.E.S