Published in final edited form as:

Res Soc Work Pract. 2010 ; 20(5): 518–527. doi:10.1177/1049731509359919.

Disseminating Effective Community Prevention Practices: Opportunities for Social Work Education

J. David Hawkins, Ph.D. and **Valerie B. Shapiro, M.S.S.**

Social Development Research Group, School of Social Work, University of Washington 9725 3rd Ave. NE, Suite 401, Seattle, WA 98115

Abigail A. Fagan, Ph.D.

Department of Criminology and Criminal Justice, University of South Carolina, Columbia, South Carolina 29208

Abstract

In the United States about 17% of adolescents meet diagnostic criteria for mental, emotional, and behavioral disorders. Six million young people receive treatment services annually for mental, emotional, or behavioral problems. These problems affect 1 in 5 families and cost \$247 million annually (O'Connell, Boat, & Warner, 2009). Some strategies for preventing mental, emotional, and behavioral disorders in young people have been developed, tested, and found to be effective in preventing the onset, persistence, and severity of psychological disorders, drug abuse, and delinquency. Unfortunately, tested and effective prevention policies, programs, and practices are not widely used (O'Connell, Boat, & Warner, 2009). This paper highlights recent advances in prevention science and describes some opportunities and challenges in advancing the use of science-based prevention in communities. The chapter concludes by exploring the potential role of social work education in developing a workforce ready to increase community access to effective prevention strategies.

Keywords

prevention; prevention science; Communities that Care; social work education; Community Youth Development Study; workforce development; training; curriculum content

Much progress has been made over the past 30 years in the development and testing of prevention policies, programs, and practices. Effective policies, programs, and practices for preventing mental, emotional, and behavioral (MEB) problems in young people have been identified through controlled studies using rigorous experimental designs (O'Connell, Boat, & Warner, 2009). A variety of effective prevention programs have been found to produce benefits to individuals and society that far exceed their costs (Allen, 2005). Lists of these programs are available on the internet (colorado.edu/cspv/blueprints; ncadi.samhsa.gov/features/ctc/resources.aspx). Yet in the allocation of resources, effective prevention strategies are often overlooked in the favor of strategies to cope with the “downstream consequences” of disorder (Woolf, 2006). Systems for treating mental, emotional, and behavioral disorders are sustained through an existing infrastructure that provides funding, access, and workforce training. The translation of effective preventive approaches to widespread practice now requires the development of a sufficient

Hawkins jdh@u.washington.edu; Hawkins phone: 206-543-7655

This paper was prepared for the Los Angeles Conference on Intervention Research in Social Work, School of Social Work, University of Southern California, October 22-23, 2009.

infrastructure for prevention (Cullen & Jonson, 2009; O'Connell, Boat, & Warner, 2009; Woolf, 2006).

Balas and Boren (2000) speculated on reasons that advances made through research might fail to be successfully institutionalized in widespread practice. They suggested that (a) scientific research is often intentionally isolated from the complicated realities of individuals, service providers, and communities to maintain the integrity of the scientific process; (b) scientific theories tested with specific populations may fail when generalized to understudied populations and settings; (c) tested and effective practices may be difficult for potential users to access; (d) tested policies, programs, or practices may be too poorly articulated, cumbersome, or costly for widespread replication with fidelity; (e) attention is not given to the needs, values, and priorities of the individuals and communities that might use the new programs or practices; and (f) there is a lack of attention to understanding mechanisms for sustainable systems change and community infrastructure development needed to support effective policies, programs, and practices.

Some of the problems identified by Balas and Boren have been addressed by prevention scientists. Standards for effectiveness, and dissemination research trials developed by the Society for Prevention Research (2004) emphasize that prevention policies, programs, and practices should be tested within real-world settings by practitioners. Further, these standards emphasize the need for research samples to be clearly described to inform generalizations to diverse populations. The concerns of Balas and Boren are further addressed by standards requiring that prevention program developers create manuals, training, and technical assistance to support the high-quality use and replication of prevention technologies. Those who conduct effectiveness and dissemination trials following these standards cannot work in isolation from the individuals and organizations that must implement new prevention programs and policies when taken to scale. Nevertheless, several challenges to the widespread adoption of tested and effective preventive interventions raised by Balas and Boren remain. Community infrastructures are needed that can support the installation of tested and effective prevention policies, programs, and practices while attending to the needs, values, and priorities of the individuals, organizations, and communities using these new preventive interventions.

What Makes Prevention Unique?

Prevention science is based on the premise that to prevent mental health problems, substance abuse disorders, or crime before these problems occur, it is necessary to identify and alter the predictors of such problems (Coie et al., 1993). "Risk factors" are characteristics of individuals or environments that predict an increased likelihood of an undesirable outcome. Promotive factors are characteristics of individuals or environments that predict a decreased likelihood of an undesirable outcome. "Protective factors" predict a decreased likelihood of an undesirable outcome in the presence of risk exposure (Rutter, 1985). Longitudinal studies in the United Kingdom, New Zealand, Scandinavia, Canada, and the United States have identified risk, promotive, and protective factors for a wide range of adolescent mental, emotional, and behavioral problems. These studies have identified risk, promotive, and protective factors in neighborhoods, schools, peer groups, and families, as well as in individuals themselves (Catalano, Kosterman, Hawkins, Newcomb, & Abbott, 1996; Catalano et al., 2005; Huang, Kosterman, Catalano, Hawkins, & Abbott, 2001; Lonzak et al., 2001; O'Connell, Boat, & Warner, 2009). Prevention science seeks to alter malleable risk, promotive, and protective factors in individuals and environments in hopes of changing the probability that future problems will occur.

Prevention is distinct from treatment (O'Connell, Boat, & Warner, 2009). Prevention occurs when communities, groups, or individuals who do not meet criteria for a diagnosis of illness, disorder, or crime receive services or interventions that reduce the chances of developing a disorder or criminal behavior in the future (O'Connell, Boat, & Warner, 2009). This helps explain why the development of unique infrastructure is important to the dissemination of effective prevention. Preventive interventions seek to reach and affect those who do not necessarily interact with clinically trained professionals or meet criteria for the funding streams that have traditionally supported treatment or intervention services for those with mental, emotional, or behavior problems. Preventive services may be provided to an entire population (universal prevention), to those at risk for problems because of exposure to risk factors who have not yet experienced a problem (selective prevention), or to those who have shown early signs or symptoms of mental, emotional, or behavioral problems but who have not yet developed a diagnosable disorder or criminal behavior (indicated prevention). Interventions initiated in response to mental disorders, drug abuse/dependence, or delinquent/criminal behavior, including treatment, punishment, and incapacitation, intended to prevent the reoccurrence of the problem or promote recovery are not truly preventive, as discussed here, because the undesirable outcome has already occurred (Mrazek & Haggerty, 1994; O'Connell, Boat, & Warner, 2009).

Another reason that the development of a unique infrastructure is important to the dissemination of effective prevention practice is the fact that many of the same factors predict a diverse array of outcomes, including criminal behavior, violence, depression, substance abuse, teenage pregnancy, dropping out of school, and other behavior problems in adolescence and young adulthood (Howell, 2009; O'Connell, Boat, & Warner, 2009). Because many of the same risk factors predict a number of different negative outcomes, it is possible to prevent these different problems by addressing their shared predictors. This creates a disconnect between existing service delivery systems that are designed to intervene and treat specific problems such as crime, mental disorders, or substance abuse and those needed to support prevention programs. For example, a low commitment to education and academic failure are predictors of later delinquency and drug abuse, but juvenile courts and drug treatment agencies often have little influence on interventions to increase school success in the communities they serve. Yet specific methods of classroom management and instruction can prevent future drug use and delinquent behavior by increasing academic success and enhancing students' commitment to schooling/education (Wilson, Gottfredson, & Najaka, 2001). Schools must be involved in prevention efforts if the relevant risk factors are to be addressed. As this example illustrates, changing risk and protective factors in communities requires coordination by multiple existing service and community structures such as police, city planners, schools, families, and businesses. New prevention infrastructures are needed to ensure that all the relevant stakeholders who represent the entire range of institutions and organizations that affect risk, promotive, and protective factors are involved in planning and implementing preventive interventions.

In sum, diverse stakeholders need to be part of local prevention infrastructures promoting effective prevention in each community. Prevention infrastructures need to exist locally because risk, promotive, and protective factors vary in intensity and prevalence in different communities (Hawkins, Van Horn, & Arthur, 2004; Van Horn, Hawkins, Arthur, & Catalano, 2007), and the specific risk, promotive, and protective factors that are elevated or depressed vary across communities (Fagan, Hawkins, & Catalano, 2008). These profiles of risk, promotive, and protective factors may also vary over time as conditions change and problems are addressed. Communitywide efforts to prevent mental, emotional, and behavioral problems before they arise need to address the specific levels of risk and protective factors in each community at a given time. Further, the resources available for prevention, the values and priorities of community members, and the perceived fit and

acceptability of various preventive interventions are likely to differ across communities. Having diverse stakeholders participate in the prevention infrastructure ensures that communities can effectively build on local strengths, address local needs, and recognize local preferences while planning, promoting, and implementing tested and effective prevention strategies. Community prevention infrastructures are needed that foster local ownership and self-determination while using the advances of prevention science to prevent community problems (Hawkins, Catalano, & Arthur, 2002).

Community Coalitions as Prevention Infrastructures

Coalitions of diverse stakeholders representing a variety of agencies and organizations concerned with the healthy development of young people have been advocated as infrastructures for advancing prevention in communities. Coalitions have been a popular mechanism for communitywide change in substance use prevention and other areas (Roussos & Fawcett, 2000). Given the multiple sources of risk and protection, the overlap in risk and protection for multiple problems, and the variation in local risk exposure, a community-driven, communitywide effort to reduce health risking-behaviors has been advocated to reduce health risking-behaviors community wide (Woolf, 2006).

However, a number of prior efforts to activate coalitions of community stakeholders to prevent problems have been unsuccessful. Several well-intentioned community-based coalition efforts have failed to make any significant difference in the lives of young people. Scientific evaluations of coalitions focused on preventing problems ranging from drug abuse to teen pregnancy have found no positive effects on these outcomes (Collins, Johnson, & Becker, 2007; Flewelling et al., 2005; Hallfors, Cho, Livert, & Kadushin, 2002; Roussos & Fawcett, 2000; Wandersman & Florin, 2003; Yin, Kaftarian, Yu, & Jansen, 1997; Zakocs & Edwards, 2006). Even well-funded initiatives such as the Robert Wood Johnson Foundation's *Fighting Back* project and the federal Center for Substance Abuse Prevention's State Incentive Grants have failed to produce significant effects on young people's health or behaviors in available evaluations (Collins, Johnson, & Becker, 2007; Hallfors, Cho, Livert, & Kadushin, 2002).

Evaluations of these failed coalition initiatives have concluded that to produce a significant impact on intended outcomes, coalitions should follow some basic guidelines (Collins, Johnson, & Becker, 2007; David-Ferdon & Hammond, 2008; Feinberg, Greenberg, Osgood, Sartorius, & Bontempo, 2007; Flewelling et al., 2005; Hallfors, Cho, Livert, & Kadushin, 2002):

- Set clearly defined, focused, and manageable goals;
- Ensure that efforts allow for adequate planning time;
- Base decisions on empirical data about what needs to change in the community and on evidence from scientifically valid studies of what works to address those needs;
- Implement policies, practices, and programs that have been tested and shown to be effective;
- Carefully monitor prevention activities to ensure implementation quality

A new generation of community coalition-based approaches has emerged with a dual focus on both community mobilization and the use of scientific evidence regarded as essential for the success of community-based prevention. When community stakeholders from diverse organizations and backgrounds come together to achieve clear and common goals, use scientific advances regarding what works to prevent problem behaviors, and monitor their activities for quality assurance, positive outcomes can be achieved. By pooling information

and resources and selecting tested and effective policies and programs that address local needs, community coalitions can ensure the adoption of tested and effective prevention activities, enhance community buy-in for these initiatives, and increase the likelihood of their sustainability.

There is now clear evidence that coalition-based efforts that meet these conditions can increase the likelihood of positive and widespread benefits for community youth. Recent evaluations of two community-based, coalition-driven models have demonstrated effectiveness in reducing children's involvement in problem behaviors. Although their specific implementation processes differ, both the PROMoting School-community-university Partnerships to Enhance Resilience (PROSPER) project (Spoth, Greenberg, Bierman, & Redmond, 2004) and the Communities That Care (CTC) operating system (Hawkins, Catalano, & Associates, 1992; Hawkins, Catalano, & Arthur, 2002) rely on broad-based coalitions of community stakeholders who work together to carefully implement and monitor prevention strategies that have scientific evidence of effectiveness. The PROSPER model is initiated by local university Cooperative Extension Service agents, who partner with school district personnel to advocate for the use of tested and effective family- and school-based programs. Prevention activities are overseen by a coalition of stakeholders that typically includes representatives from substance use and mental health agencies, parents, youth, and other local leaders (Spoth, Greenberg, Bierman, & Redmond, 2004).

In the Communities That Care system (Hawkins, Catalano, & Associates, 1992), the community coalition is composed of key leaders and stakeholders from all sectors of the community, including schools, law enforcement, health and human service agencies, youth-serving agencies, local government, business, religious groups, youth, and parents. The coalition identifies local prevention needs by conducting a school-based survey of the community's youth and a review of ongoing community prevention services. The coalition then selects prevention activities from a menu of tested and effective preventive interventions to fill gaps in prevention services, implements and tracks these activities and their outcomes, and makes implementation changes as needed to ensure results.

The PROSPER and the CTC system have both been tested in well-designed randomized experiments and have been found to reduce adolescent problem behaviors. The evaluation of the PROSPER model was conducted in 28 communities in Iowa and Pennsylvania in which communities were randomly assigned either to receive PROSPER or not. Eighteen months after the study began, fewer middle school students in the 14 PROSPER communities reported having used gateway or illicit drugs for the first time. Students in the PROSPER communities also reported less marijuana and inhalant use in the past year compared to students in the control communities (Spoth et al., 2007).

The Communities That Care system has been evaluated in two studies, one conducted by the Prevention Research Center at The Pennsylvania State University (Feinberg, Greenberg, Osgood, Sartorius, & Bontempo, 2007), and one conducted by the Social Development Research Group at the University of Washington (Hawkins et al., 2008). The Pennsylvania project involved 120 communities funded to create CTC coalitions that enacted tested and effective prevention programs, and a group of comparison communities in which CTC was not enacted. CTC communities experienced significant reductions in communitywide alcohol and cigarette use as well as in delinquent behaviors compared with controls (Feinberg & Greenberg, in press; Feinberg, Greenberg, Osgood, Sartorius, & Bontempo, 2007).

The most recent CTC evaluation, the Community Youth Development Study (CYDS), involved 24 matched communities across seven states, which were randomly assigned to either implement the CTC system or to conduct prevention services as usual. Students in both CTC and control communities were followed in a longitudinal panel from Grade 5 through Grade 8. By the spring of Grade 8, 4 years after the CTC process began, panel students in CTC communities were 33% less likely to have tried smokeless tobacco, 32% less likely to have initiated tobacco use, 32% less likely to have ever used alcohol, and 25% less likely to have initiated delinquent behavior. By the spring of eighth grade, current alcohol use in the panel was reduced by 23%, current smokeless tobacco use was reduced by 48%, and recent binge drinking was reduced by 37%. Eighth-grade panel students from CTC communities were 31% less likely than controls to engage in a variety of delinquent acts.

Both the PROSPER and the CTC system have produced significant, communitywide reductions in behavior problems among young people while many other coalitions initiatives have not. It can be challenging to faithfully implement these coalition-based approaches, because they involve multiple components enacted over several years by groups of diverse individuals (Wandersman & Florin, 2003). Given the positive outcomes found from controlled experimental trials of these recent coalition-driven systems, it is important to understand what skills are required of individuals to successfully implement them. Both PROSPER and CTC require a community coordinator in each participating community to facilitate the work of the prevention coalition. The skills of these coalition coordinators will be important determinants of the success of efforts to replicate these outcomes nationwide (Allen, 2005; Kegler, Norton, & Aronson, 2007; Riggs, Morgan, & Pentz, 2008; Watson-Thompson, Fawcett, & Schulz, 2008). In our work with communities implementing Communities That Care, we have identified the following skills and capacities that community coordinators should have:

- Community-mobilizing skills for activating and organizing coalitions of diverse community stakeholders.
- An understanding of the basic premises of prevention science, including risk and protective factors and effective prevention programs.
- Ability to collect, analyze, interpret, and present epidemiologic data on empirically identified risk and protective factors and mental, emotional, and behavior problems in the community.
- Group process facilitation skills needed to build stakeholder consensus around priorities and actions.
- Ability to locate, read, comprehend, and critique research reports on the effects of preventive interventions.
- Knowledge of universal, selective, and indicated effective prevention policies, programs, and practices.
- Knowledge of the various systems, agencies, and organizations that affect youths and could be activated for prevention programming.
- Skills to facilitate implementation and integration of prevention strategies into existing systems, agencies, and organizations.
- Appreciation of the need to implement prevention strategies with fidelity; that is, in adherence to the theoretical rationale and key components specified by developers.
- Ability to manage systems for monitoring fidelity of implementation.
- Process and outcome evaluation skills.

- Ability to communicate the economic benefits of tested and effective preventive interventions relative to their costs.
- Ability to identify and secure resources to support and sustain coalition and prevention work.

This is an extensive list of skills and capacities needed to successfully coordinate the work of community prevention coalitions. It is difficult to find candidates who have them all. The 2009 IOM report identified workforce development as one of three infrastructure challenges to the effective widespread dissemination and implementation of the advances of prevention science (O'Connell, Boat, & Warner, 2009). The Annapolis Coalition on Behavioral Health Workforce Education (Hoge & Morris, 2003) asserted that “the public health perspective on the value of prevention, early identification and early intervention are honored in training programs more in word than deed” (p.2). The Annapolis Coalition recommended that clinical training programs be expanded to include specific competencies in prevention (Hoge, Huey, & O'Connell, 2004). There is a need for purposive training of prevention practitioners.

Social Work's Advantageous Position for Providing Prevention Training

Social work has a long history of leadership in prevention work (Siefert, 1983) and is well positioned to respond to this contemporary need. Social work originally emerged as a distinct profession through primary prevention efforts in the settlement house movement (Van Pelt, 2009). The Sheppard-Towner Act of 1921 established governmental responsibility for the health of children and was passed, based in large part on an advocacy campaign led by social workers. This legislation established national and local infrastructures to carry out data collection activities and to mount preventive interventions. Yet in 1981, Bloom decried the lack of emphasis on prevention training in social work education programs (Bloom, 1981). Subsequently, the Council on Social Work Education was awarded a 3-year NIMH grant to “promote the development of curriculum and teaching materials on primary prevention in mental health. The ultimate objective of the project was to increase the supply of manpower equipped to plan and deliver preventive mental health services” (Nobel, 1981, p. v).

Reimbursement structures for services, the lure of private practice, and an emphasis on “casework” and treatment for disorders in the 1980's inhibited the widespread inclusion of curricula focused on prevention in social work training programs at that time (Roskin, 1980). Advances in prevention science over the last 2 decades have clearly established what works in preventing mental, emotional, and behavioral disorders, creating a greater demand for preventive services skills and resulting in new practice roles. The Council for Social Work Education has recognized this need for a trained prevention workforce by making the “Advanced Social Work Practice in the Prevention of Substance Use Disorders” (Council on Social Work Education, 2009), the first concentration area for which it has developed advanced practice training competencies to build upon the Educational Policy and Accreditation Standards of 2008.

Social work could be a natural home for prevention training. Social work has a tradition of preparing students to consider environmental predictors of health and behavior problems as potential targets for preventive solutions (Roskin, 1980). Social workers use an ecological model to consider multiple individual and contextual factors in assessment, intervention, and evaluation, as well as the role of power and resources in understanding policy, institutions, and interpersonal dynamics (Russell, Champika, Wagoner, & Dawson, 2008). Social work training already provides significant content in policy development and agency administration (Moore, Davis, & Mellon, 1985). Social workers are exposed to the great

variety of service systems and agencies that are included in prevention coalitions. At any given time, 58% of social work students are in field placements learning applied practice skills. Furthermore, the solution-focused and strength-based methods that social work trains students to use in their casework and community-organizing activities are necessary in the work of prevention (Roskin, 1980). Social work is poised to respond to the 2009 IOM report's call to develop a workforce to advance the prevention of mental, emotional, and behavioral disorders (O'Connell, Boat, & Warner, 2009). To what extent will social work provide leadership in the preparation of professionals in the prevention of mental, emotional, and behavioral problems? In the remainder of this paper, we suggest ways in which social work education might seize the opportunity to develop a skilled workforce prepared to empower local coalitions to utilize advances in prevention science to reduce the prevalence of undesirable outcomes in the communities they serve. Our ideas about skill development for prevention through social work education require varying degrees of change. They are presented in hope that various approaches to infusing training for preventive practice into social work education programs will be considered, debated, and adopted to fill a growing need.

Opportunities for Development of the Prevention Workforce

We see three strategic opportunities through which schools of social work can advance workforce development for effective prevention policies, programs, and practices. These are through general undergraduate education, pre-service training in social work at the bachelor's, master's, and doctoral levels, and continuing education training for workers already in practice.

General Undergraduate Education

The federal Substance Abuse and Mental Health Services Administration (SAMHSA) broadly defines their workforce to include professionals, paraprofessionals, community members, and families who work to promote resilience and recovery (Hoge et al., 2007). This notion reflects the importance of consumer advocacy in system transformation and the expanding role of paraprofessionals in service delivery (Brennen, 1967; Clark, Power, Le Fauve, & Lopez, 2008; Lincourt, 2005). It is important to empower students earning associate and bachelor's degrees with knowledge of the advances of prevention science and skills needed to become informed consumers of prevention services, committed front-line paraprofessionals (such as mentors and tutors), engaged community members, citizen advocates, and contributors to the advancement of prevention through their chosen professions.

What does this look like in general undergraduate education? Teaching undergraduates to use scientific principles to inform opinions and decisions (Gambrill, 2006), helping them to develop content knowledge and critical thinking skills (Nickerson, 1986) in regard to the effective prevention of social problems, and developing an ideal of social justice fostered through the universal promotion of well-being (Kenny, Horne, Orpinas, & Reese, 2008) should increase their support and advocacy for prevention, encourage enrollment and retention in effective preventive interventions, and facilitate recruitment into the social work profession (Wittman, 1965). Social work faculty should reach across disciplines and institutional boundaries to orient non-social work undergraduate students to a way of thinking that will foster the adoption of science-based solutions to social problems. In a course we offer at the University of Washington, titled "Advances in Prevention Science: Bridging the Gap from Science to Service," undergraduate students from diverse disciplines learn, often for the first time, that many significant social problems can be prevented before these problems occur. The students learn to ask "what is the scientific evidence that this policy, program, or practice works?" in formulating an opinion as to how to ameliorate

social problems. They learn how to read scientific reports, evaluate evidence, and use their power as engaged citizens and allied professionals to shape debate and advocate for the implementation of effective prevention strategies in their communities. These students are the future coalition members, interventionists, and consumers of community-based preventive initiatives and are crucial to the successful development of infrastructure to support the diffusion of tested and effective preventive policies and programs.

Pre-service Training

Pre-service training provides an opportunity for future social workers to learn the skills needed for effective prevention practice. BSWs could be the interventionists who implement effective prevention programs. MSWs could be prepared for roles as community coordinators who mobilize entire communities to use effective strategies to prevent mental, emotional, and behavioral disorders. Prevention training for these roles can be incorporated into social work education through (a) integrating prevention into the foundation curriculum, (b) offering elective courses and/or advanced concentrations, and/or (c) developing interdisciplinary collaborations.

Foundation Curriculum

Adding prevention content to foundation coursework is the most direct way to broaden social workers' perception of their roles (Roskin, 1980) and ensure that classroom training is aligned with prevention practice demands (Volland, Berkman, Stein, & Vaghy, 1999; Wilkinson, Rounds, & Copeland, 2002). Reframing students' expectations of social work roles to include those who prevent problems (Conyne, Newmeyer, Kenny, Romano, & Matthews, 2008) as well as treat them will encourage students to learn skills for community mobilization, and for the design, implementation, and evaluation of preventive interventions (Wilkinson, Rounds, & Copeland, 2002). Skills needed for prevention work build upon skills developed in other courses, but the utility of these skills for prevention often goes unnoted without sufficient concrete examples of application (Conyne, Newmeyer, Kenny, Romano, & Matthews, 2008).

In the Foundation curriculum, students already learn to assess empirical studies of interventions to determine if the design, measures, and analyses are adequate to allow conclusions regarding intervention efficacy or effectiveness. Students would benefit from additional examples using preventive interventions and should learn skills to monitor the fidelity of implementation in these courses. In teaching research courses to MSW students, we have found that about three fifths of students begin the course with the assumption that research is "extremely useful or relevant" to social work practice, but only about a third anticipate that research will be as useful or relevant to the role they will have when they complete their MSW. Social work students need to learn and appreciate research methods as a practice skill relied upon in their prevention and intervention work.

When students are introduced to the historical and intellectual foundations of social work practice, they learn the philosophical orientation that underlies public intervention to promote community and social welfare. They should additionally learn about the history of prevention in social work, from the community transformation efforts of the Settlement Movement and the institutionalization of health promotion practices through the Children's Bureau (Kemp, Almgren, Gilchrist, & Eisinger, 2001), to the current mandates for evidence-based practice.

In foundation policy classes, students already develop skills to analyze a policy for use as both a tool and target for social change. In addition, students should understand how welfare policy can be an investment in prevention (i.e., Esping-Andersen's Child Centered Social

Investment Strategy calls for a reorientation from welfare state “social spending” to “social investment”-- Esping-Andersen, Gallie, Hemerijk, & Myers, 2002). They should study exemplars of effective policies for the prevention of social problems, for example, how changing the minimum drinking age from 18 to 21 reduced drinking and driving accidents among 18- to 21-year-olds in the U.S. (Wagenaar & Toomey, 2002).

In courses in which students learn about “human behavior in the social environment” students should be exposed to the longitudinal and epidemiologic studies that have identified risk and protective factors predictive of undesirable outcomes (Mason & Nakkula, 2008; Siefert, Jayaratne, & Martin, 1992). Content should include individual, interpersonal, and structural/systemic factors that interact and predict diverse mental, emotional, and behavioral outcomes. Students should develop skills to collect, organize, interpret, and report epidemiologic data on risk and protective factors and on the incidence and prevalence of mental, emotional, and behavioral problems as a foundation for data-based prevention practice.

In foundation practice classes, students begin to learn the micro practice skills of communicating with diverse stakeholder groups, using screening protocols to select individuals appropriate for interventions, and appraising strategies for appropriateness with diverse populations in specific contexts. Students also begin to learn the macro practice skills of engaging stakeholders and assessing resources, building consensus for social priorities, and using effective outreach and education campaigns to access hard-to-reach populations. In addition, students need to understand the distinction between prevention and treatment and the assumptions and characteristics of universal, selective, and indicated prevention approaches.

Infusion of prevention content into the curriculum requires appropriate field education experiences (Conyne, Newmeyer, Kenny, Romano, & Matthews, 2008; Zins, 2001). Currently, prevention practicum opportunities appear most plentiful in school districts and with sovereign tribes. It is noteworthy that at our own university, prevention is not listed as an area of work on the checklists field sites use to communicate placement opportunities to prospective students. When a meaningful number of bachelor's and master's-level social workers have opportunities to engage in prevention work in their field placements, social workers will begin to be adequately trained in prevention.

Advanced Electives or Specialization in Prevention

In some schools of social work, there may be opportunities for advanced practice courses in prevention that build upon the foundation already discussed. In such courses, students could learn how to promote community readiness; mobilize coalitions; use risk and protective factor profiles to select new prevention policies, programs, or practices to address identified community needs; set explicit goals for change; and implement preventive interventions that achieve coalition goals. Students could learn how to secure or promote reallocation of resources to support and sustain prevention work, and could study and learn to apply theories of organization change and diffusion of innovations (Rogers, 1995). They would also benefit from understanding basic principles of benefit-cost analysis and communicating the impact of preventive interventions in economic terms.

Even where the core curriculum is unchanged, social work educators could create freestanding courses and programmatic tracks to prepare students specifically for prevention work. The University of Michigan has offered “Preventive Intervention in Social Work,” a course which conveys the history of prevention in social work, the current knowledge base in prevention, ethical issues in the design and implementation of prevention strategies, and basic epidemiological methods (Siefert, Jayaratne, & Martin, 1992). At the University of

North Carolina, prevention coursework was designed for the Maternal and Child Health Leadership Program in order to connect the prevention agenda with the mission and values of social work (Wilkinson, Rounds, & Copeland, 2002). Other universities have established freestanding multidisciplinary prevention training programs outside schools of social work, such as the program at the University of Wisconsin (a joint affiliation of the schools of education, human development, nursing, and social work), or within colleges of education, such as Harvard University, the University of Pennsylvania, and the University of Virginia, which each grant a degree in some variant of prevention science (Britner & O'Neil, 2008; Mason & Nakkula, 2008) for graduate students. In partnership with the Southwest Prevention Center, the University of Oklahoma has developed an online master's degree program in prevention expected to enroll its first cohort in 2010 (<http://swpc.ou.edu/services/masterdegree.htm>).

Critics of these programs suggest that programs outside of social work schools and departments may be difficult or costly for social work students to access. It can be difficult to align the credits from these programs with accreditation standards for graduation, certification, and licensing. Moreover, elective prevention programs and courses are likely to be enrollment challenges for social work students if prevention content is absent from the core curriculum in social work because students may not appreciate the prevention training program's relevance or utility to their profession. Clearly, prevention training programs external to social work should include mentoring and some coursework in prevention in social work education programs in order to integrate social work and prevention (Conyne, Newmeyer, Kenny, Romano, & Matthews, 2008).

Public Health Social Workers

Some universities have institutionalized relationships between schools of public health and schools of social work to cross-train cohorts of prevention workers (IASWR, 2003). Over the past 30 years, joint programs have expanded from an initial pilot in Minnesota (Hooymann, Schwanke, & Yesner, 1981) to the current 21 programs. Interdisciplinary trainers claim that the benefits are mutual in helping social workers learn applied epidemiology, and public health students learn participatory, empowering, and culturally responsive techniques that aid in diffusion of macro practice preventive interventions (Ruth, Geron, Wyatt, Bachman, & Chiasson, 2006). Elizabeth Clark, the executive director of NASW, wrote that "public health social work might be the future of social work. Recent political changes are expected to affect the future delivery of healthcare, possibly leading to more emphasis on preventive healthcare and integrated healthcare and wellness services. The ability of public health social workers to bridge prevention and intervention, individual and community, and practice and policy will be increasingly valued in our changing society." (Van Pelt, 2009, p.30). The IASWR (2003) reports several challenges to the implementation of this model, including a lack of student identification with the term "public health social worker," a lack of social work integration into the American Public Health Association (APHA), and tensions between the social work commitment to the vulnerable and the public health commitment to the broad population, all of which may be addressed by interdisciplinary mentoring and field placements. The only published outcome study of graduates of these dual degree programs indicated that graduates were slightly underutilized for their skills sets, felt somewhat 'homeless' with regard to professional identification, and had significant financial consequences of the dual degree training, though they reported that they would choose the same training again. Participants in the dual degree program saw social work as the 'soft,' though valued, side of their training (Ruth, Geron, Wyatt, Bachman, & Chiasson, 2006). Critics of the integration of public health content into social work fear it will medicalize the profession (Siefert, Jayaratne, & Martin, 1992).

At the doctoral level, required coursework often is more flexible and interdisciplinary training is strongly encouraged. At the University of Michigan and the University of Washington, institutional training grants support the development of prevention scientists through the National Institute of Mental Health Prevention Research Training Program. While those trained at the doctoral level may have limited direct practice roles in prevention, they will need to be well trained in prevention science in order to train bachelor's and master's-level social workers to provide preventive services. They also may become prevention program developers, researchers, state and federal program administrators, and federal agency personnel. Preparation at this level varies substantially by institution and needs to be made more available.

In-service Training /Technical Assistance

Workforce training for prevention could also reach professionals already practicing in the field of social work through in-service training and technical assistance. In fact, most clinicians develop their prevention skills on the job post-graduation (Conyne, Newmeyer, Kenny, Romano, & Matthews, 2008). Technical assistance can be very responsive and relevant to practice demands, but has been found to be more successful when built upon a training foundation that allows practitioners to take advantage of it (Chinman et al., 2005). Therefore, training and technical assistance programs should be integrated. Social work departments have an opportunity to provide training to professionals through certificate and continuing education programs. Nearly every jurisdiction that issues social work licenses requires continuing education courses for license renewal. Social work continuing education requirements are rigorous across all 50 states (Daniels & Walter, 2002), but continuing education opportunities for practitioners working at the community level continue to be sparse. Schools could offer such individuals a coordinated series of prevention courses resulting in a postgraduate certificate in prevention practice. It could be worthwhile to extend collaborations with APHA to provide continuing education credits for public health social workers.

Schools of social work could also provide training to frontline prevention practitioners who have not received graduate training. Schools of social work could expand upon an emerging infrastructure by partnering with the Association for Addiction Professionals to become approved providers of training for Certified Prevention Specialists, a designation offered by the International Certification and Reciprocity Consortium (IC&RC) to credential frontline prevention workers in 40 of 50 American states and in 9 foreign countries (Hayden, 2005). Credentialing requires a minimum of 2,000 hours of practice experience, 120 hours in supervision, and 100 hours of education, with a 40-hour continuing education requirement every 2 years. The coursework content and the credentialing exam include (a) planning and evaluation, (b) education and skill development, (c) community organization, (d) public policy and environmental change, and (e) professional growth and responsibility. Although this training is now done exclusively by the service sector, academic schools of social work should become involved in training Certified Prevention Specialists to facilitate the transfer of research to practice and bring advances in prevention science to the field.

The Challenge Ahead

We are aware of the challenges of placing a serious emphasis on prevention practice in social work education. A case study from the Risk and Prevention training program at the Harvard Graduate School of Education suggests that success is predicated on finding likeminded faculty, communicating to administration and recruits the importance and uniqueness of the program, ensuring eligibility for licensure, and translating the training to professional opportunities upon graduation (Mason & Nakkula, 2008). Others have suggested focusing first on bachelor's and doctoral training, so as to more quickly build a

quorum of agency staff ready to carry out prevention work, change agency norms, and simultaneously prepare the next generation of faculty with skills to teach prevention content in master's training programs (Siefert, Jayaratne, & Martin, 1992).

The advances in prevention science over the past 2 decades have created the need for a national workforce that is trained to move evidence-based prevention from efficacy and effectiveness trials into widespread national application. Schools and departments in other professions and disciplines are assessing their capacity to seize this opportunity. We urge schools and departments of social work to respond to this need by leading the training of the prevention workforce of the 21st century.

Acknowledgments

This work was supported by a research grant from the National Institute on Drug Abuse (R01 DA015183-01A1) with co-funding from the National Cancer Institute, the National Institute of Child Health and Human Development, the National Institute of Mental Health, the National Institute on Alcohol Abuse and Alcoholism, and the Center for Substance Abuse Prevention, and a training grant from the National Institutes of Mental Health (T32 MH20010). The authors wish to acknowledge the contributions of the communities participating in the Community Youth Development Study.

References

- Allen NE. A multi-level analysis of community coordinating councils. *American Journal of Community Psychology*. 2005; 35:49–63. [PubMed: 15792095]
- Balas, EA.; Boran, SA. Managing clinical knowledge for health care improvement. In: van Bommel, JH.; McCray, AT.; Alexa, T., editors. *Yearbook of medical informatics: Patient-centered systems*. Schattauer; Stuttgart, Germany: 2000. p. 65-70.
- Bloom M. Primary prevention. *Social Work in Health Care*. 1981; 6:53–67. [PubMed: 7313916]
- Brennen EC. College students and mental health programs for children. *American Journal of Public Health*. 1967; 57:1767–1771. [PubMed: 6069672]
- Britner PA, O'Neil JM. The teaching of primary prevention: Concluding thoughts and a call to action. *Journal of Primary Prevention*. 2008; 29:455–459. [PubMed: 18949560]
- Catalano RF, Kosterman R, Hawkins JD, Newcomb MD, Abbott RD. Modeling the etiology of adolescent substance use: A test of the social development model. *Journal of Drug Issues*. 1996; 26:429–455. [PubMed: 17848978]
- Catalano, RF.; Park, J.; Harachi, TW.; Haggerty, KP.; Abbott, RD.; Hawkins, JD. Mediating the effects of poverty, gender, individual characteristics, and external constraints on antisocial behavior: A test of the social development model and implications for developmental life-course theory. In: Farrington, DP., editor. *Advances in criminological theory: Vol. 14. Integrated developmental and life-course theories of offending*. Transaction; New Brunswick, NJ: 2005. p. 93-123.
- Chinman M, Hannah G, Wandersman A, Ebener P, Hunter SB, Imm P, et al. Developing a community science research agenda for building community capacity for effective preventive interventions. *American Journal of Community Psychology*. 2005; 35:143–157. [PubMed: 15909791]
- Clark HW, Power AK, Le Fauve CE, Lopez E.I. Policy and practice implications of epidemiological surveys on co-occurring mental and substance use disorders. *Journal of Substance Abuse Treatment*. 2008; 34:3–13. [PubMed: 17574794]
- Coie JD, Watt NF, West SG, Hawkins JD, Asarnow JR, Markman HJ, et al. The science of prevention. A conceptual framework and some directions for a national research program. *American Psychologist*. 1993; 48:1013–1022. [PubMed: 8256874]
- Collins D, Johnson K, Becker BJ. A meta-analysis of direct and mediating effects of community coalitions that implemented science-based substance abuse prevention interventions. *Substance Use & Misuse*. 2007; 42:985–1007. [PubMed: 17613959]
- Conyne RK, Newmeyer MD, Kenny M, Romano JL, Matthews CR. Two key strategies for teaching prevention: specialized course and infusion. *Journal of Primary Prevention*. 2008; 29:375–401. [PubMed: 18807193]

- Council on Social Work Education. Advanced social work practice in the prevention of substance use disorders. Author; Alexandria, VA: 2009.
- Cullen FT, Jonson CL. Understanding the importance of Communities That Care. *Archives of Pediatrics and Adolescent Medicine*. 2009; 163:866–868. [PubMed: 19736344]
- Daniels AS, Walter DA. Current issues in continuing education for contemporary behavioral health practice. *Administration and Policy in Mental Health*. 2002; 29:359–376. [PubMed: 12238559]
- David-Ferdon C, Hammond WR. Community mobilization to prevent youth violence and to create safer communities. *American Journal of Preventive Medicine*. 2008; 34:S1–2. [PubMed: 18267193]
- Esping-Andersen, G.; Gallie, D.; Hemerijk, A.; Myers, J. Why we need a new welfare state. Oxford University Press; New York: 2002.
- Fagan, AA.; Hawkins, JD.; Catalano, RF. Using community epidemiologic data to improve social settings: The Communities That Care prevention system. In: Shinn, M.; Yoshikawa, H., editors. *Toward positive youth development: Transforming schools and community programs*. Oxford University Press; Oxford; New York: 2008. p. 292–312.
- Feinberg ME, Greenberg M. Preliminary report: CTC impact in Pennsylvania. Findings from the 2001 & 2003 PA Youth Survey. *Prevention Science*. in press.
- Feinberg ME, Greenberg MT, Osgood D, Sartorius J, Bontempo D. Effects of the Communities That Care model in Pennsylvania on youth risk and problem behaviors. *Prevention Science*. 2007; 8:261–270. [PubMed: 17713856]
- Flewelling RL, Austin D, Hale K, LoPlante M, Liebig M, Piasecki L, et al. Implementing research-based substance abuse prevention in communities: Effects of a coalition-based prevention initiative in Vermont. *Journal of Community Psychology*. 2005; 33:333–353.
- Gambrill, E. *Critical thinking clinical practice: Improving the quality of judgments and decisions*. 2nd ed.. John Wiley & Sons; Hoboken: 2006.
- Hallfors D, Cho H, Livert D, Kadushin C. Fighting back against substance abuse: Are community coalitions winning? *American Journal of Preventive Medicine*. 2002; 23:237–245. [PubMed: 12406477]
- Hawkins, JD.; Catalano, RF., Jr.; Associates. *Communities That Care: Action for drug abuse prevention*. 1st ed.. Jossey-Bass; San Francisco: 1992.
- Hawkins JD, Catalano RF, Arthur MW. Promoting science-based prevention in communities. *Addictive Behaviors*. 2002; 27:951–976. [PubMed: 12369478]
- Hawkins JD, Catalano RF, Arthur MW, Egan E, Brown EC, Abbott RD, et al. Testing Communities That Care: The rationale, design and behavioral baseline equivalence of the Community Youth Development Study. *Prevention Science*. 2008; 9:178–190. [PubMed: 18516681]
- Hawkins JD, Van Horn ML, Arthur MW. Community variation in risk and protective factors and substance use outcomes. *Prevention Science*. 2004; 5:213–220. [PubMed: 15566047]
- Hayden J. Multiple choices for certification. *Health Promotion Practice*. 2005; 6:258–262. [PubMed: 16106567]
- Hoge MA, Huey LY, O'Connell MJ. Best practices in behavioral health workforce education and training. *Administration and Policy in Mental Health*. 2004; 32:91–106. [PubMed: 15586846]
- Hoge, MA.; Morris, JA. Behavioral health workforce education: An essential element of sustainable reform. 2003. Retrieved May 20, 2009, from <http://www.acmha.org/publications/annapolis.pdf>
- Hoge, MA.; Morris, JA.; Daniels, AS.; Stuart, GW.; Huey, LY.; Adams, N. An action plan on behavioral health workforce development: A framework for discussion. *Annapolis Coalition on the Behavioral Health Workforce*; Annapolis, MD: 2007.
- Hooyman G, Schwanke RW, Yesner H. Public health social work. *Social Work in Health Care*. 1981; 6:87–99. [PubMed: 7313919]
- Howell, JC. *Preventing and reducing juvenile delinquency: A comprehensive framework*. 2nd ed.. Sage; Thousand Oaks, CA: 2009.
- Huang B, Kosterman R, Catalano RF, Hawkins JD, Abbott RD. Modeling mediation in the etiology of violent behavior and adolescence: A test of the social development model. *Criminology*. 2001; 39:75–107.

- IASWR.. Social work contributions to public health: Bridging research and practice in preventing violence. 2003. Retrieved September 20, 2009, from <http://charityadvantage.com/iaswr/cdcfinalrpt.pdf>
- Kegler MC, Norton B,L, Aronson R. Skill improvement among coalition members in the California Healthy Cities and Communities Program. *Health Education Research*. 2007; 22:450–457. [PubMed: 17021273]
- Kemp S, Almgren G, Gilchrist L, Eisinger A. Serving the “whole child.” Prevention practice and the US Children's Bureau. *Smith College Studies In Social Work*. 2001; 71:475–499.
- Kenny, M.; Horne, AM.; Orpinas, P.; Reese, LRE. Realizing social justice: The challenge of preventive interventions. American Psychological Association; Washington, DC: 2008.
- Lincourt, P. Framework for frontline professional development: A structured workplace learning environment. Institute for Professional Development in the Addictions; Albany, NY: 2005.
- Lonczak HS, Huang B, Catalano RF, Hawkins JD, Hill KG, Abbott RD, et al. The social predictors of adolescent alcohol misuse: A test of the Social Development Model. *Journal of Studies on Alcohol*. 2001; 62:179–189. [PubMed: 11327184]
- Mason MJ, Nakkula MJ. A risk and prevention counselor training program model: theory and practice. *Journal of Primary Prevention*. 2008; 29:361–374. [PubMed: 18814030]
- Moore, DJ.; Davis, M.; Mellon, J. Academia's response to state mental health system needs: A survey of graduate mental health education programs in the West. Western Interstate Commission for Higher Education; Boulder, CO: 1985.
- Mrazek, PJ.; Haggerty, RJ. Reducing risks for mental disorders: Frontiers for prevention intervention research. National Academy Press; Washington, DC: 1994. Committee on Prevention of Mental Disorders, Institute of Medicine.
- Nickerson, RS. Reflections on reasoning. Erlbaum; Hillsdale, NJ: 1986.
- Nobel, M. Primary prevention in mental health and social work: A sourcebook of curriculum and teaching materials. Council on Social Work Education; New York: 1981.
- O'Connell, ME.; Boat, T.; Warner, KE. Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities. National Academies Press; Washington, DC: 2009.
- Riggs NR, Morgan N, Pentz MA. Promoting community coalition functioning: effects of project STEP. *Prevention Science*. 2008; 9:63–72. [PubMed: 18483859]
- Rogers, E. Diffusion of innovations. 4th ed.. Free Press; New York: 1995.
- Roskin M. Integration of primary prevention into social work practice. *Social Work*. 1980; 25:192–196. [PubMed: 10246990]
- Roussos ST, Fawcett SB. A review of collaborative partnerships as a strategy for improving community health. *Annual Review of Public Health*. 2000; 21:369–402.
- Russell BS, Champika KS, Wagoner MJ, Dawson L. Teaching prevention on specific topics: Key elements and pedagogical techniques. *Journal of Primary Prevention*. 2008; 29:413–433. [PubMed: 18807192]
- Ruth BJ, Geron SM, Wyatt J, Bachman S, Chiasson E. Social work and public health: Comparing graduates from a dual-degree program. *Journal of Social Work Education*. 2006; 42:429–439.
- Rutter M. Resilience in the face of adversity: Protective factors and resistance to psychiatric disorder. *British Journal of Psychiatry*. 1985; 147:598–611. [PubMed: 3830321]
- Siefert K. An exemplar of primary prevention in social work. *Social Work in Health Care*. 1983; 9:87–103. [PubMed: 6635906]
- Siefert K, Jayaratne S, Martin LD. Implementing the public health social work forward plan: a research-based prevention curriculum for schools of social work. *Health & Social Work*. 1992; 17:17–27. [PubMed: 1537576]
- Society for Prevention Research. Standards of evidence: Criteria for efficacy, effectiveness, and dissemination. 2004. Retrieved November 9, 2005, from <http://www.preventionresearch.org/StandardsofEvidencebook.pdf>
- Spoth R, Greenberg M, Bierman K, Redmond C. PROSPER Community-University Partnership Model of Public Education Systems: Capacity-building for evidence-based, competence-building prevention. *Prevention Science*. 2004; 5:31–39. [PubMed: 15058910]

- Spoth R, Redmond C, Shin C, Greenberg M, Clair S, Feinberg M. Substance-use outcomes at 18 months past baseline: The PROSPER community-university partnership trial. *American Journal of Preventive Medicine*. 2007; 32:395–402. [PubMed: 17478265]
- Van Horn ML, Hawkins JD, Arthur MW, Catalano RF. Assessing community effects on adolescent substance use and delinquency. *Journal of Community Psychology*. 2007; 35:925–946.
- Van Pelt J. Social work and public health - perfect partners. *Social Work Today*. 2009; 9:28.
- Volland, P.; Berkman, B.; Stein, G.; Vaghy, A. Social work education for practice in health care. New York Academy of Medicine; 1999.
- Wagenaar AC, Toomey TL. Effects of minimum drinking age laws: Review and analyses of the literature from 1960 to 2000. *Journal of Studies on Alcohol*. 2002; 14:206–225.
- Wandersman A, Florin P. Community interventions and effective prevention. *American Psychologist*. 2003; 58:441–448. [PubMed: 12971190]
- Watson-Thompson J, Fawcett SB, Schulz JA. A framework for community mobilization to promote healthy youth development. *American Journal of Preventive Medicine*. 2008; 34:S72–S81. [PubMed: 18267205]
- Wilkinson DS, Rounds KA, Copeland VC. Infusing public health content into foundation and advanced social work courses. *Journal of Teaching in Social Work*. 2002; 22:139–154.
- Wilson DB, Gottfredson DC, Najaka SS. School-based prevention of problem behaviors: A meta-analysis. *Journal of Quantitative Criminology*. 2001; 17:247–272.
- Wittman M. Social work manpower in the health services. *American Journal of Public Health*. 1965; 55:393–399. [PubMed: 18018075]
- Woolf SH. The big answer: Rediscovering prevention at a time of crisis in healthcare. *Harvard Health Policy Review*. 2006; 7:5–20.
- Yin RK, Kaftarian SJ, Yu P, Jansen MA. Outcomes from CSAP's Community Partnership Program: Findings from the National Cross-Site Evaluation. *Evaluation and Program Planning*. 1997; 20:345–355.
- Zakocs RC, Edwards EM. What explains community coalition effectiveness? A review of the literature. *American Journal of Preventive Medicine*. 2006; 30:351–361. [PubMed: 16530624]
- Zins JE. Examining opportunities and challenges for school-based prevention and promotion: Social and emotional learning as an exemplar. *Journal of Primary Prevention*. 2001; 21:441–446.