

SPECIAL SECTION

Developing the Evidence Base for Peer-Led Services: Changes among Participants following Wellness Recovery Action Planning (WRAP) Education in Two Statewide Initiatives

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Objective: The purpose of this analysis was to evaluate the outcomes of two statewide initiatives in Vermont and Minnesota, in which self-management of mental illness was taught by peers to people in mental health recovery using Wellness Recovery Action Planning (WRAP). *Methods:* Pre-post comparisons were made of reports from 381 participants (147 in Vermont and 234 in Minnesota) on a survey instrument that assessed three dimensions of self-management: 1) attitudes, such as hope for recovery and responsibility for one's own wellness; 2) knowledge, regarding topics such as early warning signs of decompensation and symptom triggers; and 3) skills, such as identification of a social support network and use of wellness tools. *Results:* Significant positive changes in self-management attitudes, skills and behaviors were observed on 76% of items completed by Vermont participants (13 of 17 survey items), and 85% of items completed by Minnesota participants (11 of 13 items). In both states, participants reported significant increases in: 1) their hopefulness for their own recovery; 2) awareness of their own early warning signs of decompensation; 3) use of wellness tools in their daily routine; 4) awareness of their own symptom triggers; 5) having a crisis plan in place; 6) having a plan for dealing with symptoms; 7) having a social support system; and 8) ability to take responsibility for their own wellness. *Conclusions:* Given the rapid growth of this intervention in the U.S. and internationally, these results contribute to the evidence base for peer-led services, and suggest that more rigorous investigations are warranted in the future.

Keywords: illness management, recovery, peer support, program evaluation

Introduction

The notion that peers can teach other peers skills, attitudes, and behaviors that enable them to self-manage their mental illness is not widely accepted. Only with the adoption of a recovery paradigm in the field of public mental health has a national context existed for the formal development and testing

of these kinds of programs. This article describes the collaboration between an academic research center, a nationally-recognized recovery educator, and two statewide consumer organizations to develop the evidence base for self-management of mental health wellness. The model under study is Wellness Recovery Action Planning™ or WRAP. In this article, we describe WRAP's content and active ingredients,

how individuals are trained and certified to teach it, and how we used evaluations of two statewide WRAP initiatives to advance the state of the science in peer-led interventions, with the hope of empirically supporting and thereby encouraging WRAP's dissemination and widespread adoption.

Review of the Literature

Chronic Illness Self-Management.

Illness self-management programs for individuals with chronic medical conditions such as arthritis, diabetes, cancer, and asthma are an important component of patient-centered medical care as defined by the Institute of Medicine's "Crossing the Quality Chasm" report (Institute of Medicine, 2001). Use of structured techniques for managing illness symptoms and ongoing self-assessment and self-monitoring are considered active ingredients of behavior change in this type of intervention. Lorig and colleagues (1999, 2001) used random assignment to evaluate a self-management program for patients with chronic medical conditions taught by trained volunteer lay leaders (71% of whom had chronic illnesses themselves) that included the following topics: use of medications; dealing with fear, anger and depression; communicating with health professionals; problem solving; decision-making; exercise; nutrition; fatigue and sleep management; cognitive symptom management; and use of community resources. Groups of 10-15 participants of diverse ages and medical conditions (i.e., heart disease, stroke, lung disease, and arthritis) participated in the training over seven weekly 2 and ½ hour sessions. Compared to controls, treatment subjects demonstrated improvements in weekly minutes of exercise, frequency of cognitive symptom management strategies, communication with physicians, and self-reported health. Also observed were reductions in health

distress, fatigue, disability, and social limitations, as well as fewer inpatient admissions and days hospitalized. Compared to baseline, at both one and two years post-training, treated subjects reported fewer Emergency Room and outpatient visits, reduced health distress, and greater self-efficacy, indicating that the effects of illness self-management training persisted over time. In a review article of illness self-management clinical trials for arthritis, diabetes, asthma, and mixed chronic conditions, Bodenheimer and colleagues (2002) conclude that patient education programs teaching self-management skills produce superior outcomes to programs teaching medical information alone. Therefore, enough randomized controlled trial research evidence exists to warrant classifying these programs as an evidence-based practice intervention.

Self-Management of Mental Health

Recovery. A small number of programs dealing with mental illness self-management (Mueser et al., 2002) are highly similar in their philosophy and intended outcomes to those used in the foregoing studies, with an additional focus on recovery. Although the concept of mental health recovery is relatively new (Deegan, 1988), people with mental health difficulties have been self-managing and functioning in the community long before the idea of recovery became popularized (Eldred, Brooks, Deane & Taylor, 1962; Harding, Brooks, Ashikaga, Strauss & Breier, 1987). Studies show that self-management—or a person's determination to get better, manage the illness, take action, face problems, and make choices—facilitates recovery from mental illnesses (Allott, Loganathan & Fulford, 2002). Self-managed care strategies are as varied as people themselves, but some common techniques include writing down or talking about problems, speaking with or visiting friends,

exercising, praying/meditating, engaging in creative endeavors, practicing good nutrition, and self-advocacy (Copeland, 2001).

Building on these early findings, mental illness self-management programs have been developed to impart information, teach recovery skills, provide emotional support, and enhance empowerment and self-advocacy (Anzai et al., 2002; Lawn et al., 2007). For example, the Taking Charge program, based on the self-help tenets of Recovery, Inc., is a series of weekly classes in which participants learn cognitive-behavioral techniques for dealing with conflict and tension, symptom management skills to build self-esteem and reduce inner turmoil, and emotional wellness tools to regain a sense of control over one's life (VanSickle, 1996). Another example is the Illness Management and Recovery program that consists of weekly sessions where people with a mental illness learn structured problem solving, develop personalized strategies for managing their symptoms, build social support systems, set personal goals, and develop plans for moving forward in their lives (Gingerich & Mueser, 2005).

In addition to the foregoing self-management programs, Wellness Recovery Action Planning™ (WRAP) is probably the most widely disseminated in the U.S. (Roberts & Wolfson, 2004). WRAP is a program in which participants identify internal and external resources for facilitating recovery, and then use these tools to create their own, individualized plan for successful living (Copeland, 1997). The principles and practice of WRAP were laid out in its first formal publication in 1997 and, since then, WRAP has been taught to tens of thousands of consumers and providers, nationally and internationally (Copeland, 2001). The typical WRAP series lasts for 8-10 weeks with weekly

sessions of 1-2 hour group education. Topics include: Introduction to WRAP Principles, Developing a Wellness Toolbox, Creating a Daily Maintenance Plan, Identifying Triggers, Identifying Early Warning Signs, Managing When Things Break Down, and Crisis Planning. Coursework is interactive, using lecture, group discussion, elicitation of personal examples from the lives of educators and participants, and individual or group exercises. At the first session, participants receive an empty WRAP binder to hold handouts and daily exercises completed at each meeting. Over time this binder comes to constitute the individual's personalized WRAP plan. Between sessions, participants are encouraged to work on their WRAP plan by adding new material and observations that grow out of voluntary "homework" exercises and daily plan use.

WRAP graduates who are actively using their own WRAP plan and who elect to participate in an intensive 5-day training from the Copeland Center for Wellness and Recovery can earn a Mental Health Recovery Educator certificate. This qualifies them to lead WRAP groups on their own. Once certified, WRAP educators are encouraged to attend an annual conference sponsored by the Copeland Center to update their WRAP knowledge base and facilitator skills.

While the growth of WRAP has been impressive, only one published study has examined outcomes reported by participants. In research involving 80 individuals in Ohio who completed eight two-and-one-half-hour sessions of WRAP (Cook et al., 2009), paired *t*-tests of pre- and post-intervention scores revealed significant improvement in self-reported symptoms, recovery, hopefulness, self-advocacy, and physical health. The next step in building an evidence base for WRAP's effectiveness

is to explore what happens when it is introduced on a large scale, such as across an entire state in multiple regions and local communities. The question at this stage of knowledge development is whether participants in such broad initiatives experience the same positive changes in recovery attitudes, skills, and behaviors as those reported by participants in individual WRAP groups.

To explore these questions and add to the body of knowledge in this area, researchers from the National Research and Training Center on Psychiatric Disability, located at the University of Illinois at Chicago (UIC), teamed with Dr. Mary Ellen Copeland, co-creator of WRAP, and the leadership of two statewide consumer organizations: Vermont Psychiatric Survivors, and the Minnesota Consumer/Survivor Network. Working together, this group identified data sets that had been collected to evaluate each of the state's WRAP initiatives and explored similarities and differences in data elements and evaluation design. Additional partners in the evaluation of Vermont's initiative—the Vermont Department of Mental Health (DMH) and the graduate program in Social Work at the University of Vermont—were also invited to join in the collaborative effort. Working together, the group decided to focus on changes in specific attitudes and behaviors that were measured in common by both states, as well as changes in areas that were studied in one state but not the other. The study's overarching hypothesis was that, compared to their self-reported attitudes and behaviors prior to participation, those who completed WRAP education would show significant increases in knowledge, behavior, and attitudes related to recovery, self-management of

symptoms, and advance crisis planning.

Methods

The Statewide Initiatives

In 1997, a peer-led organization named Vermont Psychiatric Survivors (VPS) received a grant from the Henry van Ameringen Foundation to establish the Vermont Recovery Education Project in partnership with the Vermont DMH (VPS, 2000). As part of this initiative, WRAP education was delivered across the state of Vermont and northern Massachusetts over the next three years.

In 2002, the Minnesota Consumer/Survivor Network received a Community Action Grant from the Center for Mental Health Services of the Substance Abuse and Mental Health Services Administration (Buffington, 2003). The purpose of this grant was to deliver WRAP education and educator training to people in recovery around the state. Another objective was to engage in a two-year consensus building process to encourage the adoption of WRAP as an exemplary practice by stakeholder groups in diverse communities.

Sample

Data were gathered from 147 participants in the Vermont initiative who identified themselves as "consumers or survivors of psychiatric services" and completed both a WRAP pretest and the posttest, for a response rate of 44 percent. Almost three-quarters of the Vermont participants (73%) were female and they ranged in age from 19 to 81 years of age, with 15% reporting ages of 18-30 years, 29% age 31-40, 34% age 41-50, and 22% age 51 or older. The second group of participants was comprised of 305 individuals in Minnesota who self-identified as mental health service consumers and par-

ticipated in a WRAP education series. Of these 305 individuals, 234 completed both the pretest and posttest, for a response rate of 77%. Among the 234 Minnesota respondents, 60% were female; 70% were Caucasian, 14% Native American, 6% African American, 6% Hispanic, and 4% Asian. They ranged in age from 18-61+ years with 17% aged 18-30 years, 24% aged 31-40 years, 31% 41-50 years, and 27% 51 years or older.

Intervention

Vermont. In Vermont, forty hours of WRAP education was delivered to groups of 15-20 individuals in twenty-one separate cycles from July 1997 through January 2000. Two educators taught each cycle; one was an individual with a psychiatric disability and the other a community mental health staff member (in some instances the community mental health staff had also experienced a mental illness). The forty hours were structured as either: 1) two hours per week for twenty weeks; 2) one hour a week for forty weeks; or 3) one six-hour day per week for seven weeks. Each cycle covered the following topics: recovery concepts such as hope, responsibility, self-advocacy, education and support; medical care and health management; how to develop and use various support systems; developing a healthy lifestyle; suicide prevention; beginning steps to dealing with trauma; and the development of a personal WRAP plan. The Vermont WRAP cycles were taught in urban, rural, and suburban areas of the state.

Minnesota. WRAP education in Minnesota involved a total of sixteen hours delivered in eight, two-hour classes to groups of 4-15 individuals. Thus the 16-hour exposure to WRAP in Minnesota was briefer than the 40-hour exposure received by Vermont participants. Altogether, 42 eight-week classes were held from May 2002

through June 2003. Each class was co-facilitated by two certified WRAP educators who were both individuals in mental health recovery. Topics included: recovery and the importance of hopefulness, sources of support, education and self-advocacy; medical care and health management; developing a Wellness Toolbox and Daily Maintenance Plan; identifying and responding to symptom triggers and early warning signs; handling decompensation; developing a Crisis Plan and a Post-Crisis Plan; and leading a wellness-centered lifestyle. Minnesota WRAP classes were held in diverse regions of the state including urban, suburban, and rural locales, as well as at an Indian reservation.

Recruitment

In Vermont, participants were recruited in a variety of ways including clinician and peer referral, word of mouth, and advertisements. Clients of community mental health treatment and rehabilitation programs were encouraged to attend by clinical staff and administrators. Participants in VPS self-help groups were also encouraged to attend WRAP education by support group leaders and other peers. In many parts of the state, WRAP cycles were advertised locally in newspapers, newsletters, and bulletin board postings. Participants were recruited from 10 urban, suburban, and rural counties around the state of Vermont and northern Massachusetts and there was no screening process that eliminated any individual who wished to attend.

In Minnesota, recruitment involved 45 separate WRAP information meetings held with stakeholders around the state including consumers, family members, community-based clinicians (psychiatrists, psychologists, social workers, vocational rehabilitation counselors), state hospital staff and administrators, state mental health au-

thority administrators, county board commissioners and board staff, policy makers, and advocates. Special efforts were made to reach members of clubhouses and community residences. Workshops were also presented at statewide and local consumer conferences. At these meetings, brief presentations were given regarding WRAP content, a video was shown if time allowed, brochures were distributed, and question and answer sessions were held. Participants were recruited from 35 different urban, suburban, and rural communities around the state of Minnesota, including one Indian reservation.

Instruments

In Vermont, a pretest/posttest survey instrument was designed by the project's workgroup, with assistance from the graduate program in Social Work at the University of Vermont. The survey was piloted during two cycles of WRAP classes and, based on the results, it was revised and used to evaluate the 21 remaining cycles. Questions were focused on respondents' recovery management attitudes and abilities, including: 1) maintaining hopefulness about one's own recovery, 2) identifying early warning signs and symptom triggers, 3) using coping skills, 4) developing a crisis plan, 5) taking medications, 6) identifying support services, 7) self-advocacy, and 8) using wellness tools. Respondents used a 4-point Likert-scale response format with the anchors of strongly agree, agree, disagree, and strongly disagree.

The survey instrument used in Minnesota was designed by the state's Mental Health Consumer/Survivor Network and modeled on the Vermont survey. It also consisted of a pretest and posttest questionnaire with 13 repeated items asking about the following recovery skills and attitudes: 1) participants' sense of hopefulness, 2)

knowledge about symptom triggers, 3) awareness of early warning signs, 4) use of personal support systems, 5) developing a crisis plan, 6) ability to take responsibility for one’s own wellness, and 7) living a recovery oriented lifestyle. Respondents used a dichotomous “yes/no” response format for each item.

Procedures

In both states, the pretest/posttest survey was administered by WRAP educators at the first session and then again at the last session using the same or similarly worded items to measure changes in attitudes, knowledge, and skills. In both studies, educators who administered the survey explained its purpose, answered general questions about the evaluation,

and assured participants that it was completely voluntary and confidential.

Work conducted as part of the present study was approved by the Institutional Review Board of the University of Illinois at Chicago. There are no known conflicts of interest for any of the authors, and all authors have certified their responsibility for the manuscript.

Analysis

In Vermont, data were entered and analyzed using SPSS software by staff of the Research and Statistics Unit of the state’s Department of Developmental and Mental Health Services. Since participants’ surveys were linked via an identification code, it was possible to examine changes in individual’s pre- and posttest responses using two-tailed, paired *t*-tests of difference. In

Minnesota, pretests and posttests could not be linked due to the absence of a unique ID number, making paired *t*-tests impossible. Tabulated data, compiled by Minnesota project staff, were analyzed by researchers at the UIC Center using two-tailed *t*-tests of differences in proportions between pretest and posttest. In the final step, UIC researchers compiled results from the two evaluations into a single summary table, matching results from similar questionnaire items, and separately reporting results from items that were unique to each state’s evaluation instrument.

Results

Pre-Post Changes in Recovery Attitudes. Significant positive changes in recov-

TABLE 1—T-TESTS OF PRE-POST CHANGES IN WELLNESS RECOVERY ACTION PLANNING (WRAP) PARTICIPANTS’ SELF-REPORTED ATTITUDES, BEHAVIORS, AND SKILLS REGARDING MENTAL ILLNESS SELF-MANAGEMENT IN VERMONT AND MINNESOTA STATEWIDE WRAP INITIATIVES

Self-Reported Attitudes, Skills, and Behaviors	Vermont				Minnesota			
	Pretest Mean (SD)	Posttest Mean (SD)	t value & significance	n	Pretest Mean (SD)	Posttest Mean (SD)	t value & significance	n
Hopefulness for own recovery	5.10 (1.62)	5.71 (1.37)	4.37***	126	0.69 (0.46)	0.98 (.14)	3.40***	234
Awareness of own early warning signs	2.19 (0.76)	2.42 (0.56)	3.07***	119	0.56 (0.50)	0.94 (0.24)	5.25***	234
Use of wellness tools in daily routine	4.29 (1.48)	4.88 (1.26)	4.92***	125	0.58 (0.49)	0.98 (0.14)	4.97***	234
Awareness of own symptom triggers	1.99 (0.73)	2.33 (0.67)	4.19**	120	0.60 (0.49)	0.85 (0.36)	3.14**	234
Having a crisis plan in place	0.36 (0.48)	0.65 (0.48)	5.81***	147	0.61 (0.49)	0.99 (0.10)	4.55***	234
Having crisis plan for symptoms when triggered	0.35 (0.48)	0.67 (0.47)	6.26***	147	0.68 (0.47)	0.94 (0.24)	3.18***	234
Having a social support system	0.44 (.050)	0.73 (0.44)	5.72***	147	0.74 (0.44)	0.95 (0.22)	2.45**	234
Take responsibility for own wellness/advocacy	1.90 (0.88)	2.17 (0.72)	3.87***	147	0.74 (0.44)	0.98 (0.14)	2.79**	234
Decreased difficulty with crisis plan creation	0.39 (0.49)	0.12 (0.32)	5.69***	121		Not Asked		234
Preference for support from friends/neighbors	2.23 (0.64)	2.40 (0.57)	2.48*	119		Not Asked		234
Preference for using support from consumers	2.10 (0.66)	2.31 (0.61)	2.90**	111		Not Asked		234
Use of support groups	2.04 (0.90)	2.31 (0.67)	3.90***	114		Not Asked		234
Comfort obtaining information about services	2.02 (0.90)	2.40 (0.72)	4.61***	124		Not Asked		234
Managing medications well		Not Asked			0.72 (0.45)	0.88 (0.32)	1.96*	234
Having a lifestyle that promotes recovery		Not Asked			0.55 (0.50)	0.96 (0.20)	5.11***	234
Difficulty engaging in recovery activities		Not Asked			0.68 (0.47)	0.09 (0.08)	10.27***	234

p*<.05, *p*<.01, ****p*<.001

ery attitudes were observed on 76% of items completed by Vermont consumers (thirteen of the seventeen survey items), and 85% of items completed by Minnesota consumers (eleven of the thirteen survey questions). As shown in Table 1, both groups of WRAP participants reported significant increases in: 1) their hopefulness for their own recovery; 2) awareness of their own early warning signs of decompensation; 3) use of wellness tools in their daily routine; 4) awareness of their own symptom triggers; 5) having a crisis plan in place; 6) having a plan for dealing with symptoms; 7) having a social support system; and 8) ability to take responsibility for their own wellness. Among items asked only in Vermont, WRAP participants reported decreased difficulty in creating their own crisis plans, and increases in their: 1) preference for using friends and neighbors as natural/community supports; 2) preference for support from individuals who have experienced mental illness; 3) use of support groups; and 4) comfort obtaining information about community services. For items completed only by Minnesota participants, respondents reported: 1) increased ability to manage their medications well; 2) increased recovery-promoting lifestyles; and 3) decreased difficulty engaging in recovery-promoting activities.

In both states, there were some aspects of recovery for which WRAP participants reported no significant changes. In Vermont, there were no significant changes in items asking about: 1) feeling comfortable questioning a doctor or psychiatrist about medications, 2) personal preference for using mental health service providers, 3) preference for using other types of service providers, and 4) preference for using family/partners for support. In Minnesota, there were no significant

changes in: 1) attitudes about the importance of educating oneself about symptoms; and 2) ability to make lifestyle changes that led to feeling better.

Qualitative Findings. In both evaluations, participants were given opportunities to describe in their own words any ways that WRAP education had affected their lives. This written feedback was provided anonymously on the posttest questionnaires in a separate section where respondents were asked to provide their comments. The method of Constant Comparative Analysis (Glaser & Strauss, 1967) was used to code these comments and then group them into similar concepts from which themes were derived in order to illustrate the different ways in which WRAP was perceived as promoting recovery.

One common theme was participants' new view of wellness as an attainable, ongoing process, influenced by the support of others. A participant from Vermont noted:

This course has helped me see that there are options for me in how I live my life with my problems, and that recovery and health happen by degrees, with steady effort; that supporting and being supported by friends, etc. is really just one of the most integral parts of anyone's life.

A Minnesota participant echoed:

I feel different about life and I know what I need to work on to stay healthy, so I can live on my own. And now my team listens to me.

Another common theme was an increased ability to recognize and successfully manage stressors and symptoms.

I now use my response to triggers and early warning signs when before, I thought they were [signs I was already in] crisis. (Minnesota)

I feel I am beginning to understand how to manage the symptoms of depression and mania through this system—recognizing the early warning signs and strategies for dealing with them. (Vermont)

Participants also noted the growth in their support networks and commented that they felt less social isolation. This was reflected in comments about how WRAP education led them to “be around positive people more” (Minnesota), introduced them to “people I would like to stay in contact with” (Vermont), and helped them realize “that I am not the only one out there having to cope with problems similar to mine” (Vermont).

Another common theme was the application of specific WRAP strategies and skills in everyday life. Participants expressed pride in the new knowledge and skills that they had acquired and were continuing to practice.

[I] added to my daily maintenance and triggers list. Also changed my support system. (Minnesota)

I have an action plan. I now know about the resources that are available. (Vermont)

Doing my Daily Maintenance and items in my Toolbox has been the most helpful. (Minnesota)

Finally, participants noted that having WRAP educators who were also consumers was especially powerful for instilling hope. As a Vermont participant stated, “No one can tell it like someone who's been through it.”

Conclusions

Evaluation findings from two separate statewide WRAP initiatives provide support for the notion that participants experience significant changes after receiving WRAP education. At the end of their WRAP experience, self-reported improvement was found on 76% to

85% of recovery attitudes, behaviors, and skills about which participants were queried. Moreover, satisfaction with the intervention was extremely high as indicated by open-ended comments made by participants on their evaluation questionnaires. This was the case despite differences in the length of WRAP education and some variation in the nature of what was taught to participants.

The nature of this project as a collaborative effort between academic researchers, developers of peer-led interventions, leaders of recovery-oriented self-help organizations, and state agencies enhanced the breadth of the questions that were asked, informed the interpretation of results, and stimulated the dissemination of findings. Another benefit was the sharing of scarce resources and combination of data sets resulting from labor-intensive efforts across three separately funded projects (i.e., the two statewide initiatives and the research and training center that brought them together). This kind of “transdisciplinary” team effort between scientists, stakeholders, nonscientists, and nonacademic participants is often needed to address research questions regarding complex problems with policy relevance across entire states and disparate regions of the country (Choi & Pak, 2006).

Study Limitations. The major limitation to these evaluations is the use of a pretest-posttest design that does not allow causal attribution. Without a control group, we cannot definitively attribute the changes observed among participants to receipt of WRAP education. Another weakness is the self-report nature of the data collected from participants. Respondents' reports could have been influenced by positive response bias or mistaken self-perceptions of improvement. A third limitation

is the short-term nature of the follow-up. Collection of outcome data immediately following the intervention does not allow us to determine whether any observed gains were maintained over time. Fourth, the surveys used were not psychometrically validated. Thus we have no information on their validity and reliability. Fifth, while the nature of the two groups was statewide in both evaluations, the study population does not represent a random sample of individuals with severe mental illness in those states. As a result, these findings may not be generalizable to the state as a whole or the larger U.S. population. Sixth, the fact that participant self-reports were obtained from leaders of WRAP groups rather than having an independent evaluator obtain ratings outside the context of the group is another weakness of the study. Seventh, while anecdotal and qualitative feedback suggests that many individuals' lives improved following WRAP education, no independent statistical data on outcomes were collected. Finally, the evaluations did not collect information from those participants who dropped out of a cycle or did not complete both a pre and post survey. Because of this, we know little about the positive or negative experiences and outcomes of those who exited the program prematurely.

Future Directions. The results of this study advance the knowledge base for peer-led services by providing the first statistical evidence from a large number of individuals in two regionally diverse states suggesting that WRAP may be an effective self-management intervention for people with a mental illness. These positive initial results, along with the fact that WRAP initiatives are currently ongoing in all 50 states in the U.S., offer a wealth of opportunities to engage in further, more rigorous evaluations. To that end, the UIC Center is working with Dr.

Copeland and WRAP educators in the state of Ohio on a large-scale randomized study that explores whether changes in WRAP participant outcomes can be directly attributed to the intervention itself. With this promising start, future studies of the efficacy and effectiveness of this model in promoting recovery can advance our understanding of peer-led self-management interventions.

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