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Karen A. Vines

Virginia Tech, kvines@vt.edu

Laura A. Nelson

Virginia Tech, kvines@vt.edu

Sophie Wenzel

Virginia Polytechnic Institute and State University, swenzel@vt.edu



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Cover Page Footnote

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An Evaluation of Capacity for Cooperative Extension to Implement Evidence-Based Programming in Two Rural Communities

KAREN A. VINES¹, LAURA A. NELSON¹, AND SOPHIE WENZEL¹

AUTHORS: ¹Virginia Polytechnic Institute and State University.

Abstract. The purpose of this project was to evaluate the Virginia Cooperative Extension internship program from the perspective of student participants and their supervisors. Three focus groups were conducted with internship supervisors from the summer of 2019. Student survey data was used to identify concerns from the student perspective to inform the supervisor focus group questions. In addition to the questions, a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis was also used to collect qualitative data within the supervisor focus groups. Findings suggest areas of strength that can be used in marketing as well as opportunities for program improvement.

INTRODUCTION

Substance use in adolescence is considered a problem in the United States (Gregg, 2012). Substance use disorder affects approximately 1.1 million adolescents (U.S. Department of Health and Human Services, Substance, Abuse and Mental Health Services Administration [SAMHSA], 2017). Adolescents who live in rural communities have a greater incidence of certain types of drug use, such as alcohol and methamphetamines, compared to their peers who live in urban settings (Lambert et al., 2008). According to the Centers for Disease Control and Prevention, rates of rural substance use and drug overdose deaths now exceed those in metropolitan regions (Mack et al., 2017). Rural areas remain distinct from metropolitan areas with regard to social and community contexts. Social and community contexts influence drug and alcohol use within the community (Dew et al., 2007; Rigg et al., 2018). For these reasons, substance use prevention programs directed toward adolescents in rural communities must fit within the social and community aspects of those communities.

Irrespective of geographical location, substance use has major implications to the developing adolescent. Such problems as disrupted relationships among peers and family (Collins et al., 2007), poor academic outcomes (Henry et al., 2006), and higher degrees of risk-taking behaviors are all attributed to substance use in adolescents (Lambert et al., 2008). These poor behavioral and health

outcomes have fueled the field of drug prevention research and programming for adolescents. Previous research has identified criteria essential to the development of rural adolescent substance use prevention programs and has found parental involvement in prevention efforts to be beneficial (Gregg, 2012). Increasing family involvement is dependent on making programs accessible and inclusive, with limited barriers to participation (SAMHSA, 2007).

Cooperative Extension holds the unique position of acting as the bridge between university and community to make programs accessible and inclusive to individuals, families, and communities (Hill & Parker, 2005; Vines, 2018). In doing so, Extension has historically brought research-based knowledge in a usable and understandable form to communities to address their needs (Vines, 2018). Traditionally, Extension has developed and implemented programs internally to match the needs of the community. More recently, greater emphasis has been placed on the implementation of evidence-based programs (EBPs) to align with external funding opportunities (Hill & Parker, 2005). Extension has previously explored and questioned how EBPs actually work in community settings (Olson et al., 2015). The balance between maintaining fidelity and working within real-world contexts has required Extension to often adapt EBPs. Extension has recognized that EBPs have “essential ingredients” critical to the program’s success, and those core elements should be maintained even when EBPs are adapted to community needs (Olson et al., 2015).

The PROMoting School–Community–University Partnerships to Enhance Resilience (PROSPER) model is a system that delivers EBPs to support long-term prevention of substance misuse and abuse, including nonmedical prescription opioid use in teens, through the development of collaborative community teams (Crowley et al., 2012; Spoth & Greenberg, 2011). PROSPER focuses on community-based collaboration and capacity building that links Cooperative Extension with the public-school system. PROSPER provides a model that builds on local community engagement, providing connection between local needs and research resources of the land-grant university and other organizations (Spoth & Greenberg, 2011). The EBPs delivered through PROSPER foster healthy decision-making through family- and school-based substance abuse prevention programming. Through PROSPER, the community teams determine the family- and school-based programming that is most appropriate in their community.

Hill and Parker (2005, p. 2) documented several studies that reinforced “system readiness” as a priority for successful program implementation in Cooperative Extension. Olsen et al. (2015) reported that there were limited examples of how programs were adapted within Cooperative Extension to meet needs while maintaining EBP protocol. This evaluation explored the system readiness of two rural communities to implement an EBP by answering four questions:

1. What was the experience of implementing the PROSPER program delivery model in a rural community working under varying resource contexts and limitations?
2. Was it challenging to maintain fidelity? If so, what were the specific issues?
3. Were there supportive or competing programs in your community addressing youth substance use issues?
4. What are gaps and assets associated with the implementation of PROSPER in these communities?

This evaluation contributes to the literature and practice of how EBPs can be implemented in a rural context while also recognizing the limitations of capacity. In doing so, this work contributes to understanding how Extension agents in rural communities can prepare for and recognize obstacles in implementing EBPs.

DATA COLLECTION AND ANALYSIS

Two communities received PROSPER programming as part of a USDA-Rural Health and Safety Education Grant (USDA-NIFA 2017-05664), beginning in 2018 and concluding in 2020. The communities were selected based on rurality as determined by rural-urban continuum codes and the

prevalence of documented opioid misuse (SAMHSA.gov) as directed by the funding agency. One community was classified as a micropolitan area core with primary flow within an urban cluster of 10,000 to 49,999 (www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx). The second community was classified as a small town with low community (10%–30%) to a small urban cluster (www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx). Both locations met the conditions of rurality for the grant but were on either end of the classification system for rural communities. Unemployment rates in the communities historically and consistently exceeded U.S. and Virginia unemployment rates, and manufacturing was the primary employer (census.gov). As part of the PROSPER delivery model, a community team was developed and supported by a local Extension agent, school personnel, and the grant project team. These community-based teams provided the school-based Botvin LifeSkills® Training program and tried to offer the family-based Strengthening Families 10 to 14 program (SFP) as the prevention programming in their respective communities. Botvin LifeSkills® was administered through middle-school physical education classes in Grades 6 and 7 in both communities, reaching a total of 1,147 youth. An additional 1,200 youth received the program virtually in 2020. Due to families’ busy schedules, there were problems in scheduling SFP in late 2019 because the program includes seven weekly meetings that all family members are to attend. In addition, in one community, a Community Services Board offered an earlier version of SFP and viewed the offering through this program as competition. Therefore, no families received SFP as a part of this grant.

This evaluation focused on the recommended process associated with the implementation of an EBP from a leadership perspective in the two communities. The three main areas of inquiry for this evaluation were related to program fidelity, implementation challenges, and duplication of efforts. Key informant interviews with the Extension agents who were responsible for organizing and leading the PROSPER team in their community explored the process of EBP implementation and maintaining fidelity in a rural context. One community had one agent responsible for the project, while two agents in the smaller community shared responsibility. All three agents participated in the semi-structured interviews. Questions focused on local advisory groups as well as the processes, roles, purpose, and makeup of the PROSPER community team.

Snowball sampling was used in the interviews to identify community members serving on the program support team to receive surveys to provide additional perspectives related to program implementation. The supplementary survey was distributed via a Qualtrics link to five members of each of the two PROSPER community teams. Response rate was 100%.

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This survey helped contextualize the assets and gaps of the community's readiness to engage in the PROSPER model through Likert-scale and open-ended questions.

A thematic analysis was conducted on the interviews and the open-ended survey responses to determine emerging themes. Survey question development was informed by the interviews. Because the interview was conducted first, the surveys were used to supplement and gain further insight into details that emerged from the interviews. An audit trail was kept, and the survey results were reviewed by two members of the research team.

FINDINGS

INTERVIEWS

Limited human capital in a small rural community was a major theme that emerged from the interviews. Extension agents commented that they and their team leaders were stretched thin when attempting to meet all requirements. Meeting fatigue was a constant obstacle to maintaining the fidelity of the PROSPER model. Team leaders helped mitigate this issue through phone or email follow-ups rather than always meeting in person. One respondent acknowledged that “[PROSPER] is a rigorous process to follow, and we followed the steps as best we could.” It was advised by one respondent that prior to engaging in the PROSPER model, it would be important to evaluate capacity because “there should be significant [Extension] infrastructure and capacity to use the PROSPER system. Our rural Cooperative Extension units are not well equipped for PROSPER.”

On the topic of implementation, one respondent commented that the 3-day training was a necessary piece, but it was “a lot to digest at first but got easier as [we] understood it.” Another respondent stated, “Identifying a strong team leader who understands the PROSPER model and its steps is so important, because the team leader needs to have buy-in and understand its value. Without that leadership buy-in, the community team would disengage.” Implementation success appeared to vary based on the environment in which the EBP was being used. One respondent stated, “The PROSPER model is very easy to administer in the classrooms. Successes across the board [for participants] came through increased knowledge and strategies on how to handle their own anger and anxiety.” Administrators of the EBP that was hosted outside school and required parental involvement reported having a much more difficult time recruiting participants.

SURVEYS

The surveys of team leaders provided insight into the assets and gaps of program support and PROSPER implementation in these particular communities. The five team leaders who completed the surveys responded that they were at least somewhat comfortable implementing the PROSPER model

and EBPs after receiving training. All agreed that using the PROSPER model to implement an EBP helped support the program's success. Respondents to the survey agreed that the PROSPER model was appropriate for their community and that they felt comfortable implementing it after they had received the appropriate training. The primary asset was community infrastructure, supported by schools, churches, and civil servants. Strong public-school involvement was emphasized, with school leadership representatives being named as key champions in the success of EBP implementation. Strong community buy-in was also linked to participation from faith-based and civic organizations. Youth groups, health providers, and law enforcement were also said to be involved in developing strategies to support and provide outreach to families.

Respondents to the survey were asked whether any challenges or gaps had affected their ability to implement programing in their communities. A salient challenge for both communities was family involvement. One respondent commented, “[Many] parents are absent. They are out commuting or have drug issues themselves, and many of our adolescents are being raised by their grand- and great-grandparents.” Respondents stated that the absence of parents in their children's lives left a gap of positive adult role models. When asked about gaps that persisted even with the implementation of EBP, one respondent stated, “Our community needs more positive role models. . . . [G]iving children plentiful role models that follow positive paths is needed.” Recruiting parents and caretakers was a struggle for the entire program. Parents commuting outside the community to work affects the buy-in that they have for the community in which they live and decreases their civic involvement and volunteerism.

DATA TRIANGULATION

Overall, the themes that emerged from the interviews and surveys supported each other. The experience of implementing the PROSPER model and accompanying EBPs in a rural community was generally positive. It was, however, challenging to maintain complete fidelity due to time constraints and limited human capacity in both communities. Duplicated efforts from various organizations did not appear to be a concern for either of the communities. On occasion, when funding is available, other agencies do provide youth substance use prevention EBPs, but there was not a sense of multiple organizations striving toward similar goals. The assets were key champions of the programs, such as school administrators, teachers, civic servants, and faith-based organizations. The salient challenge to implementation, which may have accounted for a lack of duplicated efforts as well, was the limited involvement from the families these interventions and programs were trying to target.

IMPLICATIONS AND RECOMMENDATIONS

Issues associated with program fidelity, challenges associated with implementation, and areas of duplication were all identified in the study.

PROGRAM FIDELITY

One of the primary challenges related to program fidelity identified was the need to increase Virginia Cooperative Extension (VCE) capacity to carry out the PROSPER model. Agents in the communities expressed that they found it difficult to layer management of the PROSPER teams on top of existing programming. They expressed the need for greater infrastructure to support the use of this program. There were challenges in developing the community teams and conducting the meetings as prescribed. In addition, the PROSPER model has ongoing evaluation reports that the team leaders need to complete, and agents found it difficult to keep up with the reporting schedule. For subsequent grants, a new VCE position was created with responsibility for overseeing these efforts. The health educators report to Extension agents and manage implementation of PROSPER and other grant programs. This strategy has proven effective and allowed VCE to be more responsive in meeting substance misuse-related needs.

The results also indicate that the experience of maintaining the fidelity of the PROSPER model and EBPs was challenging in these small rural communities in terms of program delivery. The school-based intervention proved easy to plan and implement and has been well maintained. However, the family-based intervention was much more difficult to implement within the PROSPER team. The assets that these rural communities have, such as strong school support, can help describe why the school-based programs were deemed successful. Also, having stakeholders who can voice the importance of and support for implementing programs helps those who are hesitant to engage or are unfamiliar with the benefits of implementing EBPs.

The grant for this program supported training for and offering the Strengthening Families 10-14 program. Leaders in both communities received training. However, we had difficulty during the life of this grant in getting families to commit to participating in the program. We initially offered a weekly session that took families through the 7-week curriculum. We tried offering a family camp over a weekend, with orientation and reflection sessions on either end of the camp, but we were unable to get adequate enrollment. Post-grant, this training has been provided in the communities through the local community service boards. When the grant was received, a local newspaper contacted the primary investigator, questioning why family-based programming was being used to combat the opioid epidemic. In reflection, it appears that it took a while for the communities to recognize

the role that strengthening family connections might play in opioid misuse prevention.

IMPLEMENTATION CHALLENGES

Community dynamics are important considerations when determining the feasibility of implementing an EBP in a rural community. An aging population of grandparents raising grandchildren may be limited in their knowledge of how to access community support. School-based EBPs may result in more successful implementation due to the presence of an already captive audience. Long-distance work commutes for parents may influence the civic involvement of residents at the local level. Multigenerational substance use has affected many families across the country, and rural communities are no exception. Limited day-care structures and funding may prevent early-childhood support and engagement through an early-prevention lens.

DUPLICATION OF EFFORTS

One of the findings indicated that existing community organizations were already interested in looking at challenges associated with opioid misuse at the time the PROSPER project began. This grant was focused on prevention, while other community organizations were looking at the issue beyond prevention to the multiple demands on the public system as a result of high levels of addiction. The previously mentioned community services boards that provided family-based intervention already existed and were providing an earlier version of the Strengthening Families Program in the community. They were resistant to going through training for the new model and, in some cases, hampered the implementation of this portion of the grant. In addition, as mentioned previously, the human capacity of the communities was limited so that the people who were recommended for the PROSPER community teams were already serving on one or more other community organizations. Working with the community services boards as a partner rather than as a leader may have provided greater benefit to the community and increased program fidelity.

Extension professionals need to conduct an inventory of similar programs and potential sponsors and partners and recognize that in some cases, it may be more beneficial to join an existing program to promote an EBP rather than offering a new effort. Dialogue with others working in the topical area in the community will be useful in determining the best approach. Further research into how Extension serves the community from a leadership and supporting capacity might help better inform the use of community-based EBPs.

CONCLUSIONS

Extension provides the opportunity to bridge the gap between research and practice by bringing the skills and

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support to engage in EBPs at the community level. In doing so, it is important to meet the community where they are while also considering human and resource capital. Through this evaluation, we found the need for further research to determine how fidelity could be maintained, especially in small rural communities, without stressing a system that has limited capacity. In terms of setting up local teams to support this work, Extension professionals need to conduct an inventory of similar programs and potential sponsors and partners and recognize that in some cases, it may be more beneficial to join an existing program to promote an EBP rather than offering a new service. Dialogue with others working in the topical area in the community would be useful in determining the best approach. In later grants using the PROSPER model in Virginia, additional personnel were included to avoid overtasking existing agents. This approach has proven to be more successful in expanding and maintaining program reach.

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