

Community–University Partnerships for Research and Practice: Application of an Interactive and Contextual Model of Collaboration

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Abstract

Community–university partnerships are frequently used to enhance translational research efforts while benefiting the community. However, challenges remain in evaluating such efforts. This article discusses the utility of applying the contextual and interactive model of community–university collaboration to a translational research education program, the Institute for Translational Research in Adolescent Behavioral Health, to guide programmatic efforts and future evaluations. Institute stakeholders from academia and the community completed in-depth interviews querying their expectations and experiences in this collaboration. Key quotes and themes were extracted and analyzed based on the constructs within the 3 phases of the model. The findings note specific themes for future evaluations. Overall, the contextual and interactive model of community–university collaboration proved a useful framework to guide the process evaluation of the Institute. Findings suggest possible strategies for the successful development, evaluation, and sustainability of community–university partnerships.

Introduction

Community–university partnerships are an integral part of research and practice. These collaborative relationships ideally involve a mutually beneficial exchange in which community agency partners provide knowledge concerning vulnerable populations, their most urgent needs, and the best methods for meeting those needs (Minkler, 2005). They also provide invaluable insight into the cultural landscape of the community, including norms, beliefs, behaviors, and attitudes that can significantly affect the community's receptiveness to outside influences (Harper, Contreras, Bangi, & Pedraza, 2004; Suarez-Balcazar, Harper, & Lewis, 2005). University partners, on the other hand, provide the framework, resources, and theoretical knowledge important in creating

intervention strategies as well as assistance with the implementation and evaluation of programs and services (Ross et al., 2010; Suarez-Balcazar et al., 2005). It is important that community–university partnerships be built on a solid foundation of trust and mutual respect to ensure sustainable working relationships that meet the needs of all stakeholders (Harper et al., 2004; Suarez-Balcazar et al., 2005; Thompson, Story, & Butler, 2003).

Community–university partnerships are undertaken utilizing an approach to research called community-based participatory research (CBPR), which the Community Health Scholars Program (2001) has defined as “a collaborative approach to research that equitably involves all partners in the research process and recognizes the unique strengths that each brings” (p. 2). The CBPR approach is a promising practice to create relationships between researchers and community practitioners. It promotes, among other goals, the translation of research into practice (Faridi, Grunbaum, Gray, Franks, & Simoes, 2007; Wallerstein & Duran, 2010). Recent systematic literature reviews identified CBPR as an effective method to address health outcomes, including cancer-related issues and health disparities faced by racial and ethnic minorities (Agency for Healthcare Research and Quality, 2004; De Las Nueces, Hacker, DiGirolamo, & Hicks, 2012; Salimi et al., 2012; Simonds, Wallerstein, Duran, & Villegas, 2013).

In addition to potential benefits for translational research and impacting health outcomes, the use of community–university partnerships can also provide a valuable opportunity to enhance the application of scholarly knowledge. The Carnegie Foundation (2015) has recognized the importance of community engagement through community–university partnerships for enhancing scholarship, curriculum, teaching, and research. Service-learning is one mechanism for integrating curriculum and learning into the mutually beneficial relationships between the community and academia. The first step to successful service-learning experiences is the establishment of community–university partnerships (Cashman & Seifer, 2008). The creation of community–university partnerships also offers benefits to community agencies including capacity building for research and evaluation, the validation of existing efforts, and program enhancements (Dugery & Knowles, 2003).

A comprehensive evaluation of a service-learning endeavor must go beyond assessing learning objectives and also evaluate the quality of relationships formed between the university and community partners (Holland, 2001). In addition, the mentorship provided in service-learning programs can be a productive means of promoting knowledge translation, but more research is needed to

understand best mechanisms to evaluate such mentoring experiences (Gagliardi, Webster, Perrier, Bell, & Straus, 2014). There is great complexity in evaluating community–university partnership efforts given the intricacies of partnership formation. Among elements contributing to this complexity of evaluation are considerations of the context of the partnerships and the readiness of both partners to engage in research (Hicks et al., 2012). Further, evaluation efforts should focus on intermediate outcomes of the partnership, such as capacity building and relationship formation, as well as long-term outcomes (Minkler, Blackwell, Thompson, & Tamir, 2003; Sanchez, Carrillo, & Wallerstein, 2011).

In behavioral health research and practice, community–university partnerships through service-learning research programs hold promise to promote evidence-based practices (EBPs) by encouraging collaborative translational research efforts. Specifically, the use of community–university partnerships is a recommended strategy to address adolescent substance abuse and co-occurring mental health problems (Spoth, Schainker, & Hiller-Sturmhoefer, 2011). Gaps remain in translating evidence-based practices into treatment settings; however, community–university partnerships can work to address EBP implementation and sustainability (Bumbarger & Campbell, 2012; Green, 2001). Behavioral health practitioners have identified community–university partnerships as a mechanism they would find beneficial for promoting the use of EBPs (Proctor et al., 2007). These partnerships are critical in translating research into practice but can be difficult to successfully establish given the differing priorities and methods of the two types of partners involved (Spoth, Schainker, et al., 2011).

The Institute for Translational Research in Adolescent Behavioral Health (<http://www.health.usf.edu/publichealth/itrabh/index.htm>) at the University of South Florida (USF), funded by a grant from the National Institute on Drug Abuse, builds on the potential for success of community–university partnerships, utilizes a community-based participatory research approach to address adolescent behavioral health issues, and promotes the implementation and use of EBPs. The Institute's primary aim is to implement a research education program focused on developing innovative research skills among behavioral health researchers and practitioners. The Institute has established community–university partnerships between USF and select community organizations that provide adolescent behavioral health services in the greater Tampa Bay area. Graduate students and community professionals are enrolled for four consecutive semesters as Institute scholars and

complete coursework in translational research and implementation sciences. Institute scholars also simultaneously complete community-based service-learning research projects under the mentorship of community partners and academic mentors.

In order for the Institute to be successful, there is a need to continually evaluate community-university partnerships and the service-learning projects to help sustain those partnerships and ensure they are mutually beneficial to Institute scholars, community partners, academic mentors, and the Institute. Despite the complexity and lack of consensus on best practices for evaluating community-university partnerships, regular evaluation of community-university partnerships still needs to be undertaken to measure success and better understand barriers to success (*Eder, Carter-Edwards, Hurd, Rumala, & Wallerstein, 2013*). To understand the challenges and opportunities in establishing university-community partnerships, Suarez-Balcazar et al. (2005) proposed a contextual and interactive model of community-university collaborations that can be used to frame evaluation efforts.

The purpose of this model is to establish a framework for developing and sustaining community-university partnerships. Table 1 provides a summary of the constructs proposed in the Suarez-Balcazar et al. (2005) model, which were used as the code book for this study (see Table 1). The model includes three phases: (1) gaining entry into the community; (2) developing and sustaining the collaboration; and (3) recognizing challenges, benefits, and outcomes. These phases are interrelated and interactive, meaning each factor influences the others (*Suarez-Balcazar et al., 2005*). Gaining entry into the community is the first active step in establishing relationships and creating a framework for continued collaborations. According to Harper et al. (2003), meeting with community partners is often the first step to beginning this relationship and gaining entry into the community. It is important to introduce all parties and openly communicate the needs and expectations of each. It is also important during this phase to create a framework for this partnership, including the steps necessary to accomplish mutually agreed-upon goals. During this phase, the resources of both the university and community partners can be utilized, with community members providing insight based on knowledge of the community and university partners implementing this knowledge by formulating intervention programs (*Harper et al., 2003; Suarez-Balcazar et al., 2005*). Community partners can also act as a gateway to the community, aiding university partners in identifying target

populations and gaining access to them. Harper et al. (2003) documented this approach as well as its necessity.

Table 1. Code Book

Code	Definition
Gaining entry into the community	Previous personal experiences with partnerships influence this stage. Articulate mission, goals, roles, and expectations of the partnership.
The following are key factors for developing and maintaining mutual collaborations (This stage is defined as working toward a common goal that mutually benefits both parties):	
Trust and mutual respect	Taking time to get to know one another and having a positive attitude about the collaboration.
Adequate communication	Clear communication about project expectations, including benefits for all involved.
Respect for diversity	Respecting differences in behavioral practices, preferences, and opinions.
Culture of learning	Two-way learning, recognize learning opportunities for all members in the partnership, learning from one another.
Respect culture of the setting	Respect and celebrate the culture of the community organizations, acknowledge differences between partners regarding their work setting.
Develop action agenda	Research/project decided on collaboratively.
The following are the context of the partnership:	
Potential challenges & threats	Examples: Time commitment Conflict of interest Budget cuts End of funding Power & resource inequality
Recognizing benefits & outcomes	Examples: Funding for community organizations & researchers Learning opportunities Capacity & skill building Increased action & ownership

Note. Table from Suarez-Balcazar et al. (2005).

The initial relationship that is established upon entering the community is important in developing and sustaining the interactions between the community and university partners. These interactions are strengthened once trust, communication, and an understanding of the cultural setting are established (Suarez-Balcazar

et al., 2005). As in any relationship or partnership, the success of community–university partnerships requires understanding and respect toward the individual roles of all stakeholders and cultural and social norms within the community. Roles, duties, and personnel evolve over the duration of the collaborative projects; these relationships can therefore benefit from quality improvement and evaluation efforts. Evaluation may include assessment of the needs of the parties involved and whether goals are being met. Cherry and Shefner (2004) suggested that evaluation may also include assessing changes in the community, capacity building, level of knowledge, and information before and after the collaboration. The roles of each individual member also need to be evaluated, including the establishment of new relationships and the status of existing ones.

Finally, the collaborations need to be evaluated at an institutional level. These evaluations should include the university stakeholders and their resources, their commitment to the collaboration, and their investment in achieving the desired goals and maintaining partnerships. The purpose of this article is to apply the interactive and contextual model of collaboration as a framework to evaluate the potential opportunities and challenges that the Institute experienced in establishing sustainable community–university partnerships. Lessons learned from evaluating the Institute’s use of this framework and its constructs will help inform future evaluation efforts of community–university partnerships.

Methods

In order to evaluate the Institute’s efforts in establishing community–university partnerships to complete service-learning translational research projects, a qualitative evaluation was completed that included interviews with Institute scholars, academic mentors, and community partners involved in the Institute’s first year of research and training activities. Institute scholars included graduate students and community professionals in the field of adolescent behavioral health enrolled in the Institute’s graduate certificate program who completed service-learning translational research projects with community partners. Academic mentors were faculty who oversee the service-learning translational research projects, which are completed in collaboration with the Institute’s community partners.

The Institute’s executive committee developed interview protocols specific to each group regarding their experience with the Institute. The executive committee consists of the multiple prin-

cial investigators and programmatic staff with expertise in community-based participatory research, adolescent behavioral health, translational research, and implementation science. The executive committee oversees the operations of the Institute to ensure productive experiences for all Institute stakeholders, including the Institute scholars, academic mentors, and community partners. The purpose of the interviews was to gather the thoughts and opinions of Institute scholars, community partners, and academic mentors about the Institute to guide future Institute activities and inform future evaluation efforts. The interview consisted of open-ended questions regarding Institute scholar, community partner, and academic mentor expectations and experiences. The university's Institutional Review Board approved the protocols and the evaluation plan. We used e-mail and follow-up phone calls to invite participants to complete an interview. All of the community partners ($N = 5$) and academic mentors ($N = 6$) agreed to participate in individual interviews. A majority of the Institute scholars (87%, $n = 13$) completed individual interviews.

An external evaluator supported by a note taker conducted interviews with academic mentors and Institute scholars. Administrative support staff interviewed community partners. The interviews were conducted in person and lasted 30-45 minutes each. Field notes were taken, and summary points were confirmed with each participant at the close of the interview. Interview recordings and field notes were simultaneously reviewed and key quotes transcribed. A review of all documents, including summaries of the interviews, led to consensus on the summary notes and key quotes for each interview. The summary documents from the interviews were shared with the participants for member checking prior to final analysis.

Although the Institute was not developed utilizing the interactive and contextual framework specifically, it was guided by the principles of CBPR that are reflected in the framework (*Suarez-Balcazar et al., 2005*). Consequently, the framework was selected to examine the evaluation efforts and gain a better understanding of the Institute's community-university partnerships. The data analysis took place in three stages (*Miles, Huberman, & Saldana, 1994*). The first stage involved data reduction through coding. A codebook was created defining each construct in the model based on review of the article in which the model was proposed and its constructs defined (see Table 1). Two research staff members independently coded the interview data. Stage 2 involved data display, or reviewing the data in a summarized format based on the coded text. In this stage,

the research staff compared coding and interpretations. If there was not initial agreement, staff discussed each comment at length, using the codebook as a basis, until consensus was reached. Finally, in Stage 3, the two research staff members developed conclusions in order to draft findings. The entire research team reviewed draft findings and reached consensus. The findings include a discussion of the constructs from the interactive and contextual model of community–university collaborations and provide recommendations for future evaluation efforts using this model.

Findings

Findings are organized according to the interactive and contextual model.

Gaining Entry Into the Community

The Institute service-learning projects were completed with five different community partners (representing five different community agencies), all with varying degrees of relationship to USF prior to partnering with the Institute. Prior existing relationships between the university, community partners, and academic mentors influenced expectations for some members of the service-learning teams; these expectations were reflected in the data regarding *gaining entry into the community*. Both community partners and academic mentors had positive feelings about the collaboration, reflecting the existing relationship. For example, one community partner stated,

I've worked with the mentor for so many years.... We already had a good relationship with our mentor so we could trust that whatever was going to happen was going to be great.

A majority of the Institute scholars did not have previous working relationships with their academic mentors or the community partner agencies prior to the service-learning experience. Two of the scholars were employees of the agencies. From the Institute scholars' perspective, the community partner was a "gateway" to working with a population in which they had research interest. Access to the population of interest was seen as an advantage that the agency brought to the partnership.

They would give us access to the population, but they would take a backseat approach. (Institute scholar)

Institute scholars discussed the liaison role that either the academic mentor or a fellow Institute scholar took in helping to initially gain entry into the community agency. That is, the liaison became an intermediary. For those whose liaison was a fellow Institute scholar, the Institute scholar was a community professional who worked full-time at the agency the team had selected. The existing relationship facilitated entry into working with the community agency.

One of the members on the research team worked at the community agency, which made it absolutely wonderful because we had full access to everything because of that. The community partner was more than willing to meet with us anytime we needed to. (Institute scholar)

Developing and Sustaining Collaborations

After gaining entry into the community, the model proposes six interrelated factors that influence the development and sustainability of the university–community partnership: (1) trust and mutual respect, (2) adequate communication, (3) develop an action agenda, (4) respect for diversity, (5) culture of learning, and (6) respect for culture of the setting. These constructs were helpful in framing the current evaluation, and certain constructs were found to be particularly informative for developing the partnership. Additionally, the analysis ascertained that the proposed interrelatedness of these constructs in the model was not always realized. In order to consider the interrelatedness of key constructs from the model for further evaluation, Table 2 includes a visual representation of constructs that were identified as correlated in this evaluation. The cells marked with an X indicate that portions of coded text fit into more than one construct, demonstrating their interrelatedness as proposed in the model. For example, the construct of trust and mutual respect was found to be interrelated with adequate communication, respect for diversity, respect for culture of setting, and develop an action agenda.

Trust and mutual respect. Trust and mutual respect was the construct most reflected in the data and was also interrelated to the largest number of other constructs in the model. The model notes that *trust and mutual respect* is reflected in taking adequate time with the partnering group and having a positive attitude about the collaboration. Taking time was a critical aspect of creating trust

and mutual respect, and Institute scholars wanted more time and contact with the agency.

I expected to have a lot of contact with the staff at the community agency. And, not just the CEO, but the staff informally. (Institute scholar)

If Institute scholars did spend more time with the community agency, they expressed this as helpful to building the relationship.

We went to most if not all of the trainings that occurred at the community locations... even at 8 p.m. We went to coalition meetings, trainings, and conferences. And it helped because the community didn't see us as just evaluators because they saw us at conferences and everything else, so they saw us helping out. They recognized our faces. I think it really helped them to see that we weren't just university scholars that were there to get something from them. All the extra stuff that we did was helpful. We were partners with them. (Institute scholar)

We attended a number of events and a number of community coalition meetings, community trainings, and the organization provided different trainings. So we got a better sense of what the agency was before we decided on our project. So I feel as if our project was a lot more meaningful to the community agency. (Institute scholar)

Finding time to spend on the project was challenging for some community partners because of their already busy schedules. Finding time to get to know their community partner was similarly challenging for Institute scholars, and they felt that having spent more time getting acquainted would have created a better working relationship for the team.

That was the most challenging. Everyone has different commitment levels, schedules, and strengths and weaknesses. Had we got to know the group better we could have delegated more. There should be a time at the beginning for the group to get together and share about themselves and their strengths because time was a pressure. (Institute scholar)

However, when a commitment to getting to know one another led to efforts to spend enough time, this strengthened the relationship and seemed to foster respect.

I got to see how it works in a community agency like this. I got to put a face to an agency. I got to see the different personalities from the people I worked with in the community agency. You have to remember that the people who come into work every day, they are waking up just like the rest of us. They are putting on their pants, brushing their teeth, and putting on these programs. But now we're evaluating them. They are people too. They have their own opinions and their own struggles. (Institute scholar)

The community partners felt that a positive characteristic of the Institute scholars was their level of commitment, which was represented in the time they took to attend meetings and make presentations. It was important for the community partners to work side by side to create a team environment. That the Institute scholars took time to work closely with the agency left a positive impression on the agency staff.

One of my strong impressions was that the staff was very grateful for the university [Institute scholars] working with us. I mean you could really feel that. (Community partner)

Table 2. Developing and Sustaining Partnerships Constructs Coding Overlap

	Trust and Mutual Respect	Adequate Communication	Respect for Diversity	Culture of Learning	Respect Culture of Setting	Develop Action Agenda
Trust and Mutual Respect		×	×		×	×
Adequate Communication	×					×
Respect for Diversity	×				×	×
Culture of Learning						
Respect Culture of Setting	×		×			
Develop Action Agenda	×	×	×			

Adequate communication and develop an action agenda.

There was a great deal of overlap between trust and mutual respect and adequate communication, suggesting a strong relationship between these constructs. In addition, there was also overlap in coding for adequate communication and develop an action agenda. *Adequate communication* is defined in the model as clearly communicating expectations from the partnership, including benefits for all involved. All interviewees discussed the importance of communication reflected through sharing resources and information, and ensuring an adequate frequency of communication. Institute scholars expected community partners to be involved regularly and to guide them through the project.

I expected that they would be vested in the process. That they would make themselves available and provide resources. (Institute scholar)

That they [community partner] would help guide the research project and provide real-world knowledge. (Institute scholar)

The Institute scholars' initial impressions of the university–community collaboration were influenced by the scope of the initial communications during a networking session at a national conference. This initial meeting was how Institute scholars identified the agencies with whom they wanted to be paired. Some Institute scholars felt they did not receive enough information about community partners and their expectations.

We had a speed-dating type thing where we were able to talk to each agency for about half an hour and ask questions. And that helped. Though, I wasn't yet aware what kind of questions that we should be asking. And that was something that I learned later on after we were involved. (Institute scholar)

Community partners considered the initial meeting beneficial, but some Institute scholars and academic mentors found that it lacked an adequate level of communication about research project expectations. It was important for the academic mentors to know if they were a good fit with the agency by understanding what their project goals were. Some academic mentors felt they did not have enough information to make this determination.

The speed-dating was helpful in familiarizing everyone with the potential community agency. It would have been helpful to have more clarity about the research projects before deciding whether or not to choose a specific agency. (Academic mentor)

The frequency of communication between community partners and Institute scholars was critical to maintaining excitement about the project, but this aspect was challenging for some participants.

When we don't see anyone from the community agency it's hard for us to be really excited about the project because we are so detached from the project. I wished we would have had more contact with the community directly. That would have helped with implementation. (Institute scholar)

Frequency of communication seemed to vary considerably across teams. Some teams met frequently, but others had minimal communication with their community partner agency. For some, having an Institute scholar who worked at the agency facilitated communication.

There was a lot [of communication] because one of them [Institute scholars] worked there. So we communicated as a team. And the one scholar that worked at the agency spoke to the actual community partner about everything. (Academic mentor)

In addition, communication frequency changed depending on the phase of the project.

Planning went really well. Initially we received great guidance from the community partner. But as the project went along that guidance fell to the wayside. (Institute scholar)

Institute scholars, academic mentors, and community partners wanted clearer communication about expectations and roles and responsibilities of each participant early in the project. One community partner referred to the academic mentor as an "education consultant" and indicated that they did not fully understand the role of the academic mentor. Community partners also wanted

more communication from Institute faculty regarding the scope of the project to ensure feasibility.

In hindsight, maybe a little bit more directives to the agency. A little more guidelines—maybe what would have been helpful, is that the first day that we met with the interns [Institute scholars], is maybe having a representative from the university with us. To make sure that we are not going down the wrong rabbit trail. (Community partner)

Community partners also discussed the importance of feedback for making the project clearly beneficial to their agencies. Feedback involves communicating results back to the agency. Community partners indicated that feedback helped to build trust in the project and enhanced the feeling of collaboration.

We got a lot of feedback back on this project from the students. Whether it was in staff meetings, ground level staff meetings the facilitators were involved in, the students would come and talk to them and share their results and findings—share at coalition meetings, board meetings, the results were shared at a lot of different levels so it wasn't like the project was this big secret. (Community partner)

Develop an action agenda is defined in the model as mutually agreeing upon the scope of the project. As part of developing the action agenda, it was important for Institute scholars to have the information and resources they needed from the community partner to determine the scope of the project. In addition, coding for trust and mutual respect and respect for diversity also overlapped with develop an action agenda. Spending time together, also part of building trust and mutual respect, was important to developing the agenda and ensuring project success.

It helped us to make sure that we got what we needed, the community agency got what it needed, and the community overall got something extra. That was very valuable. (Institute scholar)

The site visit was important as the team was able to find out what projects would be meaningful and relevant to the agency. We were able to assess issues, concerns, and priorities of the agency. (Academic mentor)

[An] asset of the program was that it was evolving, it was alive, it was things that we worked on together. (Community partner)

Respect for diversity, culture of learning, and respect for culture of the setting. Minimal coding was found in our data for the constructs respect for diversity, culture of learning, and respect for culture of the setting. Trust and mutual respect coding overlapped with respect for diversity, again reflecting the critical role of trust and mutual respect in developing community–university partnerships.

Respect for diversity is defined as respecting differences in behavioral practices, preferences, and opinions among the partners. The community partners did not discuss anything reflective of this construct. However, one academic mentor noted that she wished her pairing with an agency had been based on her research interest instead of a fit for the agency. One benefit of the service-learning experience was a change in attitude among Institute scholars to include more respect for the preferences of community partners. This was reflected by both the Institute scholars and the academic mentors.

The Institute taught me a community–academic collaborative approach. Where it's just as important to hear what they have to say, but to allow them to make decisions because often times they know better than we do. So to get out of that ivory-tower thinking and do some real work and have them guide it just as much as us. It's really changed my approach to what I want to do. But at the same time it's solidified previous career goals. (Institute scholar)

The students from the academic side gained more perspective and appreciation of community input and engagement. (Academic mentor)

Culture of learning refers to two-way learning and acknowledging learning opportunities from the partnership. One academic mentor did not anticipate two-way learning from the relationship and felt the primary contribution of the agency was providing knowledge of the community. Institute scholars' approach to learning from the community partners varied from not expecting reciprocal learning to clearly learning and benefiting from the expertise of the community partner.

Thought they would be just that, a partner. That they would collaborate with us and do just as much research as we would, although we were taking the lead. (Institute scholar)

[Community partner knowledge] not in research, but they had a lot of knowledge concerning real-world application. (Institute scholar)

Community partners discussed learning in the context of how the Institute and the service-learning project operated. The program was new, and therefore the community partners associated learning with gaining an understanding of the Institute. Community partners appreciated the flexibility in the Institute, which facilitated learning and allowed for adjustments to make the experience more successful. Community partners acknowledged learning about translational research from the experience.

I think, you know, as much as I have learned about translational research, and I am still learning a lot, because I haven't really thought of it quite in the, the way I have learned it since this project began. Sort of trying to dissect all of the things that go into making an implementation work, taking something that is somewhat abstract and theoretical and turning it into something that can be used by people and implemented to get results. How do you take something that is usually measured in a clinical environment and see how it works in the real world? (Community partner)

Respect culture of the setting is defined as acknowledging differences between partners regarding their work settings. Some Institute scholars developed an understanding of community agency culture as a result of the service-learning project, allowing

them to see how the agencies operate in an informal way. Respect culture of the setting was also reflected in the coding of trust and mutual respect and respect for diversity. Scholars who were also full-time employees of an agency noted that the Institute's structure was geared more toward someone who was already acclimated to the university culture (e.g., knowing semester start date).

Community partners appreciated the flexibility because it allowed the program to work well with their agency's day-to-day operations. Some community partners thought that it was very meaningful that the findings could be applied to their immediate needs and met their timeline.

What I did worked well for us, may not for someone else. (Community partner)

In addition, the community partners noted how important it was for the Institute scholars to come to the agency in person and connect with their staff. One academic mentor noted that the Institute scholars who were from the academic side gained a better perspective and appreciation for working with community partners.

Recognizing Challenges, Benefits, and Outcomes

Finally, the model notes the importance of acknowledging *potential challenges and threats* to developing the community–university partnership while also noting the *benefits and outcomes* experienced by all partners. These factors are important for considering the sustainability of community–university partnerships.

Challenges. The model provides examples of potential challenges and threats to the development of a sustainable community–university partnership. One of the examples was time commitment, given that both Institute scholars and community partners discussed timing as a challenge. The duration of the graduate certificate program was four semesters, with classes offered each academic semester. Classes from January until May were didactic, which allowed Institute scholars to become familiar with translational research. Subsequent to this, the Institute scholars were able to plan their service-learning projects, which began during the early summer months. There was a sense that the timeline was too short and that there were not clear expectations about the time commitment.

The time and commitment. It does state on paper that it is a year commitment, but for us it's going above and beyond. Because the timeline is so short, we didn't start data collection until August or September and we were expecting to be done with that by December and have analysis done. It was tight so we obviously just continued past the conference doing work on this, which is fine. I just didn't anticipate it. (Institute scholar)

[In] hindsight [we] may not have taken it on when we did. I think we were approached just because we are the lead agency, [a] well known organization. The potential for projects was phenomenal... this became another thing on the do list. Although we embraced it, we wanted it, time for us probably wasn't the best. (Community partner)

Another example of a potential challenge was difficulty in managing project logistics. Logistics in this case related to competing priorities, transportation, and scheduling.

There was difficulty and I think that came from a lack of understanding that everyone has a different perspective. There was difficulty with navigating schedules... it's important to be flexible and implement the project to the best of everyone's ability. (Institute scholar)

More opportunities to meet with them [community partners] on campus instead of going all the way out to the agency. But I know that is part of being a researcher, that we have to go out to them. (Institute scholar)

Community partners found they had unexpected expenses associated with the project, and academic mentors noted that the Institute scholars had difficulty making appointments with them and meeting deadlines. One community partner mentioned that they personally took on all the communications regarding the logistics of the project because they did not want to burden other staff. Some Institute scholars wanted more interactions with other staff.

Planning was great. We planned more than we implemented. We planned for a lot of interviews, but we didn't get anywhere near that. We only did a third of what we planned. We found it difficult... finding times to meet with the community agency. If they were more aware of the project as opposed to just the community partner, I think things would have run more smoothly. (Institute scholar)

Community partners discussed other challenges, including concerns about project sustainability. In addition, perceived differences in priorities of community partners versus the university may have challenged the collaboration.

I think that the hurdle for the university seems to be that it really is all about research and making the connection to, you know, research is in a bubble, and life isn't, you know, makes it really hard for the researchers who are leading it to, and although they are bright, to work in and to effect change in an organization. So I found that, that hurdle still exists. Bench to trench is just really a hard hurdle to get over. (Community partner)

I think for it to be valuable for us it has to impact something we are doing, because we are spending time and effort—it has to come back and effect change here and I am not sure that we are getting there. (Community partner)

Finally, entering into research can be daunting for some community partners, as the information gained from the research may not reflect positively on the community agency.

Research is one of those things for me that is really exciting but scares me to death too. You can collect a lot of data that demonstrates not what you want. It is very important to have a comfortable relationship with people. (Community partner)

Participants did not identify other challenges and threats suggested by the model. Issues such as power and resource inequity and conflicts of interest did not emerge. This may be due to the nature of the service-learning model, which emphasizes a rec-

ognized collaborative approach to project development from the initiation of the partnership. Similarly, the service-learning model also emphasizes a team-based research initiative that may forestall any potential conflicts of interest. The project's scope is mutually defined, with the needs of researchers and community partners bearing equal weight.

Benefits and outcomes. For Institute scholars and community partners, learning opportunities emerged from the collaboration. Institute scholars developed a new appreciation for translational research.

I feel like translational research is so important. And I feel like that is our biggest problem today. We have so much on paper, in theory, but every community is so different, and you know if only we could give a handbook to everyone then the world's issues would be solved. But it doesn't work that way. So that piece, that gap, is like really what drives behavior at all levels of the system, from individual to political behavior. If that could be fined-tuned, then it would solve the world's problems. (Institute scholar)

Community partners gained information that changed how they went about their day-to-day business. One partner plans to change their staff training as a result of the collaboration.

When you hear them [needs of staff] from outside looking in, can shed different light on it. (Community partner)

Impacting the programs the project looked at—learned what was happening with each program being implemented in several places. The team was able to take a deeper dive into the implementation of programs the agency had not previously been able to. They learned what's happening with each program's implementation. (Community partner)

I love that we are helping the community agency understand implementation science. Providers desperately need to know how to implement and sustain an [evidence-based] practice. (Academic mentor)

We want to be more evidence-based... fidelity and collecting data. We want to be better at that... now we are going to begin to log the information and share the information amongst each other because there is a way staff view comments about how the intervention worked. I think collectively it is going to grow. Administratively, I see it as we are delivering services in a more data driven world. (Community partner)

Another benefit from the collaboration was an influence on the career trajectories of Institute scholars. Some Institute scholars indicated that the experience made them better job candidates.

There is a job that I am being considered for that deals with translational research. So this experience makes me a viable candidate. The experiences during my time with the Institute make me stand out. (Institute scholar)

Scholars who were also employed at a community agency integrated the research efforts into their current job to help them further their careers. An agency also hired an Institute scholar to work with them as a result of the project. One community partner saw the Institute as a perk to offer to exceptional employees.

It gives me something to give someone who works hard here a perk, because we want them to stay here and stay engaged. If you can do things like that I think it is helpful. (Community partner)

Continued collaboration beyond the scope of the project is either already occurring or anticipated to occur based on the experience with the collaboration. Institute scholars and community partners were planning for future copresenting opportunities, and academic mentors developed an interest in working with collaborating agencies in the future.

I really got to know the organization and I love it now. I would be proud to be on their board. (Academic mentor)

Community partners also discussed having a useful product from the collaboration that validated their current efforts.

It felt very real, and with good fruitful results.
(Community partner)

Well at first I wasn't really sure of what to expect so I was letting it play out, to sort of see what would come of it, and honestly at the end, once the data was collected and we sort of got to see what the students had put together I was really pleasantly surprised with the value of what they were collecting. (Community partner)

It validated that we are on the right track. (Community partner)

They looked at things that either we don't have the time to or had not thought to look at. (Community partner)

What is unique about this, okay, is that we had just shared the findings, what the parents had said, we [the community agency] had just completed an assessment and identified our goals for this coming year. They mirrored each other. (Community partner)

I consider what we have done so far, really alive and really making a contribution, making a difference. I value that. I always tell people we are not putting books on shelves, we are doing things. That is [what] I think translational research is, making it meaningful for the issues we are dealing with. (Community partner)

In addition, community partners also saw the community-university partnership as raising the credibility of their organization and helping the community develop confidence in the agency.

Parents have an opinion about getting their kids help. Why did they pick us? When you see the university involved in it, it raises the credibility of who we are. (Community partner)

I think it is good for the families we serve to know we have relationship with the university. That it is not just

“internet therapy,” we are not just pulling something off of the internet and doing it, that there is actually depth and breadth. I think that gives people confidence in your ability to make a change in their kids’ lives. (Community partner)

Limitations of Study

This evaluation has its limitations. First, this article represents results from the first year of the project; a more comprehensive application of the model will be established later in the project’s life cycle, as future cohorts of Institute scholars, academic mentors, and community partners complete the program. Subsequent data reflecting the implementation model may also have implications for project sustainability. Second, each interview reflects contact with a participant at a single point in time. Follow-up data collected from participants could make the model more explanatory.

Conclusions and Implications

Framing the Institute’s evaluation using the interactive and contextual model developed by Suarez-Balcazar et al. (2005) was a useful approach. The model created a mechanism for critical reflection on the benefits and challenges of developing and nurturing community–university partnerships. Discussions of project successes reflected the importance of taking time to establish trust and mutual respect, indicating that this is a critical aspect of this model and thus also a key construct to include in future evaluations. Recent research regarding community–university partnerships also noted that establishing trust has been found to be important for successful projects, and the history between partners can also influence trust (Hicks et al., 2012; Simonds et al., 2013). Considerable overlap was found between trust and mutual respect and other constructs of the model, demonstrating that it is a core variable of successful partnerships.

Considering challenges experienced by Institute participants in light of this model and the reciprocal nature of its constructs will contribute to problem solving and planning for the future. Taking time to establish trust and mutual respect will be critical for the Institute to effectively sustain partnerships with community agencies. In addition, the experiences of Institute scholars, academic mentors, and community partners enabled us to identify additional challenges and benefits from community–university partnerships

for the model developers or model users to consider. One particular challenge in a community–university partnership is acknowledging that community partners may find research daunting because results may reflect badly on their organization. On the other hand, community partners also recognized that the partnership enhanced the reputation of the agency in the community as well as providing it with a useful product for daily operations.

Results suggest this model was useful both to characterize the experiences, organization, and community partnerships encountered in service-learning and to inform the Institute’s leadership team of the strengths of the program as well as needed improvements. Although we found the contextual and interactive model of community–university collaborations to be useful in the design and implementation of process evaluations of community–university partnerships, we recommend further evaluation of some specific items in light of the proposed constructs based on this evaluation (see Table 3).

For future evaluations, our findings indicate that when evaluating the gaining entry into the community portion of this model, specific assessment items should inquire about expectations and the context of previous working relationships among partners. To assess the process of developing and sustaining collaborations, evaluating trust and mutual respect is critical, and potential inquiries regarding trust should review the perceived adequacy of time and level of commitment of each partner. Understanding the adequacy of communications will require exploring the willingness of partners to share information and resources, the frequency of communications, the open discussion of expectations, and the continuous feedback process. In evaluating the success of developing the action agenda for a mutually beneficial project, future evaluations should survey adequacy of time spent building respect among partners.

Although the constructs respect for diversity, culture of learning, and respect for culture of the setting were not reflected as frequently as other constructs in the model, participants discussed aspects of each construct, and the information obtained from these discussions can be used in framing future evaluations. When inquiring about respect for diversity, it will be important to discuss attitudinal changes and to understand preferences of all partners. Culture of learning evaluation items should discuss reciprocal learning experiences and understanding knowledge of others. Evaluating respect for culture of the setting items should

involve discussing flexibility and efforts to get to know the partners in their own setting.

Table 3. Items Recommended for Future Evaluations Utilizing This Model

Model Construct	Specific Items for Future Evaluation
Gaining entry	Expectations of partners Context of previous working relationships
Developing and Sustaining Collaboration	
Trust and mutual respect	Perceived adequacy of time Perceived adequacy of commitment to the project
Adequate communication	Willingness to share information and resources Frequency of communication Open dialogue regarding expectations Providing ongoing feedback
Respect for diversity	Understanding preferences of partners Attitudinal change toward partners
Culture of learning	Reciprocal learning experiences Acknowledging knowledge of partners
Respect culture of setting	Level of flexibility Steps taken to familiarize oneself with the partner's setting
Develop action agenda	Time taken to build trust and respect before setting agenda Mutually beneficial project goals
Recognizing Benefits and Challenges	
Benefits and outcomes	Career changes Collaborations occurring outside the scope of the original project Partnership's influence on credibility in the community
Challenges and threats	Logistics management (time, effort, transportation, etc.) Differing priorities Fear of involvement in research Sustainability concerns

Beyond the model's suggested benefits and outcomes constructs, future evaluations of community–university partnerships should also consider questions about career changes, collaborations occurring outside the scope of the project, and the partnership's influence on credibility in the community. Finally, when

exploring challenges, it will be important to review logistics management, differing priorities, fears regarding research, and sustainability concerns.

Further, since measuring levels of participation and partnership in behavioral health research efforts is a complex endeavor, future evaluations should occur continually throughout the stages of the project (Khodyakov et al., 2013). The Institute could also inquire more into the structure and process of the mentorship experience to identify best practices for knowledge translation in mentoring relationships (Gagliardi et al., 2014).

A recently published framework for evaluating community–university partnerships found that four constructs were critical across all phases of project development: trust, capacity, mutual learning, and power dynamics (Belone et al., 2014). This same team of researchers also produced a matrix of available measures designed as a toolkit for those involved in community–university partnerships to identify potential evaluation instruments (Sandoval et al., 2011). Sandoval et al.’s toolkit includes several evaluation instruments focused on concepts identified in our evaluation as important for community–university collaborations including university capacity, community partner capacity, trust, communication, mutual respect, flexibility, and diversity. The identification of these concepts, coupled with their inclusion in the toolkit, indicates that there are opportunities to focus specifically on these concepts in future evaluations of community–university partnerships. Future research utilizing the interactive and contextual model of collaboration should evaluate the utility and psychometric properties of instruments measuring the capacity of collaborating partners as well as trust, communication, respect, flexibility, and diversity (Suarez-Balcazar et al., 2005).

References

- Agency for Healthcare Research and Quality. (2004). *Community-based participatory research: Assessing the evidence* (AHRQ Publication No. 04-E022-2). Washington, DC: U.S. Government Printing Office.
- Belone, L., Lucero, J. E., Duran, B., Tafoya, G., Baker, E. A., Chan, D.,... Wallerstein, N. (2014, October 31). Community-based participatory research conceptual model: Community partner consultation and face validity. *Qualitative Health Research*, 1-19.
- Bumbarger, B. K., & Campbell, E. M. (2012). A state agency–university partnership for translational research and dissemination of evidence-based prevention and intervention. *Administration and Policy in Mental Health and Mental Health Services Research*, 39, 268-277.

- Carnegie Foundation for the Advancement of Teaching. (2015). *Elective community engagement classification, first-time classification documentation framework*. Retrieved from http://nerche.org/images/stories/projects/Carnegie/2015/2015_first-time_framework.pdf
- Cashman, S. B., & Seifer, S. D. (2008). Service-learning: An integral part of undergraduate public health. *American Journal of Preventive Medicine*, 35(3), 273-278.
- Cherry, D. J., & Shefner, J. (2004). Addressing barriers to university–community collaboration: Organizing by experts or organizing the experts? *Journal of Community Practice*, 12(3), 219-233.
- Community Health Scholars Program. (2001). *Stories of impact* [Brochure]. Ann Arbor, MI: University of Michigan, School of Public Health, Community Health Scholars Program. Retrieved from http://www.kellogghealthscholars.org/about/ctrack_impact_scholars_book.pdf
- De Las Nueces, D., Hacker, K., DiGirolamo, A., & Hicks, S. (2012). A systematic review of community-based participatory research to enhance clinical trials in racial and ethnic minority groups. *Health Services Research*, 47(3), 1363-1386.
- Dugery, J., & Knowles, J. (Eds.). (2003). *University + community research partnerships: A new approach*. Charlottesville, VA: Pew Partnership for Civic Change.
- Eder, M., Carter-Edwards, L., Hurd, T. C., Rumala, B. B., & Wallerstein, N. (2013). A logic model for community engagement within the clinical and translational science awards consortium: Can we measure what we model? *Academic Medicine*, 88(10), 1430-1436.
- Faridi, Z., Grunbaum, J. A., Gray, B. S., Franks, A., & Simoes, E. (2007). Community-based participatory research: Necessary next steps. *Preventing Chronic Disease: Public Health Research, Practice, and Policy*, 4(3), 1-5.
- Gagliardi, A. R., Webster, F., Perrier, L., Bell, M., & Straus, S. (2014). Exploring mentorship as a strategy to build capacity for knowledge translation research and practice: A scoping systematic review. *Implementation Science*, 13(122), 1-10.
- Green, L. W. (2001). From research to “best practices” in other settings and populations. *American Journal of Health Behavior*, 25(3), 165-178.
- Harper, G., Contreras, R., Bangi, A., & Pedraza, A. (2003). Collaborative process evaluation: Enhancing community relevance and cultural appropriateness in HIV prevention. In Y. Suarez-Balcazar & G. W. Harper (Eds.), *Empowerment and participatory evaluation in community intervention: Multiple benefits* (pp. 53-71). Binghamton, NY: Haworth.
- Hicks, S., Duran, B., Wallerstein, N., Avila, M., Belone, L., Lucero, J.,... White Hat, E. (2012). Evaluating community-based participatory research to improve community-partnered science and community health. *Progress in Community Health Partnerships: Research, Education, and Action*, 6(3), 289-299.
- Holland, B. A. (2001). A comprehensive model for assessing service-learning and community–university partnerships. *New Directions for Higher Education*, 114, 51-61.

- Khodyakov, D., Stockdale, S., Jones, A., Mango, J., Jones, F., & Lizaola, E. (2013). On measuring community participation in research. *Health Education Behavior, 40*(3), 346-354.
- Miles, M. B., Huberman, A. M., & Saldana, J. (1994). *Qualitative data analysis: A methods sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.
- Minkler, M. (2005). Community-based research partnerships: Challenges and opportunities. *Journal of Urban Health, 82*(2), ii3-ii12.
- Minkler, M., Blackwell, A. G., Thompson, M., & Tamir, H. (2003). Community-based participatory research: Implications for public health funding. *American Journal of Public Health, 93*(8), 1210-1213.
- Proctor, E. K., Knudsen, K. J., Fedoravicius, N., Hovmand, P., Rosen, A., & Perron, B. (2007). Implementation of evidence-based practice in community behavioral health: Agency director perspectives. *Administration and Policy in Mental Health and Mental Health Services Research, 34*(5), 479-488.
- Ross, L. F., Loup, A., Nelson, R. A., Botkin, J. R., Kost, R., Smith, G. R., & Gehlert, S. (2010). The challenges of collaboration for academic and community partners in a research partnership: Points to consider. *Journal of Empirical Research on Human Research Ethics, 5*(1), 19-31.
- Salimi, Y., Shahandeh, K., Malekafzali, H., Loori, N., Kheiltash, A., Jamshidi, E.,... Majdzadeh, R. (2012). Is community-based participatory research (CBPR) useful? A systematic review on papers in a decade. *International Journal of Preventive Medicine, 3*(6), 386-393.
- Sanchez, V., Carrillo, C., & Wallerstein, N. (2011). From the ground up: Building a participatory evaluation model. *Progress in Community Health Partnerships: Research, Education, and Action, 5*(1), 45-52.
- Sandoval, J. A., Lucero, J., Oetzel, J., Avila, M., Belone, L., Mau, M.,... Wallerstein, N. (2011). Process and outcome constructs for evaluating community-based participatory research projects: A matrix of existing measures. *Health Education Research, 27*(4), 680-690.
- Simonds, V. W., Wallerstein, N., Duran, B., & Villegas, M. (2013). Community-based participatory research: Its role in future cancer research and public health practice. *Preventing Chronic Disease, 10*.
- Spoth, R. L., Schainker, L. M., & Hiller-Sturmhofel, S. (2011). Translating family-focused prevention science into public health impact: Illustrations from partnership-based research. *Alcohol Research and Health, 34*(2), 188-203.
- Suarez-Balcazar, Y., Harper, G., & Lewis, R. (2005). An interactive and contextual model of community-university collaborations for research and action. *Health Education & Behavior, 32*(1), 84-101.
- Thompson, L. S., Story, M., & Butler, G. (2003). Use of a university-community collaboration model to frame issues and set an agenda for strengthening a community. *Health Promotion Practice, 4*(4), 385-392.
- Wallerstein, N., & Duran, B. (2010). Community-based participatory research contributions to interventions research: The intersection of science and practice to improve health equity. *American Journal of Public Health, 100*(Supp1), S40-S46.

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