"*Lessons that simply cannot be lectured*": Highlighting the experiences and benefits of undergraduates engaged in community psychology research

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Abstract

Globally, Community Psychology (CP) currently struggles with a lack of visibility and a shortage of platforms from which to engage future researchers and practitioners. Many of these future researchers and practitioners study psychology as part of their undergraduate education, making psychology departments in undergraduate institutions an ideal point of exposure. Discouragingly, however, undergraduate students are unlikely to be exposed to CP in their course curriculums forcing students to seek out opportunities for exposure elsewhere (Jimenez, 2016; Glantsman, McMahon & Njoku et al., 2015). This is especially true of Community Psychology within the United States. This study aimed to explore how students got involved in CP research and the benefits of that involvement. A total of 34 former undergraduate research assistants involved in CP research teams at Michigan State University completed a 20-item online questionnaire comprised of open- and closed-ended questions. Quantitative data were analyzed descriptively and qualitative data were analyzed using an iterative coding process. Results showed that the majority of students had no experience in CP and merely stumbled upon the research. Despite this, respondents reported gaining many skills, competencies, and knowledge during their time on the research teams. Respondents particularly benefited from: 1) gaining hands-on and community-based research skills; 2) attaining transferable skills they could carry with them in future positions; 3) acquiring CP-specific competencies; and 4) cultivating greater awareness and passion for social issues. Finally, the majority of respondents discussed how their involvement on CP research teams honed in their interest and passions and/or shaped their professional trajectory. These findings provide preliminary evidence of the benefits of CP research involvement at an undergraduate level and has important implications for how CP as a field may choose to invest in undergraduate research opportunities.

Introduction

One goal of psychology is to apply research findings in a way that will make a positive impact on the world (Goodwin, 2010). Community Psychology (CP), in particular, is a discipline in psychology dedicated to conducting research that can inform health promotion, alleviate or prevent social adversities, address oppression, and integrate research with action to facilitate lasting improvements in community wellbeing (Dalton, Elias & Wandersman, 2012; Kloos, Hill, Thomas, Wandersman, & Elias, 2012; Prilleltensky, 2001). Because CP's values support one of psychology's overarching goals of research applicability, exposure to CP has the potential to benefit not only future Community Psychologists but future researchers and practitioners of all disciplines. This exposure to CP also has the potential to benefit students beyond their career paths by developing skills to foster

civic engagement, activism and awareness of key issues affecting their communities.

Globally, CP currently struggles with a lack of visibility and a shortage of platforms from which to engage future researchers and practitioners (Glantsman, Mcmahon, & Njoku, 2015; Jimenez, Sánchez, McMahon & Viola, 2016). Many of these future researchers and practitioners study psychology as part of their undergraduate education, making psychology departments in undergraduate institutions an ideal point of exposure. Discouragingly, however, undergraduate students are unlikely to be exposed to CP in their studies (Elias, 1987; Glantsman et al., 2015). This is especially true for CP in the United States. Introductory psychology courses are a venue in which many students are exposed to different psychology disciplines (e.g., developmental, social, clinical, etc.), yet CP is left out of most introductory psychology textbooks (Bauer, Glantsman, Hochberg, Turner & Jason, 2017). In an examination of 53 introductory psychology textbooks, Bauer and colleagues (2017) only found adequate representation of CP in nine of the textbooks. Furthermore, if undergraduate students do happen to encounter CP in an introductory psychology course, they may have few options for deepening their exposure. Most institutions, worldwide, have no representation of CP in their psychology coursework and, of those that do, a single elective course is often the only offering (Glantsman et al., 2015).

There are a variety of possible ways to address this lack of visibility and increase access to CP, such as advocating for CP inclusion in undergraduate textbook and course curriculums. These strategies, however, require a level of institutional support that may be absent. One uniquely flexible solution ripe for exploration is engaging undergraduate students in CP

research. Through hands-on experience with community-driven research, undergraduate students could gain the exposure to CP that they are unlikely to encounter in their classrooms.

Previous studies have found positive benefits of research team participation for undergraduate students. These benefits include enhanced leadership skills (Etmanski, Hall, & Dawson, 2014), an increased likelihood of pursuing graduate education (Hathaway, Nagda, & Gregerman, 2002; Russell, Hancock, & McCullough, 2007), and improved analytical or independent thinking (Ishiyama, 2002; Ryder, Leach, & Driver, 1999). Studies have also consistently found that participation in undergraduate research can increase students' interest in their discipline and clarify or confirm pursuit of specific graduate study (see Seymour, Hunter, Lauren, & Deantoni, 2004, for a review).

While the benefits of undergraduate students' involvement in research teams is well established, examination of discipline-specific outcomes has received less attention. These discipline-specific outcomes may be especially important for CP as leaders in the field grapple with how to increase its visibility and engage with future scholars and practitioners. The Society for Community Research and Action (SCRA) has recently developed a list of competencies that help to serve as a framework for discussion of skills involved in community psychology graduate training (Dalton & Wolfe, 2012). Broadly, these competencies cover the following areas: Foundational CP Principles, Community Program Development and Management, Community and Organizational Capacity-Building, Community and Social Change, and Community Research. A recent issue of the Global Journal of Community Psychology Practice highlighted various global applications of these competencies in

academia and practice settings (Wolff, Francisco & Meissen, 2016), however only one of the articles from the special issue discussed how these competencies might be incorporated into undergraduate education and research experiences (Henderson, Matlock, Garrett, & Clark, 2016). While the CP-competencies are primarily geared towards tailoring graduate education, it is still important to note if any competencies may be acquired during undergraduate experiences. If undergraduate involvement with CP research teams produces similar experiences and benefits to what would be expected through more traditional platforms of engagement (e.g., classroom instruction), then CP as a field may choose to invest more heavily in undergraduate research opportunities, paying particular attention to the CP competencies acquired. If, alternatively, the experiences had by undergraduate students in CP research teams does not benefit undergraduate students in meaningful ways, the field may choose to direct its efforts elsewhere.

Current Study

This study aims to provide insight on the benefits of CP-engaged research for undergraduate students. This student-led investigation focuses on bringing undergraduate perspectives forward and using those experiences to inform CP outreach to undergraduate students. The current project seeks to answer the following research questions: 1) What duties or roles did undergraduate students hold on community psychology research teams? 2) What do undergraduate students perceive as the benefits to having worked on a community psychology research team? 3) What skills or CP-competencies were gained by undergraduate students? 4) What challenges do undergraduate students face when engaging in CP research? 5) How, if at all, do students perceive their engagement in community psychology research to have influenced their professional goals? Keeping with the focus of this article, the research team for this project comprised undergraduate and graduate students (all listed as authors in this manuscript) who worked collaboratively from the project conceptualization, through survey design, data collection, data analysis and interpretation and manuscript preparation. In particular, undergraduate students took the lead in proposing the initial research concept and designing the data collection tool. Graduate student researchers supported these efforts by providing information, resources and guidance. Undergraduates also served as coders in the qualitative coding and data analysis process. Graduate students took the lead on manuscript preparation, although the undergraduates were still heavily involved.

Methods

Participants and Procedures

This study examined experiences of current or former undergraduate students who were involved in CP research teams at Michigan State University in the past three years. To obtain this sample, a comprehensive list of the names and emails of undergraduate student researchers was collected from current faculty and their respective graduate students. All eligible current or former undergraduate students were sent a recruitment email with information about the project and a link to an online Qualtrics survey. After one week, a reminder email was sent to the entire list to increase recruitment numbers. From the email, prospective participants were directed to an online consent form that provided additional information about the study and their rights. If prospective participants consented to participate in the study, they were

immediately directed to an online Qualtrics questionnaire. Of the 384 potential participants who were contacted, 62 consented and 34 completed the survey. Respondents did not receive any compensation for their participation and the survey took approximately 30 minutes to complete. Former undergraduate students (graduated Michigan State University within the last three years) made up the majority of the sample (64%) and reported experiences from one of five (out of 11) CP research teams on campus. The proportion of respondents in each research project appear proportional to the number of undergraduate students who work within each project. All data was downloaded directly from Qualtrics onto a secure server. Qualitative data was downloaded into Excel and quantitative data into SPSS for data management, coding, and analysis. All materials and procedures for this study were approved by Michigan State's Institutional Review Board.

Measures

The questionnaire was comprised of closed-ended and open-ended questions pertaining to participants' experiences working or volunteering on a community psychology research team. In order to capture the experiences, benefits, and challenges of involvement on CP research teams, we created a 20-item online questionnaire This questionnaire was specifically crafted for this research study through a collaboration with current and former undergraduate researchers from Michigan State University. We began developing a quantitative measure to describe undergraduates research roles and development of skillsets by first reviewing the core competencies for community psychology practice. Next, graduate and undergraduate students met to discuss which competencies appeared relevant to undergraduate research in Community Psychology until a consensus was reached. Then, we created an inventory of items for skills and roles of undergraduate research students that represented the consensus.

The qualitative portion of the survey was drafted by undergraduate student authors who wished to capture stories around specific research experiences, benefits, challenges, and the influence community psychology has had on their academic and professional life. Graduate students and faculty provided feedback and suggestions to bolster each item's interpretability, to create a more open-ended question structure, and to enhance the breadth of topics covered. Undergraduate and graduate students continued the process until we achieved a consensus and the measure was finalized.

The first section of the measure included questions about the number of semesters involved in research, compensation, course credit and grand tour questions about research experiences, broadly. The second section included an inventory of duties, roles and responsibilities during their tenure as an undergraduate researcher, such as project development, collecting and working with data, analyzing data, academic writing and community partnerships. We then asked questions about challenges and benefits pertaining to their duties as an undergraduate researcher. The third section asked participants to report the skills they developed from a predefined list informed by the core competencies of community psychology. Lastly, we asked about their current position, educational level, and how their experience in community psychology influenced their career or employment. A copy of the final measure is available in Appendix A.

Analysis

To analyze the 10 close-ended questions, we computed descriptive statistics. To analyze the 10 open-ended questions, we used an iterative coding process following Hruschka and colleague's (2004) guidelines for maintaining efficiency and reliability when coding open-ended data. All qualitative data was coded inductively by question, such that coders were trained to identify emergent themes separately for each question. Emerging themes were coded, reviewed, refined, and recoded by the first and second authors until at least 80% inter-rater reliability was established for each question.

Results

A total of 34 current and former undergraduate research assistants participated in the study. Respondents were diverse in their undergraduate research involvement and experiences. Respondents worked an average of three semesters on CP research teams (range one to eight semesters). Approximately 70% received course credit for their involvement and 17% were, at some point in their engagement, paid hourly for their work. At the time of the survey, 43% of respondents were currently employed in full or part-time positions, approximately 35% were still working on their undergraduate degrees and 21% were currently in graduate school. Participants who completed the survey discussed their work on one of five CP research teams focusing on an array of social justice-oriented research projects. The primary research projects in which respondents were involved included: 1) HIV Prevention and Care among Youth (38%); 2) Juvenile Justice Diversion and Mentorship (29%); 3) Substance use among Arab American Youth (15%); 4) Gender-based Violence (12%); and 5) Community-Based Implementation Evaluation (6%).

Exposure to CP

Prior to their involvement on CP research teams, the majority of respondents had no experience or knowledge about CP. Of those that were exposed to CP through a CP course or faculty member, research involvement was seen as a way to deepen that exposure. One respondent's experience is illustrative: "I had a class with [CP faculty], and on the first day realized his research was exactly what I wanted to do, so I approached him after class to learn more. Originally, I was interested in Public Health." One of the main reason students sought out CP research opportunities was because the research topics reflected student's interests, passions or issues of importance to them: "I wanted more hands-on experience in my field and to start making a difference with the knowledge I had learned. Once I met some of the people on the team it seemed like the position for me." Others stumbled upon the field through their community service activities or completely by accident, hoping to gain research experience or boost their CVs. One respondent said:" I was hoping it [research involvement] would have an influence and help me decide what I wanted to do in my future and it did both!" Overall, regardless of how respondents got involved in community psychology research, a clear majority appreciated the experience.

Responsibilities and Benefits of CP Research Engagements

Respondents perceived many direct benefits from working on CP research teams. First, we report on the quantitative findings of the various responsibilities and skills that respondents reported gaining because of CP research team involvement. Subsequently, we discuss respondents' perspectives on the benefits of CP research team involvement. Most notably, respondents discussed gaining hands-on research skills, growing professionally and interpersonally, building

critical consciousness around pressing social issues, and attaining fulfilling post-baccalaureate positions.

Responsibilities and Skills. Respondents held diverse responsibilities on CP research teams. Most respondents were involved in data management (82%), data collection (53%) and data analysis (53%). Of all respondents, 56% held responsibilities pertaining to research project development such as project conceptualization and designing measurement tools. Respondents were tasked project management responsibilities (53%) including administrative work, scheduling, or supervising other team members. Respondents also were tasked with various writing responsibilities for manuscripts

(56%) and technical reports (18%). Approximately half of all respondents were involved with conference presentations, and a similar proportion with community engagement. Table 1 displays the various skill and knowledge gains respondents reported as a result of their research engagements. As illustrated, most respondents described gaining valuable advanced research skills which they attributed to their research engagements. Respondents also noted vast growth in their knowledge base around qualitative and quantitative methodologies and community-psychology specific topics such as community-based participatory research, implementation and dissemination, empowerment, and ecological systems theory.

Table 1. *Frequencies of Skills and Knowledge Acquired during Research Engagements*

	Frequency	**%**
Skills Gained		
Presenting Research	16	47.1
Analyzing Data	21	61.8
Interviewing Participants	22	64.7
Using Statistical Analysis Software	22	64.7
Working on a Team	27	79.4
Manuscript Preparation	28	82.4
Knowledge Gained	**Frequency**	**%**
Quantitative Methods	20	58.8
Qualitative Methods	22	64.7
CP Topics and Theories	27	79.4
General Research Methods	32	94.1

Hand-on Research Skills. Many respondents specifically discussed the benefit of *"getting*

firsthand experience in field of psychological research". Respondents commented that

psychology research was something they learned about and discussed in class often but had been unable to engage with beyond course lectures. Through involvement on community psychology research teams, respondents felt they were able to connect the research methods and statistical analysis course material to real world problems and begin to understand how community issues can be addressed through research. One respondent noted:

"Being able to have the opportunity to implement what you've learned in the classroom in real world research was super valuable in allowing me to develop as a student and a researcher. It really allowed me to grasp the concepts learned in class and apply them in ways we've never had the opportunity to apply them before. It's one thing to learn vocab words and visualize how things function in the classroom, it's another to get to apply them in real-world research and it allowed me to excel in my psychology classes afterward."

In addition to general research skills (e.g. data analysis, coding, interviewing), respondents particularly valued learning community-based and participatory research skills, such as *"learning what elements go into the creation of a community assessment"*, "*sitting in community partner meetings","* *seeing what a community/research partnership actually looks like", "hearing stories of women…and learning how to code [them] for themes*" and *"seeing how [faculty researchers] approach community participatory research".* Respondents felt strongly that these types of skills are lacking or difficult to teach in a classroom and felt fortunate to learn these skills through their research opportunities. One respondent said: *"I am grateful for my experience on a community psychology research team. I learned real-world lessons that simply cannot be lectured, they must be experienced."*

<u>Interpersonal and Transferable Skill Development</u>. Respondents discussed gaining interpersonal skills that allowed them to not only establish important career connections, but also feel more comfortable in teamwork environments: *"Having worked on a team helped me build the interpersonal skills needed to competently be able to work with and discuss psychology with my co-workers now."* All CP research at this institution is team-based, and respondents noted positive experiences working on teams with other undergraduates, graduate students, faculty, and staff. Some respondents greatly appreciated the mentorship relationships that developed on these teams.

Transferable skills were also particularly important to respondents. This theme was especially salient among currently employed respondents and graduate students. These respondents discussed how the skills they gained on CP research teams were directly applicable to a student entering graduate school or a young professional joining the workforce. Most often, respondents discussed learning how to better manage their time as a result of research involvement or be more confident in their research and writing skills. One respondent described the skills they gained as "tangible skills I can carry with me no matter what my career path ends up being". Respondents who were not currently students or researchers also discussed how the skills they gained during their research engagements worked to their benefit in their current positions*: "My topical knowledge has allowed me to [an] effective advocate for gender-based violence and I carried these skills and knowledge into my current job as a substance use and domestic violence offender assessor."* Overall, skills gained from CP research teams seemed to last far beyond their CP research team engagements.

Awareness of Social Problems. Respondents felt they grew more critically conscious of social issues impacting various communities. Despite the varied lengths of CP research engagement, most respondents discussed how experiences in CP research cultivated greater awareness and passion for social justice: *"It helped me realize how many people are impacted by these issues that exist in our society today and how many are under educated on these problems."* Respondents spoke of how knowledge gained through CP research increased their passion around the topics being studied, but also affected how they place themselves in the context of social issues and their communities. One respondent said: *"My entire view on the world, social problems, science and health shifted to be more enlightened by values of social justice and social ecology". Participants suggested knowledge gained from their research engagement enabled them to more effectively contribute to positive change in their communities.* One participant said they were *"now better equipped to contribute to the world."*

Framing Social Problems. For many respondents, CP research engagements helped students apply different CP approaches and frameworks to better understand the social issues about which they were passionate. "*I'm also in grad school now, and definitely approach the program with a feminist/community psychology framework.*" A clear majority of respondents explicitly discussed how being able to view community problems through an ecological lens has helped them in their current work. For example, one respondent described how CP research influences their current work as a social worker: *"It reminds me to look at the big picture when identifying problems. I also understand that some of the barriers I encounter as a social worker are systemic and issues that can only be solved by changing*

policy." This comment was similarly echoed by another respondent who wrote: *"I have gained more knowledge about how many problems communities face have to be address on several different levels from state policy to local resources."*

Identifying and Attaining Goals. Finally, many students sought out psychology research to get experience necessary to apply to graduate school or attain a professional position. One respondent spoke highly of how the research team they worked on supported their future goals: *"They helped me get into a master's program and I have built relationships with faculty members that recognize my skills and knowledge in community psychology."* About half of all respondents reported that their CP research experiences encouraged their interest in pursuing CP or community-engaged work. Almost all respondents said their work on CP research teams honed in their interests and passions, which in turn shaped their professional trajectory: "*[CP research team] helped me find my research interest and passion."* A quarter of respondents directly tied their current positions to their experiences working on CP research teams. For example*: "I feel very strongly that [research team and staff member's] mentoring are the biggest factors in why I am where I am today! [They] confirmed my desire to work with underserved and disadvantaged populations and [redacted] guided me in the right direction to pursue my MSW."* Taken together, respondents felt fortunate that they found CP research teams, they were appreciative of the responsibilities held and skills gained over their research engagements and felt that CP research involvement not only helped shape their career goals, but also their outlook on social problems in communities.

Challenges

In addition to discussing benefits of CP research, respondents also discussed challenges they faced while pursuing research as an undergraduate student. Respondents provided valuable insight to the reasons and challenges of their exposure and experiences with CP research teams. Balancing full-time coursework as well as employment, volunteering, and extracurricular activities can be challenging enough for undergraduate students. However, as stated by one respondent, there was a feeling that research *"was necessary to secure a job or acceptance into a graduate program".* With the pressure for higher education, employment, and commitments to other university activities, it is no surprise that 41% of students reported challenges with time management as part of a CP team. Students also mentioned feelings of a lack of confidence in their ability to adequately contribute to a research team as a challenge to involvement. Of respondents, 23.5% stated that their lack of prior exposure and experience with CP research challenged them in their success. Though challenges were addressed by respondents, no surveys were received outlining negative experiences with their research involvement. We expect that those who did not have pleasant experiences, chose not to respond to the survey.

Discussion

This student-led research investigation was carried out with the specific aims of understanding undergraduate students' experiences on CP research teams and how these experiences affected their professional trajectories. Findings from this study not only provide valuable insight into how undergraduates are exposed to CP, but also the benefits gained from their engagement with CP research.

Awareness of Community Psychology Field

Unsurprisingly, respondents typically had little awareness of CP prior to engaging in CP research, suggesting that a lack of platforms from which to educate undergraduate students about CP stymies their exposure to the discipline. Fortunately, many students independently sought out or stumbled into CP research opportunities. These opportunities provided students with hands-on experiences that complemented their coursework, provided valuable community-based research training, built transferable skills and cultivated knowledge of pressing social problems. Respondents emphasized that engagement in CP research provided a depth of understanding that they felt could not be learned in classroom environments. In addition to this CP-specific understanding, respondents also reflected that engagement in CP research strengthened their understanding of concepts taught in other psychology classes. While we want to underscore the ability of classroom environments to build CP visibility on a broad scale, these respondents' accounts seem to point to research involvement as a uniquely enriching academic experience. As a result, CP might consider allocating significant energy toward creating opportunities for such research-based learning to occur.

Skills and Competencies Gained

Previous research in other disciplines has demonstrated the personal benefits of research involvement for undergraduate students (Etmanski, Hall, & Dawson, 2014). Our study is consistent with these findings providing evidence of various skills gained from research team engagements. In addition to completing administrative tasks, respondents collectively contributed to all stages of the CP research process from engaging in partnership formation and project conceptualization to manuscript preparation and disseminating findings

through community reports. Respondents also discussed valuable skills they acquired that helped identify and attain professional goals outside of the research team environment, highlighting a reciprocal relationship between faculty, graduate students and the undergraduate research team members. Consequently, involving undergraduates in CP research may not only benefit the undergraduate student, but also the discipline's visibility and individual research teams' productivity. Given this, highly productive CP programs may be able to leverage their measurable performance to argue for greater departmental representation in undergraduate coursework leading to increased benefits felt outside of traditional CP research.

The findings also provide preliminary evidence of the acquisition of CP competencies through undergraduate research experiences. Many of the skills and experiences reported by undergraduate students map on well to Dalton and Wolfe's CP-competency work (2012). Most notably, competency in foundational principles of CP were noted in respondent's discussions of being able to see social problems through an ecological perspective. Relatedly, respondents identified increased competence in more than ten areas of social issues such as substance use, domestic violence, LGBT issues, and HIV prevention and services. This increased exposure and knowledge of social issues strongly reflects the development of social competence and "the ability to value, integrate, and bridge multiple worldviews, cultures, and identities." (Dalton & Wolfe, 2012, p. 10).

Long term benefits

An important goal of this research was to explore the long-term benefits of CP research involvement for undergraduate students. Findings from this study provide preliminary

evidence of the positive impact CP research team involvement can have on educational and professional trajectories. Our results support previous findings that student engagement in research teams not only encouraged undergraduate students to pursue graduate school, but also clarified their specific educational aims (Hathaway et al., 2002; Russell et al., 2007; Seymore et al., 2004). Additionally, engagement in CP research groups also appeared to foster skills, relationships, and recommendations that supported undergraduate students' pursuit of graduate education. Respondents consistently described their involvement on CP research teams as contributing to their professional success outside of graduate school as well. Many respondents described CP research experiences as shaping their career goals by expanding their professional networks, increasing their quality of work, or intensifying passions for social justice. Select respondents discussed their involvement relating to their decision to pursue a career directly in a CP-related field. Regardless of whether respondents pursued graduate school, work in CP, or work in a non-CP-related field, involvement in CP research teams seemed to support those pursuits

Finally, this research found that involvement on CP research teams cultivated greater awareness and passion for social issues that challenge community wellbeing. Overwhelmingly, respondents felt they grew more critically conscious of social issues that impacted their communities or communities around them. Multiple respondents mentioned shifting their worldview to see problems through an ecological or systemic lens. These findings support the seminal critical consciousness work of Paulo Freire and provide preliminary evidence that CP research teams may serve as an important pedagogical tool uniquely situated to help shape undergraduate students into civically

engaged citizens and scholars (Freire, 1968; Hall 1992).

Limitations

Though these findings contribute valuable insight to an under-explored area of research, there are limitations that should be recognized. First, this study had a relatively small sample with a low response rate (9%). It is possible, therefore, that students whose experiences were less positive did not return the survey and our results are therefore skewed. There were other factors that likely influenced the response rate, however, such as researchers often only having expired university email addresses for previous undergraduate research assistants. While this does not eliminate the possibility of response bias, it does suggest that it may not be the primary explanation for non-response. Secondly, our data gives us limited ability to infer what aspect of CP research team involvement is most responsible for the reported benefits. Additional studies conducted on this topic should explore whether certain CP research team experiences (e.g., data collection, community meetings, academic publishing, project conceptualization) or dynamics (e.g. mentor-mentee fit) yield more benefit than others.

Furthermore, these findings represent the experiences of undergraduates at only one institution in the United States. Results must be interpreted within the context that Michigan State University is a large research institution (approximately 39,000 undergraduate students and 11,000 graduate students as of Fall 2017). It should also be noted that, unlike at many colleges and universities, CP has a strong presence within Michigan State University's psychology department. Although these findings may not generalize to the experiences of smaller institutions or large universities without robust CP programs, it does give our field a

baseline measure of how students might benefit from involvement on CP research teams.

In addition to addressing the noted shortcomings of our current study, future research should continue to explore the longitudinal outcomes of undergraduate research involvement. While some previous research has examined undergraduate research experience as a predictor of graduate school enrollment (Hathaway et al., 2002), future studies could explore whether benefits persist past graduate enrollment in terms of post-graduate placements, research productivity, and career satisfaction. Future research should continue to build on this work, by exploring additional CP competencies students are currently gaining and may need to gain throughout their undergraduate career. With this knowledge, undergraduate institutions could tailor programming to make sure students acquire these skills, not unlike graduate CP training programs. Additionally, SCRA may consider developing undergraduate-specific CP competencies aimed at producing ecologically competent students better serving their universities and communities.

Conclusion

The central implication of these findings is that CP coursework is not the only way to engage undergraduate students in CP. Rather, it seems that many of the central tenants of CP, including a commitment to social justice, action-based research, and a systems-level focus can be fostered in undergraduate students through their engagement with CP research teams. Insofar as one of the motivating interests of CP is to encourage these frameworks in a variety of future practitioners and scholars, engaging undergraduate students in CP research teams is a promising strategy for community psychologists to explore. Additionally, these

findings reinforce the benefits that undergraduate students appear to gain from involvement in research teams spread through a variety of disciplines. With the increased exposure to interpersonal problems following undergraduate graduation, the CP method of problem solving gives students an advantage in using empirical data for real world application (Etmanski et al., 2014; Russell et al., 2007). In recognition of these benefits, colleges and universities should be encouraged to explore mechanisms through which to expand and promote research opportunities available to undergraduate students.

References

Bauer, H. M., Glantsman, O., Hochberg, L., Turner, C., & Jason, L. A. (2017). Community Psychology Coverage in Introduction to Psychology Textbooks. *Global Journal of Community Psychology Practice, 8*(3). Retrieved from http://www.gjcpp.org/.

Dalton, J. H., Elias, M. J., & Wandersman, A. (2001). Community psychology: Linking individuals and communities. Belmont, CA: Wadsworth.

Dalton, J. & Wolfe, S. (2012). Joint column: Education connection and the community practitioner. *The Community Psychologist, 45*(4), 7-14.

Elias, M. J. (1987). Improving the continuity between undergraduate psychology and graduate community psychology: Analysis and case study. *Journal of Community Psychology, 15*(3), 376-386. https://doi.org/10.1002/1520-6629(198707)15:3<376::AID-JCOP2290150311>3.0.CO;2-J

Etmanski, C., Hall, B. L., & Dawson, T. (Eds.). (2014). Learning and teaching community-based research: Linking pedagogy to practice. Toronto, Canada: University of Toronto Press.

Freire, P. (1968). Pedagogy of the oppressed. New York, NY: Seabury Press Publishing USA.

Glantsman, O. & McMahon, S. & Njoku, M. G. (2015). Developing undergraduate community psychology curriculum. In Njoku, M. G. C., Anieke, C. C., McDevitt, P. J. (Eds), Frontiers in Education: Advances, Issues and New Perspectives (pp. 65-90). Enugu, Nigeria: Bic Books & Equip. Ltd.

Goodwin, C. J. (2010). Research in psychology: Methods and design. (6th ed.). Hoboken, NJ: Wiley & Sons.

Hall, B. L. (1992). From margins to center? The development and purpose of participatory research. *The American Sociologist, 23*(4), 15-28. https://doi.org/10.1007/BF02691928

Hathaway, R. S., Nagda, B. A., & Gregerman, S. R. (2002). The relationship of undergraduate research participation to graduate and professional education pursuit: an empirical study. *Journal of College Student Development, 43*(5), 614-631.

Henderson, D. X., Matlock, J. R., Garrett, D., & Clark, C. (2016). What does it mean to use competencies in" praxis" with undergraduate students at Historically Black institutions? *Global Journal of Community Psychology Practice, 7*(4). Retrieved from http://www.gjcpp.org/.

Hruschka, D. J., Schwartz, D., St. John, D. C., Picone-Decaro, E., Jenkins, R. A., & Carey, J. W. (2004). Reliability in coding open-ended data: Lessons learned from HIV behavioral research. *Field Methods, 16(*3), 307-331.

https://doi.org/10.1177/1525822X042 66540

Ishiyama, J. (2002). Does early participation in undergraduate research benefit social science and humanities students? *College Student Journal, 36*(3), 381-387.

Kloos, B., Hill, J., Thomas, E., Wandersman, A., & Elias, M. J. (2012). Community psychology: Linking individuals and communities. Belmont, CA: Wadsworth, Cengage Learning.

Prilleltensky, I. (2001). Value-based praxis in community psychology: Moving toward social justice and social action. *American Journal of Community Psychology, 29*(5), 747-778. https://doi.org/10.1023/A:101041720 1918

Jimenez, T. R., Sánchez, B., McMahon, S. D., & Viola, J. (2016). A vision for the future of community psychology education and training. *American Journal of Community Psychology, 58*(3-4), 339-347. https://doi.org/10.1002/ajcp.12079

Russell, S. H., Hancock, M. P., & McCullough, J. (2007). Benefits of undergraduate research experiences. *Science, 316*(5824), 548-549. https://doi.org/10.1126/science.11403 84

Ryder, J., Leach, J., & Driver, R. (1999). Undergraduate science students' images of science. *Journal of Research in Science Teaching: The Official Journal of the National Association for Research in Science Teaching, 36*(2), 201-219. https://doi.org/10.1002/(SICI)1098-2736(199902)36:2<201::AID-TEA6>3.0.CO;2-H

Seymour, E., Hunter, A. B., Laursen, S.L., & Deantoni, T. (2004). Establishing the benefits of research experiences for undergraduates in the sciences: First findings from a three-year study. *Science Education, 88*(4), 493-534. https://doi.org/10.1002/sce.10131

Wolff, T., Francisco, V., & Meissen, G. (Eds) (2016). Special Issue of GJCPP on Practice Competencies in Community Psychology and Their Applications. Global *Journal of Community Psychology Practice*, *7*(4). Retrieved from http://www.gjcpp.org/.

Appendix A: Online Questionnaire

Exploring Undergraduate Involvement in Community Psychology Research: Questionnaire

Section A: Research Team

The following questions pertain to your experiences with community psychology research. Please feel free to skip any question that you do not feel comfortable answering.

1. How long were you a member of a research team? (in semesters) (If you were part of more than one team, answer questions about the team on which you were a member the longest.)

2. Were you ever paid to be involved on this research team?
   - ☐ Yes
   - ☐ No

3. Did you ever receive course credit for your involvement on this research team?
   - ☐ Yes
   - ☐ No

4. Describe the research project(s) in which you were involved.

5. Why did you pursue a community psychology research experience?

6. Describe your experiences, if any, with community psychology before your involvement on the research team.

Section B: Duties

The following questions pertain to your duties and roles as a member of a community psychology research team. Please feel free to skip any question you do not feel comfortable answering.

1. Please select from following duties or roles in which you participated as a member of your research team?
   - ☐ **Project Development**
       - ☐ Brainstorming or conceptualizing projects
       - ☐ Training other team members
       - ☐ Writing an IRB application
       - ☐ Designing measurement tools
       - ☐ Collecting literature for literature reviews
       - ☐ Other: Please specify

- **Project Management**
  - Administrative work, such as ordering purchases or preparing mailings
  - Keeping/organizing/managing records
  - Scheduling meetings, interviews or other activities
  - Answering telephone calls or emails
  - Supervising other team members
  - Other: Please specify
- **Data Collection**
  - Interviewing participants
  - Running focus groups
  - Observing behaviors or settings
  - Administering surveys
  - Other: Please specify
- **Data Management**
  - Transcribing qualitative data (interviews, focus groups, etc.)
  - Cleaning or managing qualitative data (interviews, focus groups, etc.)
  - Entering quantitative data in SPSS, Stata, Excel or other program
  - Cleaning or managing quantitative data in SPSS, Stata, Excel or other program
  - Other: Please specify
- **Data Analysis**
  - Developing codebooks
  - Analyzing qualitative data (coding, interpreting themes)
  - Analyzing quantitative data (descriptive statistics, inferential statistics, etc.)
  - Other: Please specify
- **Reports and Presentations**
  - Creating tables / graphs / figures
  - Preparing conference presentations
  - Presenting at conferences
  - Other: Please specify
- **Writing and Editing**
  - Preparing annotated bibliographies
  - Reviewing manuscripts for journals
  - Writing community reports
  - Writing introductions for manuscripts
  - Writing methods sections for manuscripts
  - Writing results sections for manuscripts
  - Writing discussion sections for manuscripts
  - Writing conference abstracts
  - Editing community reports
  - Editing introductions for manuscripts

☐ Editing methods sections for manuscripts
☐ Editing results sections for manuscripts
☐ Editing discussion sections for manuscripts
☐ Editing conference abstracts
☐ Other: please specify

☐ **Community work**
  ☐ Developing curricula
  ☐ Designing interventions
  ☐ Implementing interventions
  ☐ Attending community meetings or events (e.g., town halls)
  ☐ Planning community meetings or events
  ☐ Building community partnerships
  ☐ Other: Please specify

☐ **Other:**
  ☐ Please specify

2. What were the biggest challenges for you in fulfilling these duties?

3. What were the primary benefits of fulfilling these duties?

Section C: Skills and Knowledge

The following questions pertain to the skills and knowledge you gained as a member of a community psychology research team. Please feel free to skip any question you do not feel comfortable answering.

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1. Please check whether you gained knowledge or skills in any of the following areas as a result of your involvement in a community psychology research team:
   ☐ **Using Analytic Programs**
     ☐ SPSS
     ☐ NVivo
     ☐ Stata
     ☐ R
     ☐ Mplus
     ☐ Social network analysis software
     ☐ Geographic information systems software
     ☐ Meta-analysis software
     ☐ Agent-based modeling software
     ☐ Other software: Please specify
   ☐ **Topical Knowledge**
     ☐ HIV prevention
     ☐ HIV testing

- ☐ HIV care and access to services
- ☐ LGBT issues
- ☐ Domestic violence
- ☐ Sexual assault
- ☐ Reproductive coercion
- ☐ Stigma
- ☐ Youth positive development
- ☐ Substance use
- ☐ Dissemination and implementation
- ☐ Information sharing on evidence-based practices in schools
- ☐ Systems approaches to solving social problems
- ☐ Other: Please specify

☐ **Research Skills**
- ☐ Interviewing
- ☐ Transcribing
- ☐ Cleaning data
- ☐ Designing surveys
- ☐ Analyzing qualitative data
- ☐ Analyzing quantitative data
- ☐ Writing syntax or code in data analytic programs
- ☐ Reviewing literature
- ☐ Creating a literature database
- ☐ Other: Please specify

☐ **Professional Development**
- ☐ Writing resumes/CVs
- ☐ Writing cover letters
- ☐ Writing for publication
- ☐ Collaborating with others on a team
- ☐ Improving interpersonal skills
- ☐ Improving oral and written communication skills
- ☐ Other: Please specify

☐ **Community Psychology Competencies**
- ☐ Ecological perspectives and theories
- ☐ Empowerment
- ☐ Sociocultural and cultural competence
- ☐ Community inclusion and partnership
- ☐ Ethical, reflective practice
- ☐ Program development, implementation and management
- ☐ Prevention and health promotion
- ☐ Community leadership and mentoring
- ☐ Group processes

- ☐ Resource development
- ☐ Consultation and organizational development
- ☐ Collaboration and coalition development
- ☐ Community development
- ☐ Community organizing and community advocacy
- ☐ Public policy analysis, development and advocacy
- ☐ Information dissemination and building public awareness
- ☐ Participatory community research
- ☐ Program evaluation
- ☐ **Other**: please specify any other areas in which you gained skills or knowledge during your time on community psychology research teams

2. What were the biggest challenges you faced in gaining knowledge and skills you identified?

3. What are the primary benefits of gaining the knowledge and skills you identified?

Section D: Professional Benefits

The following questions pertain to what you are doing now and to the benefits of your involvement on a community psychology research team. Please feel free to skip any question you do not feel comfortable answering.

1. What is your current level of educational attainment?
   - ☐ Some college
   - ☐ Bachelor's degree
   - ☐ Some graduate school
   - ☐ Advanced degree (e.g., MA, PhD)

2. What is your current employment status?
   - ☐ Employed full-time
   - ☐ Employed part-time
   - ☐ Graduate student
   - ☐ Undergraduate student
   - ☐ Other: Please specify

3. If you are employed, describe your current position.

4. How, if at all, has your experience on a community psychology research team benefited you in employment or higher education?

5. How, if at all, has your experience on a community psychology research team influenced your career interests?

6. How could your experience on a community psychology research team have been improved?

7. Please share anything else you'd like us to know about your experiences as an undergraduate researcher on a community psychology research team.