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Evaluating the Student Training Equity Project: An Upstream Recruitment Approach to Diversifying Clinical Psychology Graduate Programs

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Evaluating the Student Training Equity Project: An Upstream Recruitment Approach to Diversifying Clinical Psychology Graduate Programs

Abstract

The U.S. psychology workforce is considerably less diverse than the population that it serves. While several recruitment and admission practices are effective for diversifying psychology training programs, upstream recruitment of underrepresented candidates is particularly promising. Aiming to diversify the clinical psychology graduate program applicant pool, the Student Training Equity Project (STEP) was developed to promote and evaluate upstream recruitment of undergraduate students of color interested in psychology graduate studies. This study used a mixed-method design to evaluate immediate outcomes for three STEP programmatic strategies. Survey results suggest that STEP networking events were associated with undergraduate research and mentorship opportunities. Findings suggest that STEP funding supported students in producing research products (e.g., manuscripts) that might bolster graduate application materials. STEP website engagement data showed over 1,000 views per year, and highlighted ways to improve outreach. More controlled evaluation is needed to determine whether STEP contributed to diversification of the applicant pool.

Keywords

clinical psychology; mental health equity; representation; upstream recruitment

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1. Introduction

In 2018, the American Psychological Association (APA) Center for Workforce Studies reported changes in the demographic makeup of the nation's psychology workforce from 2007 to 2016 (APA, 2018). Although the report indicated that the psychology workforce has become increasingly diverse over the last few years, with members of marginalized racial and ethnic backgrounds accounting for 16% of the total psychology workforce in 2016 relative to 9% in 2007, it remains overwhelmingly White.

Similarly, the racial/ethnic diversity in doctoral psychology graduate programs has remained stable over the last 10 years (Callahan & Watkins, 2018). A recent report from APA's Education Directorate revealed that less than 30% of all doctoral-level minority-serving psychology students identified as African American/Black (9.1%), American Indian/Alaska Native (0.7%), Asian/Pacific Islander (7.9%), Hispanic/Latino (9.3%), or multi-ethnic (3.0%; APA, Education Directorate, 2016). Therefore, one strategy for diversifying the psychology workforce would be to begin by increasing diversity at the graduate training level.

At Georgia State University (GSU), a majority minority serving public university in Atlanta, the ethnic/racial composition of clinical psychology graduate students has varied dramatically over the last decade. From 2012 to 2021, the percentage of students of color in incoming classes has ranged from 10 to 67%, and students from marginalized racial/ethnic backgrounds have comprised 40% of the median graduate student cohort over the last 10 years (GSU, 2018). Notably, the racial composition of GSU's psychology doctoral programs is more diverse than that of the average psychology-specific graduate program, indicating that efforts for diversification at GSU have already yielded some success. However, room for improvement is apparent when one compares the psychology doctoral program composition to the significantly more diverse undergraduate population at GSU, which comprises 39.5% Black or African American, 15.6% Asian, 12.7% Hispanic or Latinx, and 21.9% White students (College Factual, n.d.). This discrepancy between diversity in GSU psychology graduate programs and the undergraduate student body underscores the need for ongoing diversification efforts at the graduate program level, both at GSU and nationally. Further, it suggests that increasing upstream recruitment from the richly diverse GSU undergraduate population might be one potential high-impact strategy to increase diversification.

1.1 Literature Review

Several practices have been identified as likely to increase student body diversity including a focus on: recruitment (e.g., funding students of

underrepresented backgrounds), admissions (e.g., assessing evaluation criteria for applicants to reduce disparities), and retention (e.g., mentoring; Callahan & Watkins, 2018; Cordes, 2021; Galan et al. 2021); however, upstream recruitment of graduate students has been identified as particularly promising (APA, Office of Ethnic Minority Affairs, n.d.; Rogers & Molina, 2006). It is critical to ensure that students of marginalized racial/ethnic backgrounds are well represented and valued at every phase of the admissions process, and a first step in doing so is to maximize diversity of the applicant pool. A survey of graduate admissions directors of APA-accredited clinical psychology doctoral programs found that having a task force dedicated to recruiting applicants of color and addressing financial concerns was associated with enhanced incoming cohort diversity (Muñoz-Dunbar & Stanton, 2009).

Programs that support students of color in psychology through mentorship, advising, and financial support have had positive outcomes related to academic engagement, confidence, competence, and odds of enrolling in graduate school in psychology. For example, the Diversity Mentorship Scholarship Program, sponsored by the Association of Counseling Center Training Agencies, selected two early career psychologists or students of minoritized backgrounds (e.g., ethnicity/race, sexual orientation, gender variance or disability) to attend the annual ACCTA conference, present a program related to training, and participate in the ACCTA listserv, where mentorship is emphasized. Publicly available data about funded Diversity Mentorship scholars suggests that 71% moved on to a leadership position in the field. Surveyed scholars reported that participation energized ongoing engagement in their training program (Renninger et al., 2015).

INNOVATIONS is another promising program that works with high school and college students from underrepresented backgrounds who are interested in careers in psychology to provide training in skills needed for graduate school (e.g., data analysis and scientific writing), research experience, support for graduate school applications, and mentoring throughout academic career (Mitchell & Crosby, 2017). Seventy-seven percent of INNOVATIONS participants have applied to and enrolled in graduate programs (Mitchell & Crosby, 2017). Data from these programs suggest that mentorship, networking, financial support, and research experience can be useful strategies for upstream recruitment of psychologists of color.

1.2 The Student Training Equity Project

The Student Training Equity Project (STEP) aimed to increase the diversity of the GSU clinical psychology graduate program applicant pool through upstream

recruitment of undergraduate students of color from GSU's richly diverse student body. STEP consisted of three evidence-based interventions that targeted different aspects of the transition from college to graduate school: 1) networking events, 2) financial support for undergraduate research, and 3) a website with relevant resources. See Figure 1 for a depiction of the STEP Logic Model.

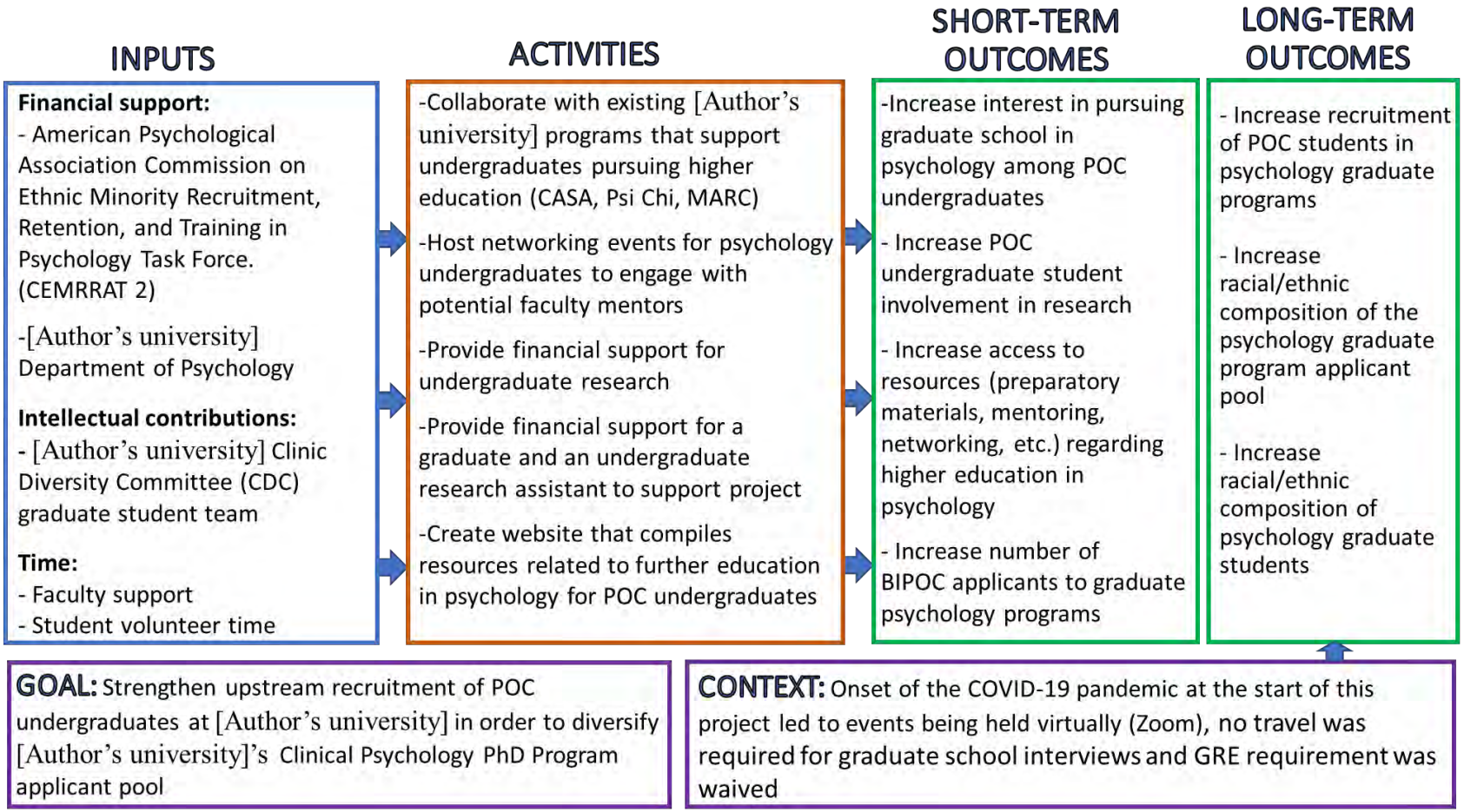

Figure 1. Depiction of the Logic Model for the Student Training Equity Project

Promoting personal interaction with professionals in the workforce, particularly those of color, has been identified as a common practice among institutions that have displayed exemplary efforts to recruit and retain graduate students of color in psychology (Rogers & Molina, 2006). For this purpose, STEP hosted networking events for undergraduate students to meet doctoral graduate students and graduate school faculty and answer questions about preparing for, applying to, and succeeding in graduate school. Financial burdens of college are widely noted as barriers to receiving meaningful hands-on experience and opportunities in research laboratories (Malcom & Dowd, 2012). To address this barrier, undergraduate students in psychology with an interest in graduate studies were given stipends to support their research. Inclusion of content relevant to students from marginalized racial/ethnic backgrounds in program promotional materials has been associated with diversifying psychology graduate program applicant pools (Callahan & Watkins, 2018). Therefore, a STEP website was developed to promote STEP networking events and STEP financial support for undergraduate research, and to disseminate database of resources. The current study section further details these programmatic strategies and initial outcomes.

STEP was developed by doctoral students in GSU's Clinic Diversity Committee (CDC), a student-run organization that promotes multiculturalism in the Clinical Psychology doctoral training program and the GSU Psychology Clinic by engaging in advocacy, outreach, and training. In the summer of 2019, as a result of ongoing conversations about diversity in the program, a small group of student officers from the CDC conceived of STEP as an opportunity to help diversify the graduate student body. With faculty guidance and support, these CDC officers obtained grant funding from the American Psychological Association Commission on Ethnic Minority Recruitment, Retention, and Training in Psychology. The GSU Psychology Department further supported this effort by matching funds to provide a stipend to a graduate research assistant to oversee the project. The APA awarded funding to STEP in December 2019 for two years of programming.

Lastly, while STEP was a graduate student-led initiative supported by two faculty advisors, a paid graduate research assistant, and three paid undergraduate research assistants, the energy from supportive faculty was integral to the project. Faculty provided essential program insight at meetings; advertised stipend opportunities, website resources, and networking events; and attended networking events, which would not have been possible without their participation.

2. Methods

Permission was obtained from the Institutional Review Board (IRB) of the investigators' institution to conduct an evaluation of STEP. The methods section describes the program details, sample, and strategies for measuring and analyzing the three prongs of STEP: 1) Networking events, 2) Financial support for undergraduate research, and 3) Website and resource database.

2.1. STEP Networking Events

2.1.1 Program Description. At the time of the launch of STEP programming, no regularly scheduled event of this nature was available to GSU students. STEP networking events therefore provided GSU undergraduate students an opportunity to learn from doctoral students of color in the GSU Clinical Psychology program, who provided information and answered questions about their experiences in graduate school, careers in psychology, and admissions. The networking events also offered undergraduates the chance to connect with GSU psychology faculty members and to identify potential faculty research mentors and research opportunities, both important for successful psychology graduate school applications. Two GSU networking events were held virtually during the COVID-19 pandemic. Though the networking events were designed and advertised as events for undergraduate students of color with an interest in graduate school in psychology, the events were open to all students.

2.1.2 Student Measures. *S*urveys were administered to undergraduate networking event attendees before and after each event. Participants were asked to report their year in school and racial/ethnic identity. Participants were also asked to rate their intent to pursue graduate study in psychology using two items adapted from Seibert et al.'s (2013) measure, which were answered on a 5-point Likert type scale ranging from *strongly disagree* to *strongly agree*. In addition, using the self-efficacy for professional success measure from the Graduate College Experience questionnaire (Hardré & Hackett, 2015), student participants were asked to rate the extent to which they felt that they could and would succeed in the career for which they were planning to attend graduate school (e.g., "I am certain that I will do well in my graduate program"), ranked on an 8-point Likert type scale from *strongly disagree* to *strongly agree*. The post-event surveys also included the following three open-ended questions soliciting feedback from the student participants: (1) What was the most helpful part of this event? (2) What do you want to get out of the next STEP event?, and (3) How could this event have been improved? We examined student participant responses to these questions across the two networking events.

Faculty Measures. Surveys developed for this study were also administered to faculty attendees at the second networking event. Using open-ended response

questions, faculty were asked to report on their perception of what went well, ideas for improvement, and how the recent racial movement has impacted their research lab or practices as a research mentor. Participating faculty were asked to rate how the event went on a five-point Likert type scale from *very poorly* to *very well*. They were also asked to rate how willing they would be to participate in a future event, and how likely they are to invite student participants from the event to serve as a research assistant in their lab, using a five-point scale from *extremely unlikely* to *extremely likely*. To contextualize STEP implementation within the sociopolitical climate, faculty were asked to rate the extent to which they agreed with the following statements on a scale from *strongly disagree* to *strongly agree*: 1) The current racial climate and recent movement towards racial justice was an important motivating factor for my participation in the STEP networking event, and 2) Participation in the STEP networking event motivated me to take further action to diversify my research team.

2.1.3 Participants. Of the 179 undergraduate students who registered for the first networking event in Fall 2020, 80 attended, along with 14 faculty. Of the 85 students who registered for the second event in Spring 2021, 22 attended, along with 8 faculty. A total of 63 undergraduate student attendees completed either the pre- or post-event surveys across both networking events. Of the 63 respondents, 32 self-identified as Black or African American, 12 identified as Latinx, 6 identified as Asian or Pacific Islander, 5 identified as White, and 8 identified as mixed race. Eight respondents were in their first year of undergraduate studies; 13 were in their second year; 18 were in their third year; 19 were in their fourth year; and 5 were either in their fifth year or had already completed their bachelor's degree. One attendee was receiving funding from STEP for a Research Assistant position.

2.1.4 Analysis Plan. Descriptive statistics were examined in SPSS 25.0 to assess overall intent to pursue graduate school in psychology and self-efficacy for professional success and to analyze faculty survey data in aggregate. Paired-sample t-tests were used next to examine mean-level differences in student participants' self-efficacy and student participants' intent to pursue graduate school before and after attending the networking event. Themes were coded from open-ended student and faculty survey responses about how helpful the events were and how they could be improved.

2.2 Financial Support for Undergraduate Research

2.2.1. Program Description. To support the research training and experiential goals of racially diverse students, STEP provided a one-time monetary stipend ($500) to seven undergraduate students of color from April 2020 through

October of 2021 in order to supplement their volunteer research in the department of Psychology. These funds were intended to offset the financial burden of applying to graduate school, incentivize early research experience, and prepare for the transition into graduate school responsibilities. Funds were awarded to applicants who: 1) identified as a person of color, 2) endorsed intent to pursue graduate training in psychology, 3) had an established research position and faculty mentor in a psychology lab for which they were not being compensated.

2.2.2 Measures. Six months after receiving the stipend for their assistantship, surveys were administered to funded undergraduate students to assess their research progress using a series of open-ended questions. Funded undergraduates were asked to report on their uses of the funds, research accomplishments (e.g., posters, peer-reviewed manuscripts), scholarships & fellowships applied for and awarded, and their progress towards graduate school. They were also asked to report on whether they found the research stipend to be useful, and methods for improvement.

2.2.3 Participants. Seventeen undergraduate students applied for the research stipend. The first seven applicants who met criteria received one-time stipends to support research with a faculty member in the department for 6 months. All were GSU undergraduate students majoring in Psychology. Five of the funded students completed the follow-up survey.

2.2.4 Analysis Plan. Aggregated quantitative survey data were presented about students' self-reported research productivity while funded and the students' qualitative survey responses were summarized about the utility of the award.

2.3 STEP Website and Resource Database

2.3.1 Program Description. In order to disseminate information about the project, team members designed and created a STEP website, hosted through a GSU-based Wordpress blogging platform called Edublogs ([website location]). The website landing page provides an overview of STEP and directs users to information about networking events, financial support for undergraduate research, and a database of resources.

The STEP online, publicly available, resource database was developed with the aim of helping students of color explore careers in psychology, identify doctoral programs of interest, prepare for the application process, apply for fellowships and scholarships, and succeed during the interview process. To develop the database, team members conducted a collaborative and comprehensive review of resources

that: 1) raise awareness about the benefits of pursuing graduate work in psychology, 2) offer guidance through the process, and 3) increase access to resources that will support prospective students of color. Resources were organized into a single repository accessible via the website.

The STEP website was disseminated to undergraduate students via faculty emails, postings on iCollege (a system for online course content), the GSU Psychology program webpages for undergraduate and graduate students, marketing by the GSU Psi Chi (psychology honors society), and the Center for the Advancement of Student and Alumni email newsletters.

2.3.2 Measures/Analysis Plan. A process evaluation was conducted to assess website engagement and effectiveness after program launch using a mixed-methods approach. To quantitatively evaluate website engagement and effectiveness, we used Google Analytics, a free open-source tool that provides aggregate website usage data without identifiable information. Although it was designed for marketing, Google Analytics has been used in previous health research and intervention evaluations (Song et al., 2018). We assessed the following outcomes:1) number of new (unique) users as an indication of reach, 2) number of returning users, which is thought to indicate platform engagement (Song et al., 2018), 3) mean session duration or user time spent on the website to indicate extent of engagement,) 4) most frequent referral sites from which users access the webpage to identify useful outreach techniques, and 5) most frequently visited pages to identify what website content was accessed.

3. Results

3.1 Networking Event

3.1.2 Student self-efficacy and intent to pursue graduate school. Eighty undergraduate students attended the first networking event; 28 completed the pre-event survey and 35 completed the post-event survey. Twenty-two students who completed the post-event survey did not complete the pre-event survey. Thus, for this first networking event, we conducted descriptive statistics on the sample as a whole (n = 35) and paired t-tests in the subsample of participants for whom we had obtained both pre- and post-event data (n = 13). For the second networking event, only seven participants completed the pre-event survey and only one of these went on to complete the post-event survey (an additional six participants who had not completed the pre-event survey completed the post-event survey). Given that only one participant completed both the pre- and post-event surveys for the second

networking event; data from this second event were only examined as aggregate descriptive statistics.

Most undergraduate student networking event attendees who completed either the pre- or post-event survey reported an intent to pursue graduate school in psychology. In the pre-event survey, 64.3% of students strongly agreed that they intended to pursue a graduate degree in psychology after they complete their undergraduate degree, and 50% strongly agreed that they were planning to submit an application to at least one graduate program in psychology by their senior year. In the overall sample, 80% and 54.3% of participants who completed the post-event survey answered "strongly agree" in response to questions about intent to pursue a graduate degree in psychology and intent to submit a graduate school application after their senior year, respectively. Among those who completed the pre- and post-event surveys, undergraduate participants indicated slightly higher levels of intent to pursue a graduate degree in psychology at post-test (M = 4.38, SD = 1.12) than at pre (M = 4.08, SD = 1.38); however, this difference did not reach significance (t (12) = -1.075, p = .30).

The average self-efficacy of undergraduate participants who completed the pre-event survey fell in the top quarter of the self-efficacy scale and reported that they "moderately agree" with statements about their ability to succeed in graduate school and throughout their careers (M = 6.99; SD = .95). Paired sample t-tests conducted on the subsample of student participants with pre- and post-event data indicated higher levels of self-efficacy at post-event (M = 7.15, SD = 1.03) than at pre-event (M = 6.87, SD = 1.10), but scores were not significantly different (t (12) = -1.55, p = .15).

3.1.3 Student feedback about the networking event. Post-event surveys included open-ended questions soliciting feedback from student participants. In response to the question, "What was the most helpful part of this event," most student participants identified the opportunity to meet and ask graduate students and faculty members questions was the most helpful aspect. For example, a student noted that *"being connected with faculty members who I otherwise may have never had the opportunity to talk to face to face"* was most helpful to them. Similarly, undergraduate participants seemed to appreciate hearing student "*testimonials*" about their journeys to graduate school (e.g., "*Talking to the PhD students because they came from diverse backgrounds and used different methods to get to where they are now").* For some undergraduates, networking event discussions clarified questions they already had about graduate school, while for others these discussions led to new ones (e.g., *"I believe that the graduate student portion was especially*

prudent for myself as it helped me reflect on questions I hadn't quite posed to myself").

Student responses to the second question ("What do you want to get out of the next STEP event?") varied and included requests for more information on the graduate application and admissions process, such as tips for writing personal statements, studying for the GRE, and financial aid options. A few students also expressed interest in learning more about time management and work/life balance in graduate school (e.g., "*Advice on managing time between ones* [sic] *personal life and education").*

In response to the question about how the event could be improved, undergraduate participants' feedback was largely positive with only a few suggestions made to improve it. Some participants - especially those who attended the first event - suggested holding a longer event (e.g., *"I believe a longer meeting would have been helpful so participants and event coordinators didn't feel as rushed"),* and having more time allotted to meet with faculty members (e.g., *"I only had time to talk to one member, and I would have liked to have more time to jump rooms and ask other faculty members some questions").* One undergraduate participant also suggested "*making a find a mentor program if possible*" and another one recommended, "*implementing a segment of challenges or setbacks that could encourage undergraduates to be proactive in the graduate school process or looking for research opportunities."*

3.1.4 Faculty feedback about event success. Four of the eight faculty who participated in the STEP networking events completed a survey following the second event and all of those respondents provided ratings indicating that the event went "very well" for them. All faculty respondents rated themselves as "extremely willing" to participate in such an event again. Most faculty respondents (75%) "strongly agreed" that the racial climate and movements towards racial justice around the time of the event were important motivating factors for their participation, and that their participation motivated them to take further action to diversify their research team. The likelihood that a faculty member would invite a student whom they met at the event to participate as a research assistant in their lab varied, with one faculty rating this invitation as "extremely likely", another as "somewhat likely", and the remaining two as "neither likely nor unlikely."

In response to the question about what they thought went well in the networking event, three faculty highlighted improvements from the first to second networking event regarding the distribution of materials with clearly worded instructions (*"…materials being very clear on how to participate"*) and the

management of the event and student participation *("... I really appreciated that there were windows of time that students could drop by, which made it more natural for students to come and go without feeling awkward"*). One faculty member stated that they enjoyed the student engagement.

3.2 Financial support for undergraduate research work

Of the seven students who received a STEP stipend to support their research from April 2020 through October 2021, five completed the follow-up survey. Faculty recipient respondents indicated that they had dedicated between five- and 12-months conducting research using the STEP stipend support. During that time, one student presented one poster at a conference as a first author, gave an oral presentation at a conference as a first author, and submitted a manuscript for peer-review as first author. This student also graduated with distinction. Another student presented two posters at conference as a co-author and gave one oral presentation at a conference as a first author. A third student submitted a scholarship application that was funded. Two of the students who received funding did not produce a research product while funded.

All the STEP stipend awardees reported that the funding was helpful. Two students indicated that it was used to cover the cost of transportation to campus and travel required for a research project. Other uses of the stipend reported on the survey include partially covering the cost of a study abroad program in Psychology and fees for PhD program applications. Another student reported that the stipend allowed them to focus more time on academics.

3.3 STEP Program Website and Resource Database

Over the first nine months of operation, the STEP website was visited by a total of 1,009 users (968 new, 41 returning) who visited the site 1,590 times. The average duration of a site visit was one minute and 39 seconds. The site was accessed most frequently by directly clicking on the website link (68.2% of visits), followed by conducting a search to locate the site (21.5% of sessions), referrals (7.2% of sessions), and lastly social media (3.1% of sessions). However, visits through social media resulted in: 1) more visitors interacting with the site than all but one other access pathways, 2) the greatest number of separate pages engaged with during a single session (2.7), and 3) the second to longest amount of time spent on the site (the longest average site visit duration was one second longer). Site visits through referrals had the longest average session duration (one minute, fifty-seven seconds), despite having the second-highest number of visits that did not lead to further interaction with the site (62%). The highest percentage of referrals (96.2%

of referred users, 7.8% of total users) came from gastate.view.edu (iCollege), reflecting referrals through course syllabi and communication hosted on the platform.

The most frequently visited page was the landing page (49.5% of pageviews), followed by the page with networking event information (12.8%), the resource database (11.4%), background on the STEP team (10.1%), research funding (6.6%), preparing for the networking event (5.2%), preparing for the network event by learning about faculty (1.9%) and the solidarity statement (1.5%). The undergraduate research funding page was the least visited (0.8%).

4. Discussion

These evaluation findings suggest that the STEP networking event was associated with increased opportunities for undergraduate research and mentorship from graduate students and faculty. Based on survey results, as intended, the majority of undergraduate participants of the events reported that they identified as a member of a marginalized racial or ethnic group and that they intended to pursue graduate school. Only a small number of networking event participants completed both pre- and post-event surveys, leaving statistical comparisons of ratings weakly powered. Although there were no statistically significant differences between pre- and post-event ratings, they changed in a direction that would be consistent with increase in both intent to pursue graduate school and perceived self-efficacy. Students found the events to be useful opportunities to learn about graduate school, seek mentorship, and meet faculty. Two faculty indicated that they would likely invite an event participant to work as a research assistant in their lab. Similar endorsements by other faculty may have been limited by the availability of research positions in their labs. The high rate of faculty satisfaction with the event may positively predict future participation and help to sustain program efforts.

The five funded students who provided feedback reported that the stipend was helpful to them in covering the cost of transportation, study abroad, graduate student applications, and generally focusing on academics. Two of the five respondents were able to produce research products while funded (e.g., poster, oral conference presentation, paper) that will bolster the students' application materials for graduate school. Additionally, one student obtained a scholarship that will bolster their CV and support future studies. Due to the limited number of stipends given and the low survey response rate (5 of 7 students), it is not possible to determine if the other two STEP stipend recipients had similarly productive experiences. Data from the five respondents, however, demonstrated that a single stipend over a six-month commitment can support a student's research productivity

in a way that could significantly improve their odds of acceptance to graduate school and lessen the financial burden of further training.

Website engagement data shows that the STEP website and online resource database achieved over one thousand views in its first year. The short average page-visit duration could suggest that some users obtained needed information quickly, while others may have been unaware of additional beneficial information on the site, or had difficulty navigating the site. Future efforts to highlight the value and range of information provided by the website (e.g., marketing to highlight the page content and benefits, user guide) and improve navigation (e.g., providing links connecting other site pages from the landing page) may therefore be beneficial.

Evidence about how to effectively disseminate information to college students from underrepresented groups is limited, but existing research suggests utilizing teachers and peers to disseminate interactive materials can be effective. Students of color report that teachers are a critical means to obtaining information about college (Holland, 2010). Thus, further engaging professors to highlight the STEP website could additionally support dissemination. Effective dissemination has also been linked to students of color seeing people that look like themselves represented in promotional materials (Grapin et al., 2016). While the STEP networking events featured graduate students of color as panelists, marketing materials could feature stories of diverse graduate students and faculty. Since data demonstrates popularity of video-based social media sites (i.e., YouTube, Tik Tok) in college-aged students (Auxier & Anderson, 2021), communication of information via an alternate less-static form may lead to better engagement. Other social media sites such as Instagram would likely add benefit, as suggested by the success of previous dissemination efforts through this platform (Ye et al., 2020) and its large popularity among emerging adults (Auxier & Anderson, 2021). Including links for sharing on all website pages, targeted posting on social media, and the use of hashtags could further increase the utilization and sharing of information through social media (Berry, 2021). The creation of STEP social media presence, a strategy demonstrated to support dissemination (Taylor et al., 2019; Wolfe & Riggs, 2017), would create additional space for students to ask questions and receive mentorship from current graduate students.

Though there is field-wide recognition that diversifying doctoral trainees strengthens clinical psychology, there is a limited body of research to demonstrate what strategies are effective to help with upstream recruitment diversification efforts (Mitchell & Crosby, 2017; Renninger et al., 2015; Silverstein et al., 2020). Using mixed-method evaluation design, this study demonstrated that three programmatic strategies--networking events, funding to support undergraduate

research, and online resource dissemination--are feasible and yield promising outcomes. It is worth noting that many of the program components also have the potential to lead to longer-term effects (e.g., social capital building, longer-term career opportunity enhancement). Further evaluation of these strategies is needed to assess the generalizability of findings, and the use of a longitudinal model would help assess such far-reaching effects.

Designing and implementing STEP created opportunities for student and faculty collaboration to work toward a specific goal of racial equity within GSU's doctoral program. Project implementation created an avenue for concerted effort to jointly prioritize students of color. Though the program evaluation did not specifically assess for changes in student and faculty perception about the program climate, authors on this manuscript observed that this collaboration towards shared goals of equity helped to strengthen trust in student-faculty relationships. STEP also provided hope to others within GSU's psychology program and signaled the program's commitment to diversity, equity, and inclusion.

Preliminary applicant pool data show a small but promising increase in the diversity of applicants to GSU's clinical psychology graduate program. The number of applicants to GSU's program increased by 49% from 2020 to 2021, and POC applicants increased from 37% in 2020 to 43% in 2021. However, this increase cannot be definitively linked to STEP initiatives given other confounding changes during the application cycle (e.g., elimination of barriers related to travel and GRE requirements). Future analyses will investigate notable co-occurring trends between the diversity of the applicant pool and STEP program implementation efforts.

All networking events, team meetings, and research opportunities were conducted virtually during the first year and a half of this project. Despite the massive interruption of the COVID-19 pandemic, all program activities were conducted as proposed during that time, all while staying within the allotted budget. This underscores the feasibility of using a virtual format, which also allows for the added benefit of increasing accessibility for students who are working or otherwise not on-campus during meetings times.

Because most students and all faculty who ran the STEP program were volunteers, the only funds required to keep the program running were the stipends provided to undergraduates for their research, the Zoom account used to host networking events, and the stipend provided to the graduate research assistant who coordinated the project. Thus, it is possible to host a virtual networking event and to host an online resource database with no additional funds. However, given

graduate students' many competing responsibilities, funding student labor to promote racial equity will be important to sustain STEP programming moving forward.

Not only are replicated findings and longitudinal effects important to evaluate, but future efforts are needed to ensure other aspects of graduate school admissions are equitable. For example, using a data-driven approach to assess for potential bias in selection criteria would be an important programmatic step to ensure student representation. Additionally, efforts are needed to focus on retention of the students and faculty of color within the program using data-driven approaches to understand how the program climate can be improved to support the community. This being a pilot program, STEP focused on supporting upstream recruitment from GSU's undergraduate population. Future programmatic efforts may seek to expand the scope of the project in both directions to include upstream recruitment of high school and undergraduate students and retention of graduate students of color and supporting them with resources to enter the workforce. Furthermore, stand-alone programs such as STEP that address recruitment inequities, though successful, are unlikely to be sufficient. Systemic changes in the education pipeline that offer equal opportunities for networking, funding, and education are necessary to create meaningful and lasting changes. The authors hope that STEP may serve as a model for integrated and embedded recruitment strategies across colleges and universities.

References

American Psychological Association, Education Directorate (2016). *Graduate Study in Psychology Summary Report: Student Demographics.* Retrieved from https://www.apa.org/education/grad/survey-data/2017-student-demographics.pdf

American Psychological Association (2018). *Demographics of the U.S. psychology workforce: Findings from the 2007-16 American Community Survey.* Washington, DC: Author. Retrieved from https://www.apa.org/workforce/publications/16-demographics/report.pdf

American Psychological Association, the Office of Ethnic Minority Affairs (n.d.). Model Strategies for Ethnic Minority Recruitment, Retention, and Training in Higher Education. Retrieved from https://www.apa.org/pi/oema/programs/recruitment/model-strategies.pdf.

Auxier, B., & Anderson, M. (2021). *Social media use in 2021.* Pew Research Center. https://www.pewresearch.org/internet/2021/04/07/social-media-use-in-2021/

Berry, S. (2021). *Technology and college access: Understanding the unique challenges and opportunities Black students face.* University of Southern California, Pullias Center for Higher Education. https://files.eric.ed.gov/fulltext/ED612644.pdf

Callahan, J. L., & Watkins, C. E., Jr. (2018). The science of training I: Admissions, curriculum, and research training. *Training and Education in Professional Psychology*, *12*(4), 219–230.

College Factual (n.d.) Georgia State Student Population Stats. Retrieved from https://www.collegefactual.com/colleges/georgia-state-university/student-life/diversity/

Cordes, C. C. (2021). Developing antiracist integrated health professionals. *Families, Systems, & Health, 39*(2), 404–407. https://doi.org/10.1037/fsh0000625

Galán, C. A., Bekele, B., Boness, C., Bowdring, M., Call, C., Hails, K., ... & Yilmaz, B. (2021). A call to action for an antiracist clinical science. *Journal of Clinical Child & Adolescent Psychology,* 1, 12-57.

Georgia State University, Department of Psychology (2018). Student Admissions, Outcomes, and Other Data. Retrieved from https://psychology.gsu.edu/files/2018/10/StudentAdmissionsOutcomeData.pdf

Grapin, S. L., Bocanegra, J. O., Green, T. D., Lee, E. T., & Jaafar, D. (2016). Increasing diversity in school psychology: Uniting the efforts of

institutions, faculty, students, and practitioners. *Contemporary School Psychology, 20,* 345-355.

Hardré, P. L., & Hackett, S. (2015). Defining the graduate college experience: What it "should" versus "does" include. *International Journal of Doctoral Studies,* 10, 57-77.

Holland, N.E. (2010). Postsecondary education preparation of traditionally underrepresented college students: A social capital perspective. *Journal of Diversity in Higher Education, 3(*2), 111-125.

Malcom, L. E., & Dowd, A. C. (2012). The impact of undergraduate debt on the graduate school enrollment of STEM baccalaureates. *The Review of Higher Education*, *35*(2), 265-305.

Mitchell, M. J., & Crosby, L. E. (2016). Society of Pediatric Psychology Diversity Award: Training underrepresented minority students in psychology. *Clinical practice in pediatric psychology*, *4*(4), 349.

Renninger, S. M., Phillips, J. C., Magnus, K., Armstrong, S. K., Cahill, B., Herman, M., ... & Vajk, F. (2015). Outcomes of an organizational diversity initiative: Diversifying trainers to diversify psychology. *Training and Education in Professional Psychology*, *9*(3), 229.

Rogers, M. R., & Molina, L. E. (2006). Exemplary efforts in psychology to recruit and retain graduate students of color. *American Psychologist*, *61*(2), 143.

Seibert, S. E., Kraimer, M. L., Holtom, B. C., & Pierotti, A. J. (2013). Even the best laid plans sometimes go askew: Career self-management processes, career shocks, and the decision to pursue graduate education. *Journal of Applied Psychology,* 98(1), 169–182.

Silverstein, M. W., Fix, R. L., Nuhu, N., & Kaslow, N. J. (2020). Disseminating a mentoring program for undergraduates of color: Lessons learned. *Scholarship of Teaching and Learning in Psychology.* Advance online publication. https://doi.org/10.1037/stl0000224

Taylor, S., Iacobelli, F., Luedke, T., Matthews, P. A., Monge, M., Cooper, J., Moreira, J., Grippo, P., Girotti, J., Molina, Y., Yanez, B., & Simon, M. A. (2019). Improving Health Care Career Pipeline Programs for Underrepresented Students: Program Design that Makes a Difference. *Progress in community health partnerships : research, education, and action*, *13*(5), 113–122. https://doi.org/10.1353/cpr.2019.0044

Wolfe, B. A., & Riggs, E. M. (2017). Macrosystem analysis of programs and strategies to increase underrepresented populations in the geosciences. *Journal of Geoscience Education*, *65*(4), 577-593.

Ye, S., Hartmann, R. W., Söderström, M., Amin, M. A., Skillinghaug, B., Schembri, L.S., & Odell, L.R. (2020). Turning information dissipation into dissemination: Instagram as a communication enhancing tool during

the COVID-10 pandemic and beyond. *Journal of Chemical Education, 97,* 3217-3222.