



University of Colorado
Anschutz Medical Campus

Psychiatry Undergraduate Research Program
& Learning Experience (PURPLE)

OUTCOMES REPORT

Emmaly Perks, MA, CCRP

PURPLE Director and Administrative Director
Office of Education and Training
Department of Psychiatry, SOM

Co-Authors:

Yunliang (Lily) Luo, BS (PURPLE Program Coordinator)
Zachary Giano, PhD (Statistician)
Merlin Ariefdjohan PhD, MPH (Former PURPLE Director)



Table of Contents

BACKGROUND	3
VISION	5
STRATEGY	6
PROGRAM BENEFITS	8
PROGRAM OUTCOMES	10



Background

PURPLE started in 2016 to provide mentorship to undergraduate students through supervised research activities, clinical shadowing, and didactic sessions covering topics from basic research skills and scientific communication to professional branding. Through the past six years, PURPLE has grown to become a full-fledged career pipeline, by helping to prepare and place students in behavioral health careers. PURPLE remains the only student mentorship program on the University of Colorado Anschutz Medical Campus (CU-AMC) that provides clinical research mentorship to undergraduate students with a focus on mental health.

PURPLE intentionally seeks to attract diverse, accomplished students from a wide variety of cultural, geographic, and ethnic backgrounds, and aims to help students become scientists and clinicians. Annually, we receive approximately 60 applications for the program, though the number of applicants increases each year. Applicants go through a rigorous selection process before 10-15% are invited to join the cohort. Cohorts are intentionally kept small, as each student intern is paired with a faculty mentor to work on an original clinical research project during the program. Besides building a pipeline of future mental health professionals, the program allows faculty mentors to further develop their mentoring skills and reaffirms their commitment to the behavioral health profession.

A variety of other summer institutes and mentorship programs meant to engage diverse undergraduates in STEM careers exist on the CU-AMC and at other institutions in Colorado. However, program quality varies significantly, as do program outcomes, effectiveness, and intention. PURPLE, however, is a proven model whose success has already been demonstrated.

“Our program is the only program of its kind in the state of Colorado that intentionally seeks to train, place, and retain undergraduates in behavioral health careers.”

– Emmaly Perks, PURPLE Director



“The connection that I had with my mentor was great and meaningful... I had an amazing opportunity to be involved in various projects throughout the year and met some amazing professionals along the way. The projects that I was involved in pushed me to think critically—outside of the box.

When I was given a raw set of data, I was encouraged to analyze/summarize the data in my own ways, with my mentor's guidance. It gives my work value, knowing that my contributions were not limited to the classroom setting or for a grade, but real-life applications.”

- PURPLE Student, 2020-2021 Cohort



Anschutz

Vision

The CU-AMC is the premier destination for training students of all career stages and from all backgrounds. We improve the school-to-career pipeline for minoritized individuals, reduce barriers to entry students who desire to become permanent employees, hire highly qualified employees in less time and at decreased cost, and work with local schools and corporate partners to become the Colorado employer of choice for on-the-job training and employment in STEM fields.





Strategy

Equitable Applicant Selection:

- Equitable advertising of the program
- Rigorous application process with an applicant review process uniquely configured to focus on diversity, equity, inclusion, and talent development
- Offers a stipend to support student basic living costs

Rigorous Pedagogy:

- Didactics focus on the tripartite mission of the university: developing educational theory, research techniques, and skills in clinical shadowing and working with patients
- All students are instructed in the eight career-readiness skills laid out by the National Association of Colleges and Employers' Career Readiness Benchmarks¹
- Ongoing evaluation and assessment ensure skills achievement
- Career development and planning integral to the program through didactics showcasing career possibilities and pathways

Intensive Mentorship:

- Responsive mentoring by faculty in 1:1 dyad
- Students are introduced to experts in the discipline and exposed to potential employers
- Students are integrated into labs and clinical settings prior to employment

Pipeline Planning:

- Planning for student hire happens early (e.g., "on the job interviews")
- Internal student job board for vacancies on Anschutz campus
- Students selected for programs to meet specific employment goals (e.g., student interns in basic science selected to become lab technicians)

WHO ARE PURPLE STUDENTS?



Gender	n (N=37)	%
Female	28	75.7%
Male	8	21.6%
Other	1	2.7%
Race/Ethnicity	n	%
Hispanic or Latinx	13	35%
White	13	35%
Asian/Middle Eastern	7	19%
Black or African American	3	8%
Declined to Answer	1	3%
Bilingual	n	%
Yes	15	40.5%
First Generation College Student	n	%
Yes	13	35%



Program Benefits

Diversity, Equity, and Inclusion:

- More equitable pipeline programming
- Greater diversity in program participants and subsequently the CU-AMC/Colorado workforce
- Improved program outcomes for historically marginalized groups by increasing career readiness, career attainment, graduate school acceptance and completion
- Greater diversity among new behavioral health providers

Flexible Response to a Changing Economy and Evolving Workforce Needs:

- Highly educated workforce with specific skills training, positioning CU-AMC program graduates as some of the most desirable employees in the state
- A pipeline for hiring that allows us to quickly fill staff vacancies with highly trained employees specifically trained for each discipline
- Decreased time to hire and hiring costs by creating a ready pool of trained students
- Greater oversight and risk management for students enrolled in internship programs, and for the departments that host them

Cost savings:

- Students gain expert-level training and real-world experience with the support of an hourly wage, and without having to pay tuition
- Reduced time to hire equates to reduced hiring costs long-term
- Lower staff turnover and higher morale among student employees results in decreased hiring costs over time

AYELET TALMI, PHD



*SHENGH XIONG,
DR. TALMI'S MENTEE , 2016*

"Even more remarkable was the camaraderie and community the PURPLE program created among students, faculty mentors and past participants. You are truly creating a pipeline to engage students in possible careers in pediatric mental health and provide them with an opportunity to contribute their perspectives to the field early in their professional development."

- Ayelet Talmi, PhD (PURPLE Mentor, 2016-2018)



Anschutz

P.U.R.P.L.E.

Program Outcomes

Over the last five years, 37 students recruited from Colorado and the greater United States have completed the program. A few highlights of the outcomes:

- **46%** of students became part-time or full-time employees of the department
- **86%** subsequently gained employment
- **62%** stay in mental health fields
- **24%** were accepted into graduate programs
- **93%** of students reported the program was very helpful for their career
- **100%** reported they would recommend the program to others

“The most meaningful experience I had was working with Dr. Sarah Kennedy at the Children's Hospital. I was allowed to sit in and explore the partial hospitalization program as the patients received transdiagnostic treatment. Being able to see the improvements and acceptability of the patients gave me hope and determination. I was thrilled to see how much positive can come out of research and clinical psychology. It really gave me perspective on what I want to be doing moving forward in my career.”

– *Student, 2020-2021*

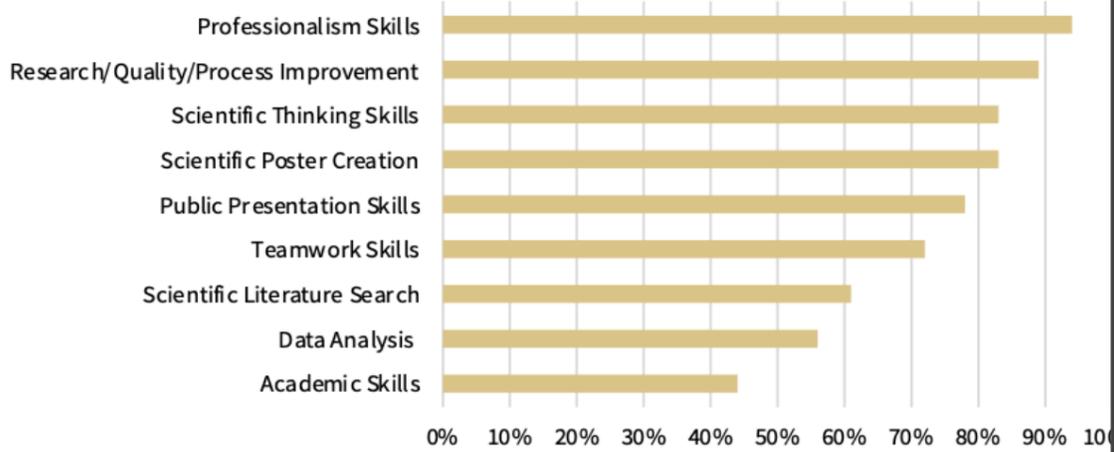
Kristen Torres (Pictured at right; Student, 2018 cohort): "PURPLE was really great and gave me a lot of real-world and hands-on experience that you don't normally get in a classroom. It was so eye opening to work with patients and their families and it reaffirmed my decision to pursue a career in pediatric psychology. The experiences also led me to be more confident in my qualifications when applying for graduate school."

Alexandra Malek (Student, 2016 cohort): "This was an invaluable experience for me as it provided a safe and supportive environment for me to develop my skills as a researcher, scientist and young professional in the healthcare field."

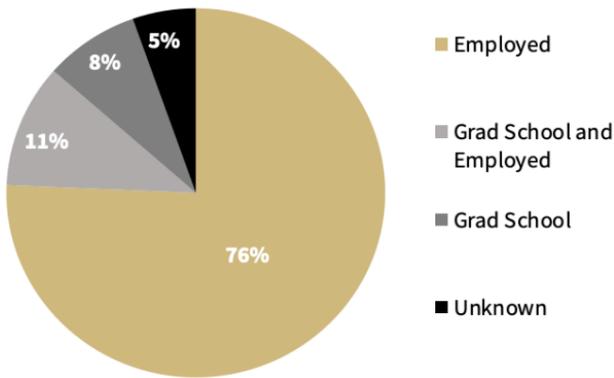


Career Readiness

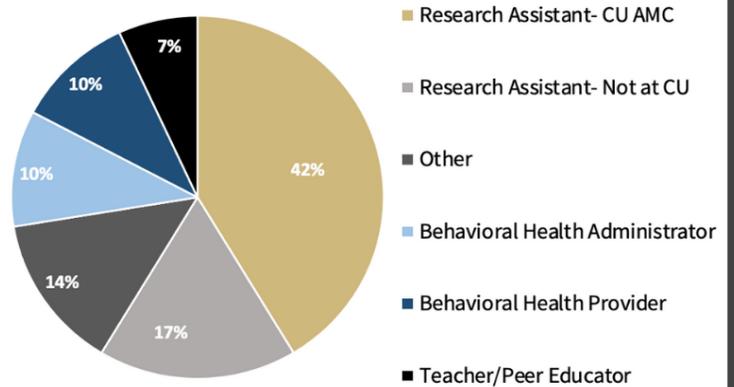
Improvement in Student Career Readiness Skills Post-Program (All Cohorts)



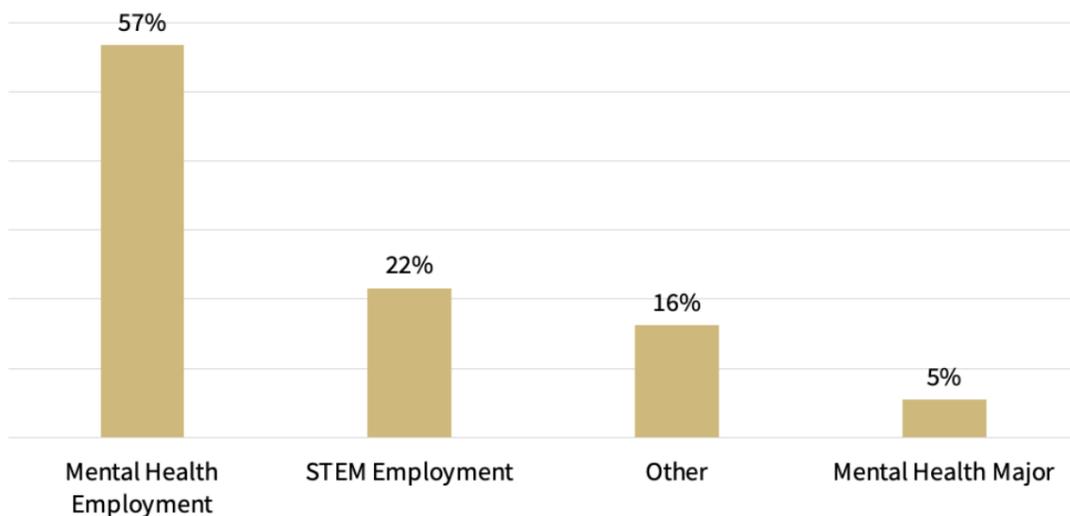
Where Do Alumni Go After PURPLE?



What Jobs Do PURPLE Alumni Hold?

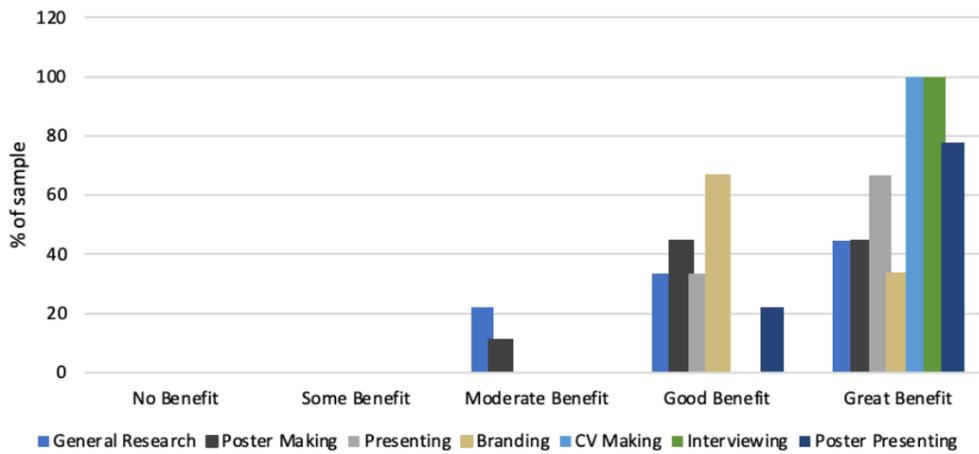


PURPLE Alumni Stay in Mental Health Fields

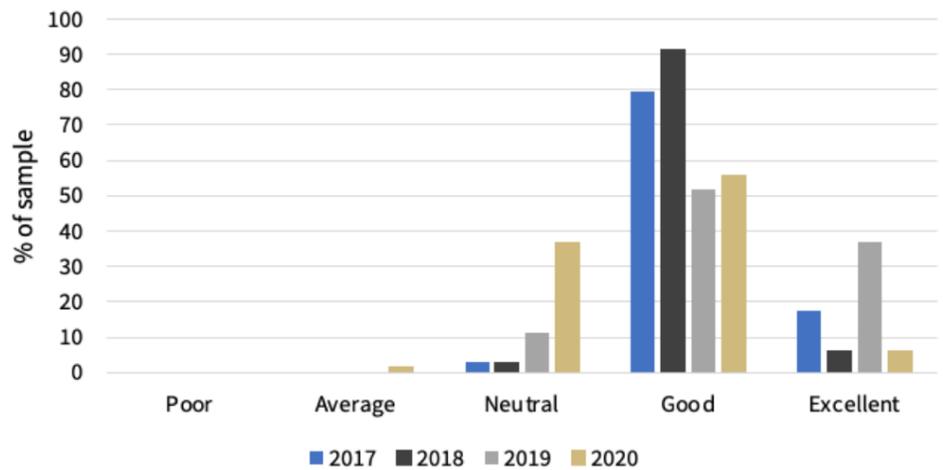


Didactic Outcomes

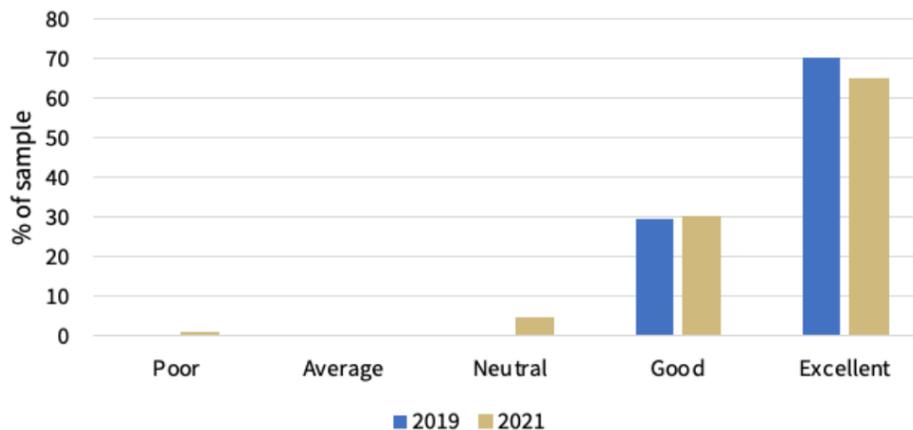
Post Survey: "How much benefit did you get from the following sessions?" (2021 Cohort)



Post Survey: "Rate your knowledge of the topic after the session"



Post Survey: "Topics in this session were useful for my future goals"



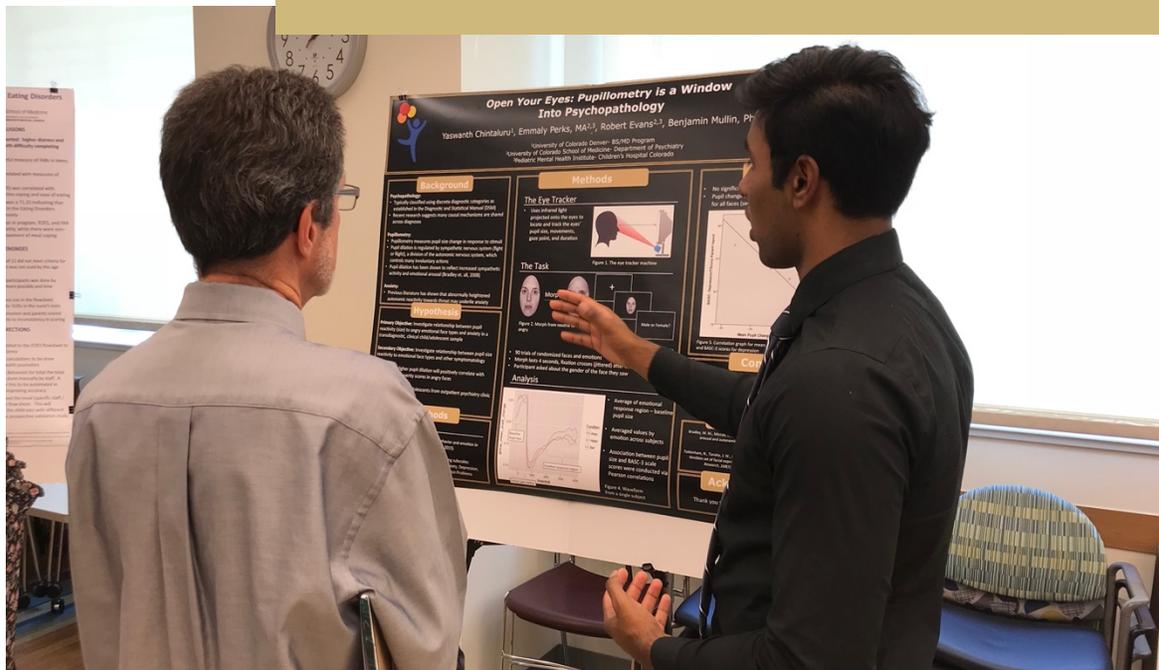


“Would you recommend PURPLE to a friend?”

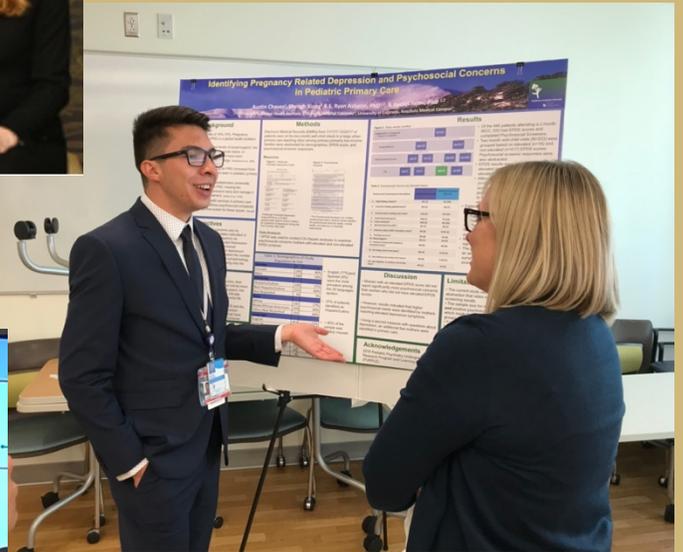
“Yes. This program changed my career trajectory.” – Student, 2018

“Yes! Absolutely, this program changed my life and the direction I was headed academically.” – Student, 2017

“YES! I enjoyed my experience with PURPLE being exposed to the academic/clinical side that I never thought I would be interested in. I think programs like this are the best part of being an undergraduate because it helps you to understand if a certain career field is for you or not.” – Student, 2016



P. U. R. P. L. E.



University of Colorado
Anschutz Medical Campus