

AWARD NUMBER: W81XWH-19-1-0825

TITLE: Examining the Efficacy of the TEACCH School Transition to Employment and Post-Secondary Education Program

PRINCIPAL INVESTIGATOR: Laura Klinger

CONTRACTING ORGANIZATION: University of North Carolina, Chapel Hill, 104 Airport Dr Ste 2200 Chapel Hill, NC, 27599-5023

REPORT DATE: OCTOBER 2020

TYPE OF REPORT: Annual

PREPARED FOR: U.S. Army Medical Research and Development Command
Fort Detrick, Maryland 21702-5012

DISTRIBUTION STATEMENT: Approved for Public Release;
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REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
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1. REPORT DATE OCTOBER 2020		2. REPORT TYPE Annual Report		3. DATES COVERED 9/15/2019 – 9/14/2020	
4. TITLE AND SUBTITLE Examining the Efficacy of the TEACCH School Transition to Employment and Post-Secondary Education Program				5a. CONTRACT NUMBER W81XWH-19-1-0825	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Dr. Laura Klinger and Dr. Brianne Tomaszewski E-Mail: laura.klinger@med.unc.edu ; brianne_tomaszewski@med.unc.edu				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) UNC TEACCH Autism Program 100 Renee Lynne Court Carrboro, NC 27510				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Medical Research and Development Command Fort Detrick, Maryland 21702-5012				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution Unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT The purpose of this project is to conduct a RCT trial examining the efficacy of the TEACCH School Transition to Employment and Postsecondary Education (T-STEP) Program. 60 Community college students (18-21 years of age) with autism spectrum disorder will participate in either the T-STEP Program or manualized counseling services (career, academic, self-counseling) with both proximal (executive function, social communication, and emotion regulation) and distal (employment, postsecondary education success) outcomes measured. The long-term impact of this intervention is to promote a more positive quality of life for young adults with high functioning ASD including increased postsecondary education completion, employment, self-determination, and decreased difficulties with coping and depression. Due to the COVID-19 epidemic preventing in person interactions, we have adapted the protocol to conduct online interventions. This adapted protocol has received approval from all regulatory bodies and the adapted intervention and RCT trial will begin in the second year of funding.					
15. SUBJECT TERMS Autism, transition-aged, community college, executive function, emotion regulation, professional social skills					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			USAMRMC
Unclassified	Unclassified	Unclassified	Unclassified	18	19b. TELEPHONE NUMBER (include area code)

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1. **INTRODUCTION:** *Narrative that briefly (one paragraph) describes the subject, purpose and scope of the research.*

The purpose of this study seeks to test whether the targeted intervention provided by the comprehensive T-STEP (course, counseling, internship) is more effective at supporting the transition to adulthood than counseling services alone (i.e., academic, career, and self-advocacy counseling). Using an alternative treatment randomized-control trial design, transition-aged (18-21-year-old) individuals with ASD will be enrolled. Young adults will be randomly assigned to receive either the comprehensive T-STEP Program (T-STEP course, internship, counseling) or only counseling services at two community college sites. Across three academic years, 120 young adults will be enrolled, 60 in the Comprehensive T-STEP Group (T-STEP) and 60 in the Counseling Only group.

2. **KEYWORDS:** *Provide a brief list of keywords (limit to 20 words).*

Autism, transition-aged, community college, executive function, emotion regulation, professional social skills

3. **ACCOMPLISHMENTS:** *The PI is reminded that the recipient organization is required to obtain prior written approval from the awarding agency grants official whenever there are significant changes in the project or its direction.*

What were the major goals of the project?

List the major goals of the project as stated in the approved SOW. If the application listed milestones/target dates for important activities or phases of the project, identify these dates and show actual completion dates or the percentage of completion.

Training Specific Major Tasks:

- **Task 1: Learn clinical trial design and evaluation for individuals with Autism Spectrum Disorder**
 - Milestone: Submit grant proposal for Autism Research Program Clinical Translation Award (months 36-42; 100% complete)
- **Task 2: Train with experts in community-based behavioral interventions in ASD**
 - Milestone: Leading a professional seminar and community workshop on clinical interventions (months 30-36; 25% complete)
- **Task 3: Acquire skills in research team management**
 - Milestone: Supervise intervention & research staff (months 24-48; 25% complete)
- **Task 4: Build national collaborations in ASD field**
 - Milestone: Presentation of project outcome data at International Society for Autism Research Meeting (month 48; 0% complete)

Research Specific Major Tasks:

- **Task 1: Obtain IRB approval**
 - Milestone: IRB Approval (months 6; 100% complete)
 - Milestone: Obtain regulatory approval from Department of Defense Human Research Protection Office (month 9; 100% complete)

- **Task 2: Coordinate Study Staff**
 - Milestone: Research staff trained (month 15; 50% complete)
 - Milestone: Maintained trained and available independent evaluators (month 15; 0% complete)
- **Task 3: Randomized, Controlled Trial**
 - Milestone: 1st cohorts participant consented, screened, and enrolled in study (months 13-40; 0% complete)
 - Milestone: T-STEP and Counseling intervention begins (months 17-41; 0% complete)
 - Milestone: Report findings from overall studies (month 48; 0% complete)
- **Task 4: Data analysis**
 - Milestone: Report results from data analysis (month 48; 6.25% complete)

What was accomplished under these goals?

For this reporting period describe: 1) major activities; 2) specific objectives; 3) significant results or key outcomes, including major findings, developments, or conclusions (both positive and negative); and/or 4) other achievements. Include a discussion of stated goals not met. Description shall include pertinent data and graphs in sufficient detail to explain any significant results achieved. A succinct description of the methodology used shall be provided. As the project progresses to completion, the emphasis in reporting in this section should shift from reporting activities to reporting accomplishments.

Training Specific Major Tasks:

- **Task 1: Learn clinical trial design and evaluation for individuals with Autism Spectrum Disorder**
 - Subtask 1: Attend UNC School of Medicine North Carolina Translational and Clinical Sciences Institute (NCTraCS) professional developmental seminars
 - Activities Accomplished: Attended 6-week NCTraCs Orientation for New Clinical Research Personnel, NCTraCs professional development seminars and workshops on research methodology and data management, Center for Faculty Excellence Workshops, Diversity, Equity, and Inclusion workshops, Training Initiative for Biological and Biomedical Sciences workshops, Library workshops, and UNC Gillings School of Global Public Health workshops on human design thinking.
 - Subtask 2: Take 1 course per year through a collaboration between NCTraCS and UNC School of Public Health in clinical trials research
 - Activities Not Accomplished: The public health course sequence was to start in August 2020 but has been delayed due to COVID-19. Courses will begin in the Spring or Fall 2021 semesters depending on COVID-19.
 - Subtask 3: Submit applications to attend national RCT workshops
 - Activities Accomplished: Submitted application to the National Center for Special Education Research Training Workshop: Getting SMART about Adaptive Interventions in Education; a research training workshop on developing and evaluating adaptive interventions with a focus on sequential multiple assignment randomized trials (SMARTs) which was cancelled due to COVID-19.
 - Subtask 4: Travel to UCLA postponed to due to COVID-19
 - Activities Not Accomplished: Unable to visit UCLA due to COVID-19 travel restrictions. However, we have begun virtual meetings with UCLA faculty, Dr. Connie Kasari.

- Subtask 5: Participate in statistical workshops
 - Activities Accomplished: Attended three statistical workshops: CARMA Introduction to Multilevel Analysis with R, CARMA Advanced Multilevel Analysis with R, and Curran-Bauer Multilevel Modeling
- Subtask 6: Submit grant proposal to start collecting pilot data
 - Activities Accomplished: Submitted 2 foundation grants and 2 grant proposals, including a proposal for Autism and Research Program Clinical Translational Award.
- **Task 2: Train with experts in community-based behavioral interventions in ASD**
 - Subtask 1: Observe clinical services at the TEACCH Autism Program by attending individual and group therapy sessions
 - Activities Accomplished: Participated in clinical T-STEP meetings at the UNC, observed clinical intake sessions, and participated in clinical T-STEP training at the UNC TEACCH Autism Program.
 - Subtask 2: Attend T-STEP and counseling sessions in the first semester.
 - Activities Accomplished: Assisted with transition of T-STEP course to virtual platform and attended all virtual sessions through the end of the course.
 - Subtask 3: Observe RCT implementation during visit to Kasari Lab at UCLA
 - Activities Not Accomplished: Travel to UCLA will be delayed to a future date due to COVID-19.
 - Subtask 4: Receive training on implementation of assessing fidelity
 - Activities Accomplished: Received training from Dr. Kara Hume on fidelity assessments and coding and finalized coding materials for the T-STEP course sessions and counseling sessions and identified practice videos for piloting fidelity coding.
- **Task 3: Acquire skills in research team management**
 - Subtask 1: Attend the UNC Blueprint for Engaged Supervision Training (BEST), UNC Human Resources 2-day workshop.
 - Activities Not Accomplished: Training was not offered during the reporting period.
 - Subtask 2: Take the NCTraCS/UNC Public Health Course: Team Leadership in Research Navigation (PUBH 767).
 - Activities Not Accomplished: Course was not offered during the reporting period.
 - Subtask 3: Co-Supervise graduate research assistant and research assistant on project related tasks
 - Activities Accomplished:
 - Recruited undergraduate research assistants, supervised six undergraduate research assistants in completing required research training, introduction to autism, and coordinated research-related tasks and training.
 - Supervised research assistant and postdoc on finalizing coding scheme and reliability coding assignments for behavioral observation assessments
- **Task 4: Build national collaborations in ASD field**
 - Subtask 1: Meet with UCLA autism researchers during Kasari Lab visit
 - Activities Not Accomplished: Travel to UCLA postponed to due to COVID-19.
 - Subtask 2: Attend UNC Autism Research Quarterly Meetings
 - Activities Not Accomplished: UNC Autism Research Quarterly Meetings did not occur during the reporting period.

- Subtask 3: Attend national conferences disseminating ASD-related research
 - Activities Accomplished:
 - Presentations focused on transition and Autism Spectrum Disorder accepted at 3 conferences (Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, Council for Exceptional Children, and the Institute for Autism Society Annual Meeting).
 - Attended national conference (Council for Exceptional Children) and gave two presentations focused on transition and Autism Spectrum Disorder
 - Provided two seminars/workshops on transition and Autism Spectrum Disorder as invited speaker to Governor's State University's Conference: Fostering Educational & Vocational Success for Young Adults with Disabilities
 - Provided webinar on supporting students with autism during COVID-19
 - Provided webinar on self-management strategies in adults with Autism Spectrum Disorder as part of the Council for Exceptional Children's Professional Development Series
 - Activities Not Accomplished: Two national conferences (Gatlinburg Conference on Intellectual and Developmental Disabilities and Institute for Autism Society Annual Meeting) were cancelled due to COVID-19.

Research Specific Major Tasks:

• Task 1: Obtain IRB approval

- Subtask 1: Prepare Regulatory Documents and Research Protocol.
 - Activities Accomplished:
 - Received approval from the UNC Scientific Review Committee.
 - Submitted study protocol modification and updated budget to Department of Defense to make COVID-19 related modifications and received approval for submitting an IRB approval.
 - Received approval for modifications from the UNC IRB.
 - Received approval from HRPO.
 - Submitted a ClinicalTrials.gov study and are awaiting approval to publicly release the record.

• Task 2: Coordinate Study Staff

- Subtask 1: Hiring and Training of Study Staff
 - Activities Accomplished:
 - Hired and trained assessment staff (Karrah Bowman, research assistant; Michal Cook, graduate student).
 - Onboarded and began training undergraduate research student volunteers.
- Subtask 2: Coordinate supervision, fidelity checks, and training of Independent Evaluators
 - Activities Accomplished:
 - Conducted meetings with independent evaluator, Dr. Kara Hume, and finalized coding protocols.

• Task 3: Randomized, Controlled Trial

- Subtask 1: Conduct study, report findings
 - Activities Accomplished:
 - Adapted clinical intervention to be delivered virtually given COVID-19 restrictions including creation of virtual activities (e.g., polls, break out rooms), creation of virtual internships, and creating adapted intervention manual.
 - Revised procedures and protocol for virtual fidelity assessments and adapted self- and parent-report measures to be administered and completed via REDCap given COVID-19 restrictions.
 - Dr. Klinger met with Dr. Kasari at UCLA to discuss clinical trial protocol and procedures to finalize IRB and HRPO submissions.
 - Activities Not Accomplished: Recruitment and data collection delayed to Year 2 due to COVID-19

• Task 4: Data analysis

- Subtask 1: Establish data management system for monitoring data collection rates and data quality
 - Activities Accomplished:
 - Identified NDAR variables for database.
 - Attended REDCap trainings and created the study's REDCap database.
 - Piloted use of all virtual assessments through REDCap and virtual video platforms.

What opportunities for training and professional development has the project provided?

If the project was not intended to provide training and professional development opportunities or there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe opportunities for training and professional development provided to anyone who worked on the project or anyone who was involved in the activities supported by the project. "Training" activities are those in which individuals with advanced professional skills and experience assist others in attaining greater proficiency. Training activities may include, for example, courses or one-on-one work with a mentor. "Professional development" activities result in increased knowledge or skill in one's area of expertise and may include workshops, conferences, seminars, study groups, and individual study. Include participation in conferences, workshops, and seminars not listed under major activities.

In addition to the training program for the partnering PI described above, professional training opportunities were present for 3 graduate students and 2 postdoctoral fellows including weekly team meetings and one-on-one mentoring on clinical trials design, developmental of fidelity assessments, and behavioral coding procedures.

How were the results disseminated to communities of interest?

If there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe how the results were disseminated to communities of interest. Include any outreach activities that were undertaken to reach members of communities who are not usually aware of these project activities, for the purpose of enhancing public understanding and increasing interest in learning and careers in science, technology, and the humanities.

We presented information to Guilford Tech, our partnering community college, disability services and student affairs faculty and staff about the needs of students with ASD and how colleges can support a successful transition to adulthood.

Describe briefly what you plan to do during the next reporting period to accomplish the goals and objectives.

Training Specific Tasks through next quarter:

1. Attend methodology webinars through NcTraCS, Consortium for Advancement in Research Methods, H.W Odum Institute
2. Attend professional development workshops through Center for Faculty Excellence and Frank Porter Graham Professional Development Series
3. Receive training from Dr. Klinger in onboarding new intervention staff and assist with training for Spring 2021 semester

Research Specific Tasks Through next quarter:

1. Receive approval from ClinicalTrials.gov
2. Obtain IRB approval from our community college partners.
3. Train intervention staff.
4. Begin recruitment activities for a Spring 2021 staff.

4. **IMPACT:** Describe distinctive contributions, major accomplishments, innovations, successes, or any change in practice or behavior that has come about as a result of the project relative to:

What was the impact on the development of the principal discipline(s) of the project?

If there is nothing significant to report during this reporting period, state “Nothing to Report.”

Describe how findings, results, techniques that were developed or extended, or other products from the project made an impact or are likely to make an impact on the base of knowledge, theory, and research in the principal disciplinary field(s) of the project. Summarize using language that an intelligent lay audience can understand (Scientific American style).

Nothing to Report.

What was the impact on other disciplines?

If there is nothing significant to report during this reporting period, state “Nothing to Report.”

Describe how the findings, results, or techniques that were developed or improved, or other products from the project made an impact or are likely to make an impact on other disciplines.

Nothing to Report.

What was the impact on technology transfer?

If there is nothing significant to report during this reporting period, state “Nothing to Report.”

Describe ways in which the project made an impact, or is likely to make an impact, on commercial technology or public use, including:

- *transfer of results to entities in government or industry;*
- *instances where the research has led to the initiation of a start-up company; or*
- *adoption of new practices.*

Due to COVID-19, the study intervention (T-STEP) was converted to an online platform. The adoption of this new practice has enabled access to students in distanced communities.

If there is nothing significant to report during this reporting period, state “Nothing to Report.”

Describe how results from the project made an impact, or are likely to make an impact, beyond the bounds of science, engineering, and the academic world on areas such as:

- *improving public knowledge, attitudes, skills, and abilities;*
- *changing behavior, practices, decision making, policies (including regulatory policies), or social actions; or*
- *improving social, economic, civic, or environmental conditions.*

Nothing to Report.

- 5. CHANGES/PROBLEMS:** *The PD/PI is reminded that the recipient organization is required to obtain prior written approval from the awarding agency grants official whenever there are significant changes in the project or its direction. If not previously reported in writing, provide the following additional information or state, “Nothing to Report,” if applicable:*

Due to COVID-19, changes were submitted in writing to the agency and were approved.

Actual or anticipated problems or delays and actions or plans to resolve them

Describe problems or delays encountered during the reporting period and actions or plans to resolve them.

We proposed modification to our statement of work timeline of activities, changes to our delivery method, and a reallocation of our budget as a response to the COVID-19 situation. We delayed our start of our community-college RCT from the Fall 2020 semester to the Spring 2021 semester due to the closing of community colleges during COVID-19 and uncertainty of whether courses would be offered virtually or in-person in Fall 2020. Thus, we delayed hiring study personnel to fit with this changed timeline. These changes to statement of work timeline of activities, changes to delivery method, and budget reallocation were submitted to and approved by the Science Officer. We also submitted and received approval for an IRB modification to have an alternative plan in place to move to an online intervention if necessary.

To complete our grant activities within our original timeline, we will reduce our follow-up period from a 6-month follow-up to a 4-month follow-up. Participants will participate in a 4-month follow-up after the intervention. Therefore, aim 3 would be re-worded to: The third aim is to examine maintenance of immediate intervention effects and more distal outcomes 4-month post-intervention. The assessments and plans for analysis would remain the same. This follow-up period of 4 months will still allow for examination of maintenance effects of our assessments.

This change in timeline has the potential to impact one follow-up measure (Academic Grades), based on not being at the end of the semester following the semester of the intervention. However, academic grades are not a major component of the trial and we feel that we will be capturing sufficient information that will allow us to meet the goals of Aim 3.

We reallocated our budget to move some of Year 1 funds to Years 2 - Years 4 to support the adjusted statement of work and timeline of activities.

Changes that had a significant impact on expenditures

Describe changes during the reporting period that may have had a significant impact on expenditures, for example, delays in hiring staff or favorable developments that enable meeting objectives at less cost than anticipated.

The change in start date of our community-college RCT from Fall 2020 to Spring 2021 has delayed the hiring of new staff. We reallocated our budget to move some of Year 1 funds to Years 2 - Years 4 to support the adjusted statement of work and timeline of activities.

Significant changes in use or care of human subjects, vertebrate animals, biohazards, and/or select agents

Describe significant deviations, unexpected outcomes, or changes in approved protocols for the use or care of human subjects, vertebrate animals, biohazards, and/or select agents during the reporting period. If required, were these changes approved by the applicable institution committee (or equivalent) and reported to the agency? Also specify the applicable Institutional Review Board/Institutional Animal Care and Use Committee approval dates.

Significant changes in use or care of human subjects

We resubmitted and received IRB approval for a modified delivery approach. We will use a combination of in-person and virtual visits to accommodate current regulations for North Carolina Community Colleges due to COVID-19 pandemic.

Significant changes in use of biohazards and/or select agents

Not Applicable.

6. PRODUCTS: *List any products resulting from the project during the reporting period. If there is nothing to report under a particular item, state “Nothing to Report.”*

- **Publications, conference papers, and presentations**

Report only the major publication(s) resulting from the work under this award.

Journal publications. *List peer-reviewed articles or papers appearing in scientific, technical, or professional journals. Identify for each publication: Author(s); title; journal; volume; year; page numbers; status of publication (published; accepted, awaiting publication; submitted, under review; other); acknowledgement of federal support (yes/no).*

Tomaszewski, B., Kramer, B., Steinbrenner, J. R., DaWalt, L. E., Hall, L. J., Hume, K., & Odom, S. L. (2020). Student, educator, and parent perspectives of self-determination in high school students with autism spectrum disorder. *Autism Research*. Advanced online publication. <https://doi.org/10.1002/aur.2337> (Published - Yes)

Books or other non-periodical, one-time publications. *Report any book, monograph, dissertation, abstract, or the like published as or in a separate publication, rather than a periodical or series. Include any significant publication in the proceedings of a one-time conference or in the report of a one-time study, commission, or the like. Identify for each one-time publication: author(s); title; editor; title of collection, if applicable; bibliographic information; year; type of publication (e.g., book, thesis or dissertation); status of publication (published; accepted, awaiting publication; submitted, under review; other); acknowledgement of federal support (yes/no).*

Nothing to Report.

Other publications, conference papers and presentations. *Identify any other publications, conference papers and/or presentations not reported above. Specify the status of the publication as noted above. List presentations made during the last year (international, national, local societies, military meetings, etc.). Use an asterisk (*) if presentation produced a manuscript.*

Tomaszewski, B., Savage, M., & Hume, K. (2020, April 15-17). *Feasibility of a self-management physical activity intervention using coaching to support adults with autism spectrum disorder and intellectual disability.* In **Tomaszewski, B.** (Chair), *The Role of Coaching in Interventions Promoting Evidence-Based Practices in Children and Adults with Autism Spectrum Disorder.* [Symposium] Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, San Diego, CA. <https://health.ucdavis.edu/mindinstitute/gatlinburg/2020/SS-9.pdf> (Conference Cancelled).

INVITED TALKS

Tomaszewski, B. (March 2020). Evidence-based Practices Supporting High-School Transition and Adulthood: Self-Management and Goal Setting. College of Health and Human Services 50th Anniversary Conference: Fostering Educational and Vocational Success for Young Adults with Disabilities, Governor's State University.

Tomaszewski, B. (March 2020). Preparing Students for Life with Transition Assessment and Planning. College of Health and Human Services 50th Anniversary Conference: Fostering Educational and Vocational Success for Young Adults with Disabilities, Governor's State University.

Klinger, L.G. (2020, February). Transition to post-secondary education and employment: Supporting positive outcomes for individuals with Autism Spectrum Disorder. Seminar presented at the University of Wisconsin, Waisman Center, Madison, Wisconsin.

REFEREED TALK

Klinger, L.G., Bagatell, N., Dudley, K.M., Sandercock, R.K., Osborne, G., & Klinger, M.R. (2019, November). Supporting the transition from high school to college for individuals with autism spectrum disorder. Presented at the 53rd Annual Convention of the Association for Behavioral and Cognitive Therapies, Atlanta, GA.

Website(s) or other Internet site(s)

List the URL for any Internet site(s) that disseminates the results of the research activities. A short description of each site should be provided. It is not necessary to include the publications already specified above in this section.

Nothing to Report.

Technologies or techniques

Identify technologies or techniques that resulted from the research activities. Describe the technologies or techniques were shared.

Nothing to Report.

Inventions, patent applications, and/or licenses

Identify inventions, patent applications with date, and/or licenses that have resulted from the research. Submission of this information as part of an interim research performance progress report is not a substitute for any other invention reporting required under the terms and conditions of an award.

Nothing to Report.

prevention, diagnosis, prognosis, treatment and /or rehabilitation of a disease, injury or condition, or to improve the quality of life. Examples include:

- *data or databases;*
- *physical collections;*
- *audio or video products;*
- *software;*
- *models;*
- *educational aids or curricula;*
- *instruments or equipment;*
- *research material (e.g., Germplasm; cell lines, DNA probes, animal models);*
- *clinical interventions;*
- *new business creation; and*
- *other.*

Nothing to Report.

7. PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS

What individuals have worked on the project?

Provide the following information for: (1) PDs/PIs; and (2) each person who has worked at least one person month per year on the project during the reporting period, regardless of the source of compensation (a person month equals approximately 160 hours of effort). If information is unchanged from a previous submission, provide the name only and indicate “no change”.

Example:

Name: Mary Smith

Project Role: Graduate Student

Researcher Identifier (e.g. ORCID ID): 1234567

Nearest person month worked: 5

Contribution to Project: Ms. Smith has performed work in the area of combined error-control and constrained coding.

Funding Support: The Ford Foundation (Complete only if the funding support is provided from other than this award.)

Name: Laura Klinger

Project Role: Principal Investigator

Researcher Identifier: 0000-0002-3399-9039

Nearest person month worked: 2.4

Contribution to Project: Dr. Klinger has overseen all study activities including creation and submission of the HRPO protocol and regulatory documents, training of research staff on behavioral assessment coding, and finalizing fidelity coding documents. She provided oversight for transition of assessment and intervention procedures from in-person to virtual protocols. She met with study investigators (Kara Hume) and consultants (Connie Kasari) to finalize implementation plans and has overseen Dr. Tomaszewski's training and research activities.

Name: Brianne Tomaszewski

Project Role: Partnering Principal Investigator

Researcher Identifier: 0000-0003-0074-1442

Nearest person month worked: 6.0

Contribution to Project: Dr. Tomaszewski has attended trainings and statistical workshops, submitted grant proposals, provided oversight to training of assessment team, finalizing fidelity coding documents and testing of protocols, assisted with submission of the HRPO protocol, and regulatory documents, and has assisted with development of virtual assessment procedures and virtual intervention protocols.

Name: Elena Lamarche

Project Role: Research Coordinator

Researcher Identifier: 0000-0003-0600-3387

Nearest person month worked: 4.8

Contribution to Project: Ms. Lamarche has assisted in the training of research staff including organization of study materials, and submission of the HRPO protocol and regulatory documents. She will begin recruiting efforts for the new cohort.

Name: Karrah Bowman
Project Role Research Assistant
Researcher Identifier:
Nearest person month worked: 7.2
Contribution to Project: Ms. Bowman has assisted in creating the study REDCap database, the creation of the HRPO protocol and regulatory documents submission, finalizing the behavioral observation coding scheme and training manual, and creating the study protocol including adaptations for COVID-19 procedures. She will begin recruiting and scheduling pre-assessments for the first cohort.

Name: Michal Cook
Project Role: Graduate Research Assistant
Researcher Identifier:
Nearest person month worked: 3.0
Contribution to Project: Ms. Cook has become reliable in conducting behavioral assessments and has finalized fidelity rating forms. She will start coding for fidelity and training staff to assist with coding.

Has there been a change in the active other support of the PD/PI(s) or senior/key personnel since the last reporting period?

If there is nothing significant to report during this reporting period, state "Nothing to Report."

If the active support has changed for the PD/PI(s) or senior/key personnel, then describe what the change has been. Changes may occur, for example, if a previously active grant has closed and/or if a previously pending grant is now active. Annotate this information so it is clear what has changed from the previous submission. Submission of other support information is not necessary for pending changes or for changes in the level of effort for active support reported previously. The awarding agency may require prior written approval if a change in active other support significantly impacts the effort on the project that is the subject of the project report.

Laura Klinger:

(L. Klinger, PI) 06/1/2020 – 08/31/2021 0.24 Cal Months

C. Felix Harvey

Employer Neurodiversity Toolkit to Support Employees with Autism

This project uses human-centered design methodologies to create and evaluate an online employer neurodiversity toolkit, an innovative cost-effective model to improve long-term employment and quality of life outcomes for adults with ASD.

Role: Principal Investigator Contracting/Grants Officer: Mark Meares Contact Information: Email: mark_meares@unc.edu Phone: 919-962-3420

Brianne Tomaszewski:

ACL90IFRE0019-01-00 (L. Klinger, PI) 09/30/2018-09/29/2021 2.4 Cal Months National Institute of Disability, Independent Living, & Rehabilitation Research Efficacy of a Community College Transition Program for Young Adults with Autism Spectrum Disorder Goal/Aim: This is a waitlist control design partial efficacy study to examine the impact of the TEACCH School Transition to Employment and Postsecondary Education Program in Community Colleges. Role: Statistician Contracting/Grants Officer: Patricia Barrett Contact Information: patricia.barrett@acl.hhs.gov Phone: 202-795-7303

(L. Klinger, PI) 06/1/2020 – 08/31/2021 0.6 Cal Months C. Felix Harvey Employer Neurodiversity Toolkit to Support Employees with Autism This project uses human-centered design methodologies to create and evaluate an online employer neurodiversity toolkit, an innovative cost-effective model to improve long-term employment and quality of life outcomes for adults with ASD. Role: Investigator Contracting/Grants Officer: Mark Meares Contact Information: Email: mark_meares@unc.edu Phone: 919-962-3420

What other organizations were involved as partners?

If there is nothing significant to report during this reporting period, state “Nothing to Report.”

Describe partner organizations – academic institutions, other nonprofits, industrial or commercial firms, state or local governments, schools or school systems, or other organizations (foreign or domestic) – that were involved with the project. Partner organizations may have provided financial or in-kind support, supplied facilities or equipment, collaborated in the research, exchanged personnel, or otherwise contributed.

Provide the following information for each partnership:

Organization Name:

Location of Organization: (if foreign location list country)

Partner’s contribution to the project (identify one or more)

- *Financial support;*
- *In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff);*
- *Facilities (e.g., project staff use the partner’s facilities for project activities);*
- *Collaboration (e.g., partner’s staff work with project staff on the project);*
- *Personnel exchanges (e.g., project staff and/or partner’s staff use each other’s facilities, work at each other’s site); and*
- *Other.*

Organization Name: Guilford Tech Community College

Location of Organization: Greensboro, North Carolina

- Intervention and assessment staff use the partner’s facilities for the various activities.
- The intervention’s staff uses the partner’s disability services, career counseling, and academic advising resources provided on the community college campus.

8. SPECIAL REPORTING REQUIREMENTS

COLLABORATIVE AWARDS: *For collaborative awards, independent reports are required from BOTH the Initiating Principal Investigator (PI) and the Collaborating/Partnering PI. A duplicative report is acceptable; however, tasks shall be clearly marked with the responsible PI and research site. A report shall be submitted to <https://ers.amedd.army.mil> for each unique award.*

QUAD CHARTS: *If applicable, the Quad Chart (available on <https://www.usamraa.army.mil>) should be updated and submitted with attachments.*

- 9. APPENDICES:** *Attach all appendices that contain information that supplements, clarifies or supports the text. Examples include original copies of journal articles, reprints of manuscripts and abstracts, a curriculum vitae, patent applications, study questionnaires, and surveys, etc.*



W81XH1910825: Examining the Efficacy of the T-STEP

PI: Dr.'s Laura Klinger & Brianne Tomaszewski, University of North Carolina, Chapel Hill, NC

Budget: \$1,435,538.00

Topic Area: TEACCH Autism Program

Mechanism: Clinical Trial Award

Research Area(s): Autism, transition-aged

Award Status: 15 September 2019 - 14 September 2023

Study Goals:

The current study seeks to test whether the targeted intervention provided by the comprehensive T-STEP (course, counseling, internship) is more effective at supporting the transition to adulthood than counseling services alone (i.e., academic, career, and self-advocacy counseling). We hypothesize that the full T-STEP program (community college course, internship, counseling) will lead to improved short-term and long-term outcomes compared to counseling services only.

Specific Aims:

1. Examine the efficacy of the T-STEP compared to counseling only services in improving executive function, social communication, emotion regulation, and self-determination skills.
2. Examine moderators of T-STEP efficacy to identify characteristics of individuals who benefit most from the program.
3. Examine maintenance of intervention effects and more distal outcomes (grade point average, employment) at 6-months post-intervention.
4. An auxiliary meta-analysis aim to compare outcomes of a simultaneously running RCT examining the efficacy of the comprehensive T-STEP program to a waitlist control no services/services as usual condition. This auxiliary aim will allow us to re-examine Aims 1 & 2 across three treatment groups: T-STEP (120 students), counseling only (60 students), and no services/services as usual (60 students).

Key Accomplishments and Outcomes:

Publications: Tomaszewski, B., Kraemer, B., Steinbrenner, J. R., Smith DaWalt, L., Hall, L. J., Hume, K., & Odom, S. (2020). Student, Educator, and Parent Perspectives of Self-Determination in High School Students with Autism Spectrum Disorder. *Autism Research*. <https://doi.org/10.1002/aur.2337>

Patents: none to date

Funding Obtained: none to date