3UL1TR001873-08S1

**Revision/Supplement Title**

Clinical and Translational Science Award: Justice, Equity, Diversity and Inclusion in AI (JEDI-AI)

**Specific Aims**

**Aim 1:** Create resources for addressing justice, equity, diversity and inclusion (JEDI) in the development and deployment of artificial intelligence in digital health. **Aim 1a:** Identify ethical frameworks for addressing JEDI in the development and use of AI in digital health.Conduct a review of the published scientific literature to identify the ethical principles used to address emerging applications of artificial intelligence to digital health and identify how JEDI is integrated into research design, data analysis and applications of algorithms. **Aim 1b:** Develop educational case studies focused on JEDI in the development and use of AI approaches in digital health.

**Accomplishments (Limit 700 Characters)**

We have hired a postdoctoral fellow who organized the teamwork and set up team collaboration mechanism with regular meetings being held. We have collaborated in writing up and compiling a case book of a total of 8 cases on AI in healthcare, covering ethical concepts and concerns such as trust, fairness, autonomy, and consent in the societal context of racial justice, tribal sovereignty, and health equity. We have determined the format and structure of the cases, and included the methodology of how the cases should be used in educational scenarios. In addition, we have tested three of the cases in the graduate seminar *Digital Health: Ethics and Fairness* at Department of Bioinformatics, Columbia University. Student feedback from the test run has helped revise and improve the write-up and delivery of the cases. We have also discussed the ethical themes and concerns emerged from the cases associated with AI in healthcare in developing a literature review.

**Challenges**

As AI in healthcare is a fast-changing field with new developments happening on a daily basis, it is challenging to keep up with the pace and reflect the changes and developments in our case drafts. The amount of AI literature is fast growing, posing a challenge on the selection of literature and narrowing of scopes. We will continue to work on these challenges through teamwork and collaboration and develop mechanisms to update the cases in the future.

**Status of milestones**

Hire Postdoctoral Fellow - finished

Aim 1a:

Literature Search; input into Dedoose – on-going

Development of codebook for Aim 1a – on-going

Coding of Data – not started

Identification of JEDI Concepts – on-going

Analysis of JEDI and Ethical Frameworks - not started

Aim 1b:

Draft Case Studies for Aim 1b - finished

Finalization of case studies – on-going

Dissemination of case studies in course - on-going