

toolkit to increase diversity in research. **RESULTS/ANTICIPATED RESULTS:** Community (n = 51) and stakeholder (n = 50) FG participants were 54.0±16.0 years of age, 81.2% female, 39.6% Black/African American, 51.5% Hispanic, and 60% had **DISCUSSION/SIGNIFICANCE OF IMPACT:** Due to the lack of inclusivity in clinical research, findings are typically not applicable to health disparity populations limiting the benefit of research to all. This study provides practical community-driven strategies to increase diversity in clinical research, highlighting the role of trust, relationships, and cultural relevancy.

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### **Bridging the gap: Socioeconomic and sociodemographic disparities in tailored transition interventions for patients diagnosed with congenital heart disease**

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**OBJECTIVES/GOALS:** This scoping review examines how socioeconomic status (SES) and sociodemographic status (SDS) disparities are considered in transition interventions for congenital heart disease (CHD) patients. By identifying gaps, it aims to guide future research and interventions to address inequities in transitional care. **METHODS/STUDY POPULATION:** A systematic search of the literature was performed using PubMed, Scopus, and Web of Science. Literature was searched from January 1990 to October 2024 and revealed 823 articles. Upon initial screening, 71 duplicates, 76 non-SES focused articles, and an additional 128 irrelevant articles were excluded. A total of 548 full-text articles were reviewed. Articles that did not focus on transition interventions for CHD patients were excluded. Studies were analyzed for factors affecting care transitions with special attention to SDS and SES factors. SDS factors were defined as age, gender, race/ethnicity, and geographic location, while SES factors were defined as income level, education, employment status, and access to care. **RESULTS/ANTICIPATED RESULTS:** Out of 548 articles reviewed, only 18 addressed SES factors, and 10 examined SDS factors in the transition from pediatric to adult care. The most common interventions were patient education (33%), care coordination (29%), and family support (21%), but they lacked tailoring to SES/SDS factors. Patients from low-income households were 50% more likely to experience care discontinuities and 40% less likely to participate in transition programs. Health literacy interventions were generic, overlooking socioeconomic differences. Tailored transition programs are needed to address low health literacy and financial barriers, potentially improving outcomes for disadvantaged patients in rural and underserved areas. **DISCUSSION/SIGNIFICANCE OF IMPACT:** This review exposes the limited focus on SES and SDS disparities in CHD transition interventions. Disadvantaged patients face barriers

like limited access to care and low health literacy. Developing tailored programs to address these gaps is crucial for enhancing transitions and improving long-term outcomes for vulnerable CHD patients.

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### **Evaluating ChatGPT's role in enhancing mental health care for Hispanic LBTTQI+ young adults: A comparative study**

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**OBJECTIVES/GOALS:** Evaluate the effectiveness of ChatGPT as a complementary tool for addressing the mental health needs of Hispanic LBTTQI+ young adult patients. We will also explore the experience of clinical healthcare providers with the integration of ChatGPT as a complementary tool in psychotherapy with Hispanic LBTTQI+ young adults. **METHODS/STUDY POPULATION:** In this mixed-method study, we will create hypothetical clinical cases that reflect common mental health challenges experienced by LBTTQI+ Hispanic population. These cases will be presented to three groups: 1) ChatGPT app, 2) clinical mental health care providers, and 3) clinical mental health care providers collaborating with ChatGPT. Each group will provide a diagnosis and a treatment plan based on the case information. A panel of experts will evaluate each plan using a standardized rubric to provide a score on clinical accuracy and on the ability to address specific needs of Hispanic LBTTQI+ patients. Statistical analysis will be used to evaluate the differences in the scores of each domain and qualitative content analysis to evaluate the experience of clinical mental health care providers using ChatGPT. **RESULTS/ANTICIPATED RESULTS:** The results will provide evidence of the effectiveness of ChatGPT as a supportive tool in mental health care. We anticipated that the combination of a clinical mental health care provider and ChatGPT to develop a diagnosis and treatment plan would produce better outcomes than either ChatGPT or the clinical mental health care provider working independently. We will also expect to find a positive attitude toward the integration of ChatGPT applications, viewing them as useful tools that complement traditional psychological interventions for Hispanic LBTTQI+ young adults. The study will provide evidence of the effectiveness of ChatGPT to complementing clinical practice involving Hispanic LBTTQI+ young adults. Those results in a preclinical phase are preconditions to a more applied intervention. **DISCUSSION/SIGNIFICANCE OF IMPACT:** We aim to improve the quality of life for LBTTQI+ Hispanics by developing innovative psychological treatments enhanced by AI apps. By developing innovative treatments, we are addressing and mitigating health disparities within the LBTTQI + Hispanic community in Puerto Rico and contributing to a broader effort of inclusivity and health equity.