

**Title:**

Cross-Cultural Factors Influencing Perceived Disadvantages of Genetic Testing Among African Americans and Black African Immigrants

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**Session Title:**

Genetic Practices in Healthcare

**Slot:**

E 18: Sunday, 29 October 2017: 4:15 PM-5:00 PM

**Scheduled Time:**

4:15 PM

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**Keywords:**

Genetic Testing, Health Disparities and Medical Mistrust

**References:**

Cottler LB, McCloskey DJ, Aguilar-Gaxiola S., et al. (2013). Community needs, concerns, and perceptions about health research: findings from the clinical and translational science award sentinel network. *American Journal of Public Health*, 103(9):1685-92.

Cragun D, Bonner D, Kim J, et al. (2015). Factors associated with genetic counseling and BRCA testing in a population-based sample of young Black women with breast cancer. *Breast Cancer Res Treat*. 151(1):169-76.

Jagsi R, Griffith KA, Kurian AW., et al. (2015). Concerns about cancer risk and experiences with genetic testing in a diverse population of patients with breast cancer. *J Clin Oncol*. 10;33(14):1584-91.

Scott DM, Nwulia E, Kwagyan J., et al. (2014). Genetic testing for the susceptibility to alcohol dependence: interest and concerns in an African American population. *Genet Test Mol Biomarkers*.18(8):538-45.

**Abstract Summary:**

Participation of Blacks in clinical continues to be low. This research presents critical cross-cultural information on socio-cultural concerns on Blacks participating in genetic studies. Participants attending this session n anticipate gaining insights into similarities and differences on perspectives of taking art in genetic studies.

**Learning Activity:**

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
Explore and describe the knowledge, perceived disadvantages and concerns about abuse of genetic testing among Black African immigrants and Urban African American.	Discuss strategies for developing individual and group targeted recruitment strategies that are culturally relevant for use in genetic counseling programs

Compare and contrast the differences on perceptions of genetic testing among Black African immigrants and Urban African Americans.	Purpose of this presentation is to provide a broad purpose and specific objectives to be achieved from this study; Methods: Provide audience with information on methods/approach used in data collection. Speak more to the partnership with the community based organizations using a CBPR approach
Discuss strategies for developing individual and group targeted recruitment strategies that are culturally relevant for use in genetic counseling programs	Broad findings from entire sample will be presented and then provide information on comparative analysis. Tables, graphs and charts and figures will be used in laying out the results from the study. Conclusions and implications: will provide implications for further research, policy and practice.

#### Abstract Text:

**Background:** The incorporation of genetic testing in healthcare is purported to provide an additional tool to enhance patient care. However, the proliferation of genetic testing in healthcare also raises social and ethical concerns from ethnic minority groups. Thus, contextually healthcare providers should understand and anticipate urban African Americans' perceptions about availing themselves of genetic testing. Ironically, morbidity and mortality patterns for Black African immigrants are often grouped with data for African Americans making it difficult to understand health related perceptions of Black African immigrants. Contextually, culture, family history and communal perspectives of scientific advancement may be potential barriers to participating in clinical and genetics studies. Thus, it is important to explore and examine the group's knowledge, attitudes, perceptions and concerns about participating in genetic research separately and comparatively to develop group targeted recruitment strategies and culturally relevant counselling programs aim at enhancing both groups participation in genetic studies.

**Purpose:** The purpose of this study was to conduct a cross-cultural comparative investigation describing and examining selected factors group-based medical mistrust (GBMM) that would potentially influence urban African Americans versus Black African immigrants' knowledge, concerns and perceived disadvantages of availing themselves to genetic testing and/or participating in genetic research.

**Methods:** Using a cross-sectional survey design, a non-probability sample (N = 424) Blacks (n = 212) Urban African Americans) and (n = 212) Black African Immigrants were administered an in-person structured questionnaire. The questionnaire consisted of five instruments—(a) Socio-demographic Characteristics, (b) Knowledge of Medical Genetic Scale, (c) Group-based Medical Mistrust Scale, (d) Anticipated Consequences and Concerns about Abuses of Genetic Testing Information Scale, and (e) Perceived Disadvantages of Genetic Testing Scale. Descriptive, bivariate and multivariate analyses were conducted. Descriptive statistics of frequencies, percentages, means, and standard deviations were used to describe the socio-demographic characteristics of the sample and for reporting items answered on various scales. Pearson product-moment correlations were computed to determine the bivariate associations between the independent variables: concerns about abuse of genetic information, GBMM, and knowledge of medical genetics with the perceived disadvantages of genetic testing. Finally, a multivariate hierarchical linear regression analysis was performed to identify those variables that had contributed to the perceived disadvantages of testing.

**Results:** Knowledge level of genetic science varied between groups with African Americans scoring significantly higher than Black African immigrants ( $t=5.97$ ,  $p<.0005$ ). On the Group-based Medical

Mistrust, Black African immigrants were significantly more trusting of their healthcare providers than African Americans ( $t=3.33$ ,  $p=.001$ ). On future expectation and anticipated consequences of medical genetic research, majority of the participants believed that genetic information will be widely used and integrated into the healthcare system. However, 42% of African American participants believed that it is very unlikely that governments will be able to protect their citizens against misuse of genetic tests and information as compared to 26% of African immigrant participants ( $X^2=11.69$ ,  $p<.01$ ). Both groups expressed trepidations about the wide use of genetic testing in healthcare. African immigrants were more concerned about increasing use of genetic testing in healthcare. One-third of African immigrant's participants and 41% of the African Americans anticipated that the wide use of genetic testing would lead to a negative impact on society creating a dichotomy in our society—people with 'good' gene versus people with a 'bad' genetic predisposition ( $X^2=6.31$ ,  $p<.05$ ). In multivariate analyses, knowledge, group-based medical mistrust, anticipated consequences, and ethnicity significantly explained 34.6% of the variance of perceived disadvantages of genetic testing. Higher group-based medical mistrust, anticipated consequences of genetic testing and African immigrant status contributed to greater perceived disadvantages of genetic testing.

**Conclusions:** African Americans and Black African immigrants may consider several individual and group-based social and ethical concerns when they are given the option for genetic testing. Understanding these factors and addressing them as part of the counseling process for a genetic test is important for healthcare providers working with members of these groups. Both groups suggested several individual and communal socio-ethical concerns about genetic testing. Understanding these factors and addressing them as part of the recruitment and genetic counseling process is important to increasing participation.