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Rehabilitation Research and Training Center (RRTC) on Research and Capacity Building for Minority Entities

A National Investigation of Factors that Contribute to Minority Disability and Health Research Leaders' Career Development and Success: Key Findings

Presenters: Edward O. Manyibe, Corey L. Moore, Dytisha Davis, Ningning Wang, &
Atashia Muhammad

LU-RRTC State-of-the-Science Conference

September 28-29, 2017

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Presentation Objectives

- + Present results garnered through semi-structured telephonic interviews with minority disability and health research leaders on their experiences and perspectives about career development challenges and facilitators.
- + Translate key findings from this study into recommendations that can be used by the field to build minority early career investigators', faculty members', and student's research leadership skills and careers.



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BACKGROUND

+ Need:

- Public health statistics show that (a) minorities possess disproportionately higher disability prevalence rates (Erickson et al., 2012), (b) health disparities continue to exist among these target groups (Goode et al., 2014), and (c) they experience differential rehabilitation experiences (Balcazar et al., 2012; Moore et al., 2015), and their health, and rehabilitation experiences can be improved through clinical and environmental modifications and interventions.
- There is also a lack of diversity in rehabilitation (Moore, 2012) and health (Ginther et al., 2011; 2012) R&D across the federal research agency landscape, and existing national disability public policy mandates call for the continued diversification of the scientific workforce.



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BACKGROUND (*Cont'd*)

+ Need:

- Minority investigators bring unique cultural perspectives and experiences that enhance the potential for understanding factors that underlie racial/ethnic variations in rehabilitation experiences (Lewis & Sciencescript, 2014; Manyibe et al., 2015).
- Data document that minority investigators are more likely than their White peers to focus on disability, rehabilitation, and health interplay issues that have a disproportionate impact on minorities and their communities (Chow, Foster, Gonzalez, & McIver, 2012; Shimasaki, 2013).



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Research Questions

- What factors contribute to minority disability and health research leaders' career development and success?
- What challenges do minority disability and health research leaders encounter in their career development?



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Method

+ Research Design:

- This was a qualitative research study.
- The research used in-depth, semi-structured telephone interviews to document minority research leaders' perspectives on factors that may contribute to early career minority investigators' career development and success.



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METHOD (continued)

+ Procedure-Instrument Development

- LU-RRTC investigators worked with AP members to develop interview protocol with eight (8) broad questions designed to garner information about informants' experiences and perspectives on career development challenges and facilitators.
- Protocol Pilot Testing- Three (3) research leaders (20% of main study sample) participated in pilot test, their feedback was used to refine protocol.
- Researchers who conducted the interviews received training on conducting telephone interviews.



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METHOD (continued)

+ Sample Recruitment

- Nominator Recruitment Pool-350 individuals representing NIDILRR (RRTC, RERC, DRRP, FIP grantees), and NIH's National Institute of Minority Health and Health Disparities (NIMHD) PIs, RSA-Long Term training grant Project Directors, and HBCU, HSI, AITCU, and TWI disability/health faculty scholars.
- Inclusion criteria
 - Must have established record of research, publication, and grantsmanship.
 - Must be currently or past employed at a research or engineering center, university/college, institute, or for profit or non-profit entity.



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METHOD (continued)

+ Sampling (Cont'd)

- Eighty-three (83) unique nominations were received. Nominees ranked ordered based on *Thomson Reuters Web of Science and Journal Citation Reports* H-index scores for each racial/ethnic cohort.
- Based on U.S. Census Bureau (2012) national demography of race/ethnicity, 10 AA (33%), 14 Latinos (47%), 2 Native American (7%), and 4 Asian (13%) were selected from ranked nominees to comprise the study population.



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METHOD (continued)

+ Sampling (Cont'd).

- Population was randomly disproportionately stratified, with proportion equal to p * additional weight (w_i).

- $$n_i = N_i * p * w_i$$

- The sample size ($n = 15$) was calculated to include 6 African American (40%), 5 Latino (34%), 2 Native American (13%), and 2 Asian (13%) participants.



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METHOD (continued)

+ Data Collection:

- Trained researchers conducted semi-structured telephonic interviews;
- Fourteen (14) interviews were audio taped interviews and notes were taken for one interviewer
- The audio tapes were transcribed by a professional transcription firm.



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KEY INFORMANT CHARACTERISTICS

Profile of Participants

Variables	Label	n	%
Gender	Female	6	60.0
	Male	9	40.0
Age	40-49	11	73.34
	50-59	2	13.33
	60+	22	13.33
Race/Ethnicity	African American/Black	6	40.0
	Latino	5	33.4
	Native American	2	13.3
	Asian	2	13.3



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KEY INFORMANT CHARACTERISTICS

(continued)

Profile of Participants

Variables	Label	n	%
Disability Status	Yes	2	13.33
	No	13	86.67
Title	Research Scientist-	1	6.67
	Professional	8	53.33
	Teaching Faculty Research and Teaching	6	40.00
Degree Earned	Ph.D/Ed.D	15	100.0
Degree Earned	Medical Doctor (M.D) and Ph.D.	2	13.33

KEY INFORMANT CHARACTERISTICS

(continued)

Profile of Participants (continued)

Variables	Label	n	%
Employing Institution Type	TWIs-two (2) Ivy League institutions	11	73.33
	HBCU	1	6.67
	HSI	1	6.67
Carnegie Classification of Institutions			
Baccalaureate University	Level 1: Art and Science	2	13.33
Master's Degree Universities/Colleges	Level 1: Larger programs awarding at least 200 master's degrees	1	6.67
Doctorate-granting Universities	Level 1: Very high research activity	9	60.00
	Level 2: High research activity	2	13.33
	Level 3: Doctoral research university	1	6.67



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KEY INFORMANT CHARACTERISTICS

(continued)

Profile of Participants

Variables	Label	n	%
Area of Scholarship	Occupational Therapy/Disability Studies/Rehabilitation Counseling/Psychology/Social Work	9	60.0
	Medicine	1	6.67
	Public/Community Health	4	26.66
	Nursing	1	6.67



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METHOD (continued)

+ Data Analysis

- Verbatim transcripts of the audiotapes and interviewer notes were analyzed using Nvivo (v. 10.0).
- Microsoft Word text file was entered into Nvivo for coding, intensive data organization, and content analysis.
- The analysis process included open coding, category development, and constant comparison of the data. Nvivo's search tool was also used to conduct search queries.
- By using Nvivo's output function, all of the coded data were printed out by code type, reviewed for accuracy, and examined for links to other codes.



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RESULTS (continued)

What factors contribute to Minority disability and rehabilitation research leaders' career development and success?

- support networks
- self-drive
- self-consciousness
- building multidisciplinary research collaborations
- sense of attachment
- self-advocacy
- negotiation skills
- statistical and/or methodological mentorship
- work ethic
- self-efficacy
- resiliency
- enhancing research skills and knowledge
- capable mentorship

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RESULTS (Cont'd)

What challenges do minority disability and health leaders encounter in their career development?

- insufficient institutional research support funds
- racial and ethnic discrimination
- unhealthy competition
- inadequate supply of research leaders (role models)
- communication barriers
- cultural barriers
- family life issues
- Lack of collaboration opportunities
- bureaucracies
- alienation
- teaching loads
- limited research mentorship opportunities
- lack of equal opportunity in grant procurement

Limitations of Results

- + This is a qualitative study; hence causality cannot be established.
- + This study used a convenience sample. Thus, the sample may not be representative and findings cannot be generalized to the population of minority disability and health research leaders.
- + In the future, researchers examining related questions may wish to randomly select key informants.

Translations/Recommendations for Developing Future Research Leaders

Strategies	Translations/Recommendations
<ul style="list-style-type: none"> ▪ Support Networks ▪ Self-Drive ▪ Research Collaborations ▪ Self-Advocacy ▪ Statistical Mentorship ▪ Work Ethic ▪ Self-Efficacy ▪ Enhance Scientific Skills ▪ Capable Mentorship 	<ul style="list-style-type: none"> ▪ Develop programs that foster family & peer relationships. ▪ Develop programs that build researchers' perseverance and resilience repertoire. ▪ Provide opportunities that facilitate formal and informal mentorship. ▪ Provide negotiation support resources. ▪ Develop relevant linkages-incentives. ▪ Goal driven & strategic prioritization. ▪ Count small successes. ▪ Post-Docs, courses, workshops, doing. ▪ Seek generous available leaders.

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Knowledge Translation Resources & Deliverables

Manyibe, E. O., Moore, C. L., Wang, N., Davis, D., Aref, F., Washington, A., Johnson, J. E., Eugene-Cross, K., & Muhammad, A. (2017). Career development factors for minority disability and health researcher leaders: A key informant study. *Rehabilitation Research, Policy, and Education, 31(3), 208-229.*

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Contact Information

Rehabilitation Research and Training Center (RRTC)

On Research and Capacity Building for Minority Entities

6700 N. Martin Luther King Ave.

Oklahoma City, Ok. 73111

Phone: (855) 497-5598

Fax: (405)962-1638

RRTC email: capacitybuildingrrtc@langston.edu

RRTC Website: www.langston.edu/capacitybuilding-rrtc