

Disparities in subjective well-being, participation, and health after spinal cord injury.

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- Data were collected at:
 - Shepherd Center, Atlanta, GA;
 - Craig Hospital, Englewood, CO; and
 - Rancho Los Amigo National Rehabilitation Center, Downey, CA.

Background

- Permanent sensory and motor loss that adversely affects function and may significantly affect quality of life.
- Annual incidence in the United States is about 40 cases per million.
- Majority of individuals with SCI are Caucasian (63%).
- 47% are minorities, yet consistently under-sampled.

Background

- Existence of significant health disparities with variations in both access and outcome as a function of race-ethnicity has been well documented.
- Studies of racial-ethnic minorities with SCI are rare.
- Greater focus on aging and gender issues.
- Existing studies have primarily focused on African-Americans with SCI.

Background

- PI did a comprehensive study in 2001, comparing four groups with SCI: Caucasians, African-Americans, Hispanics, and American Indians.
- Found significant differences between groups for SWB, participation, and self-rated health.
- Found significant gender differences in depression and self-rated health, limited gender differences in SWB, and no differences in participation.

Purpose

- To identify disparities in subjective well-being, participation, and general health over a 6-year period as a function of race-ethnicity and gender among participants with spinal cord injury (SCI).

Hypotheses

- 1. Significant racial-ethnic differences will again be observed with Caucasians reporting the best overall outcomes in terms of SWB, participation, and health behaviors.
- 2. Gender differences will be observed for depressive symptomatology, with women reporting a greater number of symptoms.
- 3. Longitudinal comparisons will reveal increasing disparities in all three areas of outcomes over time as a function of race-ethnicity.

Study Procedures

- Data were collected by telephone interview.
- Three primary outcomes:
 - Subjective well-being (LSQ-R and OAHMQ);
 - Participation (CHART); and
 - Health ratings (items from the BRFSS).
- Participants were compared on the three outcomes using MANOVA:
 - Main effect: time
 - Interaction effects: time & gender, time & race

Participants

- Participants were enrolled and interviewed at 3 MSCIS hospitals across the US.
- All participants had participated in the precursor to this study that took place 6 years ago.
- Used a stratified sampling procedure to oversample groups generally underrepresented in SCI research.
- Strategy was successful in producing a nearly equal distribution of Caucasians, African-Americans, Hispanics, and American-Indians.

Participant Characteristics

- 28.4% Caucasian
- 28.4% Hispanic
- 24.4% African-American
- 22.4% American Indians
- 43% women (18% in total SCI population)
- Relatively equal numbers of minority women
- 53% with cervical level injuries
- 35.7% with neuro complete injuries
- Avg age = 48.5 years
- Avg time since SCI = 20.0 years
- Avg of 12.7 years of education

Participant Group Differences

- American Indian participants were younger.
- Act of violence most likely cause of injury for non-Caucasians.
- Hispanic participants reported the fewest years of education.
- Only one gender difference: women had lived more years post-injury than men.

Results

- Significant main effect for race-ethnicity.
- Significant within-subjects effect for time.

	F	DF	Sig
Between Subjects Effects			
Gender	0.51	16,133	.941
Race	1.58	48,396	.010
Race by Gender	1.09	48,396	.331
Within Subjects Effects			
Time	1.92	16,133	.024
Time by Race	0.74	48,396	.899
Time by Gender	0.60	16,133	.883
Time by Gender by Race	0.78	48,396	.855

Results

- Subjective Well-Being
 - Engagement $F = 5.33$
 - Negative Affect $F = 3.33$
 - Finances $F = 2.98$
 - Career Dev $F = 10.49$
 - Living Circ $F = 3.29$
 - Interper Rel $F = 5.58$
- Depressive Symptoms
 - $F = 2.61$
- Adjustment
 - $F = 6.78$
- Participation
 - Hrs out of bed $F = 6.23$

Results – Post hoc comparisons

- Caucasians reported best SWB outcomes.
- African Americans reported better outcomes than Hispanics and American Indians.
- Adjustment scores significantly decreased over time.
- Career opportunities increased marginally over time.
- Caucasians reported significantly more hours out of bed than African Americans and Hispanics.
- Hours out of bed decreased from Time 1 to Time 2, as did nights away from home.

Discussion

- Hypothesis 1 (significant racial-ethnic differences) was partially supported.
 - Differences only in SWB and hours out of bed
 - No differences in health
- Caucasians and African-Americans were not significantly different from each other, but scored higher than Hispanics and American Indians.
- Findings consistent with earlier studies.

Discussion

- Disparities in SWB may be more closely related to SES than perceived health.
- May also be health care system variables
 - language barriers
 - geographic access to care
- Patient level variables such as cultural differences.
- All may contribute to racial-ethnic differences.

Discussion

- Hypothesis 2 (gender differences especially in depressive symptomatology) was not supported.
- Somewhat surprising given earlier studies.
- Encouraging in that it suggests a lack of disparities between men and women.

Discussion

- Hypothesis 3 (disparities will increase over time) also was not supported.
- There were significant time effects, but these did not show a tendency to increase selectively.
- Suggests that disparities are likely to appear early after SCI onset, but not get worse over time.

Implications

- Results are consistent with existing literature.
- Access to resources may be the critical factor in reducing or eliminating disparities.
- Need for more psychological and vocational services to be targeted towards minority populations.
- Critical for health care providers to be aware of disparities that exist after a SCI.

Future Research

- Evaluation of specific environmental and cultural factors.
- Examine factors contributing to disparities.
- Explore presence of disparities in more specific health areas, such as secondary conditions after SCI.
- Ultimate goal is to develop interventions and programs to reduce disparities altogether.

For further information

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THANK YOU!