Perceptions of Attitudes When in a Restaurant Setting Among Individuals with Spinal Cord Injury and Quality of Life

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PURPOSE

There is research documenting negative attitudes toward individuals with disabilities, but few studies from the perspective of the wheelchair user. Research on perceived attitudes and discrimination has been conducted in the workplace and store environment, but not the restaurant setting.

Purpose:

- Develop and initiate validation of a novel instrument for measuring the perception of attitudes of restaurant personnel toward individuals with spinal cord injury (SCI) who are wheelchair users;
- Investigate the perception of attitudes of restaurant personnel toward individuals with a SCI who are wheelchair users;
- Investigate the relationship between perception of attitudes and age, gender, race, level of injury, time since onset, and quality of life (QOL).

METHODS

- Cross-sectional, mixed methods research design

- Participants:
  - 86 participants who had a SCI
  - ≥ 18 years old
  - At least 1 year post-SCI
  - Use a wheelchair when in a restaurant
  - Recruited from the state SCI association or websites and newsletters related to SCI

- Data collection tools:
  - On-line survey
    - Demographic questions

    - Perception of attitudes questionnaire (Cronbach's α= .87)
      - 18 closed-ended, responses coded using a 5-point Likert scale (1-5)
        - Example questions:
          - When I go out to a restaurant to eat, restaurant employees treat me as well as they treat others who are not wheelchair users.
          - When you enter a restaurant and you are with friends, family, coworkers etc., how often are you the first person in your party to be greeted by the restaurant hostess?
      - 5 open-ended questions

    - Subjective QOL - The Life Satisfaction Questionnaire (LiSat-9)

DATA ANALYSIS

- Quantitative data analysis
  - Univariate analysis
  - Correlation analysis
  - Multiple linear regression analysis
- Qualitative data analysis
  - Coding and classifying data using content analysis

RESULTS

1. Demographics of Participants

Characteristics	No.	Percent
Gender		
Male	41	47.7
Female	45	52.3
Race/ethnicity		
White or Caucasian	75	87.2
Black or African American	1	1.2
Asian, Native Hawaiian or Other Pacific Islander	0	0
American Indian or Native Indian	4	4.7
Hispanic or Latino	6	0
Marital status		
Single	34	39.5
Married	24	27.9
Separated	2	2.3
Divorced	18	20.9
Widowed	2	2.3
Living with significant other or partner	6	7
Level of SCI		
C1-C4	18	20.9
C5-C8	31	36
T1-S5	37	43
Tetraplegia or paraplegia		
Tetraplegia/quadriplegia	48	55.8
Paraplegia	38	44.2
Complete or incomplete SCI		
Complete	45	52.3
Incomplete	36	41.9
Unknown	5	5.8
Type of wheeled mobility		
Manual wheelchair	40	46.5
Power wheelchair	45	52.3
Power assist wheelchair	0	0
Scooter	1	1.2

Attitudes Questionnaire

- Mean item response scale score 2.78 (0.55); range 1.72-4.33 (n = 86).

2. Means and Standard Deviations of Each Question on Attitudes Survey

Tests and Measures	N	Minimum	Maximum	Mean (*SD*)
Q1 Treat as well	86	1.00	5.00	2.23 (.85)
Q2 Fair seating	86	1.00	4.00	2.34 (.90)
Q3 Timely seating	86	1.00	5.00	2.33 (1.1)
Q4 Others seated before	85	1.00	5.00	2.81 (1.2)
Q5 Restaurant choice	86	1.00	5.00	3.00 (1.2)
Q6 Bill	84	1.00	5.00	2.87 (1.2)
Q7 Seating arrangements	86	1.00	5.00	4.01 (1.1)
Q8 Restroom	86	1.00	5.00	3.74 (1.0)
Q9 First person greeted	85	2.00	5.00	3.40 (.76)
Q10 Eye contact	86	1.00	5.00	3.00 (.88)
Q11 Feel ignored	86	1.00	5.00	2.20 (.87)
Q12 Ask where seated	86	1.00	5.00	3.23 (1.1)
Q13 Seated near kitchen	86	1.00	4.00	2.10 (.67)
Q14 Seated near restroom	86	1.00	5.00	1.97 (.56)
Q15 Seated near entrance	86	1.00	5.00	2.60 (.84)
Q16 Seated nice view	84	2.00	5.00	3.33 (.78)
Q17 Ask for order	86	1.00	5.00	2.29 (1.0)
Q18 Welcome	86	1.00	5.00	2.50 (.89)

LiSat-9

- Mean item response score 4.19 (1.11); range 1.33-6.0 (n = 77) between "rather satisfying" and "satisfying"

RESULTS

Correlation and Multiple Regression Analysis

- No relationship between age, gender, race, level of injury, time since onset, and mean item response score of the attitudes measure.
- LiSat-9 associated the mean item response score of the attitudes measure (r = -.26, p < .05).
- Level of injury, time since onset, and mean item response of attitudes measure resulted in a multiple R^2 = .23; F = 3.38, P = .01, contributing to 23% of the variance in QOL.

3. Multiple Regression Analysis Li-Sat9 with Attitudes Score (n = 77)

Step	Variable	Unstandardized Coefficients		Standardized Coefficients				Step R^2 Change	
		B	SE	β	t	p	R^2		p
1	(Constant)	3.78	1.09		3.48	.001			
	Age	.01	.01	.07	.62	.54			
	Gender	.14	.26	.06	.53	.60			
	Race[a]	-.07	.42	-.02	-.16	.87	.01	.01	.89
2	(Constant)	4.64	1.23		3.79	.000			
	Age	-.02	.01	-.17	-1.35	.18			
	Gender	.12	.24	.06	.52	.60			
	Race[a]	-.02	.39	-.00	-.04	.97			
	Level of injury[b]	.55	.24	.25	2.32	.02			
	Years since injury	.03	.01	.38	3.06	.00			
	Attitudes[d]	-.47	.22	-.23	-2.11	.04	.23	.22	.01

[a]Race, White/non-White; [b]Level of injury, tetraplegia/paraplegia; [c]Attitudes survey mean-item response score

Qualitative Analysis

- 341 total comments

4. Themes for each open-ended question

Open-ended Questions	Themes
What is the most important factor in your decision to go to a particular restaurant? (n = 76)	Food Accessibility Quality of service Cost Ambience Social/leisure Proximity to home
What are the barriers or factors that interfere with you having a comfortable and enjoyable dining experience? (n = 75)	Physical accessibility Quality of service Ambience Physical needs Cost Quality of food
How do you approach the hostess/host when you ask for a table? (n = 72)	Same as everyone else Approach directly Wait to be approached Let others ask for seating
What changes could restaurant employees/management make to improve the dining experience for wheelchair users? (n = 69)	Physical accessibility Employee/management Service dogs Same as everyone else
Please share any other comments on what restaurant employees should know about wheelchair users who they service. (n = 49)	Accessibility Employee

CONCLUSIONS

- Individuals with SCI who are wheelchair users perceive physical and attitudinal barriers when in a restaurant.
- Individuals with higher mean-item response scores on the attitudes measure reported lower scores on the LiSat-9.
- Improvements in physical design and research and training to reduce attitudinal barriers in restaurants are needed.