

(MP03-19) REGIONAL DIFFERENCES AND THE IMPACT ON STONE-RELATED QUALITY OF LIFE: RESULTS FROM THE NORTH AMERICAN STONE QUALITY OF LIFE CONSORTIUM

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Methods

- The Wisconsin Stone Quality of Life (WISQOL) is a validated questionnaire used to quantitate Stone-Related Quality of Life (SRQOL) in patients with kidney stones.
- The WISQOL uses a Likert-Type Scale (range 0-5) to assess the affect of kidney stone on 4 SRQOL domains (**Table 1**).
- 2308 patients from 14 institutions were stratified into 4 populations according to the U.S. Census Regions: **West, Midwest, South, and Northeast**.
- Demographic and clinical data, as well as WISQOL domain and total WISQOL scores were analyzed.

Table 1: Maximum Score of Each Domain of The WISQOL.

Domains (n=number of questions)	Maximum Score
Social Function (n=8)	40
Emotional Function (n=7)	35
Stone-related Impact (n=8)	40
Vitality (n=3)	15
Total WISQOL Score (n=28)	140*

*Two questions with a maximum score of 5 points each were not part of any domain but are part of the total WISQOL score.

Results

Table 2: Domain and Total WISQOL score by Geographical Population.

Variables	West (n=607)	Midwest (n=433)	South (n=612)	Northeast (n=656)	p*	Total (n=2308)
Social Function	34 (21-40)	38 (31-40)	37 (28-40)	39 (32-40)	p<0.01	37 (28-40)
Emotional Function	23 (14-31)	29 (21-34)	28 (18-34)	30 (23-34)	p<0.01	28 (19-34)
Stone-related Impact	28 (18-36)	32 (25-38)	31 (21-37)	34 (25-39)	p<0.01	31 (22-38)
Vitality	10 (6-14)	12 (9-15)	11 (7-14)	12 (8-15)	p<0.01	11 (7-15)
Total WISQOL score	103 (69-125)	120 (93-133)	113 (81-132)	122.5 (99-134)	p<0.01	115 (86-131)

*p value obtained using Kruskal-Wallis ANOVA.

*Pairwise Analysis was performed using Dunn's Test to identify significant differences between groups.

- Populations did not differ by age, gender, or number of comorbidities.
- The West exhibited:
 - Lower Body Mass Index.
 - Significantly lower SRQOL within each domain.
 - Significantly lower overall SRQOL compared to all other populations.
 - More patients with stones at time of the survey.
- Controlling for clinical and demographic covariates through regression analysis:
 - Residing in the West was a significant independent predictor of a lower SRQOL (p<0.001).
 - Residing in the Northeast was a significant independent predictor for a higher SRQOL (p=0.017).

Conclusions

In conclusion, using the Wisconsin Quality of Life questionnaire, we found that geographical region was an independent variable with regard to the impact of urolithiasis on quality of life. People living in the West were most affected, whereas individuals residing in the Northeast were least affected.