



# Health-Related Quality of Life in Drug Reaction with Eosinophilia and Systemic Symptoms (DRESS) Survivors



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## DRESS syndrome survivors reported low health-related quality of life across many domains.

### INTRODUCTION

- Drug reaction with eosinophilia and systemic symptoms (DRESS) can result in significant morbidity for patients.
- Health-related quality of life (QOL) in these patients is not well characterized.

### OBJECTIVE

- To characterize health concepts for DRESS survivors utilizing the RAND 36-Item Health Survey 1.0 (SF-36), developed at RAND as part of the Medical Outcomes Study.
- To compare DRESS survivors' responses to those of RAND's published population norms.

### METHODS

- DRESS cases from Mass General Brigham were identified utilizing informatics methods and manually confirmed by physician expert review.
- DRESS survivors completed an electronic survey that included the RAND 36-Item Health Survey 1.0 (SF-36, **Table 1**).
- Greater SF-36 scores indicate better health-related QOL, ranging 0-100.
- Mean SF-36 scores for DRESS participants were compared to a control population, the general historic population from RAND's 1990 sample, using t tests.

**Table 1.** SF-36

Summary Measure	Health Domain Scale	# Questions
Physical health	Physical functioning	10
	Pain	2
	General health	5
	Role limitations due to physical functioning	4
Mental health	Social functioning	2
	Role limitations due to emotional functioning	3
	Energy/Fatigue	4
	Emotional wellbeing	5
Health change	Health change	1

- Forty DRESS participants responded to the questionnaire (**Table 2**).
- Participants had acute DRESS syndrome a mean 5.6 years (SD 3.4 years) prior to completing the electronic questionnaire.
- DRESS survivors scored significantly lower in physical functioning, pain, general health, social functioning, and energy/fatigue (**Figure 1, Table 3**).

**Table 2.** DRESS Participants (n=40)

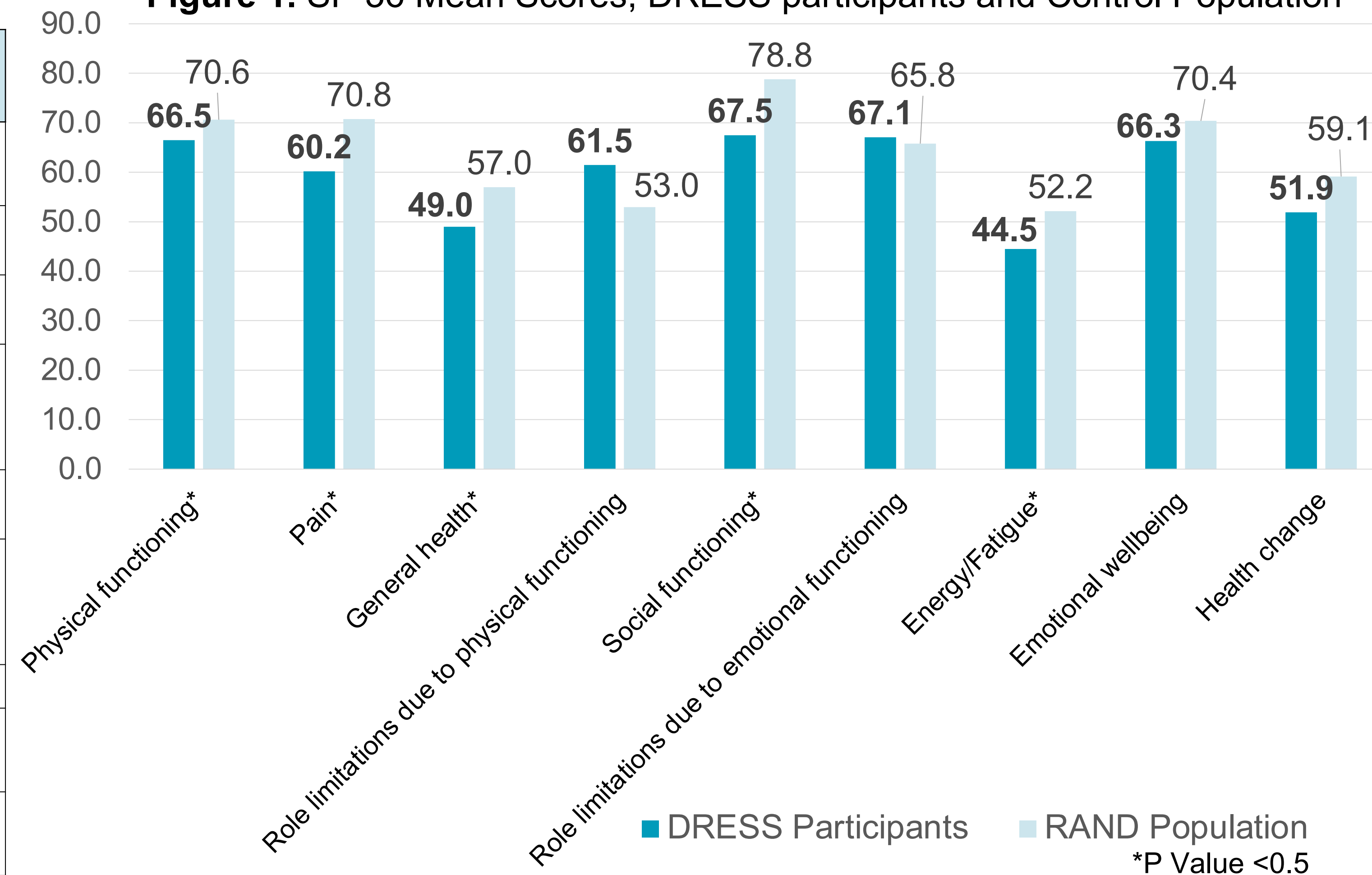
Demographics	n (%) (unless otherwise specified)
Age (years), Mean ± SD	54.4 ± 17.4
Female	25 (63)
Race	
White	35 (88)
Black	2 (5)
Asian	2 (5)

### RESULTS

**Table 3.** SF-36 Mean Scores, DRESS participants and Control Population

Health Domain	DRESS	Control	P Value
Physical functioning	66.5	70.6	0.002
Pain	60.2	70.8	0.0009
General health	49.0	57.0	0.02
Role limitations due to physical functioning	61.5	53.0	0.19
Social functioning	67.5	78.8	0.006
Role limitations due to emotional functioning	67.1	65.8	0.84
Energy/Fatigue	44.5	52.2	0.03
Emotional wellbeing	66.3	70.4	0.25
Health change	51.9	59.1	0.05

**Figure 1.** SF-36 Mean Scores, DRESS participants and Control Population



### LIMITATIONS

- Comparative RAND population norms were from 1990; data may be confounded by other modern life stressors, such as the COVID-19 pandemic.
- Participants may not be representative due to nonresponder bias.

### CONCLUSIONS

- DRESS survivors a mean of 5.6 years following acute DRESS reported lower QOL than population norms across many health-related domains, including physical functioning, pain, general health, social functioning, and energy/fatigue.
- Future work must assess active interventions following DRESS, optimize clinical and supportive care, and improve QOL in this population.