MANUAL FOR
Hot Flash Related Daily Interference Scale (HFRDIS)
and Hot Flash Interference Scale (HFI)

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	HFRDIS	HFI
Conceptualization		
construct	hot flash interference	Same as HFRDIS
concept	Self perceived hot flash interference: a woman's perceptions of the degree to which hot flashes interfere with 9 aspects of daily life and overall quality of life	Self perceived hot flash interference: a woman's perceptions of the degree to which hot flashes interfere with 3 aspects of daily life
Operationalization		
referential	HFRDIS scale	HFI scale
referent	HFRDIS overall mean score	HFI overall mean score
# items	10	3
Instructions	Please circle one number to the right of each phrase to describe how much **DURING THE PAST TWO WEEKS** hot flashes **INTERFERED** with each aspect of your life.	Same as HFRDIS
Individual items	1. Work (work outside the home and housework) 2. Social activities (time spent with family, friends, etc) 3. Leisure activities (time spent relaxing, doing hobbies, etc.) 4. Sleep 5. Mood 6. Concentration 7. Relations with others 8. Sexuality 9. Enjoyment of life 10. Overall quality of life	1. Sleep 2. Mood 3. Concentration
Response options	Each item is answered on a numeric rating scale with the numbers 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. There is text to anchor 0 (did not interfere) and 10 (completely interfere).	Same as HFRDIS
Administration	Can be administered via paper or electronic questionnaire Participant / patient answers the items based on own perception. There is no proxy rating.	Same as HFRDIS
Scoring	Sum all items and divide by the number of items. There is no weighting. There is no	Same as HFRDIS

	reverse scoring.	
Scoring interpretation	Higher scores indicate greater perceived hot flash interference (worse outcome).	Same as HFRDIS
Cutpoints	Mild interference = mean scores 0 to 3.9 Moderate interference = mean scores 4 to 6.9 Severe interference = mean scores 7 to 10	Same as HFRDIS
Minimally important differences (MID)	Mean total score MID is 1.66	Mean total score MID is 2.34
Missingness	Handling missing data should be done via standard methods selected by the research team. Methods to consider are group mean imputation, individual mean imputation, mean of answered items, or data considered completely missing	Same as HFRDIS
Psychometrics		
# factors	This is a uni-dimensional (1 factor) scale.	This is a uni-dimensional (1 factor) scale.
Cronbach's alpha internal consistency reliability	Generally shown to be > .90	Generally shown to be > .82
Construct validity	Correlations with hot flash frequency (total, daytime, nighttime) range from 0.132 to 0.480. Correlations with hot flash severity (total, daytime, nighttime) range from 0.333 to 0.469. Correlations with hot flash bother (total, daytime, nighttime) range from 0.360 to 0.485.	Correlations with hot flash frequency (total, daytime, nighttime) range from 0.118 to 0.504. Correlations with hot flash severity (total, daytime, nighttime) range from 0.309 to 0.471. Correlations with hot flash bother (total, daytime, nighttime) range from 0.342 to 0.483.
Test-retest reliability	Has not been ascertained	Has not been ascertained
Other	The HFRDIS was included as a psychometrically sound outcome measure for use in treatment trials within the National Cancer Institute's Physician Data Query Cancer Information Summaries for Supportive and Palliative Care.	
Reference details		
Citation of original work	Carpenter JS. The hot flash related daily interference scale: a tool for assessing the impact of hot flashes on quality of life following breast cancer. J Pain Symptom Manage. 2001:22:979-989.	Carpenter JS, Bakoyannis G, Otte JL, Chen CX, Rand KL, Woods N, Newton K, Joffe H, Manson JE, Freeman EW, Guthrie KA. Validity, cut-points, and minimally important differences for two hot flash-related daily interference scales. Menopause. 2017:24:877-885.
Citation metrics	Google scholar metrics – 192 citations as of 2/23/19	Google scholar metrics – 3 citations as of 2/23/19

Translations available		
Language and Country	1. English for Great Britain 2. English for USA 3. Afrikaans for Africa 4. Danish for Denmark 5. Dutch for Netherlands 6. Flemish for Belgium 7. French for Belgium 8. French for Canada 9. French for France 10. Hungarian for Hungary 11. Italian for Italy 12. Japanese for Japan 13. Mandarin for China 14. Mandarin for Taiwan 15. Norwegian for Norway 16. Polish for Poland 17. Portugese for Brazil 18. Spanish for USA 19. Spanish for Peru 20. Swedish for Sweden	Same as HFRDIS
License fees		
Use in a single study	There is no license fee for university based investigators (students, faculty) conducting unfunded research or research funded by foundations or federal government sources. There is a $2500 license fee for corporate sponsored investigators. The fee is a per study fee.	Same as HFRDIS.

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