**Appendix E, Table 5: Differential Item Functioning of Fatigue Domain, HF cross-sectional sample**

| Items | Chi² Values Uniform Model 1 v 2 | Chi² Values Non-uniform Model 2 v 3 | McFadden Pseudo R² Change Value Uniform Model 1 v 2 | McFadden Pseudo R² Change Value Non-uniform Model 2 v 3 | DIF Interpret. |
|---|---|---|---|---|---|
| **Sex (male vs. female)** | | | | | |
| In the past 7 days, to what degree did you have to push yourself to get things done because of your fatigue? | 0.009 | 0.313 | 0.004 | 0.001 | No |
| In the past 7 days, how often did your fatigue make you feel slowed down in your thinking? | 0.322 | 0.495 | 0.001 | 0.000 | No |
| In the past 7 days, how often did you have to limit your social activities because of your fatigue? | 0.724 | 0.902 | 0.000 | 0.000 | No |
| In the past 7 days, how often were you too tired to do your household chores? | 0.516 | 0.914 | 0.000 | 0.000 | No |
| In the past 7 days, how often did you run out of energy? | 0.922 | 0.940 | 0.000 | 0.000 | No |
| In the past 7 days, how often did you feel tired? | 0.001 | 0.571 | 0.007 | 0.000 | No |
| During the past 7 days: I feel weak all over | 0.803 | 0.104 | 0.000 | 0.002 | No |
| During the past 7 days: I feel tired | 0.438 | 0.278 | 0.000 | 0.001 | No |
| During the past 7 days: I have energy | 0.000 | 0.385 | 0.011 | 0.001 | No |
| During the past 7 days: I am able to do my usual activities | 0.025 | 0.284 | 0.003 | 0.001 | No |
| In the past 7 days, how often did you need to take breaks to finish daily tasks? | 0.454 | 0.585 | 0.000 | 0.000 | No |

| Items | Chi² Values | | McFadden Pseudo R² Change Value | | DIF Interpret. |
| | Uniform Model 1 v 2 | Non-uniform Model 2 v 3 | Uniform Model 1 v 2 | Non-uniform Model 2 v 3 | |
|---|---|---|---|---|---|
| **Age (≤55 vs. >55)** | | | | | |
| In the past 7 days, to what degree did you have to push yourself to get things done because of your fatigue? | 0.087 | 0.197 | 0.002 | 0.001 | No |
| In the past 7 days, how often did your fatigue make you feel slowed down in your thinking? | 0.677 | 0.768 | 0.000 | 0.000 | No |
| In the past 7 days, how often did you have to limit your social activities because of your fatigue? | 0.658 | 0.107 | 0.000 | 0.002 | No |
| In the past 7 days, how often were you too tired to do your household chores? | 0.307 | 0.252 | 0.001 | 0.001 | No |
| In the past 7 days, how often did you run out of energy? | 0.540 | 0.786 | 0.000 | 0.000 | No |
| In the past 7 days, how often did you feel tired? | 0.607 | 0.311 | 0.000 | 0.001 | No |
| During the past 7 days: I feel weak all over | 0.975 | 0.068 | 0.000 | 0.002 | No |
| During the past 7 days: I feel tired | 0.314 | 0.338 | 0.001 | 0.001 | No |
| During the past 7 days: I have energy | 0.311 | 0.002 | 0.001 | 0.006 | No |
| During the past 7 days: I am able to do my usual activities | 0.180 | 0.000 | 0.001 | 0.008 | No |
| In the past 7 days, how often did you need to take breaks to finish daily tasks? | 0.897 | 0.645 | 0.000 | 0.000 | No |

| | Chi² Values | | McFadden Pseudo R² Change Value | | |
|---|---|---|---|---|---|
| | **Uniform** | **Non-uniform** | **Uniform** | **Non-uniform** | **DIF** |
| **Items** | **Model 1 v 2** | **Model 2 v 3** | **Model 1 v 2** | **Model 2 v 3** | **Interpret.** |
| **Education (completed college or not)** | | | | | |
| In the past 7 days, to what degree did you have to push yourself to get things done because of your fatigue? | 0.049 | 0.172 | 0.002 | 0.001 | No |
| In the past 7 days, how often did your fatigue make you feel slowed down in your thinking? | 0.007 | 0.511 | 0.004 | 0.000 | No |
| In the past 7 days, how often did you have to limit your social activities because of your fatigue? | 0.253 | 0.139 | 0.001 | 0.001 | No |
| In the past 7 days, how often were you too tired to do your household chores? | 0.291 | 0.812 | 0.001 | 0.000 | No |
| In the past 7 days, how often did you run out of energy? | 0.007 | 0.212 | 0.005 | 0.001 | No |
| In the past 7 days, how often did you feel tired? | 0.005 | 0.098 | 0.005 | 0.002 | No |
| During the past 7 days: I feel weak all over | 0.488 | 0.845 | 0.000 | 0.000 | No |
| During the past 7 days: I feel tired | 0.457 | 0.574 | 0.000 | 0.000 | No |
| During the past 7 days: I have energy | 0.020 | 0.000 | 0.003 | 0.010 | No |
| During the past 7 days: I am able to do my usual activities | 0.843 | 0.002 | 0.000 | 0.006 | No |
| In the past 7 days, how often did you need to take breaks to finish daily tasks? | 0.819 | 0.667 | 0.000 | 0.000 | No |

Abbreviation: DIF is Differential Item Functioning, Interpret. is Interpretation. Models: Model 1 = ability explanatory term only; Model 2 = ability + group explanatory terms; Model 3 = ability + group + ability-by-group interaction explanatory terms.