Instructions, variable names and codes for the data set PRAFAB.sav

Data set
The data set contains data of 534 patients with stress urine incontinence. The PRAFAB questionnaire consists of 5 items which each can be rated from 1 (no symptoms) to 4 (severe symptoms), resulting in a scale from 5 to 20.

Variable names
The PRAFAB score at baseline is labeled as TotalPRAFABT0 and the PRAFAB score at 12 weeks follow-up as TotalPRAFABT2.
The change score is labeled as changeT0_T2 and is calculated as PRAFABT0-PRAFABT2. A positive score indicates an improvement of the urine incontinenece symptoms.

The global rating scale (Variable name GRS9) has 9 categories running from 1 (completely recovered) to 9 (worse than ever).

The anchor is labeled as anchor_cutpoint_slightly_changed
When the cut-off point for the anchor is laid between no change and slightly changed the anchor_cutpoint_slightly_changed is 1 for GRS 1-4, and 0 for GRS = 5.

Guide for the analysis
The text in section 8.5.4.3 can be used as a guideline for the analysis.

To obtain the mean change in PRAFAB score for each category of the global rating scale use COMPARE MEANS/ MEANS and insert changeT0_T2 as the dependent list and GRS9 as the independent list.

Then compute the variable anchor_cutpoint_slightly_changed: this variable is 1 for GRS ≤ 4 (improved group), and 0 for GRS = 5 (unchanged group), and -1 for GRS ≥ 6.

For each of the improved group and unchanged the frequency distribution of the change scores can be determined, by selecting cases 'IF anchor_cutpoint_slightly_changed = 1' calculate the frequency distribution of the ChangeT0_T2. The same for cases 'IF anchor_cutpoint_slightly_changed = 0'. Use DESCRIPTIVE STATISTICS/FREQUENCIES

For determining an optimal ROC cut-off point use ROC curve and insert changeT0_T2 as 'test variable' and 'anchor_cutpoint_slightly_changed' as 'state variable'. The value of this variable is 1. Don't forget to tick 'coordinate points of the ROC curve' to obtain the numbers at each cut-off value. Note that SPSS program set the cutpoints at 0.5. This makes it challenging to compare the output of the frequency distributions with the calculated sensitivities and specificities in the ROC output. For that reason we constructed Table 8.4 which both contains the values of the change scores and the cutpoints of the ROC analysis. In Table 8.4 we also calculated specificity and 1-sensitivity. The minimal percentages of misclassification is obtained by the sum of [1 – sensitivity] + [1- specificity]. The cut-off point value with the lowest value is the MIC.

To make the graph of the anchor based MIC distribution in excel, we copy the frequency distribution of the changescoreT0_T2 of the improved group and the frequency distribution of of the unchanged group into an Excel database. We have copied both the values of the change

score and the values used as cutpoint (0.5) values for the ROC curves. We use the latter in the anchor-based MIC distribution.

The frequencies have to be recalculated into relative frequencies by dividing by the total number in the respective group. In addition the relative frequencies of the improved group get a negative sign to obtain the typical graph of anchor-based MIC distribution.

Now follow the Excel part. Instructions to make a graph in Excel of the anchor-based MIC distribution

Making the chart in excel (open excel database):

1. tab *insert*: choose *chart*
2. choose: *XY (scatter)*, with sub-type '*scatter with data points connected by smoothed lines* (with markers)'
3. press: *next*
4. go to the tab *series* and press *add*; fill in:
    a. name: improved
    b. X-value: ='Negative relative frequency'!$D$10:$D$25
    c. Y-value: ='cutpoint'!$A$10:$A$25
5. press *add* again, and fill in:
    a. name: not improved
    b. X-value: ='Relative frequency'!$G$10:$G$25
    c. Y-value: ='cutpoint'!$A$10:$A$25
6. press *next*, *next*, *finish*

The numbers in 4b,4c,5b and 5c depend on in which cells these data are copied.