

Statistical Analysis Plan

“Main and Interactive Effects of Diabetes Distress and Stress from Life Events on Overall Psychological Distress”

Note: Analytic code is uploaded in a separate SPSS syntax document.

All data were checked for completeness by examining frequency distributions for all variables used in analyses. Listwise deletion was used for missing data.

The reliability for multi-item scales (independent and dependent variables) was calculated using Cronbach's alpha.

Composites for multi-items scales were created. Means were calculated for the independent variables (frustration, burden, worries about complications) and the moderator (stress from live events); sums were calculated for the dependent variables (depressive, anxious symptoms).

Participant characteristics were examined by using frequency distributions and by calculating means and standard deviations.

Hypothesis 1 was examined by using frequency distributions for all types of diabetes distress (frustration, burden, worries about complications).

Hypothesis 2 was examined by calculating intercorrelations among variables.

Hypothesis 3 was examined by running a series of six regression models: two regressions for each type of diabetes distress in predicting depressive and anxious symptoms. Covariates to be included in regression models were initially selected a priori. Only potential covariates that had significant bivariate correlations with either of the outcomes were included in regression models. Prior to calculating interaction terms, the independent variables and moderator were centered at the mean. Interaction terms were calculated by the product of the centered versions of each independent variable and moderator. Variables were entered into regression models in the following stepwise fashion: covariates (step 1); centered versions of independent variables and moderator (step 2); the interaction term between the independent variable and moderator. Significant interactions were probed by calculating simple slopes at ± 1 standard deviation of the independent variable and moderator. The following website was used to calculate simple slopes: <http://www.quantpsy.org/interact/mlr2.htm>.