

Supporting Information
A Brief Xerostomia Inventory for Young Adults

S1 Figure. Exploratory Factor Analysis: Scree Plot

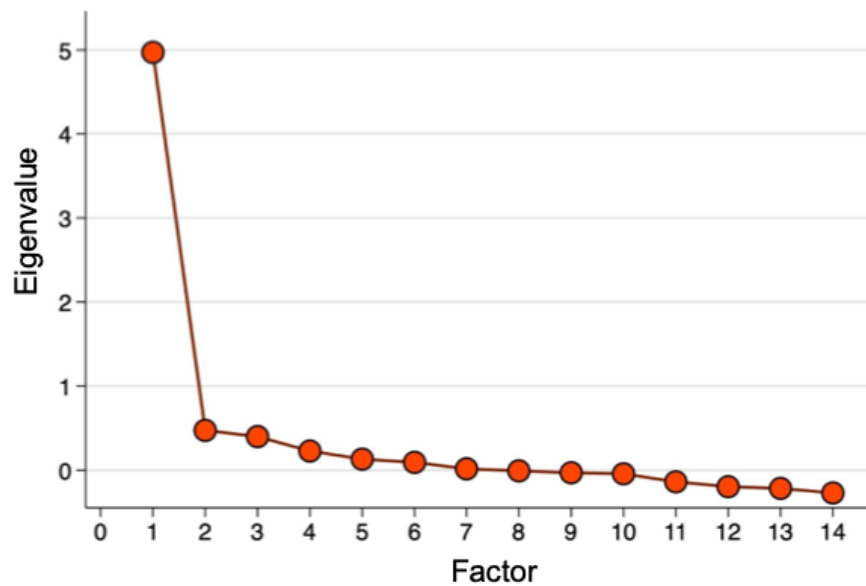
S2 Figure. Item Information Functions

S3 Figure. Summed Scale Information Functions

S4 Figure. Young Adult Shortened Xerostomia Inventory Sum Scores and a Global Xerostomia Item

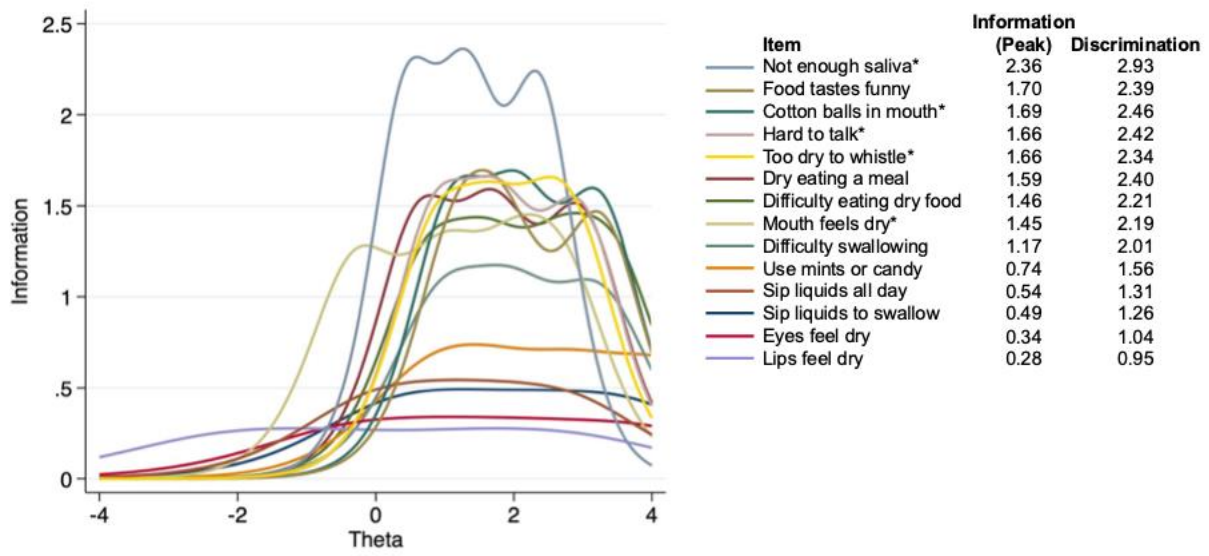
S5 Figure. Receiver Operating Characteristic Curves for Two Shortened Xerostomia Inventories

Supplemental Figure 1. Exploratory Factor Analysis: Scree Plot



In exploratory factor analysis, one factor had an eigen value of 4.97 and explained 91.8% of the variance. No other factor had an Eigenvalue greater than 0.5, suggesting that a unidimensional model is reasonable for the data. This implies that the xerostomia scale items measure one latent construct (experience of dry mouth).

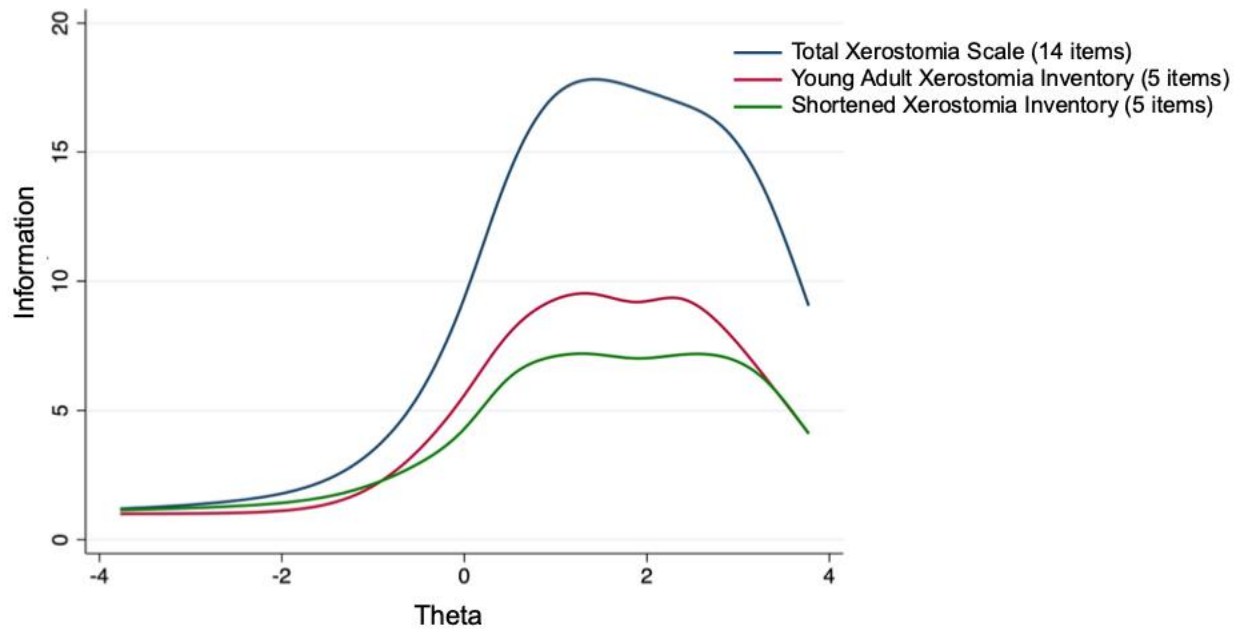
Supplemental Figure 2. Item Information Functions



Based on a graded 2-parameter logistic item response theory model, each individual xerostomia item was plotted according to difficulty (theta) and information. Higher discrimination items provided more differentiation between less/more severe xerostomia at a given level of theta.

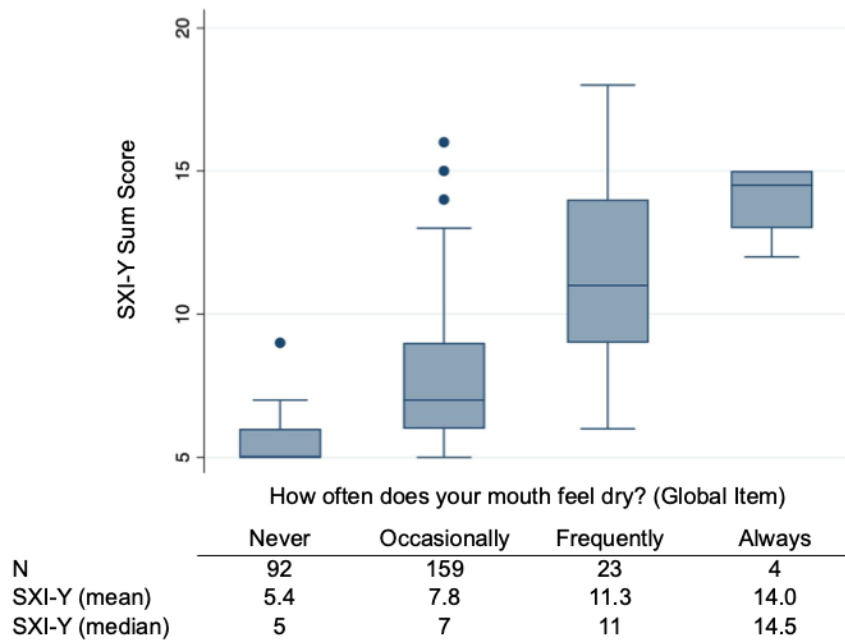
* = items retained for the Young Adult Shortened Xerostomia Inventory (SXI-Y)

Supplemental Figure 3. Summed Scale Information Functions



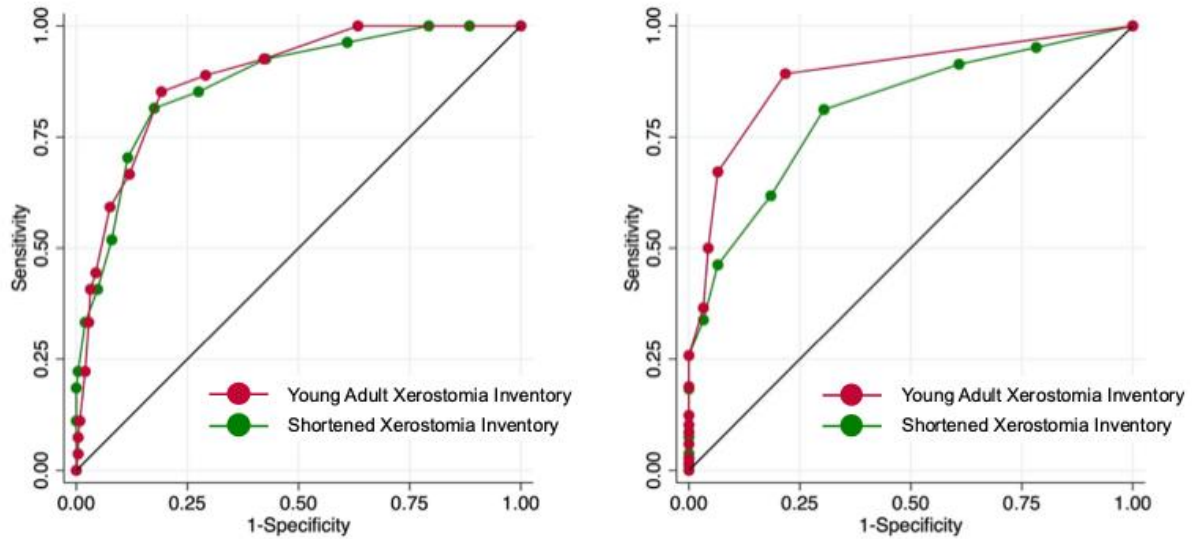
Based on the graded 2-parameter logistic item response theory model, summed xerostomia scales were plotted according to difficulty (theta) and information. Compared to the 5 items included in the original Shortened Xerostomia Inventory (SXI), in this population, the 5 items included in the proposed Young Adult Shortened Xerostomia Inventory (SXI-Y) maintained a larger portion of the information provided by the 14 items in the total scale (at a similar level of theta).

Supplemental Figure 4. Young Adult Shortened Xerostomia Inventory Sum Scores and a Global Xerostomia Item



Sum scores on the Young Adult Shortened Xerostomia Inventory (SXI-Y) were higher on average, in a stepwise pattern over each level of a single global dry mouth survey item (“How often does your mouth feel dry?”).

Supplemental Figure 5. Receiver Operating Characteristic Curves for Two Shortened Xerostomia Inventories



Receiver Operating Characteristic Curves for the proposed Young Adult Shortened Xerostomia Inventory (SXI-Y) and the original Shortened Xerostomia Inventory (SXI) against a gold standard of experiencing mouth dryness frequently or always (LEFT) and against a gold standard of experiencing mouth dryness occasionally, frequently, or always (RIGHT).