The DSTAR-YA subscales assess three domains of young adults’ diabetes strengths:

1. Diabetes Related Confidence
2. Getting Help with Diabetes Management
3. Disclosure/Social Support

INTRO
- Despite the challenges of type 1 diabetes (T1D) management, many young adults (YAs) demonstrate resilience.
- Specific diabetes strengths among YAs have not been well-characterized.
- The DSTAR-YA was designed to assess YAs’ T1D strengths for research and clinical care.
- Study aim: Examine the factor structure of the DSTAR-YA.

METHODS
- N=236 YAs (age 18-25) with T1D at four pediatric diabetes clinics in Texas, Ohio, California, and Washington DC completed the DSTAR-YA.
- Principal axis factoring with Oblimin rotation to conduct exploratory factor analysis (EFA).

RESULTS
- EFA yielded 3 factors explaining a total of 60.2% of the variance.
- See Table and Scree Plot.

DISCUSSION
- The 3 factors align with the Diabetes Resilience Model.
- Factors 1 and 2 mirror the DSTAR-Child and Teen versions. Factor 3 captures important developmental tasks for YAs.
- Identifying YAs’ specific T1D strengths may help clinicians and researchers support YAs during this challenging transitional period.
Deconstructing Diabetes Strengths: Factor Analysis of the Diabetes Strengths and Resilience Measure for Young Adults (DSTAR-YA)

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Introduction

While type 1 diabetes (T1D) management is challenging, many young adults (YAs) demonstrate resilience; however, specific diabetes strengths among YAs have not been well-characterized. Behavioral research has begun to study how YAs with T1D manage diabetes demands using the psychometrically sound DSTAR-YA measure. The current study extended this work by examining the underlying factor structure of the DSTAR-YA.

Methods

Participants were 236 YAs (ages 18-25, M=19.7±1.5 years; 52% female; M HbA1c=8.5±1.7%) from four children’s hospitals. Participants completed the validated DSTAR-YA, which was adapted from child and adolescent versions. We used principal axis factoring with Oblimin (oblique) rotation to conduct exploratory factor analysis on the 16-item DSTAR-YA. We selected this exploratory method due to the distinct item set of the DSTAR-YA compared to child/teen versions and potential theoretical distinctions relevant to YAs.

Results

The factor analysis yielded three factors explaining a total of 60.2% of the variance. Factor 1 “Diabetes-Related Confidence” included 9 items (e.g., I am confident being the person who is the most in charge of my diabetes) and explained 40.9% of the variance. Factor 2 “Getting Help with Diabetes Management” included 4 items (e.g., I ask for help with my diabetes when I need to) and explained 11.7% of the variance. Factor 3 “Disclosure/Social Support” included 3 items [e.g., I feel comfortable teaching new people in my life (roommates, coworkers, etc.) about how to help me in a diabetes emergency] and explained 7.6% of the variance.

Conclusions

The three factors of the DSTAR-YA align with the Diabetes Resilience Model and qualitative research with YAs with T1D. Factors 1 and 2 mirror the DSTAR-Child and Teen versions, and factor 3 matches developmental theory for YAs. Delineating distinct types of strengths may help clinicians and researchers identify and support YAs’ individual strengths to promote resilient diabetes outcomes.