

Adolescents with type 1 diabetes: usefulness of the ACT-model

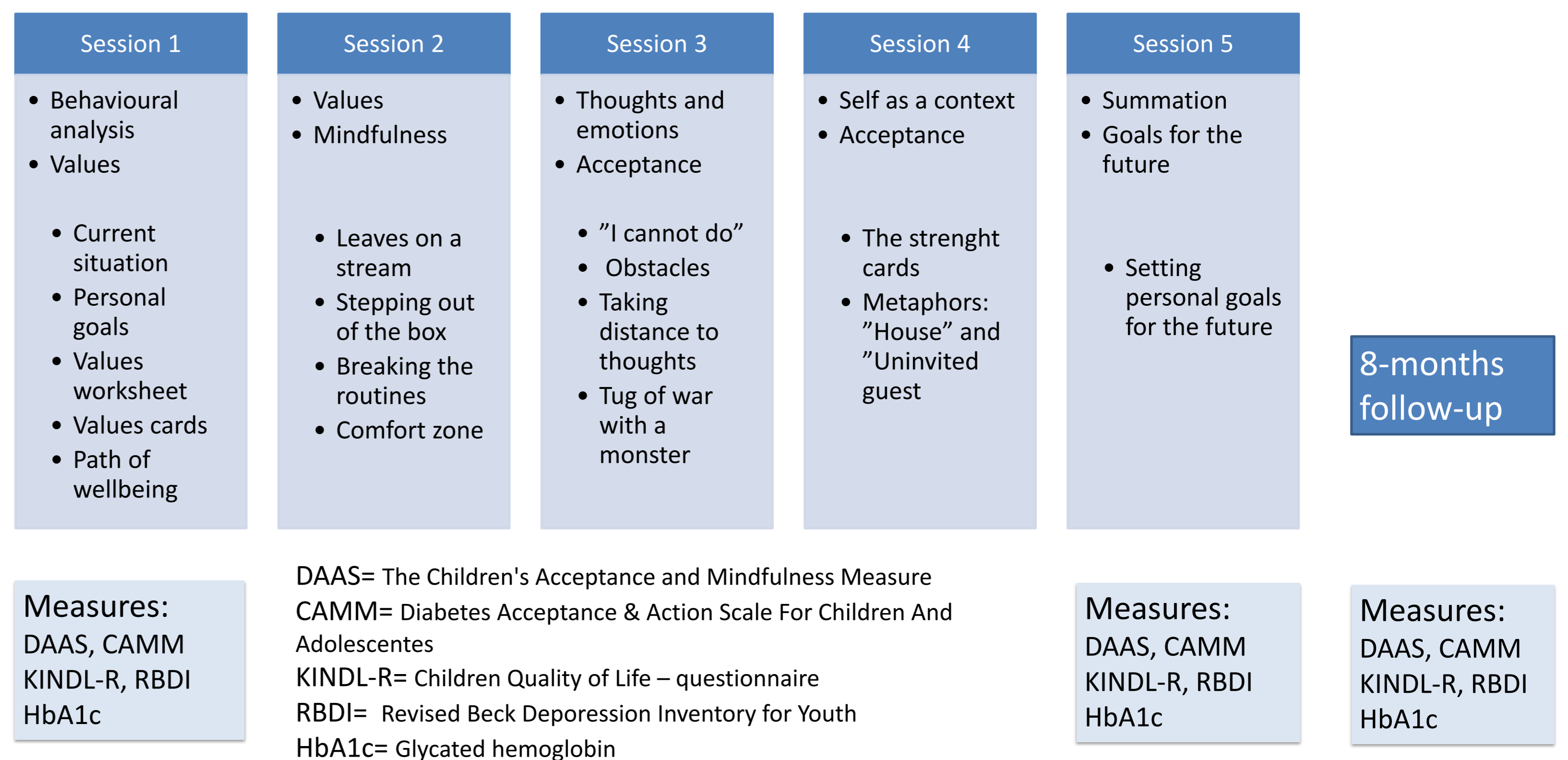
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Background

Diabetes can be a very challenging disorder to manage and needs a great amount of self-care and daily management. Diabetes management tends to deteriorate during adolescence due to both physiological and psychological factors. Poor adjustment to diabetes in adolescence tends to persist to young adulthood. This study aims to investigate the use of acceptance and value based methods for increasing well-being, psychological flexibility and motivation for treatment of adolescents with type 1 diabetes.

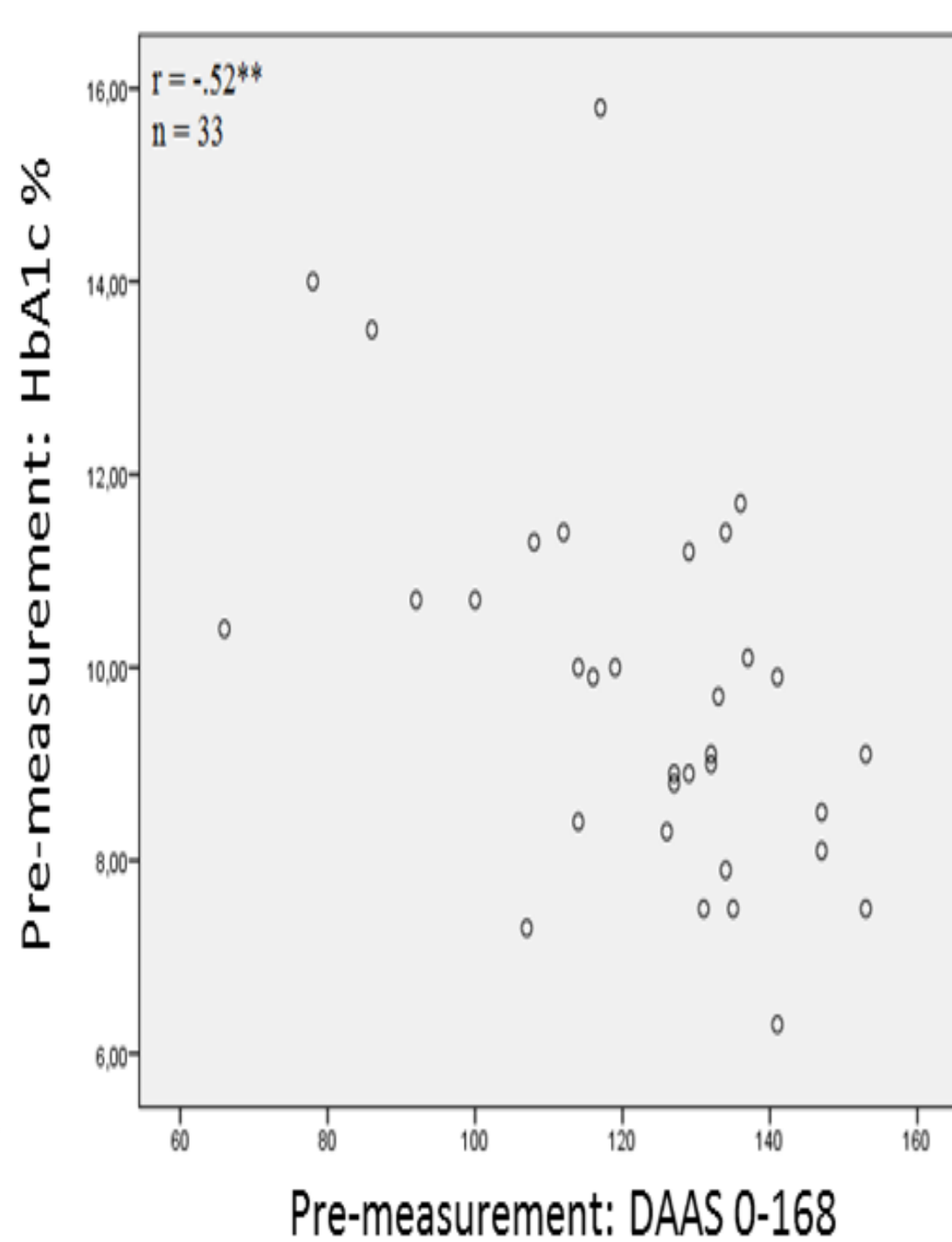
Method

We developed an ACT-based group intervention consisting of 5 sessions, and invited 12-16 years old diabetics from the pediatric outpatient clinic to join the groups. The participants were randomized either to ACT+Treatment-as-usual (ACT+TAU) or TAU-group only. The HbA1c-level was monitored for both groups as well as psychological flexibility, diabetes related acceptance, depression and quality of life. We have run four intervention groups so far and will continue with data collection until 2018.

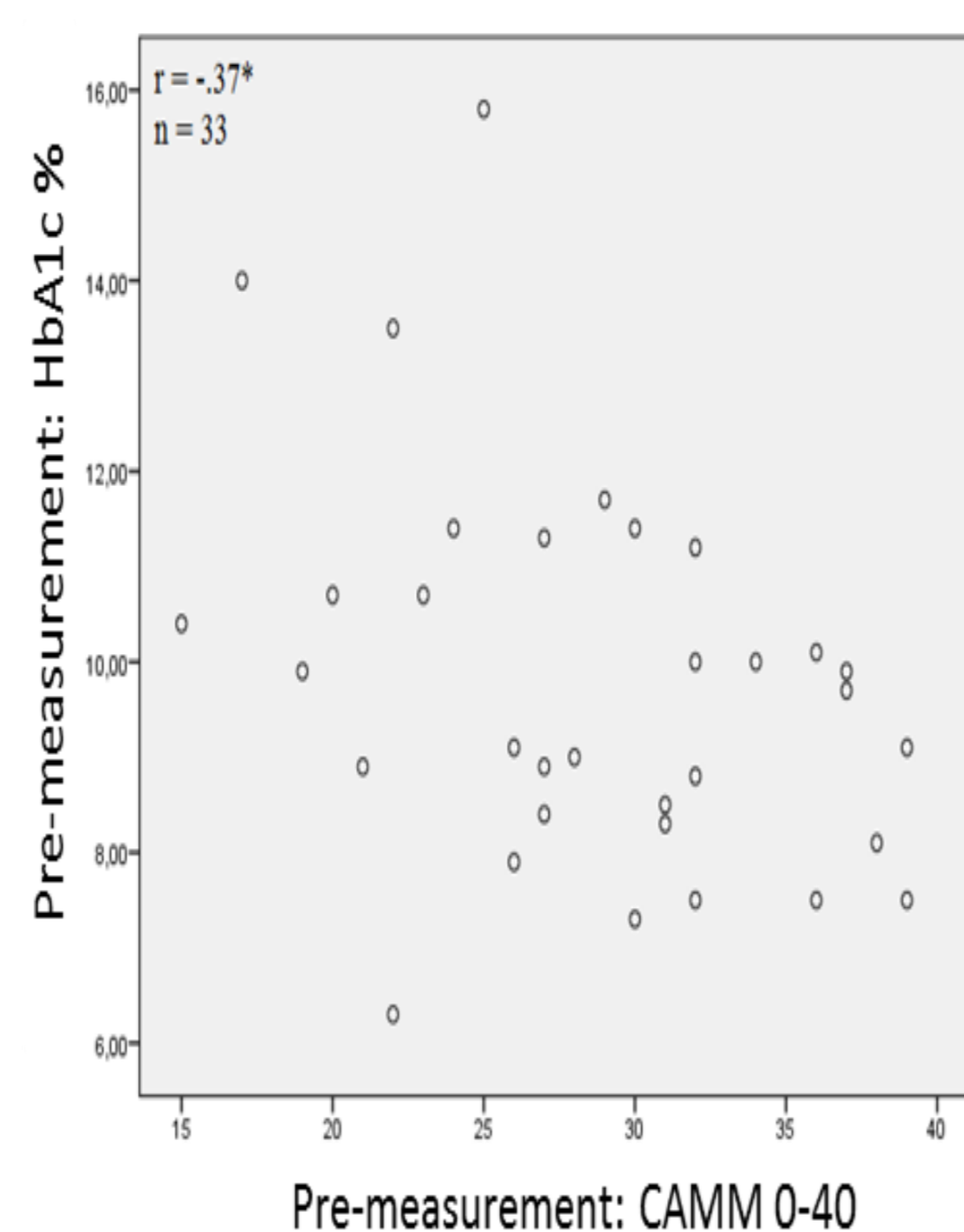


Result

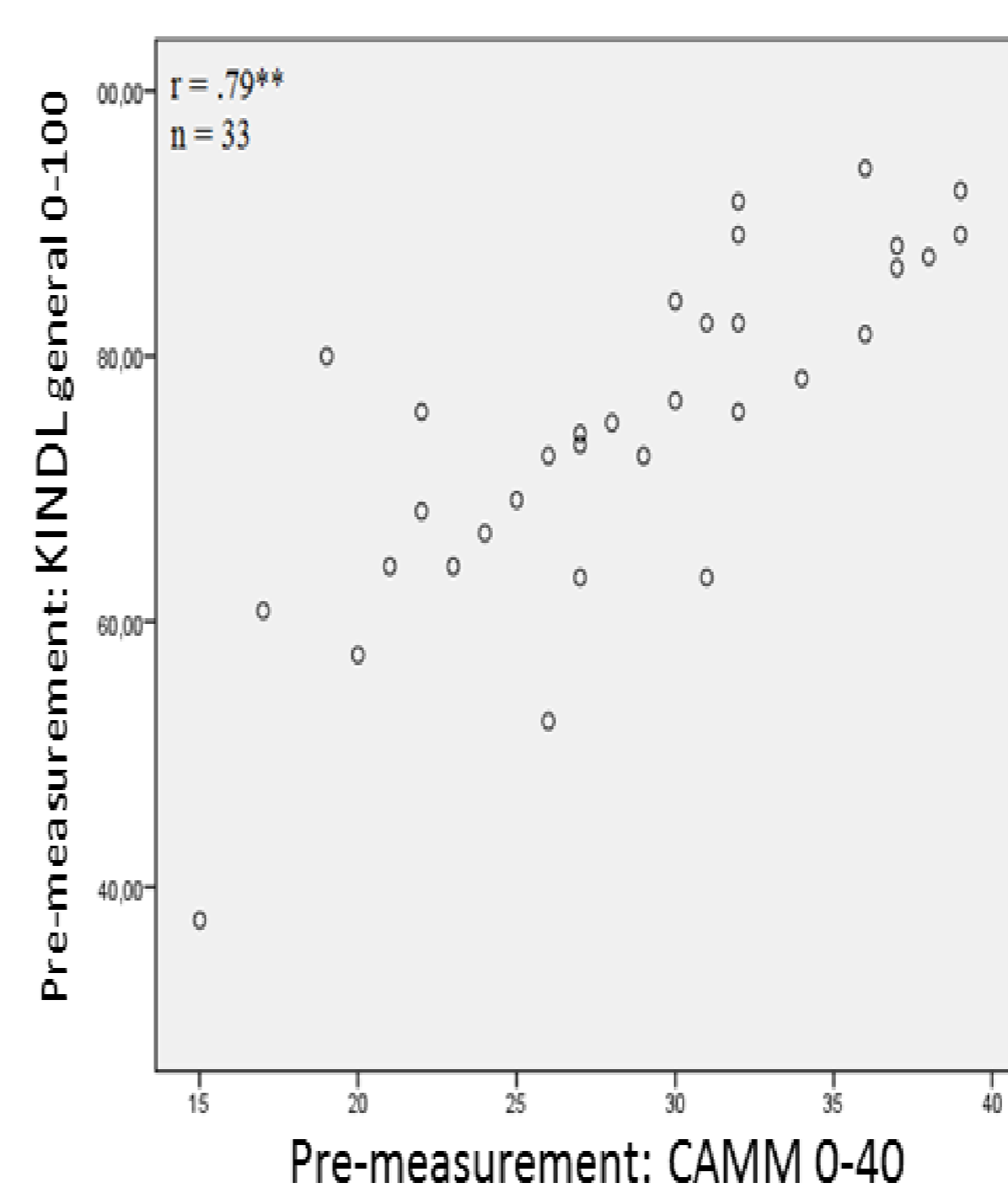
- The results suggest that the pre-measurement level of HbA1c correlates significantly with the level of psychological flexibility (DAAS, $r = -0.52$, $p = 0.002$, $n=33$; CAMM, $r = -0.37$, $p = 0.032$, $n = 33$). Thus, lower level of flexibility is associated with higher level of HbA1c.
- The results also suggest that the pre-measurement level of psychological flexibility correlates significantly with the level of general quality of life (CAMM, $r = 0.79$, $p < 0.01$, $n=33$); the higher the level of psychological flexibility, the higher the level of general quality of life.
- At pre-measurement, psychological flexibility also correlates significantly with the level of diabetes-related quality of life (CAMM, $r = 0.63$, $p < 0.01$, $n=33$); the higher the psychological flexibility, the higher the level of diabetes-related quality of life.
- The initial findings based on the first groups suggest that the intervention has a positive impact on psychological flexibility as well as on general quality of life.



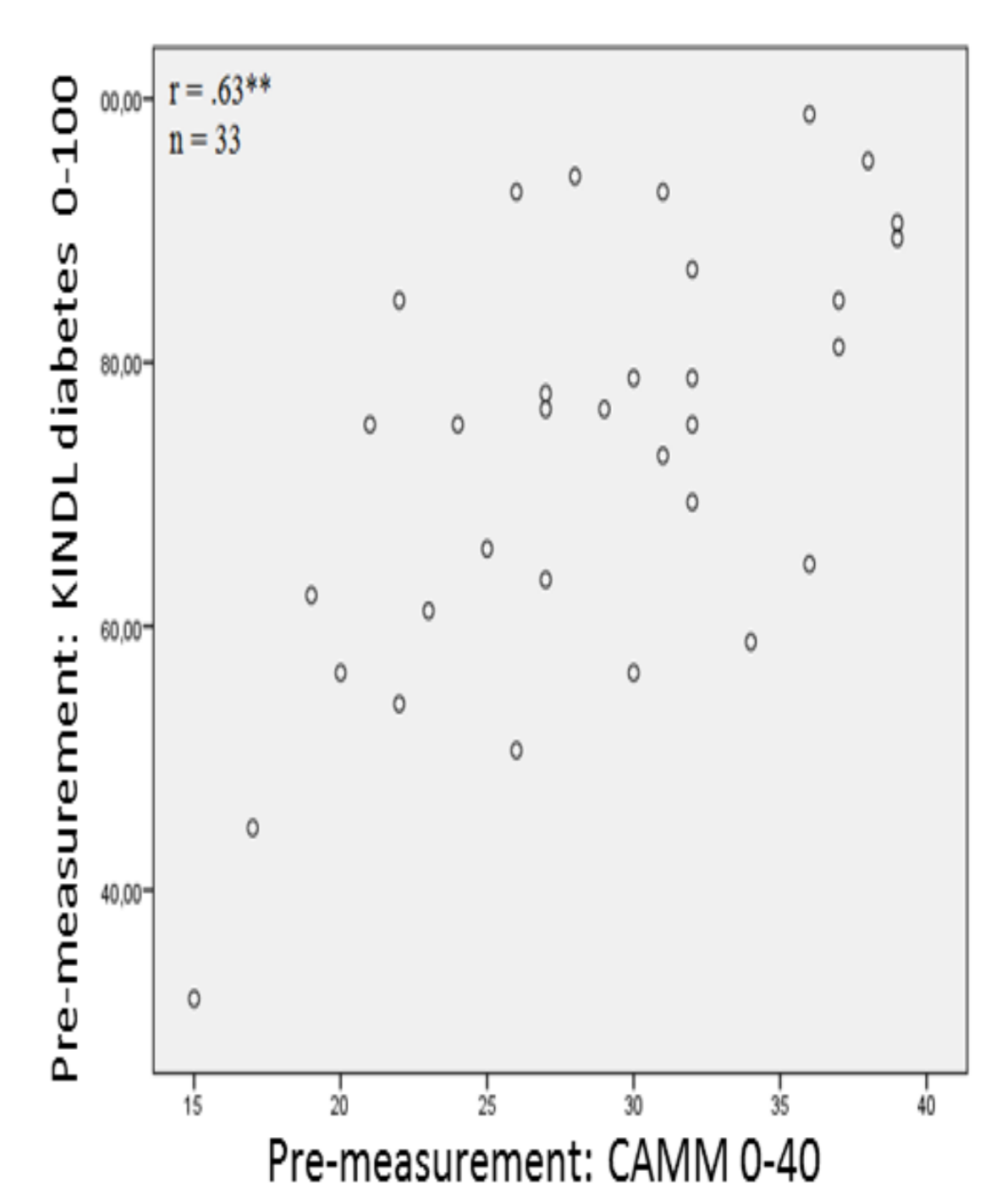
The correlations between diabetes-related psychological flexibility (DAAS) and HbA1C



The correlations between psychological flexibility (CAMM) and HbA1c



The correlations between psychological flexibility (CAMM) and general quality of life (KINDL- general)



The correlations between psychological flexibility (CAMM) and diabetes-related quality of life (KINDLdb)

Discussion

Our results indicate that higher level of psychological flexibility is associated with better control of diabetes. This may suggest that by increasing psychological flexibility we could possibly have a positive impact on how well diabetes is managed. On the other hand, our first observations show that we are able to increase psychological flexibility by using a short 5-session group-based ACT intervention. Based on the initial findings, the ACT-model seems to be suitable for adolescents with type 1 diabetes having difficulties to manage their diabetes.