MYT1DHERO: A MOBILE APP FOR ADOLESCENTS WITH TYPE 1 DIABETES AND THEIR PARENTS

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Iterative, patient-centered design and development of a mobile app, MyT1DHero that aims to improve adolescents’ self-management adherence and HbA1c, as well as quality of life, self-efficacy, social support and family relationships

**ADOLESCENT APP**
- Blood sugar check reminders with entered result sent directly to parent app and into log
- Log of entered blood sugar results
- Messaging feature with pre-programmed messages
- Points total and superhero customization

**PARENT APP**
- Immediate notification of blood sugar results
- Log of entered blood sugar results
- Messaging feature with pre-programmed messages
- Parent support messages (from the app)

App development guided by social cognitive theory (SCT), self-determination theory (SDT), and user-centered design:

**SCT**
- Social support through parent/child messaging
- Self-efficacy through reminders and educational tips

**SDT**
- Engagement through gamification features (points and superhero customization)

**INITIAL BETA TEST**
- N=30 family dyads (30 adolescents and one of their parents, total N=60)
- Asked to use the app four times per day for three months
- Measures included adherence, HbA1c, social support, self-efficacy, quality of life, and conflict
- Results indicate positive trends in adolescent HbA1c and a significant improvement in their perceptions of quality of life (p=0.02)

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