

# **Balancing caregivers and children interaction to support the** development of self-regulation skills using a smartwatch application

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## Introduction

How can we support children with ADHD and their caregivers to explore the issue of transitioning from self-regulation to co-regulation?



The design of wearables technology require:

- a deep understanding of what is possible from a clinical standpoint
- The understanding from children with ADHD towards wearable technologies



#### **Co-regulation**

• Caregivers initiate and sustains children enthusiasm for a task, give praise and redirect encouragement, children's attention, or restart the goals of the task



#### Self-regulation

• Children control themselves their behaviors and emotions to pursuits goals

Methods

Participants and session	Aim
24 children (10-13 years old) 8 workshops session (1 hour each)	<ul> <li>To sketch ideas for the smartwatch intervention</li> <li>To discuss the strategies that they currently use, and how could be improved using the smartwatch,</li> <li>To discuss potential ideas for a smartwatch app.</li> </ul>
9 Teachers 1-hour focus group	<ul> <li>To discuss their strategies and problems they face,</li> <li>To discuss their concerns about children using</li> </ul>
3 parents 1-30 min focus group 1-30 min interview with one parent	technology, To discuss their requirements to design an app.

# **Interactions between children** and their caregivers



Selfregulation





Take a picture to read more about the research and download the full paper

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## **Results**

### Goals

• "It would be nice if the notification for 'be focused' was like a rumble you know something to make you think for a second. Like what am I doing instead of someone telling you..." student.

#### Rewards

• "After you've accomplished a goal, then your parents can buy the gift for you" Participant.

• "I feel like what should like motivate you to go for the goals shouldn't be something physical. It would be like your internal motivation" student.

### Parental control vs. privacy.

• "So, I think the app should be connected to your parents ... They should be able to turn it off whenever they need to " • "It would be better to have a little privacy"



## Discussion

Children viewed smart watch as potential tools to improve awareness and self-reflection. As future work, we will develop, deploy, and evaluate an application that takes account the needs and requirements of children with NDD.

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