

Decreasing stress in teenagers

Increasing recovery with the use of three digital self-tests

JESSICA KÅGEMAN & LINNEA WENÄLL
Master's Thesis at Department of Design Sciences
Faculty of Engineering, Lund University

Have you ever been so stressed that all you want to do is find a way to calm those racing thoughts, to keep your stress under control? By taking three digital self-tests, teenagers might be able to achieve this.

Every other girl and every third boy in Sweden between 10-17 years experience stress on a weekly basis, and since the end of the 90's the numbers of teenagers reporting stress has increased..

Teenagers today live a busy life with high expectations on themselves, causing many to feel stress. Without enough time for recovery, stress can cause more severe illness, both physical and mental. Recovery means giving your mind the opportunity to rest and is described as experiencing calm and peace. How each person recovers can be very individual, as it may be anything from exercising to laying on the couch watching TV. As long as you're not thinking about anything that causes you stress or concern, you're recovering correctly!

For teenagers today, it appears there is a need for more recovery. With large amounts of schoolwork, activities during their spare time and socializing, there is little room to rest. By increasing their time for recovery, they are able not only to decrease stress but also increase performance and work more efficiently.

The use of digital tools and solutions, such as health-tracking apps and wearables, as a way of promoting health and preventing illness is increasing in today's digitalized society. To meet teenagers' need for increased recovery, a self-test package consisting of three digital self-tests has been developed. These tests, or some of their features, will hopefully become a part of a digital platform called *Ungdomsportalen* where children and teenagers can seek advice and support regarding mental health. This is a site currently under development in a collaboration between Innovation Skåne and clinicians from pediatric psychiatry in Region Skåne.

The increase in mental health issues has led to more teenagers seeking and receiving psychiatric care, resulting in worsened accessibility and longer waiting times. The hope is that tools and content in *Ungdomsportalen* can aid teenagers to take care of their mental health. Using tools like the self-test package, the hope is that fewer teenagers will need specialist care due to stress.

The self-test package is built around a step-by-step approach where the teenager goes from not knowing how to decrease their stress to finding out what specific activity helps them recover. This is implemented by using three tests as presented in figure 1: the first test helps them identify a need for increased recovery, the second test helps them to make a plan for incorporating a specific leisure activity in their daily life, and the third helps them reflect on whether the chosen leisure activity has helped them recover.



Figure 1: Self-test package aiming to increase recovery.

The self-test package was designed in close collaboration with teenagers via workshops, where they were able to impact the functions in the final solution. As teenagers want quick and easy-to-use solutions, the use of a self-test was positively received. The need for recovery was identified through several interviews with school nurses and counselors, as well as questionnaires targeting high school students.