# A team based ACT-model treating a young teen with persistent pain - A Case Study

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### Introduction

Persistent pain in children and adolescents is a common and growing problem. Treatment addressing persistent pain involving behavioural interventions such as CBT and ACT has in other studies proven to be successful. This case study describes a team based ACT-intervention model treating a teen age girl with persistent pain.

# **Case presentation**

13-year-old "Emma" had suffered from joint and muscle pain since early childhood. Pain affected her quality of life and function negatively in valued areas such as school, friends, family and exercising. Emma and her parents have given written consent for the presentation of this Case study.

Treatment was evaluated with self-report assessments of pain intensity (NRS), pain acceptance (CPAQ-A), psychological flexibility (PIPS), health-related quality of life (PedsQI) and monthly school-absence was obtained. These assessments were made before treatment, at end of treatment and at 3-months and 1-year follow-up.

In addition, a modified version of Bull's-Eye (ref. Tobias Lundgren, Karolinska Institute, Sweden) was used to assess Sarah's ability to act toward values. Bull's-Eye assessments were made in the Initial phase, Changing phase, Ending phase and at 3-months follow-up.

# **ACT** intervention model

**INITIAL PHASE** 

- Education Functional analyses
- Values Case conceptualisation
- CHANGING PHASE
- Psychological flexibility
- Homework
- Parental interventions Metaphors
- **ENDING PHASE**
- Treatment summery
- Relapse prevention

### INITIAL PHASE

Education about acute and persistent pain was given to Emma and her parents by the team's doctor. Emma also received basic learning theory education addressing thoughts, emotions, physical experiences and the function of avoidance behaviour.

Values of dancing, physical activities with friends and family and participation in school's PE was expressed by Emma. An increase of behaviours in these directions was set as the treatment goal.

Functional analyses showed fusion with thoughts like "I must get rid of pain before I can...", "more pain is bad" and "no one believes me". Avoidant behaviours such as planning ahead, avoiding or adjusting physical and social activities, asking for reassurance and rumination were identified. A metaphor of "looping" on a road and not moving in valued direction when avoiding pain or planning ahead was introduced.

Case conceptualisation gave that Emma's avoidant behaviours had resulted in unchanged pain and less discomfort in the short run. However, valued physical, social and family activities decrease in the long run. Emma's fear of pain, sadness and self doubt had furthermore increased with time.

Sessions with mindfulness, defusion, acceptance/ willingness and behaviour change in her valued direction were planned for in the next phase of the treatment.

# Emma's ACT treatment

### **CHANGING PHASE**

Psychological flexibility sessions with primarily mindfulness, defusion and acceptance/willingness exercises like "DNA-V", "taste a lemon", "tug of war with monster" was initially carried out by the team's clinical psychologist. Exploring values of a independency and how to act accordingly in the presence of pain and self doubt was further targeted in this phase.

The team's physiotherapist aimed to increase Emma's committed actions toward physical activity. While doing this psychological flexibility was practiced. For instance; detection and letting go of "warning" thoughts like "I can't do this", "My body isn't capable" while making a roll. Emma also practiced to use curiosity and broadening the description of bodily experiences from being all about pain.

Parental interventions were carried out to increase their joint efforts of reinforcing Emma's behaviours in valued direction.

Homework with mindfulness exercises and increasing physical and social activities were given on a weekly basis.

Metaphors like "passengers on a plane" and "looping" were used by all team members including Emma herself.

Despite some struggle with pain and uncertainty Emma's overall response to the interventions in changing phase was positive and she learned quickly to trust her body and her own judgement.

#### **ENDING PHASE**

Treatment summary gave that Emma had received 9 sessions with a clinical psychologist, 8 sessions with a physiotherapist, 1 joint session with both professions, 1 session with a doctor for pain education and 2 joint sessions with clinical psychologists, Emma and her parents.

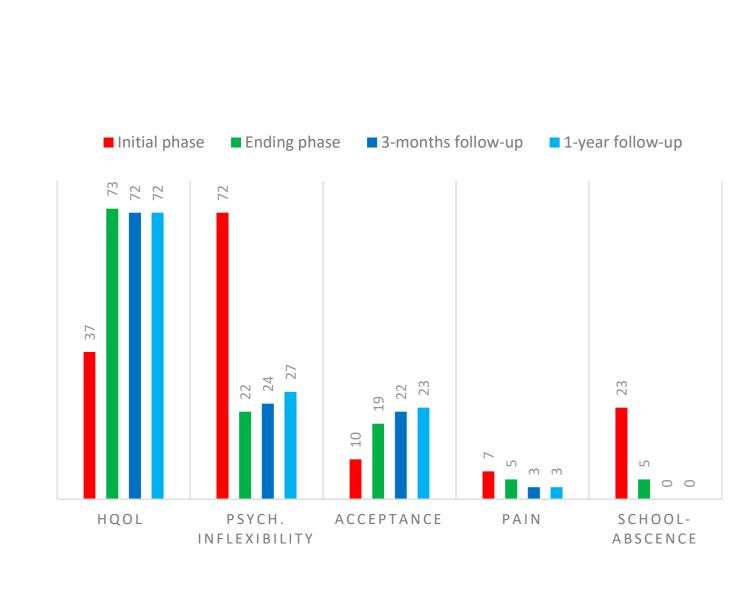
By the ending phase Emma had increased her valued behavior such as dancing on a daily basis, participating in school's PE, spending more time with friends after school and with family during the weekends.

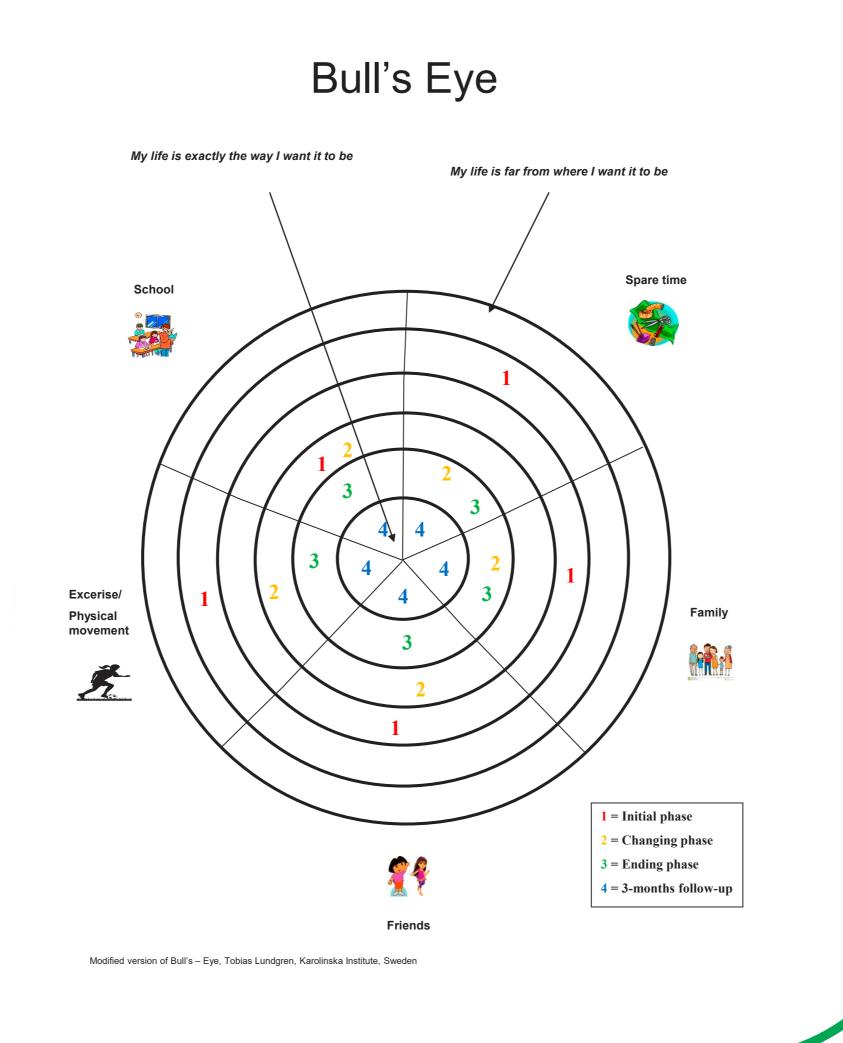
Emma experienced less pain and had more acceptance, expressing that pain did not rule her life anymore. She noticed thoughts of warning but knew she had a choice of how to act spending less time planning or "looping" before an activity instead she went on trying it out. Emma felt closer to both her parents by the end of the treatment and she made more of her own decisions.

Relapse prevention included the importance of continuing acting towards values and letting go of internal struggle.

In the end Emma expressed happiness, had less worries and pain and her function and quality of life had increased. She further had plans of applying to a Dance High School in the fall.

# **Treatment Evaluation**





## Discussion - Reflection

The results show this team based ACT-intervention model was a successful way of helping Emma, a young person with persistent pain, to live a more valued life.

The following was found to be of importance:

- Over all synchronized and agreed team ACT interventions based on behaviour analyses
- Pain education to increase knowledge and reduce fear avoidance
- Values work from a teenager's perspective
- A joint team case-conceptualisation in the initial phase of the treatment
- The use of both common and patient specific metaphors
- Parental interventions based on analyses of external reinforces in the initial phase to help planning and assessing changing phase
- The use of Bull's-Eye for analysis with Emma during treatment along with team planning and treatment evaluation