Journal of Contextual Behavioral Science 38 (2025) 100947

Contents lists available at ScienceDirect

Journal of Contextual Behavioral Science

journal homepage: www.elsevier.com/locate/jcbs

"Finding your values is important. You only die once." - Analysing goal-talk in incarcerated adolescents struggling with substance use from a Relational Frame Theory perspective☆

Ida Mälarstig [a,*], Niklas Törneke [b], Tobias Lundgren [a], Sven Alfonsson [a], Mårten J. Tyrberg [c,d]

[a] Centre for Psychiatry Research, Department of Clinical Neuroscience, Karolinska Institutet, & Stockholm Health Care Services, Stockholm County Council, Norra Stationsgatan 69, SE-113 64, Stockholm, Sweden
[b] NT Psykiatri, Private Practice, Kalmar, Sweden
[c] Department of Psychology, Uppsala University, Uppsala, Sweden
[d] Centre for Clinical Research Västmanland, Uppsala University, Västerås, Sweden

ARTICLE INFO

Keywords:
Adolescents
Goals
Substance use
Relational Frame Theory
Adolescent Community Reinforcement Approach
Compulsory care

ABSTRACT

Individually formulated goals are crucial in many therapeutic approaches, yet the underlying processes remain unclear. Relational Frame Theory (RFT) offers a framework for understanding language as a form of operant learning governed by contextual factors. For example, relating to a goal as superior influences the function of subordinate behaviours. The present feasibility study examined the concept of "goal-talk", i.e., adolescents' verbal behaviour surrounding goals, using data from interviews with twelve adolescents in compulsory institutional care who had undergone the Adolescent Community Reinforcement Approach (A-CRA). A coding manual was developed through deductive content analysis, and a preliminary exploratory analysis was conducted to examine associations between goal-talk, alignment with personal values, and behavioural change. Coding and analysing goal-talk from an RFT perspective proved feasible, and a higher frequency of goal-talk, particularly appetitive goal-talk, was associated with reductions in substance use and increased alignment with personal values. These findings provide preliminary support for the utility of goal-talk as a concept, but should be interpreted cautiously, given the small, homogeneous sample. Suggestions for further refinement of the coding manual and directions for future research are discussed.

Goals are used to organise and reinforce behaviour across a range of situations, from sport to health care (Epton et al., 2017). In psychological treatment, goals are known to facilitate new, alternative behaviours in situations that previously triggered a problem behaviour (Baur et al., 2024) and to promote behavioural change without reliance on external rewards (Locke, 2002; Locke & Latham, 2017). In behavioural analytic terms, having a goal refers to when an individual specifies the criterion for a targeted behaviour and a timeframe for achieving it (Cohrs et al., 2016). However, how setting a goal influences behaviour remains understudied and unclear (Epton et al., 2017). The behavioural analytic approach Relational Frame Theory (RFT), explaining language as a set of general abilities following operant learning principles under contextual control (Hayes et al., 2001; Törneke, 2010), offers a unique position to analyse and describe the process of how goals influence behaviour in detail. Treating goals as verbal behaviour challenges the notion of goals as fixed cognitive entities, instead defining goals as dynamic components of a verbal repertoire that can be manipulated and shaped through interacting with the context. Having a goal can transform stimulus functions and guide behaviour over time. For a comprehensive discussion on goals as verbal behaviour, see Ramnerö and Törneke (2015). The main objective of the present study was to empirically examine the feasibility of analysing "goal-talk", in our definition (verbally constructed contingencies surrounding goals in a broader sense) from an RFT standpoint. To the best of our knowledge, goal-talk has never been

☆ This research was supported by the National Board of Institutional Care, Grant number 2.6.1-4108-2020 and Majblomman, Grant number 224-2022.
* Corresponding author.
E-mail addresses: ida.malarstig@ki.se (I. Mälarstig), Niklas.torneke@telia.com (N. Törneke), tobias.lundgren@ki.se (T. Lundgren), Sven.alfonsson@ki.se (S. Alfonsson), marten.tyrberg@regionvastmanland.se (M.J. Tyrberg).

https://doi.org/10.1016/j.jcbs.2025.100947
Received 14 May 2025; Received in revised form 17 September 2025; Accepted 18 September 2025
Available online 22 September 2025

investigated in adolescents, but is potentially a pathway for facilitating behaviour change in treatment provided in institutional care.

1. Language is relating

According to Relational Frame Theory, the basic building block of language is a special type of relating stimuli (phenomena, events) to other stimuli (Hayes et al., 2001). This ability is at the heart of everything commonly called symbolic, and the process that imparts meaning to things. Its most salient outcome can be seen in our ability to converse with others and ourselves. This repertoire is learned by operant training conducted by the verbal community, begins early and is successively augmented. A normal pre-school child can relate in this manner, in highly complex ways (Rehfeldt & Barnes-Holmes, 2009).

The term "relational frames" refers to the fact that by the described repertoire, stimuli can be related in various ways (Törneke, 2010). Such as opposite ("different") in coordination ("the same"), events in temporal frames ("this comes after that") and in perspective ("I see your point"). The flexibility of this way of relating is due to it being under contextual control; independent of the physical characteristics of the phenomena related. Anything can be related to anything in many possible ways, depending on the contextual cues available. Normal human speech consists of a complex combination of relating in this way. A statement like "Last year I was part of that group, but not any longer" contains many "frames". There is coordination (between the word "year" and a certain abstracted experience of time), temporal relating (an experience and "now") and a hierarchical one ("me being part of"). The continued experience of being the same person over time (the "self") is, according to RFT, a result of this repertoire: a type of hierarchical relating of your own responding (McHugh et al., 2004).

An important effect of this type of relating is the ability to give, understand, and follow instructions. To set up a goal in the here and now and then direct one's behaviour, accordingly, is in behaviour analysis traditionally called rule-governed behaviour (McAuliffe, Hughes, & Barnes-Holmes, 2014; Ramnerö & Törneke, 2015; Törneke, 2010). The verbal rules orient behaviour toward appetitive- or away from aversive consequences. Consequently, the concept of goal-talk suggested in the present study is based on the above definition and defined as verbally constructed contingencies surrounding goals in a broader sense. It encompasses talk about values, verbally constructed consequences of enduring patterns of behaviour that guide actions across contexts over time (Wilson & Dufrene, 2009), as well as goals - more specific endpoints within a limited time frame. Also, it includes goal-setting, the act of formulating concrete, measurable objectives (O'Hora & Maglieri, 2006). By coding parts of the key relating behaviours involved in goal-talk, the process of setting up goals and following them through can be further understood and influenced.

1.1. How goals influence behaviours, feelings, and thoughts

It is known from research on operant principles that appetitive and aversive stimuli influence behaviour differently (Catania, 2013). Appetitive stimuli are desired and associated with approach behaviours, whereas aversive stimuli are unwanted or feared and elicit avoidance behaviours. This distinction is particularly relevant when considering consequences specified in goal formulations (O'Hora & Maglieri, 2006). Goals specifying appetitive consequences are associated with greater well-being and a higher chance of facilitating behavioural change and vice versa; aversive consequences are associated with psychopathology (Locke & Latham, 2002). In accordance, goals in psychological treatment specifying appetitive consequences are more likely to be attained than goals focusing on decreasing problems or symptom relief (Grosse Holtforth & Grawe, 2002) and verbally constructed long-term consequences specifying reinforcers for ongoing behavioural patterns are more likely to sustain motivation and effectiveness over time (Zettle et al., 2016).

To approach desired goals even when feeling distressed requires a verbal ability to discriminate the ongoing flow of thoughts/feelings/impulses from the person experiencing them (Atkins & Styles, 2016; Rehfeldt & Barnes-Holmes, 2009) instead of being controlled by direct experience (McHugh & Stewart, 2012; Törneke, 2010). Hierarchical framing describes verbally relating something as part of, or subordinate to, a broader category or overarching relation. For example, when an adolescent describes a behaviour ("going to school") as part of a larger goal ("building a future"), the broader goal alters the function of the subordinate behaviour. In this sense, goals are not causal agents but contextual verbal relations that transform the functions of the related behaviours. In this process, the I is placed in a superior position to the responses, i.e., "I am bigger than my feelings", "I am able to contain these thoughts". Luciano et al. (2011, 2017) demonstrated that instructions prompting hierarchical frames were superior to distinction frames in reducing adolescent problematic behaviours. Consequently, the key relating behaviours involved in goal-talk are appetitive versus aversive consequences and hierarchical framing. Studying this in the context of adolescents involuntarily placed in institutional care is especially important, since the risk of relapse and recidivism is high following discharge.

1.2. Working with goals in compulsory institutional care

Around one thousand adolescents are placed in compulsory institutional care in Sweden each year, either because they are convicted of a crime or because their problems pose a serious threat to development and health. Adolescents placed in institutional care are more likely to grow up with parents who use substances, engage in criminal behaviour, or exhibit violence compared to peers (NBIC, 2015). Care is delivered in locked juvenile institutions where security routines limit personal freedom (NBIC, 2021). Adolescents undergoing institutional care are often reluctant to undergo psychological treatment (Barrett & Rappaport, 2011) but being able to formulate and act on individual goals fuels positive behaviour change (Brauers et al., 2016; Van der Helm, Kuiper, & Stams, 2018). Hence, individually formulated goals are widely used in institutional care, as part of placement and specific treatment programs. For example, achieving individual goals increased mental well-being and reduced problem behaviours for adolescents placed in institutional care in Germany (Kleinrahm et al., 2013). Individually formulated goals were also attained to a higher degree compared with general goals. In these studies, adolescents' participation in the formulation process is emphasised. However, how adolescents talk about goals and how this influences behaviour is still unknown. As a first step into investigating this, a theoretical and methodological framework for analysing goal-talk in adolescents' natural language is necessary.

1.3. A goal-oriented treatment: the Adolescent Community Reinforcement Approach

A behavioural treatment focused on formulating and continuously evaluating individual goals is the empirically supported Adolescent Community Reinforcement Approach (A-CRA) developed to help adolescents with substance misuse (Azrin, Sisson, Meyers, & Godley, 1982; Godley et al., 2017; Henderson et al., 2016; Godley, Smith, et al., 2014). The target group for A-CRA is adolescents aged 12 to 25 suffering from substance use disorder and co-occurring problems. A-CRA has mostly been delivered and evaluated as a voluntary treatment in outpatient care, but is now adjusted and evaluated in compulsory institutional care in Sweden, in an ongoing research project (Mälarstig, Tyrberg, Lundgren, & Alfonsson, 2023); clinicaltrials.gov: NCT05081934). A-CRA is one of five effective outpatient treatments for substance use disorder in adolescents (Hogue et al., 2018), but has up to now never been evaluated in institutional care. The aspects of A-CRA that make it suitable for institutional care are the goal-oriented approach and the aim to increase prosocial behaviours. Treatment lasts twelve to fourteen weeks and

consists of eighteen procedures that aim to reduce problematic behaviours and increase constructive, sober and prosocial behaviour. Procedures are combined to meet the goals and needs of the individual adolescent undergoing treatment. The overarching aim is to create a context where sober behaviour is rewarding enough to be maintained. The treatment aims to help adolescents engage in environments conducive to abstinence and stability, rooted in the local community (Godley, Smith, et al., 2014). The present study focused on adolescents' goal-talk as it emerged in interviews, rather than the goal-setting procedures within A-CRA.

In sum, goals are important in many interventions aiming to change behaviour, not least in institutional care where adolescents suffer severe problems. Appetitive and aversive -oriented consequences in formulated goals are well-established terms within behaviour analysis. RFT offers a detailed framework of the processes involved in how goals influence behaviour by adding that goals are verbal behaviour influencing other behaviours. However, many aspects remain unknown. For example, how adolescents talk about goals and if their goal-talk mainly orients them towards appetitive consequences or away from aversive consequences are unknown. One major issue hampering this research is the lack of methodology, for example how to code and analyse adolescents' goal-talk. To the best of our knowledge, no study has empirically examined or measured goal-talk in incarcerated adolescents.

1.4. Objective and research questions

This study was part of a larger project with the overall objective of adjusting and scientifically evaluating the A-CRA treatment for adolescents in compulsory institutional care. The present study aimed to investigate 1) the feasibility of analysing goals as verbal behaviour from an RFT perspective, 2) explore whether it is possible to detect different types of goal-talk, especially goal-talk specifying appetitive and aversive functions, 3) explore the association between coded goal-talk and treatment outcomes. These aims were addressed through analysis of verbal material from interviews and questionnaires with incarcerated adolescents who had undergone A-CRA in a small scale feasibility study.

2. Method

This study was conducted from the philosophical standpoint of pragmatism (James, 1981) and functional contextualism (Biglan & Hayes, 1996; Pepper, 1942). Within this framework, the ontological standpoint is that truth is meaningful to discuss as an outcome in relation to a specific goal, instead of something inherent that exists independent of context (Skinner, 1938). Knowledge is generated by a process of inquiry and reflective practice, part of the iterative process of reflection and adjustment of actions. Behaviour analysis from this standpoint views organisms as active participants and the researcher participates in behavioural streams, not as a neutral observer of a phenomenon (Barnes-Holmes, 2000).

2.1. Participants

All adolescents who underwent A-CRA in a randomised feasibility trial (n = 22, clinicaltrials.gov: NCT05081934) were approached for this study. Therapists responsible for the A-CRA treatment informed the adolescents about optional participation in an interview. Four adolescents declined, and three moved from the institution suddenly, without being informed, due to security reasons. Fifteen adolescents agreed to participate. Two were discharged from institutional care and could not be reached using the provided phone numbers. One interview was cancelled abruptly due to the adolescent's private matters. A total of twelve adolescents (M = 16.5 years of age) were interviewed. One respondent had undergone five A-CRA sessions (including goal formulation and evaluation), two had undergone ten sessions, and nine had completed the full programme, which comprised 11–16 sessions. The adolescents completed the Drug Use Disorders Identification Test (DUDIT; Berman et al., 2005) and an adapted Bull's-Eye Values Survey (Lundgren et al., 2012) for institutional care, both pre- and post-A-CRA treatment. All participants were male and placed in institutional care because of substance use and criminal behaviour (most often involvement in criminal groups).

2.2. Setting

The participants were recruited from three institutions caring for adolescents aged 16 to 21. Security level varied; one is security class 1 (the highest level), one is security class 2, and one is class 3 (the lowest level). A-CRA was the only treatment program at these institutions that based treatment planning on the adolescents' goals. However, broader individual goals were also formulated in the planning phase of the placement.

2.3. Procedure

2.3.1. Interviews

Interviews were conducted by phone (n = 3) or at the adolescent's institution (n = 9) in a separate room. If the participant wished, their therapist was present in the room during part of the interview (n = 3) since it was the first time they met the interviewer. Interviews lasted between fifteen to 55 min and were conducted by the first author, a female licensed psychologist experienced in working with adolescents. The interview guide was semi-structured with open-ended questions (Kallio et al., 2016; Tong et al., 2007) and focused on the adolescents' experiences of working with goals and values in A-CRA and in general at the institution. Follow-up questions were asked when needed. The interview guide was tested with one adolescent placed in institutional care before the study. Examples of areas covered were identifying and working with goals and values, experiences of treatment and what fuels change. See appendix 1 for the Interview guide. The therapist responsible for the adolescent's treatment introduced the interviewer. The interviewer was involved in the research project and the study procedures but had no other direct contact with the respondents.

2.3.2. Procedure

A coding manual was developed from the paper "On having a goal" (Ramnerö & Törneke, 2015) in line with recommendations described in Fife and Gossner, 2024 and then discussed and refined by the research team. After that, the coding manual was pilot tested on verbal material from four interviews by two coders (authors I.M and M.T). To accurately capture natural talk, the implicit consequences were considered, defined as consequences not uttered but derived using the context (e.g., surrounding talk or questions by the interviewer). Differences and similarities in coding were discussed and resolved. After coding the smaller sample of four interviews, the codes were: appetitive, aversive and unclear goal-talk. See Table 1 for details and example quotes. The code unclear goal-talk aimed to capture goal-talk that was either unclear in terms of appetitive/aversive functions or a rule but did not match the concept of goal-talk. Next, all twelve interviews (including the first four) were coded by the two coders. After coding all interviews, the joint decision was made to recode meaning units in the unclear category, marking some as irrelevant and dividing some into other codes.

In the next step, consistency in code application across the two raters was investigated by calculating the percentage of overlapping units. Furthermore, the number of units within each code was counted and analysed to explore potential associations with treatment change. Lastly, a revised, final coding manual was constructed (see Table 3).

2.3.3. Instruments

The following instruments were used to measure the adolescents' change from pre-to post-treatment:

Substance use was assessed using the self-report Drug Use Disorders

Table 1
Coding manual version 1, constructed from "On having a goal" (Ramnerö & Törneke, 2015).

Main code	Code	Definition	Example
Goal-talk A rule, a verbally constructed contingency with an antecedent specifying behaviour and explicit or implicit consequences	Goal-talk specifying appetitive functions	Creates a rule on how to increase frequency of desired, appetitive experiences	"What happens if I say no to taking drugs? I get to see my family, I get longer leaves, and it speeds up my return home."
	Goal-talk specifying aversive functions	Creates a rule on how to control/ avoid undesired experiences	"You have to be ready to say no, there is always someone trying to get you to relapse when you don't want to."
	Unclear	Meets criteria for a rule but is not clearly goal-talk	"You must remember what you've have done. That's it, you must remember the consequences; you always have to think about the consequences."

Identification Test, DUDIT, (Berman, Palmstierna, Källmén, & Bergman, 2007), which comprises 11 items rated on a 5-point Likert scale (0–4). A total score above 6 indicates harmful drug use, while scores above 25 suggest drug dependence.

Personal values were assessed using the Bull's-Eye Values Survey, BEVS, (Lundgren, Luoma, Dahl, Strosahl, & Melin, 2012) a therapist-guided instrument ranging from 0 to 7, where a higher number represents living in greater alignment with personal values. The instrument is visually represented as a dartboard. In the present study, an adapted version of the BEVS was used, without pre-defined life domains.

2.4. Analysis

A deductive content analysis (Graneheim & Lundman, 2004) was conducted to explore the feasibility of applying the Relational Frame Theory (RFT) concept of goals (Ramnerö & Törneke, 2015) to verbal material derived from interviews. The analysis was carried out in four phases, as outlined in Fig. 1 below. Two authors coded the transcripts of the interviews with the adolescents. Deductive content analysis is a method used to organise the manifest content of data (Lindgren et al., 2020; Elo & Kyngäs, 2008) but allows for including latent content (example from the present study was deriving implicit consequences from what the adolescent uttered). Furthermore, it can be applied qualitatively and quantitatively (Graneheim, Lindgren, & Lundman, 2017). In the first stage, focus was on the qualitative analysis, and in the second stage, quantitative analysis was conducted to assess the potential utility of coding goal-talk when assessing clinical change.

Inter-rater agreement was determined by calculating the proportion of overlapping units for each code, divided by the total number of coded units. Change in alignment with personal values was assessed by calculating the change score in the BEVS between pre- and post-treatment. The association between the frequency of goal-talk units and change in alignment with personal values was analysed using Spearman's rank correlation. The associations between the frequency of categories of goal-talk and change in DUDIT scores were also calculated using Spearman's *rho*. Treatment response was defined as a reduction of more than 50 % in DUDIT scores from pre-to post-treatment, and differences in frequency of goal-talk between the groups were analysed using the Mann-Whitney *U* test. The effect sizes were calculated with rank-biserial correlation. Given the exploratory nature of the study, lower level subcodes were not analysed separately to avoid conducting multiple significance tests and increasing the risk of false positives.

Table 2
Categories and sub-categories in goal-talk.

Category	Example quote	Sub-category		Example quote
Goal-talk specifying appetitive functions	"When I move back home, I'll have my goals in hand. I'll have my job then. I'll be with my family full time."	Specifies appetitive activities, feelings, consequences		"I want to try something new as well. Now I've found something that I like, really like, and that's wrestling."
		Hierarchical framing	Own response	"I am more open, things are a bit more open now, and I move differently, I've noticed when I'm going back to my old self"
			Goal superior position	"Step by step, it makes me realize: 'Oh, if I'm here, okay, I can reach to there, that's my goal."
Goal-talk specifying aversive functions	"You have to be ready. Because there is always someone trying to get you to relapse when you don't want to."	Specifies aversive activities, consequences or feelings		"For example, one solution to get rid of drug cravings is to use drugs, but is that a real solution, and are you willing to face the consequences?"
		Hierarchical framing	Own response	"Just thinking about what I've done, what's wrong, what people think is wrong, how people see you. You have to look at yourself from another perspective."
			Goal superior position	"You need to have an education; you need to have a job. You need all that to make it in life."
Goal-talk specifying appetitive and aversive functions	"The goal is to minimize bad things and focus on meaningful activities … I'm a musician, so I work with music."	Shifting from appetitive to aversive or vice versa		"When you do drugs like that, you take it, you think the problem is solved. But it's not. It might go away for an hour, 2 h. But it comes back, and when it comes back, it hits you harder."
		Alternative behaviours with similar functions		"It's really easy to say you shouldn't do drugs and stuff. But what about what you should do instead? Like, for example, playing football or spending more time with friends who are nicer and …"

Table 3
Final version of the coding manual.

Main code	Code	Definition	Sub-code		Definition
Goal-talk A rule – a verbally constructed contingency	Specifying appetitive consequences	Increase desired, appetitive experiences	Specifies appetitive activities, feelings or consequences		Describes what has an appetitive function in the specific context
			Hierarchical framing	Own response	Observing own responses
				Goal superior position	Behaviour as a part of, or a step towards, a goal
	Specifying aversive consequences	Control/avoid undesired experiences	Specifies appetitive activities, feelings or consequences		Describes what has an appetitive function in the context
			Hierarchical framing	Own response	Observing own responses
				Goal superior position	Behaviour as a part of, or a step towards, a goal
	Combining aversive and appetitive consequences	Control/avoid undesired experiences and increase desired experiences	Shifting from appetitive to aversive or vice versa		Temporal framing of responses and behaviours
			Alternative behaviour with similar functions		Compares unwanted and desired behaviour

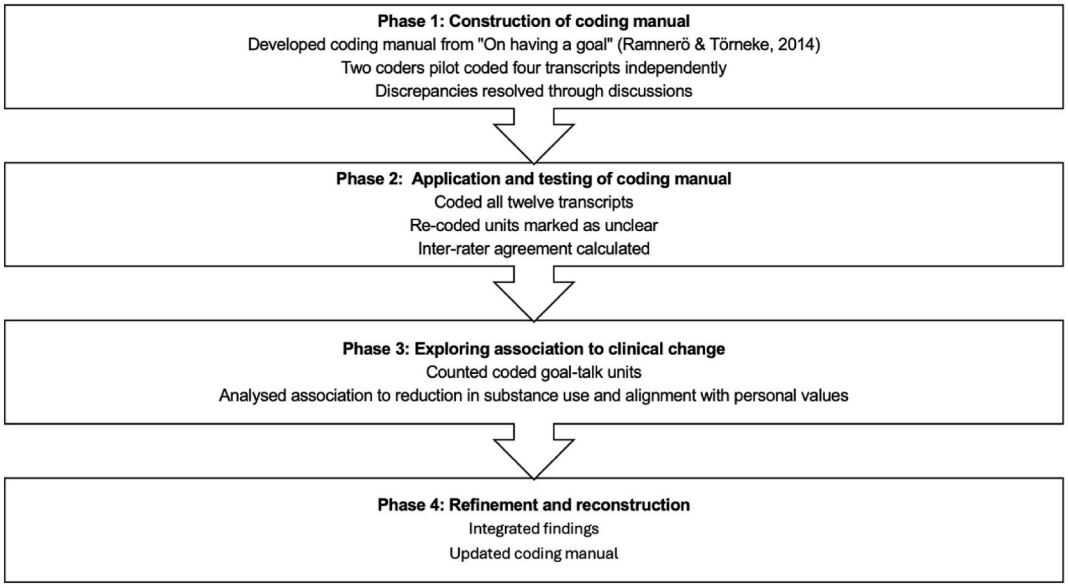

Fig. 1. The analytic process.

2.5. Ethical considerations

Study procedures were approved by the Swedish Ethical Review Authority in June 2022 (no. 2021–02258). Since the adolescents were placed in compulsory institutional care, they were carefully informed that participation in the interview was voluntary, that they could withdraw at any time, and that no negative consequences would follow if they chose not to participate. Written informed consent was obtained from each adolescent at the start of the study.

3. Results

3.1. Measuring goals as verbal behaviour

A total of 248 meaning units were marked and coded in the first round of analysis. After discussion, revision and exclusion of unclear goal-talk, 193 meaning units remained. 128 (66 %) were coded as specifying appetitive functions and 65 (33 %) were coded as specifying aversive functions. In 46 units (24 %) both aversive and appetitive functions were specified in the same goal-talk. All adolescents expressed goal-talk of all three categories, but the frequency of total goal-talk units varied, from 33 to 9 units (M = 11). The proportion of goal-talk specifying appetitive and aversive functions varied, ranging from a 4:1 ratio to a 1:1 ratio (M = 2:1). The average percentage overlap across all participants and codes was 82.5 %, indicating an acceptable level of inter-rater agreement.

3.2. Categories and subcategories

After sorting the coded units into the first two categories, appetitive and aversive, the same subcategories emerged in both the aversive and the appetitive categories: 1) Specifies feelings, activities or consequences, 2) Hierarchical framing either a) own response or b) a goal in a superior position to behaviour. Specifies feelings, activities, or consequences was the most prevalent subcategory with 77 units (63 %). Often, adolescents talked about desiring to build a family, have a girlfriend, or pursue a certain profession. For example, respondent No. 1 said that:

> "That I should get an understanding girlfriend, kind of, and like … mental health and about medication, and sort of how I should … grow. But that's my goal, really — to gain more self-awareness."

Furthermore, several adolescents described desired consequences regarding health such as being physically strong, mental health, handling emotions or working hard in school. Respondent No. 9 said that:

"The most important thing for me was to manage my emotions and not be dependent on people."

When specifying negative, unwanted activities or feelings, the most prevalent activities were smoking, being high, relapsing, or a vague description of committing a crime (often described as "mischiefs", "silliness" or "stuff") and the most prevalent feelings were that something is "bad" or "stress" or referring to unwanted memories, for example respondent No. 8 said that:

"I decided that I don't want to smoke … But there might be a situation where I slip, it could happen. You see, I've done stuff, and I get memories … Flashbacks. It's a lot to handle."

Goal-talk using hierarchical frames constituted 44 units (27 %). This goal-talk involved descriptions on how hierarchically framing own responses from different positions was helpful. For example, respondent No. 7 said:

"Now I've learned to go to the staff, talk to them, and explain how I feel. You get it, handling emotions. Before, I used to get angry right away, act on it. If I have bad feelings and do something stupid, I just lose things, you get it."

Often, either a relation between problem behaviours and an older/wiser person outside of their usual context or "old" and "new" selves was described. For example, respondent No. 4 stated that:

"Someone who can remind you, someone, you can talk to freely, who can tell you: 'this is stupid, don't do it,' because then, instead of sitting alone and thinking, or asking your friends who think the same thoughts as you, you'll get a new perspective on it."

Respondent No. 2 talked about reflection and the ability to see you from the perspective of others:

"It wasn't that hard, it was simple. It was just about reflecting on what I've done wrong, what people think is wrong, and how people see you. You need to look at yourself from a different perspective."

The goal-talk oriented towards different positions often described how the "old" self would respond and the difference in how the "new" self responds, as respondent No. 3 said:

"The new me instantly admits. If I do something, I admit it and say, 'Yeah, that was me.' But before, I was like, 'No,' and it shouldn't be no, I used to blame someone else."

Also, it involved hierarchically framing a goal in a superior position to behaviour. Often, descriptions of behaviour as part of a goal, and spatial frames like steps on a ladder, up or down a staircase, or as getting closer or further away from a goal. For example, as respondent No. 12 said:

"When you've quit, let's say, maybe you experience withdrawal. But then, it's like you start moving up a staircase. And when you take drugs, it's like you start moving down a staircase."

Or as respondent No. 5 talked about, how taking steps brings him closer to a goal:

"Okay, I've taken one step, I've completed one step, and now I have this many steps left, but at least I've taken one, and it's done. Then I move to the next, and I just get closer. I'll just keep getting closer and closer to my goal."

3.3. Combined category: appetitive and aversive

The goal-talk specifying a combination of appetitive and aversive functions (see Table 2) displayed a slightly different pattern, with two subcategories: 1) Shifting from appetitive to aversive or vice-versa, and 2) Alternative behaviour with similar functions. The first describes a shift from aversive to appetitive or vice-versa, often how a problem behaviour was related to a desired goal or values. When shifting from appetitive to aversive or vice versa, temporal frames were used, from now to then or even specifying a certain frequency of time (for example, an hour, a year). Respondent No. 9 said:

"If I smoke, I will ruin everything I've done, like I just voted, I succeeded in my grades, I went to school, my activities. If I start using, it will just lead to using more and more substances."

Several adolescents described alternative behaviour with similar functions as the problem behaviour (often implied rather than explicitly uttered). Moreover, the adolescents described how new activities became appetitive, but the actual and the thought of potentially appetitive activities had not yet been discovered. For example, respondent No. 6 said:

"First, I thought I couldn't have fun without hanging out with the guys. But now, I go swimming. I love it, I'm happy. I go to football. I'm happy about that."

3.4. Association between goal-talk and personal values

The frequency of total goal-talk units (Median = 24) was positively associated (rho = .58, $p = .047$) with change in alignments with personal values between pre- and post-treatment (Median change score = 3, IQR = 1.5–3). Examples of personal values were (in the adolescents' own words): to be present and sober, good relations with my family, togetherness, to be helpful, to be close with my family and elders.

3.5. Association between goal-talk and response to treatment

The association between change score in DUDIT was significant for the frequency of total goal-talk (rho = .610), appetitive goal talk (rho = .851) and aversive goal-talk (rho = .007). Of the 12 participants, 7 (58 %) responded to the treatment according to the DUDIT. A Mann-Whitney U test yielded a statistically significant difference ($U = 0.00$, $p = .006$) in the frequency of goal-talk units between treatment responders (Median = 28.5, IQR = 26.5–32.0) and non-responders (Median = 14, IQR = 12.5–14.8). The effect size was $r = .82$, indicating a large effect.

3.6. Revised coding manual

The revised, final version of the coding manual, presented in Table 3, includes four sub-codes and one additional overarching code that were not part of the initial version. These changes reflect refinements made during the iterative coding process and were informed by preliminary analysis and coder discussions, aimed at improving conceptual clarity and capturing nuances in the data more accurately.

4. Discussion

The present study investigated the feasibility of analysing goals as verbal behaviour from an RFT perspective, using the concept "goal-talk", and whether this contributes to understanding the influence of goals on treatment outcomes. The results indicated that it is feasible to analyse goal-talk from the RFT perspective on goals using a coding manual developed for this specific purpose. Preliminary analysis suggests that the frequency of goal-talk was positively associated with increased alignment with personal values and response to treatment (on self-reported drug use). Adolescents who responded to treatment had a significantly higher frequency of goal-talk than non-responders, and the difference was large. Hence, the concept of goal-talk could contribute to the understanding of how goal influences behaviour.

Together, these findings indicate that the concept of goal-talk is meaningful when investigating value–action alignment and clinical

improvement. To probe this process further, we examined whether distinct forms of goal-talk could be identified and coded. It proved feasible to distinguish between appetitive and aversive goal-talk, as well as combinations of the two. Appetitive goal-talk was significantly positively associated with treatment outcomes, whereas aversive goal-talk was not. Hence, the different types of goal-talk – i.e. verbal rules oriented toward desired outcomes (e.g., "I want to reconnect with my family") and rules specifying avoidance or control of undesired experiences (e.g., "I must stay away from drugs to avoid relapse"), may influence behaviour differently. This is consistent with previous research on goals orienting towards appetitive or aversive consequences (Grosse Holtforth & Grawe, 2002) and with Baer et al. (2008), who found that the frequency with which adolescents verbally stated reasons for change during Motivational Interviewing was positively associated with reduction in substance use. The result supports McHugh and Morans (2020) findings, that adolescents with a higher prevalence of self-rules oriented towards desired experiences reported a higher overall well-being than adolescents with self-rules oriented towards avoiding or controlling experiences. Also, with Atkins and Styles (2016, 2018) suggestion, that verbal statements involving value-oriented self-rules are positively associated with mental well-being. However, several interesting questions regarding the relation between appetitive and aversive goal-talk remain. First, a high overall frequency of goal-talk might indicate thinking and acting based on goals more, as opposed to not talking about goals at all. Furthermore, the same three subcategories emerged in appetitive and aversive goal-talk, indicating that they may function similarly. If the adolescent states the appetitive aspects of a goal in one answer, the aversive aspects could be stated the next time, as the combined category indicated.

Several adolescents had goal-talk describing hierarchical framing of one's responses, in both appetitive and aversive categories, but the frequency varied. This is interesting, considering that a lower ability to hierarchically frame one's response has been associated with social anhedonia (Vilardaga et al., 2012), lack of social skills (McHugh & Stewart, 2012) and empathy (Rehfeldt and Barnes-Holmes, 2009), outcomes that were not measured in this smaller study. Still, observational distance and perspective-taking are meaningful concepts to discuss in relation to goals and hierarchical framing (Törneke, 2025). When someone observes another person and talks about what they see, it creates an additional level of observational distance, and it is from this vantage point that action is initiated. Furthermore, several adolescents hierarchically framed a goal in a superior position to behaviour, in line with previous research on goals (Locke & Latham, 2002), describing goals as the top of a hierarchical relation to the target behaviours. While the current study could not examine how superordinate goals influence the function of subordinate behaviours, this is very interesting, considering previous research demonstrating how function is transported across hierarchies (Paliliunas et al., 2022). Previous research suggests that guiding adolescents with behaviour problems to frame their behaviours as steps towards meaningful, long-term goals can facilitate behaviour change (Foody, Barnes-Holmes, Barnes-Holmes, & Luciano, 2013; Luciano et al., 2011).

In the subcategory temporal framing, emerging exclusively within the combined category, adolescents described how consequences for a certain behaviour were desirable short-term and aversive long term. For example, quote "it feels great right now, but this is also what destroys my life". These descriptions could reflect that temporal framing is trained during functional analysis in treatment, specifying short- and long-term consequences, using cues like then-now, past-future. Also, how stating a future goal influences behaviour in the present moment, similar to what De Houwer et al. (2024) highlighted in a recent study, that relational networks allows verbal behaviour to be influenced not only by past reinforcement histories but also by the specification of future-oriented outcomes. As noted in (Kleinrahm et al., 2013), the participation of adolescents in formulating individual goals could enhance mental well-being and decrease behavioural problems. This supports a collaborative approach in institutional settings, where the adolescents' own words and perspectives are integral to shaping their treatment pathways.

4.1. Limitations and future research

While this study provides valuable insights into goals as verbal behaviour, it is important to note several limitations. First, the sample size was small, and all participants were male, which may limit the transferability of the findings (Graneheim et al., 2017). Although inter-rater agreement was acceptable, coder subjectivity could influence the results. Also, the exploratory analyses involved multiple comparisons on a small dataset, which raises the risk of Type I error. Statistical power was limited, and observed associations should be viewed as preliminary indicators requiring replication in larger, more diverse samples. Future research should seek to replicate these findings in a larger, more diverse sample, including female participants. Moreover, the reliance on verbal reports in interviews may have introduced biases, as adolescents might have tailored their responses based on perceived expectations from the interviewer or their therapists.

Future studies could benefit from using complementary methods, such as real-time behavioural observations of verbal behaviour related to goals and related outcomes, to gain a more comprehensive understanding of how goal-talk influences behaviour. Additionally, the coding manual should be refined by examining the reliability and validity of the instrument, using a greater number of raters and potentially a scale to allow for more thorough analysis. One challenge initially in the analytic process was to decide what category some of the meaning units of goal-talk were related to. This challenge has been described before, as several researchers found that goals formulated by patients are less clear when compared with therapists (Dimsdale et al., 1979). The therapist can make a very clear and positively oriented goal formulation, but it is still unclear how and if the patient adapts and uses the formulation. Pairing A-CRA's activity- and contingency-focused techniques with explicit work on the verbal networks surrounding goals could be a way forward to enhance behaviour change in institutional care.

In sum, there is much to be explored and understood regarding how goals influence behaviour. The present study suggests that a higher frequency of goal-talk could influence treatment outcome and seems to be a valuable concept to explore further. Whether different types of goal talk are associated with different paths to sobriety and behaviour change in this population needs further investigation.

CRediT authorship contribution statement

Ida Mälarstig: Writing – review & editing, Writing – original draft, Visualization, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Niklas Törneke:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Investigation, Formal analysis, Conceptualization. **Tobias Lundgren:** Writing – review & editing, Supervision, Project administration. **Sven Alfonsson:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Formal analysis. **Mårten J. Tyrberg:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Investigation, Formal analysis, Conceptualization.

Declaration competing of interest

The authors declare that they have no conflicts of interest related to this work.

Appendix 1

Interview guide for an interview about A-CRA treatment and goals. Translate from Swedish. Introductory information: I am interested in your experiences, the treatment process, how you worked with goals and

values, what was helpful, and more difficult. There are no right or wrong answers, I am interested in your own experiences and thoughts. Your answers will be analysed anonymously. Do you have any questions before we begin? *(Each question may be followed up with reflective prompts, such as: "I hear you saying …", "Tell me more", "Please elaborate", "Can you be more specific?".)*

General introduction.

- Can you describe the treatment A-CRA you took part in?
- What was the purpose of it?
- What did you and your therapist do?
- Can you tell me a bit about what you found helpful or good about the A-CRA treatment?
- What did you think was especially good about A-CRA?
- What did you find difficult or awkward about taking part in A-CRA treatment?
- Please tell me a little about how things worked between you and your therapist when you worked with A-CRA together.
- What worked well? What worked poorly/less well?
- Do you think others in your situation would benefit from A-CRA?
- In your view, what leads to problems with substance use?
- What do you think drives these problems for young people?
- How can someone get out of these problems, in your opinion?

Working with goals and values.

- At the start of treatment, you talked about what is important to you and what you wanted to work on — tell me about that.
- What was it like to formulate treatment goals in A-CRA?
- How was it to decide on goals to work on?
- How was it to follow these goals?
- How was it to start taking steps towards your goals?
- Tell me about a particular, important step.
- People have different things that matter most to them — like family, freedom, being healthy, or being fair. In treatment, you worked with what you value in your life — tell me about that.
- Tell me about how you discovered what feels important to you, what you value?
- How did you work with what matters to you in your life?
- Have you found out what matters to you, and if so, how did you find that out?
- What hindered you from finding out what matters to you here, at the secure youth home?
- What helped you find what mattered to you here, at the secure youth home?
- Was it easy or difficult to come up with things you would like to do, new activities, or activities you already tried?
- What makes young people keep up the things they value, and think are important?
- What makes young people continue to do things they value when struggling with substance use and other difficulties?
- What helped you to keep up the things you value, and think are important?
- What helped you continue to do the things you value, and think are important when it felt hard?
- How do you think young people in your situation can find activities they like and value?
- Can adults help them find activities they like and that feel valuable?
- What do you think helps young people take steps and make changes even when it feels hard?
- How was it to work on things you found important from the sessions between meetings with your therapist?
- How did any goals or activities from A-CRA fit with what matters to you?

References

Atkins, P. W. B., & Styles, R. G. (2016). Measuring self and rules in what people say: Exploring whether self-discrimination predicts long-term wellbeing. *Journal of Contextual Behavioral Science, 5*(2), 71–79. https://doi.org/10.1016/j.jcbs.2016.05.001

Azrin, N. H., Sisson, R. W., Meyers, R., & Godley, M. (1982). Alcoholism treatment by disulfiram and community reinforcement therapy. *Journal of Behavior Therapy and Experimental Psychiatry, 13*(2), 105–112. https://doi.org/10.1016/0005-7916(82)90050-7

Baer, J. S., Beadnell, B., Garrett, S. B., Hartzler, B., Wells, E. A., & Peterson, P. L. (2008). Adolescent change language within a brief motivational intervention and substance use outcomes. *Psychology of Addictive Behaviors, 22*(4), 570–575. https://doi.org/10.1037/a0013022

Barnes-Holmes, D. (2000). Behavioral pragmatism: No place for reality and truth. *The Behavior Analyst, 23*(2), 191–202. https://doi.org/10.1007/BF03392010

Barrett, G. J., & Rappaport, N. (2011). Keeping it real: Overcoming resistance in adolescent males mandated into treatment. *Adolescent Psychiatry, 1*(1). https://doi.org/10.2174/2210676611101010028

Baur, A., Trösken, A., & Renneberg, B. (2024). Content and attainment of individual treatment goals in CBT. *Psychotherapy Research, 34*(1), 111–123. https://doi.org/10.1080/10503307.2023.2173681

Berman, A. H., Palmstierna, T., Källmén, H., & Bergman, H. (2007). The self-report Drug Use Disorders Identification Test—Extended (DUDIT-E): Reliability, validity, and motivational index. *Journal of Substance Abuse Treatment, 32*(4), 357–369. https://doi.org/10.1016/j.jsat.2006.10.001

Biglan, A., & Hayes, S. C. (1996). Should the behavioral sciences become more pragmatic? The case for functional contextualism in research on human behavior. *Applied and Preventive Psychology, 5*, 47–57. https://doi.org/10.1016/S0962-1849(96)80026-6

Brauers, M., Kroneman, L., Otten, R., Lindauer, R., & Popma, A. (2016). Enhancing adolescents' motivation for treatment in compulsory residential care: A clinical review. *Children and Adolescent Services Review, 61*, 117–125. https://doi.org/10.1016/j.childyouth.2015.12.011

Catania, A. C. (2013). *Learning* (5th Edition). Sloan Publishing.

Cohrs, C. M., Shriver, M. D., Burke, R. V., & Allen, K. D. (2016). Evaluation of increasing antecedent specificity in goal statements on adherence to positive behavior-management strategies. *Journal of Applied Behavior Analysis, 49*(4), 768–779. https://doi.org/10.1002/jaba.321

De Houwer, J., Finn, M., Boddez, Y., Hughes, S., & Cummins, J. (2024). Relating different perspectives on how outcomes of behavior influence behavior. *Journal of the Experimental Analysis of Behavior, 121*(1), 123–133. https://doi.org/10.1002/jeab.887

Dimsdale, J. E., Klerman, G. L., & Shershow, J. C. (1979). Treatment goals: Staff and patient perceptions. *American Journal of Psychiatry, 136*(2), 232–235. https://doi.org/10.1176/ajp.136.2.232

Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing, 62*(1), 107–115. https://doi.org/10.1111/j.1365-2648.2007.04569

Epton, T., Currie, S., & Armitage, C. J. (2017). Unique effects of setting goals on behavior change: Systematic review and meta-analysis. *Journal of Consulting and Clinical Psychology, 85*(12), 1182–1198. https://doi.org/10.1037/ccp0000260

Fife, S. T., & Gossner, J. D. (2024). Deductive qualitative analysis: Evaluating, expanding, and refining theory. *International Journal of Qualitative Methods, 23*. https://doi.org/10.1177/16094069241234567

Godley, S. H., Hunter, B. D., Fernández-Artamendi, S., Smith, J. E., Meyers, R. J., & Godley, M. D. (2014). A comparison of treatment outcomes for adolescent community reinforcement approach participants with and without co-occurring problems. *Journal of Substance Abuse Treatment, 46*(4), 463–471. https://doi.org/10.1016/j.jsat.2013.10.013

Foody, M., Barnes-Holmes, Y., Barnes-Holmes, D., & Luciano, C. (2013). An empirical investigation of hierarchical versus distinction relations in a self-based ACT exercise. *International Journal of Psychology and Psychological Therapy, 13*(3), 373–385.

Godley, M. D., Passetti, L. L., Subramaniam, G. A., Funk, R. R., Smith, J. E., & Meyers, R. J. (2017). Adolescent community reinforcement approach implementation and treatment outcomes for adolescents with opioid problem use. *Drug and Alcohol Dependence, 174*, 9–16. https://doi.org/10.1016/j.drugalcdep.2016.12.029

Godley, S. H., Smith, J. E., Passetti, L. L., & Subramaniam, G. (2014). The adolescent community reinforcement approach (A-CRA) is a model paradigm for the management of adolescents with substance use disorders and co-occurring psychiatric disorders. *Substance Abuse, 35*(4), 352–363. https://doi.org/10.1080/08897077.2014.936993

Graneheim, U. H., Lindgren, B. M., & Lundman, B. (2017). Methodological challenges in qualitative content analysis: A discussion paper. *Nurse Education Today, 56*. https://doi.org/10.1016/j.nedt.2017.06.002. Article 29.

Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today, 24*(2), 105–112. https://doi.org/10.1016/j.nedt.2003.10.001

Grosse Holtforth, M., & Grawe, K. (2002). Bern inventory of treatment goals: Part 1. Development and first application of a taxonomy of treatment goal themes. *Psychotherapy Research, 12*(1), 79–99. https://doi.org/10.1080/713869618

Hayes, S. C., Barnes-Holmes, D., & Roche, B. (2001). *Relational frame theory: A Post-Skinnerian account of human language and cognition*. Kluwer Academic Publishers.

Henderson, C. E., Wevodau, A. L., Henderson, S. E., Colbourn, S. L., Gharagozloo, L., North, L. W., & Lotts, V. A. (2016). Independent replication of the adolescent-

community reinforcement approach with justice-involved adolescents. *American Journal on Addictions, 25*(3), 233–240. https://doi.org/10.1111/ajad.12366
Hogue, A., Henderson, C. E., Becker, S. J., & Knight, D. K. (2018). Evidence base on outpatient behavioral treatments for adolescent substance use, 2014–2017: Outcomes, treatment delivery, and promising Horizons. *Journal of Clinical Child and Adolescent Psychology, 47*, 499–526. https://doi.org/10.1080/15374416.2018.1466307
James, W. (1981). In F. Burkhardt, F. Bowers, & K. Skrupskelis (Eds.), *The principles of psychology*. Cambridge, MA: Harvard University Press (Original work published 1890).
Kallio, H., Pietilä, A. M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: Developing a framework for a qualitative semi-structured interview guide. *Journal of Advanced Nursing, 72*(12), 2954–2965. https://doi.org/10.1111/jan.13031
Kleinrahm, R., Keller, F., Lutz, K., Kölch, M., & Fegert, J. M. (2013). Assessing change in the behavior of children and adolescents in adolescent welfare institutions using goal attainment scaling. *Child and Adolescent Psychiatry and Mental Health, 7*(33). https://doi.org/10.1186/1753-2000-7-33
Lindgren, B. M., Lundman, B., & Graneheim, U. H. (2020). Abstraction and interpretation during the qualitative content analysis process. *International Journal of Nursing Studies, 108*. https://doi.org/10.1016/j.ijnurstu.2020.103632
Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation. A 35-year oddysey. *American Psychologist, 57*(9), 705–717.
Luciano, C. (2017). The self and responding to the own's behavior: Implications of coherence and hierarchical framing. *International Journal of Psychology and Psychological Therapy, 17*(3), 267–275.
Luciano, C., Ruiz, F. J., Vizcaíno-Torres, R. M., Sánchez-Martín, V., Gutiérrez-Martínez, O., & López-López, J. C. (2011). A relational frame analysis of defusion interactions in acceptance and commitment therapy: A preliminary and quasi-experimental study with at-risk adolescents. *International Journal of Psychology and Psychological Therapy, 11*(2), 165–182.
Lundgren, T., Luoma, J. B., Dahl, J., Strosahl, K., & Melin, L. (2012). The Bull's-Eye Values Survey: A psychometric evaluation. *Cognitive and Behavioral Practice, 19*(4), 518–526. https://doi.org/10.1016/j.cbpra.2012.01.004
Mälarstig, I., Tyrberg, M. J., Lundgren, T., & Alfonsson, S. (2023). Experiences of conducting a substance use disorder treatment, A-CRA, in compulsory institutional care for youth—The challenge of promoting openness in a closed, temporary setting. *Children and Youth Services Review, 148*, 106850. https://doi.org/10.1016/j.childyouth.2023.106850
McAuliffe, D., Hughes, S., & Barnes-Holmes, D. (2014). The dark side of rule-governed behavior: An experimental analysis of problematic rule-following in an adolescent population with depressive symptomatology. *Behavior Modification, 38*(4), 587–613.
McHugh, L., Barnes-Holmes, Y., & Barnes-Holmes, D. (2004). Perspective taking as relational responding: A developmental profile. *Psychological Record, 54*, 115–144.
McHugh, L., & Stewart, I. (Eds.). (2012). *The self and perspective taking: Contributions and applications from modern behavioral science*. Context Press (New Harbinger Publications).
Moran, O., & McHugh, L. (2020). Measuring occurrences of self and other discriminations in relation to mental health in adolescent textual responses. *Journal of Contextual Behavioral Science, 15*, 253–263. https://doi.org/10.1016/j.jcbs.2020.01.010
National Board of Institutional Care. (2015). *Problems of SiS-placed adolescents in comparison with other adolescents*. Stockholm: Institutional Care in Focus.
O'Hora, D., & Maglieri, K. A. (2006). Goal statements and goal-directed behavior: A relational frame account of goal setting in organizations. *Journal of Organizational Behavior Management, 26*(1–2), 131–170. https://doi.org/10.1300/J075v26n01_06
Paliliunas, D., Belisle, J., Barron, B. F., & Dixon, M. R. (2022). Transformation of hierarchical multiply controlled verbal relations in children with autism in a game of "I Spy". *Behavior Analysis in Practice, 15*(4), 1383–1389. https://doi.org/10.1007/s40617-019-00391-0
Pepper, S. C. (1942). *World hypotheses: A study in evidence*. University of California Press.
Ramnerö, J., & Törneke, N. (2015). On having a goal: Goals as representations or behavior. *Psychological Record, 65*(1), 89–99. https://doi.org/10.1007/s40732-014-0093-0
Rehfeldt, R. A., & Barnes-Holmes, Y. (2009). *Derived relational responding: Applications for learners with autism and other developmental disabilities*. New Harbinger Publications.
Skinner, B. F. (1938). *The behavior of organisms: An experimental analysis*. New York, NY: Appleton-Century.
Styles, R. G., & Atkins, P. W. B. (2018). Measuring perceptions of self and others in what people say: A replication and extension of the functional self-discrimination measure. *Journal of Contextual Behavioral Science, 9*, 45–52. https://doi.org/10.1016/j.jcbs.2018.06.005
Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): A 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care, 19*(6), 349–357. https://doi.org/10.1093/intqhc/mzm042
Törneke, N. (2010). *Learning RFT: An introduction to relational frame theory and its clinical application*. Oakland, CA: Context Press.
Törneke, N. (2025). *Using functional analysis in psychotherapy*. New York: Guilford Press.
Van der Helm, P., Kuiper, C., & Stams, G. J. J. M. (2018). Group climate and treatment motivation in secure residential and forensic youth care from the perspective of self-determination theory. *Children and Youth Services Review, 93*, 339–344. https://doi.org/10.1016/j.childyouth.2018.07.028
Vilardaga, R., Estévez, A., Levin, M. E., & Hayes, S. C. (2012). Deictic relational responding, empathy, and experiential avoidance as predictors of social anhedonia: Further contributions from relational frame theory. *Psychological Record, 62*(2), 409–432. https://doi.org/10.1007/BF03395811
Wilson, K. G., & Dufrene, T. (2009). *Mindfulness for two: An acceptance and commitment therapy approach to mindfulness in psychotherapy*. Oakland, CA: New Harbinger.
Zettle, R. D., Hayes, S. C., Barnes-Holmes, D., & Biglan, A. (Eds.). (2016). *The wiley handbook of contextual behavioral science*. Wiley-Blackwell.