

## **Innovative use of a dynamic model of behavioural incentives in the context of supporting adaptive behaviour change and trauma recovery in the context of high needs youth in residential care settings**

Dr Lisa Fahey, Theresa Eid, Rowan Brooke, Jessie Kim and Azrin Rahman

*Quovus works with a range of children and youth within a trauma recovery context where use of targeted behavioural incentives and rewards have significant clinical utility. The following commentary seeks to amplify key practice learnings informed by real-world implementation that are consistent with findings across the scientific literature.*

### **Background**

When early experiences are unpredictable and chaotic, children adapt to manage their environment in an attempt to regain control and perceived safety. Experiences of trauma, particularly during key developmental periods, reduce the opportunity for children to develop skills related to regulation. If a child's needs are not being met, behaviours often present as an indicator of these unmet needs. These behaviours can include presentations of agitation, disorganisation, withdrawal, deliberate self-harm, risk-taking, and aggression. Children who have experienced a history of inconsistent caregiving, neglect, or abuse, develop an inability to cope in healthy and safe ways. Subsequently, their expressions can form a risk to their personal safety, the safety of others, and their overall well-being.

The use of a dynamic incentive model tailored to the individual's choice and preference is considered a tool within the multi-element intervention to support motivation and engagement. By enhancing a child and young person's capacity and motivation for goal setting using extrinsic motivation, they are afforded the opportunity to develop skills, achieve self-efficacy, work towards building resilience, and ameliorate the impacts of early adversity. Goal achievement supported by extrinsic incentives assists in general well-being, confidence, and building the key ingredients of an experience of intrinsic drive.

### **Theory of operant conditioning**

Operant conditioning is a form of learning in which the consequences of a behaviour determine whether or not it is repeated or reduced (Skinner, 1963). In particular, Skinner believed in three types of responses that could follow a consequence: reinforcement, punishment, and neutral. A reinforcer increased the likelihood of a behaviour, a punishment reduced the likelihood of a behaviour, and a neutral operant had no effect (Skinner, 1963). In addition to this, 'positive' meant that a stimulus was added, whereas 'negative' meant that a stimulus was removed (Skinner, 1963). Utilising the theory of operant conditioning, we suggest that our behavioural incentives use positive reinforcement to encourage and maintain safe and desirable behaviours in children. Additionally, we know that the presence of incentives are a motivating factor that further encourages individuals to engage in target actions, including safe behaviours.

### **Quality/desirability of the reward**

It is important to consider the quality of the selected reward, specifically in regards to intrinsic versus extrinsic incentives. Extrinsic rewards are tangible material rewards, such as money and items, whereas intrinsic rewards are internally driven, focusing on innate qualities that encourage an individual's efforts and achievements (Mottaz, 1985). There is significant evidence suggesting that rewards and incentives have a positive effect on morale. For example, Smith et al., (2015) found that extrinsic and intrinsic rewards were highly valued by participants as motivating. However, it is important to note that the extent to which the individual desires the specific offered reward plays an important role in motivation. Flora and Flora's (1999) study used pizza incentives to encourage reading in students but found no significant relationship. This is understood to be linked to the quality in the long term value of the reward of pizza to each participant over time matched to the required effort or demand. Therefore, in order for positive reinforcement to occur, rewards must be desirable or meaningful enough so that individuals are motivated to work towards the specified behaviour.

### **Sustainability of rewards**

It is important to note the long term effects of rewards. Many studies show mixed findings, with some research suggesting that extrinsic rewards may decrease intrinsic motivation over time as they can reinforce the belief that certain tasks are not worth doing unless payment occurs (Deci et al., 2001). Whereas other studies suggest that extrinsic rewards significantly improved behaviour management in classrooms (Hoffman et al., 2009). There is also evidence suggesting

that verbal encouragement improves performance and outcomes. A study by Guéguen et al., (2015) reported a significantly positive effect on a child's performance on image tasks when verbal encouragement/reinforcement was used. Additionally, Bicker's (1993) study on muscular endurance found that participants who received verbal encouragement significantly outperformed those who did not. In addition to this, evidence shows that verbal cues serve as reminders that help in memory retrieval (Morgan & Hayne, 2007), as they induce recollections of past experiences (Hayne and Herbert, 2004). Verbal encouragement and prompts linked to incentives programs will likely assist to optimise outcomes.

### Key Practice Considerations

- Dynamic extrinsic incentives chosen by the individual and verbal encouragement in the form of relational connection opportunities (e.g., coaching, mentoring, and celebration points) help establish intrinsic motivation for engagement and forming habits of personal safety to oneself and others.
- Having clear and personalised incentive targets within a program are important factors in working towards desired goals and sense of personal achievement.
- Designing an easy to follow structure allows expectations of an individual's role in achieving and aggregating towards their overall chosen incentive to be established.
- Regular check-ins provide an opportunity for feedback related to an individuals' behaviour, debriefing, and reflection, along with encouragement, praise, and validation.

Taken together, this framework seeks to enrich an individuals' self-efficacy and self-regulation by supporting them to understand the relationship between choices and outcomes, build on their personal strengths, and develop resilience.

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