Functional Communication Training with and without Alternative Reinforcement and Punishment: An Analysis of 58 Applications

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What is Functional Communication Training (FCT)?

FCT is a behavior intervention that teaches individuals to use communication instead of engaging in challenging behaviors.

It's rooted in identifying the function of problem behavior and providing an appropriate replacement.

Commonly used for individuals with autism and other developmental disabilities.

Purpose of the Study

To assess the effectiveness of FCT across 58 individual treatment applications.

To compare outcomes of FCT with and without the use of punishment and alternative reinforcement.

To extend prior research with a larger and more diverse sample.

Participants and Setting

Participants were individuals referred to an outpatient clinic for severe problem behavior.

Ages ranged from 2 to 30 years, most with intellectual or developmental disabilities.

Behaviors included aggression, self-injury, and property destruction.

Treatment Components Examined

- **FCT + Extinction**: Reinforcement for communication, extinction for problem behavior.

- **FCT + Alternative Reinforcement**: Use of noncontingent or differential reinforcement.

- **FCT + Punishment**: Use of response blocking, time-out, or overcorrection.

Effectiveness of FCT with Extinction Alone

- 35% of cases were successfully treated using FCT with extinction alone.

- This suggests that for many, extinction is a sufficient complement to FCT.

- However, some individuals showed persistent problem behavior.

The Role of Alternative Reinforcement

+ Adding alternative reinforcement increased treatment success.

! Reinforcement was often delivered for periods of appropriate behavior (e.g., DRO).

Helped reduce extinction bursts and maintain engagement.

Schedule Thinning Techniques

Once communication was established, reinforcement schedules were gradually thinned.

Multiple schedules used to indicate availability of reinforcement.

Helped ensure generalization and reduced reliance on constant reinforcement.

Comparison to Hagopian et al. (1998)
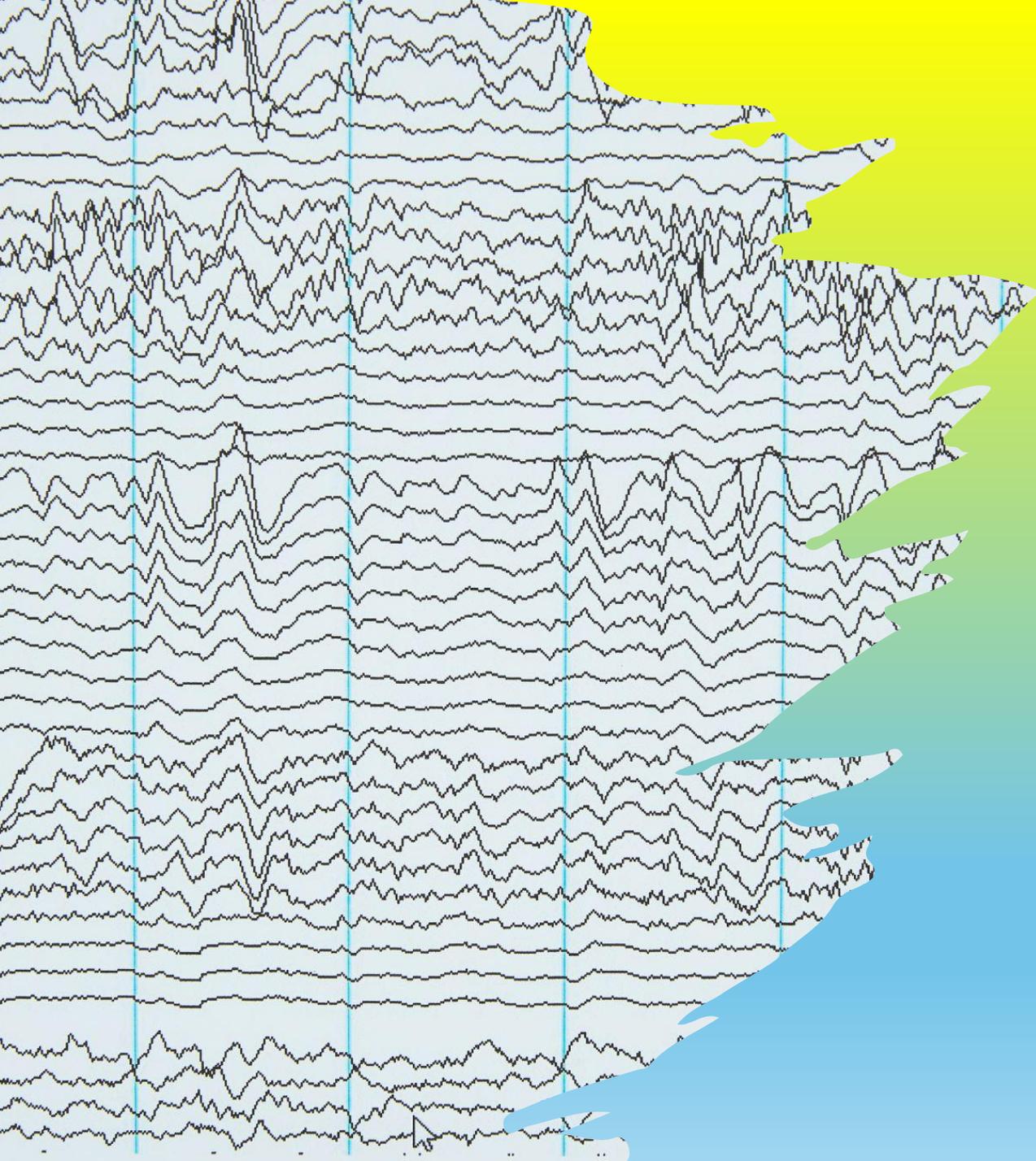
- The 2013 study doubled the number of applications from the earlier study.

- Showed increased reliance on function-based interventions.

- Reinforced the critical role of individualized treatment planning.

Ethical Considerations in Treatment

- Reinforcement should always be the first approach.

- Punishment must be used only after other options are exhausted.

- Interventions must prioritize dignity, consent, and the least restrictive alternative.

Limitations of the Study

- Case series design limits experimental control.

- Treatment intensity and therapist expertise varied.

- Long-term maintenance data were not available for all clients.

Practical Implications for Clinicians

- Start with FCT plus extinction; monitor data closely.

- Add reinforcement and thinning schedules as needed.

- Consider punishment only as a last resort, with proper oversight.

Recommendations for Future Research

- More research is needed on schedule thinning and generalization.

- Examine the long-term sustainability of FCT outcomes.

- Explore cultural and individual differences in FCT responses.

References

- Rooker, G. W., Jessel, J., Kurtz, P. F., & Hagopian, L. P. (2013). Functional communication training with and without alternative reinforcement and punishment: An analysis of 58 applications. *Journal of Applied Behavior Analysis, 46*(4), 708–722. https://doi.org/10.1002/jaba.79