An Evaluation of the Use of Applied Behaviour Analytic Strategies to Address Phobias and Fearful Behaviour

Stella Fok & Richard Stock, Capilano University

Phobias and Fear

- Specific phobia is a common psychiatric disorder characterized by irrational, excessive fear for a specific object or situation.
- Phobias can last more than 20 years if left untreated and adults suffering from phobias require more medical care than individuals with other diagnoses
- Quality of life is impacted because the disorder interferes with work, leisure activities and can result in significant medical consequences as seen in blood injection injury phobia.

Common ABA Strategies

1. Graduated Exposure is the process of slowly introducing the participant to the aversive stimuli progressing from mild exposure to more aversive (difficult) types of exposure.
2. Positive reinforcement is the delivery of a reinforcer contingent on the participant successfully completing a step in the graduated exposure process or meeting the approach criterion
3. Modeling, blocking, and stimulus distraction were also used along with graduated exposure and reinforcement.

Study	Measures	Strategies	Results
Cromartie et al., 2014	# steps completed in blood draw	Graduated exposure + Reinforcement	100% steps completed
Ellis et al., 2006	# steps completed	Graduated exposure + Reinforcement + Modelling	100% steps completed
Grider et al., 2012	# steps completed	Graduated exposure + Reinforcement + Stimulus Distraction	100% of steps completed
Jones & Friman, 1999	Rate of math calculations	Graduated exposure + Reinforcement	# of correct answers increased
May et al., 2013	ADIS-IV:P + CBCL	Graduated exposure + Reinforcement+ modelling	ADIS-IV:P + CBCL scores decreased
Rapp et al., 2005	Frequency of problem behaviours	Graduated exposure + Reinforcement+ Blocking	Near zero levels of problem behaviour
Ricciardi et al, 2006	Distance from animatronic + % successful touches	Graduated exposure + Reinforcement	Could touch figurine 100% of the time
Schmidt et al., 2013	Distance from activity room and duration engaged in activity	Graduated exposure + Reinforcement	Able to enter room and engage in activity for 5 minutes
Shabani et al, 2006	# steps completed for blood draw	Graduated exposure + Reinforcement	100% steps completed
Tyner et al., 2016	Distance from dog	Graduated exposure + Reinforcement	John: 0 ft from dog Sally: 0 ft Bob: 12 ft

Results

- Applied Behaviour Analytic strategies were found to be effective in decreasing problem behaviour, decreasing distance from aversive stimuli, and increasing approach behaviour.
- All 10 of the studies reviewed used graduated exposure and positive reinforcement either alone as a treatment package or in combination with other applied behaviour analytic strategies.

Directions for Future Research

- The individual components of treatment packages should be examined to potentially simplify the intervention and make it more accessible
- Longitudinal studies should be conducted to examine whether the effects of intervention maintained post treatment
- Physiological data such as heart rate or respiration should be collected to see if behavioural treatments affect biological fear responses.

FOR FURTHER INFORMATION CONTACT:
Author: Stella Fok
E-mail: stellafok@my.capilanou.ca