

The background of the slide is a light cream color, decorated with a pattern of hand-drawn, irregular dots in two colors: a muted orange and a dark, dusty purple. These dots are scattered across the entire slide, with some forming small, dense clusters.

Session 2: Online — conducting research in Mental Health

Lecture 4.

Using the scientific method in mental health research

- This involves accurate descriptions of research and accurate reporting of the findings in relation to treatment efficacy.
- Things to consider:
 - Testability & Falsifiability
 - Replicability
 - Validity
 - Generalisability

National Institute for Health and Care Excellence (NICE)

- An independent organisation within the UK which provides national guidance and good practice.
- The focus is on evidence based treatments and the management of specific medical diagnoses.
- NICE is now 20 years old, having been introduced in 1999.
- [NICE Guidance](#)
- <https://www.nice.org.uk/>
- However, there are some problems associated with providing a scientific approach to therapeutic interventions, particularly within the field of mental health.

How is research conducted in Clinical Psychology?

- Longitudinal Studies – investigating phenomena over an extended period of time.
- Prospective designs - participants are enrolled into the study before they develop a potential illness. The opposite is a retrospective study, where researchers enrol people who already have a disease/condition.
- Randomised Controlled Trials - similar people are randomly assigned to 2 (or more) groups to test a specific treatment or intervention. One group (the experimental group) has the intervention, the other (the control group) has an alternative intervention, a placebo or no intervention. The groups are followed up and outcomes are measured at specific times and any difference in response between the groups is assessed statistically.
- Epidemiological Studies – the measurement of disease outcomes in a population `at risk`. They include how often diseases occur in different groups of people and why. This information is used to plan and evaluate strategies to prevent illness and as a guide to the management of patients in whom disease has already developed.

How is research conducted in Clinical Psychology?

- Experimental Designs – where specific variables are manipulated to establish cause and effect. Hypotheses are predicted based upon previous research.
- Qualitative Methods – In contrast to quantitative research where large numbers of participants are involved and a focus on data analysis, qualitative research involves smaller numbers of participants, exploring the process and context of illness development/progression/remission.
- Mixed Designs – when both quantitative and qualitative methods are used to broaden the information base. Often used when one approach produces unexpected or insufficient findings.

The development of a therapeutic intervention

- An intervention is a set of sequenced or planned actions intended to help an individual (or specific target groups) to make a positive improvement in relation to a specific defined outcome.
- Interventions should be theory based, specifying a set of changeable predictors to describe, explain and predict intended change.
- The theory should inform the intervention to the extent that the exact change will occur in the predicted theoretical direction.
- For example, if you were designing a CBT based intervention for anxiety, which elements of cognition and behaviour would you expect to change?

The Aetiology of Anxiety Disorders

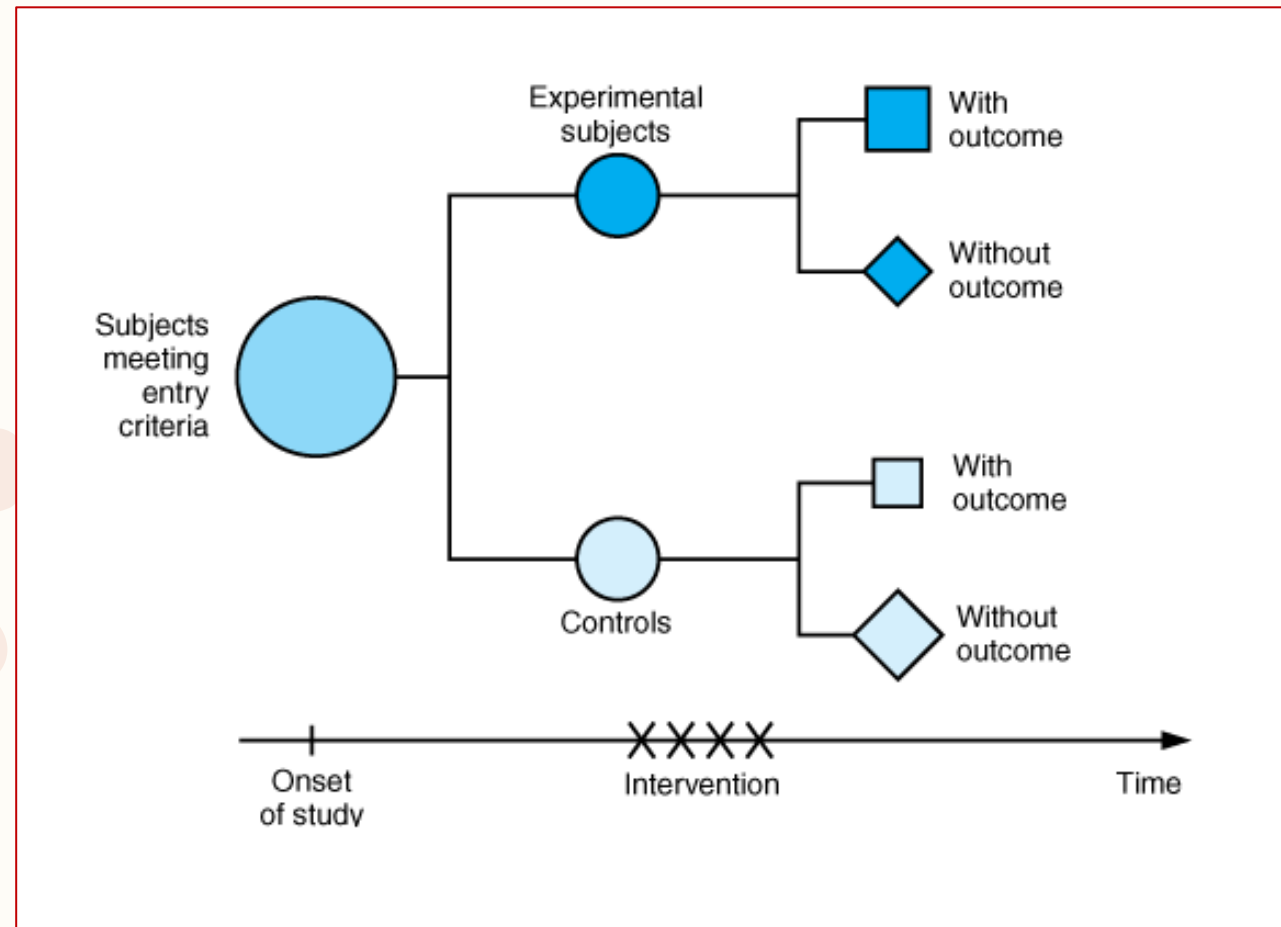
- **When the adaptive becomes maladaptive**

- Social factors, stressful events, childhood adversity, attachment relationships and separation anxiety.
- Psychological factors; learning processes, biological preparedness.
- Cognitive factors; perception of control, catastrophic misinterpretation, attention to threat and biased information processing.
- Biological factors; genetic factors and neurobiology.

- **Treatment intervention**

- Systematic exposure and interoceptive exposure.
- Relaxation and breathing retraining.
- Cognitive Therapy to identify cognitions that result in the maladaptive behaviour, evaluate the cognitions and replace them with more appropriate ways of interpreting their environment.
- Anti-anxiety medication e.g. benzodiazepine.

Randomised Controlled Trials



RCT: Sundquist et al. (2015).

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- Aims-
 - To compare mindfulness-based group therapy with treatment as usual (individual CBT) in patients with stress, anxiety, depression or adjustment disorders.
 - Method:
 - 8 week RCT conducted Spring 2012, Sweden
 - Eligible patients (20-64yrs) scoring low on `Patient Health Questionnaire, Hospital Anxiety and Depression Scale or Montgomery-Asberg Depression Rating Scale.

All patients (randomised – N = 215)

Mindfulness group
N = 110

Dropped out = 9

Started mindfulness = 101

Control group
N = 105

Dropped out = 10

Started treatment = 95

After 8 weeks

Observed cases =
MADRS-S – 81
HADS-D – 83
HADS-A – 83
PHQ-9 – 82

Dropped out = 48

Observed cases =
MADRS-S – 86
HADS-D – 86
HADS-A – 86
PHQ-9 – 85

Dropped out = 49

After 12 months

Observed cases =
MADRS-S – 62
HADS-D – 62
HADS-A – 62
PHQ-9 – 61

Observed cases =
MADRS-S – 56
HADS-D – 55
HADS-A – 56
PHQ-9 – 56

Results and conclusions

- For all scales and in both groups scores on the scales improved significantly after 8 weeks.
- The results were still observable after 12 months.
- There were no significant differences between the mindfulness (MGT) and control (TAU) groups.
- Mindfulness-based group therapy was non inferior to `treatment as usual` for patients with depressive, anxiety, stress or adjustment disorders.

More examples – Panic disorder

- Bakker et al. (1999) SSRI's more effective than tricyclics or CBT in the short term.
- Barlow et al. (2000)
 - 312 individuals with PD
 - CBT and tricyclics were equally effective BUT CBT better at preventing relapse.
 - A combination of CBT and tricyclics not as effective as CBT alone!
- Fava et al. (2001); Western & Morrison (2001) around 90% of patients receiving CBT remain symptom free two years later.

More examples - OCD

- McLean et al. (2001) compared cognitive treatment with behavioural treatment
 - 16% of pp`s in Cognitive group and 38% in Behavioural group showed clinical recovery and 13% and 45% at three month follow-up.
 - The method of cognitive therapy in this study was not ideal.
- Cottraux et al. (2001) no difference between cognitive therapy and behavioural therapy.
- Van Oppen et al. (1995) if cognitive therapy is combined with exposure response prevention, treatment is superior. Therefore a combination of cognitive and behavioural therapy is most effective.

Ethical issues in mental health research

- Informed consent
- Potential for increased distress
- Withholding treatment
- Confidentiality and privacy