

Anxiety Disorders



- Anxiety disorders affect 19 million US citizens annually
- Current therapies (e.g. benzodiazepines, buspirone, SSRIs) have significant limitations
 - Side-effects including sedation, nausea, muscle relaxation, memory impairment
 - Development of tolerance, dependence and withdrawal symptoms
 - Slow onset of action for buspirone and SSRIs
- Need for an anxiolytic that has a rapid onset and does not cause sedation and memory impairment or induce dependence
- Registration trials require large numbers of patients due to placebo effects
- Potential for Experimental Medicine studies to select best compound(s) for late stage trials

Dental Phobia as a Model of Anxiety



Investigation of pre-operative dental anxiety and quality of life in phobic dental patients

A collaboration with Nick Girdler, University of Newcastle upon Tyne

Dental Anxiety



- Avoidance and fear of dentists & dental procedures
- Dental anxiety is common
 - 64% UK adults nervous of dental treatment
 - 7-15% phobic (Adult Dental Health Survey 2000)
- Complex aetiology
- Many consequences
- Linked to Quality of Life

An individuals general sense of well being and satisfaction with their life

- Linked to dental & general anxiety
- Descriptive data
- Qualitative research

To determine:

- Levels of anxiety experienced as a function of the number of days prior to dental treatment
- Level of disruption caused to daily life activities by anxiety experienced in the days prior to dental treatment

- Prospective validated questionnaire-based study
- Dental Anxiety Questionnaire
 - Corah DAS
- Anxiety Questionnaire
 - Spielberger STAI
- Quality of Life Questionnaires
 - Personal good well being questionnaire
 - (Minor symptom evaluation profile)

Study Population



2 groups of patients:

- 25 Dentally anxious dental patients
 - Recruited from NDH - Sedation Department
- 25 Non anxious dental patients
 - Recruited from General Dental Practice

Methodology



- Subjects given 6 envelopes
 - each contain the 4 questionnaires inside
- Envelopes marked
 - 5, 4, 3, 2, 1 or 0
- Correspond to number of days before treatment appointment

Methodology



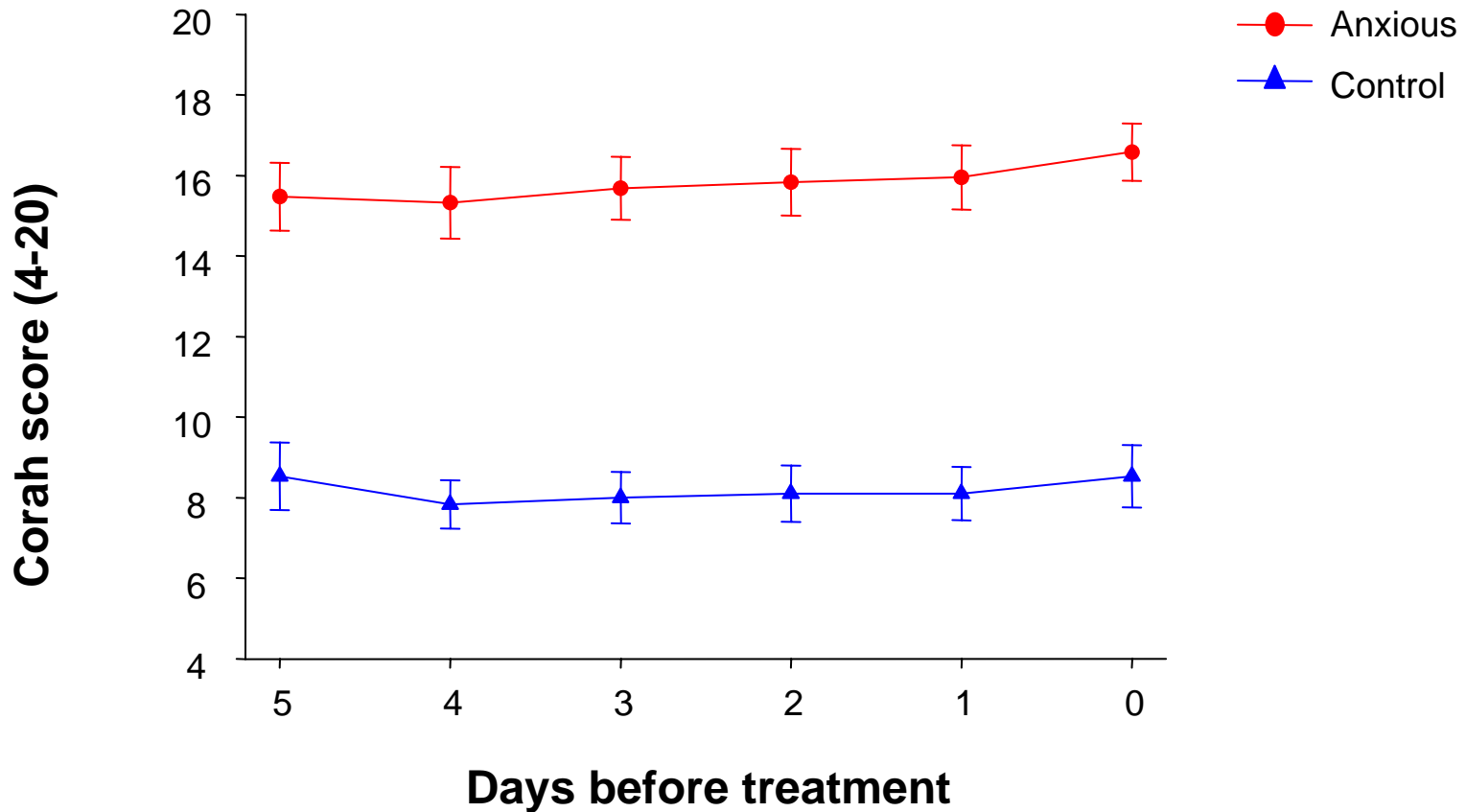
- How you feel at this moment in time?
- Complete the 4 questionnaires in the envelope
- Correct day (same time) on each of five days before treatment and the morning of their appointment
- Take 10-20 minutes to complete

Methodology



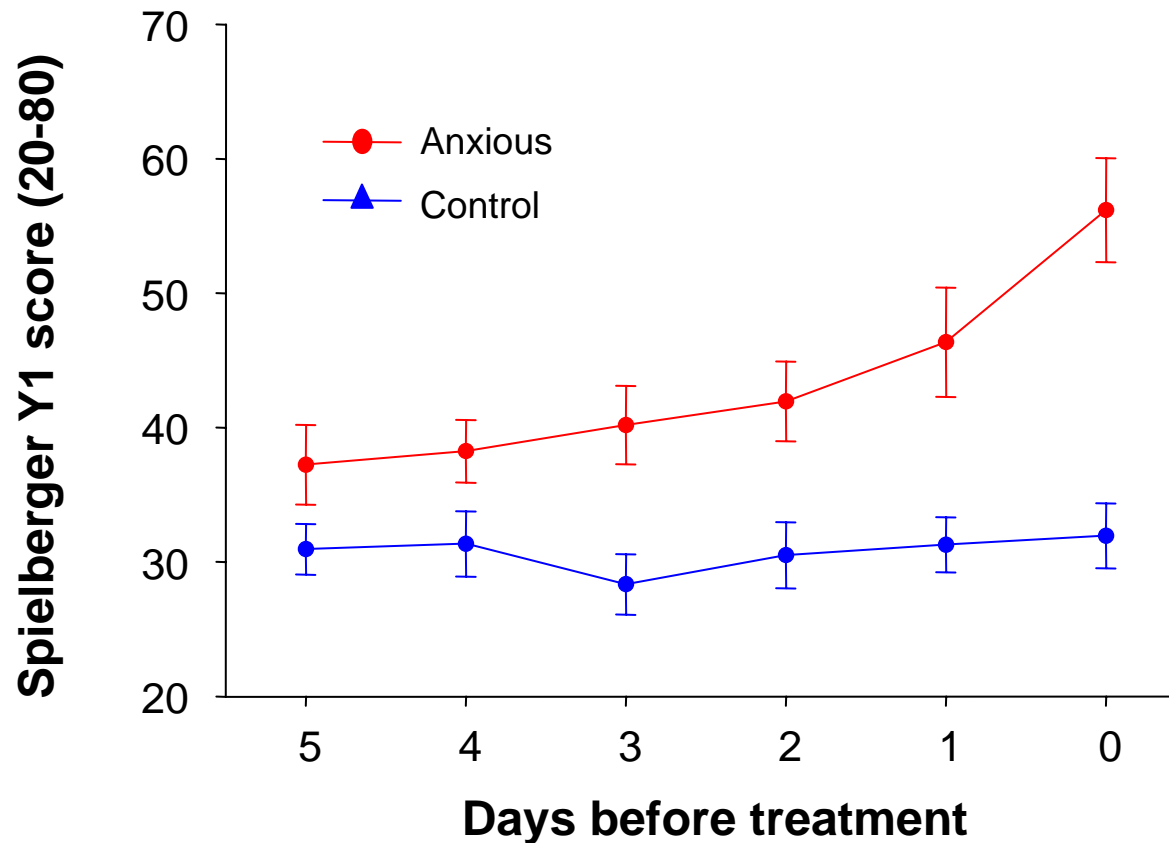
- Questionnaires collected
- Dental treatment completed under intravenous midazolam sedation
- Data analysis
 - patterns in pre-operative anxiety & quality of life comparing phobic & control groups

Dental Anxiety (Corah) scores during 5 day pre-operative period



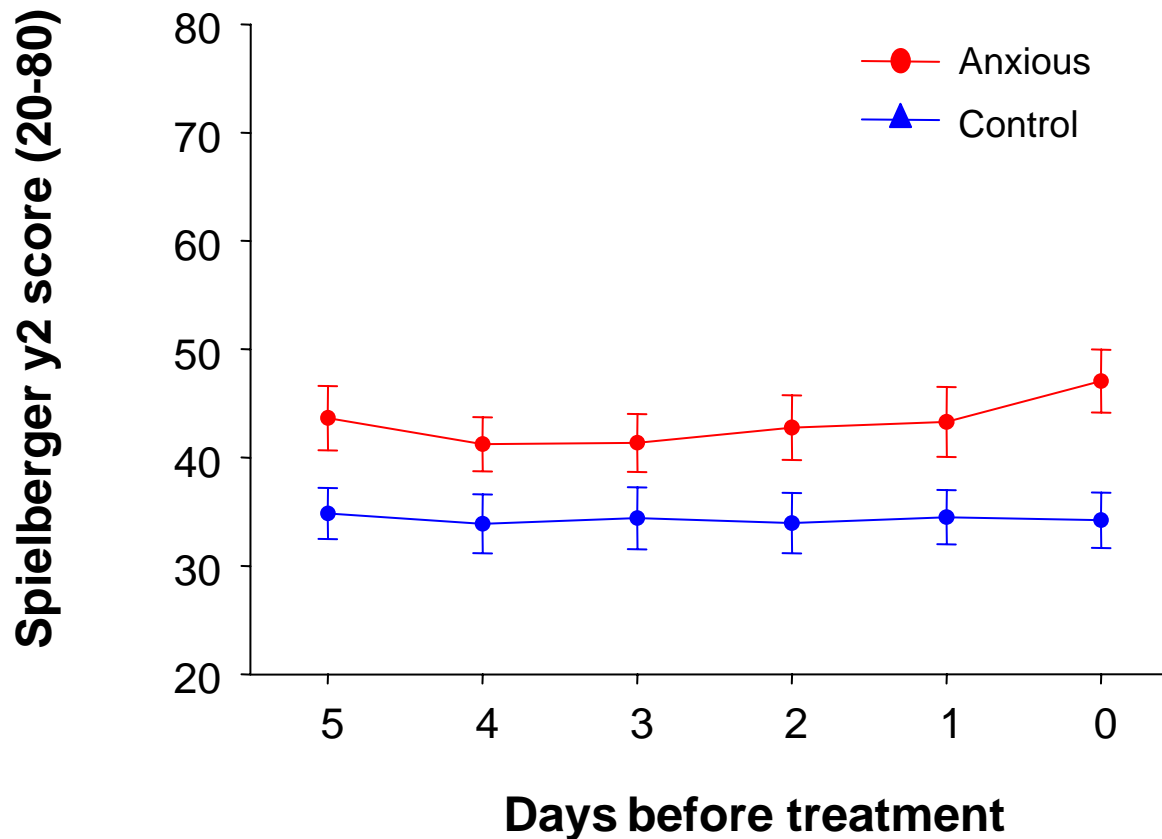
➤ Phobic group - Higher pre-operative anxiety compared to control group

STAI-S score over 5 day pre-operative period



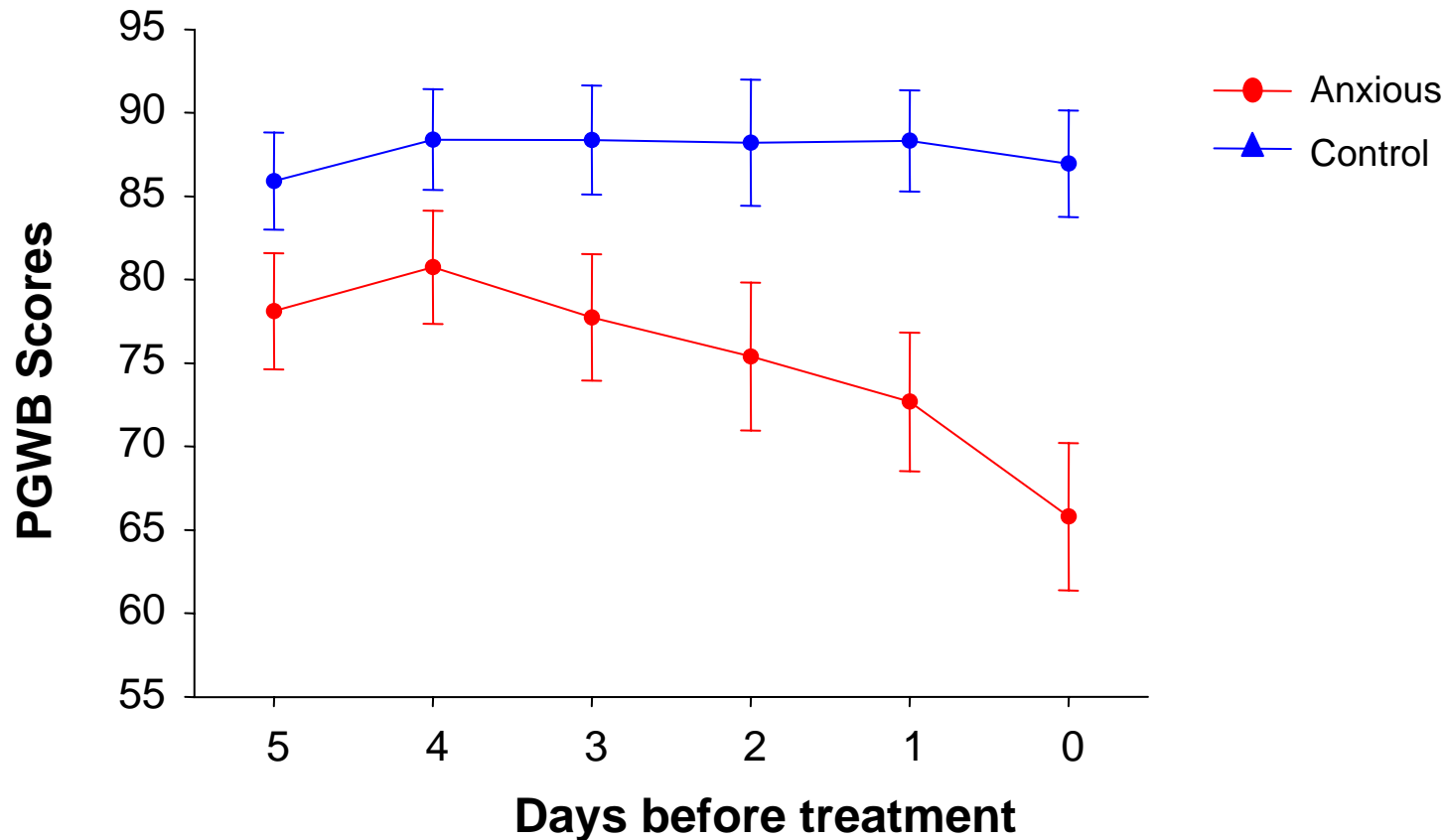
- Increasing state anxiety 5>0 days pre-operatively
- Highest on treatment day

STAI-T score over the 5 day pre-operative period



- Dental Phobics have higher trait anxiety than controls

Quality of life (PGWB) scores in the 5 day pre-operative period



- Decreasing Quality of Life 5>0 days pre-operatively
- Lowest on treatment day

Summary of Results



- Phobic group have
 - Increased pre-operative anxiety
 - Increasing anxiety 5>0 days in pre-operative period, highest on day of treatment
 - Higher general trait anxiety
 - Decreased Q.o.L pre-operatively
 - Lowest Q.o.L on the day of treatment
- Unique model of acute anxiety

Conclusion



- Dental phobia
 - Large proportion of population (7-15%)
 - Newcastle: 700 new referrals each year
 - Anxiety is acute & pre-emptive (chronic?)
 - Unique model & tool for studying phobia & for testing anxiolytics/other agents

Next Steps



- Determine onset and development of dental anxiety in patients given a date for oral dental surgery
- Determine level and maintenance of post-operative anxiety following oral dental surgery under i.v. midazolam
- Determine whether treatment with anxiolytic drugs during weeks prior to oral dental surgery significantly reduces pre-operative anxiety
 - Benzodiazepine lorazepam (0.5, 2.0 mg)
 - SSRI paroxetine (30 mg)
- Determine whether treatment with anxiolytic drugs after oral dental surgery significantly reduces post-operative anxiety
 - lorazepam (0.5 or 2.0 mg)
 - Paroxetine (30 mg)