

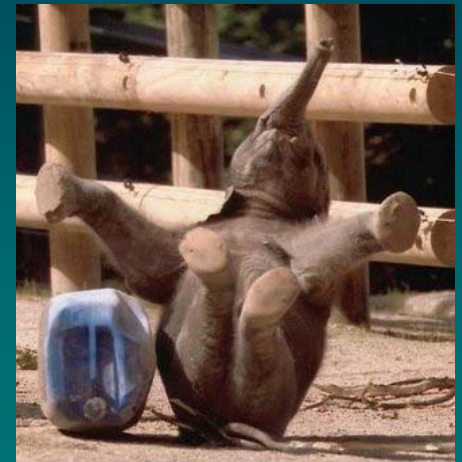


Vestibular Rehabilitation Benefit Questionnaire

Anna Morris
BIG Conference 2009



Dizziness





Vestibular Rehab

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Institute of Sound and
Vibration Research



Promote
compensation

Address
psychological
consequences

**Improve
quality
of life**

Break cycle
of avoidance
and inactivity





Measuring success

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Symptoms

Disabilities

Psychological distress

Lifestyle restrictions





Existing measures

E.g. Dizziness Handicap Inventory
Vertigo Symptom Scale

Do not address all aspects of QoL

Developed from theory not patients

Not developed for measuring change



Criteria for new measure

All areas of QoL affected by dizziness

Based on data from patients

Suitable for measuring change

Short enough for routine use



Strategy

1. Qualitative study of effects of dizziness

Develop prototype questionnaire from data

2. Field trial of prototype

Investigate properties of items and subscales

3. Longitudinal trial to validate refined questionnaire

Establish psychometric profile



Qualitative study

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In-depth semi-structured interviews

20 patients undergoing VR

Thematic analysis of interviews

Prototype items drawn from themes





Prototype

36 items, 7 response options

All areas of QoL relevant to dizziness covered

Symptoms

Disabilities

Psychological distress

Lifestyle restrictions



Refinement

Face validity review

25 patients and 5 experts

Field trial

data from 155 patients undergoing VR

review of statistical properties of items



Refined VRBQ

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Reduced from 36 to 22 items

Factor analysis revealed 4 subscales

Dizziness

Anxiety

Motion-provoked dizziness

Quality of life



Examples

Dizziness

I feel dizzy....

All of the time >>>>> Never

Anxiety

I have difficulty breathing or feel short of breath...

All of the time >>>>> Never

Motion-provoked dizziness

Bending over makes me feel...

Extremely dizzy >>>>> Not at all dizzy

Quality of life

Compared to before the dizziness, I take part in social activities...

A lot more >>> Same as before >>> A lot less



Validation

Comparison of VRBQ with DHI, VSS-sf, SF-36

Before and after control period (n=40)

Before and after treatment (n=124)

Assess psychometric properties

- validity

- test-retest reliability

- internal consistency

- responsiveness



Results

Validity

Correlations with corresponding subscales all appropriate
e.g. Dizziness subscale strong correlation with VSS-sf Vertigo
Weak relationships with SF-36



Test-retest reliability

Total & subscale intra-class correlation co-efficients all >0.9 ($p < 0.001$)



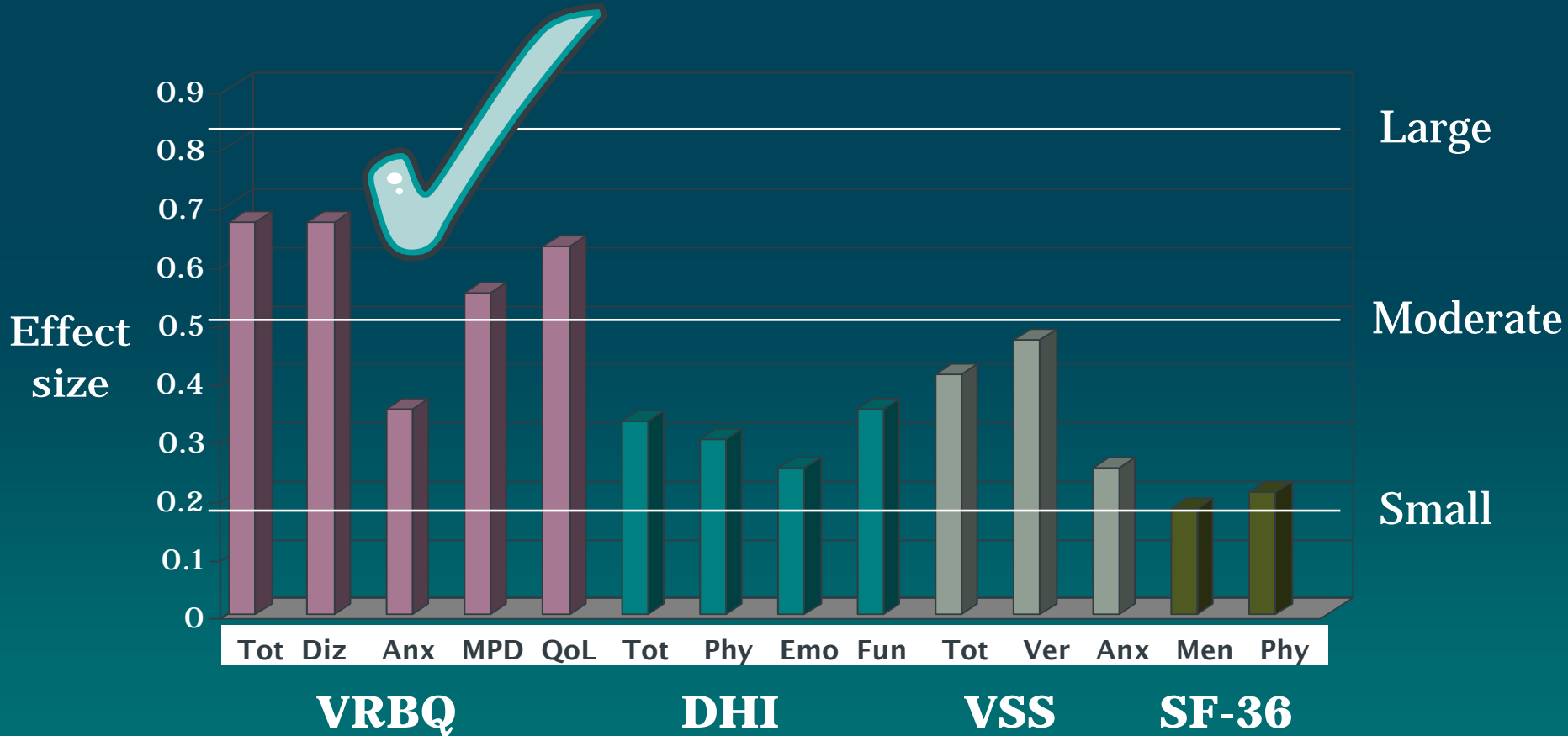
Internal consistency

Cronbach's alpha: subscales $\sim 0.8-0.9$; total 0.7





Responsiveness





The finished product

Self-completion questionnaire

4 subscales represent all main areas of dizziness impact ★

22 items (DHI 25 items + VSS-sf 15 items = 40 items) ★

Based on patient concerns (but no new items) ★

Valid, reliable and internally consistent

More responsive to change than comparable measures ★

Use to measure outcome, guide rehab, counselling tool



Using the VRBQ

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Copies of VRBQ & info pack available today

www.isvr.soton.ac.uk/audiology/vrbq.htm

PDF of questionnaire

Summary of psychometric properties

Scoring guide and template for manual scoring

Coming soon...

PDF of journal articles

VRBQ database



VRBQ database

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Enter responses each time VRBQ is completed

Unique patient file stores results (no limit)

Automatically calculates scores

View changes in scores over time, for total and subscales

Confidential storage (password protected)

Underlying database stores entries sequentially (pt details encrypted)

Interrogate database for audit and research



Any
questions?

aem@isvr.soton.ac.uk