Background

- Using NFA website, ~800 interested persons recruited. From interested persons, 100 randomly selected based on regions of country, age group, gender, ethnicity.
- Newly developed NFAQ has content validity based upon foundation in the literature and feedback from panel of experts and FM focus groups.

Procedures

- Mailed packets to 100 selected persons -- thank you letter, instructions, consent form, stamped return envelope, NFAQ.
- One week later, new mailing for re-test: NFAQs, envelopes.
- NFAQs received up to 2 weeks after 2nd mail-out were used.
- 55 persons completed entire questionnaire at both times. Non-respondents were not followed up.

Data Handling

- For several variables requiring “yes/no” responses with multiple categories, variables were created that counted % of yes’s or no’s. For example, for current health problems, # of health problems reported at each time was counted and this number was used to reflect health problems.
- Items with lower ICCs were evaluated as to whether concept is expected to be stable over time.

Results

1. Background information (11 items; 10 count variables): ICCs .527-.1.00
2. Symptom profile (24 items): ICCs .394 -.938
3. Physical ability impact (1 count variable, # of activities participant cannot do in past week): ICC .851
4. Employment impact (23 items): ICCs .535-.1.00
5. Type of nonpharmacologic interventions used (count variable, # of interventions used): ICC .818
6. Type of medications used (count variable, # of analgesics used): .825

Data Analysis

- Test-retest reliability estimated by calculating intraclass correlation coefficient (ICC) between each data point using 2-way analysis of variance (ANOVA) with absolute agreement and using ‘single measurement’ (Schuck, 2004).
- ICCs analyze 2 variables on same measure across time (Vincent, 1999). Compared to Pearson’s correlation, ICCs more sensitive to changes in mean differences of repeated scores (Vincent, 1999).

Conclusions

- In general, single rater ICCs similar to Pearson’s correlation coefficients.
- Single rater ICCs for sections 1-6 of the NFAQ were poor to high with ranges from .394 to 1.00.
- The majority were considered moderate to high.

Implications

- Items with lower ICCs were evaluated as to whether concept is expected to be stable over time.
- Many items with low ICCs required participants to recall specific dates or estimate things which occurred within a time frame (recall issues).
- Others were symptoms/states that are expected to change daily in intensity in persons with FM (concept not stable).
- Example - feeling rested after sleeping, ability to manage symptoms.

Recommendations

- This study demonstrated NFAQ has appropriate stability over a 1-2 week period for most items and sections. For the most part, items responded as expected.
- However, planned revisions to NFAQ should take the test-retest scores into account.

References
