Improving ethnic-specific Food Frequency Questionnaires by different qualitative approaches

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Food Frequency Questionnaire

• Measurement of habitual diet
• Ethnic diversity
  – No validated ethnic specific tools available
  – Implications for public health
    • Prevalence overweight and obesity
• Diet and CVD
HELIUS-Dietary Patterns

• Can differences in dietary patterns (partially) explain ethnic differences in risk for cardiovascular diseases?
  – Ethnic specific FFQ development
    • % contribution and variances in nutrient intake
    • Comparability
  – Pre-testing ethnic specific FFQs
    • Small and dated studies for food item selection
    • Content validity and understanding
Cognitive interviewing

- Important step in pinpointing problems in dietary questionnaires
- Verbalize thought processes, retrieve information from long-term memory, decision processes
- Follow-up probe questions
- Moroccan FFQ
  - Selection of questions
Other methods of pre-testing FFQs

• Plus-minus interviews (PM)
  – To explore what comprehensibility problems may arise in subjects while filling out the FFQ

• Face validity (FV)
  – Content of the FFQs

• Focus groups (FG)
  – Supplement the face validity plus-minus interviews
Results pre-test (1)

• PM (n=30), FV (n=13), FG (n=9)

1. Portion size
   • Slices of bread (vs. pieces of Turkish or Moroccan bread)
Results pre-test (2)

2. Comprehension and ordering
   • Salad in morning (breakfast vs. evening dish)
   • Rghaif/lemsemmen/beghrir (breakfast vs. evening dish)
   • Olive oil (breakfast vs. cooking)

3. Pictures
   • Rice vs. couscous
Results cognitive interviews (1)

- Cognitive interviews (n=7)
  1. Terms used in question FFQ
     - In the past 4 weeks, how often did you eat a bread-meal as an evening dish
     - “Meat substitutes” not known or consumed
     - “Shellfish” often categorized as fish
     - “Meat” often not included chicken
Results cognitive interviews (2)

2. Phrase length of question FFQ
   • *In the past 4 weeks how often did you eat legumes such as lentils, chickpeas, kidney beans, white beans etc. as a separate part of the meal? Peas, green beans, etc. do not count, they are later asked with the vegetables. Legumes in the soup here do not count.*
Discussion (1)

• Plus-minus
  – Easy to get insight in common problems
  – Not suitable for long questionnaires → splitting FFQ

• Face validity
  – Very important, especially when dated data is used to select food items for inclusion in FFQ

• Focus groups
  – Important to complement/check data collected with other approaches
  – Can not discuss all problems, only for specific questions
Discussion (2)

• Cognitive interviews
  – Difficult paraphrasing
    • Even subjects speaking Dutch fluently
  – Translation recommended for testing
  – Intensive → low number of subjects (but saturation)
Conclusion

• Difficult to understand by subjects speaking Dutch less fluently
  – Qualitative approaches important step in pinpointing (cognitive) problems in the development of FFQs
  – Improving the quality of the data
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STUDY PROTOCOL

A prospective cohort study of dietary patterns of non-western migrants in the Netherlands in relation to risk factors for cardiovascular diseases: HELIUS-Dietary Patterns

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