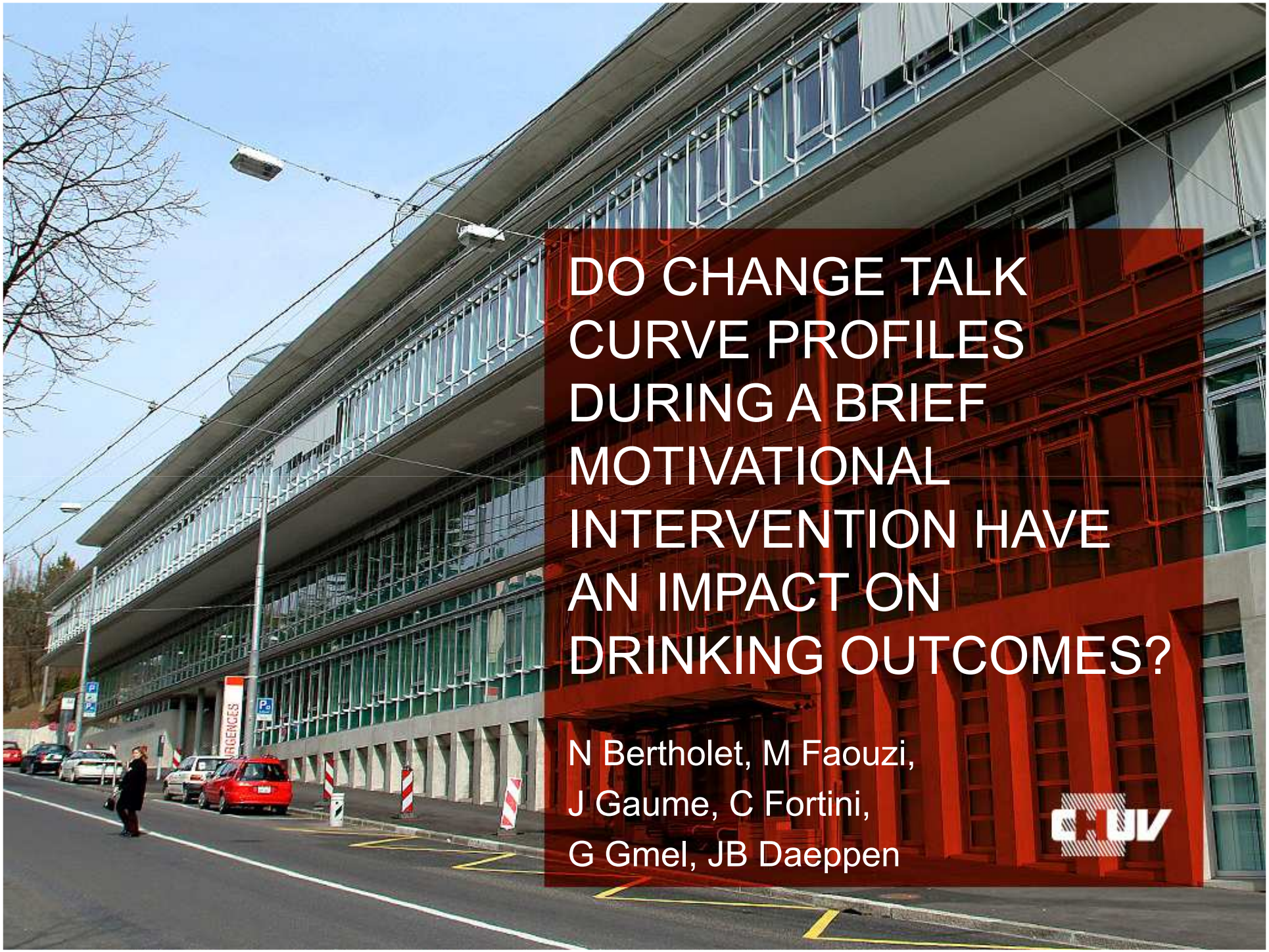

DO CHANGE TALK CURVE PROFILES DURING A BRIEF MOTIVATIONAL INTERVENTION HAVE AN IMPACT ON DRINKING OUTCOMES?

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Introduction

- Brief interventions are based on various theoretical models including motivational interviewing (MI)
- MI theory postulates a central role for “change talk” (CT), defined as speech in favor of change, during the intervention
- Clinicians are encouraged to elicit CT among their patients

Introduction

- Change talk is likely to evolve over the course of a session
- Little is known about the dynamics and profiles of CT during brief motivational interventions (BMI) and its relationship to drinking outcomes

Introduction

- It is of interest to
  - Determine various CT curve-profiles (defined as patient CT utterance sequences) during a single BMI
  - Determine whether these profiles are associated with drinking outcomes

Methods

- The present study was based on data from a BMI randomized controlled trial conducted at the army recruitment center in Lausanne, Switzerland, among 125 conscripts reporting binge drinking
  - Binge drinking was defined as 6 or more drinks on one occasion at least once a month
  - Subjects received a 15.8±5.4 minutes BMI
- (Daeppen et al, Drug Alcohol Depend, 2010)

Methods

- The study showed positive results on drinking outcomes (20% difference between intervention and controls in weekly drinking)

(Daeppen et al, Drug Alcohol Depend, 2010)

Methods:

Coding of audio-recordings:

- Of 125 sessions
  - 19 subjects refused the recording
  - 10 were excluded because of technical problems
  - 34 sessions were not recorded because the recorder was not available
- 62 sessions were recorded and coded using the Motivational Interviewing Skill Code 2.1.
  - Subjects with an available recording were younger (mean age 19.2 vs 19.6, p=0.04) compared to subjects without an available recording. Subjects with and without available recordings were similar with respect to other baseline characteristics (weekly alcohol use, number of binge drinking episodes, occupation, education, living environment)
  - 8 subjects were lost to FU: subjects lost to FU were not statistically different (.05) from subjects with available FU with respect to baseline characteristics
- The coding was done by 4 trained master students blinded to assessment and follow-up data
  - 20% of the sessions were double-coded

Change talk data obtained from subject speech

- Each subject CT utterance was graded according to its:
  - Strength (1-3)
  - Direction:
    - Towards change (positive sign)
    - Away from change/in favor of status quo (negative sign)

Methods: Coding of audio-recordings

- We used aggregated scores for CT (all the MISC CT categories were grouped together)
- A sequence of observations consists of a series of values from –3 to –1 and +1 to + 3
- Here is how a sequence of observations looks like:

<…, +1, +1, +2, +1, +2, +2, -2, -2, -1, +3, -1, +2, -2, …>

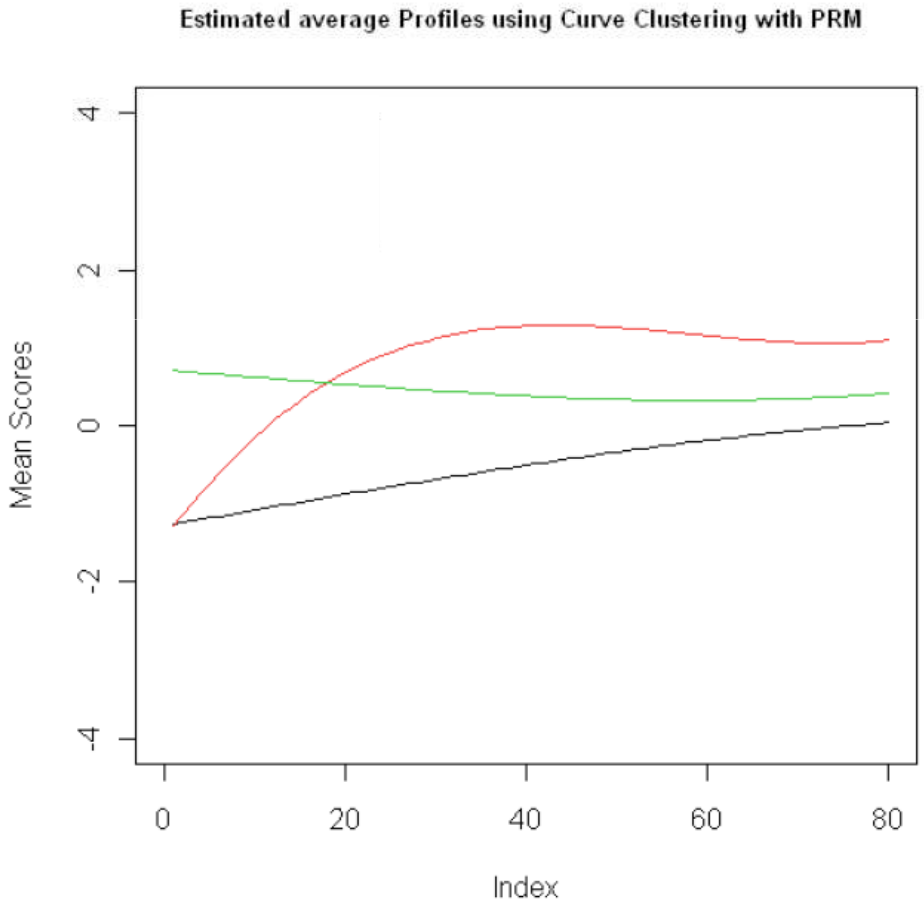
Curve clustering

- Individual CT sequences have differing length
- We used a curve clustering methodology based on a polynomial regression mixture model taking into account the differing length of the individual curve-profiles to identify groups of subjects with the same CT curve-profile
- Kruskal-Wallis tests were used to compare drinking outcomes between the groups

Results: characteristics of the 62 included subjects

Age, mean (SD)	19.2 (0.9)
Binge drinking episodes per month, mean (SD)	4.1 (3.9)
Drinks per week, mean (SD)	13.0 (12.7)
Occupation	
Employed	24%
Undergraduate student	23%
Professional diploma	31%
Graduate student	16%
Unemployed	6%
Living in an urban environment	47%

Results: 3 groups were identified: curve-profiles with



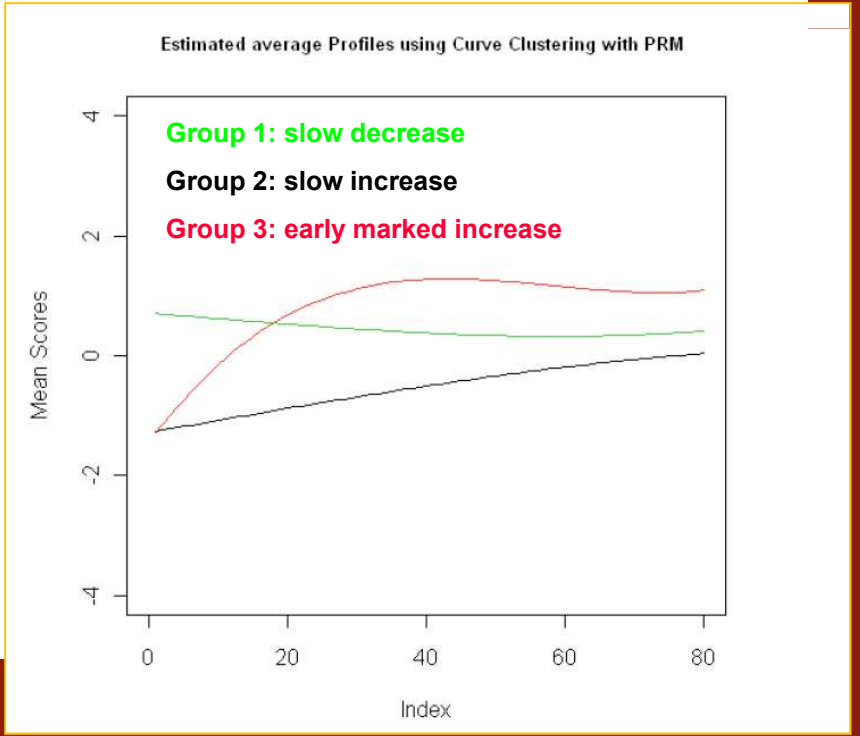
Group 1: slow decrease in mean CT (n=26)

Group 2: slow increase in mean CT (n=12)

Group 3: early marked increase in mean CT then maintained throughout the BMI (n=24)

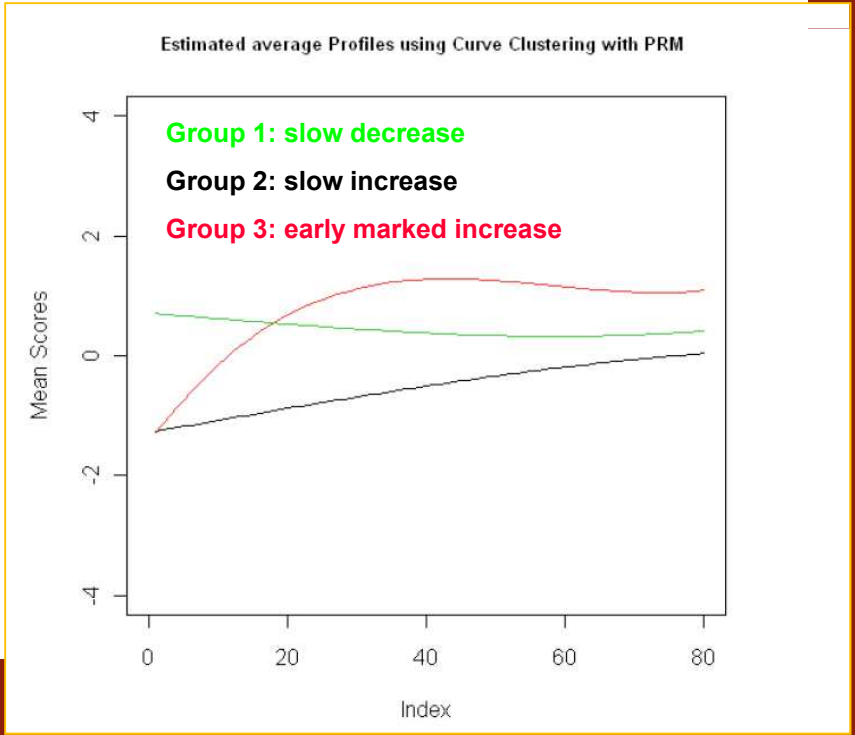
Results

- Changes in median (IQR) **number of binge drinking episodes/month** were statistically different between groups (p=0.03):
  - Group 1: 0.0 (2.0)
  - Group 2: -1.5 (4.0)
  - Group 3: -2.0 (3.0)



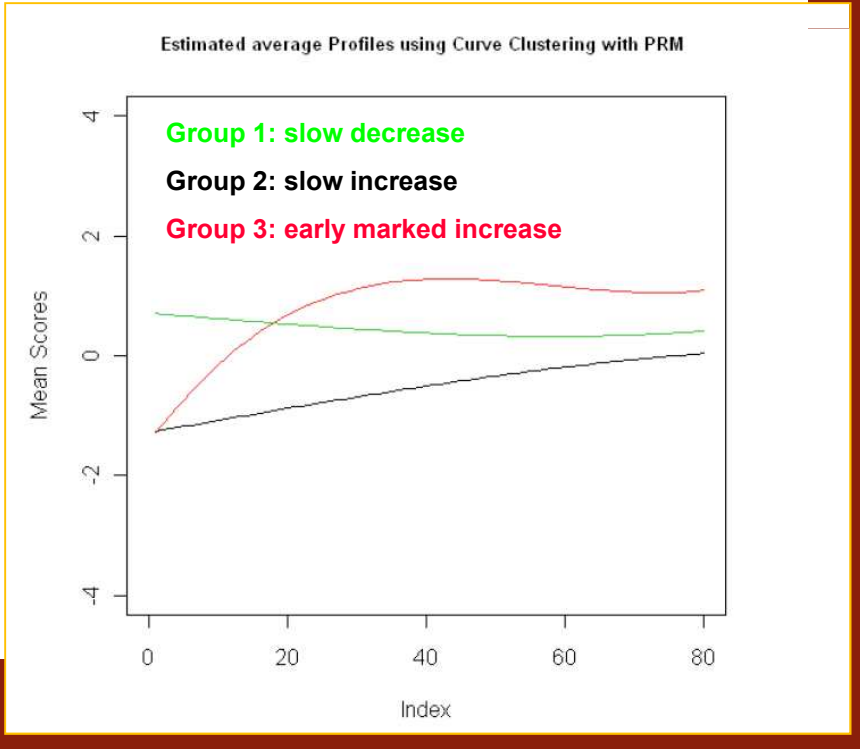
Results

- Changes in median (IQR) **maximum number of drinks on one occasion over the past month** were statistically different between groups (p=0.001):
  - Group 1: 0.5 (7.0)
  - Group 2: -8.0 (8.5)
  - Group 3: -1.5 (8.0)



Results

- But not changes in median (IQR) **number of drinks/week** (p=0.3):
  - Group 1: 0.0 (6.2)
  - Group 2: -2.3 (14)
  - Group 3: -0.5 (8.8)



Limitations

- Secondary analysis: data were collected without the objectives of this study in mind
- Due to several technical problems/availability of the recording device and the unwillingness of some patients to allow taping, all BI were not recorded

Conclusion

- Different type of CT curve-profiles can be identified
- Subjects showing an increase in mean CT or an early marked increase in mean CT that was then maintained throughout the intervention, showed reductions in drinking 6 months later, which is consistent with MI theory
- These results inform on BMI process and give further support to the importance of CT as a potential active ingredient of BMI

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Thank you

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