A review of active ingredients and a qualitative design to develop a brief alcohol intervention for young adults intoxicated in the ED

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Background

- Heavy episodic drinking has been associated with an increased risk of injuries, trauma, violence, risky sexual behaviors, and other negative health outcomes
  - ❖ Rehm, 2011
- ER admissions related to alcohol intoxication represent a large burden on the ER clinical teams
  - ❖ (Pirmohamed et al. 2000; Verelst et al. 2012; Bertholet et al. 2014).
- In Switzerland, ER admissions for alcohol intoxication have increased over the last decade, particularly among adolescents and young adults
  - +57% among 10-23 years old across Switzeralnd
  - fourfold increase between 2000 and 2011 % among 18-30 years old at Lausanne University Hospital ER
    - ❖ Wicki & Stucki, 2014 ; Bertholet 2014

Background

- Young adults (18-30) admitted in this ER with alcohol intoxication - 6 year after :
  - 1/2 were readmitted (1/4 for a new alcohol intoxication episode)
  - 36.8% were unemployed
  - 56.9% reported hazardous alcohol use
  - 15.1% alcohol dependence
  - 18.6% depression
  - 15.4% anxiety disorder
  - 80.2% smoke tobacco during last year
  - 53.1% used cannabis during last year
  - 22.6% used cocaine during last year

❖ Adam 2016

BMI efficacy for young adults in the ER

- Systematic reviews addressing the efficacy of BMI in the ER for young adults found mixed findings
  - (Newton et al. 2013; Taggart et al. 2013; Tanner-Smith & Lipsey, 2014).
- Study quality precluding firm conclusions for many comparisons.
  - Newton et al. (2013)

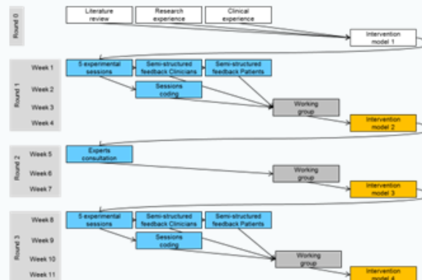
Young adults admitted in the ER while intoxicated

- Studies typically used a screening process to include participants.
- One recent systematic review investigated the efficacy of interventions among patients admitted in the ER while intoxicated.
  - (Wicki et al. 2014)
  - 8 studies, 4 studies among young adults comparing BMI to standard care.
  - 3 over the 4 showed results favoring BMI.
    - Monti et al. (1999), Smith et al. (2003), Spirito et al. (2004) subgroup having problematic drinking.
- BMI have an added value when compared to standard care, at least at short-term follow-up.
- However, it remained unclear which elements were related to efficacy.

Project PREMMIER

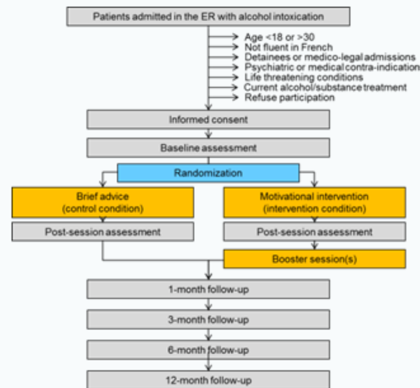
(A Process study and Randomized controlled trial examining the Efficacy and Mechanisms of Motivational interviewing for alcohol Intoxicated young adults admitted to the Emergency Room)

Phase 1
Development



Iterative development and pre-test process

Phase 2
Efficacy



Randomized controlled trial

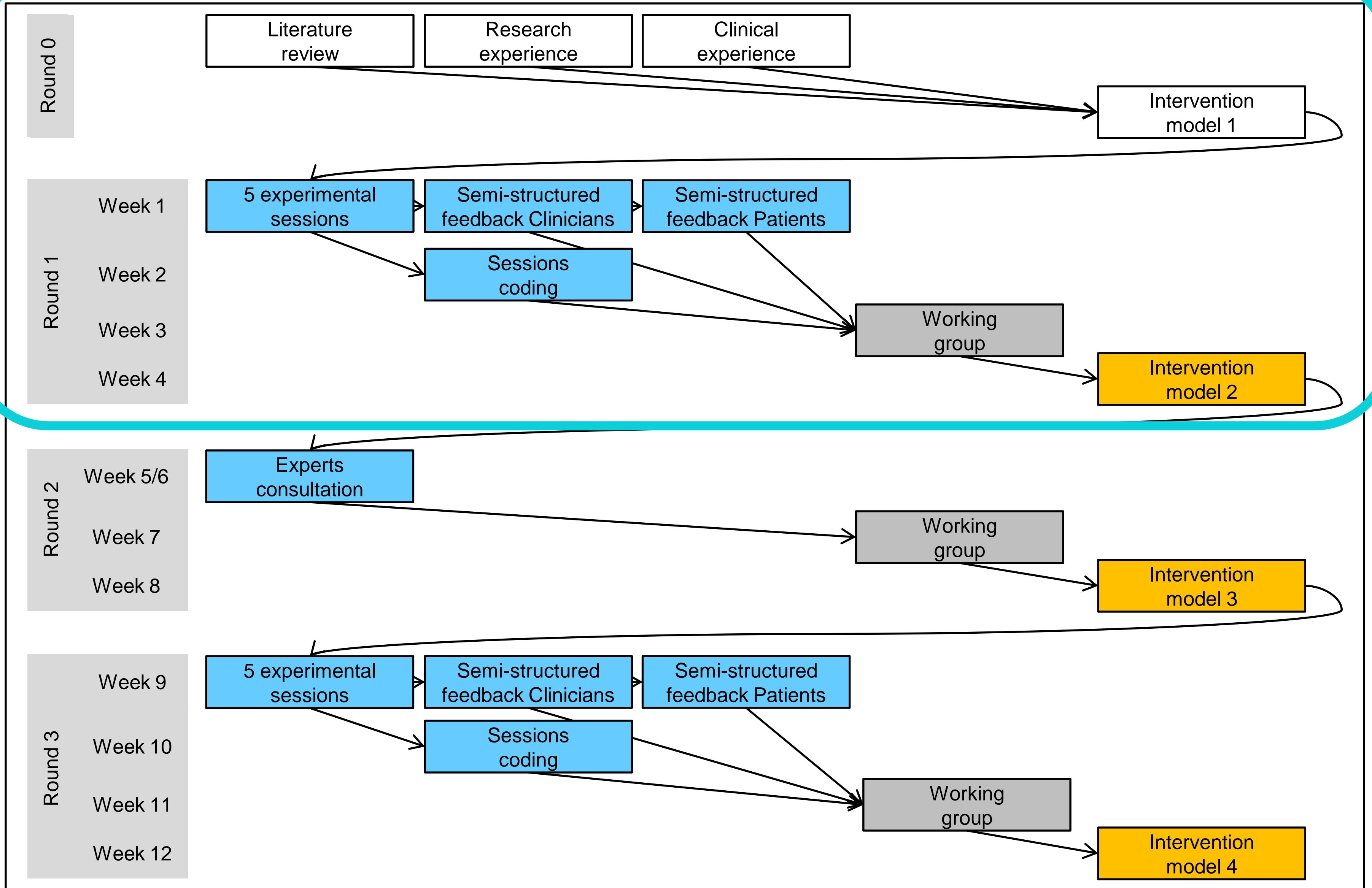
Phase 3
Mechanisms

Psycholinguistic coding and qualitative analyses

Phase 4

Model finalization and dissemination

Phase 1 - Development



Review of BMI mechanisms

- Review of studies investigating alcohol BI mechanisms
  - Gaume et al. 2014
- Review of mechanisms in MI
  - Magill et al. 2014, Apodaca & Longabaugh 2009
- Mechanisms in addiction treatment
  - Miler & Moyers 2015
- Mechanisms in psychotherapy overall
  - E.g. Wampold 2015, Norcross 2011

➢ **possible hypotheses to investigate for the development of interventions for intoxicated young adults recruited in an ER setting**

1. Relational factors

- Significant determinants of addiction treatment outcome
    - ❖ (Miller & Moyers, 2015).
- Empathy
    - active ingredient in general psychotherapy & addiction treatment
        - ❖ (e.g. Norcross, 2011); Moyers & Miller, 2013).
- Interpersonal skills (e.g. acceptance, empathy, collaboration and support of client autonomy)
    - related to client involvement in MI
        - ❖ (Moyers et al. 2005b; Boardman et al. 2006; Catley et al. 2006)
    - related to alcohol outcomes in BMI
        - ❖ (Gaume et al. 2008a; Gaume et al. 2009; Gaume et al. 2014a).
- On the other hand, confrontation have been found to be particularly harmful
    - decreasing client change talk / increasing resistance and sustain talk
    - directly affecting client outcomes
        - ❖ (Miller et al. 1993; Apodaca & Longabaugh, 2009; Gaume et al. 2014a; Magill et al. 2014).

2. Personalized feedback

- Early BI models have focused explicitly on feedback on risk or harm as a tool for instigating change
  - ❖ (Bien et al. 1993).
- Meta-analytic findings are supportive of the use of feedback
  - ❖ (Bien et al. 1993; Carey et al. 2007; Carey et al. 2012),
- Studies that have experimentally investigated this question produced more mixed, but promising findings
  - ❖ (Murphy et al. 2004; Juarez et al. 2006; Walters et al. 2009; Cowell et al. 2012).

3. Enhance discrepancy

- To develop and resolve discrepancy between the individual's current behavior and broader life goals and values is a core feature of MI
  - (Miller & Rollnick, 2013).
- In one empirical study, discrepancy measures were significantly increased following BMI and were correlated with alcohol outcomes among heavy-drinking college students.
  - (McNally et al. 2005)
- In an ER-based alcohol BI study, authors showed that injury attribution to alcohol moderated intervention effect, suggesting that highlighting the connection between alcohol and injury can augment intervention effectiveness. By extension, evocation of the current situation (alcohol intoxication, potentially alcohol related injury) in contrast with broader life goals and values might be an important mechanism of change.
  - Walton et al. (2008)

4. Evoke change talk / Strengthen ability and commitment to change

- MI described as a collaborative conversation style for strengthening a person's own motivation and commitment to change
  - ❖ (Amrhein et al. 2003)
- Hypothesis that people are more likely to be persuaded by what they hear themselves say
  - ❖ (Bem, 1972; Miller & Rollnick, 2013).
- Empirical support for change talk evocation as an active ingredient in MI has been accumulating
  - ❖ (Miller & Rose, 2009; Moyers et al. 2009; Magill et al. 2014).
- Among the different dimensions of change talk, **ability to change** has been shown to predict enhanced outcomes in ER patients (Gaume et al. 2008a) and young adults (Baer et al. 2008; Gaume et al. 2013).

5. Change plan completion

- Verbal statements of intention / written contract for behavior change
- Change plan completion related to higher therapist MI skills and client change talk within the session.
  - ❖ Magill et al. (2010)
- Good-quality change plan associated with better outcomes, regardless of pre-intervention readiness to change.
  - ❖ Lee et al. (2010)

6. More time: Longer sessions and/or booster sessions

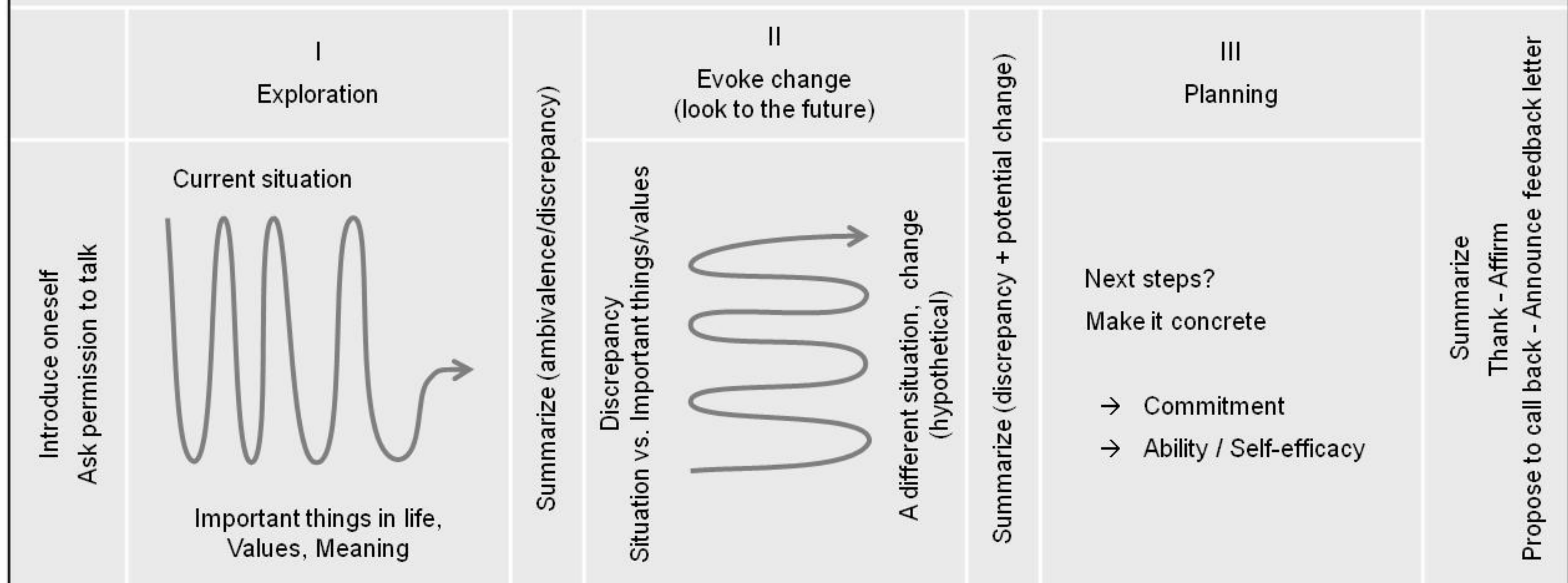
- Systematic reviews on alcohol BI and BMI
  - not clearly determined the optimal intervention length
    - (O'Donnell et al. 2014)
  - more intensive interventions tended to yield overall more favorable results in ER-based intervention
    - (Nilsen et al. 2008)
- One study investigated the efficacy of 3 strategies of gradual intensity to address heavy drinking among injured patients
  - BMI plus telephone booster showed significant reductions in alcohol use and binge drinking compared with brief advice or BMI alone.
    - (Field et al. 2014).

Intervention outline

2 HORIZONTAL STRATEGIES

- **Taking time to build a significant relationship (relational factors)**
  - Empathy / Reflective listening / Curiosity
  - Acceptance / Avoid confrontation / Unconditional positive regard
  - Collaboration / Alliance
- **Change talk**
  - Elicit change talk
  - Soften sustain talk over the session
    (accepting ST when it appears but using MI techniques to lower it)
  - Reinforce Ability and Commitment talk

3 STEPS (length will depend on participant's Readiness to change and Willingness to talk)



Qualitative findings

- 4 BMI pre-tests in July-August
- Followed by individual semi-structured interviews
  - with participant
  - with clinician

Intervention overall

Participants feedback

- Appreciated intervention
- Felt free to speak
- Thought that clinicians were attentive, kind, soothing, sincere, non-judging
- 1 thought that the clinician was too neutral and regretted that she did not give her opinion.
- Most appreciated evoking change.

Clinicians feedback

- Had good experiences
- Hectic context → sometimes stressful, auto-pressure to conclude
- Model feasible, 3 steps make sense.
- 1 did not apply the steps chronologically
- Step 3 less easy with contemplative participants.

Provide information

Participants feedback

- Half of the participants were interested in receiving information
- + Comparing oneself to ones' peers
- - Prefer an open-ended discussion

Clinicians feedback

- Estimated that providing some kind of information (e.g., normative feedback, protective strategies) would have been useful in most interviews
- Insecure regarding when and how to provide information during the intervention

What kind of booster

Participants feedback

- All participants were interested in receiving a booster letter
- Half of participants thought they did not need phone boosters, whereas the other half were open to it

Clinicians feedback

- Booster letter
  - + useful (keep track of the discussion)
  - - potentially disturbing (if not in line with participant' s memories of the intervention)
- Phone booster seen as useful in all situations
- Phone booster 2-3 days after ER event was suggested (→ continue discussion outside a hectic and emotional context)

Thank you for your attention!!!

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