



**Karolinska  
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# Internet-based treatment of harmful alcohol use and alcohol dependence

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- ✦ 4 previous studies in general public
  - ✦ Design of current RCT
  - ✦ Results of survey
  - ✦ Results at 3 month follow-up
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Sjolund 2006, <http://stad.org/sv/publikationer/rapporter>

## Alkoholprofilen.se: Screening and personalized feedback

- ★ Cross-sectional survey in 2004 and 2005
- ★ Ages 18-25 from the general population (n=2000)
- ★ **42% had used the service**
- ★ Participant that drank more were more likely to have used it

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# Targeting Individuals with Problematic Alcohol Use via Web-Based Cognitive-Behavioral Self-Help Modules, Personalized Screening Feedback or Assessment Only: A Randomized Controlled Trial

Kristina Sinadinovic<sup>a, c</sup> Peter Wennberg<sup>b, d</sup> Magnus Johansson<sup>c</sup>  
Anne H. Berman<sup>a, c</sup>

- 2009-2010 (n=633)
  - All three groups had reduced alcohol consumption and related problems at 3 months and **stayed reduced at 6 and 12 months.**
  - PP-analyses indicated cognitive-behavioral extended self-help combined with other help to be more effective.
  - All interventions tested were freely available and open to all
  - Use of assigned services low
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RESEARCH ARTICLE


# Guided and Unguided Internet-Based Treatment for Problematic Alcohol Use – A Randomized Controlled Pilot Trial

Christopher Sundström<sup>1\*</sup>, Mikael Gajecki<sup>1</sup>, Magnus Johansson<sup>1,2,3</sup>, Matthijs Blankers<sup>4,5,6</sup>, Kristina Sinadinovic<sup>1,3</sup>, Erik Stenlund-Gens<sup>7</sup>, Anne H. Berman<sup>1,3</sup>

- 2012-2013 (n=80)
  - 3 groups: self-help, +messages and +chat
  - Self-help programs for problematic alcohol use can be **more effective** in reducing alcohol consumption **when counselor guidance is added**.
- Users not blinded
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# Web-Based Self-Help for Problematic Alcohol Use: a Large Naturalistic Study

Magnus Johansson<sup>1,3</sup>  • Kristina Sinadinovic<sup>2,3</sup> • Anders Hammarberg<sup>2,3</sup> •  
Christopher Sundström<sup>2</sup> • Ulric Hermansson<sup>2,3</sup> • Sven Andreasson<sup>1,3</sup> •  
Anne H Berman<sup>2,3</sup>

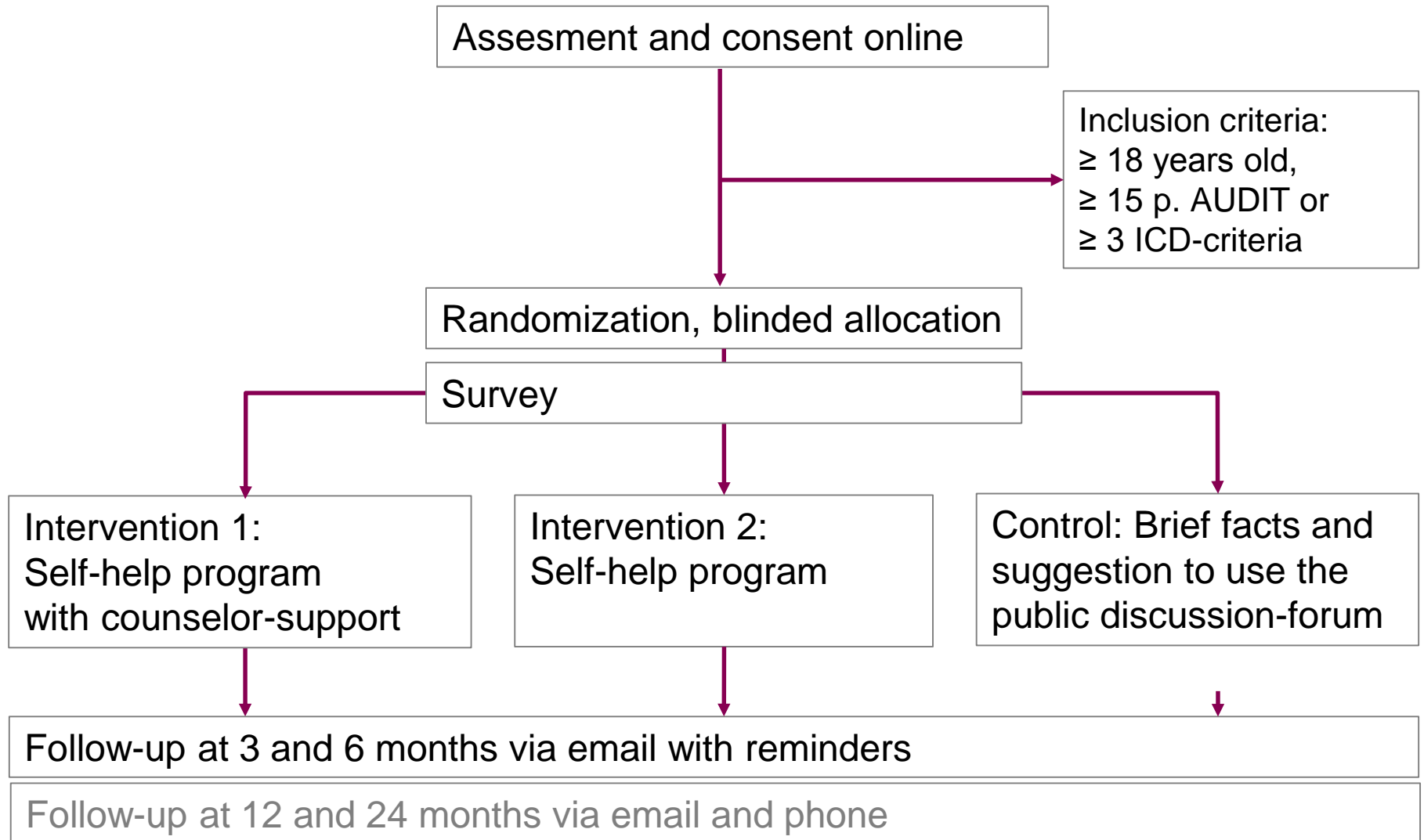
- Users at alkoholhjalpen.se from 2013-2015 (n=4165)
  - A publicly available program attracted users with **considerable alcohol-and health problems**
  - Problems changed to lower severity for most follow-up completers.
  - **Women were less likely to show change** to a lower level of alcohol use.
- Low follow-up rate (25%) and no control-group
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# Three armed randomized controlled trial

Aim: Investigate the effects of Internet-based alcohol-program with or without counsellor-support.

Among anonymous adult users with harmful use or alcohol dependence.







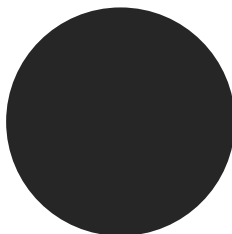
# Measures

- Primary Outcome Measure: Consumption of alcohol previous week (TLFB).
  - Secondary outcome measures
    - ✓ Days drinking, days binge-drinking and mean drinks/day (TLFB)
    - ✓ Alcohol-related problems (AUDIT),
    - ✓ Alcohol dependence (ICD)
    - ✓ Alcohol use disorder (DSM-5)
    - ✓ Anxiety (GAD-7)
    - ✓ Depression (MADRS)
    - ✓ Motivation (VAS)
    - ✓ Quality of life (EQ5D5L)
    - ✓ Access to other support
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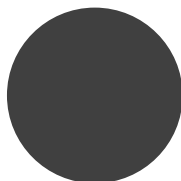
# Survey

- **Investigate users reasons for and preferences regarding internet-based services for changed alcohol consumption.**
  - 35 statements from previous research and experience.
  - Categories: Reasons for use, Features and Content.
  - Rated on a 10-point scale from Very important to Not at all important.
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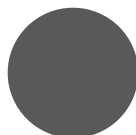
Time Spent



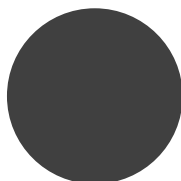
Theoretical Basis



Tailoring



Counselor Involvement



**Who**

**How**

**Setting**

**Beh. Target**

**Technology**

**Where**

Alcohol

Web

General public

**Population**

**Approach**

**Cost**

18+

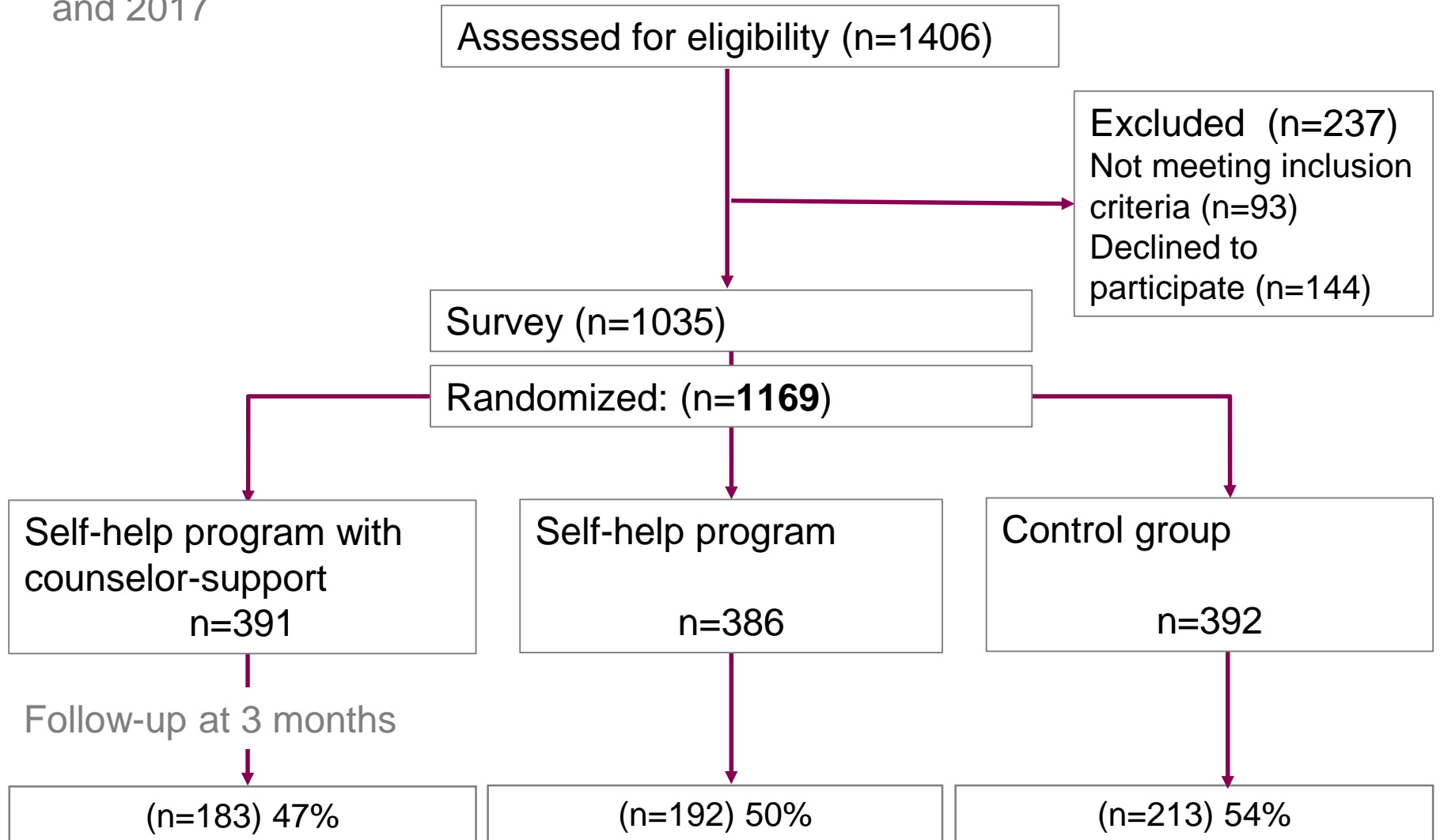
Cognitive  
Behavioral &  
Motivational  
Interviewing

No Charge

## Summary

High duration, web-based CBT-program for alcohol with counselor involvement aimed at on-line help-seekers

Enrollment  
march 2015  
and 2017



# Results: Baseline

- Mean age 45 years (sd=13),
  - 56% women
  - 1% born outside europe
  
  - Mean number of standard drinks (12 gram alcohol) previous week 22 (sd=15)
  - Mean AUDIT score 22 (sd=6)
  - 89% alcohol dependent (ICD)
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# Results: Baseline

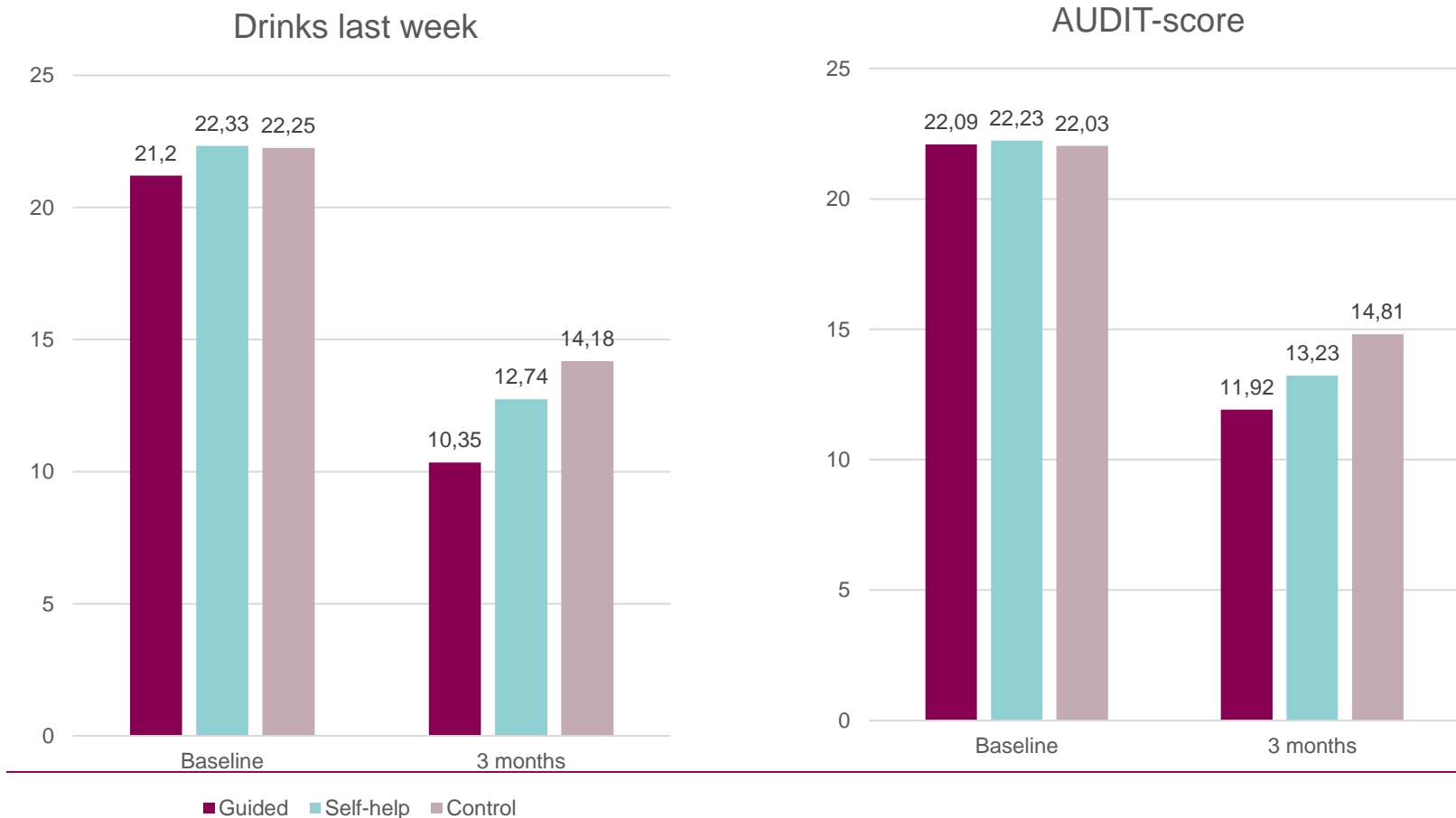
- 37% symptoms of generalized anxiety (GAD-7  $\geq 10$ )
  - 44% symptoms of depression (MADRS-S  $\geq 20$ )
  - Participants were more ready to reduce their drinking (m=8.4; sd=1.9, on a 0-10 VAS-scale) than to stop (m=5.7; sd=3.5).
  - No significant differences between the intervention groups.
  - Lost to follow-up had significantly higher consumption as well as score on AUDIT, dependence, and anxiety at baseline.
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# Results: Survey

- The most endorsed content were ‘motivation’ and ‘relapse prevention’
  - The most endorsed reasons for using internet-based intervention were ‘anonymity’ and ‘access at any time’
  - The most endorsed feature was ‘assessment feedback’
  - **Statements about *content* were rated as more important than *general reasons* for using internet and *intervention features***
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## Results: Participants who completed follow-up

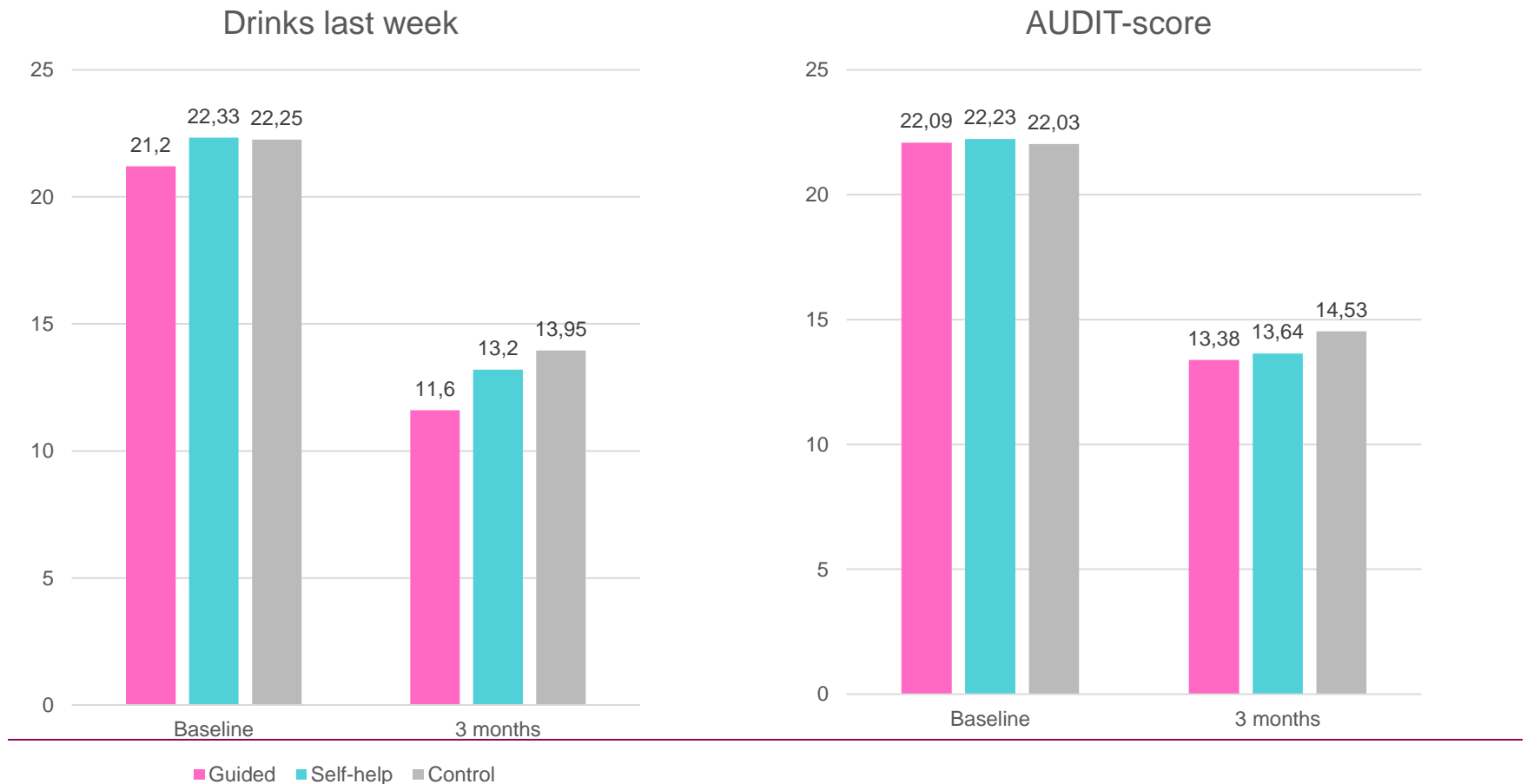
Significant but small difference between Guided group and Control group in decreased number of drinks last week and in decreased AUDIT score





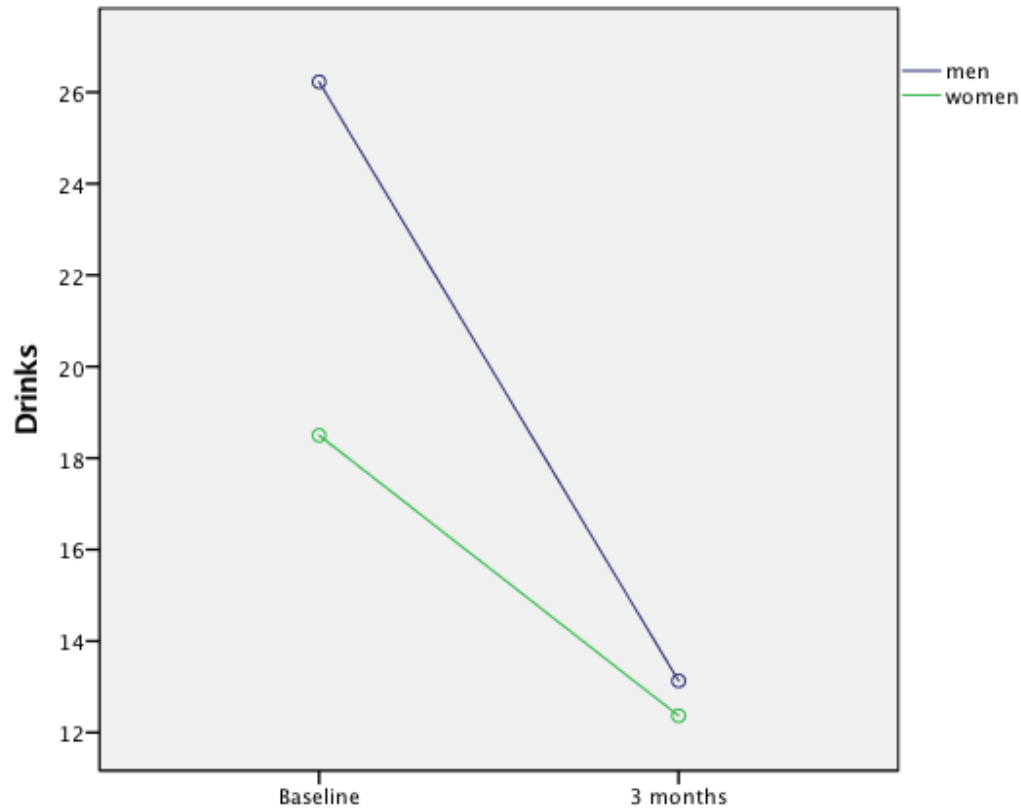
## Results: ITT Multiple imputations (n=1169)

No significant difference in decreased number of drinks last week or AUDIT score between groups



## Results

Woman in intervention groups decreased their consumption less than men



# Conclusions

- ✓ Relevant content, anonymity and access are important reasons for choosing internet-based intervention
  - ✓ A program with or without counselor-support might not be more effective in changing alcohol consumption than brief information
  - ✓ Internet-based intervention might not work as well for women
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## Next steps

- Follow-up 12 and 24 months with phone-reminders
  - Ongoing RCT comparing internet-based treatment with treatment at specialist clinic
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# Thank you!

Supervisors:

Sven Andreasson, Anne H Berman,  
Ulric Hermansson, Kristina Sinadinovic

## Other ongoing projects

- RCTs on internet-based training for family members (CRAFT) vs waitinglist.
  - RCT on internet-based treatment for cannabis users vs waitinglist.
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# Program content

Based on Cognitive-behavioral therapy (CBT)  
and Motivational interviewing (MI)



Motivation



Goal setting & Self-control



Analyze risk-situations



Planning alternatives and problem solving  
(cravings, negative feelings, social pressure)



Relapse prevention



Tracking your craving and drinking situations  
daily or weekly

- Equivalent to 50 pages of text
- Short videos with examples and experts
- Recommended pace 1 module in 1-2 weeks
- All content available from start

## Guiding

- Counselors trained in MI and approved according to MITI in phone-based counselling before the study
  - Counselors sent messages after every completed module and replied to messages from users within 3 days
  - Each user got a minimum of 2 messages even if they did not complete any modules with a reminder.
  - Counselors were available for 10 weeks.
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# Use of services

