

Feasibility of a web-based screening and brief intervention with weekly text-message-initiated individualized prompts for reducing risky alcohol use among teenagers – focus groups and pilot study results

Wille K,¹ Diestelkamp S¹, Thomasius R¹ & the ProHEAD Consortium²

¹German Center for Addiction Research in Childhood and Adolescence, University Medical Center Hamburg-Eppendorf; ²Clinic of Child and Adolescent Psychiatry, Centre of Psychosocial Medicine, Heidelberg University and University Hospital of Child and Adolescent Psychiatry and Psychotherapy, University of Bern; ²Centre for Psychotherapy Research, University Hospital Heidelberg; ²Clinic and Polyclinic of Psychiatry and Psychotherapy, University of Leipzig; ²Department of Child and Adolescent Psychiatry, Psychosomatics and Psychotherapy, Philipps-University of Marburg; ²Department of Psychology, University of Education Schwäbisch Gmünd; ²Mental Health Services Research Group, Central Institute of Mental Health, Medical Faculty Mannheim /Heidelberg University, Germany

Background and Aim

The ProWISE-TIP study [1] is part of the ProHEAD consortium. The aim of ProHEAD (**P**romoting **H**elp-seeking using **E**-technology for **A**dolescents) is the evaluation of internet-based interventions promoting mental health in healthy children and adolescents as well as preventing mental health problems in those who are at high-risk.

In a multi-center randomized controlled study (ProWISE-TIP) the effectiveness of a fully automated web-based brief intervention with weekly individualized SMS initiated boosters for children and adolescents aged ≥ 12 years will be investigated. Technology-based, brief alcohol-related interventions have the potential to reach a large number of recipients with a service that can be individualized. For young people in particular, technology-based interventions represent an opportunity to address the target group in an age appropriate way and reach them in the context of their lives in the sense of an „ecological momentary intervention” [2].

Two focus groups and a pilot testing were used to test feasibility, acceptance and functioning of the individualized SMS-initiated boosters that had already been developed and are used in conjunction with web-based short intervention to reduce risky alcohol consumption in young people.

Focus groups

Method

Focus groups are effective ways of exploring the realities of life experienced by young people. A group discussion based on guidelines was used to explore different young peoples' attitudes and experiences in relation to alcohol consumption. Additionally, feedback was gathered on the young peoples' acceptance regarding the content and language of the booster messages.

Questions

1. Does the content of the *TIPs* appear authentic and comprehensible to children and adolescents?
2. Which experiences did young people have with alcohol?
3. Which 'Stay Safe Tips' would adolescents give to their friends?

Sample: N=10

Children and adolescents for the two focus groups (n=5) were recruited from inpatient psychotherapeutic treatment and inpatient helpsystem for youth. Participants were aged between 13 and 17 years (M= 15.7), 9=male, 1= female.

Pilot Study

Method

The duration of the pilot study was three weeks with a final telephone survey. The participants received an E-Mail with a link to the questionnaire. Participants were randomized to one of the following groups:

- (A) ProWISE plus **weekly** text-message-initiated individualised prompts (*TIP*) (**ProWISE-TIP**)
- (B) ProWISE plus **weekly** text-message-initiated assessment (*TA*) (**ProWISE-TA**)
- (C) ProWISE intervention only (**ProWISE only**)
- (D) web-based psychoeducation on alcohol use in childhood and adolescence (*control group*)

Reminders were sent after three, five and seven days.

Questions

1. Do all technical processes work the way they were programmed before?
2. How was the user engagement of the ProWISE intervention and the *TIPs*?
3. How was the young people's impression of the ProWISE intervention and the *TIPs*?

Sample: N=20

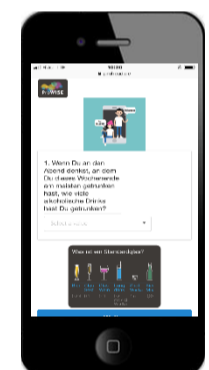
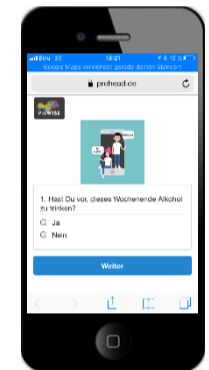
w=8 (40%) m=12 (60%) ■ 17,45 (1,761 SD)

The ProWISE Intervention

The **ProWISE** intervention is fully automated and relies on an interactive system to generate individually tailored content. Navigation through the program is designed as a dialogue based on motivational interviewing (MI) techniques [3] between the user and the program.

Text-message-initiated individualised prompts (*TIPs*)

Children and adolescents receive the **TIPs** querying drinking intentions and providing individualised feedback shortly before high-risk situations for excessive alcohol use, i.e. every Thursday at 6 pm. Content of the Thursday **TIPs** is individually tailored with respect to gender, age, drinking motives [4], and willingness to set a goal for low-risk drinking or abstinence.



On days following high-risk situations for drinking, i.e. every Sunday, participants will be prompted to report their actual alcohol consumption and will receive tailored feedback according to the relation of drinking intention and actual consumption. Sunday **TIPs** are tailored to age, gender, actual drinking and to the degree of attainment of the drinking goal defined in the previous Thursday **TIP**.

Results

Focus groups:

- The content of the **TIPs** appears authentic and comprehensible to the participants
- Participants reported that alcohol consumption is common, but there is no peer pressure for getting drunk or playing drinking games. The reports on worst and most embarrassing events they associated with heavy drinking were useful to improve the content of the **TIPs**.
- A large number of 'Stay Safe Tips' were gathered which were used to refine the prompts. For example: *at least one friend who is not drunk*

Pilot study:

The randomization was conducted successfully: **ProWISE-TIP** (n=4), **ProWISE-TA** (n=2), **ProWISEonly** (n=4), **Control group** (n=4)

- the fully automated processes function technically
- user engagement in the ProWISE Intervention was high: all participants (n=10) have successfully completed the ProWISE Intervention.
- almost all participants (n=6) reacted to the SMS initiated individualized prompts during the assessment period (3 weeks). With two exceptions, one person did not react to a SMS on Sunday and another one to a SMS on thursday.
- 30% (n=14) of respondents said that the ProWISE program was fun and easy to use. For 65% the program information was presented clear and understandable. 50% rated it as being appealing to adolescents.
- On a 4-scale from 0=strongly disagree to 4=strongly agree, most participants (n=6) reported that SMS-feedback was helpful (M=2,83•SD=1,169). Participants were also satisfied with the timing (M=3,67•SD=,816) and design of the prompts (M=3,00•SD=1,265).
- Reasons für „non-participations“ (n=6) were no interest, completely forgot, received to many mails

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References:

[1] Diestelkamp S, Wartberg, L, Kaess, M, Bauer, S, Rummel-Kluge C, Becker K, Eschenbek H, Salize H-J, Moessner M, Baldus C, Arnaud N, Thomasius R and the ProHEAD consortium. Effectiveness of web-based screening and brief intervention with weekly text-message-initiated individualised prompts for reducing risky alcohol use among teenagers: study protocol of a randomised controlled trial within the ProHEAD consortium. *Trials*. 2019; 20:73. 10.1186/s13063-018-3160-z. [2] Beckjord E, Shiffman S. Background for real-time monitoring and intervention related to alcohol use. *Alcohol Res*. 2014; 36:9-15. [3] Miller RW, Rollnick S. *Motivational interviewing. Preparing people for change*. New York: Guilford; 2013. [4] Kuntsche E, Kuntsche S. Development and validation of the Drinking Motive Questionnaire Revised Short Form (DMQ-R SF). *J Clin Child Adolesc Psychol*. 2009; 38:899-908.