

# *Nursing students: experience with the training and implementation of a brief alcohol motivational interviewing program*

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- Harmful use of alcohol is a **major public health problem** among young people (15 – 29 years of age) resulting in 320.000 deaths every year (1).
- Research in behaviour change supports **Motivational Interviewing (MI)** as an appropriate strategy for reducing alcohol use in college students (2,3).
- Specially, **peer-led motivational strategies** have been shown to be effective in decreasing quantity and frequency of drinking, estimated peak blood alcohol concentration and alcohol-related consequences among this population (4, 5).



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- **MOTIVATIONAL INTERVIEWING**

- MI is ‘a collaborative **conversation style** for strengthening a person’s own motivation and commitment to change’ (6).
- It aims to address and **resolve the clients’ ambivalence for a behaviour change** by eliciting and exploring their own reasons, by encouraging their responsibility and by increasing their awareness about how they might change (7).

- **NURSING TRAINING IN MOTIVATIONAL INTERVIEWING**

- Worldwide, it is recognized that **nurses have an important role** in providing health education, being MI key for improving clients’ positive health outcomes (8, 9).
- Most nurses and healthcare students recognize the **need for training in MI** across the nursing curriculum, due to their lack of skills, knowledge, and self-confidence (9, 10).

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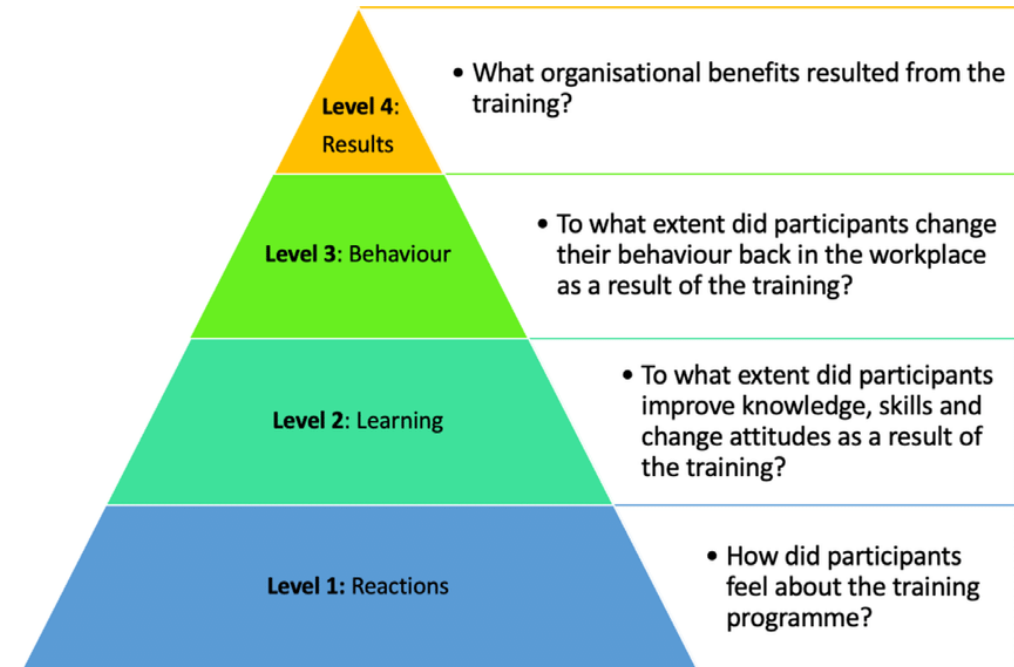
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The aim of the study was to

1. Design, implement and evaluate a Motivational Interviewing training in alcohol for nursing students.
2. Explore students' experience with the training course.

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- **Study design:** mixed methods design which used a descriptive comparative quantitative, and a descriptive qualitative design.
  - In the present work, the acquisition of the students' competences after the course is described according to the Kirkpatrick's model (11), commonly used in nursing. Levels 1, 2 and 3; the analysis of level 4 has not been evaluated.
- **Participants and setting:** 21 fourth-year nursing students.



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➤ **Training course:**

- The **three-credit course** was provided in the fourth year of a nursing program curriculum as an optional subject ("Motivational Interviewing and Process of Change").
- **Twelve-weeks two-hour program** (12h for theoretical classes and 10h for practice workshops) in one semester, from September to December 2022.
- It covered concepts, knowledge and skills of MI and alcohol. Content was structured into **three modules**: 1. Motivational Interviewing; 2. Alcohol and university students; and 3. Feedback (as a strategy for the MI).
- The **teaching methodologies** used were didactic lectures, written materials, videos visualization, and simulated role plays interactive exercises to facilitate review of alcohol-related content and MI strategies.
- Students conducted two **in vivo simulations** with peers which were recorded.
  - Tailored individual written feedback with the strengths and areas for improvement .
  - Group supervision was also carried out emphasising ways to improve MI consistent behaviours.

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➤ **Quantitative data**

- Ad-hoc 11-item Likert type **questionnaire** → to evaluate students' satisfaction at the end of the course.
- 40-item **multiple-choice test** → to assess students' knowledge in MI and alcohol at the end of the theoretical classes.
- A **list of alcohol-related statements** and the **Peer Proficiency Assessment (PEPA)** (12) instrument → to evaluate students' competence when conducting the two in vivo motivational interviews.
  - The alcohol-related checklist contained 27 items encompassing basic contents of the intervention such as the objective of the intervention, or student's alcohol use.
  - PEPA assess student's acquisition of MI micro-skills (open and closed ended questions, simple and complex reflection) when conducting a peer-led MI (Moyers et al., 2005). MI competency was achieved if the counsellor-client interaction met a 1:1 ratio of open to closed questions, a 1:1 ratio of complex to simple reflections, and a 2:1 ratio of reflections to questions (12).

➤ **Qualitative data**

- **Focus group** → to explore nursing students' experiences with the course.



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- **Data analysis**

- For **quantitative data** analysis, descriptive statistics such as the frequency, percentages, mean, standard deviation and confidence intervals were used. Mean differences were calculated to assess the improvement in MI micro-skills.

- For **qualitative data**, the six-phase thematic analysis method (13) was employed.

- **Ethical considerations**

- This research was approved by the **Research Ethics Committee of the university** where the research was conducted (code: 2021.162). Institutional permission was obtained from the Dean of the Nursing Faculty, and all the participants signed a written informed consent.

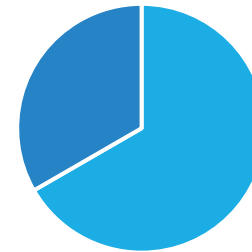
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➤ **Participants characteristics**

➤ 21 nursing students participated in the study.

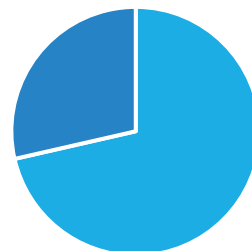
➤ Mean age was 21.4 years (SD=1.34).

➤ Most were female (n=14; 66,7%).

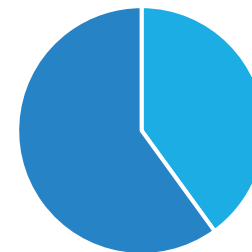


■ Female ■ Male

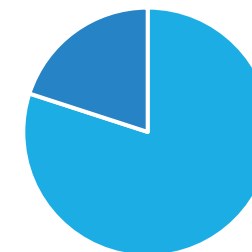
➤ Seventeen students decided to participate in the focus groups: seven participated in the first (five girls and two boys); in the second five (two girls and three boys); in the last, five others (four girls and one boy).



■ Female ■ Male



■ Female ■ Male



■ Female ■ Male

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➤ **Quantitative results**

➤ **Level I: Students' satisfaction**

- Answered by nineteen students (90,47%).
- Average score was 4.5 out of 5 (SD=0.19).
  - Lowest scores → the correspondence between the hours of work needed and the credits assigned to the subject (4.21 out of 5).
  - Best scores → the teacher's availability to answer questions about the subject (4.79 out of 5).

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➤ **Quantitative results**

➤ **Level II: Knowledge, skills, and attitudes**

➤ **Knowledge related to MI in alcohol**

- Most of the students (80%) passed the exam with an average grade of 8.39 (SD=0.65) out of 10, getting at least thirty questions right.
- Only two students failed, and one did not show up. These three students demonstrated the acquisition of knowledge in the subsequent exam (M=9.5; SD=0.7).



➤ **Acquisition of alcohol-related concepts and MI micro-skills**

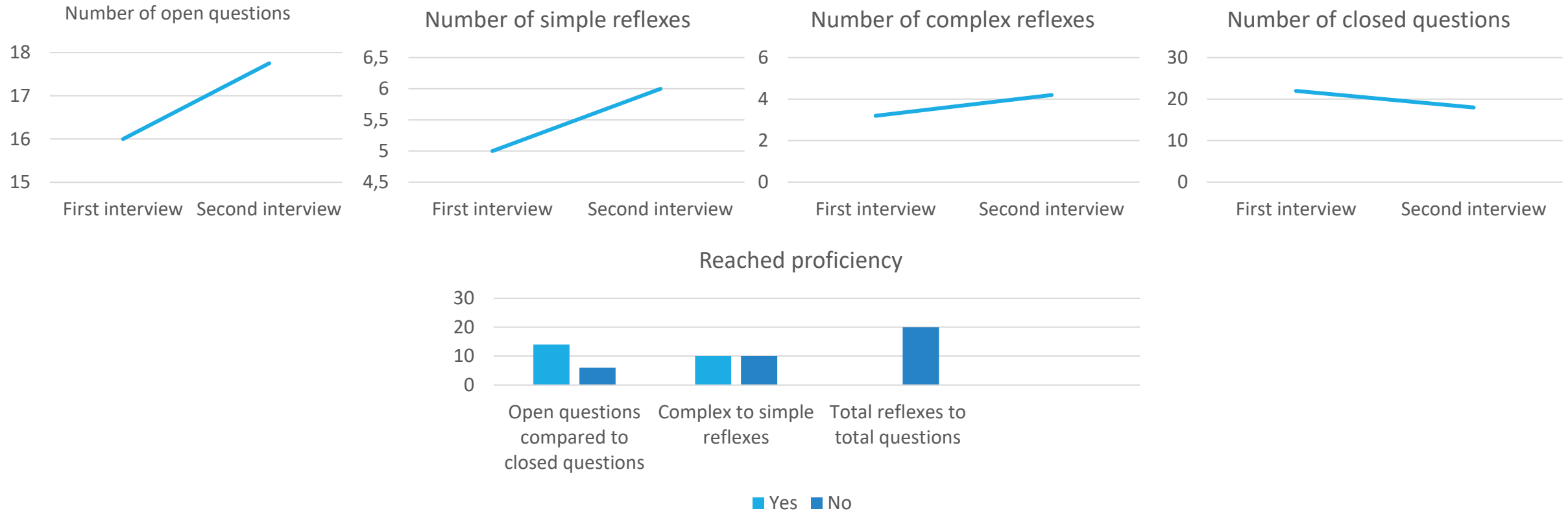
- In the first MI sessions, students addressed an average of 15.7 topics out of 27 (SD=4.37), whereas in the second interview, after the tailored individualized feedback, the group supervision, and completing all the practical workshops, they discussed an average of 19.9 topics (SD=3.75). The number of contents covered significantly increased in 4.2 points (CI=1.59 to 6.81).

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➤ **Quantitative results**

➤ **Level II: Knowledge, skills, and attitudes**

➤ Acquisition of **alcohol-related concepts and MI micro-skills**



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➤ **Qualitative results**

- **Three main themes: learning atmosphere, module methodologies, and students' self-perception of competence.**
- **Learning atmosphere:**
  - Facilitator role of the teacher → crucial, highlighting their closeness and accompaniment.
  - Class composition → a great facilitator for learning → gain confidence with their classmates and receive more personalized attention from the teaching staff.

“

“I think the teacher attitude also helped because I remember that at the beginning, they told us: come on, we're a big family and we're all going to learn together. Then the fact that the teacher treats you with closeness makes things easier”. (FG 1)

”

“Yes, I think that in a small group this subject has covered much more than it would in a larger group. Because in the end, we were closer to our classmates and the teacher, and this climate help. Of course, helped a lot”. (FG 2)

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➤ **Qualitative results**

➤ **Module methodologies**

- Theoretical classes → increased knowledge and confidence to carry out a MI.
- Practical exercises (role play or the silence dynamic) → helped them to develop the MI skills.
- In vivo sessions → were prepared and capable of doing them.
- Personalized individual feedback → very useful.

“

“Yes, it helped me to see an example of role play to have an idea of how we had to do it, it really did help us. And the role play exercises with our classmates that we did in class helped me to strengthen the different tools that we were learning and to prepare for the interview”. (FG 1)

”

“Theory was also important, because there were many things that I didn’t know, both about motivational interviewing and about alcohol. And I believe that if you are going to face an interview, in addition to having the skills, you must master the knowledge”. (FG 3)

“Then, receiving personal feedback, that really impacted me and at the same time motivated me, it was like. Come on! Let’s go for the second interview!”. (FG 3)

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➤ **Qualitative results**

➤ **Students' self-perception of competence:**

➤ **Level I: Students' satisfaction**

- Satisfied with the course → felt comfortable, trained and with the necessary resources for conducting a MI.
- Needed to practice more to achieve the competency.
- Recommended doing the role plays not only with the classmate they know but also with other classmates.
- Believed that all nursing students should receive the course, indicating that the learned tools can be useful in any nursing field.

“Despite all the feelings that you may carry inside, I fell that we are one hundred percent capable of doing it. That as much as this requires a training process, and as much as I feel that there are things I could improve, we are trained to do a motivational interviewing”. (FG 1)

”

“I would make it mandatory as an intervention for all the students. Because it's not just learning how to do a motivational interview, but the philosophy that you learn with it, of reinforcing listening, the accompanying attitude... And I think that's necessary for all nursing students”.  
(FG 1)



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- **Qualitative results**
    - **Students' self-perception of competence:**
      - Level II: Knowledge, skills, and attitudes
        - Strengths: the fact of not giving advice, improvement in silence and listening, increased in the use of reflections and open questions; and better expression of empathy.
        - Weak points: finding the balance in the interview, not judging and changing the authoritarian role.

“

“As a strength, I think that it has helped me a lot to realize that the person in front of me is a completely different person, that I cannot give him my own advice because she is the expert in her life. Therefore, it has helped me to improve in listening. It seems silly, but we don't know how to listen. And this course has made me realize about that, and now I think I shut my mouth more and listen”. (FG 1)

”

“I believe that we are accustomed, unwittingly, to taking an authoritarian role and believing that we know much more than the person we have in front of us. And I saw that reflected in my interview, I have begun to make a change, but I think I still have a long way to improve. I have a deep-rooted authoritarian role”. (FG 1)

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- **Qualitative results**
  - **Students' self-perception of competence:**
    - Level III: Translation of learning to their clinical practices
      - They had benefited from the training course both professionally and personally.
      - They believe that this will have a positive impact on their future relationship with patients.

“

“I really think that this course helps me in life in general, not just in my professional career. Well, at least that's my personal feeling. I think that now when I deal with patients, I am able to use more tools to promote healthy lifestyles. Even my nurse tutor told me that I have improved”. (FG 1)

”

“Yes, I am now in my clinical placements at a health care centre, and they do not do motivational interventions, they provide information. When someone comes to stop smoking, they give him a paper with information and tell him: there is this pill, this or this, which one do you want? However, with my nurse permission, I have been able to put into practice the tools learned such as open questions or reflections to address issues like this”. (FG 1)

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➤ **Implications and future lines of action**

- The methodologies employed and the learning atmosphere had contributed to the success of this course.
- The acquisition of skills requires methodologies that combine cognitive and behavioural approaches.
- In vivo training session and the tailored individual feedback → key components of the course.
- Students need more practice in order to achieve proficiency in MI micro-skills.
- For future courses it is recommended to increase the number of practical exercises. In addition, it would be interesting to evaluate in future studies the level IV of the Kirkpatrick model, that refers to the impact of the training on the institution, to assess the long-term effects of the course on patient care.

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➤ **Implications and future lines of action**

- Promising results of this new training course as an effective way to teach nursing students about Motivational Interviewing in alcohol.
- Students are satisfied with the training received; and that they feel resourceful to do a motivational interview.
- After the course, all students demonstrated the acquisition of knowledge and an improvement in MI micro-skills; and at least half of the students showed a level of proficiency in two of the three ratios calculated.
- Students verbalized the implementation of the tools learned in their clinical practice and personal life.
- In vivo training session and the tailored individual feedback are effective strategies to improve students' competence.
- These results can guide the introduction of training courses in the nursing curriculum.

**NEXT STEP → To assess the effectiveness of this intervention in reducing harmful use of alcohol in undergraduates.  
Randomized clinical trial.**

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