



#2: Updates from  
the E+DIETing\_LAB:

## **Simulation-based Learning in Dietetics**

**Practical education in the field of dietetics is complex.**

It can be difficult to source suitable student placements, as clinical internships are scarce and require additional workload for supervisors. Currently, practical education is also a major challenge, since students might be expected to be trained better at their start of internships compared to the past in higher educational institutions, making use of online learning to bridge distance and improve the digital skills of future nutrition professionals. (Morgan et al., 2018).

**Simulated-based learning (SBL)** is an approach in teaching and learning which uses real-world scenarios in a virtual environment. This enables learners to experience real-life situations in safe surroundings under controllable conditions. Originating from aviation and the military, simulation-based learning is used in a variety of settings as well as in healthcare. (Aebersold, 2018).



## *Benefits of Simulation-based Learning*

Simulation-based learning can be **beneficial for students:**

- **Interactive environment:** students can try out new things and perform trainings without the need of a “real” patient or client or healthcare setting – this can be especially helpful when wanting to train for conditions that rarely appear in clinical settings but are still important in dietetics education.
- **Immediate feedback:** students perform an action, and see results immediately.
- **Application of knowledge:** the freshly acquired knowledge can be applied in a “real” context, but also in a safe environment where one can safely learn from mistakes.
- **Reflection and collaboration:** reflection on the tasks and even group activities are possible.

Finally, simulation-based learning also has benefits for lecturers: they can, for example, choose the most appropriate training option for each student, and they can keep track of their activities in a virtual setting, offering a solid base for individualised feedback. (Davis, 2015).



## Simulation-based Learning in Dietetics

This type of training is relatively new in the field of dietetics. **A systematic review of the literature** on “Simulation-Based Learning Experiences in Dietetics Programs” (O’Shea et al., 2020) was the first to summarise SBL approaches in dietetics. O’Shea et al. (2020) analysed 14 studies on 13 different SBL settings in dietetics. Two of the identified studies described SBL sessions featuring simulated and real patients, while six of the studies provided training with simulated patients only. In five of the identified studies, the SBL task was to perform an objective structured clinical examination. The simulated patients were played by actors, not digital avatars acting as patients in a virtual setting.

Regarding the content of the SBL-training, most activities dealt with communication and counselling, but not with the acquisition of practical skills relevant to the job. With fewer manual and procedural activities compared to other healthcare professionals such as doctors or nurses, O’Shea and colleagues found that the risk for the patient is lower, and therefore the use of SBL training for dietitian education might not have been considered to the same extent as in other healthcare education programs. (O’Shea et al., 2020)

They identified a lack of checklists for quality reporting of simulation-based educational activities for the target group. Furthermore, details on influencing factors, such as instructional design or debriefing, are often missing. In addition, the studies often lacked descriptions of the integration of these teaching and training methods in curricula. (O’Shea et al., 2020)



## *What can be done to promote innovative learning in dietetics?*

Training with actors simulating patients is common practice in dietetics education. However, it has some challenges, like the effort of preparing these simulation sessions or contact restrictions during the COVID 19 pandemic. Therefore, the project team of the E+DIETing\_LAB sees a possible solution in the utilisation of digital avatars for virtual training sessions. Those can be performed whenever a student wishes to do so, independent of time, place, and availability of actors or real patients.

To improve the situation of digital training opportunities in dietetics, the **goal of the E+DIETing\_LAB project** is to develop a **digital learning and training environment for dietetics students and dietitians**. With virtual avatars, users can train patient counselling sessions and improve their skills and knowledge.

Interested?

**Learn more about the project here:** <https://edietinglab.eu/project/>

## References

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