

Don't be scared of fake blood!

How simple moulage can add fidelity and enhance learning in student led wilderness simulation.

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Moulage is “the art of applying mock injuries for medical training”. It is an additional tool that can be used in simulations. However moulage is not often utilised at an undergraduate/university level. The simulation market is filled with expensive simulators and prosthetics mimicking many injuries. Dundee University WEMS (wilderness expedition medicine society) is a student led society passionate about wildness and simulation medicine. The majority of students who attend WEMS events believe moulage is hard to create yet, through surveys, they say WEMS moulage is as good or better than what they’d expect from professional moulage.

We have created elaborate and effective moulage out of simple and cheap equipment, such as catheter bags, such as catheter bags.

Moulage should and can be accessible

“100% for more sim learning, **best experiences** ever that we do not get enough of at all. Really helps drill A-E well. Moulage and fake blood not only **prepares you for what you might see in real life, but also helps in learning**”

“Being able to **see injuries in front of you and act** accordingly rather than relying on facilitators to tell you what you see makes **everything more intuitive** and vastly adds to the quality of simulation”

“I froze up a little on my first sim, but I got better at it by my second sim, and **I'd rather have that initial freeze up happen in a safe learning environment**”

“I’d remember to look for sources of bleeding as **there would actually be 'blood' there**”

Learner feedback

Examples of WEMS moulage and how it was made:



Hematemesis- stewed blueberries and cornstarch (sieved)

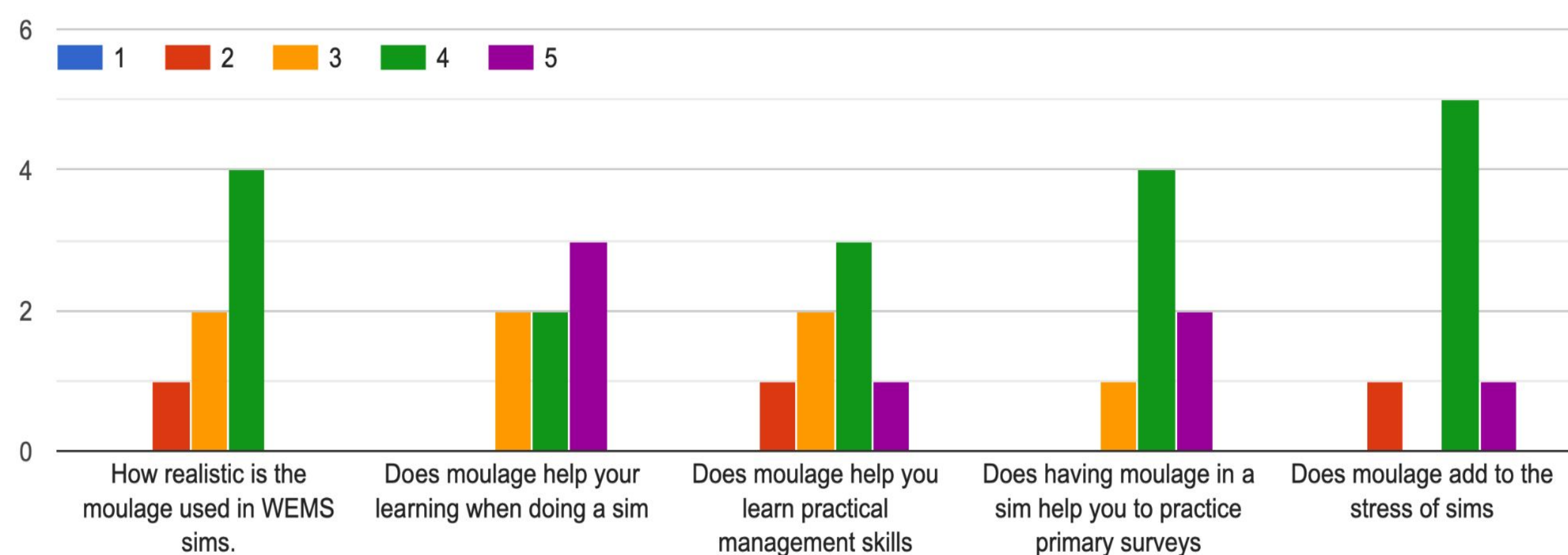


Abdominal laceration- Sausages and fake blood



Resuscitative hysterotomy- water bottle, doll, pig/agar skin

Answer the following questions on a scale from 1-5 1 being not at all 5 being a lot /very



Looking at both qualitative and quantitative data , students have found the sims and moulage done by WEMS to be of high quality, high fidelity and provided effective learning.

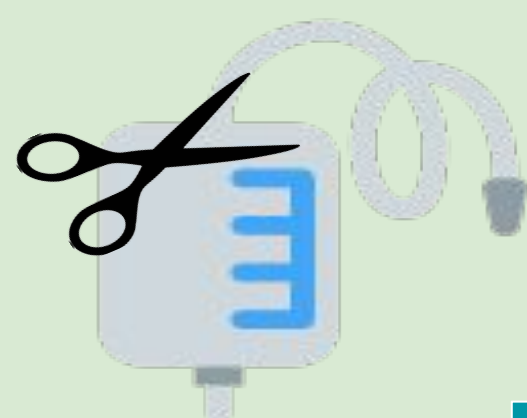
Our students have been able to learn practical skills such as tourniquets in wilderness environments. Students feel more equipped to handle high stress environments following WEMS teaching. 100% of students said they benefit from learning through simulation and would want simulations with moulage to be used in their university teaching.

Simple Moulage is affective at adding fidelity to wilderness simulations. This in turn helps students to utilise visual feedback to learn practical skills and build skills in managing stress.

How to make simulated hemorrhage kit

You will need:

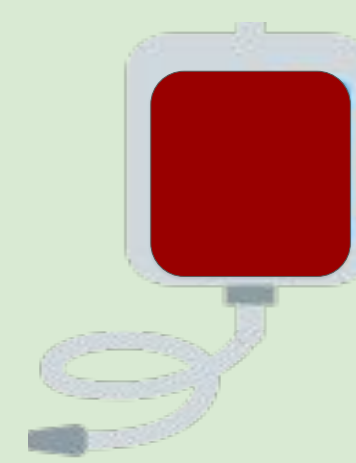
1. Catheter bag with a valve
2. Scissors
3. Tape
4. Food dye/fake blood



Cut off the tubing from the top of the bag



Attach tubing onto the valve. Secure and make water tight with tape



Fill bag from with warm water + food dye/fake blood until desired volume/colour. Attach to sim patient (crepe bandage works well). Use the valve to control flow.



Watch a video on how to make it here

Here are examples where these bags have been used in WEMS teaching events

