Moulage Magic on a Shoestring

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Learning Objectives

Upon completion of this workshop, the participant will be able to:

- Determine level of fidelity/realism needed for simulation-based learning experiences
- Identify readily available resources to create realism using moulage techniques
- Discuss participant, environmental, and practical considerations when selecting and utilizing moulage effects
- Practice applying moulage techniques learned during this hands-on workshop.
Determining Fidelity Needed to Enhance Learning
Fidelity

- **Intrinsic property** of simulation; **Degree of realism** for a particular simulation experience

- The **degree of accuracy** to which a simulation, whether it is *physical, mental,* or *both,* represents a given frame of *reality* in terms of *cues* and *stimuli,* and permissible *interactions.*

  (Tun, Alinier, Tang, & Kneebone, 2015)

- Fidelity can involve a variety of dimensions, including:
  - Physical factors (environment, equipment, and related tools)
  - Psychological factors (emotions, beliefs, and self-awareness of participants)

  (INACSL, 2013 in Lopreiato et al., 2016)
Realism

- Realistic make-up of injuries (moulage) combined with the acting of symptoms (physical).

- Not only should the simulated injury be treated appropriately and efficiently, but participant should experience the feelings and reactions similar to the “real” situations (emotional).
Suspend Disbelief

- Every simulation session must have enough realism for the participants to become fully engaged in the scenario.

- They must believe and act as if the patient simulator is someone for whom they are responsible and must provide appropriate care.

- Having a mannequin that blinks and speaks is wonderful, but for many participants that is not enough to overcome the sense of playacting.

Chow & Navik, 2008
How does realism effect student learning during simulation?
PREPARATION

- Know the Simulation
- Aprons
- Gloves
- Table Covering
- Floor Covering
- Supplies
TERMS

▪ Moulage
▪ Appliance
▪ Mold
▪ Set Dressing
▪ Standardized Patient (SP)
▪ Patient Simulators (Manikins)
Moulage

- A French term that means casting or molding; the art of applying mock injuries for the purpose of training healthcare personnel.

- The artistic technique of incorporating realistic cues, such as wounds, perspiration, blood to increase the “psychological fidelity” of a simulation.

Cornele, (2015)
Appliance

- A synthetic representation of a wound, illness or prop that can be applied to a real or simulated patient.
  - Enhances the realism
  - Wigs, clothing, tattoo, staging
MOLD

- A negative impression from a positive model
  - Allows the ability to reproduce the objective repeat with the same effect
  - Watch for latex allergies when using liquid latex in molds
CONSIDERATIONS WHEN USING MOLDS

- Mix Ratio – amount of each compound – curing problems
- Pot life – how long until you can start using it
- Thickness/Stiffness
- Adherence issues – not all glues work
- Colors – watch reds

- Material
  - Silicon
  - Latex
  - Polyurethane

- Type
  - Premade
  - Clay
SET DRESSING

- Need someone in charge of staging of the scenario
  - Props
  - Applying moulage
  - Simulation environment
CONSIDERATIONS WHEN SETTING THE STAGE

More is not Better

▪ Expense
  – Moulage kit – many professional supplies but can also use household items
    • Cuts, bruises, burns, blisters, redness, sweat, vomit and supplies to make them.

▪ Environment
  – Wigs, clothing, tattoo, tubes, hospital, home, “in field”

▪ Realism
  – Age of wound
  – Bones
  – Odors
  – Sound
STANDARIZED PATIENT (SP)

▪ Actors or similar

▪ Pros
  – Easier to have realistic effect
  – Blending of make up is more consistent
  – Appliances adhere better
  – Can be taught to do “touch ups”
  – Can help with clean up

▪ Cons
  – Move around
  – Allergies
  – Fatigue
  – Inability to perform all “critical actions” when simulating a medical emergencies (ie. Intubate)
  – Limitations to the application of devices (ie. Foley)
HUMAN SIMULATORS - MANIKINS

▪ Pros
  – Don’t move
  – Manufactures have appliances that fit
  – They don’t eat, need the bathroom or complain

▪ Cons
  – Blending is harder
  – Some appliances don’t adhere
  – Stains (use cream based-always test small area)
THINK PAIR SHARE

Share your experiences with “setting the stage”
Building Your Cookbook

Moulage Recipes from Your Kitchen
Basic Moulage Supplies

- Wigs and clothing
- Wounds & Incisions
  - Halloween purchase
  - Molds - Clay
  - Latex/Silicone
  - Adhesive
- Eye Shadows & Blushes
  - Many colors
  - Professional makeup wheel
- Make-up brushes
- Water Color markers
- Finger paints
- Glycerin in spray bottle
- Magic Eraser

- Dish detergents
  - Blue
  - White
  - Pink/red
- White shaving cream
- Bubble wrap
- Corn Starch
- Food coloring
- Distilled water and Ammonia
- Makeup wedges
- Cotton Balls
- Q-tips
- Corn Starch
Basic Moulage Supplies

- Mixing Basics
  - Secure locking containers
  - Spoons
  - Funnels
  - Measuring cups
  - Plastic bag
  - Bowls
  - Table covering
Sample Recipe - Bruises

- **Ingredients**
  - Colored makeup
  - Eye shadow and blush (green, yellow, blue, navy, pinks)
  - Professional makeup wheels
  - Lightly brush on baby powder to ‘set’ colors

- **Directions for Early(new): begins as pinkish red**
  - Apply red/pink coloring to skin – size of desired bruise
  - Feather edges to eliminate harsh edges

- **Few hours to 2 days: turns to bluish-purple - blackish**
  - Apply blue/purple coloring in blotch fashion on top of red
  - Feather edges to eliminate harsh edges
Sample Recipe - Bruises

- Between 5 to 10 days: turns to greenish or yellowish
  - Yellow / green can be added for aged bruising

- Between 10 to 14 days: turns to yellowish-brown to light brown
  - Add yellows and browns
GROUP ACTIVITY

Practice making bruises
Sample Recipe - Blisters

- **Ingredients**
  - Bubble wrap – need a variety of sizes being on the injury
  - Could use liquid latex and mold
  - Petroleum jelly
  - Kleenex tissues, separate layers
  - Black, charcoal, or gray eye shadow

- **Directions**
  Apply cut bubble to area where blister is desired with petroleum jelly
  Apply small amount of petroleum jelly and cover with tissue in layers
  - Color around blister with colored makeup
GROUP ACTIVITY

Let’s make blisters
Sample Recipe - Diaphoresis

- **Ingredients**
  - Water &/ Glycerin

- **Directions**
  - Mix 2/3 Water & 1/3 glycerin for desired effect
    - Store in spray bottle
    - Spray SP or manikin at desired time
    - Use glycerin for a lingering effect
Sample Recipe - Meconium

- **Ingredients**
  - Green finger paint
  - Yellow finger paint
  - Blue dish detergent

- **Directions**
  - Mix finger paints, adding until desired color.
  - Add dish detergent for color and consistency.
Sample Recipe - Liquid C-diff Stool

**Ingredients**
- ½ cup Corn starch
- 2 tsp Shaving cream
- Black finger paint
- Green finger paint
- Red finger paint
- 2 drops green food coloring
- 1 drop red food coloring
- Blue dish detergent

**Directions**
- Pour distilled water into a bowl for the approximate amount of stool
- add green and red finger paints to make a brown color
- add a tiny amount of black finger paint and food coloring
- Mix corn starch, shaving cream, and blue dish detergent for realistic consistency.
GROUP ACTIVITY

Practice Time
Sample Recipe - Blood

- Ingredients
  - Liquid laundry starch
  - Food coloring – red, blue and yellow
  - Corn syrup
  - Red dish soap
  - Bowl
  - Spray bottle
  - Red grease
  - Paper towels

- Directions
  - Thin Blood (preferred and used in the kits)
    - Mix together 16 oz. of liquid laundry starch, 2 oz. RED food coloring, and 5 drops BLUE food coloring.
Sample Recipe - Blood

- Directions
  - Medium Blood (corn syrup type)
    • To a 16 oz. bottle of corn syrup, add 2 teaspoons or 200 drops of RED food coloring, 16 drops BLUE food coloring, and 16 drops YELLOW food coloring. Mix well in bowl larger than three cups and place in container that is easy to pour.

  - Medium or an alternative to the other Thin Blood (dish soap type)
    • To 16 oz. of red dish soap, add 4 Tablespoons RED food coloring and 4 drops of Blue food coloring. For Thin Blood, use spray bottle. For Medium, pour on for dripping effect.
Sample Recipe - Blood

- **Directions**
  - **Thick Blood**
    - To a 16 oz. can ‘Multi-duty Complex’ (grease that comes red), add 30 drops RED food coloring and 30 drops of BLUE food coloring. Mix very well. The canned version is easier to work with than the tube-type. This medium is messy, though it cleans up easily with paper towels.

- **Pre made**
  - Halloween type

- **Blood Clots**
  - Add corn starch to any of the blood recipe to thicken

- **Iron tablets**
GROUP ACTIVITY

Practice Time
Share your thoughts about the recipes we used today.
Participant, Environment, and Practical Considerations

Ensuring safety and avoiding damage or injury
CLEANING TIPS

- Brushes and Sponges
  - Foaming facewash
  - Terry cloth
  - Store in airtight containers with corn starch
  - Replace after 6 months
CLEANING TIPS

- Hand washing with soap and warm water
  - Before applying anything to anyone
  - Between SP
  - Wet wipes with antibacterial action can be used when running warm water is not available
CLEANING TIPS

- Standardized Patients
  - Warm soap and water
  - Cold cream or make up remover
  - Adhesive remover
  - Time
CLEANING TIPS

- Manikins
  - Check manufactures recommendation
  - Degreaser
  - Benzoyl peroxide
  - Adhesive remover
Safety Considerations

- **Mixing**
  - Burns
  - Adherence issues

- **Allergies**
  - Latex
  - Glues
  - Bee – don’t use food based products outside

- **Clean-up and Storage**
  - Sealed containment prevents drying
  - Dispose of non-reusable (foods)
Show me the money!!!

- Use expired materials (ie. Medications, defib pads)
- Repackage materials (ie. Cath kits, central line kits)
- Predetermined disposal site
- Make friends with ancillary departments (ie. Pharmacy, Biomed, Materials)
- Refill & Reuse… Reuse… Reuse
Please share your stories of the good, bad and ugly of your simulation experiences related to moulage and staging?
Resources


Laerdal.com/usa/sun/ppt/recipebook.pdf


Step-by-step Moulage instructions; Moulage kit; recipes; injuries www.cert-la.com/cert-training-education/moulage/

