

Continuing Education Column

의료 시뮬레이션

Medical Simulation

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Abstract

The simulation for medical and healthcare applications has recently been employed in our country in medical colleges for students' educational purposes. In terms of simulation, aviation, nuclear experimentation, as well as banking services have employed their own simulation programs. In the medical field, there are macro - and microsimulations. Full - scale human simulator and part task trainers belong to macro-simulation, and PC - based virtual realities belong to microsimulation. Both are very effective educational tools to bridge the medical knowledge to clinical practices. In simulations the role of the facilitator is very important and most learning activities are accomplished during "debriefing." Nowadays some centers in our country are introducing medical simulation. An increasing attention to simulation technologies would be critical for the dissemination of the concepts and their applications.

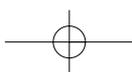
Keywords : **Medical education; Medical simulation; Simulator**

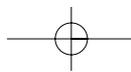
(simulation for medical and healthcare application)

가 OSCE(objective structured clinical examination) (clinical skill laboratory)

가 (1) OSCE(objective structured clinical examination), EBM(evidence based learning), SP(standardized patient), PBL(problem based learning), CPX(clinical performance examination)

가 (2).





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가 (the Institute of Medicine of the National Academies) 1999 “ To Err is Human: Building a Safer Health System ”

가 , (medical error) ,

1920 2 5~8 , 170~290

Edward Link가 Link

가

(the creation of a governmental center for patient safety with regulatory powers), , 1 (funding of at least \$100 million for research and innovative programs), , (creating centers of excellence), , (development of patient safety programs), , 가 (introduction of performance standards for healthcare professionals), ,

(NASA)

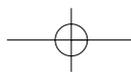
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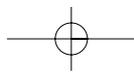
가

가 (establishment of interdisciplinary team training programs that incorporate efficient training methods such as simulation)

(3).

21 가 (evidence-based medicine)





가 ,
(4).

가 가 .

() .
가 가
가

(simulation)

가 .

“ () ”

“simulation : 가 , , simulation film :
, virtual simulation : 가 ”

“ () ” “1.

(simulator)

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가 가

“1. 가 , ; . 2. .

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Resusci Anne

, ,). 3. , 가 . (Laerdal Medical,) 1960

4. . , ” . 2005 45

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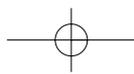
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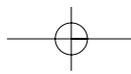
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METI
(Medical Education Technologies, Sarasota, Florida,
) SimMan (Laerdal Medical, Stavanger,
) 가 (Facilitator), (Facilities),
(Fund) 3F가

(obstetric child - delivering
simulator)(5), (SimBaby) 1. (Facilitator)
(6). 가

가

(virtual reality)
(clinical decision making)

가

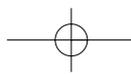
(part -
task trainer) 2. (Facilities)

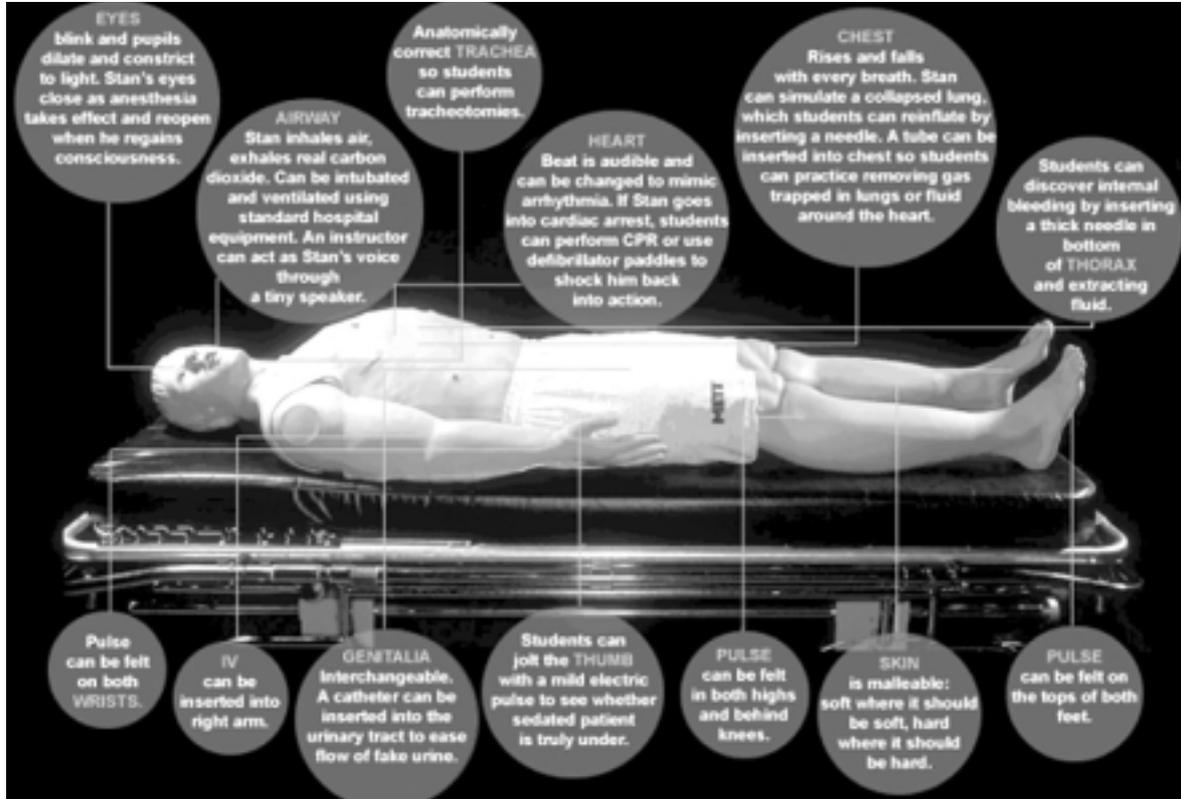
de-
briefing 가

가 가

Debriefing

가 가 (8) METI (3) . SimMan





1. METI (Medical Education Technologies, Sarasota, Florida,)

3.

METI SimMan

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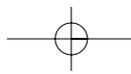
가 , ,

(Making Scenarios)

PC

가

(knowledge), (skills), (attitudes)
(process) (outcome)



3. Resusci - Anne(Laerdal Medical, Stavanger,)

가 가

1

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(1, 7).

CPR

teaching

; cardiology skill

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CRM crisis resource manage-

ment

(Ame-

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debrief-

rican Heart Association)

(ACLS provider) 12

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2000

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debriefing

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debriefing

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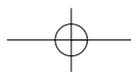
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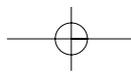
debriefing

2)

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3)





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2.

- (Computer - based training, CBT)
- (Role play)
- (Standardized patients, SPs)
- (Part - task trainers, PTT)
- (Human Patient simulators, HPS)

(Confidentiality)

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4)

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5)

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(feedback for reflective learning).

6)

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7)

8)

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1990

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2004

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(reflection)

(8). 가

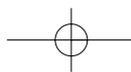
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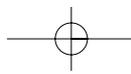
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 가 SimMan 8,500
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 Herlev 가 가 (4).

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3 가 1998 가 (10).

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(instructors) PBL

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(The Simulation Center at the University of Pittsburgh Medical Center)

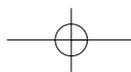
1994 2003 9 (facilitator)가
2004 8

(苦難度)

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Peter M.

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대한의사협회