comprehension of these messages. However, there remains a lack of clarity about whether or not images improve risk perception and associated behavioral intention.
Methods: Participants will complete items from the Domain-specific Risk Taking scale to position their personal risk threshold profile. Participants will then be randomly assigned to one of three conditions (emergency messaging with no imagery; emergency message with images that escalate as the message urgency increases; and emergency messaging with a generic, non-escalating image) and have their responses to the message measured using eye tracking software. Finally, participants respond to a short on-line questionnaire about their perceptions and understanding of the behaviors being elicited by the messages.
Results: Our preliminary results indicate that the addition of visual imagery improves risk perception and comprehension of the immediacy of the message. The results from the proposed extension experiments described here will be presented in this presentation.
Conclusion: Grammatical construction, language, imagery, media channel, and length must all be considered as important factors in maximizing messaging for optimal effect.
Prehosp Disaster Med 2017;32(Suppl. 1):s17–s18
doi:10.1017/S1049023X17000681

Outcome Following Cranioplasty, with Bone Flap Stored in Bone Bank or in Abdomen, in Severe Head Injury Patients

Aswathy Indira
Nurse Informatics, Jai Praksh Narayan Apex Trauma Centre, AIIMS, New Delhi/India

Study/Objective: To find the Outcome Following Cranioplasty, with Bone Flap Stored in Bone Bank or in Abdomen, in Severe Head Injury Patients
Background: Following Decompressive Craniectomy (DC), bone flap is usually stored either in abdomen or in the bone bank. Patients who return for cranioplasty following DC are considered to have the best outcome, as it is a cosmetic procedure. However, infection of the bone flap can lead to high morbidity and mortality in this group.
Methods: The study included 190 cases of cranioplasty done between August 2011 and September 2012. All were post-traumatic cases who had undergone decompressive craniectomy for severe head injuries, and had no apparent features of localized or systematic infection. Infection was defined as presence of culture positive collection, or frank pus around the bone flap.
Results: Twenty-six of 190 cases (13.7%) had infection of the bone flap presenting after 1–14 months of cranioplasty requiring its removal. The infection rate in 119 flaps kept in bone bank was 14.3%, and in 54 flaps kept in abdomen was 11.1% ($p > 0.5$). Two out of 17 (11.7%) cases done with bone cement had infection. There was no significant difference of age, sex, presence of tracheostomy, type of graft used and post-op hospital stay. This compared to patients who had early surgery, multiple surgical procedures, suture line infections and long hospital stay after primary surgery had a significantly higher rate of bone flap infection.
Conclusion: This is the only study of its kind which has assessed the infection rates in different kinds of storage of bone flaps, and it shows that there is no significant increase in infection rate, if bone is stored in bone bank.
Prehosp Disaster Med 2017;32(Suppl. 1):s18
doi:10.1017/S1049023X17000693

Online Disaster Training for Clinicians and Non-clinicians at a Children's Hospital

Alan L. Nager[1], Solomon M. Behar[1], Bridget M. Berg[2], Phung K. Pham[1], Jeffrey S. Upperman[2]
1. Emergency And Transport Medicine, Children's Hospital Los Angeles, Los Angeles/CA/United States of America
2. Pediatric Disaster Training And Resource Center, Children's Hospital Los Angeles, Los Angeles/CA/United States of America

Study/Objective: To examine changes in knowledge acquisition of pediatric disaster preparedness among clinicians and non-clinicians who completed an online training course of 5 modules: planning (M1), triage (M2), age-specific care (M3), disaster management (M4), and emergency code response (M5).
Background: Terrorism and natural disasters have brought disaster preparedness to the forefront in the medical world. Although children are vulnerable victims during disasters, no standardized pediatric disaster preparedness training exists to date for medical and nonmedical hospital personnel.
Methods: An online training course was developed through the hospital's Pediatric Disaster Resource and Training Center. Course data from July 2009 to August 2012 were analyzed through linear growth curve multilevel modeling, with module total score as the outcome (range 0–100 points), attempt as the level 1 variable (participants could repeat the course), role (clinician versus non-clinician) as the level 2 variable, and attempt by role as the cross-level effect.
Results: There were 44,115 module attempts by 5,773 participants (3,686 clinicians, 2,087 non-clinicians) were analyzed. As shown in the results table, intraclass correlations indicated substantial variance in knowledge acquisition. The average module total score upon first attempt across all participants ranged from 60.28 to 80.11, and participants significantly varied in how they initially scored. On average in M1, M2, M3: total scores significantly increased per attempt across all participants (average rate of change ranged from 0.59 to 1.84); clinicians initially had higher total scores than non-clinicians (average difference ranged from 13.25 to 16.24). Cross-level effects were significant in M4 and M5: on average, non-clinicians' total scores significantly increased per attempt by 3.77 in M4 and 6.40 in M5, while clinicians' total scores did not significantly improve from additional attempts.
Conclusion: Medical and nonmedical hospital personnel alike can acquire knowledge of pediatric disaster preparedness. Key content can be reinforced or improved through successive training in the form of an online course.

Linear Growth Curve Multilevel Modeling Results					
Module	N Attempts	N Participants	Range of Attempts	Intra-class Correlation	Intercept (Fixed Effect)
M1: Planning	11010	5760	1-54	0.22	62.16***
M2: Triage	7755	5647	1-29	0.23	70.41***
M3L Age-Specific Care	8395	5603	1-20	0.21	60.28***
M4: Disaster Management	10747	5577	1-43	0.34	71.09***
M5: Emergency Code Response	6208	5567	1-16	0.27	80.11***

	Intercept Variance (Random Effect)	Slope (Fixed Effect)	Slope Variance (Random Effect)	Role Difference (Fixed Effect)
M1: Planning	127.69***	1.84***	0.86***	16.24***
M2: Triage	117.05***	0.97***	0.07	13.25***
M3L Age-Specific Care	122.91***	0.59***	0.06	15.27***
M4: Disaster Management	123.54***	3.77*	0.28**	12.62***
M5: Emergency Code Response	64.60***	6.40*	N/A (Constant Slope)	10.95***

Table 1. Linear Growth Curve Multilevel Modeling Results. *Significant effect at $P < 0.05$; **Significant effect at $P < 0.01$; ***Significant effect at $P \leq 0.001$

Prehosp Disaster Med 2017;32(Suppl. 1):s18–s19
doi:10.1017/S1049023X1700070X

A Pilot Study to Assess Whether the Public can Achieve Consensus on Patient Prioritization with Allocation of Scarce Resources during a Catastrophic Pandemic

Jay C. Morah, Brian N. Fink, Paul P. Rega
Public Health And Preventive Medicine, University of Toledo, Toledo/OH/United States of America

Study/Objective: To ascertain the lay public's choice as to which of three critical case-scenarios should receive the only ventilator immediately available during a catastrophic, like the 1918 pandemic.
Background: The medical/ethical literature continues to prepare the medical community about patient prioritization and allocation of scarce resources issues during a pandemic like 1918. There remains no consensus about what ethical framework to adopt and which tactical markers (ie, physiologic or demographic) to employ when critically ill patients require the same few resources.
Methods: An IRB-approved survey was developed and presented to a convenience sample of the general public. It contained a previously-published, validated pandemic case scenario involving three patient-cases, all of whom were critically ill and requiring the only ventilator available. Specific demographics and SOFA (Sequential Organ Failure Assessment) scores differed for each patient. Survival estimates based on the SOFA scores were provided assuming each patient received optimal ICU management.
Results: There were 39 lay public individuals in the pilot study. The case selected by the study group for the only ventilator was #1 (young female overdose): 22 (56.4%); #2 (geriatric acute vascular crisis): 1 (2.6%); and #3 (septic, middle-aged male): 15 (38.5%). The factors they considered for their selections, in descending order, were SOFA score, age, Glasgow Coma Score, pregnancy status, and dependents. Noteworthy is that Case #2 had a better chance of survival than patient #3 based on SOFA scores (ie, 50% survival vs 30% survival) and yet received only one vote for the ventilator.
Conclusion: These results validate the authors' hypothesis that the general public will not achieve consensus regarding patient prioritization during a catastrophic, resource-poor pandemic. Should future studies verify this data, it should sound an alarm that public education on this subject is essential to avoid, at the very minimum, loss of confidence in the health care infrastructure.

Prehosp Disaster Med 2017;32(Suppl. 1):s19
doi:10.1017/S1049023X17000711

Hierarchical Task Analysis as a Method to Support Emergency Response Planning

Carl-Oscar Jonson[1], Simon Rosenqvist[2], Rebecca Forsberg[3], Jonas Aléx[3], Erik Prytz[2]
1. Centre For Teaching And Research In Disaster Medicine And Traumatology, And Department Of Clinical And Experimental Medicine, Linköping University, Linköping/Sweden
2. Department Of Computer And Information Science, Linköping University, Linköping/Sweden
3. Research And Development Center For Disaster Medicine, Unit Of Surgery, Department Of Surgical And Perioperative Science, Umeå University, Umeå/Sweden

Study/Objective: The objective of the current work was to use the Hierarchical Task Analysis (HTA) method to support the process of planning the emergency response to a train accident in cold climate and inaccessible terrain. The HTA was used in order to 1) capture essential and critical tasks in a structured manner, 2) to facilitate group workshops, and 3) to identify potential problem areas and pitfalls.
Background: HTA is a type of task analysis that focuses on the overall goal of a complex activity. It proceeds to deconstruct the complex activity into subgoals needed to reach the overall goal, and subgoals to those subgoals, etc., through multiple iterations down to specific simple tasks or actions. HTAs are often the foundation for more complex analysis, such as human error or situation awareness analysis.
Methods: Three workshops were conducted with regional stakeholders (eg. rescue services, hospitals, ambulance services, police, etc.). The purpose was to construct new emergency response plans to train accidents in the region. An observer participated in the workshops to collect the data necessary for the HTA. Additional observations were conducted during a train accident training course for emergency services personnel, to incorporate more specific tasks into the HTA.
Results: The three main subgoals recognized in the HTA were 1) mobilizing resources, 2) establish efficient accident site