First Aid and Safety Training for Commercial Fishermen: Implementation and Evaluation

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BACKGROUND
- Commercial fishing is one of the most dangerous occupations in the US.
- Dungeness crab fishermen view preparation as an important element of staying safe while fishing.
- Fishermen reported that community first aid classes were not relevant for emergencies at sea, and requested fishing-specific first aid training.

METHODS
- First Aid and Safety Training (FAST)
  - In Newport and Astoria, Oregon
  - Dungeness crab fishermen
  - Before 2016/17 crab season
  - Conducted by a senior instructor in wilderness medicine
  - Trainings limited to 20 fishermen
  - Topic areas: CPR, injury prevention, assessment, wounds and burns, orthopedic injuries, altered mental status, environmental injuries/illnesses, drowning, cardiorespiratory emergencies, and patient handling
  - Integrated commercial crab fishermen-specific scenarios for hands-on training
  - Participants completed a Pre- and Post first aid knowledge questionnaire
  - Participants evaluated training, including: whether they would recommend the training, usefulness and effectiveness, suggestions for future improvements

RESULTS
- Complete data on pre- and post-class knowledge was provided by 20 Astoria fishermen and 17 Newport fishermen
- Average participant age: 38±13 years
- Average number of years fishing for Dungeness crab: 11±9 years
- Crew position frequency:
  - Deckhand: 16
  - Captain: 11
  - Owner: 4
  - Other: 6
- First aid knowledge increased (see figure) substantially in both groups after training
- Newport: mean pre-class knowledge percentage correct was 49%, and rose to 87% post-class.
- Astoria: mean pre-class knowledge percentage correct was 44%, and rose to 90% post-class.
- On a 1-4 scale (1=very useful, 4=not at all useful), fishermen reported finding the material useful (see figure). Mean usefulness scores were:
  - Newport: 1.4
  - Astoria: 1.3

CONCLUSION
- First aid training specifically tailored to fishermen was well received and perceived to be very useful.
- These pilot classes have led to further development of the course, including:
  - More scenario-based training
  - Greater emphasis on prevention and safety
  - Refinement of presentations to emphasize fishing-specific examples
- Participants provided suggestions for improving safety beyond first aid training (e.g. recommending first aid kits - see figure)

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