The Role of Nurses in an Interdisciplinary Care Team Responding to Mass Fatality Disaster

Susan B. Hassmiller, Susan Weeks and Lavonne Adams
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The Role of Nurses in an Interdisciplinary Care Team:
My Personal Reflections

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Susan B. Hassmiller

- Senior Adviser for Nursing, RWJF
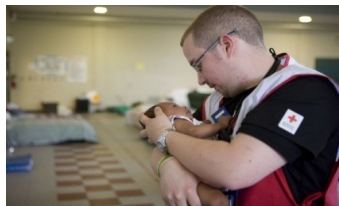
- Central New Jersey Red Cross Board Chair

Robert Wood Johnson Foundation

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American Red Cross Mission

Prevent and alleviate human suffering in the face of emergencies by mobilizing the power of volunteers and the generosity of donors

The American Red Cross is there.

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Our Reach

500
local chapters

500,000
volunteers

Worked with global partners to help

7.1M
people

Affected by disaster in
19 countries
in 2012

Nurses: Backbone of Relief Efforts

- Triage and treatment
- Medication administration
- Medical supply management
- Health education and prevention
- Emotional support
- Advocacy and referral

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The Red Cross and Me

Mexican Earthquake, 1975

Red Cross located my parents

Deadly Tornado Cluster: Nearly 350 Killed

ALABAMA, USA

Alabama Tornado, 2011

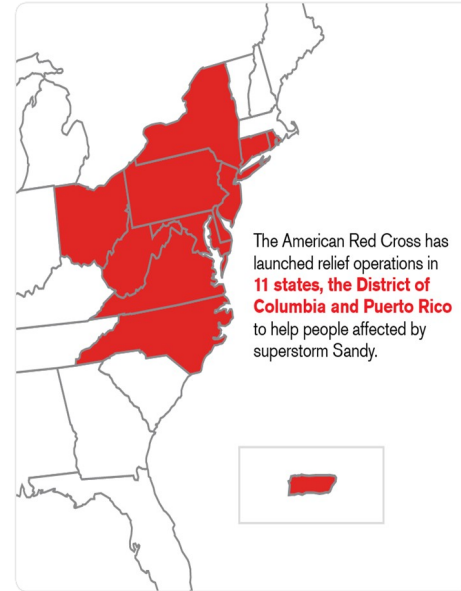

Pay it forward.

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Integrated Care Team

Mental health professional, nurse and social worker:

- Client centered
- Integrated services
- Timely response

Superstorm Sandy and Integrated Care Teams

The American Red Cross has launched relief operations in **11 states, the District of Columbia and Puerto Rico** to help people affected by superstorm Sandy.

Equity and Access to Care

"If it wasn't for the Red Cross, I would not have had any food, water, a place to sleep or a place to take a shower. I wouldn't have had anyone to talk to in the middle of the night, when I needed to."

-Myron Johnson, New Orleans resident

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Program Evaluation
Integrated Care Team
2011-2012

Lavonne Adams, PhD, RN, CCRN

American Red Cross

Lavonne Adams

- Associate Professor, TCU Harris College of Nursing & Health Sciences

Background

- ICT approach first utilized following bombing of Alfred P. Murrah Federal Building in Oklahoma City, USA in April 1995

- ICT utilized in response to World Trade Center incident in New York on September 11, 2001

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Rationale for Program Evaluation

- ICT has been viewed as a successful approach to mass casualty incidents

- Feedback from ICT participants and disaster response leadership following Spring 2011 tornado response suggested that the ICT approach had not worked as well as on previous occasions

- Program evaluation suggested

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Program Evaluation Process

- Document review, including ICT narratives

- SWOT Analysis with Red Cross leadership **S**trength-**W**eakness-**O**pportunity-**T**hreat

- Online survey of ICT participants

Sample

- All ICT team members from Spring 2011 Tornado Disaster Response Operations (DRO)

- 250 survey invitations distributed via email

- Statistical significance cannot be determined from survey results due to finite small sample size

05/07/2011

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Response Rate

- 250 survey invitations distributed via email; 7 email bounces.
- 128/243 began survey (52.7%)
- 120/243 completed survey (49.4%)

Participants

	N responded/N invited	% responding within activity	% of total respondents
Health Services	43/105	41	35
Mental Health	36/60	60	30
Client Casework	11/32	34.4	9
Spiritual Care	32/53	60.4	26

Results: Roles

	Agree % (N)	Neutral % (N)	Disagree % (N)
ICT is an activity I would choose to participate in	95 (113)	4 (5)	1 (1)
I understood my role in the ICT	89 (109)	7 (9)	4 (4)
I understood the role of other members of the ICT	88 (107)	10 (12)	2 (3)
All team members should go to meet the family at the same time	69 (82)	13 (15)	18 (22)
I knew who the leader of the ICT was	84 (101	7 (9)	10 (12)

Results: Professional Skills and Experience

	Agree % (N)	Neutral % (N)	Disagree % (N)
My professional skills and experiences prepared me well for ICT	94 (115)	6 (7)	0 (0)
ICT members had sufficient professional experience to function effectively in ICT	74 (88)	16 (19)	11 (12)
My professional skills were put to good use with ICT	83 (99)	11 (13)	6 (7)

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Results: Experience and Training

	Agree % (N)	Neutral % (N)	Disagree % (N)
ICT members had sufficient disaster response experience to function effectively in ICT	61 (73)	24 (28)	15 (19)
ICT members had sufficient Red Cross training to function effectively in ICT	62 (73)	19 (23)	20 (23)
My Red Cross training prepared me sufficiently for ICT participation	62 (74)	23 (27)	15 (18)
ICT members had sufficient ICT-specific training to function effectively in ICT	32 (38)	30 (36)	38 (45

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Results: When to Use the Model

	Agree % (N)	Neutral % (N)	Disagree % (N)
The ICT model should be used for families of those hospitalized or injured in a disaster	78 (92)	11 (12)	11 (13)
The ICT model should be used only for families who have had a death related to disaster	30 (35)	10 (12)	60 (71)

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Results: Function

	Agree % (N)	Neutral % (N)	Disagree % (N)
I received enough direction from my activity lead	67 (80)	15 (18)	18 (21)
The ICT leader gave good direction	61 (74)	25 (30)	14 (17)
I understood who I reported to	82 (98)	7 (8)	11 (13)
I understood how to document for ICT	69 (82)	17 (20)	15 (17)

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Results: Relationships

	Agree % (N)	Neutral % (N)	Disagree % (N)
The ICT leader valued other members of the team	82 (99)	12 (15)	6 (7)
The ICT members valued other members of the team	84 (102)	13 (16)	3 (4)
The ICT(s) I worked with worked well together	77 (92)	17 (20)	6 (7)
I had a good relationship with chapter volunteers	79 (94)	19 (22)	2 (2)
I had a good relationship with Disaster Response Operation (DRO) leadership/supervisors/volunteers	91 (108)	17 (20)	6 (7)

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Results: Goal

	Agree % (N)	Neutral % (N)	Disagree % (N)
I understood the goal of ICT	94 (112)	5 (6)	1 (1)
ICT was effective at meeting its goal	84 (100)	13 (15)	3 (4)

Results

- "The goal of ICT is _____" produced varied responses
- Most common themes
  - "support/help/assist" (n=45)
  - "needs assessment" (n=16)
  - "meet needs"   (n=16)
  - "services/resources" (n=20)

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Results: Effectiveness

	Agree % (N)	Neutral % (N)	Disagree % (N)
ICT utilized community resources effectively	65 (77)	25 (30)	10 (12)
ICT provided financial support effectively	68 (81)	18 (21)	14 (17)
ICT provided mental health services effectively	76 (90)	18 (22)	6 (7)
ICT provided spiritual care services effectively	61 (73)	29 (34)	11 (12)
ICT provided health services effectively	85 (101)	9 (11)	6 (7)

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Results: Team Leadership

	% (N)
The lead for ICT should be (check one):	
Health Services	31 (36)
Mental Health	16 (19)
Spiritual Care	3 (4)
Client Casework	14 (16)
No one (it should be a collaborative effort)	36 (42)

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Results: Team Membership

	% (N)
Team members of ICT should include (check all that apply):	
Health Services	95 (113)
Mental Health	95 (113)
Spiritual Care	81 (96)
Client Casework	93 (111)

Results: Promotion of Recovery

ICT promotes recovery best by providing the following services	1 (most important)	2	3	4 (least important)
Financial support	37 (33%)	26	30	21
Emotional support	52 (46%)	25	23	9
Spiritual Support	9	31	23	49 (44%)
Health Services	14	32	36	32

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Recommendations

1) Develop and implement more consistent ICT-specific training

2) Articulate clear, consistent message about goal of ICT

3) Consider feasibility of expanding use of ICT and/or establish clear, consistent distinction between ICT and outreach visit

4) Determine how "effectiveness" of services is measured

5) Explore variability of resource application

6) Determine how ICT financial assistance differs from standard client casework financial assistance

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Recommendations

7) Develop ways to improve communication between chapter volunteers—and their knowledge of resources—and Disaster Response Operation volunteers

8) Provide opportunity for all volunteers to provide both quantitative and qualitative feedback about Disaster Response Operation

9) Determine if lead for ICT should remain Health Services

10) Develop set of desired qualifications for ICT participation

11) Consider separate survey of Mental Health volunteers

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Next Steps Based on Program Evaluation

- ICT reaffirmed as a valuable approach in providing care and services to those affected by mass casualty events
- Task Force formed to consider recommendations
- Timeline affected by ensuing disasters

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Systematic Review to Synthesize International Evidence on Interdisciplinary Teams Responding to Disaster

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Susan Mace Weeks

- Associate Dean, Harris College of Nursing & Health Sciences
- Director, Center for Evidence-based Practice & Research

TCU **Harris College** of Nursing & Health Sciences

Center for Evidence Based Practice and Research: A Collaborating Center of the Joanna Briggs Institute

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What Is a Systematic Review?

- Not a literature review
- Literature reviews may summarize, critique, and synthesize articles, but do not use systematic methodology
- Systematic reviews require adherence to explicit and rigorous methods to identify, critically appraise, and synthesize **ALL** relevant evidence

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Synthesis vs. Summarizing

- To summarize is to express concisely

- To synthesize is to combine constituent elements into a single unified element

- To synthesize knowledge is to create new knowledge

- Systematic review is at the top of the evidence hierarchy

Systematic Review Characteristics

- Comprehensive
- Systematic
- 2 or more reviewers
- Peer-reviewed
- Transparent
- Reproducible

Recognized Systematic Review Entities

- Joanna Briggs Institute: Roots in Nursing & Allied Health

- Cochrane Collaboration: Roots in Medicine

- Campbell Collaboration: Roots in Education, Criminal Justice, and Social Sciences

Components of a Systematic Review

- Clearly stated objectives with pre-defined eligibility criteria for evidence
- Explicit, reproducible methodology
- Systematic search to identify all evidence meeting eligibility criteria
- Assessment of evidence validity
- Systematic presentation of evidence synthesis

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Steps in a Systematic Review

- Formulate review question
- Define inclusion and exclusion criteria
- Locate evidence
- Select evidence to appraise
- Critique evidence quality

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Steps in a Systematic Review (cont.)

- Extract data from evidence of highest available quality

- Analyze and synthesize relevant evidence

- Present results

- Interpret results and determine applicability to practice

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Meta-analysis

- Statistical combining of results of similar studies (issue of heterogeneity)
- More precise calculation of effect than single study
- May be part of a systematic review
- Typically deal with questions of effectiveness

Meta-synthesis

- Combining results of similar qualitative studies
- Pooling of themes, opinions, experiences
- Used to address questions of meaningfulness, feasibility, and/or appropriateness
- Use qualitative methods to combine independent qualitative studies
- May be part of a systematic review

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Multidisciplinary Team Response to Support Survivors of Mass Casualty Disasters: A Systematic Review Protocol

Lavonne Adams, PhD, RN, CCRN
Lisa Smith, MLS
Susan Mace Weeks, DNP, RN, CNS, LMFT, FAAN

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Review Question

- What is the effectiveness of multidisciplinary team response to mass casualty disasters upon the resolution of immediate needs and the support perceived by survivors of mass casualty disaster?

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Review Objectives

- Identify the effectiveness of multidisciplinary team response on:

  1) The resolution of immediate needs and

  2) The support perceived among survivors of mass casualty disasters

Background

- Survivors of mass casualty disasters have immense needs (physical, mental, financial, etc.)
- Use of Integrated Care Team (ICT) model as one multi-disciplinary response team format
- Lack of existing systematic reviews on topic
- Desire to synthesize international evidence

Inclusion Criteria

- Participants: survivors of mass casualty disasters, all ages and settings
- Intervention: multi-disciplinary response team
- Outcomes:

  1) resolution of immediate needs

  2) support perceived by survivors
- Types of Studies: All experimental, epidemiological, and descriptive study designs
- Published and unpublished studies

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Search Strategy

- Three-step strategy:

  1) Search for initial keywords

  2) Search for keywords and index terms from retrieved studies

  3) Search reference lists of retrieved studies

- Databases: PubMed (Medline), CINAHL, SOCIndex, EMBASE, PsychINFO, MedNar

Initial Keywords

- Multi-disciplinary response team
- Disaster response
- Integrated care team
- Disaster response team
- Red Cross team
- Red Crescent team

Assessment of Methodological Quality

- Critique by 2 reviewers working independently

- Disagreements resolved by dialogue or with 3rd reviewer

- Use of standardized critical appraisal instruments from the Joanna Briggs Institute

JBI Critical Appraisal Checklist for Randomised Control / Pseudo-randomised Trial

Reviewer _____ Date _____

Author _____ Year _____ Record Number _____

	Yes	No	Unclear	Not Applicable
1. Was the assignment to treatment groups truly random?	☐	☐	☐	☐
2. Were participants blinded to treatment allocation?	☐	☐	☐	☐
3. Was allocation to treatment groups concealed from the allocator?	☐	☐	☐	☐
4. Were the outcomes of people who withdrew described and included in the analysis?	☐	☐	☐	☐
5. Were those assessing outcomes blind to the treatment allocation?	☐	☐	☐	☐
6. Were the control and treatment groups comparable at entry?	☐	☐	☐	☐
7. Were groups treated identically other than for the named interventions	☐	☐	☐	☐
8. Were outcomes measured in the same way for all groups?	☐	☐	☐	☐
9. Were outcomes measured in a reliable way?	☐	☐	☐	☐
10. Was appropriate statistical analysis used?	☐	☐	☐	☐
	☐	☐	☐	☐

Overall appraisal: Include ☐   Exclude ☐   Seek further info. ☐

Comments (Including reason for exclusion)

_____

_____

_____

Data Collection/Extraction

- Data extraction by 2 reviewers working independently
- Include: details of population, intervention, study methods, and outcomes
- Author(s) or studies contacted for missing or unclear data
- Use of standardized data extraction tool from the Joanna Briggs Institute

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JBI Data Extraction Form for Experimental / Observational Studies

Reviewer _____ Date _____

Author _____ Year _____

Journal _____ Record Number _____

Study Method

RCT	☐	Quasi-RCT	☐	Longitudinal	☐
Retrospective	☐	Observational	☐	Other	☐

Participants

Setting

Population

Sample size

Group A _____   Group B _____

Interventions

Intervention A

Intervention B

Authors Conclusions:

Reviewers Conclusions:

Study results

Dichotomous data

Outcome	Intervention ( ) number / total number	Intervention ( ) number / total number

Continuous data

Outcome	Intervention ( ) number / total number	Intervention ( ) number / total number

Data Synthesis

- Meta-analysis, if possible
- Assessment of heterogeneity, if possible
- Where statistical pooling is not possible, findings will be presented in narrative form including tables and figures to aid in data presentation

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Forthcoming Systematic Review

Stay tuned for results!