Social Support among Disaster First Responders
A Review of Literature

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An event is considered a disaster when:

- 10 or more people reported killed
- 100 or more people are affected
- Declaration of a state of emergency
- Call for international assistance

*Emergency Database (EM-DAT) definition (Guha-Sapir, Hoyois, & Below, 2015)
Psychosocial Consequences of Disasters

Posttraumatic Stress Disorder

- Intrusion
- Arousal

Depression

- Intrusion
- Arousal

Sleep Problems

- Intrusion
- Arousal

Anxiety

- Intrusion
- Arousal

Physical Health Problems

- Intrusion
- Arousal

Substance Use

- Intrusion
- Arousal

Demoralization

- Intrusion
- Arousal

Social Support Decline

Familial Changes

Ecological Changes

Financial Problems

- Intrusion
- Arousal

Death Anxiety

Nonspecific Distress

Acute Stress Disorder

Posttraumatic Stress Disorder

Phobia

Panic Disorder

Interpersonal Changes
Social Support

Social Interactions

Provide Actual Assistance + Embed People in a Web of Social Relationships

Loving Caring Readily Available

Informal Spontaneous

Definition: Social Support
Disaster First Responder

Protection

+ 

Preservation of

Life  Property  Environment

After Disasters
Disaster First Responder Types

Traditional
- Police Officer at 9/11
- Firefighter after a fire
- Ambulance Workers after a hurricane

Responders who are mandated to respond in the aftermath of an emergency/disaster

Non-traditional
- Construction Workers after 9/11
- Social Workers after a flood
- Teachers after an earthquake

Responders who are not mandated to respond, but act as responders in the aftermath of an emergency/disaster
Purpose of the Review

Who?  
Disaster First Responder

What Support?  
Social Support

What Outcome?  
Psychological Outcomes

Gaps and Limitations

Who? What Support? What Outcome?
Methodology

Article Search

Article Screening

Coding

Quantitative

Descriptive Statistics

Variable Mapping

Merged Results

Qualitative

Directed Content Analysis

Variable Mapping

Merged Results
Inclusion Criteria

Psychological Studies

Studies that explicitly investigated social support

Exclusion Criteria

Studies where social support is the outcome variable

Studies outside the disaster context

Studies Reviewed

PsycINFO 66

Web of Science 224

PubMed 32

Scopus 88

Manual Search + Articles-at-Hand

25

Number of Articles after the Screening
Map of the different disasters [●] and the nationalities of the responder-samples [■]. The number in **black text** signifies the number of studies with responders having nationalities in those countries.
Number of disaster types in the studies reviewed

- Natural: 44%
- Terrorism/Mass Violence: 28%
- Technological: 16%
- General: 8%
- Biological: 4%

Most studied: 9/11 WTC Attack
Total estimated sample size according to type of responder (n=54,907). Parts of the chart shaded blue are traditional responders. Parts shaded orange/brown are non-traditional responders.

**Types of Responders**

- Military: 15,799
- Police: 14,309
- Construction: 8,020
- Social Work: 315
- Other Trad.: 1,026
- S&R: 579
- Fire: 3,153
- EMT: 1,974
- Other Non-trad.: 9,732

*Massey University*

**Types of Responders**

*The Engine of the New New Zealand*
Types of Social Support

Received Support
e.g., receiving actual help

Perceived Support
e.g., knowing somebody will help you in times of need

Social Embeddedness
e.g., being surrounded by people who are ready to help you
Studies were coded according to the following social support types:

- Received Support
- Perceived Support
- Social Embeddedness
- General Social Support
- Social Support-Seeking
The number of scales per type of social support and the total number of social support measures per type

<table>
<thead>
<tr>
<th>Types of Social Support</th>
<th>Total No. of Scales</th>
<th>Scales with psychometric Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>General SS</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Received SS</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Perceived SS</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Social Embed.</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>SS-Seeking</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Reliability Coefficients: \{0.60-0.92\}
Scales used in the studies aggregated according to type of support

Types of Social Support

- General SS
- Received SS
- Perceived SS
- Social Embed.
- SS-Seeking

- Standardised SS Scale
- Standardised Proxy Scale
- Nonstandardised SS Scale
- Nonstandardised Proxy Scale
Map of Variable Relationships

Positive Relationship
Negative Relationship
No Relationship

Positive Outcomes
Map of Variable Relationships

Positive Relationship

Social Support

Positive Outcomes

Negative Relationship

No Relationship

Negative Outcomes

Social Support

Created with NodeXL (http://nodexl.codeplex.com)
How Social Support Affects Outcomes

Social Support

Exposure

Stress-Buffering Effects

Main Effects

Psychological Outcomes
General Associations between Social Support and Psychological Outcomes

Higher/Better
- Self-esteem
- Stress Management
- Resistance
- Resilient Outcomes
- Positive Affect

Social Support

Lower/Fewer
- Distress
- O/C Symptoms
- PTSD Symptoms
- Anxiety
- Depression
Support from Family
- Primary source of support
- Source of practical assistance
- Important in post-deployment transition
- Effective but difficult to elicit/often unavailable (esp. spouse/partner)

Support from Non-family/Friends
- Helps in Coping

Support from Workplace
- Crucial in post-deployment transition
- May hinder social support-seeking
The link between social support and psychological outcomes: not straightforward
Not all types of social support are observed as beneficial in the different phases of the development of, and recovery from, PTSD.
Social support-seeking interacts with social support availability in relation to coping.
Social Support – Exposure – Personality Interaction

Hardy Responders + High Exposure = High Level of Support (+) Coping

Low-Hardy Responders + Low Exposure = Illness Behaviours
Measurement-Related Issues
- Measurement Validity
- Low Response Rate
- Possible Response Bias

Design-and-Method-Related Issues
- Cross-sectional Design
- Small Sample Size
- Sample Representativeness
- Generalizability
Majority of studies are on traditional responders.

Non-traditional responders seen most in large-scale disasters.

Generally, very few studies focus on the topic.

A large percentage of studies are US-based.

Most studies simply looked at correlations.

Most studies focused on perceived social support.

Most studies focused on negative outcomes.
More studies in the area

Further studies that point to causation

Studies that look into:

- The type of social support that works
- Sources of support that work best
- Conditions where social support works
- How social support works
- Socio-cultural aspect of social support
Why study social support among disaster first responders?

- It’s a naturally-occurring psychosocial resource.
- It’s a practical and sustainable form of intervention.
- It can be applied to areas outside the disaster context.
Thank you.

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