Teamwork perception in search and rescue operators: work in progress or a reality?

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5 Dog-Handler International Commission for Alpine Rescue, Switzerland
Introduction

The success of a search and rescue (SAR) intervention is not only the result of the individual abilities but also of the degree to which professionals could perform effectively as teams.
Teamwork

A ‘team’ consists of two or more individuals with specialised knowledge; they have specific roles, make decisions, perform interdependent tasks and are adaptable.
All SAR team share a common goal: find and rescue disperse people.
Research partners

LEBA
Department of Veterinary Medicine, Perugia University

Guardia di Finanza (GdF)
Alpine Rescue Force

Norske Redningshunder
Norway

Dog-Handler International Commission for Alpine Rescue
Switzerland
Aim of the study

To exploit the conception and perception that professionals working in SAR units have about the value and organization of the teamwork.

To identify the strengths and weaknesses of the existing teamwork management during rescue interventions, besides rescue operators personal opinion and expectations.
Experimental design: The Teamwork questionnaire

Italian and English version
Divided in 7 sections:
1. Demographic data
2. Activation of the rescue intervention
3. Teamwork
4. Teamwork personal experience
5. Communication
6. Rescue Intervention Strategy
7. Search and Rescue Dog-Handler Units
Statistical analysis

- 425 Italian and 163 English questionnaires
- Descriptive statistical
- Friedman test

RESCUE TEAMWORK SURVEY 2019
Results and discussion
Section n. 1 – Demographic data

Age (years; mean, range) 45 (18-78)
Section n. 1 – Demographic data

- **Bar Chart:**
  - Years of working experience as rescue operator:
    - 0-5 years: 225
    - 6-10 years: 175
    - 11-15 years: 125
    - 16-20 years: 75
    - >20 years: 125

- **Pie Chart:**
  - Are you a working as rescue operator as a:
    - Professional: 19.7%
    - Volunteer: 80.3%
Section n. 2 – Activation of the rescue intervention

Does your organization activate a specific and programmed protocol to activate rescue interventions?

- No 5.6%
- Yes 94.4%

Who holds the coordination hierarchy?

- A public organization 53.6%
- A voluntary organization 46.4%

Do you think the existing activation is functional?

- No 16.9%
- Yes 83.1%
Section n. 3 - Teamwork
Most important factors for the proper functioning of an ideal teamwork

- Communication
- Coordination
- Confidence
- Commitment
- Complementarity
Section n. 3 - Teamwork
Factors promoting the success of teamwork

- Improve individual qualities
- Work for the same goal
- Employ Debriefing and analysis of errors and successes
- Learn from colleagues
- Promote competition among group members

> 3 mean score
1.4 mean score
Section n. 3 - Teamwork
What makes a good leader

A good leader

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Respect for employees</td>
</tr>
<tr>
<td>2</td>
<td>Clarity</td>
</tr>
<tr>
<td>3</td>
<td>Honesty</td>
</tr>
<tr>
<td>4</td>
<td>Professional competence</td>
</tr>
<tr>
<td>5</td>
<td>Ability to motivate staff</td>
</tr>
<tr>
<td>...</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Carisma</td>
</tr>
<tr>
<td>14</td>
<td>Authoritativeness</td>
</tr>
</tbody>
</table>

If you were the leader, which of these strategies would you employ to promote teamwork in your working place?

- I would promote learning of new methodologies and forms of collaboration within the group
- I would direct the whole group to work to achieve the result
- I would launch a challenge to stimulate the group
Section n. 3 - Teamwork
What makes a good rescue operator?

- Ability to cope with stress
- Ability to communicate
- Technical skills
- Ability of decision making
- Ability to remain detached
Section n. 4 - Personal teamwork experience

The organization you are working with does promote teamwork?
- no
- yes

83.7%
16.3%
Section n. 4 -
Personal teamwork experience

✓ Members of my team trust each other
✓ When I talk about my rescue organization, I usually say “we” instead of they
✓ I am proud to be a member of my team
✓ I feel I belong in my team
✓ Members of my team strive to get the job done
✓ I feel I fit into my team
✓ When I face a difficult task, members of my team help out
✓ [...]

✓ Members of my team really care about each other
✓ When someone criticizes my team, it feels like a personal insult
✓ Members of my team spend time together socially
✓ Members of my team do not get along with each other
✓ I do not get along with my section leader
Section n. 5 - Communication

Most of the participants ...

- think that participation in training and/or field simulations facilitate interpersonal knowledge among the operators of the different operational groups (99%).

- report that they make a debriefing at the end of a rescue operation (63% yes, 32% sometime, 5% never).

But 38% of the participants do not receive psychological support after a rescue intervention (31% sometime).
Section n. 6 - Rescue Intervention Strategy
Aspects influencing the performance and success of a rescue intervention

Professional skills

- Supplied tools
- Physical training
- Psychological serenity

Cooperation

Communication

Indications of the leader
**Section n. 6 - Rescue Intervention Strategy**

<table>
<thead>
<tr>
<th>Optimal turnover system</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>max 6 h</td>
<td>18</td>
<td>3.1%</td>
</tr>
<tr>
<td>6-8 h</td>
<td>13</td>
<td>2.2%</td>
</tr>
<tr>
<td><strong>8-12 hour shifts</strong></td>
<td><strong>413</strong></td>
<td><strong>70.5%</strong></td>
</tr>
<tr>
<td>12-24 hour shifts</td>
<td>94</td>
<td>16.0%</td>
</tr>
<tr>
<td>Rounds of 24-36 hours</td>
<td>8</td>
<td>1.4%</td>
</tr>
<tr>
<td>other</td>
<td>40</td>
<td>6.8%</td>
</tr>
</tbody>
</table>

**Dog-handlers**
Section n. 6 - Rescue Intervention Strategy
Aspects that rescue organizations should optimize

1) Supplied tools
2) Interaction with other bodies
3) Staff training
4) Operational crisis management
5) Staff gratification
6) Number of staff
Section n. 7 – Are SAR Dog-Handler Units adequately valued?

Members of a SAR Dog-Handler Units believe they are more valued compared to the opinion of other rescue operators. SAR Dog-Handler Volunteers feel they are more valued compared to professionals.
Section n. 7 - How much do you think you know about the training and operational methods of the SAR Dog-Handler Units?

~40% of rescue operators who are not SAR Dog-Handlers know little or nothing about their work.
Section n. 7 – SAR Dog-Handler Units
Demographic data

- Professional: 12.1%
- Volunteer: 87.9%

Gender:
- F: 66.3%
- M: 33.7%
Section n. 7 – SAR Dog-Handler Units
Type of specialization

- Surface (79%)
- Rubble (53%)
- Avalanche (41%)
- Human / corpse / blood remains (26%)
Moreover, 61% of the handlers think that their own family appreciates and supports their work as rescue dog handler (very or very much)
Section n. 7 – SAR Dog-Handler Units
Handlers professional skills

Do you think your skills are adequate to operate as a Search and Rescue Dog-Handler Unit in a real rescue intervention?
Section n. 7 – SAR Dog-Handler Units How would you increase the performance?

<table>
<thead>
<tr>
<th>Strategy</th>
</tr>
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<tbody>
<tr>
<td>Dog training</td>
</tr>
<tr>
<td>Dog-handler training</td>
</tr>
<tr>
<td>More time available</td>
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<tr>
<td>Dog-Handler relationship</td>
</tr>
<tr>
<td>Diversification of work environments</td>
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<tr>
<td>Logistics and equipment</td>
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<tr>
<td>Greater collaboration from colleagues</td>
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<tr>
<td>Greater consideration by the leaders</td>
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<tr>
<td>Choice of a dog with better genetic and behavioural skills</td>
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</table>
Conclusions

- Communication and coordination
- Professional training (even if they already have many specializations)
- Respect, empathy and competence more unimportant than authoritativeness in a leader
- Debriefing but poor psychological support
Thank you for your attention

Maiki

Tagar