Motivations and demotivations for volunteer responders

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What motivates and demotivates emergency response volunteers? A survey-based factor analysis study

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Aims and scope →

Submit manuscript →

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Volunteers in emergency response

Aims of our study

1. Explore common factors underlying previously identified themes important for volunteer retention,

2. Examine how such factors relate to volunteers' motivation to continue volunteering,

3. Investigate how alerts and alarm fatigue relate to volunteers' motivation to continue volunteering

- Limitations:
  - One 8-week project by a master's student
  - Limited to Sweden and two volunteer initiatives

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Previous research on emergency response volunteer motivations

- *A lot...*

- Often qualitative: interviews, workshops, focus groups
    - +Rich stories, exploratory, follow up
    - -Often few participants, difficult to compare or compile, many themes

- Summary? Many, many themes...

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Category	Description	References
Prior research on experience and motivation of volunteers		
Community	One often identified motivation for volunteering is helping others in the community and giving back to the community.	Barry et al., 2019, 2020; Davies et al., 2008; Heffernan et al., 2021; Phung et al., 2017; Ramsell et al., 2017; Roberts et al., 2014; Timmons and Vernon-Evans, 2014
Inherent motivation	The possibility of saving lives and make a difference for people through volunteering can be satisfying and thereby inherently motivating. Altruistic and empathic personality traits are connected to willingness to volunteer.	Barry et al., 2019; Davies et al., 2008; Heffernan et al., 2021; Phung et al., 2018; Rørtveit and Meland, 2010
External motivation	Some professionals within healthcare feel obliged to help due to having the knowledge and skills needed. For non-professionals, being provided with emergency training as well as experience of emergency work valuable for future employment have been seen as a benefit of volunteering.	Barry et al., 2020; Roberts et al., 2014
Psychological impact	The situations volunteers respond to can be emotionally and psychologically challenging, which may cause psychological and emotional distress leading to negative psychological reactions such as flashbacks. Some short-term psychological impact, stress and emotional discomfort have been reported by volunteers after acting on alarms, although often at low levels. Long-term psychological impact such as persisting PTSD symptoms are rarely experienced.	Barry et al., 2019, 2020; Berglund et al., 2022; H.-H. Chen et al., 2020; Harrison-Paul et al., 2006; Haskins et al., 2021; Kragh et al., 2021; Methiesen et al., 2016; Mojir and Pilemalm, 2013; Ries et al., 2021; Roberts et al., 2014; Rørtveit and Meland, 2010; Zijlstra et al., 2015
Positive experience	Performing CPR are generally rated as a positive experience by laypeople, and most laypeople report being willing to perform CPR again afterwards. Volunteers also reported a willingness to continue after being dispatched to incidents. Successful outcomes have been reported to bring satisfaction and intrinsic pleasure, as well as overall satisfaction, self-esteem, and pride from helping others.	Axelsson et al., 1996, 1998; Berglund et al., 2022; H.-H. Chen et al, 2020; Davies et al., 2008; Haskins et al., 2021; Heffernan et al., 2021; Kragh et al., 2021; Phung et al., 2018; Ries et al., 2021; Zijlstra et al., 2015
Need for support	Most laypeople report talking to someone, such as family or friends, about their experience after performing CPR. Some volunteers reported seeking professional support, either for mental-health support or feedback on their performance. Volunteers generally appreciated debriefing after resuscitation attempts, as well as having somebody available to talk to if needed. Both formal forms of support and informal, such as debriefing with other volunteers, have been appreciated by volunteers. Systems for providing support for laypeople and volunteers have been proposed, both formal and informal ones.	Axelsson et al., 1996, 1998; Barry et al., 2019; H.-H. Chen et al., 2020; Davies et al., 2008; Harrison-Paul et al., 2006; Haskins et al., 2021; Heffernan et al., 2021; Kragh et al., 2021; Methiesen et al., 2016; Phung et al., 2018; Ramsell et al., 2017; Zijlstra et al., 2015
Training	Volunteers have reported wanting both more training and practical training, as well as repeated and continuous training to keep their competence up to date. Volunteers who are not healthcare professionals reported being less prepared for emergency situations than healthcare professionals.	Axelsson et al., 1996; Barry et al., 2019; H.-H. Chen et al., 2020; Haskins et al., 2021; Phung et al., 2017; Ramsell et al., 2017
Knowing outcome	Both laypeople and volunteers have reported an interest in learning outcomes of victims in emergencies. Getting to know the outcome in situations with a negative outcome might lead to negative reactions due to people basing evaluations of their performance on the outcome. However, not knowing the outcome might also have negative consequences.	Axelsson et al., 1998; H.-H. Chen et al., 2020; Harrison-Paul et al., 2006; Heffernan et al., 2021; Methiesen et al., 2016; Roberts et al., 2014

Category	Description	References
Prior research on experience and motivation of volunteers		
Social aspects	For CFRs, social aspects of volunteering such as getting to know other volunteers and being involved in the community have been reported as motivating and supporting. However, social aspects can also be challenging, e.g. by conflicts in volunteer groups.	Barry et al., 2019; Heffernan et al., 2021; Roberts et al., 2014
Burden of on-call	Constantly being on call and being able to be called out at any time of the day have been reported as stressing and burdening. Night-time callouts were especially stressful, possibly causing alarm fatigue. Not being able to respond to calls might cause guilt. Being able to "switch off" between calls has been reported as important.	Barry et al., 2019; Davies et al., 2008; Pilemalm, 2022; Roberts et al., 2014
Number of alerts	Getting very few alerts has been reported as demotivating.	Timmons and Vernon-Evans, 2014.
Returning to normal	Resetting and going back to normal after acting on alerts can be challenging, due to stress from the situation. Restlessness, sleep deprivation, weight loss and other types of psychological impact have also been reported after acting on alerts.	Barry et al., 2020; Berglund et al., 2022; H.-H. Chen et al., 2020; Methiesen et al., 2016
Frustration of acting on alerts needlessly	Acting on alerts without getting to help due to EMS arriving prior to the volunteer have been reported as frustrating.	Phung et al., 2018
Alarm fatigue		
Alarm fatigue	Excessive, false, burdensome, and non-actionable alarms can cause reduced responding to alerts or turning alarm systems off completely. Alerts might also cause stress by disrupting ongoing activities.	Cvach, 2012; Lewandowska et al., 2020; Schmid et al., 2013; Sowan et al., 2015
Retention of volunteers		
Community	Having close connections to the community and both being committed to and considering it important to help the community is connected to retention of volunteer firefighters.	Gazzale, 2019; Lantz and Runefors, 2020
Motivation	Motivation has been identified as important for retention. Social, utilitarian, altruistic, and personal growth motives for volunteering have been showed to be associated with continued volunteering.	Compion et al., 2022; Hallman and Harms, 2012; Malinen et al., 2019; Pozzi et al., 2019
Satisfaction	High satisfaction with the volunteering experience, both regarding overall satisfaction, contentment with the organiser and comfort with tasks, have been related to higher retention, both for novice and more experienced volunteers. Both helping victims of incidents and new members of the volunteering team were rewarding and satisfying for volunteers.	Compion et al., 2022; Gazzale, 2019; Hyde et al., 2016; Lantz and Runefors, 2020
Comradery	Social factors have been pointed out as important especially for new volunteers. Commitment to the organisation was also important for retention, especially for long term volunteers. For volunteer firefighters, comradery with the other volunteers supports retention. Disputes within the volunteer group and feelings of exclusion may cause volunteers to quit.	Gazzale, 2019; Hyde et al., 2016; Lantz and Runefors, 2020
Support from supervisor	Getting support and feedback from the organisation and supervisors affect both retention and overall satisfaction. Having a just organisation and a positive work climate are also considered important.	Lantz and Runefors, 2020

So *what matters the most?*

- Community
- Inherent motivation
- External motivation
- Psychological impact
- Positive experience
- Need for support
- Training
- Knowing outcome

- Social aspects
- Burden of on-call
- Number of alerts
- Returning to normal
- Frustration of acting on alerts needlessly
- Alarm fatigue
- Community

- Motivation
- Satisfaction
- Comradery
- Support from supervisor

Our approach: quantitative survey

- 48 questions
  - 32 based on previously identified themes
  - 14 from *Self-Determination Theory* ("Basic Psychological Need Satisfaction and Frustration Scale—Work Domain", "Volunteer Motivation Scale")
  - 2 about motivation to continue as volunteer
- Some background questions: age, gender, professional background, community size, number of alarms, years as volunteer

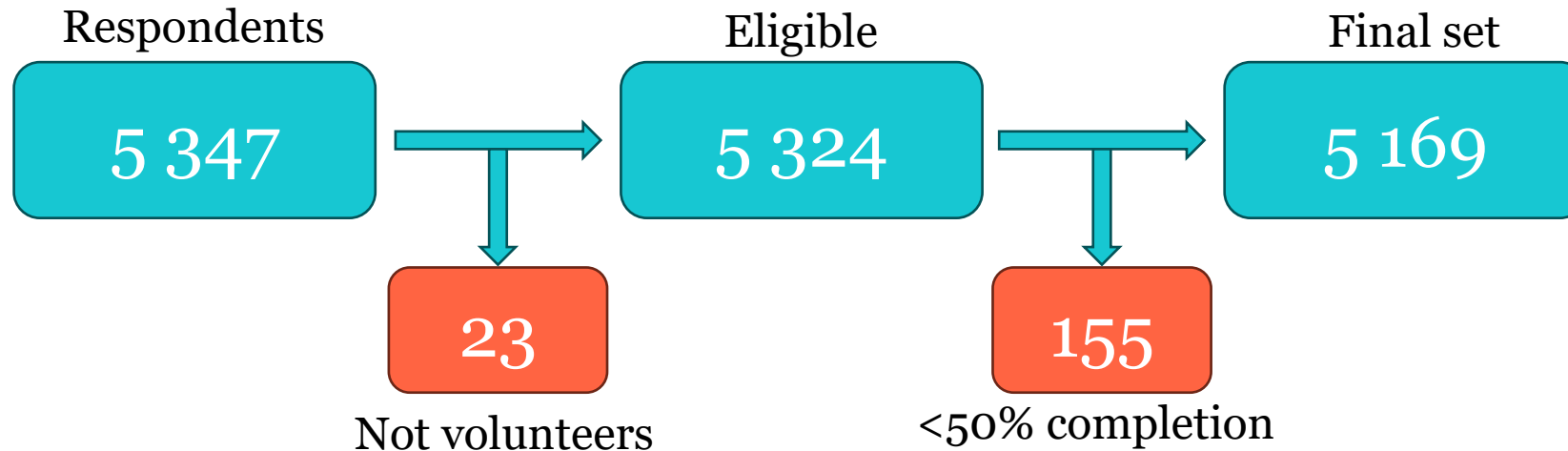| |
|---|
| Being a volunteer can occasionally be psychologically or emotionally draining. |
| I feel that is important to receive support in my role as volunteer from family and friends |
| I want the option to receive feedback from professionals in the area concerning my actions during emergency responses. |
| I want the option to receive support in my role as volunteer from professional psychologists. |
| It has overall been a positive experience to be a volunteer. |
| I feel a duty to be a volunteer. |
| I would like to know what happened to those affected in the emergency responses I have participated in. |
| To know what happened to those affected would be motivating to continue as a volunteer. |
| I find volunteering fun. |
| … |

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Recruitment

- Target: >18 years old, registered Sms-lifesaver or CIP
  - Recruitment via email-lists, Facebook groups, personal contacts…

Respondents

Eligible

Final set

5 347

5 324

5 169

23

155

Not volunteers

<50% completion

Who were those 5169 respondents?

Women 46%

Men 54%

Laypeople 44%

Professionals 56%

Large city 47%

Rural 29%

Small city 24%

■ Men ■ Women   ■ Professionals ■ Laypeople   ■ Rural ■ Small city ■ Large city

Responded to >1 alert

Received >1 alert

0 500 1000 1500 2000 2500 3000 3500
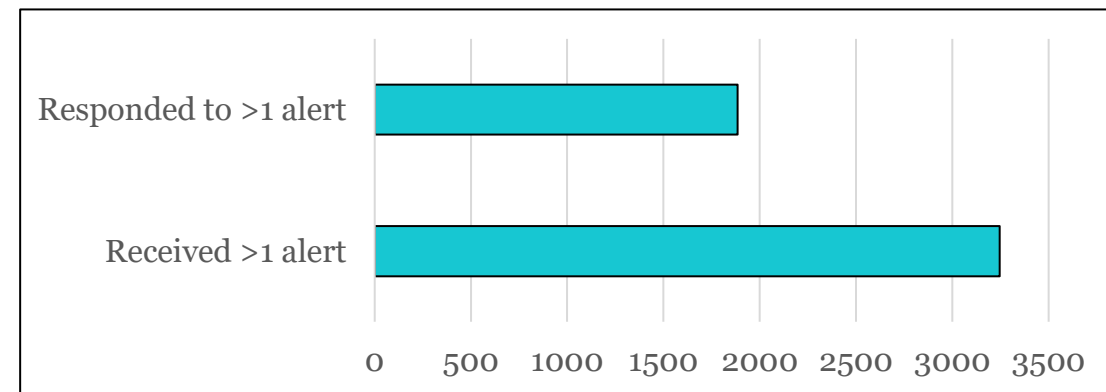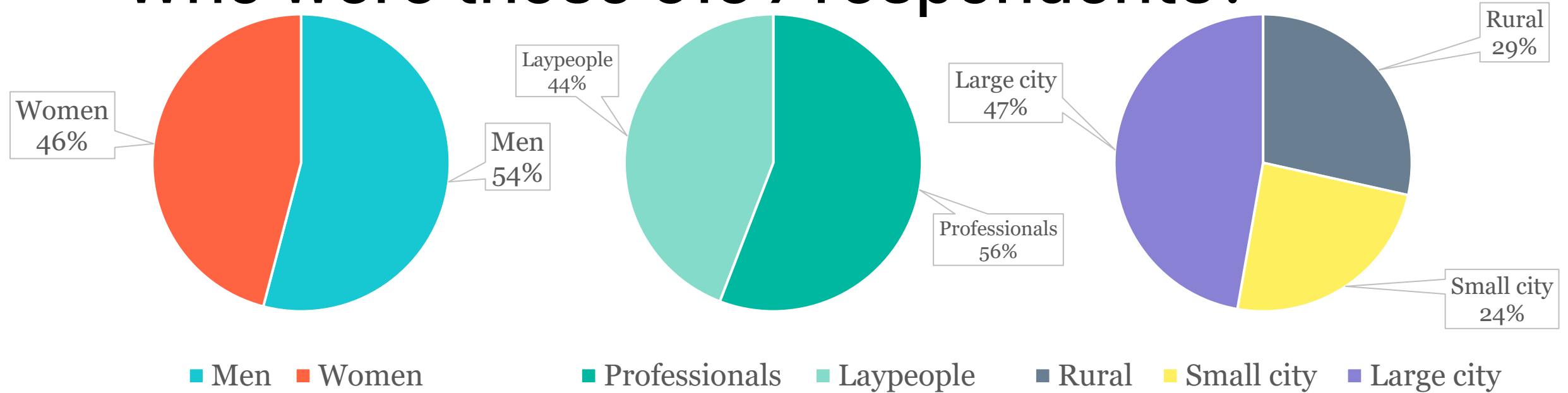
Alerts per year

2.36

Years as volunteer

3.48

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Our analyses

Explore common factors underlying previously identified themes important for volunteer retention

- Exploratory Factor Analysis (EFA)

Examine how such factors relate to volunteers' motivation to continue volunteering

- Multiple regression analysis

- Between-group t-tests or ANOVA

| Variable 1 |
| Variable 2 |
| Variable 3 |
| Variable 4 |
| Variable 5 |
| Variable 6 |
| Variable 7 |
| Variable 8 |
| Variable 9 |

Factor A

Factor B

...
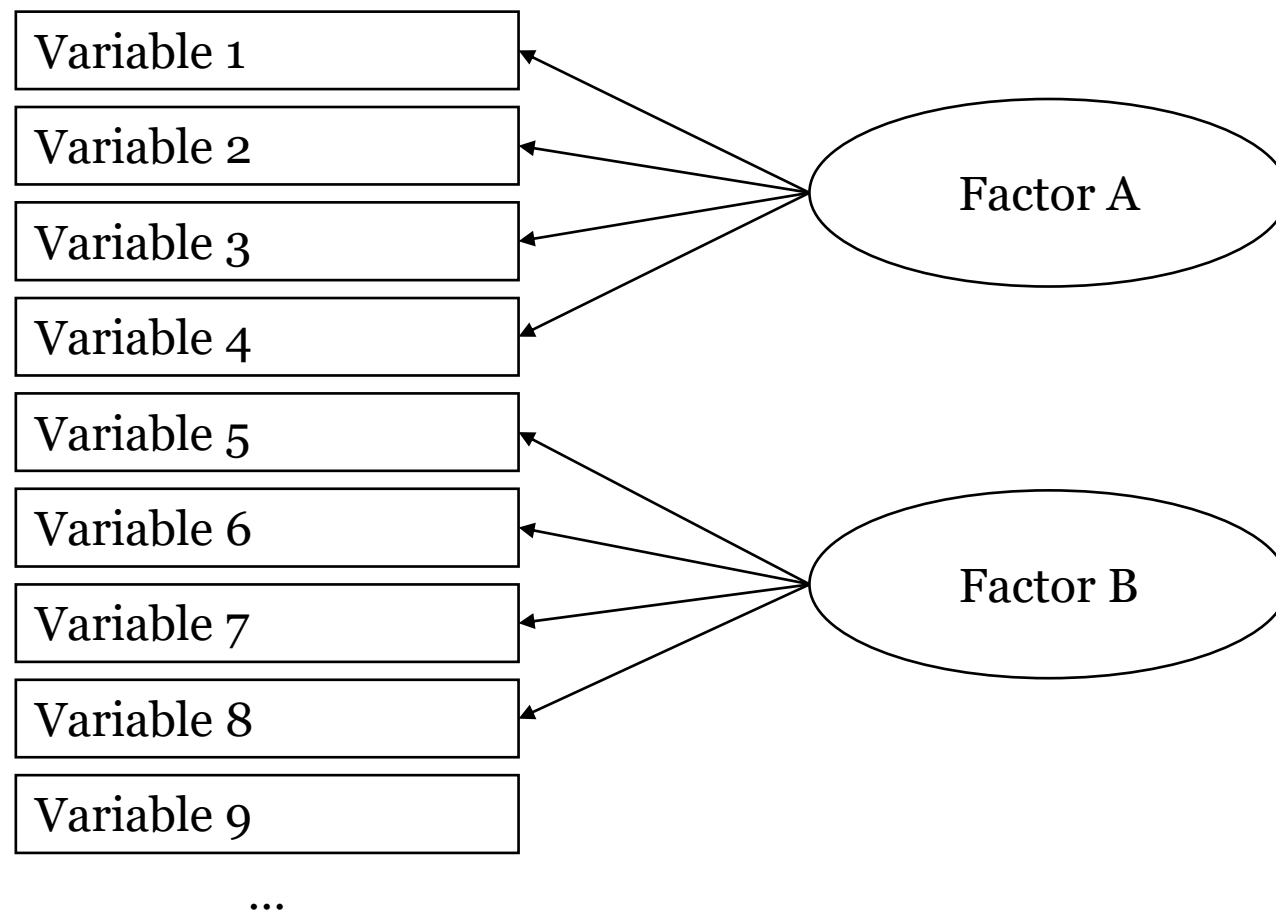
Table 1 Factor loadings from the survey

Item	1	2	3	4	5	6	7	8	9	10	11	12	Label
18	**0.870**												Self-image
19	**0.807**												
20	**0.530**												
21	**0.372**		0.171								0.153		
13	0.135	0.131	0.109										
37		**0.930**											Burden of alerts
38		**0.894**							-0.102				
44		**0.604**							0.207				
36		**0.409**							0.115		0.178		
31		-0.217			0.109				-0.196				
23			**0.909**										External motivation
24			**0.847**										
22	0.123		**0.318**				0.143				0.255		
14				**-0.986**									Feedback
15				**-0.601**									
2					**0.926**								Community
3					**0.786**								
1					**0.781**								
26						**0.908**							Competence
30						**0.569**		0.163					
27						**0.523**		-0.108	-0.159				
43							**0.731**						Feeling unneeded
41		0.115					**0.604**						
42							**0.566**		0.163				
40							**0.543**						
39	0.162						0.281		-0.206	0.201			
29								**0.817**					Training
28								**0.690**					
45									**0.657**				Alarm fatigue
46		0.139							**0.631**				
33									**0.602**				
34								0.126	**0.529**				
32		-0.283							**-0.465**				
17										**0.849**			Enjoyment
16										**0.773**			
35						0.112	0.274		-0.127	**0.392**			
4	0.115				0.214			0.111		0.247	0.177	-0.137	
11											**0.616**	0.117	Support
9											**0.551**	-0.152	
10				-0.266							**0.460**		
25			0.231					0.149	-0.106		**0.458**		
8									0.247	-0.110	**0.419**	-0.174	
6										0.112	0.166	**-0.655**	Negative experience
7												**-0.523**	
5					0.244					0.151		**-0.434**	
12					0.268					0.231		**-0.300**	

Extraction Method: Maximum Likelihood. Rotation Method: Oblimin with Kaiser Normalization. Loadings under 0.1 are not shown.
Loadings above 0.3 are in bold.

2 I feel that I help people in my community in my role as volunteer,
3 It is meaningful to help others by being a volunteer
1 I feel that I help society by being a volunteer

26 I feel that I have the knowledge and skill necessary to help in some emergencies,
30 I feel confident that I can manage everyday emergencies through the training I have received
27 I feel unsure that I have the ability to help in some emergencies*

Table 2 Description of the factors from the factor analysis

Factor	Description
Self-image	Feeling pride about volunteering and the volunteering initiatives they are part of. Perceiving it as personally important to volunteer, and that volunteering is a part of one's self-image
Burden after alerts	Whether letting go after the alert in case of either a missed, turned down, or accepted and acted on alert is perceived as challenging. Also concerns guilt of not being able to act on alerts
External motivation	If conveying a positive image of oneself to others and receiving recognition from others is a motivating factor, and if receiving public recognition for their contributions would be motivating
Feedback	Wanting to know the outcome after acting on an alert, and whether knowing outcome would be motivating. Because the items load negatively, a high factor score indicates not wanting to know outcome and not being motivated by knowing the outcome
Community	Perceiving that they are helping their community by volunteering, and if helping others by volunteering feels meaningful
Competence	Whether one feel competent for the role as volunteer and in handling emergencies in everyday life. The factor also includes whether one feels doubt in being able to help in certain situations (this item was reverse coded)
Feeling unneeded	If not feeling needed at an emergency site would be frustrating and demotivating, and if they feel less inclined to act on alerts where they do not think they will be needed. Also, whether it would be demotivating to rarely receive alerts
Training	The perceived importance of receiving extensive initial training and continuous training for the role
Alarm fatigue	Whether alerts are perceived as burdening and stressing, and if receiving alerts at any time of the day would be strenuous. The factor also includes if receiving too many alerts would impact their willingness to volunteer, and if they experience a pressure to respond to alerts
Enjoyment	If being a volunteer and receiving alerts are fun, and whether being a volunteer is an enjoyment
Support	Wanting to have available support from psychologists and feedback from professionals, the need for support from family and friends, importance of meeting and talking to other volunteers about the role and whether the role can be psychologically or emotionally tough
Negative experience	Feeling that other people in the volunteering initiative care for the person, if the role as volunteer has fulfilled their expectation, and whether it has been a positive experience. The items were phrased in terms of positive experience but all load negatively, meaning that the factor measures negative experience rather than positive

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Regression

- How much does each of these 12 factors affect the motivation to continue being a volunteer?

- Strongest positive predictors:
  - Community (beta 0,31)
  - Self-image (0,17)
  - Competence (0,15)

- Strongest negative predictors:
  - Alarm fatigue (-0,16)
  - Negative experience (-0,10)

Table 3 Regression analysis

	β	t	p
Constant		557.90	<0.001
Self-image	0.17	12.12	<0.001
Burden after alerts	0.04	3.24	<0.01
External motivation	−0.05	−4.14	<0.001
Feedback	−0.03	−2.71	<0.01
Community	0.31	24.19	<0.001
Competence	0.15	12.11	<0.001
Feeling unneeded	−0.08	−6.95	<0.001
Training	0.06	5.12	<0.001
Alarm fatigue	−0.16	−12.18	<0.001
Enjoyment	0.08	5.55	<0.001
Support	−0.07	−5.79	<0.001
Negative experience	−0.10	−8.62	<0.001

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Comparing groups

Table 4 Group comparisons

Dependent variable	M (SD)		t	df	p	Cohen's d
	Has received alert	Has not received alert				
Burden after alerts	−0.018 (1.076)	0.030 (1.006)	1.57	5167	0.115	0.05
Feeling unneeded	0.047 (1.148)	−0.079 (1.134)	−3.83	5167	<0.001**	−0.11
Alarm fatigue	0.020 (1.110)	−0.034 (1.125)	−1.67	5167	0.096	−0.05
	Has acted on alert	Has not acted on alert				
Burden after alerts	−0.069 (1.039)	0.040 (1.055)	3.57	5167	<0.001**	0.10
Competence	0.169 (0.990)	−0.097 (1.149)	−8.42	5167	<0.001**	−0.24
Feeling unneeded	0.124 (1.176)	−0.071 (1.119)	−5.91	5167	<0.001**	−0.17
Support	0.007 (1.200)	−0.004 (1.159)	−0.34	5167	0.736	−0.01
Negative experience	−0.389 (1.096)	0.223 (1.216)	18.05	5167	<0.001**	0.52
	Professional background	Not professional background				
Burden after alerts	−0.123 (1.032)	0.173 (1.045)	9.08	4112	<0.001**	0.29
Competence	0.413 (0.872)	−0.495 (1.122)	−29.22	4112	<0.001**	−0.92
Alarm fatigue	−0.070 (1.079)	0.116 (1.160)	5.30	4112	<0.001**	0.17
Support	−0.174 (1.203)	0.215 (1.086)	10.76	4112	<0.001**	0.34

** Significance at $p < 0.01$

Conclusions

- Identified 12 relevant factors for volunteer motivation
  - Aligns with previous research, adding alarm fatigue
- *Community*, *self-image*, and *competence* largest positive effect on motivation
  - Also in line with previous research, adds a relative importance
  - Feeling of "community" differs between rural and large cities – can this be something to work on?
  - *Competence* – can we increase motivation to continue as a volunteer by offering training or education?

Conclusions

- On the other hand:
  - *Alarm fatigue* negative predictor – can different dispatch algorithms, IT support functions, or increased control of availability increase motivation?
  - *Negative experience* – Expectation management, accurate information about what the role entails
    - Group difference: no alarms → higher negative experience

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Thank you!