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D4.7 Development of a risk assessment toolkit to identify high-risk situations

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Versions

Vers.	Date	Author	Description
V0.1	18/06/2020	Lien De Decker (ADCC IBZ)	First Draft
V0.2	20/09/2020	Nino Van Impe (ADCC IBZ)	Additions to first draft
V0.3	20/10/2020	Nino Van Impe (ADCC IBZ)	Version to send out for feedback
V0.4	25/10/2020	Nino Van Impe (ADCC IBZ)	Integration of feedback from partners
V1.0	30/10/2020	Nino Van Impe (ADCC IBZ)	Finalization

List of Acronyms and Abbreviations

Acronym / Abbreviation	
DMA	Decision-making and acting
DMA-SR	Decision-making and acting under stress and in high-risk situations
LEA	Law Enforcement Agencies
NPC	Non-Player Character
VR	Virtual Reality
WP	Work Package

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Executive Summary

This deliverable is part of work package 4 "**Training Experience Assessment, Modelling and Scenario Development**" which has as a main focus the creation of the stress cues, measurements and the scenario descriptions & prototypes for the human factors' studies and the field tests. Six other deliverables are also part of WP4 and will be submitted in year 2 of the project (all between M13 & M24).

The risk assessment toolkit developed in this work package will allow the SHOTPROS project to design VR scenarios in WP5 and the final training curriculum in WP7. High-risk situations based on the impact of the risk occurring will be identified by means of the risk assessment tool. The elements that will be used in this deliverable are based on the risk and stress factors identified in deliverable D2.2 'LEAs Point of View: Requirements Report, Stakeholder Map and Expectation Summary for DMA-SR Model and Training Framework and Curriculum' as well as the stressors presented in D4.1 'Cue Repository for Personalization and Customization of VR Training Scenarios'.

1 Introduction

The purpose of this interim deliverable is to provide a preliminary state of affairs with regard to task 4.7 and the work that has been done in recent weeks and months in the context of the development of the risk assessment toolkit, by researchers of the Belgian National Crisis Center and Dr. Emma Jaspaert of the KU Leuven. More specifically, this paper will examine the preparation of the study on stress factors during police interventions, which will provide the necessary data to create an evidence-based tool that is useful for practical applications.

In a first phase of the document, the used methodology for the survey and follow-up study will be explained. Subsequently, the plans for the data analysis and the construction of the toolkit will be elaborated.

2 Methodology

In the following part of the paper, the development of the risk assessment tool will be elaborated. In order to develop a tool that is methodologically solid, different research methods are combined throughout the process. On one hand, this task builds on previously collected data within the SHOTPROS project. On the other hand, this data is further investigated by means of

an international online survey and follow-up study. Besides the use of primary and secondary data, quantitative and qualitative data are also combined throughout the research project. The use of the survey will lead to quantitative data while the previously collected data is of a qualitative nature.

Three domains can be distinguished in the used methodology:

A. Data collection
B. Data analysis
C. Development of the toolkit

2.1 Data collection

As mentioned above, different types of data are involved in the process of creating the anticipated risk assessment toolkit. The data selection and the construction of the surveys will be further explained in the following paragraphs.

2.1.1 Case selection

In WP2 numerous risk and stress factors were identified by researchers from the KU Leuven and USECON. This information on risk and stress factors was collected through end-user workshops, in-depth interviews and brainstorm sessions with the LEA partners (reported in D2.2). These workshops focused on different aspects of stress and stress related training, of which the results form an important element for the development of the risk assessment tool. The in-depth interviews and brainstorm sessions provide additional insights in the matter of stress among police officers and allow the researchers of this work package to better understand the gathered data and process it in a more targeted manner for further use.

The risk factors that were identified during this earlier research were presented in D2.2 ‘LEAs Point of View: Requirements Report, Stakeholder Map and Expectation Summary for DMA-SR Model and Training Framework and Curriculum’, in chapter 3.1 ‘Human factors influencing DMA-SR'. As not every of these risk factors seemed suitable for use in a practical training tool, a number of criteria were selected with which a risk factor had to comply in order to be included in the survey:

1. May not give a constant stress (for example possible consequences of the use of violence or organizational issues);
2. Non-standard risks, or more uncommon risks;
3. Well-defined risks.

With these criteria in mind, 26 stress factors that had been classified as “contextual factors” were retained. These factors are the following:

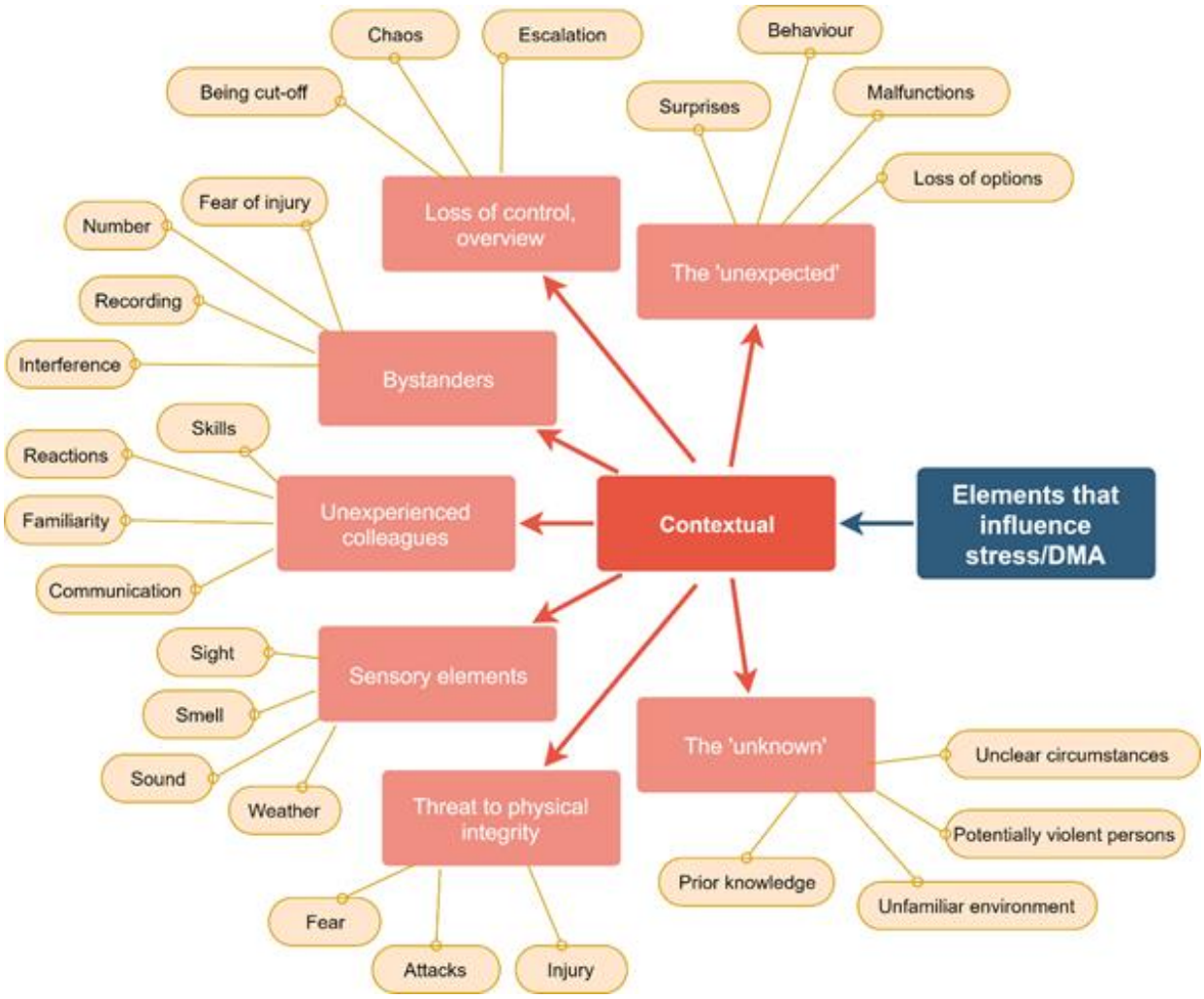


Figure 1. Contextual elements that influence DMA-SR

In addition to these contextual factors, a number of organizational factors were also considered, such as the possibility to receive backup, the working hours of police officers and the experience of the colleagues they work with. Subsequently, these stress factors were converted to questions and incorporated in the survey. For this conversion, researchers were able to use concrete examples that resulted from the earlier workshop with LEA partners and other end-users, and which were also included in deliverable 2.2.

Figure 2. Mind map of contextual and environmental factors in scenarios

Building on this, a list of specific stressors that came forward after both workshops as discussions with law enforcement agencies and scientific partners was incorporated in the survey as well, in view of a concrete application in a VR training tool. As such, these stressors were selected by the responsible researchers based on their ecological validity in police training scenarios and their technical feasibility to be transferred to VR environments.

Stressors	Description
Aggressive dog	Dog barks and runs at user
Being filmed	Unknown person stands inside a closed room and points a camera at the user
blood	In room are traces of blood
bullets	In room are bullets spread on the ground
Child crying	Child sits in room (e.g. crying)
Cluelessness	User is not given any information
Collapsing building or building parts	as threat to physical integrity

Crazy and unresponsive behaviour	Unknown person sits in room and laughs uncontrollably
Crowd (approx. 30 people)	Trainee stands in front of a crowd of people (multiple crowd behaviours possible)
Darkness	Closed room (or street) with no or very little light
Filmed by bystanders	Unknown person stands outside and points a camera at the user
Getting asked by bystanders	Unknown person approaches user and bombards him with question without waiting for answers
Loss of communication to colleague	Sudden loss of communication to colleague that entered flat / street with the trainee together
Loud unexplained noise	Door is banged shut after user walked inside the room / In closed room TV is running and producing loud sudden sounds.
Not understanding person talking to you	Unknown person sits in room and talks to user, but in unknown language
Person just starring at you	Unknown person sits in room and does not say anything
Possibly aggressive dog	Dog is stationary but barks at user
Scream	Scream audible while inside a closed room
Unexpected person	Unknown person walks into room from behind
Unexpected silence	After the police officers opens the door there's no noise at all, even after asking for a response from expected inhabitants there is nothing to hear.
Unexpected weapons	Unknown person stands in the room and uses ashtray, vase as weapon
Unknown origin of smoke	Closed room gets filled with smoke.
Unresponsive person	Unknown person sits in room and is unresponsive / Unknown person sits in room and laughs uncontrollably
Visual overload	Room is full of objects (e.g. furniture)
Weapon (knife/gun)	Trainee looks into a room and sees a knife / gun and a hand holding it
Fog	Weather is foggy
Limited visibility	In hall with several doors and light starts flickering.
Weather	Weather is bad and it rains
Odour / Smell	User opens trunk and body odour comes out of it
Gas smell	Closed room smells of gas

Table 1: Description of identified stressors

As described in deliverable D4.1 'Cue Repository for Personalization and Customization of VR Training Scenarios', the blue stressors in the table are the relevant stressors that will be

implemented as individual stressors or sequences of stressors within scenarios and are alphabetically ordered. The green marked stressors will be used as moderating stressors for the later studies (StCue2, StCue3) and will be used in addition to aforementioned stressors or sequences of stressors in order to identify how well they are able to further increase stress levels. They are grouped according to their modality (visual vs. smell). On top of these intentions of the researchers, the stressors were thus also used for research in the context of the development of the risk assessment tool.

Besides questioning the factors that induce stress, several factors that can cause a reduction in stress have also been incorporated in the survey.

These stress reducing factors include:

- Years of experience
- Basic training in the police academy
- Advanced training on a regular basis
- Possibility to request and receive back-up
- Presence of an experience colleague
- Presence of a police dog
- Sharing the same ethnic background as the suspect(s)
- Speaking the same language as the suspect(s)

2.1.2 Survey

As mentioned earlier, the data that is required to create an evidence-based risk assessment toolkit will be gathered via an international online survey that is set to launch in the week of the 26th of October 2020. This survey is created by use of the Qualtrics survey software and incorporates a demographic questionnaire and the different (de-)stress factors described in the first chapters of this deliverable.

The survey starts with a demographic questionnaire. The purpose of these questions is to gain a better understanding of the type of police officers that are participating in the study, as well as their experience in law enforcement. This information needs to allow researchers to interpret the gathered data in a more efficient way. When it comes to the actual survey on stress factors during police interventions, participants will be asked to rate the different stress factors on a scale from 1 to 10 (Low to High Stress) or rank different elements based on their perceived stress level.

During the development process of the survey, multiple feedback moments have been built-in to make sure that the study is foolproof and meets the expectations of the involved LEAs. In first instance, a first draft of the survey was tested by 3 police officers of the Belgian Federal Police, who are not involved in the SHOTPROS project. This test gave researchers an insight in the way that people who are not familiar with the project perceive the survey and its objectives. Based on the feedback provided by these police officers, the questionnaire was further adjusted. In a later stage of the process, an official proposal of the questionnaire was submitted to the LEA partners within the SHOTPROS consortium. For a second time, feedback was received and used to optimize the survey.

The dissemination of the study will be done through the LEA partners and end-users in the SHOTPROS consortium, who will take part in the research and spread the online survey among the police services in their home country, and via the personal network of the involved researchers. This leads to a large overlay with the participants of the workshops, which will improve the consistency of the relevant research throughout the whole SHOTPROS project.

To meet the needs of the SHOTPROS consortium partners, the survey will be available in English, Dutch, French, German, Romanian and Swedish. Researchers are also looking into the possibilities to offer the survey in Spanish and Portuguese.

2.1.3 Follow-up survey

To avoid making the main online survey too long and possibly losing participants because of it, researchers opted to provide a follow-up study. Participating police officers who are interested in the research can voluntarily take part in a second survey, offered in a different format with a focus on scenarios and questions on personal characteristic of suspects. The follow-up survey will be available for police officers who successfully finish the main survey. By using a personal code, which the participants create themselves based on elements like the first two digits of their data of birth, the two first digits of their postal code, etc., their answers and data from the main survey can be anonymously linked to those of the follow-up study. This will allow researchers to analyse the gathered data in a more in-depth manner.

More specifically, the follow-up study will make us of the ‘m-Path'-app. A smartphone-app that was developed by the KU Leuven for therapists, allowing them to send their patients questions on their physical and mental health, on a daily basis. Although the existing app had quite some potential, certain aspects of it seemed less suitable for use in a survey for police officers. Mainly the used terminology and available languages were seen as a possible issue. At request of Dr.

Emma Jaspaert of the KU Leuven, the developers optimized the app for use in this study on stress factors during police interventions.

The aim is that during five consecutive days, the follow-up study will provide participants with a series of scenarios and questions, taking only a few minutes to answer each time. Although the number of questions per day is relatively low, an estimate of 5 questions on different types of scenarios and situations and 10 forced-choice questions, researchers can gather a lot of information by the end of the study by running this survey for several days.

In terms of content, the scenarios focus on different types of stressful and high-risk situations that police officers may find themselves in while on duty, like domestic violence and road rage incidents, but also terrorism. This should enable researchers to get inspiration and useful data for the development of VR scenarios for later use in the SHOTPROS VR training tool. On the other hand, forced-choice questions will allow researchers to collect additional data on suspects, which can be used to develop NPCs in the VR tool. This includes data on the posture of suspects, their appearance, clothing, etc.

At the time of publication of this deliverable, the questions of the follow-up study are still being optimized by the researchers.

2.2 Data analysis

The data analysis of this study will be done by using the available tools of the Qualtrics survey software. These tools will allow for the responses of all participating police officers to be put together and as such create average scores for each of the different factors that are questioned throughout the survey. However, this will only be the case for questions that work with a response scale (1-10). Questions where answers need to be ranked, will need to be processed in a different way that is yet to be decided. The responsible researchers are currently looking into the most suitable way to do so and allow for a reliable analysis of the gathered data.

The analyzed results will then be transferred to a Microsoft Excel file. At this point the data is ready for insertion in the framework of the risk assessment tool.

The analysis of the gathered data will start from the launch of the survey and results will be continuously monitored in view of the upcoming consortium meeting in November. For this meeting an interim analysis will be put together, so that a first insight into the study can be presented to all SHOTPROS partners and interested end-users.

2.3 Development of the toolkit

The development of the risk assessment tool will start in the week of the 2nd of November, as presented in the time schedule at the end of this deliverable.

The effective finalization of the risk assessment toolkit will take place once all data gathered from the online survey and follow-up study has been analysed and prepared for input.

3 Risk Assessment Tool

Given the fact that the risk assessment tool has yet to be developed, this part of the deliverable will briefly focus on the intentions of the researchers regarding the tool.

The objective for the risk assessment tool is to create a toolkit that is practically useable by police instructors, for both regular and VR training. In the first case, this could be done during role-play training or by taking into account certain stress factors, such as time, weather, etc., while planning a firearms training. When used in a context of VR training, the toolkit can be offered as an instruction or already installed and programmed in the VR tool. Though the latter is only expected to be the case when using a VR tool that is developed within the SHOTPROS project, since this is the only tool that we as consortium partners can directly influence.

The toolkit as an instruction and the basis of the pre-programmed risk assessment tool in a VR training tool will be offered to the consortium in an Excel document. This document will follow the example of an existing risk assessment tool. More specifically, the risk event (assessment) tool that was developed by the Belgian government for the organization of events in times of COVID-19. This tool will be adapted and optimised to allow an application for our specific purpose. As this risk event tool in its current form is currently classified as a confidential document, an example of the tool could not be included in this interim deliverable at this time.

4 Discussion and next steps

Task D4.7 'Development of a risk assessment toolkit to identify high-risk situations' of work package 4 is currently in full development. With this state of affairs, we do not only want to describe the work that has already been done so far, but also offer an insight in our plans for the future and the tasks that we aim to realize in the upcoming weeks and months. Given the responsibilities of the Belgian National Crisis Center in the crisis management of the COVID-19 pandemic, changes to the timetable are possible.

Time schedule (2020-2021)	
Week of the 26th of October	Launch of the survey on stress factors during police interventions (English, Dutch, French, German & Romanian versions). Promotion of the survey and the active dissemination among LEAs inside and outside of Europe.
	Translation of the survey to Swedish, Spanish and Portuguese.
Week of the 2nd of November	Start of the development of the risk assessment tool.
Week of the 9th of November	Interim analysis of the gathered data and preparation of a state of affairs for the consortium meeting
Week of the 30th of November	Preparation of a presentation on the SHOTPROS project and the input of the Belgian National Crisis Centre for an event with a delegation of Belgian government officials and services.
Week of the 14th of December	Final analysis of the gathered data and input in the risk assessment tool.
Week of the 4th of January	Try-out of the risk assessment tool for LEAs. Input of the feedback of the LEAs in the risk assessment tool.
Week of the 11th of January	Finalization of the final deliverable. Reporting to the consortium partners.

5 Conclusion

As an interim conclusion, it is clear that while a substantial amount of work has already been done to prepare for an international study on stress factors during police interventions, there still are quite some tasks to be carried out in D4.7 before a finalized risk assessment toolkit can be handed over to LEAs and their police instructors. The arrival of the COVID-19 pandemic has caused unforeseen delays, which meant that certain tasks and their accompanying objectives had to be spread out in time. Nonetheless, we are confident that we will be able to deliver a tool in the near future that is practically useable. The time schedule presented above will help us achieve the set goals in a timely manner.

6 Annex

6.1 Survey 'stress factors during police interventions'

Stress factors during police interventions

Start of Block: Introduction

IC
[You can click on the dropdown menu above for other languages]

Survey on stress factors during police interventions
Dear Sir, Madam,

Welcome to our international survey on stress assessment with first responders, developed through a cooperation between the Belgian National Crisis Center and the KU Leuven. As a law enforcement officer, your professional experience can provide valuable information on stressful situations that may arise while on duty.

Throughout this survey, we will focus on a number of known stress factors and their influence on decision making during police interventions. The impact of these stress factors on first responders will be measured and used to create an evidence-based risk assessment tool. This tool will be implemented in a Virtual Reality training program for law enforcement agencies across Europe, which is currently under development and known as SHOTPROS (for more information on our SHOTPROS-project, visit www.shotpros.eu).

Data processing and your rights
Your participation in this survey is voluntary. You have the right to withdraw your consent to participation at any time (including during and after the study). You do not have to justify this withdrawal and you are not disadvantaged by your withdrawal in any way.
There is no link between your personal data (such as IP address) and your responses to this survey. All data will be collected anonymously and treated confidentially, i.e., data cannot be traced back to an individual. Results from this study can be used for scientific purposes and can be published.

This study received ethical approval from the Social and Societal Committee of KU Leuven

(Nr. G-2019 09 1712). If you require further information about your rights or the study itself, or if you have further questions or wish to exercise your rights or abort the study, please contact dr. Emma Jaspaert (Emma.Jaspaert@kuleuven.be). For any complaints or other concerns about the ethical aspects of this study, you can contact the Social and Societal Committee of KU Leuven (smec@kuleuven.be).

Informed consent

I hereby declare that I am voluntarily participating in this survey. I can withdraw my consent at any time (including during the study) without any justification or consequences. I agree that the collected data may be stored, analyzed and published anonymously for scientific purposes.

- ○ YES, I AGREE to the above-mentioned conditions and would like to participate in the survey (1)
- ○ NO, I DO NOT AGREE to the above-mentioned conditions and would like to terminate my participation (2)

Skip To: End of Survey If [You can click on the dropdown menu above for other languages] Survey on stress factors during... = NO, I DO NOT AGREE to the above-mentioned conditions and would like to terminate my participation

End of Block: Introduction

Start of Block: Participant demographics

Gender What is your gender?

- ○ Male (1)
- ○ Female (2)
- ○ Diverse (3)
- ○ Prefer not to say (4)

Age What is your age (in years)?

_____

Country In which country do you work?

▼ Austria (1) ... Other (29)

Skip To: Partner If In which country do you work? = Sweden

Display This Question:
If In which country do you work? = Other

Country_other Please specify which country

_____

Ethnicity What is your ethnicity?

- ○ Western European (1)
- ○ Eastern European (2)
- ○ African (3)
- ○ American (4)
- ○ Asian (5)
- ○ Middle Eastern (6)
- ○ Australian and Pacific (7)
- ○ Other (8) _____
- ○ Prefer not to say (9)

Display This Question:
If In which country do you work? != Sweden

Partner Do you have a life partner/spouse?

- ○ Yes (1)
- ○ No (2)

Display This Question:
If In which country do you work? != Sweden

Children Do you have children?

- ○ Yes (1)
- ○ No (2)

End of Block: Participant demographics

Start of Block: Participant professional information

Rank What is your police rank?

- ○ Base-level (basic police officer) (1)
- ○ Middle-level (middle-ranked officer) (2)
- ○ Officer (high-ranked officer) (3)

Years_exp How many years of experience do you have as a police officer?

_____

Service What is the type of service of your current employment?

- ○ Patrol unit (1)
- ○ District agent (2)
- ○ Traffic police (3)
- ○ Border police (4)
- ○ First responders (5)
- ○ Gendarmerie (6)
- ○ Reception/police detention complex (7)
- ○ Military police (10)
- ○ Instructor (8)
- ○ Other active police service (specify) (9) _____

Display This Question:
If What is the type of service of your current employment? = Instructor

Instructor Are you a full-time instructor or do you also work in the field?

- ○ Full-time instructor (1)
- ○ Also active duty in the field (2)

Skip To: End of Block If Are you a full-time instructor or do you also work in the field? = Full-time instructor

Geogr Do you work in:

- ○ Mainly urban area (1)
- ○ Mainly rural area (2)

NrCitizens How many citizens reside in your police district?

- ○ 0 - 10.000 citizens (1)
- ○ 10.001 - 50.000 citizens (2)
- ○ 50.001 - 100.000 citizens (3)
- ○ 100.001 - 250.000 citizens (4)
- ○ 250.001 - 500.000 citizens (5)
- ○ Over 500.001 citizens (6)

Unit In which constellation do you mostly work?

- ○ Solo patrols (1)
- ○ Two-person units (2)
- ○ Three-person units (3)
- ○ Other (specify) (4) _____

Backup_av Is back-up usually available during interventions if necessary?

- ○ Always (1)
- ○ Most of the time (2)
- ○ About half the time (3)
- ○ Sometimes (4)
- ○ Never (5)

Display This Question:

If Is back-up usually available during interventions if necessary? != Never

Backup_time What is the usual amount of time needed for back-up to arrive?

- ○ 10 minutes or less (1)
- ○ 10 to 20 minutes (2)
- ○ 20 to 30 minutes (3)
- ○ 30 to 45 minutes (4)
- ○ More than 45 minutes (5)

Exerc How many firearm exercises have you taken part in as a trainee during 2019?

▼ 0 (1) ... 10 or more (11)

End of Block: Participant professional information

Start of Block: Environmental stress factors

Text *In the following sections, you will be given a number of situations that you can encounter during your active duty tasks. For each of these situations, we will ask you to think about how stressful you would find them when encountering them yourself.*

Please rate the stresslevel between 0 (no stress) and 10 (very high stress) by moving the sliding bar across the line.

Stress1 How stressful do you perceive carrying out an intervention in the following circumstances?

	Low stress								High stress
0	1	2	3	4	5	6	7	8	9	10

An intervention indoors ()	
An intervention outdoors ()	
An intervention in an environment with multiple exits ()	
An intervention in an environment with only one exit ()	
An intervention in an environment that is well lit ()	
An intervention in an environment with no or very low lighting ()	
An intervention during daylight ()	
An intervention during nightfall ()	
An intervention at night ()	
An intervention during sunrise ()	
An intervention during a heavy rainstorm with limited visibility ()	
An intervention in foggy weather with limited visibility ()	

End of Block: Environmental stress factors

Start of Block: The unknown 1

Stress2 How stressful do you perceive carrying out an intervention with the following information from dispatch before you arrive on the scene?

Low stress High stress

0 1 2 3 4 5 6 7 8 9 10

Dispatch is not able to give you any information on a suspect or situation ()	
Dispatch informs you that a suspect is violent towards other people ()	
Dispatch informs you that a suspect is possibly under the influence of drugs ()	
Dispatch informs you that a suspect is armed ()	
Dispatch informs you that the suspect is known in the police database as possibly armed and dangerous ()	
Dispatch informs you that the suspect is unknown in the police database ()	
Dispatch informs you that the suspect has a firearm licence according to the database ()	

Stress3 How stressful do you perceive carrying out an intervention at the following locations?

Low stress High stress

0 1 2 3 4 5 6 7 8 9 10

An intervention at an unfamiliar location ()	
An intervention at a location that you know well ()	

Rank_area Please rank the following environments according to how stressful you find it to perform interventions in these environments (1 = most stressful).

You can drag and drop the different items up or down. This will change their position in the ranking.

_____ Social housing area (1)
_____ Residential area (2)
_____ City center (3)
_____ Shopping mall or street (4)
_____ Entertainment district (5)
_____ Business district (6)
_____ Apartment building (7)
_____ Industrial area (8)
_____ Busy road (9)
_____ Park (10)
_____ Public transportation and stations (11)
_____ Vehicle (12)
_____ Alley (13)

disp-real How stressful do you perceive carrying out an intervention in the following circumstances?

	Low stress 0 1 2 3 4 5 6 7 8 9 10 High stress
When arriving on scene, the information from dispatch seems to be different from what bystanders are telling you ()	
When arriving on scene, the information from dispatch seems to be different from what you witness ()	

End of Block: The unknown 1

Start of Block: Threats to physical integrity

Stress6 How stressful do you perceive the following situations during an intervention?

Low stress 0 1 2 3 4 5 6 7 8 9 10 High stress

A small dog is barking at you but remains stationary ()	
A small dog is barking at you and runs towards you ()	
A large dog is barking at you but remains stationary ()	
A large dog is barking at you and runs towards you ()	

Rank_weapons Please rank the following objects that can be used as a weapon according to how stressful you perceive them during an intervention (1 = most stressful)

_____ Firearm (1)
_____ Knife (2)
_____ Baseball bat (3)
_____ Drug needle (4)
_____ Bottle (5)
_____ Beer glass (6)
_____ Furniture (7)
_____ Crossbow (8)
_____ Chainsaw (9)
_____ Metal bar (10)
_____ Screwdriver (11)
_____ Vehicle (12)

Stress7 How stressful do you perceive carrying out an intervention in the following circumstances?

	Low stress									High stress
	0	1	2	3	4	5	6	7	8	9	10
Carrying out an intervention in a building that has collapsing building parts ()											
Carrying out an intervention in an abandoned building that is in bad condition ()											
Carrying out an intervention near a burning installation (building, car, container, ...) ()											

End of Block: Threats to physical integrity

Start of Block: Sensory stressors

Rank_vision Please rank the following elements according to how stressful you perceive them if you would encounter them during an intervention (1 = most stressful)
_____ Seeing traces of blood in a room (1)
_____ Noticing a possibly lethal weapon in a room (2)
_____ Seeing several bullets on the ground in a room (3)
_____ Noticing drug use equipment in a room (4)
_____ A closed room that fills with smoke (5)
_____ A room that is full of objects and trash (6)
_____ Being in a room when the lights go out (7)
_____ Noticing clear injuries on a person in a room (8)
_____ Noticing a suspicious object in public (abandoned suitcase, backpack) (9)
_____ Noticing a person who is behaving very suspiciously (10)
_____ Noticing an open door or window that is damaged (11)
_____ A room that appears to have been searched (12)

Rank_smell Please rank the following smells/odors according to how stressful you perceive them if you would encounter them during an intervention (1 = most stressful)
_____ Strong or foul body odor (1)
_____ Strong chemical odor (2)
_____ Gas smell (3)
_____ Smell of drinking alcohol (4)
_____ Smell of a dead or decomposing body (5)
_____ Smell of smoke (6)
_____ Smell of urine and/or faecies (7)
_____ Smell of garbage (8)
_____ Smell of rotten food (9)
_____ Smell of cannabis (10)

Rank_sound Please rank the following sounds/noises according to how stressful you perceive them if you would encounter them during an intervention (1 = most stressful)

_____ A crying child (1)
_____ A door banged shut (2)
_____ A TV playing loud, sudden sounds (3)
_____ Very loud music playing (4)
_____ A sudden loud scream (5)
_____ A sound that resembles a gunshot (6)
_____ Police or ambulance sirens (7)
_____ Complete silence (8)
_____ Sound of an explosion (9)
_____ A hissing sound of a gas leak (10)
_____ Sound of an animal growling (11)

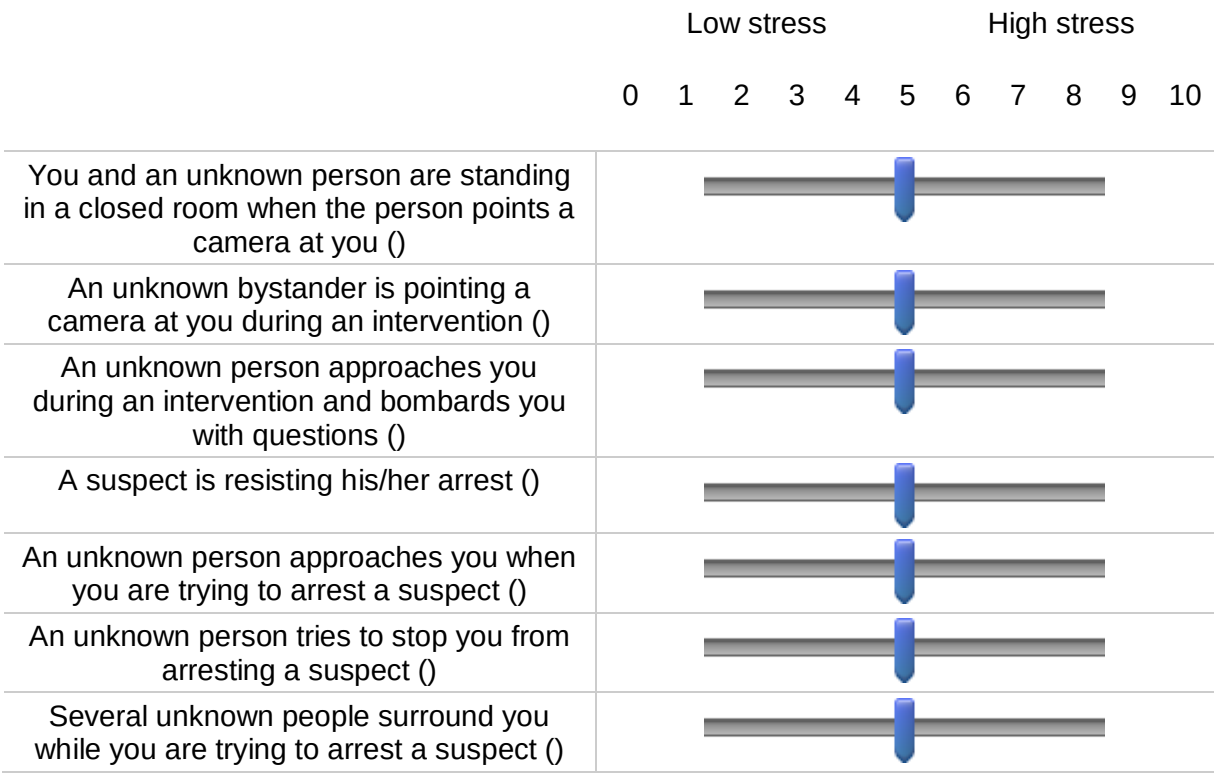
End of Block: Sensory stressors

Start of Block: Crowds, bystanders, interference

Stress8 How stressful do you find crowds that consist of people from following backgrounds?

	Low stress 0 1 2 3 4 5 6 7 8 9 10 High stress
Bikers ()	
Football hooligans ()	
Partygoers ()	
Extremists ()	
Protesters ()	
Street youth (loiterers) ()	
Businessmen ()	
Refugees ()	
Shoppers ()	

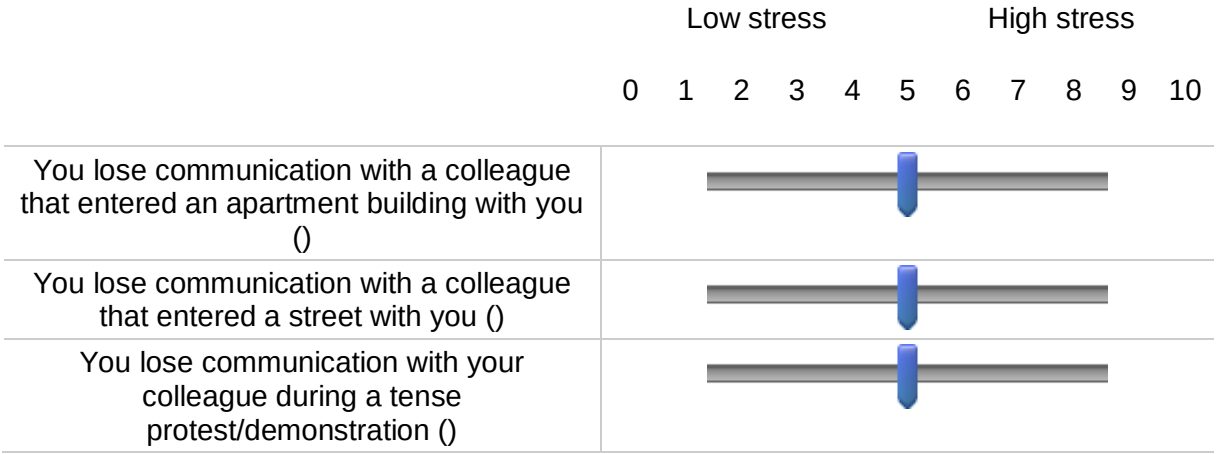
Stress9 How stressful do you perceive carrying out an intervention in the following circumstances?



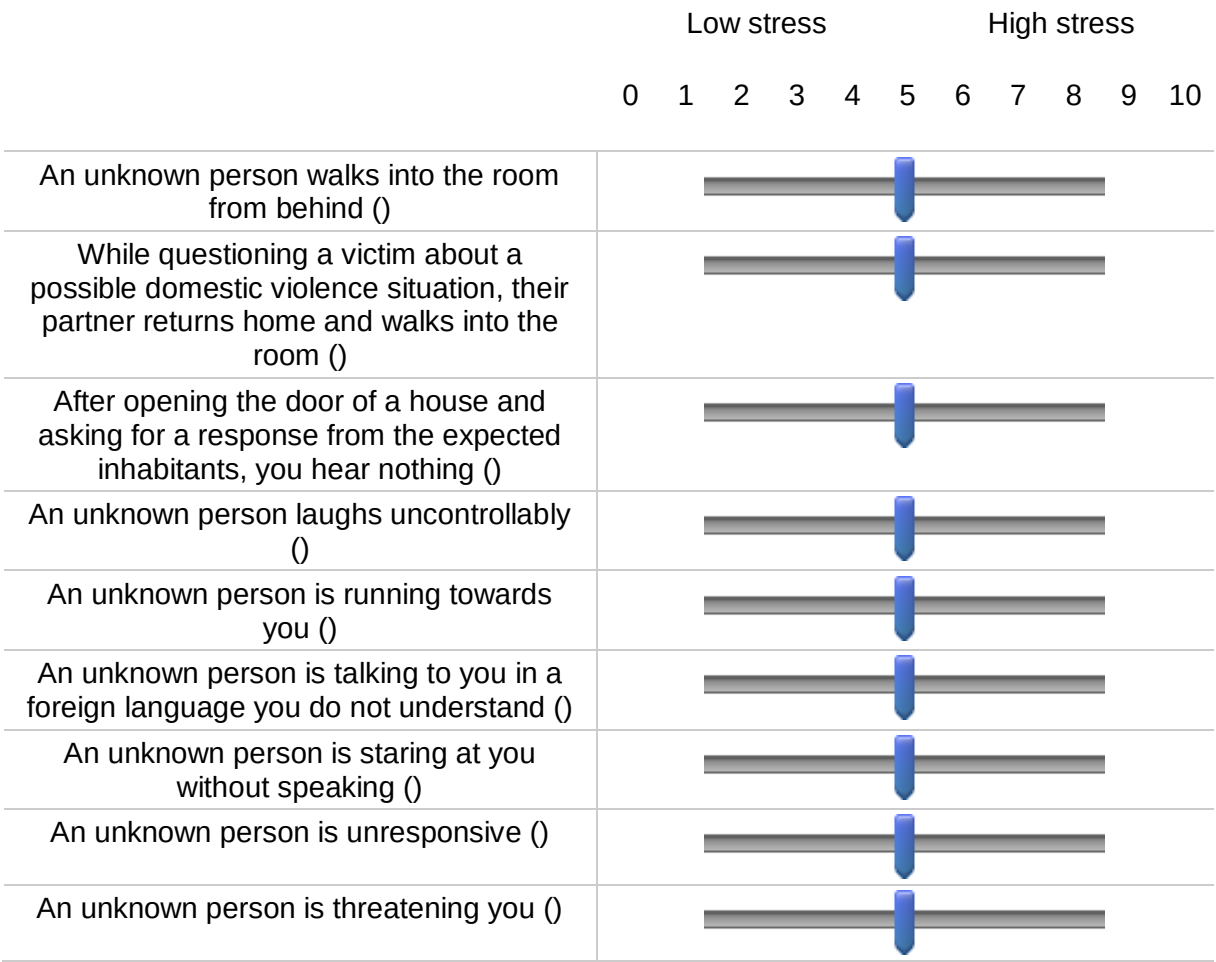
End of Block: Crowds, bystanders, interference

Start of Block: Loss of contact and the 'unexpected'

Stress10 How stressful do you perceive carrying out an intervention in the following circumstances?



Stress1 How stressful do you perceive carrying out an intervention in the following circumstances?



End of Block: Loss of contact and the 'unexpected'

Start of Block: De-stress factors

DMA_impact To what extent do you think the following elements have a positive impact on decision-making in the field?

No impact High positive impact

0 1 2 3 4 5 6 7 8 9 10

Many years of experience as a first responder ()	
Decent basic police training in the academy ()	
The possibility of calling for and receiving back-up ()	
Presence of an experienced colleague ()	
Presence of a police dog ()	
Specific violence behavior training in the force on regular basis ()	
Sharing the same ethnic background as the supect(s) ()	
Speaking the same language as the suspect(s) ()	

End of Block: De-stress factors

Start of Block: Follow-up study explanation

Display This Question:

If In which country do you work? != Sweden

IC_followup We have reached the end of this survey.

This is the first part of our study. For the second part of the survey, participants will be asked to download an app to their smartphone called 'M-path', which is developed by the KU Leuven university. Via this app we will send a notification to your smartphone that will direct you to a short daily survey (max 5 minutes) during 5 consecutive days. Afterwards, you can delete the app. Data will be processed anonymously.

In these short daily surveys, you will receive a few short scenarios of possible interventions (max 3 sentences per scenario) and will be asked to assess their level of stressfulness. You will also be given a small set of choice-questions, where you will be asked to choose which of two options you find most stressful.

Would you like to participate in the follow-up study?

- ○ Yes (1)
- ○ No (2)

Display This Question:

If In which country do you work? != Sweden

And We have reached the end of this survey. This is the first part of our study. For the second part... = Yes

Code_followup Thank you for participating! To be able to link your responses of the follow-up study to your responses in this survey, we ask you to provide us with a unique code, which you will also have to fill out in the follow-up study.

Please form a six-digit code, consisting of: your birthday (only the day, for example: 03) the two last letters of your first name (for example: MA) the two first digits of the zipcode of the town you live in (for example: 22 or 08)

In the example, the six-digit code would be: 03MA22

_____

Display This Question:

If In which country do you work? != Sweden

And We have reached the end of this survey. This is the first part of our study. For the second part... = Yes

Text2 Please download the app **m-Path** on your smartphone. Search for code **fu6e4** and add the researcher (SHOTPROS). This will allow us to send you your short daily survey (during 5 days) on your smartphone. Your participation is still anonymous. Please write down the code if you will download the app later.

m-Path for Android: click here
m-Path for Apple: click here

Thank you for helping us with our research!

End of Block: Follow-up study explanation