



D934.15 - TESTING EXISTING COMMUNITY BASED PSS TOOL AND EXISTING SPORTS AND PHYSICAL ACTIVITY PSS TOOL

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The DRIVER+ project

Current and future challenges due to increasingly severe consequences of natural disasters and terrorist threats require the development and uptake of innovative solutions that are addressing the operational needs of practitioners dealing with Crisis Management. DRIVER+ (Driving Innovation in Crisis Management for European Resilience) is a FP7 Crisis Management demonstration project aiming at improving the way capability development and innovation management is tackled. DRIVER+ has three main objectives:

- 1. Develop a pan-European Test-bed for Crisis Management capability development:
 - Develop a common guidance methodology and tool (supporting Trials and the gathering of lessons learned.
 - Develop an infrastructure to create relevant environments, for enabling the trialling of new solutions and to explore and share Crisis Management capabilities.
 - Run Trials in order to assess the value of solutions addressing specific needs using guidance and infrastructure.
 - Ensure the sustainability of the pan-European Test-bed.
- 2. Develop a well-balanced comprehensive Portfolio of Crisis Management Solutions:
 - Facilitate the usage of the Portfolio of Solutions.
 - Ensure the sustainability of the Portfolio of Tools.
- 3. Facilitate a shared understanding of Crisis Management across Europe:
 - Establish a common background.
 - Cooperate with external partners in joint Trials.
 - Disseminate project results.

In order to achieve these objectives, five sub-projects (SPs) have been established. **SP91** *Project Management* is devoted to consortium level project management, and it is also in charge of the alignment of DRIVER+ with external initiatives on crisis management for the benefit of DRIVER+ and its stakeholders. In DRIVER+, all activities related to Societal Impact Assessment (from the former SP8 and SP9) are part of SP91 as well. **SP92** *Test-bed* will deliver a guidance methodology and guidance tool supporting the design, conduct and analysis of Trials and will develop a reference implementation of the Test-bed. It will also create the scenario simulation capability to support execution of the Trials. **SP93** *Solutions* will deliver the Portfolio of Solutions which is a database driven web site that documents all the available DRIVER+ solutions, as well as solutions from external organisations. Adapting solutions to fit the needs addressed in Trials will be done in SP93. **SP94** *Trials* will organize four series of Trials as well as the final demo. **SP95** *Impact, Engagement and Sustainability*, is in charge of communication and dissemination, and also addresses issues related to improving sustainability, market aspects of solutions, and standardization.

The DRIVER+ Trials and the Final Demonstration will benefit from the DRIVER+ Test-bed, providing the technological infrastructure, the necessary supporting methodology and adequate support tools to prepare, conduct and evaluate the Trials. All results from the Trials will be stored and made available in the Portfolio of Solutions, being a central platform to present innovative solutions from consortium partners and third parties and to share experiences and best practices with respect to their application. In order to enhance the current European cooperation framework within the Crisis Management domain and to facilitate a shared understanding of Crisis Management across Europe, DRIVER+ will carry out a wide range of activities, whose most important will be to build and structure a dedicated Community of Practice in Crisis Management, thereby connecting and fostering the exchange on lessons learnt and best practices between Crisis Management practitioners as well as technological solution providers.

Executive summary

Disasters and emergencies are ultimately about people. Individuals play an important role in establishing resilient communities and countries across Europe – as volunteers and as active citizens. Meeting the needs of individuals affected by disaster is therefore at the centre of disaster mitigation, preparedness, response and recovery and the effective training of volunteers enables the adequate provision of services. In particular, volunteers adequately trained in psychosocial support can contribute to the wellbeing and daily function of affected individuals, alleviate suffering and facilitate the healing and recovery processes after a disaster.

As one of the key legacies of DRIVER, the solutions and their experimentation presented in this deliverable contribute significantly to the set of DRIVER+ solutions adressing Civilian Resilience, one of the key objectives of DRIVER+. With their focus on individual and volunteer resilience, the solutions presented in this deliverable are tangible, mature tools to practically adress the challenges of engaging volunteers to build and support the ability of individuals and communities to prepare to cope with crisis, to actively support response and to recover and adapt positively after a crisis event. Furthermore, by adressing the important psychosocial dimensions of crisis management, the tools present one avenue for operationalising the paradign shift towards "the-citizen-as-first-responder". Finally, the experiments presented here demonstrate the value of the cascading model and a cost-effecive measure for implementation at scale.

This deliverable presents the findings from two DRIVER+ experiments, which were conducted in the former DRIVER SubProject 3, 'Civil Society Resilience' and were numbered EXPE 32.1 and EXPE 32.2 respectively. The experiments test two existing psychosocial training solutions and a widely used training concept: the cascading model. The cascading model involves the training of trainers in layers until the training reaches the final group of persons affected by crisis. This model allows crisis management organisations to increase the capacity and skills of their staff and affiliated volunteers while making use of fewer resources. Despite the model's common use, there is limited evidence that validates it and it has been criticized for leading to knowledge diffusion.

The two psychosocial training solutions tested in the EXPE 32.1 and EXPE 32.2 are the Community-based psychosocial support and the Sports & physical activity-based psychosocial support toolkits. The effectiveness of the cascading model and the training solutions were tested in the two experiments by assessing their effectiveness in transferring psychosocial knowledge to volunteers. In order to follow the cascading of learning down through the different layers of volunteers, the experiments were designed in different tiers. Both experiments were conducted in the span of nine months (May 2015 – Feb 2016). Using Kirkpatrick's model for evaluation of trainings, all sessions and trainings were monitored in order to test the transfer of knowledge, new trainers' abilities and confidence to conduct session on psychosocial support and their overall reaction of participants to the trainings.

The key findings of the two experiments are that the two training solutions are effective solutions for transferring psychosocial knowledge to volunteers from crisis management organisations and that the cascading model is an effective model for transferring psychosocial knowledge to volunteers.

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List of Acronyms

Acronym	Definition
CART	Communitiy Advancing Resilience Toolkit
CBPSS	Community-based psychosocial support
СМ	Crisis Management
СоРСМ	Community of Practice in Crisis Management
D	Deliverable
DoW	Description of Work
EXPE	Experiment
FP7	7 th Framework Programme for Research and Technological Development
IFRC	International Federation of the Red Cross and Red Crescent Societies
JE	Joint Experiment
MHPSS	Mental Health and Psychosocial Support
MOVING	Sports and physical activity based psychosocial support
NS	National Society
PFA	Psychological First Aid
PSS	Psychosocial support
STEP model	Space, Task, Equipment and People model
SP	Subproject
ТоТ	Training of Trainers
UNICEF	United Nations Children's Emergency Fund
WP	Work package

1. Introduction

DRIVER+ aims to build European resilience through an improvement of crisis management in Europe and its uptake of innovative solutions. In DRIVER+, resilience is understood as the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions (see Annex 1 for terminology). This system is structured around three levels of the society's organisation: individual, community and local governance. As such, contributing to the preparedness of individuals and volunteers constitutes an integral part of improving civil society resilience and it was therefore the starting point for the former WP320, focusing on volunteers affiliated with Crisis Management (CM) organisations – referred to in this deliverable as affiliated volunteers. In particular, the focus is on the preparedness of individuals and increasing volunteers' skills and knowledge on psychosocial support. This deliverable investigates these topics further and presents the findings from two experiments testing a concept – the cascading model – as well as two specific training solutions on psychosocial support.

Providing psychosocial support to those affected by crises alleviates suffering and contributes to the healing and recovery process in a society or community [1][2][3]. In addition, psychosocial support contributes to the wellbeing and daily functioning of the affected individuals and enables their active participation in recovery processes [2][3]. It is recognised at a pan-European level that psychosocial support should be integrated in disaster management and emergency response [4]. In 2010, the Council of Europe called upon member states to include psychosocial interventions in their emergency response systems [5]. Furthermore, the council urged member states to actively engage various sectors – including voluntary-based organisations – to facilitate and support the development of individual and community resilience through psychosocial support (ibid.).

The period since the 2004 Indian Ocean Tsunami has witnessed an increased focus on psychosocial needs of survivors after disasters, and today, psychosocial support is integrated into disaster preparedness and response in most countries across Europe [1]. However, there are still differences in standards of practice, guidelines and legislation between European countries [1][6]. In addition to the development of key international guidelines on psychosocial support in disasters and emergencies [2][7], important attempts have been made to harmonise standards at a European level. This includes the 2007 EUTOPA Guidelines, 2008 TENTS Guidelines, the 2008 NATO Guidelines and the combined NATO-TENTS guidelines [8][9][10][11]. More recently, the FP7-funded OPSIC-project resulted in the 2015 Mental Health and Psychosocial Support (MHPSS) Comprehensive Guideline [1]. The NATO-TENTS guidelines provide recommendations for a standard model of care for psychosocial support in disasters and emergencies and the MHPSS Comprehensive Guideline direct users to relevant resources and tools for planning and implementing psychosocial programmes in disasters [1][11]. Altogether, these guidelines provide a solid basis for developing national disaster plans on psychosocial support.

Training in psychosocial support is recommended by all of the above-mentioned guidelines as key to building capacity of staff and affiliated volunteers and it is especially important in the preparedness phase [1][2][8][9][10][11]. Training increases the capacity, skills and knowledge of responders and it strengthens their resilience and ability to respond to psychosocial needs in the event of an emergency. Although a large number of trainings on psychosocial support exist [12], there is limited evidence from systematic training evaluations in this field [13]. The available literature is often based on a single training [49], presents anecdotal accounts [14] or focuses on mental health literacy of the general public rather than affiliated volunteers [15][16]. The lack of high quality studies may be because many CM organisations do not publish their evaluation results, but it may also be related to a general challenge in CM organisations: they are often unable to evaluate, test and validate their training and learning activities in a systematic manner due to lack of time, resources and the urgent nature of their work [17][18].

In this deliverable, DRIVER+ builds on the growing body of European projects and initiatives on psychosocial support in disasters and contributes to bridging a gap in the literature on evidence-based psychosocial training (see Annex IV). The deliverable presents the results from two experiments which test two existing training solutions for psychosocial support: a toolkit on Community-based psychosocial support (EXPE 32.1)

and a toolkit on Sports & physical activity based psychosocial support (EXPE 32.2). The two training solutions were tested in Israel and the United Kingdom respectively through the use of a widely used concept in training and education: the cascading model. The cascading model involves the training of trainers in layers until it reaches the final group of persons affected by a crisis and offers a solution for scaling-up the training of volunteers in a cost-effective manner [19]. The ability of the cascading model to effectively transfer knowledge through trainings on psychosocial support is tested in both experiments along with the two trainings solutions. It is envisioned that the cascading model alongside the two tested training solutions will be integrated into the DRIVER+ Portfolio of Solutions.

The focus of the two experiments is therefore to test the transfer of knowledge and skills on psychosocial support to volunteers and their ability to implement activities based on this, as it is a requirement for them to provide psychosocial support to the general population and vulnerable groups during a disaster. This means that the experiments do not test the effectiveness of psychosocial support interventions in improving psychosocial wellbeing and building resilience of the general public, as this would require a longer study period and a more complex Trial design. Depending on the outcomes of the Updated Gaps Assessment (WP922) and the selection of the solutions (WP942), this may be addressed in the upcoming DRIVER+ Trials. This is discussed in further detail in section 5.3.

1.1 Reading guide

This deliverable describes the testing of the cascading model through the implementation of two training solutions for psychosocial support. It explains the rationale behind the selected Trial design and documents the decisions that were made along the way. The document is divided into the following main sections:

- 1. Section 1.2 and 1.3 give an introduction to the cascading model and present the two tested solutions for training in psychosocial support.
- 2. Section 2 describes the methodology used in the two Trials. The section describes the planning of the Trials. The test goal and research questions are presented followed by the Trial design, the Trial locations and cultural adaptations, the selection of participants and ethical considerations. The evaluation approach is also presented along with a description of the data collection tools and analysis strategy.
- 3. Sections 3 and 4 present the results from EXPE 32.1 and EXPE 32.2 respectively. Each part concludes with a summary and set of recommendation for CM organisations interested in integrating the solutions and the cascading model to the training of affiliated volunteers.
- 4. Section 5 presents a discussion of the findings from both experiments in relation to the cascading model, the specific content and implementation of the two training solutions as well as future Trials within DRIVER+. The limitations and lessons learned from EXPE 32.1 and EXPE 32.2 are also outlined in this section.
- 5. Section 6 describes the overall conclusion.

Section 2 of this deliverable focuses on the experiment methodology, incl. different sources of literature used in the process of planning the experiments and analysing the results. Existing EU-funded FP7 projects, literature, training evaluations and other external resources on psychosocial support trainings were identified using the expertise of the Danish Red Cross in this area¹ and search engines such as CORDIS², Google and websites of selected organisations. This literature was used for the planning of the experiments and it is referred to throughout the deliverable whereas the European projects identified are listed in Annex

¹ Danish Red Cross is host to the IFRC Reference Centre for Psychosocial Support, which is a Centre of Excellence within the global Red Cross Movement specialising in psychosocial support and currently also co-chairing the Inter-Agency Standing Committee Reference Group on Mental Health and Psychosocial Support in Emergencies.

² See http://cordis.europa.eu/

IV. Literature on the cascading model was identified through the Copenhagen University Library search database using the key words: "cascading model"; "TOT"; and "train the trainer". Priority was given to peer-reviewed literature as well as literature from related fields of education, health and social care and CM. This literature was analysed in order to extract advantages and disadvantages of the cascading model, and the findings of this review are presented in section 1.2.

The annexes are as follows:

- Annex 1 Terminology
- Annex 2 Statement of informed consents sheet used in both experiments
- Annex 3 Timeline and location of experiments
- Annex 4 European projects on psychosocial issues
- Annex 5 EXPE 32.1 Overview of data collection methods
- Annex 6 EXPE 32.2 Overview of data collection methods
- Annex 7 EXPE 32.1 Selection criteria for participants
- Annex 8 EXPE 32.2 Selection criteria for participants

1.2 The Cascading Model

The cascading model of training consists of a maximum of three tiers or levels of training, in which a master trainer teaches in depth knowledge on a specific topic along with facilitation techniques and methodologies on how to deliver trainings to other participants [20]. Participants at the first tier have experience in the topic of the training and they are able to, after taking part in the training of trainers, transfer the knowledge to a new group of participants in a basic training. This second group of participants can then directly facilitate the activities or interventions they have been trained in during their basic training, to a new group of community members or volunteers (ibid.). Figure 1.1 illustrates the three tiers of training of the cascading model of training.

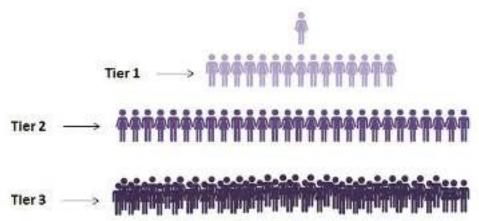


Figure 1.1: The cascading model of training illustrated

The main characteristic of this model is that as more participants are trained, information is disseminated to a large number of staff or volunteers [20][21][22]. An advantage of this model of training is its cost-effectiveness, as those who have been trained can train others and thereby reduce financial costs [20][23][24][25][26]. The model is also characterised by being participant-centered and experience-based [27]. It aims to enhance the knowledge and skills of participants by transferring the knowledge and expertise of the trainer to the participant and by building up the participants' critical thinking and behaviour. Through highly interactive trainings, participants are able to acknowledge their own as well as other participants' experiences on the topics being discussed. The importance of considering participants' past experience was also identified in Task 32.1 as one of the key recommendations for trainings and learning activities in relation to preparedness for disasters.

The review of available literature on the cascading model showed that it is frequently used in the fields of education, health and social care and CM [20][28][22][29], and key findings from these fields are presented in the following. The literature from education leads to different conclusions [23][24][21][30]. While some authors suggest that the use of the cascading model in education is ineffective because it leads to the dilution of knowledge, others suggests that it is a sound approach to the dissemination of information in an efficient and effective way [23][24][21]. The literature from health and social care leads to more univocal results. Pearce and colleagues conducted a systematic review on the use of the cascading model which selected eighteen research papers (eight RCTs, six control before-and-after studies and four controlled clinical experiments) and concluded that the cascading model is an effective tool for disseminating health and social knowledge [31]. The selected studies focus on the topics of breastfeeding, mental health, elderly care among others and showed that the use of the model leads to improvement in patient outcomes and in professional knowledge when compared to the control groups [22]. The studies suggest that an advantage of the cascading model is its flexibility, which allows trainers to introduce innovative and evidence-based methods for training (e.g. problem-based learning, group discussions, presentation of case studies, computer aids) [31].

The cascading model has also been used in the field of CM. The United Nations Children's Emergency Fund (UNICEF) has used the model to increase staff skills while making the most effective use of their financial and human resources and avoiding dependence on headquarter staff or external consultants. The model is highlighted as particularly valuable in the context of disasters with limited funding and an increasing demand for reaching more beneficiaries while improving their services. For the organisation, an important advantage of the model is that it increases staff and affiliated volunteer's skills. Moreover, the newly trained staff and volunteers are able to use their knowledge of the local context and language to deliver better services. An acknowledged disadvantage is that non-specialized staff conducting the training might not receive the expected recognition from participants. An additional implication of the model is that it entails major commitments from specialists who are not only expected to train staff and volunteers but also follow up on their progress and respond to doubts or questions. Finally, UNICEF recognises that there is room for "wastage". They estimate that half of those trained at each tier will not go on to train or facilitate a session for others. Regardless, the model is proved valuable as the ones that continue in the model are not only trained in the topic but also become advocates of the training [17].

In 2006, Nancy Baron published a reference article to the use of the cascading model by CM organisations working on psychosocial support. According to Baron, "the exponential sharing of information via a cascade of training approach is remarkable" and its documented disadvantages are a result of incorrect implementation [20]. Baron argues that factors such as the incorrect selection of participants, the lack of follow-up of newly trained participants and the inappropriate training curricula can lead to the diffusion of information and affect the effectiveness of the model (ibid.). Although Baron's work has been valuable for the implementation of the cascading model in the psychosocial support and has been considered in the planning of EXPE 32.1 and EXPE 32.2, it does not offer evidence of the effectiveness of the model. To the best of our knowledge there is no evidence from testing the cascading model in psychosocial support trainings. This deliverable seeks to bridge this gap in research by presenting evidence on the effectiveness of the cascading model in transferring psychosocial knowledge to volunteers in CM organisation. Table 1.1

summarises the main arguments on the advantages and disadvantages of the cascading model presented in this section.

Table 1.1: Main arguments on the use of the Cascading Model

Advantages	Disadvantages
"Can reach a greater number of staff" [17]	"Dilution of the training—less and less is understood the further one goes down the cascade" [21]
"It is cost effective, it does not require long periods out of service" [26]	"difficult to ensure the continuing implementation of
"[The model] can also build staff capacity and increase staff skills" [17]	the training programs due to high staff turnover and retention of staff after they had been trained" [22]
"ToTs have been a key strategy for UNICEF so as not	"There may be other, perhaps more cost-efficient training methods, to improve clinical behaviour,
to be dependent on outside consultants or headquarters-based trainers" [17]	knowledge and patient outcomes" [22]
"ToT programs have the potential	"requires a major commitment on the part of the regional specialists to serve as the lead facilitator and
to effectively disseminate information to health and social care professionals" [22]	to provide the necessary follow-up support required for the staff trainers" [17]
"It appears that using a blended learning approach, combining different techniques and materials, is likely to achieve the best results" [22]	"Staff trainers often do not have the same degree of credibility and stature as a Regional or external specialist" [17]
"newly trained trainers know the local context very well and can use the local language for workshops" [17]	

1.3 Psychosocial support training solutions

Psychosocial support can be defined as a process of "facilitating resilience within individuals, families and communities, enabling families to bounce back from the impact of crises and helping them to deal with such events in the future" [32]. While there is limited evidence on the effectiveness of psychosocial interventions, there is consensus among experts that psychosocial interventions should follow five key principles identified by Hobfoll and colleagues [1][3]. These principles guide psychosocial interventions and are the essential principles of psychosocial care to people confronted by disasters. The five principles are:

- 1. A sense of safety
- 2. Calming
- 3. A sense of self- and community efficacy
- 4. Connectedness
- 5. Hope

As evident by a recent systematic mapping of psychosocial support guidelines and tools conducted by the OPSIC project, there is a considerable number of trainings available on psychosocial support in disasters and emergencies [1][12]. In line with the DoW, the purpose of the former WP320 is to test the selected solutions for training in psychosocial support listed below:

- Toolkit for community-based psychosocial support (CBPSS) [33];
- Toolkit for sports and physical activity based psychosocial support (MOVING) [34];

The testing of the toolkit for Community-based psychosocial support (CBPSS) and the toolkit for Sports and physical activity based psychosocial support (MOVING) is presented in this deliverable as both experiments were implemented using the cascading model. The training solutions were developed by the International

Federation of the Red Cross and Red Crescent Societies' (IFRC) Reference Centre for Psychosocial Support³. They are used globally by Red Cross organisations and other volunteer-based CM organisations, and they were included in the above-mentioned mapping of tools [1][12]⁴. The Red Cross solutions were selected for trialling in DRIVER+ first of all because they match the specific topics that were defined a priori in the DoW, such as community based psychosocial support, sports and physical activity-based psychosocial support and support to volunteers. Secondly, it was also defined in the DoW that the trainings should be tested through a cascading model with Red Cross volunteers. It was considered more appropriate to test training solutions already used within the Red Cross rather than introducing solutions entirely new to the organisations. It is, however, envisioned that the findings from these experiments on the cascading model can be applied to other psychosocial trainings.

The psychosocial support training solutions tested in the former WP320 all build on the five principles developed by Hobfoll and colleagues [3]. The intervention logic is that if volunteers are trained in a) understanding these five key principles and b) providing support and services targeting these five key principles, they will be able to implement activities for the general public that promote resilience of individuals affected by disasters or other crises events. The CBPSS toolkit is a key resource on the topic of Community-based psychosocial support and is the reference material used in EXPE 32.1 [33]. The toolkit is composed of a trainer's book, a participant's book and power point slides for all modules. All material is generic and freely available online for download [33]. Figure 1.2 presents a description of the toolkit.

Community-based psychosocial support (CBPSS) focuses on creating common experiences and a shared understanding within a community. CBPSS activities seek to facilitate psychosocial support before, during and after a crisis and they serve to promote individual and community resilience. **The Community-based psychosocial support training kit** provides resources for trainers and participants in key aspects of psychosocial support, including understanding the impact of crisis events, supportive communication, protection issues and self-care. Psychological First Aid (PFA) is a key component of the CBPSS toolkit.

PFA consists in offering a humane, supportive response to someone who is suffering and who may need support. It includes giving practical information and showing empathy, concern, respect and confidence in the abilities of the affected person. PFA trainings have been implemented for nursing home staff, medical reserve corps volunteers, faith and lay community leaders, public health professionals [35][36].

The CBPSS toolkit provides trainers with suggestions on how to conduct training of trainers as well as basic trainings on CBPSS. It includes information on adult learning methodologies as well as practical advice for conducting the trainings. In addition, the toolkit provides trainers with tips and ideas on how to manage discussions and presentations as well as on how to evaluate participants. The toolkits also contain slides and notes which can be adapted to different contexts. The CBPSS toolkit is divided into seven modules on CBPSS.

Figure 1.2: Community-based psychosocial support toolkit

The toolkit for Sports and physical activity based psychosocial support is a resource for CM organisations working on psychosocial support and is the reference material of EXPE 32.2 [34]. The toolkit is composed of a handbook, a trainers' manual and power point slides for all modules. All material is generic and freely available online for download. Figure 1.3 presents a description of the toolkit.

³ Danish Red Cross is host to the IFRC Reference Centre for Psychosocial Support, which is a Centre of Excellence within the global Red Cross Movement specialising in psychosocial support and currently also co-chairing the Inter-Agency Standing Committee Reference Group on Mental Health and Psychosocial Support in Emergencies.

⁴ The OPSIC mapping of tools was finalised in July 2013 and included CBPSS and CASV. MOVING was published in 2014 and is therefore not included in the mapping.

Sports and physical activities can be powerful means for social inclusion, creating a strong sense of community and togetherness. This is particularly important in times of crisis. When combined with psychosocial support, various sports and physical activities can universally benefit diverse groups across cultures and geography. Moving Together: Promoting psychosocial well-being through sport and physical activity is a toolkit designed to enable practitioners to provide psychosocial support programmes to people in crisis situations. The included carefully-planned sport activities create a safe and friendly setting for expressing and addressing problems and fears, while helping participants gain confidence, resilience, coping skills and hope.

The first part of the handbook explains the theoretical framework for sport and physical activities in psychosocial support interventions. The second part presents 28 activity cards that explain how to facilitate the activities, how they can be adapted to suit different circumstances, and how they can be used as a basis for discussion and reflection. The third part explains how to facilitate psychosocial interventions with sport and physical activities and how to set up interventions and programmes.

Figure 1.3: Sports and psychosocial support toolkit

Including the two solutions in the DRIVER+ Portfolio of Solutions will contribute to strengthening resilience of individuals as well as affiliated volunteers before, during and after disaster. The solutions are applicable in all four phases of emergency management: prevention, preparedness, response and recovery, but particularly in preparedness and recovery phases. Preparedness activities include training of staff and affiliated volunteers in psychosocial activities and recovery activities include setting up psychosocial support programmes based on the toolkits. The solutions address the following DRIVER+ Crisis Management functions: Civil Society Resilience, Community engagement and Training Communities for Psychosocial Support⁵.

⁵ Based on unpublished list of Crisis Management functions developed in the former SP8.

2. Methodology

This section describes the methodology for EXPE 32.1 and EXPE 32.2. Emphasis is on *what* has been done, but also *how* and *why* we arrived at the selected approach. In line with the DoW, the two experiments employed a joint approach to trialling, which has enabled cross-comparisons. However, there are also important differences between the two experiment designs that will be described in this section. This section first presents the experiment planning process and next, the test goals and research questions are presented. This is followed by a description of the experiment design, the process of selection of participants, details on the experiments location and cultural adaptations as well as ethical considerations. Finally, the data collection methods and tools and data processing and analysis methods are presented.

2.1 Experiments planning process

The preliminary planning of EXPE 32.1 and EXPE 32.2 started early in the project in order to arrive at a common understanding of the experiment design. The planning intensified between October 2014 and March 2015 in order to prepare for the experiments to start in May 2015. This made the former WP320 one of the first work packages of the former SP30 to start experiments at a point in time where the experiment planning templates from the former SP20 were not yet available.

The first version of the experiments designs were therefore developed based on available research protocol guidelines and earlier draft versions of the DRIVER experiment template [38][39]. The experiment planning process for EXPE 32.1 and EXPE 32.2 has occurred in collaboration with the SP20 Point of Contact and as a result, the process followed the DRIVER six-step approach to trialling depicted in Figure 2.1. The key actions and decisions taken at each of the six steps are described in Table 2.1.



Figure 2.1: DRIVER experiment methodology

Table 2.1: Planning outline of EXPE 32.1 and EXPE 32.2

Step	Key actions and decisions	Time line
Step 1: Hypothesis and methods	 The conceptual approach of the experiments was formulated and refined at a series of partner meetings (Stuttgart Oct 2014, Ispra Feb 2015, and Copenhagen March 2015) through an iterative process. Research questions and hypotheses were based on literature on the cascading model and training evaluations [41]. Research questions and hypotheses followed the same structure for the two experiments⁶ in order to allow for comparisons at the results and conclusion stages [20][50][50]. Skills frameworks were developed for each of the two training toolkits with support from SP20 partners, drawing on concepts from the DRIVER+ competence framework [17]. Meetings were held between WP320 and SP20 partners (Stuttgart Oct 2014, Copenhagen March 2015) The data collection tools were developed based on existing resources from the WHO, IFRC Reference Centre for Psychosocial Support and International Medical Corps [49][50]. The data collection tools were adapted to the content of each training toolkit. 	Sep 2014- March 2015
Step 2: Selection of participants	 The existing network of Red Cross volunteers were utilised for the experiments in order to test the solutions in non-simulated environments and make use of the broad representation of Red Cross organisations in DRIVER+. This also allowed testing the solutions in two different cultural contexts, namely Israel and the United Kingdom. This step included defining which partners would fulfil the different roles needed for the experiments. The fact that very little technical support was needed in order to run the experiments and the fact that only three partners were formally involved in these tasks (DRC, MDA and BRC) meant that the task partners covered most roles with support from SP20. This step also included selection of Red Cross volunteers as participants for tier 1 of EXPE 32.1 and tier 2 of EXPE 32.2. In order to agree on the profile of participants, the criteria for participants were developed. After defining these prerequisites, work package partners recruited Red Cross volunteers accordingly. 	Nov 2014 - Feb 2015
Step 3: Prepare experiment	 This step involved all the practical, organisational and logistical aspects in order to run the experiments. It included agenda development, application for data protection approval, informed consent packages, budgets, and travel arrangements for participants. A detailed action plan with clear division of responsibilities between partners and a timeline was developed and followed up during monthly telcons. 	Jan - April 2015

 $^{^{\}rm 6}\,\text{See}$ section 2.2 for the test goals and objectives of the two Trials.

Step	Key actions and decisions	Time line
Step 4: Run experiment	 The experiments were implemented over a 9-months period from May 2015 to February 2016 in order to include the different tiers. Annex III presents the details and specific dates and locations of the experiments. The relatively long period for running experiments was partly to allow for more experiments to be conducted at tier 3 and partly to accommodate busy periods or periods of absence for the volunteers such as holidays, exam periods etc. 	May 2015 – Feb 2016
Step 5: Interpret evidence	 Data entry started in November 2015 and preliminary descriptive data analysis started in February 2016. Qualitative data received in Hebrew was translated using professional and in-house translation. The overall analysis plan was defined in the experiment design prior to the experiments [40]. The analysis strategy was refined during an analysis workshop in February 2016 (Copenhagen) before the main work on the data analysis started. 	Nov 2015- April 2016
Step 6: Draw conclusions	 This step involved drawing conclusions in relation to the specific research questions but also in relation to WP320 and the project in general. These conclusions will be used to define and formulate the involvement of WP320 solutions in the upcoming experiments. 	April-June 2016

2.2 Test goal and research questions

The overall test goal of the two experiments is to test the effectiveness of the cascading model as a useful method for transferring knowledge and skills on psychosocial support to volunteers in CM organisations. The hypothesis is that the cascading model is an effective method for facilitating learning among volunteers and capacitating the volunteers to implement their knowledge in their role as first responders. The overall research question is formulated in the following way:

Is the cascading model an effective method for transferring psychosocial knowledge and skills to volunteers in crisis management organisations?

Two concepts from this research question require further definition: psychosocial knowledge and skills and effectiveness of the cascading model. The two concepts were operationalised differently in the two experiments, as described below.

Psychosocial knowledge and skills were operationalised according to the specific content of the two different training toolkits, CBPSS and MOVING. In EXPE 32.1, this was understood as the knowledge and skills to deliver trainings on community-based psychosocial support as defined in the CBPSS toolkit. In EXPE 32.2, it was understood as the knowledge and skills to deliver training on sports and psychosocial support in accordance with the MOVING toolkit.

Effectiveness of the cascading model is understood as the ability of the cascading model to facilitate the effective transfer of psychosocial knowledge and skills as defined above down through the different layers of volunteers according to Kirkpatrick's concepts of learning and behaviour, which is described in section 2.7. This operationalisation led to the formulation of a specific research question for each experiment as well as two different experiment designs, which are described in the following section.

Specific research question 1 (EXPE 32.1): Is the cascading model an effective method for transferring knowledge and skills related to community-based psychosocial support through three tiers of volunteers in crisis management organisations?

Specific research question 2 (EXPE 32.1): Is the cascading model an effective method for transferring knowledge and skills related to sports and psychosocial support through two tiers volunteers in crisis management organisations?

2.3 Experiment design

EXPE 32.1 and EXPE 32.2 were designed as a series of within-subject quasi-experiments, which meant that no control groups were used and participants were not randomly selected⁷. In order to test the cascading model and follow the cascading of learning down through the different layers of volunteers, the experiments were conducted in tiers.

As illustrated in Figure 2.2, EXPE 32.1 was designed in three tiers. In the first tier, participants were trained as new trainers in the CBPSS toolkit. In the second tier, the new trainers delivered a basic training to affiliated volunteers from Magen David Adom (MDA) in the full CBPSS toolkit. In the third tier, tier 2 participants delivered sessions to other MDA volunteers on how to deliver Psychological First Aid (PFA) in the event of an emergency⁸.

⁷ See D922.21 (forthcoming) and D23.11 to read more about quasi-experiments Error! Reference source not found..

⁸ As described in section 1.3, PFA is one out of several activities that volunteers trained in the CBPSS toolkit should be able to implement.

EXPE 32.2 was designed in two tiers and the first tier (training of new trainers) was not included in this experiment. Consequently, the tiers of EXPE 32.2 are referred to as tier 2 and 3. The second tier consisted of a training of British Red Cross (BRC) volunteers in the MOVING toolkit, and in the third tier, participants from tier 2 delivered sessions on sports and psychosocial support to other BRC volunteers. This is illustrated in Figure 2.3.

This means that while the same overall experiment design was used, EXPE 32.1 was designed as a three-tier model and EXPE 32.2 as a two-tier model. The reason for this is that the specific content of the training toolkits differs and the content of the CBPSS toolkit was considered more appropriate for a three-tier model than the MOVING toolkit.⁹

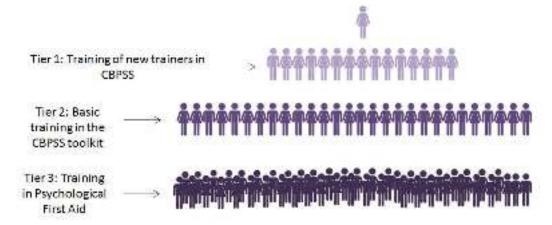


Figure 2.2: Overview of 3-tier design EXPE 32.1

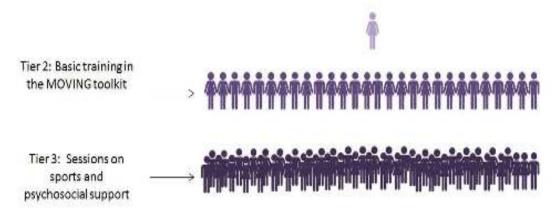


Figure 2.3: Overview of 2-tier design EXPE 32.2

The focus of measurement at tier 1 and 2 was transfer of learning and confidence in facilitating trainings and/or sessions at the next tier. At tier 3, the experiments focused on the volunteers' ability to implement psychosocial activities based on the content that they had learned at tier 2. In this way, and in line with Kirkpatrick's model [41][42], the experiments were designed to measure reaction, learning and the ability to implement activities based on learning at the subsequent tier. This is described in further detail in section 2.7.

The logic of the experiment design at tier 3 is that the sessions are a structured, yet simple way to request the volunteers trained in the CBPSS and MOVING toolkits to implement activities based on

⁹ The DoW only describes a two-tier model, which means that both Trials are implemented in accordance with the DoW. See also section 1.3 for more details on the differences between the MOVING and CBPSS toolkits.

their learning at tier 2. While the focus of measurement at tier 3 was the same in the two experiments – the ability to implement activities based on previous learning – the structure and content of tier 3 sessions differed.

In EXPE 32.1, tier 3 sessions focused on PFA, which is an intervention targeted towards people affected by an emergency or a distressing event [34]. It was, however, not considered practically feasible or ethically justifiable to design the experiment in a way that requested the trained volunteers to deliver PFA to people during crisis events [43]. Instead, the volunteers trained at tier 2 were instructed to deliver brief training sessions on PFA to other volunteers in order to build the organisation's capacity to deliver PFA to people affected by crises in the future.

The volunteers in EXPE 32.2 were instructed to practice planning, setting up and conducting a sports and psychosocial session for other volunteers and community members in their own community, even though there was no disaster situation. This required them to implement what they had learned, and even though there was no disaster occurring at the time, the reasoning was that similar activities could be implemented for example for youth groups during the recovery phase to contribute to their psychosocial wellbeing [34].

In summary, the two experiments employed the same experiment design consisting of trainings at different tiers. The two main differences are that EXPE 32.1 was implemented in three tiers while EXPE 32.2 was implemented in two tiers. Furthermore, the structure of tier 3 sessions differed: EXPE 32.2 tier 3 sessions focused on the trained volunteers' ability to implement sports and psychosocial sessions whereas EXPE 32.1 tier 3 sessions focused on delivering brief PFA training sessions to other volunteers.

Finally, as described in section 1 and discussed in section 5.3, the experiments do not test the effectiveness of psychosocial support interventions in improving psychosocial wellbeing and improving resilience of the general public, as this would require a more complex experiments design such as a longitudinal study. Psychosocial activities such as the ones presented in this deliverable are usually implemented over a longer period of time for the same target group before a change in psychosocial wellbeing can be observed.

2.4 Experiment location and cultural adaptations

EXPE 32.1 and EXPE 32.2 were conducted in collaboration with two CM organisations, the BRC (in UK) and MDA (in Israel) respectively. Both organisations respond to crises at national and international levels. BRC attended a total of 106,781 persons affected by crises in 2012 and has approximately 27,000 volunteers and 1,900 staff members [44]. MDA has approximately 14,000 volunteers and 1,200 emergency technicians, paramedics and medical staff who respond to natural, technological and conflict related disasters. The organisation operates approximately 700 ambulances in the country (ibid).

The two countries have different approaches to disaster response, as have the two organisations who hosted the experiments. MDA is, along with the Israel Police and the Fire Services, one of the three key organisations that first respond to non-war emergencies [45]. As a result, the organisation's work on disasters concentrates on the response phase. BRC, on the other hand, promotes a bottom-up approach to disaster response with a strong emphasis on preparedness. In addition, the organisation partners with local councils to ensure immediate response to disasters and advocate for better preparedness [45][46].

The experiment designs were tailored to the two different organisations and experiment locations in several ways. First, the trainings were selected to meet the approach and interest of the hosting organisation. While the target beneficiaries of PFA are people affected by an emergency or a distressing event, sports and psychosocial sessions can be implemented to strengthen community social connectedness and community efficacy in the preparedness phase, or to facilitate similar

processes in the recovery phase. In addition, both trainings were adapted so that examples, case studies and pictures in power point presentations and handouts fitted the local context. For example, it was not considered appropriate to use pictures from the Middle East in the training conducted in Israel and therefore, pictures in the generic training material were replaced with more appropriate, local pictures.

The data collection methods and tools were also adapted to the local context even though the same overall experiment design was used in the two different experiments. For example, observation and one-to-one interviews were used as part of the data collection in EXPE 32.2 but this was deemed inappropriate in EXPE 32.1 by MDA as this would lead to feelings of unease among the participants. This was not considered an issue in the BRC, where observation is used as an integrated part of training monitoring. As a result, less qualitative data was collected in EXPE 32.1 compared to EXPE 32.2. The specific data collection methods and tools are described in section 2.8.

Finally, considerations to maximise positive societal impact and minimise potential negative impact were included in the experiment design. Measures were taken to ensure that the trainings were as inclusive as possible for different groups in the communities. In Israel, this resulted in the inclusion of different religious groups and in the United Kingdom, persons from remote, rural areas and islands were included as well as one person with a physical disability (see section 2.5). The participation of national staff and affiliated volunteers as trainers in both experiments enabled the experiments to be conducted in consideration of social and cultural differences. As part of the trainings, trainers were instructed to acknowledge and address any disadvantages that the trainees could face.

2.5 Selection of participants

The selection of participants at tier 1 of EXPE 32.1 and tier 2 EXPE 32.2 was led by the MDA and BRC respectively. In the subsequent tiers of both experiments, the trained participants led the selection of participants with logistical and institutional support from the MDA and BRC partners. During their respective trainings, EXPE 32.1 and EXPE 32.2 participants were instructed on the process and criteria for selecting future participants. The running of the experiments was announced in both institutions for the recruitment of participants, and in EXPE 32.2 tier 3, participants were recruited from the trainer's BRC local branch as well as their local community (university students, community groups, neighbours, etc.). Accordingly, the selection of tier 1 participants in the case of EXPE 32.1 and tier 2 participants in the case of EXPE 32.2 took place between Nov 2014 - Feb 2015 (Step 2 of Table 2.1) and the selection of participants at the subsequent tiers took place during the running of the experiment between May 2015 and February 2016 (Step 4 of Table 2.1).

The criteria of all participants were outlined during Step 2 of the planning process and are presented in detail in Annex VII and Annex VIII. As part of the recruitment process, all interested candidates were informed of their expectations to respond to questionnaires, tests and participate in focus group discussions. Further details on the ethical considerations of the experiment are presented in section 2.6.

Selection of participants in EXPE 32.1 was done using purposeful sampling to ensure a variety of different groups represented in the training. The objective in using this non-probability sampling technique was to include Arab and Christian Israelis both at tiers 2 and 3 of the experiment. Due to the sensitive nature of religion in Israel, in some areas it was not possible to include participants from different religious groups in the same training.

At tier 2 of EXPE 32.2, participants were purposefully sampled in order to ensure that a variety of different groups were represented in the training and in order to obtain a wider reach across Northern Scotland and its population at tier 3. This includes people from different areas of Scotland (the highlands and islands as well as urban areas), different age-groups (ranging from 18-60 years of age) and persons with different abilities.

2.6 Ethical considerations

The ethical considerations – including data protection issues – and the General Recommendations for Ethical Research outlined in D91.3 were considered as part of the design and implementation of EXPE 32.1 and EXPE 32.2 [47]. The points below outline the measures taken in this regard:

- 1. All participants were informed about the project prior to attending the experiment. Before signing the informed consent sheets participants were given information about the experiments and their purpose. They were encouraged to ask questions and were informed about the possibility of leaving the experiment at any point. Written informed consent was obtained on the day of the experiment and it was reconfirmed verbally at the end of the experiment. The experiments did not require ethical approval under the Danish regional ethics board system or the Danish Data Protection Authority¹⁰. The informed consent sheet used in both experiments can be found in Annex II.
- 2. In order to respect participants' confidentiality, no personal data was requested from participants. In addition, any information voluntarily provided in questionnaires or during the focus group discussion which could identify the participant him/herself or others was excluded from the quotes presented in the results section.
- 3. The data provided by the participants was handled with equal care by all the researchers involved in the experiments. When data was sent to the translators or to the other researchers, documents were password protected. The hard copies were kept locked.

2.7 Evaluation approach

The overall evaluation framework of the two experiments presented in this deliverable builds on Donald Kirkpatrick's learning and training evaluation theory, which is also included in the applied competence management framework [17][41][42]. Kirkpatrick's evaluation theory is a model for assessing the effectiveness of trainings, which according to Kirkpatrick can be measured at four levels: reaction, learning, behaviour and results. According to Kirkpatrick, evaluation becomes more rigorous and challenging as one goes from assessing the first level towards the fourth level of training evaluation but often, only levels 1 and 2 are included in training evaluations [41].

- Level 1 the evaluation of reaction measures the trainees' reactions to the topic, material, presentation of the training and to the training overall. This level is based on the premise that to gain the most from the training, participants must like the training program and the way it is presented [41]. As Kirkpatrick noted, a combination of two means of verification at this level, for example in the form of comment sheets or observation, offers more elaborate feedback than one form of evaluation [42].
- Level 2 the evaluation of learning aims to objectively determine whether trainees have acquired the knowledge and skills specified in the trainings' learning objectives as well as confidence to apply this knowledge [41]. Even if the training is successful in terms of acceptance and participants react positively at level 1, there is no guarantee that learning has taken place. At this level, Kirkpatrick recommends the use of pre and post-tests when possible and emphasised on the

¹⁰ This is confirmed in writing from the National Board of Ethics Research in Denmark and the Danish Data Protection Agency.

importance of designing tests that cover all the material discussed in the training or the value of the evaluation will be compromised [41].

- Level 3 the evaluation of behaviour looks at the extent of which the behaviour of the trainees changes as a result of the training. While teaching focuses on knowledge acquisition, in trainings participants' learn and practice skills and involves changing of attitudes and applying new skills and behaviour at the work place. Kirkpatrick recommends evaluating the new trainees three or more months after their participation in the training and using a control group when possible [41].
- Level 4 evaluation of results measures the large scale impact of the training for the organisation such as improved quality of services or in the case of for-profit organisations, this could be results as an increase in sales or revenue [41].

In the two experiments, evaluations were conducted at levels 1-3 (reaction, learning and behaviour). Learning was not measured at tier 3 of the two experiments because the purpose of tier 3 sessions was to measure tier 2 participants' ability to implement trainings/sessions based on the knowledge they had acquired at tier 2 (see section 2.3). Level 4 evaluation was not included in the experiments because a higher number of sessions conducted over a longer period of time would have been needed in order to observe a real change in the quality of services based on EXPE 32.1 tier 3 sessions or a significant impact on the psychosocial wellbeing for participants in EXPE 32.2 tier 3 sessions. The detailed use of Kirkpatrick's four levels in the two experiments is presented in section 2.9.

The experiments were not designed to measure the psychosocial training solutions' impact on psychosocial wellbeing or resilience of the general public (see section 1). However, an assessment of the Hobfoll principles of post-disaster psychosocial care was included in tier 3 of EXPE 32.2 in order to get an indication of the tier 3 sessions' capacity to promote psychosocial wellbeing in a disaster setting [3]. After the sessions, the participants' sense of safety, calm, sense of self- and community efficacy, and connectedness was assessed. The principle of hope was not included in the assessment because it was not expected that sessions conducted in non-disaster settings would promote a sense of hope in participants. The words sense of safety, calming, self and community efficacy and social connectedness were not mentioned in the training or presented in the questionnaires and participants were not aware that this was being monitored. The data collection methods and tools are presented in further detail in the following section.

2.8 Data collection methods and tools

The data collection methods used in the two experiments included a combination of qualitative (observations, semi-structured interviews and focus group discussions) and quantitative (questionnaires) methods. Two types of questionnaires are used in the experiments: reactionnaires and pre-post-tests. Reactionnaires are used to measure reactions to trainings through a combination of open-ended and closed questions, and pre-post-test are used to measure learning. The reactionnaires use different types of questions, including yes/no questions, open-ended questions and four-point likert scale statements to measure the extent of agreement with particular statements (strongly agree, agree, disagree, strongly disagree). An overview of data collection methods for EXPE 32.1 and EXPE 32.2 are presented in Table 2.2 and Table 2.3 respectively and the process of developing the data collections tools is described below. Furthermore, a more detailed overview of data collection tools and methods used in EXPE 32.1 and EXPE 32.2 can be found in Annex V and Annex VI. 11

¹¹ The data collection tools are not annexed to this deliverable as this would take up a lot of space, but can be shared upon request.

Table 2.2: EXPE 32.1 Data collection tools

	Data collection	Description
Tier 1	Reactionnaire after the training, measuring participants' satisfaction with the training	Composed of 21 Likert scale statements, three open-ended questions and one yes/no question
	Post measurement of the knowledge about psychosocial support of participants ¹²	Composed of 24 yes/no statements and one open-ended question. Example of yes/no statement: "When coping with extreme stress, trying to forget about what happened is necessary for coping"
	Focus group discussion with participants providing qualitative information	Composed of 23 questions in 7 themes. The questions were designed to elicit information about the Kirkpatrick levels as well as specific themes and learning objectives from the training
	Follow-up questionnaire 6 months after the training to see if participants have implemented their knowledge and skills	Composed of two yes/no questions with optional open-ended responses and four Likert scale statements.
Tier 2	Reactionnaire after the training, measuring participants' satisfaction with the training	Composed of 17 Likert scale statements, three open-ended questions and one yes/no question
	Pre and post-test measuring the knowledge about psychosocial support of participants	Composed of 19 yes/no statements, which were the same as in the tier 1 pre and post-test. Example: "Most people affected will recover from distress on their own using their own supports and resources"
	Focus group discussion providing qualitative information	Composed of 15 questions in 6 themes. The questions were designed to elicit information about the Kirkpatrick levels as well as specific themes and learning objectives from the training
	Semi-structured interview with trainer after the session	Composed of 11 questions in 5 themes. The questions were designed to elicit information about the Kirkpatrick levels as well as specific themes and learning objectives from the training
Tier 3	Reactionnaire after the training, measuring participants' satisfaction with the training	Composed of two demographic profile questions (age and gender), 4 Likert scale statements and 3 open-ended questions

¹² The reason for not conducting a pre-test of knowledge at this tier was that as part of the criteria to participate in the training participants were expected to have experience and knowledge on psychosocial support.

Table 2.3: EXPE 32.2 Data collection tools

	Data collection	Description
Tier 2	Reactionnaire after the training, measuring participants' satisfaction with the training	Composed of 26 Likert scale statements, three open-ended questions and one yes/no question
	Pre and post-test measuring the knowledge about psychosoical support and physical activities of participants	Composed of 7 short answer questions and 10 true/false statements. Example of short answer questions: "List two examples of psychological benefits of sports and physical activity"
		Composed of 25 questions distributed into 6 sections
	Focus group discussion providing qualitative information	
Tier 3	Reactionnaire after the session, measuring participants' satisfaction with the training	Composed of two demographic profile questions (age and gender), 6 Likert scale statements to measure the Hobfoll principles of safety, calming, self and community efficacy and social connectedness and one open-ended question.
	Observation of tier 3 session on how the sessions were conducted	Composed of a box for general observations and a checklist with 10 questions with the option to include comments for each question. The questions were designed to elicit observations about the Kirkpatrick levels as well as specific themes and learning objectives from the training
	Semi-structured interview with trainer after the session on their impressions of the session	Composed of 11 questions in 5 themes. The questions were designed to elicit information about the Kirkpatrick levels as well as the experience of applying knowledge acquired at tier 2.
		Composed of 9 questions in 4 themes. The questions were designed to elicit information about the five Hobfoll principles.
	Focus group discussion providing qualitative information on the participant's impressions of the session	

The data collection tools were developed specifically for each of the two experiments but using the same basis and approach. The process of developing the data collection tools was done in the following way: for each of tier of evaluation, the specific test goal, Kirkpatrick evaluation level and data collection methodology were defined before the specific data collection tools were developed (see Annex V and Annex VI). The data collection tools used for *observations, semi-structured interviews and focus group discussions* were developed in order to elicit information about the Kirkpatrick levels as well as specific themes and learning objectives from each of the trainings. The data collection tools for observation

data included a scoring card, which allowed the observer to rate the facilitator after the session according to a number of set criteria.

Reactionnaires were developed based on recommendations from Kirkpatrick and existing reactionnaires used by BRC and DRC to evaluate trainings. The *pre-post tests* were developed using the following approach: the knowledge and skills that participants should acquire after participating in the trainings were defined in the learning objectives, which were used to develop a skills framework for each of the two trainings. The skills framework was developed using Blooms taxonomy [48] and with the support from former SP20. The specific data collection tools were developed based on the recommendations for Kirkpatrick's evaluations of trainings and using or adapting existing items from data collection tools used by the IFRC Reference Centre for Psychosocial Support, the World Health Organization and the International Medical Corps [49][50]. The data collection tools were piloted with members of staff of the former WP320 partners who were not involved in EXPE 32.1 or EXPE 32.2 to ensure clarity of questions and understanding.

There are three main differences between data collection in the two experiments: Firstly, as previously described, more qualitative data was collected in EXPE 32.2 than in 32.1, and observation was not used as a method in EXPE 32.1. As described in section 2.4, the advice from the MDA partners was that this method would lead to feelings of unease among the participants. Secondly, EXPE 32.1 Tier 2 and Tier 3 were conducted in Israel and therefore, all data collection tools were translated to Hebrew using a combination of professional and in-house translators in order to reduce costs. Translations were checked by MDA staff for consistency. Qualitative data received from Israel were also translated into English. Translation was not needed for data collected from EXPE 32.2. Thirdly, and related to the issue of translation costs, the pre and post tests used in EXPE 32.2 included more open-ended questions than those in EXPE 32.1, which mainly included closed questions (yes/no). The open-ended questions were included in EXPE 32.2 as Kirkpatrick recommends using a combination of open-ended and closed questions [41]. However, as EXPE 32.1 had to be translated into English, the process of rating answers to open-ended questions would have been even more time consuming and costly, which is why the tests used consisted predominantly of yes/no statements.

2.9 Data processing and analysis plan

Data was analysed in line with the analysis strategy, which was designed to respond to the two specific research questions outlined in section 2.2. The research questions were answered using Kirkpatrick's concept of learning (level 2) and behaviour (level 3) evaluation. In the Kirkpatrick model, confidence is part of the definition of the learning (level 2) as it is a key factor enabling transfer of knowledge. Accordingly, in EXPE 32.1 and EXPE 32.2, level 2 is referred to as learning and confidence [29][41]. Furthermore, Kirkpatrick's concept of reaction (level 1) was included at all tiers because this is an enabling factor for learning [29][41]. The analysis strategy is outlined in Table 2.4.

Table 2.4: Analysis Strategy

	Specific research question 1 (EXPE 32.1)	Specific research question 2 (EXPE 32.2)
Research question	Is the cascading model an effective method for transferring knowledge and skills related to community-based psychosocial support through three tiers of volunteers in crisis management organisations?	Is the cascading model an effective method for transferring knowledge and skills related to sports and psychosocial support through two tiers volunteers in crisis management organisations?
Tier 1 analysis strategy	The tier 1 training's capacity to foster learning of psychosocial knowledge and skills and confidence in own knowledge and skills among participants	n/a
Tier 2 analysis strategy	Tier 1 participants' ability to change behaviour and implement what they have learned at tier 1 in tier 2 trainings The tier 2 training's capacity to foster learning of psychosocial knowledge and skills and confidence in own knowledge and skills among participants.	Tier 2 training's capacity to facilitate learning of psychosocial knowledge and skills and confidence in own knowledge and skills among participants.
Tier 3 analysis strategy	Tier 2 participants' ability to change behaviour and implement what they have learned at tier 2 in tier 3 trainings and deliver trainings on Psychological First Aid The tier 3 trainings' capacity to promote awareness of and confidence in delivering Psychological First Aid	Tier 2 participants' ability to change behaviour and implement what they learned at tier 2 in tier 3 sessions and to facilitate sessions on sports and psychosocial support. Tier 3 session's capacity to promote the five Hobfoll principles.

Quantitative data was collected using hard copies. Personal data collected included age and gender and no sensitive personal data were collected. Transfer of data from Israel and the United Kingdom respectively to Denmark was done by physically transporting the hard copy questionnaires and also safely sending scanned and password protected copies via email. Files were safely stored at the drive of the Danish Red Cross and hard copies were kept under lock. Access to the electronic folder and to the locked copies is restricted to the employees of the project team. All data entry and analysis was done using Excel, and descriptive data analyses are presented in the results section.

Qualitative data was collected using the tools outlined in section 2.8. Hand-written notes and recordings were taken during focus group discussions and observations and they were typed up after the sessions. The same principles for data storage were used for the qualitative data as described above. An integrated approach was used when coding responses to the open-ended statements, group discussions, semi-structured interviews and notes from the observers. In other words, the starting point was a list of codes which was defined for each of the two experiments. These codes were selected based on the operationalisation of the research question and the analysis strategy for each tier as described above. For example, when analysing qualitative data collected at tier 2 of EXPE 32.1, statements were coded using the codes "learning" and "confidence". In addition to coding into selected codes that were useful in responding the research questions, the coding process was attentive of new codes that emerged from the data. Details on the codes used in the analysis of qualitative data will be presented alongside the results in sections 3 and 4.

3. EXPE 32.1 RESULTS

This section outlines the results from EXPE 32.1. As presented in section 2.2, EXPE 32.1 addresses the following research question:

Is the cascading model an effective method for transferring knowledge and skills related to community-based psychosocial support through three tiers of volunteers in crisis management organisations?

In order to answer this research question, EXPE 32.1 consists of a cascade of training in three tiers. To reiterate the design of the experiment, in the first tier, participants were trained as new trainers on CBPSS. In the second tier, the new trainers delivered a basic training to staff and affiliated volunteers from MDA on CBPSS. In the third tier, tier 2 participants trained volunteers from MDA on how to deliver PFA in the event of an emergency (see Annex III and Annex VI). In the third tier of the cascading model, participants usually deliver services to beneficiaries, which in this case would be PFA to individuals affected by crises [20]. However, there are different ethical principles conflicting with research on the aftermath of a crisis [43]. Accordingly, in EXPE 32.1, the cascading model was adapted and tier 3 participants were volunteers who receive training in how to deliver PFA in the event of an emergency.

The tiers were tested through the use of the Kirkpatrick model of training evaluation [41]. The results from each of the three tiers are presented in this section according to the levels from Kirkpatrick's model: reaction (level 1), learning and confidence (level 2) and behaviour (level 3). The section concludes with a summary and lists a set of recommendation for CM organisation interested in conducting the training in the CBPSS training solution with the cascading model of training.

3.1 Tier 1: Training of new trainers in CBPSS

In the first tier of training of new trainers, a total of 15 participants were trained. The learning objectives are as follows:

- Participants become familiar with psychological and social reactions, needs and interventions, respecting relevant and appropriate cultural frameworks.
- Participants are able to plan and deliver training session on CBPSS.
- Participants are able to plan a variety of psychosocial interventions that are sensitive to local circumstances.
- Participants are able to adapt materials to the local context.

The following sections outline the results for tier 1 which are divided into the three levels of the Kirkpatrick model:

- Reaction: how did trainees react to the training?
- **Learning and confidence**: did trainees acquire the intended knowledge and skills?Behaviour: were trainees able to implement what they had learned?

3.1.1 Reaction: how did trainees react to the training?

Reaction measures how the training in general was perceived by the participants. At tier 1, most responses from both the reactionnaires and focus groups discussion indicated positive reactions to the training: "It's a very important training course, everyone should have it" (Participant, tier 1). In the reactionnaire and during the focus group discussion, participants described the aspects that could be improved about the training. Feedback focused on the importance of increasing training time while making more emphasis on developing methodologies of training, helping participants to adapt the training to local contexts and emphasising on how to support volunteers and creating systems for peersupport. Two participants pointed out the importance of giving "more examples and clarifying about

the real meaning of coping, adjusting, dissociation, grief, bedevilment, mourning" (Participant, tier 1). While another participant expressed concern on the necessity of receiving "proper feedback and follow up after training to ensure roll-out or integration at NS [National Society] level" (Participant, tier 1). Participants explained that group dynamics contributed to their satisfaction with the training: "The group was diverse [which made] me learn more from the experiences" (Participant, tier 1).

As presented in Figure 3.1, the large majority of participants (94%) agreed or strongly agreed with having enjoyed the training.

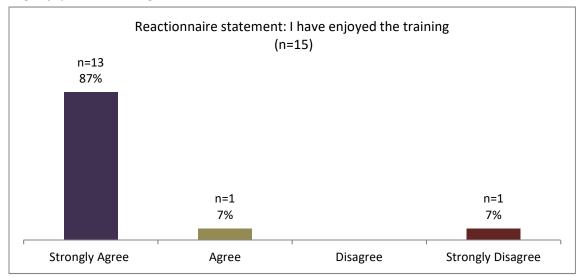


Figure 3.1: EXPE 32.1 Participants' reaction measured at tier 1

3.1.2 Learning and confidence: did trainees acquire the intended knowledge and skills?

Learning and confidence were identified as key indicators of effectiveness. As shown in Figure 3.2 when asked to assess their learning through the statement: "I have gained a better understanding of CBPSS", the large majority of participants (14 out of 15 participants) agreed or strongly agreed with having gained a better of understanding of CBPSS after the training.

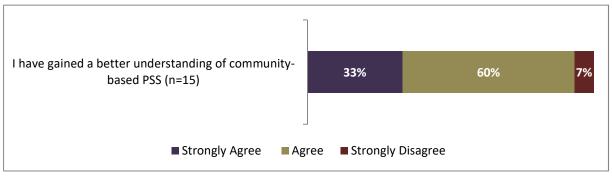


Figure 3.2: EXPE32.1 Participants' self-assessment of learning at tier 1

Moreover, Table 3.1 shows a high average score (85%) from the test administered at the end of the training. The high average score substantiates participants' positive self-evaluation of their own knowledge and validates tier 1 participants' understanding of CBPSS. However, it is important to note that the high scores of tier 1 participants are also determined by participants' experience in psychosocial support. As presented in Annex VII, in order to take part in the tier 1 training, participants

had to have an educational background in social work, psychology, psychiatry, mental or public health or to have completed a basic training on the CBPSS toolkit and read the manuals before the training.

Indicators	Tier 1 Post-test ¹³ score (% correct)
Average score	20.5 (85%)
Minimum score	16 (67%)
Maximum score	24 (100%)

As a key learning objective of the training, participants were expected to be able to plan and deliver training session on CBPSS. As we saw in the reactionnaires, and as it is shown in Figure 3.3, 94% of participants strongly agreed or agreed that their facilitation skills had improved after the training.

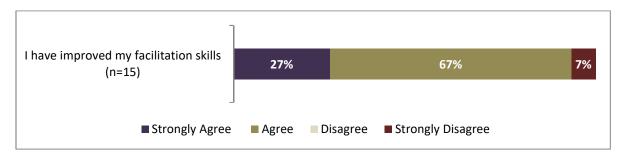


Figure 3.3: EXPE 32.1 Participant's facilitation skills at tier 1

Finally, as illustrated in Figure 3.4, participants at tier 1 generally felt confident to deliver trainings for volunteers at the next tier. Only 7% strongly disagreed with the statement of feeling comfortable to use the acquired skills and knowledge to facilitate trainings in CBPSS.

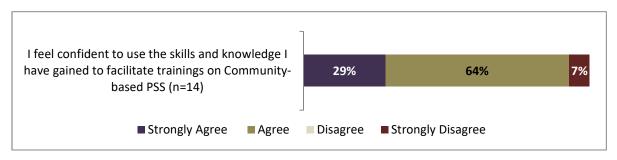


Figure 3.4: EXPE 32.1 Participant's confidence measured at tier 1

¹³ As explained in section 2.9, the reason for not conducting pre-test of knowledge at this tier was that one of the criteria to participate was to have prior experience and knowledge on psychosocial support.

3.1.3 Behaviour: were trainees able to implement what they had learned?

Behaviour is understood as the ability of participant to implement the acquired knowledge to their activities and their ability to implement the new knowledge and skills in the following tier [42].

Tier 2 participants' evaluations of the facilitators (tier 1 participants) indicate that their facilitation skills were satisfactory. Figure 3.5 presents how only 4 or 12.5% out of 32 respondents disagreed with the statement: The facilitator explained exercises and topics appropriately and answered questions in a useful manner.

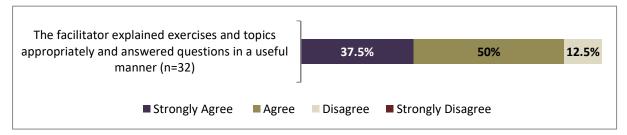


Figure 3.5: EXPE 32.1 Behaviour measured at tier 2

At tier 2, one participant indicated that the facilitators were not sufficiently prepared to conduct the training, however, with the data collected it is not possible to discern why this is the case. Nevertheless, tier 2 trainers themselves expressed being able to encourage participants to engage in group discussions and activities. The new trainers reported using the methodology they learned at tier 1, with one trainer expressing having "worked strictly according to the trainer's manual" (Trainer, tier 2). Another trainer stated that the handbook contributed to this and helped him/her in conducting the training. Finally, during a semi-structured interview, one of the trainers reported having difficulties adapting the participatory activities to the context, as participants were more accustomed to a lecture-based approach to training.

In summary, participants in tier 1 were satisfied with the training and responses to learning and confidence were positive. Results from the post-test administered at the end of the tier 1 training indicated that participants were, as expected, knowledgeable about psychosocial support and that their facilitation skills improved as a result of the training. Almost all participants agreed with having gained a better understanding of CBPSS after the training. The general feedback on the trainers' behaviour at tier 2 was positive.

3.2 Tier 2: Basic training in CBPSS

In the second tier of training, new trainers conducted a basic training which they learned to plan and conduct at tier 1. A total of 35 MDA staff and affiliated volunteers participated in the training at tier 2 and the learning outcomes for these participants were:

- Participants become familiar with psychological and social reactions, needs and interventions, respecting relevant and appropriate cultural frameworks
- Participants are able to plan a variety of psychosocial interventions sensitive to local circumstances
- Participants are able to train other volunteers on how to deliver PFA

The following sections outline the results for tier 2 which are divided into the three levels of the Kirkpatrick model:

- Reaction: how did trainees react to the training?
- Learning and confidence: did trainees acquire the intended knowledge and skills?
- **Behaviour**: were trainees able to implement what they had learned?

3.2.1 Reaction: how did trainees react to the training?

Similar to the responses at tier 1, the data on reaction revealed that the training was received positively by the participants: "A lot of information was explained to me and we were introduced to new and interesting [things]. The course was fascinating" (Participant, tier 2). However, in the same way as tier 1 participants, tier 2 respondents expressed concern with time management. As suggested, "The schedule was crowded, material is new to me and I need some more time" (Participant, tier 2).

In both the questionnaires and focus group discussion at tier 2, participants expressed preferring a lecture-based approach to training to the highly interactive approach that was used throughout the training which, according to their responses, conflicted with the training method MDA volunteers were familiar with. However, not all participants agreed with this statement and others thought interaction was a key advantage of the training. As pointed out by one of the participants in the reactionnaire: "In my opinion the social side of the training is very important and it enables better learning" (Participant, tier 2).

Diversity in terms of religious, cultural and professional background was important to participants: "Diversity in the participants was great! Religious Jews, Muslim and Christian Arabs, women; with diversified professional background as well, EMT's [Emergency Management Teams], paramedics, dispatchers, staff and volunteers — was very happy to be in such group of people" (Participant, tier 2) and "Diversity in the course was important and it was great to meet people from different layers and communities" (Participant, tier 2).

As presented in Figure 3.6, the large majority (97%) of participants strongly agreed or agreed on having enjoyed the training.

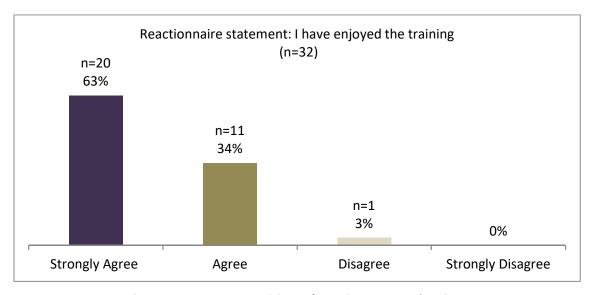


Figure 3.6: EXPE 32.1 Participants' reaction measured at tier 2

3.2.2 Learning and confidence: did trainees acquire the intended knowledge and skills?

As presented in Figure 3.7, when asked to assess their learning through the statement: "I have gained a better understanding of CBPSS", 79% or 27 out of 34 respondents agreed or strongly agreed with the statement. Although this represents the majority of participants, 21% or 7 out of 34 respondents at this tier disagreed or strongly disagreed with the statement, which is higher than in comparison to 1 in the case of tier 1. Although there was no feedback on the reasons for disagreement, it can be assumed that some participants were already experienced on the topic and more overqualified: "I have some background in the topic but it was enriching and I had fun. Very important thing we should give focus is how to behave (and especially how NOT to behave) in different communities for example with loss and grief" (Participant, tier 2).

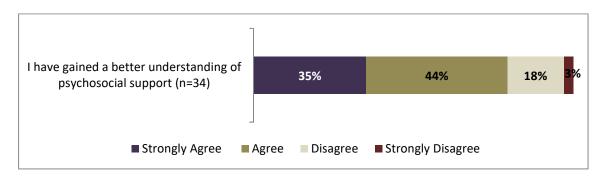


Figure 3.7: EXPE 32.1 Participants' self-assessment of learning at tier 2

In addition to measuring learning through participants' own assessment of the knowledge gained, learning was also measured more objectively through a pre- and post-test, which gathered data about their knowledge on psychosocial support. As shown in Table 3.2, a comparison of the pre and the post-test indicates a 9% increase in the average score of participants. More interestingly, the minimum score increased by 71% while the maximum score only increased with 5.5% which suggests that while the knowledge of those who were already familiar with psychosocial support at the beginning did not increase substantially, those who were not as knowledgeable had a higher increase in knowledge. The high average score attained before the training also indicates that some participants on the training were already knowledgeable about CBPSS.

Indicators	Pre-test score (% correct)	Post-test score (% correct)	% Change (Pre and post-test at tier 2)
			at tier 2)
Average score	14.2 (75%)	15.5 (82%)	9%
Minimum score	7 (36%)	12 (63%)	71%
Maximum score	18 (95%)	19 (100%)	5.5%

Table 3.2: EXPE 32.1 Summary results of pre and post-tests scores at tier 2

An additional comparison of post-test results at tier 1 and tier 2 (see Table 3.3), shows that the two groups of participants had a similar average as well as minimum and maximum scores indicating an effective transfer of knowledge from tier 1 to tier 2.

Indicators	Tier 1	Tier 2
	Post-test ¹⁴ score (% correct)	Post-test score (% correct)
Average score	20.5 (85.4%)	15.5 (82%)
Minimum score	16 (67%)	12 (63%)
Maximum score	24 (100%)	19 (100%)

Table 3.3 EXPE 32.1 Summary results of post-tests scores at Tier 1 and 2

Error! Reference source not found. displays a comparison of the distributions of tier 1 and tier 2 results in detail. The box plot builds on the results presented in Table 3.3 and shows the similar distribution of the two sets of data. This again indicates an effective transfer of knowledge from tier 1 to tier 2.

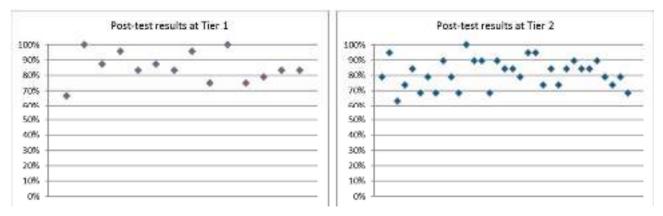


Figure 3.8: Summary results from EXPE 32.1 of post-test scores at tier 1 and 2

Finally, an analysis of the reactionnaires' statement related to confidence showed that with the exception of two respondents, all participants at tier 2 felt confident to facilitate PFA trainings at tier 3, as presented in Figure 3.9. Tier 2 responses to the confidence statement are similar to those of tier 1 which also indicates that learning and confidence was effectively transferred from tier 1 to tier 2.

¹⁴ The maximum attainable scores in the tier 1 and tier 2 post-tests are different as tier 1 participants were tested in additional skills and knowledge than tier 2 participants.

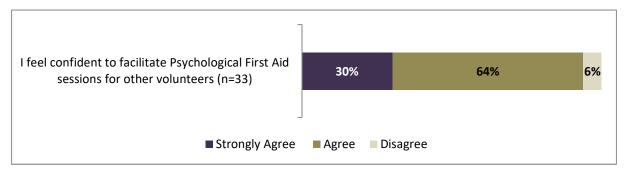


Figure 3.9: EXPE 32.1 Participant's confidence measured at tier 2

3.2.3 Behaviour: were trainees able to implement what they had learned?

Assessing the capacity of facilitators to implement what they learned during their training was important in order to evaluate the transfer of information and the effectiveness of the cascading model. Tier 2 participants' performance was measured at tier 3 through the feedback of tier 3 participants on the behaviour of them as facilitators¹⁵. All feedback from tier 3 participants on their facilitators (tier 2 participants) was positive, which substantiates the adequate implementation of the PFA trainings at tier 3. Some of the responses with regards to the facilitator were:

"The tutor was great, 10/10, we received a lot of information from him" (Participant, tier 3)

"The tutor delivered the material in an interesting and organised manner" (Participant, tier 3)

In summary, the results presented in the previous three sections indicate an effective transfer of knowledge from tier 1 to tier 2. Tier 2 participants reported diversity and social interaction as two key advantages of the training. However, they also commented that the management of time and information could have improved as they received a lot of new material in a short period of time. The results indicate that most participants were experienced with the topic and those who were not, increased their knowledge considerably, Participants found the training to be important and enriching. Finally, participants endorsed the behaviour of their facilitators.

3.3 Tier 3: Training in Psychological First Aid

In the third tier of training, tier 2 participants taught tier 3 participants to deliver PFA to individuals affected by a crisis. Their learning objectives are as follows:

- Participants learn to give basic psychological first aid and further support to people in crisis situations
- Participants practice supportive communication
- Participants are able to give telephone support
- Participants learn the principles and the benefits of support groups

[&]quot;Professional tutor, very important" (Participant, tier 3).

¹⁵ Observation was not included as a methodology of EXPE 32.1 as section 2.4 explains.

The following sections outline the results for tier 3 corresponding to two levels of the Kirkpatrick model:

- Reaction: how did trainees react to the training?
- Learning and confidence: did trainees acquire the intended knowledge and skills?

Although a total of 121 trainees participated and gave informed consent to take part in EXPE 32.1 at tier 3. Thirty-six participants did not answer the reactionnaires. No particular reasons were given for this high drop-out rate but it was emphasised during the informed consent session that participation in data collection was voluntary.

3.3.1 Reaction: how did trainees react to the training?

Reaction to the training at tier 3 was positive: "The workshop today was very interesting, refreshing, and intriguing" (Participant, tier 3). Participants were interested in integrating the training on their daily activities as crises responders: "Teach the basics of the course also in the paramedics' course" (Participant, tier 3). A second participant suggested "to hold similar meetings to this, as part of the initial training course, as well as holding support meetings for paramedics, after they've experienced difficult incidents, such as: terrorist attacks all the way to routine accidents, supporting the way in which to deal with the injured and also supporting the way in which they individually cope with situations" (Participant, tier 3). This indicates that there is basis for a wider use of the PFA training and as it relates to their individual roles in MDA beyond providing physical first aid and emergency medical support. In addition, it reveals that a value added of the trainings is an increase in connectedness and experience sharing within volunteers.

Moreover, as presented in Figure 3.10, the large majority of participants agreed or strongly agreed (99 %) on having enjoyed the training.

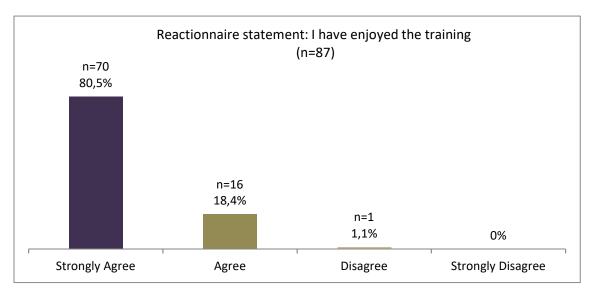


Figure 3.10: EXPE 32.1 Participants' reaction measured at tier 3

When asked in the reactionnaire "What can be improved next time?" a key concern for participants at tier 3 was the continuity of the course and whether there would be similar opportunities in the future, which illustrated the interest and positive response to the training:

"For there to be continuity for the course and that we could continue to train and provide a response to specific cases" (Participant, tier 3).

"Add similar meetings and allow us to share cases we encountered, to understand if we acted correctly and how we can improve" (Participant, tier 3).

"Do the workshop every so often - very helpful" (Participant, tier 3).

The previous comments suggest that follow up workshops for addressing the concerns of participants after delivering PFA in the aftermath of an emergency would contribute to the confidence of participants. Participants also suggested having the facilitator or other volunteers present their experiences with PFA, how they offered it and how it could have improved. It was also suggested to invite a psychologist or social worker to the session which suggests the guidance of para-professionals on this field is not fully accepted.

3.3.2 Learning and confidence: did trainees acquire the intended knowledge and skills?

The main focus of measurement at tier 3 was the ability of tier 2 participants to implement PFA sessions based on the knowledge acquired at tier 2. This means that pre and post tests were not included at this tier. This section therefore presents tier 3 participants' self-assessment of their learning and confidence. At tier 3, the large majority of respondents reported understanding the core principles of the session. As presented in Table 3.4, a higher extent of disagreement was observed in tier 2 responses than at tier 1. Finally, there was higher agreement with the learning statement at tier 3 when compared to responses from tiers 1 and 2 participants¹⁶.

Extent of Tier 1 Tier 2 Tier 3 agreement "I have gained a better "I have gained a better "I understand the understanding of understanding of CBPSS" principles of active CBPSS" listening and n=34 supportive n=15 score (% correct) communication" score (% correct) n=86 score (% correct) Strongly agree 5 (33%) 12 (35%) 69 (80.2%) 9 (60%) 15 (44%) 16 (18.6%) Agree Disagree 6 (18%) 1 (1.2%) Strongly disagree 1 (7%) 1 (3%)

Table 3.4: EXPE 32.1 Participants' self-assessment of learning at tiers 1, 2, and 3

At tier 3, learning was also measured by asking the open-ended question: "What did you learn from the training today?" in the reactionnaire. Sixty-two responses were classified as indicating learning and understanding of the topic and only three showed a lack of understanding. Some of the responses are listed below:

"We learned how to deal with pressure. How to support others who find themselves in emotionally stressful situations. How to give them tools to cope with the crises they encounter. We learned how to be in physical, verbal, emotional contact with the patient. We learned how not to internalise the

¹⁶ The questions are phrased differently because at tier 1 and 2, participants were trained in the CBPSS toolkit and at tier 3; participants only received training in PFA. Active listening and supportive communication are two core principles of PFA.

crisis and we enhanced our awareness of emotional support and its importance for the patient who is facing a disaster, loss of a loved one" (Participant, tier 3)

"How to provide emotional first aid in a disaster/war situation. How to focus on the problem to be treated and physical [illegible]. We learned how to listen to a person in a disaster. How to deal with people who need emotional support. We learned how to help others without taking the crisis onto ourselves by giving them the tools to cope" (Participant, tier 3).

"I learned how to deal with certain cases, such as people in mourning. I learned a lot of things that can help me in the future in Magen David Adom and in general" (Participant, tier 3)

As presented in sections 3.1.2 and 3.1.3, results indicate that participants at tiers 1 and 2 felt confident to deliver trainings in CBPSS and deliver PFA respectively. As illustrated in Figure 3.11, across all tiers more than 92% of participants agreed or strongly agreed with the statements indicating confidence¹⁷. It is interesting to highlight the results of tier 3 responses, where 59% of participants strongly agreed with feeling confident to deliver PFA in the event of an emergency.



Figure 3.11: EXPE 32.1 Participant's confidence measured at tiers 1, 2 and 3

Furthermore, at tier 3, when asked "What did you learn from the workshop today?, two participants expressed: "[The training] made me confident and confirmed that what I do on a daily basis in terms

¹⁷ The questions are phrased differently because tier 1 participants were asked to deliver trainings in the entire CBPSS toolkit, tier 2 participants were asked to deliver PFA sessions and tier 3 were trained to deliver PFA in the event of an emergency.

of first aid is in fact also emotional first aid and it makes me happy that I am on the right path" (Participant, tier 3) and "how to be professional [in] extraordinary and ordinary situations" (Participant, tier 3).

In summary, the reactions of tier 3 participants to the PFA trainings indicated an overall acceptance of the training and interest in including it in the MDA training curriculum for paramedics. Tier 3 participants also expressed an interest on having refresher trainings in the future in order to learn from colleagues and analyse their own experiences. Responses to statements on learning and confidence showed a wide agreement, which indicates an effective transfer of knowledge through the cascade of training.

3.4 Summary and recommendations

In summary, participants at tier 1 were satisfied with the training and responses to learning and confidence were positive. Results from the post-test administered at the end of the tier 1 training indicated that the large majority of participants were knowledgeable about psychosocial support and feedback on the trainers' behaviour at tier 2 was positive. It is important to note that one of the requirements for participation in tier 1, as presented in Annex VII, was to have completed a basic training in the CBPSS toolkit. Accordingly, test results on knowledge of CBPSS were expected to be high before the training. Nevertheless, in the reactionnaire almost all participants agreed with having gained a better understanding of CBPSS after the training.

The results presented in the previous three sections indicate an effective transfer of knowledge from tier 1 to tier 2. Tier 2 participants reported diversity and social interaction as two key advantages of the training. However, they also commented that the management of time and information could have improved as they received a lot of new material in a short period of time. The results indicate that participants found the training to be important and enriching, including those who were experienced on the topic and those who were less experienced prior to the training. Finally, most participants endorsed the behaviour of their facilitators.

Feedback from tier 3 participants indicated an overall acceptance of the training and interest in including on the MDA training curriculum for paramedics. Participants at tier 3 expressed an interest on having refresher trainings in the future in order to learn from colleagues and analyse their own experiences.

In addition to the positive feedback and results, the experiment led to the following input and findings on improvement for future implementations of the trainings and the cascading model.

- A suggestion for addressing the time management concern is to extend the training and have
 the possibility of emphasising certain topics of interest such as advice on the participants'
 facilitation skills as well as suggestions on how to adapt the trainings to the participant's
 contexts. More time would also allow the trainer to emphasise on the concepts of coping,
 adjusting, dissociation, grief, bedevilment and mourning.
- As requested by tier 3 participants, follow up workshops to discuss their use of PFA after an emergency could contribute to their confidence and improve PFA services.
- Diversity in terms of cultural background as well as professional background contributes to the effectiveness of the training
- Emphasise on the importance of communicating with trainer and seeking technical support in the planning of future trainings or sessions

4. EXPE 32.2 RESULTS

This section outlines the results for EXPE 32.2. As presented in section 2.2, EXPE 32.2 addresses the following research question:

Is the cascading model an effective method for transferring knowledge and skills related to sports and psychosocial support through two tiers volunteers in crisis management organisations?

EXPE 32.2 consisted of two tiers of training which are referred in this deliverable as tier 2 and tier 3 since they consist of a basic training on MOVING at tier 2 and sessions of sports and psychosocial support at tier (see Figure 2.3). As described in section 2.5, tier 2 participants were purposefully sampled in order to ensure that a variety of different groups were represented in the training and in order to obtain a wider reach across Northern Scotland at tier 3. This included people from different areas of Scotland (the highlands and islands as well as urban areas), different age-groups (ranging from 18-60 years of age) and persons with different abilities. An overview of the selection criteria for tier 2 and tier 3 participants are included in Annex VIII.

The results from each of the two tiers are outlined in this section according to the levels from Kirkpatrick's model: reaction (level 1), learning and confidence (level 2) and behaviour (level 3) at tier 2 and reaction (level 1) at tier 3. At tier 3, the capacity of the sessions to promote the Hobfoll principles was also assessed (see section 2.7). The section concludes with a summary and lists a set of recommendations for CM organisations interested in conducting the training in MOVING with the cascading model of training.

4.1 Tier 2: Basic training in MOVING

At tier 2, 10 participants took part in a basic training on MOVING which had the following learning outcomes:

- Participants learn about the linkages between sport and physical activity and well-being
- Participants learn to adapt the activities so they are relevant and inclusive to everyone
- Participants identify barriers for inclusion and address barriers by taking relevant actions
- Participants learn about the importance of child protection and violence prevention
- understanding key elements of the STEP model¹⁸ and how to use the model to ensure that activities are inclusive and relevant
- Participants learn to adapt and modifying activities to specific target groups and socio-cultural contexts
- Participants learn the basic concepts of how to create a positive and motivational learning environment
- Participants learn to identify learning opportunities in sports and physical activities through different techniques
- Participants learn how to use the activity cards in the handbook.

¹⁸ The STEP model is an abbreviation of 'Space', 'Task', 'Equipment' and 'People' and it is a model that enables participants to adapt a sports game or a physical activity to a particular group of participants in a given context.

The following sections outline the results for tier 2 which are divided into the three levels of the Kirkpatrick model:

- Reaction: how did participants react to the training?
- Learning and confidence: did trainees acquire the intended knowledge and skills?
- **Behaviour**: were trainees able to implement what they had learned?

4.1.1 Reaction: how did participants react to the training?

Reaction measures participant's satisfaction with the training [42]. Most responses from the focus group discussion at tier 2 indicated that the training was viewed positively: "I enjoyed the training and those who I met and participated in the weekend" (Participant, tier 2). However, some participants expressed needing more information on the DRIVER+ experiment as a whole: "More clarity over our role and how the BRC will be contributing to the DRIVER+ Project" (Participant, tier 2). A participant stated that the training would have benefited from having "spent slightly more time and effort planning and filling in the sheets for our own community sessions [tier 3 sessions]" (Participant, tier 2) in preparation for the tier 3 sessions.

Finally, participants in the focus group discussion at tier 2 suggested that sport was an effective way of engaging the community but one respondent pointed out the importance of including more challenging games in the training itself. In addition, another participant indicated needing a clearer connection to their daily activities at their organisation: "felt the concepts were fantastic but wanted more on the link to the British Red Cross but felt it never gained traction" (Participant, tier 2).

Finally, all participants strongly agreed (50%) or agreed (50%) on having enjoyed the training, as presented in Figure 4.1.

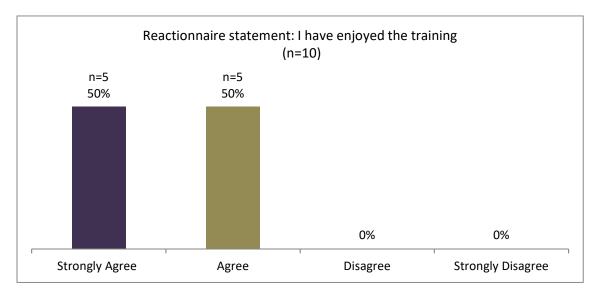


Figure 4.1: EXPE 32.2 Participants' reaction measured at tier 2

4.1.2 Learning and confidence: did trainees acquire the intended knowledge and skills?

Learning was measured at tier 2 through the pre- and post-test and through participant's self-evaluation of their knowledge in the reactionnaires. All participants reported having gained a better understanding of linkages between sport activities and psychosocial support (22% strongly agreed and 78% agreed) as presented in Figure 4.2.

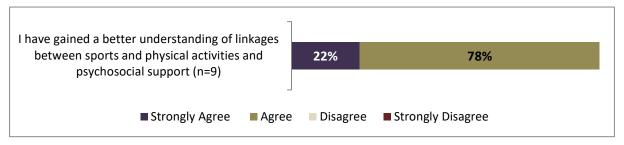


Figure 4.2: EXPE 32.2 Participants' self-assessment of learning at tier 2

The results from the pre- and post-test administered at tier 2 showed an increase in learning at the end of the training. The average score increased by 10% and the minimum score increased by 83%, as presented in Table 4.1. This is similar to the findings from EXPE 32.1 and suggests that the training was particularly effective in increasing the knowledge of those with limited knowledge on the topic prior to the training. Moreover, similarly to EXPE 32.1, the high average score before the training indicates that some participants on the training were already knowledgeable about sports and psychosocial wellbeing.

Indicators	Pre-test score (% correct) Graded over 16 pts	Post-test score (% correct) Graded over 16 pts	% Change
Average score	12 (75%)	13.2 (83%)	10%
Minimum score	6 (38%)	11 (69%)	83%
Maximum score	14 (88%)	15 (94%)	7%

Table 4.1: EXPE 32.2 Summary results of pre and post-tests scores at Tier 2

Throughout the reactionnaires, participants also conveyed positive indications of learning: "I felt informed prior to attendance and educated and trained by the end of the two-day sessions" (Participant, tier 2).

During the focus group discussion, one participant reported feeling satisfied with the new concepts learned but would have like to further practice adapting them to their local context while another one highlighted the importance of distributing handouts in order to be able to pay full attention to the trainer instead of taking time to write notes. Another recommendation on fostering learning was to dedicate more time to brainstorming of more activities that could link sport and psychosocial support in the event of an emergency.

Furthermore, as presented in Figure 4.3, participants reported feeling confident to use the skills and knowledge gained through the training¹⁹. Nevertheless, feedback from the open-ended questions and the focus group discussions showed that they expected to receive more feedback with regards to how to conduct sessions at tier 3.

¹⁹ The five confidence statements are defined according to the learning objectives. The STEP model is an abbreviation of 'Space', 'Task', 'Equipment' and 'People' and it is a model that enables participants to adapt a sports game or a physical activity to a particular group of participants in a given context.

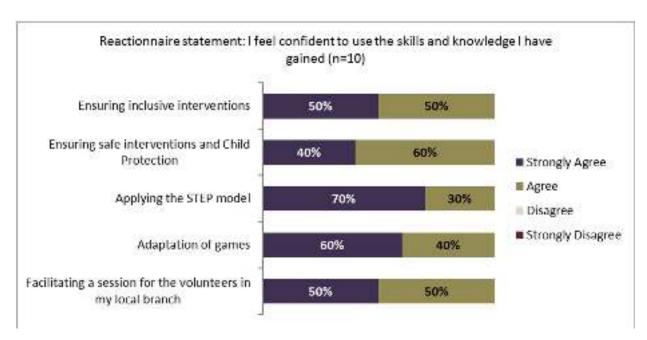


Figure 4.3: EXPE 32.2 Confidence measured at tier 2

It was suggested that having individual practice instead of group practice during the training would have contributed to learning and confidence: "all activities we practiced were in groups. However we are expected to deliver the training individually in the community... Perhaps having more time to practice individual activity" (Participant, tier 2). During the focus group discussion there was a collective agreement that the training could have been tailored to individual delivery.

4.1.3 Behaviour: were trainees able to implement what they had learned?

An important part of evaluating the transfer of information and the effectiveness of the cascading model was to assess tier 2 participants' capacity to implement what they learned at tier 2 during the tier 3 sessions. This was done by coding responses from the reactionnaires, semi-structured interviews and notes from the observers on the topics of "Adaptation", "Planning", "Reflection" and "Overall knowledge" and "STEP model". These terms were identified as part of the analysis strategy because they were central to the training and the learning objectives.

In the interviews, tier 3 facilitators felt comfortable when adapting the training to their local context, with the exception of one who reported having replicated the training received at tier 2 in her/his sessions at tier 3. An observer indicated that "there were also some dynamic adjustments [the facilitator] made to assist those with cognitive issues" (Observer, tier 3). On the topic of planning, a facilitator "had plans for larger/smaller groups, if things went wrong with her equipment, groups with varying abilities and plans for an inside or outside session" (Observer, tier 3).

At the end of each sport activity, the groups discussed different themes which emerged during the games such as discipline, leadership, honesty and cooperation. This discussion is referred to as reflection and is a core part of the MOVING training. Observers unanimously agreed that the part was correctly implemented through all sessions:

"[The session] was very good about relating to crisis and how a crisis can be personal or something wider reaching" (Observer, tier 3).

"[The facilitator] brought this [reflection] back to the P/S [psychosocial] approach and the value of developing personal resilience. Discussed the value of cooperation and working together and the value of being aware of the P/S [psychosocial] approach and the value of genuine collaboration and communication" (Observer, tier 3).

"The session was good and informative, interactive, though-provoking, creative, social & entertaining, interesting, good group building, good for demonstrating the P/S [psychosocial] principles" (Observer, tier 3).

Mixed reactions were identified when analysing tier 2 participants' (facilitators at tier 3) comments on learning. According to one of them: "In the run up to planning, I was still a little confused by what PSS [psychosocial support] really meant" (Facilitator, tier 3). However, another participant reported having "a good retention of knowledge since the [tier 2] training" (Facilitator, tier 3).

The correct use of the STEP model ('Space', 'Task', 'Equipment' and 'People') was another indication of adequate implementation of the MOVING at tier 3. The model helped facilitators think through the modifications that need to be made when facilitating in different contexts. Accordingly, it was frequently mentioned in both the interviews with the facilitators and on the observation sheets. Observers reported a wide range of positive reactions to the use of the STEP model, for example:

"The tasks were well thought out, simple to implement, accessible and appropriate for the stated aims of the session" (Observer, tier 3).

"The tasks were consistent, well thought out and explained in a calm, methodical manner" (Observer, tier 3).

[The facilitator] had taken on-board some of the lesson around ergonomics and the bean bag activity she learned from the May [tier 2] training session (Observer, tier 3).

As the group warmed up [the facilitator] then informally paired people who might require support together in the circle to help each other out if they struggled, again this was intentional to support the range of participants and was handled discreetly (Observer, tier 3).

"Good range of tasks and had alternatives for a range of users" (Observer, tier 3).

An observer reported that an activity was not clearly explained during a session and the task became an individual instead of a team building exercise. A similar comment was also expressed by an observer with regards to another session: "Some confusion about the rules as they were not clearly explained" (Observer, tier 3). This suggests that the facilitator's facilitation skills were not strong enough to give clear instructions and that it is important to be familiar with the game and feel confident in order to conduct the activities.

4.1.3.1 Comparison of tier 3 sessions

An additional analysis step involved comparing results from a tier 3 session conducted two months after the tier 2 training was conducted to results from a training conducted by the same trainer eight months later. By comparing these results we aimed at identifying any drop-off in the capacity of trainer to implement the sessions. As shown in Table 4.2 and Table 4.3, there is an increase in degree of agreement from the first to the last training, which indicates that there was no drop-off in learning over time. On the contrary, this indicates that as trainers become familiar with the material and interact with the participants in the session, they strengthen their facilitation skills and are able to deliver sessions with more confidence and attain a higher degree of satisfaction from participants. However, only one tier 2 participant conducted more than one tier 3 sessions, which means that we were not able to conduct this analysis for the other tier 2 participants.

Table 4.2: EXPE 32.2 Extent of agreement to the statement: "The activities were interesting and engaging" at two tier 3 sessions

Reactionnaire statement: "The activities were interesting and engaging"				
Extent of agreement	Session I; 17/05/2015 N = 21 N (%)	Session II; 26/02/2016 N = 9 N (%)		
Strongly agree	13 (61.9%)	8 (88.9%)		
Agree	7 (33.3%)	1 (11.1%)		
Disagree	0	0		
Strongly disagree	1 (4.8%)	0		

Table 4.3: EXPE 32.2 Extent of agreement to the statement: "I felt that the group and I were able to complete tasks and reach goals during the session" at two tier 3 sessions

Reactionnaire statement: "I felt that the group and I were able to complete tasks and reach goals during the session"			
Extent of agreement	Session I 17/05/2015 N = 21 N (%)	Session II 26/02/2016 N = 9 n (%)	
Strongly agree	9 (42.9%)	7 (77.8%)	
Agree	11 (52.4%)	2 (22.2%)	
Disagree	0	0	
Strongly disagree	1 (4.8%)	0	

4.2 Tier 3: Sports and psychosocial sessions

There were a total of 93 participants at tier 3 of EXPE 32.2. As tier 3 sessions consisted of sports and psychosocial activities awareness sessions, participants were not expected to learn from the sessions. Accordingly, there were no learning objectives and learning and confidence were not measured at this tier.

4.2.1 Reaction: how did trainees react to the training?

At tier 3, most respondents indicated during the focus group discussion that the sessions were fun and enjoyable:

"It was light hearted enjoyable teamwork" (Participant, tier 3).

"We covered communication, working together, trust, fun, playing to strengths, listening skills" (Participant, tier 3).

"It was fun to see we could still do things we though we may not be able to do anymore" (Participant, tier 3).

As in the case of tier 2, a participant at tier 3 suggested including more original and complicated games. A respondent recommended to give a more thorough explanation of how sports contributes to the

community's wellbeing and two participants emphasised on the importance of explaining the purpose of the games. Finally, another participant suggested including music in the sessions while a different respondent recommended ensuring more space for games.

Overall, participants' reaction to the training and to the sessions was positive as presented in Figure 4.4.

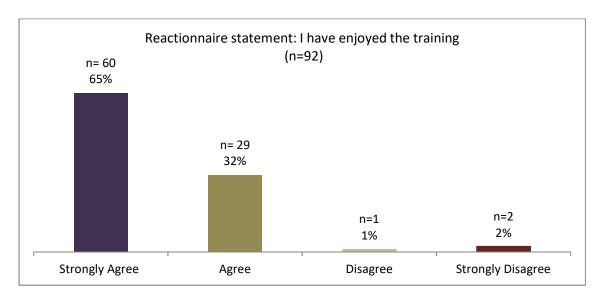


Figure 4.4: EXPE 32.2 Participants' reaction measured at tier 3

In order to assess the effectiveness of the cascading model and of the training solution, the capacity of tier 3 sessions to promote the five Hobfoll principles of post-disaster psychosocial care, which were presented in section 1.3, were assessed [3]. The principles are social connectedness, self and community efficacy, calming, sense of safety and hope²⁰. As shown in Figure 4.5, the large number of positive responses to the statements endorse tier 3 sessions' capacity to promote the principles.

²⁰ The principle of hope was not included in the assessment because we didn't expect sessions conducted in non-disaster settings to promote a sense of hope in participants.

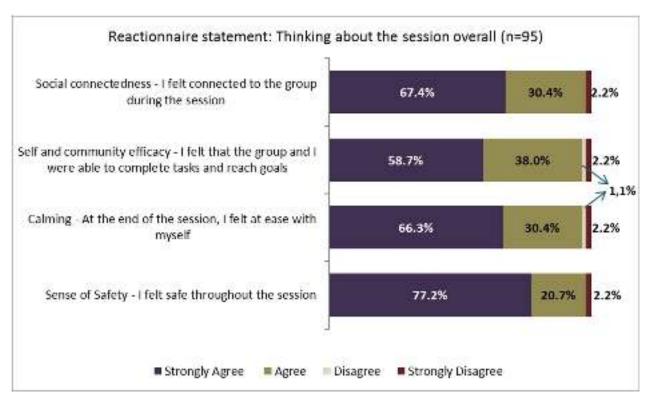


Figure 4.5: EXPE 32.2 Hobfoll principles measured at tier 3

Open-ended responses from the reactionnaires were coded according to the Hobfoll principles and the findings supported the responses presented above. Participants thought the sessions promoted social connectedness, or as indicated by one participant: "It was light hearted enjoyable teamwork" (Participant, tier 3). Another participant suggested that inviting more participants to the sessions would have contributed to team building: "Team building was achieved, although would be further maximised with more participants" (Participant, tier 3). Participants also felt comfortable and at ease with each other:

"Really good at making us all work together and breaking down barriers" (Participant, tier 3).

"It brought everyone to the same level and on an equal footing" (Participant, tier 3).

"The games helped bring people together" (Participant, tier 3).

Feedback also showed that the sessions promoted a sense of community efficacy:

"Everyone committed to carrying out the activity" (Participant, tier 3).

"The 'old' volunteers felt it was good to work with different people" (Participant, tier 3).

"Participants were asked and involved in decision making and feedback was taken on board rather than decisions made for the group" (Participant, tier 3).

"I felt more comfortable to make mistakes and felt less nervous around more experienced folk" (Participant, tier 3).

With regards to safety, most participants expressed feeling comfortable with the environment and with the group activities: "It was fun so everyone felt comfortable to take part" (Participant, tier 3) and "Enjoyable and can see how this could be of benefit particularity in the University Accommodation/Residential setting particularly after the flooding last year" (Participant, tier 3). As in tier 2, two participants expressed needing more details on the DRIVER+ project and what it meant to be part of a research experiment. In their own word: "The project needs more explanation – I can't see the link between crisis and team games" (Participant, tier 3) and "[Provide] information to take away about PSS/WP32 and Driver" (Participant, tier 3).

4.3 Summary and recommendations

As presented in the previous sections, participants' reactions to the tier 2 training and tier 3 community sessions on sports and psychosocial support were mostly positive. Suggestions for improvement are including more challenging games as well as showing a clearer link between the training and volunteers' work at the British Red Cross. In addition, participants at tier 2 expressed needing more details on the DRIVER+ project.

Tier 2 participants' knowledge of the topics was validated by the high average score of the post-test. This along with the positive outcomes of the confidence indicators validated tier 2 participants' ability to conduct sessions at tier 3. This ability was endorsed by tier 3 participants who gave positive indications of: sense of safety, calming, self and community efficacy and social connectedness. The trainers' ability to implement the sessions was also reported by the observers who described an adequate implementation of the topics of the sessions. Our findings also suggested that there wasn't a drop-off in learning over time. As one trainer delivered an additional session eight months after the first one, the quality of the session improved.

The results presented in the previous section support the use of the MOVING toolkit and the effectiveness of the cascading model. A key finding of EXPE 32.2 is that as facilitators deliver additional sessions, there is some indication that the quality of the sessions improves. In contrast to EXPE 32.1, this experiment does not need a refresher session as the content is practical and simple and the grasping of the skills improves as facilitators gain more experience on it. Thus, the experiment could have benefited from following up other facilitators' delivery of additional sessions.

In addition, CM organisations wishing to implement this training through a cascading approach should consider the following recommendations:

- More emphasis should be placed on giving individual feedback to tier 2 participants when practicing delivery of their community sessions.
- Tier 2 trainers are recommended to emphasise on individual practice activities for community sessions instead of group practice activities.
- Adequate and detailed instructions are needed on the activities and its objectives at tier 3.
- Future tier 2 trainings should include a wider selection of physical activities to make sure facilitators can adapt to all teams in a dynamic and engaging way.
- Tier 2 participants should be encouraged to conduct more than one session at tier 3 as practicing their facilitation skills can increase their confidence as facilitators.

5. Discussion

The two experiments presented in this deliverable have tested the cascading model through the implementation of two different psychosocial support training solutions. The findings can be grouped into three subsets, which are discussed in this section:

- (1) Findings related to the cascading model.
- (2) Findings related to the specific content and implementation of the two training solutions and psychosocial support trainings in general.
- (3) Findings related to the DRIVER+ project.

The first set of findings is relevant for CM organisations planning to implement the cascading model, in principle irrespective of which specific training solution they wish to implement. These findings are presented in relation to the academic literature on the cascading model. The second set of findings is relevant to future implementation of the two tested training solutions as well as other psychosocial trainings and they are presented below as recommendations for improvements for the future. The third group of findings relates to the implementation of future Trials in the DRIVER+ project. Finally, limitations of the experiments and lessons learned are discussed.

5.1 Findings related to the cascading model

Training evaluations are often conducted of one training as an isolated event, or of a series of events that may use similar evaluation approaches and metrics for comparison and synthesis of results, but without internal relation between the different trainings [14][15][16][49]. The two experiments presented in this deliverable are novel in the sense that they allow to follow the cascading of knowledge down through its different layers. This helps to relate the trainings at the different tiers to each other and to conduct training evaluations of reaction and learning and behaviour, representing levels 1, 2 and 3 of Kirkpatrick's model.

An argument for the use of the cascading model is that the model enables an organisation to build capacity of its own staff and/or volunteers instead of using external consultants. In this way, local trainers contribute with their knowledge of the context and the local language [17]. This was corroborated by the findings from EXPE 32.1 and EXPE 32.2 which were implemented in two different cultural contexts. While the language issue was not a problem in the case of the United Kingdom, it would have prevented several participants from participating in EXPE 32.1 trainings, had they been conducted in English. Furthermore, training the culturally and religiously mixed group that was trained at EXPE 32.1's tier 2 in Israel would have been challenging for an outsider. Using an external facilitator could have resulted in having a less diverse group of participants. Similarly, cultural sensitivity is an important factor for the successful implementation of EXPE 32.2 in rural areas of Northern Scotland. The tier 3 sessions introduced new concepts to the affiliated volunteers and communities and this could have been less well received by the groups had it been introduced by an outsider. Especially in relation to sports and physical activities there can be many subtle cultural codes for what is appropriate and inappropriate to do.

The most important critique of the cascading model is that knowledge gets diluted the further one goes down the cascade [21]. The findings from these experiments do not support this critique. In EXPE 32.1, as data from the tests and the reactionnaires showed, knowledge was effectively transferred from tier 1 to tier 2 and participants were able to transfer this into practice from tier 2 to tier 3 as indicated by similar post-test results and feedback. Another disadvantage mentioned in the literature is that staff or volunteer trainers often do not have the same degree of credibility as external trainers [17]. This is only partly confirmed by the findings: the trainers were generally appreciated by the participants, but some participants specifically mention that they would have preferred external specialists as well.

In summary, the findings related to the cascading model in the two experiments support some of the key advantages of the model that have been presented in the literature: its ability to reach a larger number of volunteers and the fact that the newly trained trainers know the local context, culture and language. Furthermore, the findings partly support that internal trainers can be perceived as having less expertise in

the field of training. This is consistent with findings identified as part of Task 32.1 indicating that people are more likely to adopt preparedness behaviour if the message comes from a recognised source.

5.2 Findings related to psychosocial support training solutions

The findings from the two experiments support the use of the two training solutions: CBPSS and MOVING, which were included in a recent systematic mapping of psychosocial support guidelines and tools for disasters and emergencies conducted as part of the OPSIC project [1][12]. There was generally a high level of satisfaction with both trainings from participants at all tiers of the cascading model, the learning was effectively transferred and the newly trained trainers were able to implement what they had learned at the next tiers.

Recommendations for improvements of the training solutions include that there should be emphasis on recruitment of volunteers. Organisations planning to integrate the cascading model to their trainings on psychosocial support should allocate time and resources to the recruitment of volunteers. The more time and resources dedicated to this recruitment process, the further the outreach will be. Another important finding, which relates to the specific training solutions, is the importance of monitoring and follow-up of participants. This is a challenge that relates both to the cascading model as well as the specific training solutions. The solutions should include a section with guidance on how this monitoring could be done and how CM organisations could set up effective supervision systems of the trained staff and volunteers.

These experiments tested two generic training solutions that use the same approach, methodology and format (handbook, power points, blended learning) as described in section 1.3. The solutions were tested in two culturally different locations: Israel and the United Kingdom. This affected both the experiment designs, which were tailored to the different contexts, as well as the implementation of the trainings, which were adapted to the different contexts, for example through the use of locally relevant case-stories as indicated in section 2.2.

Generic training materials are important enabling factors for capacity building of CM organisations and the specific training solutions are freely available online. Nevertheless, the point on adaptation to the local context is crucial and should always be integrated into planning and budgeting for implementation of generic training solutions. The importance of adaptation is also supported by one of the key findings from Task 32.1, namely that past experience with disasters influence risk perception, which may in turn influence preparedness and resilience. This means the past experience with disasters in a specific setting may influence a) stress reaction to a particular disaster and b) likelihood of preparing for a particular disaster [51]. Through adaptation of generic training material to the past experiences of the participants, and through involving the participants and their past experiences actively in the learning situation, it is possible to make the training more relevant to the participants and their perception of risk and preparedness. In order to address the issue of adaption, a recommendation for improvement of the training solutions is to include clear guidance or checklists on how this adaptation should be done in relation to case studies, pictures and training methodology.

5.3 Findings related to DRIVER+ and the Trials

The findings presented in this deliverable are relevant for other parts of DRIVER+. This is the case for DRIVER+ WP945 Trial 3 on volunteering in particular as it is anticipated that this Trial is testing concepts of psychosocial support in the context of affiliated volunteers and volunteer-based CM organisations.

Moreover, combining the encouraging results of the two described experiments with new technology, like the visualisation of specific scenarios [35][52] may be promising. The fact that the evaluation approach and metrics are aligned facilitates its reuse for trialling of psychosocial support interventions enabling a comparison of results at a later stage. This comparison will be particularly interesting between tier 3 of EXPE 32.1, where participants received training in PFA, and WP945 Trial 3 on Volunteering if this Trial is used to trial solutions where participants receive a newly developed PFA training that builds on the same basic principles but uses visualisation technologies to enhance the learning experience. Pilot Trials on this

innovation were conducted in May 2016 and it has therefore not been feasible to include a comparison of results in this deliverable, but this will be reported on in future deliverables if appropriate [35].

As described above, the two experiments presented in this deliverable are novel in the sense that they enable to follow the cascading of knowledge down through the different layers of the cascading model. This has allowed measurement of the three levels of evaluation according to Kirkpatrick: reaction, learning, and behaviour.

One of the limitations of these experiments is that tier 3 did not take place in a simulated crisis situation. Another limitation is that it was not possible to conduct a level 4 evaluation according to Kirkpatrick's model, which is intended to look into the actual long term results of the training on the ground. The recommendation for testing of these solutions in upcoming Trials is to focus more on level 3 and 4 evaluations, and particularly to look at these in the context of a simulated crisis situation. This will represent a more complex level of testing of the solutions rather than repeating the experiments. This could be done, for example, through using trained volunteers to implement psychosocial support activities in a simulated crisis situation with actors or volunteers' role playing as persons in distress. In this way, the previous experiments and the upcoming Trials would complement each other: the previous experiments have focused on the transfer of knowledge and the ability of trained volunteers to implement sessions based on their learning, and the upcoming Trials will take this one step further by testing it in a simulated crisis situation.

5.4 Limitations and lessons learned

The experiments yielded relevant findings but there are still important limitations and lessons learned. One limitation is the lack of a cost-effectiveness analysis on use of the cascading model and the training solutions. As presented in section 1.1, academics and CM organisations have previously identified the reduction in financial costs as a key advantage of the model. The two experiments aimed to bridge a gap in research on the effectiveness of the cascading model in the context of psychosocial support and a cost-effectiveness analysis was outside the scope of the experiments. However, future research should focus on comparing the relative costs and outcomes of conducting the cascading model in psychosocial training to a class-room based training of volunteers in a centralised location.

Transfer of learning was measured using pre- and post-tests as recommended by Kirkpatrick [41][42]. It is, however, important to acknowledge that there are also limitations in measuring learning using this methodology. In this particular training, attitude change and skills training are at the core of the curriculum and it is challenging to measure these learning outcomes through a standardised written test. In addition, if the level of knowledge of the participants is already high before the training is conducted, this could lead to the misleading conclusion that the training was not effective. Reactionnaires and focus group discussion were used in these experiments to supplement the results of the pre and post-test results and assess the effectiveness of the trainings.

The experiments were not designed to measure the psychosocial training solutions' impact on psychosocial wellbeing or resilience of the general public. However, an assessment of the Hobfoll principles of post-disaster psychosocial care was included in tier 3 of EXPE 32.2 [3]. These results are used as an indication of the tier 3 sessions' capacity to promote psychosocial wellbeing in a disaster setting, but this methodology has limitations. Therefore, the training solutions' impact on psychosocial wellbeing and resilience may be further tested in the upcoming Trials as discussed in section 5.3. Furthermore, the assessment of the Hobfoll principles in tier 3 of EXPE 32.2 was limited by the fact that research was not carried out in the aftermath of a disaster or in a simulated crisis setting. Accordingly, it was not considered feasible to measure sense of hope in the future, which is one of the five principles.

The experiments were conducted in two different cultural contexts, which has produced interesting results but also required extensive resources. As pointed out in section 5.1, the trainings built the capacity of volunteers and benefited of the language and cultural knowledge of volunteers. However, as the experiment templates were developed in English, despite of the use of professional as well as in-house translation from MDA, resources had to be allocated for the translation of documents in Hebrew. The upcoming DRIVER+ Trials – as well as CM organisations aiming to conduct cascade trainings in other contexts – should allocate a

budget for the translation of follow-up meetings with the trainers and any documents for documenting the implementation of the trainings. Similarly, resources should be allocated for managing the recruitment and training of such large groups of volunteers, which required a solid preparation and a well-organised logistical set-up. Strong organisational skills were also required for organising and bringing together the data collected from the experiments; although each data collection method was required for testing the tools and the cascading model, it is recommended that in the implementation of the upcoming DRIVER+ Trials, more quantitative and less qualitative data is collected. This will reduce translation costs and make the process of data analysis more manageable.

6. Conclusion

This deliverable described the results of two experiments conducted in the former WP320. The effectiveness of the cascading model was tested in two crisis management organisations by assessing its effectiveness in transferring psychosocial knowledge to volunteers. This was done through the use of two psychosocial training solutions: the Community-based psychosocial support (EXPE 32.1) and the Sports & physical activity-based psychosocial support solutions (EXPE 32.2). In order to follow the cascading of learning down through the different layers of volunteers, the experiments were designed in tiers. Trainings are very often evaluated as isolated events and the two experiments presented in this deliverable are novel in the sense that they have enabled to follow the cascading of knowledge down through the different layers of the cascading model.

The key findings from the two experiments are that the cascading model is an effective model for transferring psychosocial knowledge to volunteers and at the same time, the two training solutions are effective in transferring psychosocial knowledge to volunteers from crisis management organisations. Using Kirkpatrick's model for evaluation of trainings, the analysis has focused on reaction, learning and confidence of trained volunteers on the one hand, and their ability to implement what they have learned on the other (i.e. behaviour). Across both experiments and the different tiers, the trainings resulted in increased learning and participants generally reported a positive reaction to the trainings/sessions and high levels of confidence in their ability to implement trainings/sessions. With regards to actual implementation of sessions for other volunteers, the findings showed that participants were able to implement what they had learned through delivery of sessions to volunteers. Interestingly, findings from EXPE 32.2 suggested that there was not a drop-off in learning over time.

The deliverable also presented recommendations for future implementation of the two solutions tested. For EXPE 32.1 these are: emphasising on better time management and diversity, conduct follow-up workshops on PFA, encouraging trainer-trainee communication after the training is conducted. For EXPE 32.2 the recommendations are: providing individual feedback and conducting individual practice sessions, including a wider selection of sports and wellbeing activities in the toolkits and encouraging trainees to conduct various sessions.

The findings presented in this deliverable are relevant for other parts of DRIVER+, in particular in relation to the testing of a new visualization method for PFA training in Trial 3 (WP945). The next step is to plan the participation in the DRIVER+ Workshop 0 for the two solutions presented and tested in this deliverable. A promising avenue for the Trials will be adding the perspective of individual resilience and volunteer preparedness to the scenarios and at the same time, add to the complexity of the Trial of the solution in line with the overall DRIVER+ Trial approach.

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Annexes

Annex 1 - DRIVER+ Terminology

In order to have a common understanding within the DRIVER+ project and beyond and to ensure the use of a common language in all project deliverables and communications, a terminology is developed by making reference to main sources, such as ISO standards and UNISDR. This terminology is presented online as part of the Portfolio of Solutions and it will be continuously reviewed and updated²¹. The terminology is applied throughout the documents produced by DRIVER+. Each deliverable includes an annex as provided hereunder, which holds an extract from the comprehensive terminology containing the relevant DRIVER+ terms for this respective document.

Terminology	Definition	Comment
Affiliated volunteer	Individual who is affiliated with an existing incident response organisation or voluntary organization but who, without extensive preplanning, offers support to the response to, and recovery from, an incident	
Civil society	The process by which people, organisations and society systematically stimulate and develop their capacities over time to achieve social and economic goals, including through improvement of knowledge, skills, systems, and institutions.	
Crisis	Situation with high level of uncertainty that disrupts the core activities and/or credibility of an organisation and requires urgent action	
Experiment	Purposive investigation of a system through selective adjustment of controllable conditions and allocation of resources	
Organisation	Person or group of people that has its own functions with responsibilities, authorities and relationships to achieve its objectives.	
Psychosocial support		Definition is still "under construction" and can be found online in the near future.
Public	General public: people having all possible variations of user characteristics, usually within a particular geographical area.	
Resilience	The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.	

²¹ Until the Portfolio of Solutions is operational, the terminology is presented in the DRIVER+ Project Handbook and access can be requested by third parties by contacting coordination@projectdriver.eu.

Terminology	Definition	Comment
Training	Activities designed to facilitate the learning and development of knowledge, skills, and abilities, and to improve the performance of specific tasks or roles.	
Trial	An activity for systematically finding and testing valuable solutions for current and emerging needs in such a way that practitioners can do this in a pragmatic yet systematic way.	
Volunteer	Individual, who is not affiliated with an existing incident response organisation or voluntary organisation but who, without extensive preplanning, offers support to the response to, and recovery from, an incident.	

Annex 2 - Statement of Informed Consent

Statement of Informed Consent

Place an "X" in the appropriate boxes to indicate (dis)agreement with the following statements regarding your participation in the DRIVER project.

	Agree	Disagree
I confirm that I have read and understood this form and the accompanying Information Sheet.		
I confirm that I have had the opportunity to ask questions regarding the DRIVER project and my potential involvement in it.		
I understand that my participation is entirely voluntary, and that I may withdraw myself and any data relating to me from the project at any time.		
I understand and agree that the data gathered during my participation may be used, stored, and shared as described on this Information Sheet.		
Photos taken at the event may be used by the DRIVER project.		
I freely consent to participate in the DRIVER project.		

	Participant	Researcher
Name:	Name:	
Date and signature:	Date and signature:	

Annex 3 – Timeline and location of experiments

EXPE	Title	Tier	Da	ites	Location
EXPE 32.1	EXPE 32.1 "Testing of Community-based Psychosocial Support toolkit"	Tier 1	8-13/0	6/2015	Copenhagen (DK)
	, , , , , ,	Tier 2	2-3/09/2015		Tel Aviv (IL)
		Tier 3	First meeting	Second meeting	Various locations, Israel
			27/01/2016	03/02/2016	Netivot (IL)
			31/12/2015	06/01/2016	Netanya (IL)
			24/12/2015	31/12/2015	Beer Sheva (IL)
			15/12/2015	17/12/2015	Nazarerth Illit (IL)
			23/11/2015	24/11/2015	Umm el Fahm (IL)
			15/10/2015	05/11/2015	Jerusalem (IL)
			04/01/2016	11/01/2016	Petah Tikvah (IL)
			29/11/2015	03/12/2015	Kiryat Motzkin (IL)
			03/02/2016	10/02/2016	Ashqelon (IL)
			28/01/2016	04/02/2016	Gan Yavne (IL)
EXPE 32.2	32.2 "Testing of sports and physical activity based toolkit for	Tier 2	9-10/0	5/2015	Inverness (UK)
	psychosocial support"	Tier 3	Tier 3 17/08/2015		Aberdeen (UK)
			22/10/2015		Inverness (UK)
			12/09)/2015	Orkney/Kirkwall (UK)
			13/08/2015		Glasgow (UK)
			20/08/2015		Golspie (UK)
			12/05	5/2015	Elgin (UK)

Annex 4 – European projects on psychosocial issues

European projects on psychosocial issues	Objective
"Managing the Psycho-Social aftermath of collective emergency situations"	Create a European working group with experts in the field of psycho-social management who will work out a European wide model for psycho-social aspects of disaster management.
CapHaz-Net "Social capacity building for natural hazards: Toward more resilient societies"	Identify and assess existing practices and policies for social capacity building in the field of natural hazards and to elaborate strategies and recommendations for activities to enhance the resilience of European societies to the impacts of natural hazards.
CAREforVET Counselling and support systems in violence prevention and crisis intervention in vocational schools in Europe	Specialists in violence prevention and crisis intervention examine care and guidance systems of the partners in the CAREforVET partnership project and further European cities/countries.
COSMIC "Contribution of social Media in Crisis management"	Identify the most effective ways to utilise new information and communication technologies (ICTs) in crisis situations for the protection of ordinary citizens.
emBRACE "Building Resilience Amongst Communities in Europe"	Develop a conceptual and methodological approach to clarify how the resilience capacity of a society confronted with natural hazards and disasters can be characterized, defined and measured.
EUNAD "European Network for Psychosocial Crisis Management – Assisting Disabled in Case of Disaster"	Prepare and implement existing EU human rights-related assistance programmes for hearing impaired or visually impaired survivors of disasters.
EURESTE – "Sharing European Resources for the Victims of Terrorism"	Outline specific recommendations for early psychosocial intervention in case of terrorist attacks.
EUTOPA - "European Guidelines for Target group oriented Psychosocial Aftercare in Case of Disaster"	Develop suggestions concerning a pan-European standardisation of psychosocial concepts for after care, based on the European Policy Paper for Psycho-Social Support in Situations of Mass Emergency.
EUTOPA-IP - "European Guidelines for Target group oriented Psychosocial Aftercare in Case of Disaster-Implementation"	Implement the results of the EUTOPA project.
FORTRESS "Foresight Tools for Responding to cascading effects in a crisis"	Develop of a predictive model addressing potential impacts of decisions made in crisis situations, and the development of an incident evolution tool to assist decision-makers in preparing and training for crises with cascading effects.
Informed-Prepared-Together	Maximise the impact of a cluster of completed European civil protection projects that focus on civil protection assistance.
IPPHEC - "Improve the Preparedness to give Psychological Help in Events of Crisis"	Improve the knowledge and the procedures for psychological support in hospitals during the acute phase of a catastrophe, when a high number of people arrive at the hospital in a very short time.

European projects on psychosocial issues	Objective
Lay Counselling	Look at current practice in lay counselling and, together with a literature review, identified examples of best practice in the field.
CRUA Community Resilience in Urban Areas	Contribute towards individuals and urban communities being better prepared for the increased level of incidence of flooding; ensuring the right level of support, especially emotional support, to aid recovery from the effects of flooding; study current, and encourage exchange of, good practice on multiagency partnerships in civil protection.
NATO guideline - "Psychosocial Care for People affected by disasters and major incidents"	Enable authorities to deliver integrated psychosocial care and mental health services; enhance training; raise awareness, and facilitate the effective utilisation of resources in responding to psychosocial/mental health needs post- incident.
NATO-TENTS "Guidance for Responding to the Psychosocial and Mental Health Needs of People Affected by Disasters or Major Incidents".	Incorporate work conducted under the European Union by the European Network for Traumatic Stress (TENTS) project to combine the common principles and recommendations of both sets of guidance in a single document.
PLOT "Prevention of long-term psychological effects on victims of terrorist attacks and their families"	Adapt the Target group Intervention Program (Set up within the framework of the Cologne victim support model for victims of violence and accident victims) to the situation typology of terrorist attacks, to train any organisation involved as well as creating suitable training material.
PrepAGE "Enhancing disaster management preparedness for the older population in the EU"	Introduce the special requirements of older people into emergency and disaster preparedness and prevention programmes.
Psychosocial support for civil protection forces coping with CBRN	Develop and test a training programme for operational forces (including volunteers) that have to cope with CBRN incidents, with the aim to enhance competences in psychosocial support and to contribute to optimized procedures during crisis response.
PsyCRIS "Improving psycho-social support in crisis management"	Provide a set of tools enabling efficient handling of relevant data, transfer of knowledge and practical competences relevant for crisis management, stress control and social support.
RED - "Reinforce Rescuers' Resilience by Empowering a well-being Dimension"	Enhance well-being and design training programmes for operators and after-care providers intervening in major emergencies
Resilience Monitor	Develop an instrument to be able to measure psychosocial resilience in individuals after disasters.
TACTIC "Tools, methods And training CommuniTies and society to better prepare for a Crisis"	Analyse risk perceptions and behaviour to identify pathways from risk perception to preparedness, and will develop a preparedness self-assessment that communities can use to assess how prepared they are for different types of crises.
TENTS "The European Network for Traumatic Stress"	Establish a community wide network of expertise on posttraumatic stress treatment for victims of natural and other disasters and examined which interventions are effective in the aftermath of disaster and whether these are available throughout Europe.

European projects on psychosocial issues	Objective					
TENTS-TP "The European Network for Traumatic Stress - Training & Practice"	Expand and develop the network and connect to other important European initiatives in the field of psychosocial care after trauma. TENTS-TP aims to implement evidence-based interventions to prevent trauma survivors from developing posttraumatic disorders and interventions to promote (early) recovery.					
TerRA "Terrorism and Radicalisation"	einforce the positive role victims and former terrorists can play in relation to the prevention of radicalisation and roviding practical guidance to specific target groups.					
Working together to Support Individuals in an Emergency or Disaster	Enable European Union Member States and European Economic Area Countries' governments and non-governmental organisations to understand, and respond better to, the psycho-social needs of individuals affected in an emergency or disaster and to recognise the value of guidance in achieving more commonality in meeting those needs					
OPSIC "Operationalising Psychosocial Support in Crisis" - project	Review existing guidelines and best practice-studies in order to match methods and tools to all relevant target groups, types and phases of emergencies, and to develop an IT based system which will function as a go-to-point for all tools needed to plan, conduct and evaluate a psychosocial support intervention.					

Annex 5 – EXPE 32.1: Overview of data collection methods

Sub-experiments	Target group	Evaluation level (Kirkpatrick)	Test goal	Methodology	Data collection tools	Person responsible for data collection
Tier 1: Training of trainers	Facilitators	n/a	n/a	n/a	n/a	n/a
	Participants	Level 1 Reaction: how did	"Participants' satisfaction with	Reaction sheets	Reactionnaire	Facilitator
		participants feel	training"	Group feedback	Question guide	Observer
		Level 2 Learning: increase in knowledge	"Knowledge about psychosocial support and skills to conduct training session at Tier 2"	Post-tests	Test	Facilitator
Tier 2: Training of volunteers	Facilitators (Tier 1 participants).	Level 3 Behavior: implementation of knowledge	"Ability of facilitators to apply their learning over time"	Semi-structured interview	Question guide	Observer
	Participants	Level 1 Reaction: how did participants feel	"Participants' satisfaction with training"	Reaction sheets	Reactionnaire	Facilitator
				Group feedback	Question guide	Observer

Sub-experiments	Target group	Evaluation level (Kirkpatrick)	Test goal	Methodology	Data collection tools	Person responsible for data collection
		Level 2 Learning: increase in knowledge	"Knowledge of volunteers about psychosocial support"	Pre & post-test	Test	Facilitator
Tier 3: PFA Trainings	Facilitators (Tier 2 participants).	Level 3 Behavior: implementation of knowledge	"Ability of volunteers trained at tier 2 to provide psychosocial support sessions to communities"	Semi-structured interview	Question guide	Observer
	Participants	Level 1 Reaction: how did participants feel	"Participants' satisfaction with training"	Reaction sheets	Reactionnaire	Observer

Annex 6 - EXPE 32.2: Overview of data collection methods

Sub-experiments	Target group	Evaluation level (Kirkpatrick)	Test objective	Methodology	Data collection tools	Person responsible for data collection
Tier 2: Training of volunteers	Facilitator	n/a	n/a	n/a	n/a	n/a
	Participants	Level 1 Reaction: how did participants feel	"Participants' satisfaction with training"	Reaction sheets	Reactionnaire	Facilitator
			Gr	Group feedback	Question guide	Observer
		Level 2 Learning: increase in knowledge	"Knowledge of volunteers about psychosocial support"	Pre & post-tests	Test	Facilitator
Tier 3: Community sessions	Facilitators (Tier 2 participants)	Level 3 Behavior: implementation of knowledge	"Ability of volunteers trained at Tier 2 to provide psychosocial support sessions to communities"	Observation	Scoring card for observations	Observer

Annex 7 – EXPE 32.1 Selection criteria for participants

Tier	Number of sessions	Timing and location	Participants	Selection criteria	Type of experiment	Duration
Tier 1	1 training	Denmark, 9-12 June 2015	15 staff and volunteers from Red Cross globally, including 3 staff from MDA	 Being more than 16 years old Educational background in social work, psychology, psychiatry, mental or public health Participants are expected to have completed a basic training in the CBPSS toolkit or are committed to read the manuals thoroughly prior to the training Committed to facilitate trainings in respective organisations Good training/facilitation skills and knowledge of adult education Sufficient English speaking skills and comprehension to be able to fully understand and participate in the training Ability to attend complete training 	Quasi-experiment Participatory classroom-based training	4 day training
Tier 2	1 training (conducted by 3 trainers)	Israel, September 2015	35 staff and volunteers from MDA	 Being more than 16 years old MDA staff and volunteers Good social skills and facilitations skills and a strong interest in psychosocial support Willingness to facilitate PFA sessions at local branches 	Quasi-experiment Participatory classroom-based training	2 day training
Tier 3	10 trainings	Israel October 2015 - January 2016	121 volunteers from MDA and community members	1. Being more than 16 years old	Quasi-experiment Participatory classroom-based training	11 sessions, 2-3 hour sessions for 5-16 participants

Annex 8 – EXPE 32.2 Selection criteria for participants

Tier	Number of sessions	Timing and location	Participants		Criteria	Type of experiment	Duration
Tier 2	1 training	Inverness, Northern Scotland, 9-10 May 2015	10 volunteers from BRC from urban/rural areas across Northern Scotland	1. 2. 3. 4.	Being more than 16 years old Being a British Red Cross volunteer at Northern Scotland branches with an interest in implementing psychosocial support activities Good social skills and facilitations skills Willingness to facilitate Sports and Physical Activity based Psychosocial Support sessions at National Society branches	Quasi-experiment Participatory classroom-based training	2 days
Tier 3	7 sessions	Northern Scotland, May 2015-February 2016	93 volunteers from BRC and community members	1.	Being more than 16 years old	Quasi-experiment Awareness sessions	2-3 hour sessions