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RESILENT RESPONDERS

Psychological Resilience and Support for Personnel in Charge after Natural Disasters

COMPILED NEEDS ANALYSIS REPORT
JANUARY 2025

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1. Executive Summary

The Resilient Responders Project seeks to enhance the psychological resilience of disaster response personnel, addressing the complex and multifaceted challenges they encounter in their professional roles. This report presents the findings of an integrated needs analysis conducted across Portugal, Spain, Italy, Greece, and Türkiye. Utilizing four distinct methodologies—literature review, questionnaire, interviews, and focus groups—the study aims to provide a comprehensive understanding of the psychological needs and resilience gaps of disaster responders. These findings serve as a foundation for the development of targeted interventions and training programs designed to improve mental health outcomes and operational effectiveness.

The analysis highlights several critical areas of concern. Disaster responders consistently reported high levels of emotional strain, burnout, and cumulative stress. These challenges are exacerbated by limited access to structured psychological support systems and the prevailing cultural stigma surrounding mental health, which discourages help-seeking behaviors. The study also identified significant gaps in existing training programs, which are often focused on technical skills rather than equipping responders with the psychological tools necessary to manage stress and trauma effectively. Moreover, the findings underscore the need for practical, scenario-based training that incorporates psychological first aid, stress management strategies, and culturally sensitive approaches.

Country-specific analyses revealed regional variations in the challenges faced by responders, as well as differences in the availability and accessibility of resources. For example, participants from Türkiye emphasized the psychological toll of frequent large-scale disasters, while responders in Italy and Spain highlighted the importance of leadership engagement in promoting mental health awareness. Despite these contextual differences, a common theme emerged: the need for proactive and preventative mental health interventions that address both individual and organizational levels.

Based on these findings, the report outlines actionable recommendations to address the identified gaps. These include the development of a comprehensive training framework tailored to the diverse roles of disaster responders, the establishment of structured peer support networks, and the integration of psychological resilience-building modules into routine training programs. Additionally, fostering an organizational culture that prioritizes mental health and reducing stigma through leadership initiatives are emphasized as critical steps toward sustainable change.

The Resilient Responders Project emphasizes the urgent need for strategic and culturally sensitive mental health interventions. By addressing the gaps identified through this analysis, the project aims to empower disaster responders with the skills and resources necessary to manage the psychological demands of their roles effectively. These efforts will not only enhance the well-being and resilience of responders but also contribute to more effective and sustainable disaster management systems across Europe.

2. Introduction

The Resilient Responders Project addresses the critical need to strengthen psychological resilience among disaster response personnel across Europe. Natural disasters, increasing in both frequency and intensity due to climate change and other factors, place extraordinary demands on responders. These individuals often operate in high-stress environments, facing traumatic events and the expectation to remain operationally effective despite significant personal and professional challenges. The importance of equipping responders with robust psychological tools is paramount, not only for their well-being but also for the communities they serve.

2.1. Objectives of the Needs Analysis

The primary objective of the needs analysis iss to identify and address the psychological challenges encountered by disaster response personnel, including stress, burnout, and trauma. The analysis seeks to uncover existing gaps in mental health support and training, evaluate the effectiveness of current systems, and propose evidence-based recommendations for developing tailored resilience training programs. This initiative aims to contribute to a more resilient and mentally prepared disaster response workforce across Portugal, Spain, Italy, Greece, and Türkiye.

2.2. Scope and Context

The scope of this analysis encompasses diverse disaster response roles, including first responders, healthcare professionals, volunteers, and administrative personnel. By capturing insights across these roles, the study ensures a comprehensive understanding of the psychological needs within disaster response teams. The contextual focus of the analysis incorporates regional and cultural nuances that influence resilience, training needs, and organizational practices, recognizing the unique challenges faced in each partner country.

2.3. Methodological Framework

The needs analysis is grounded in a multi-methodological approach designed to capture both quantitative and qualitative data. Four data collection tools were employed to ensure a holistic understanding of responder needs: literature review, questionnaire, interviews, and focus groups. The literature review provided a theoretical foundation, while the questionnaire gathered broad, quantifiable insights

from 693 respondents across five countries. Interviews offered in-depth, personal perspectives on resilience challenges, and focus groups facilitated collaborative discussions, uncovering shared and region-specific themes. This layered approach ensures that the analysis is both comprehensive and contextually relevant.

3. Methodology

This section outlines the comprehensive methodological approach employed in the needs analysis for the Resilient Responders Project. A multi-method framework was utilized to capture both quantitative and qualitative insights, ensuring a robust and nuanced understanding of the psychological resilience needs of disaster response personnel. The methodology integrates four distinct tools—literature review, questionnaire, interviews, and focus groups—each contributing unique perspectives and data.

3.1. Tools and Instruments

The methodology leveraged four primary tools to systematically collect and analyze data across the five participating countries: Portugal, Spain, Italy, Greece, and Türkiye. These tools were carefully selected to address the diverse facets of psychological resilience and provide a well-rounded basis for analysis.

3.1.1. Literature Review

The literature review served as the foundation for the needs analysis by synthesizing existing research and theoretical frameworks related to psychological resilience, stress management, and mental health support for disaster responders. Academic articles, institutional reports, and policy documents were analyzed to identify:
- Key challenges faced by responders in high-stress scenarios.
- Best practices and intervention models for resilience-building.
- Gaps in existing research, particularly concerning cultural and regional variations.
The findings of the literature review provided a theoretical lens to interpret data collected through other tools and informed the development of targeted recommendations.

3.1.2. Questionnaire

The questionnaire was designed to collect quantitative and qualitative data on the experiences, challenges, and training needs of disaster response personnel. Administered to 693 respondents across the five countries, the questionnaire included:
- Demographic questions to capture the diversity of respondents.
- Likert-scale items to assess confidence levels, stress management skills, and preparedness.
- Open-ended questions to explore training preferences and psychological needs.

This tool enabled the identification of trends, regional variations, and key areas requiring intervention.

3.1.3. Interviews

Interviews provided in-depth, qualitative insights into the personal experiences of disaster responders. Conducted across the participating countries, these interviews highlighted:
- Cultural and organizational influences on psychological resilience.
- The effectiveness of existing support systems.
- Individual perspectives on stressors and coping mechanisms.
The interview data complemented the broader trends identified in the questionnaire by adding depth and context.

3.1.4. Focus Groups

Focus groups facilitated collaborative discussions among disaster response personnel, providing a platform to explore experienced challenges and solutions. Structured around three core themes—identifying challenges, examining needs, and designing solutions—the sessions allowed participants to:
- Share personal experiences and regional perspectives.
- Collaboratively identify practical approaches to building resilience.
- Highlight gaps in existing mental health support and training.
Focus groups enabled the exploration of nuanced themes, particularly those influenced by cultural and organizational contexts.

The integration of these four tools ensured a comprehensive understanding of the psychological resilience needs of disaster responders. This layered approach enabled the identification of both overarching trends and region-specific insights, laying the groundwork for targeted interventions and training recommendations.

3.2. Data Collection and Sampling

The data collection process for the Resilient Responders Project was meticulously designed to ensure comprehensive representation of disaster response personnel across five participating countries: Portugal, Spain, Italy, Greece, and Türkiye. By employing diverse tools and methodologies, the analysis captured a wide range of perspectives and experiences, enabling a holistic understanding of the psychological resilience needs of disaster responders.

3.2.1. Data Collection Process

Data collection was conducted between August 2024 and December 2024, utilizing both online and in-person methods to accommodate the geographical and logistical diversity of participants. The process adhered to strict ethical standards, including

informed consent, confidentiality, and voluntary participation. Each tool employed specific methods for data collection:
- Literature Review: Reviewed over 50 academic articles, institutional reports, and policy documents to identify relevant studies and frameworks.
- Questionnaire: Administered online to 693 respondents, providing a broad quantitative and qualitative dataset from a geographically diverse sample.
- Interviews: Conducted 30 semi-structured interviews, capturing detailed, qualitative insights from participants across the countries.
- Focus Groups: Facilitated six focus group sessions, engaging a total of 60 participants in collaborative discussions.

3.2.2. Sampling Strategy

A purposive sampling strategy was employed to ensure the inclusion of diverse participants representing various roles, experiences, and cultural contexts within disaster response. This approach facilitated the collection of data that is both representative and contextually rich.

- Target Groups: Participants included first responders, healthcare professionals, law enforcement officers, volunteers, and administrative personnel, reflecting the breadth of roles in disaster response.

- Sample Size:
  - Questionnaire: A total of 693 respondents participated, with country-specific representation as follows:
  - Portugal: 108 respondents
  - Spain: 101 respondents
  - Italy: 112 respondents
  - Greece: 144 respondents
  - Türkiye: 228 respondents (114 each from the two partner organizations: KSU and TENGO)

- Interviews: A total of 30 interviews were conducted:
  - Portugal: 5 interviews
  - Spain: 5 interviews
  - Italy: 5 interviews
  - Greece: 5 interviews
  - Türkiye: 10 interviews (5 interviews per partner organization)

- Focus Groups: A total of 6 focus groups were conducted:
  - Portugal: 1 focus group with 9 participants
  - Spain: 1 focus group with 10 participants
  - Italy: 1 focus group with 10 participants
  - Greece: 1 focus group with 10 participants

- Türkiye: 2 focus groups with 10 participants each (one per partner organization)
- Geographical Representation: Balanced representation from all participating countries ensured insights were drawn from diverse cultural and operational contexts.

3.2.3. Participant Characteristics

The diversity of the participant pool enhanced the reliability and relevance of the findings. Key characteristics include:
- Demographics: Participants spanned a wide age range, representing early-career professionals and seasoned responders, providing intergenerational perspectives on resilience.
- Experience Levels: The sample encompassed both highly experienced professionals with decades of service and individuals new to disaster response, offering comparative insights into training needs and challenges.
- Cultural Contexts: Regional variations in organizational practices and cultural attitudes toward mental health were captured, enabling tailored recommendations that address local contexts.

This data collection and sampling process ensured that the analysis is robust, diverse, and contextually grounded, forming a strong foundation for the subsequent findings and recommendations.

3.3. Analytical Approach

The analytical approach for the Resilient Responders Project was designed to systematically process and interpret data collected through the four tools: literature review, questionnaire, interviews, and focus groups. By integrating quantitative and qualitative methodologies, the analysis ensured a comprehensive understanding of the psychological resilience needs of disaster response personnel across Portugal, Spain, Italy, Greece, and Türkiye.

3.3.1. Quantitative Analysis

Quantitative data, primarily derived from the questionnaire, was analyzed to identify trends, patterns, and statistically significant insights. Key steps included:
- Descriptive Statistics: Demographic data such as age, gender, professional roles, and years of experience were summarized to provide a comprehensive profile of respondents.
- Frequency Analysis: Responses to Likert-scale questions were examined to gauge confidence levels, stress management skills, and preferences for training formats.
- Comparative Analysis: Country-specific data was compared to identify regional variations in training needs, psychological challenges, and support gaps.

- Cross-Tabulations: Relationships between variables such as training history and confidence in psychological resilience were explored to uncover underlying trends.

3.3.2. Qualitative Analysis

Qualitative data from the interviews, focus groups, and open-ended questionnaire responses were analyzed using thematic analysis. This approach enabled the identification of recurring themes and nuanced insights. The process involved:
- Data Coding: Responses were systematically coded to categorize key themes, such as psychological challenges, cultural influences, and organizational practices.
- Theme Identification: Core themes were extracted, including stress management needs, gaps in mental health support, and preferred training modalities.
- Contextual Analysis: Responses were analyzed within the cultural and organizational contexts of each country to ensure relevance and applicability.
- Triangulation: Insights from interviews and focus groups were cross-referenced with questionnaire findings to validate themes and ensure consistency across data sources.

3.3.3. Integration of Findings

To ensure a holistic understanding, quantitative and qualitative findings were integrated at multiple stages of the analysis. This approach allowed for:
- Cross-Validation: Quantitative trends were validated through qualitative narratives, ensuring reliability and depth in the findings.
- Comprehensive Insights: Integrated findings highlighted both broad trends and context-specific nuances, providing a well-rounded perspective.
- Actionable Outcomes: The synthesis of data informed the development of evidence-based recommendations and a tailored training framework.

3.3.4. Ethical Considerations

The analysis was conducted in adherence to ethical research principles. Confidentiality and anonymity of participants were maintained throughout the process. Informed consent was obtained for all data collection activities, and participants were assured of their right to withdraw at any stage. Additionally, cultural sensitivity was prioritized to ensure respectful and meaningful engagement with diverse respondents.

The analytical approach adopted for this study ensured a robust, systematic, and culturally informed interpretation of data, laying the foundation for the findings and recommendations presented in subsequent sections of this report.

4. Findings and Results

4.1. Literature Review

Natural disasters have long posed a global threat, causing significant human and economic losses. Between 1998 and 2018, such events resulted in over 1.2 million deaths and $3.3 trillion in damages, with climate change expected to increase their frequency and severity (González, 2021). Beyond physical and social consequences, these events have profound psychological impacts, with up to half of affected populations showing psychological symptoms (PAHO, 2002). Early interventions are crucial in mitigating long-term mental health effects (Robles & Medina, 2003; Cascales et al., 2004).

Emergency psychology focuses on addressing the mental health needs of both victims and responders. In Italy, it has been integrated into crisis management to support frontline workers like firefighters and healthcare personnel, who are vulnerable to disorders such as PTSD and burnout due to repeated exposure to trauma (Scarinci, 2016; Prati & Pietrantoni, 2010). Emergency psychologists play a critical role in prevention, helping individuals process traumatic events and reduce future psychological risks (Soto-Baño, 2021). Araya (2013) defines the discipline as the study of psychological changes and phenomena in dangerous situations, whether natural or human-caused.

Psychological resilience is a cornerstone for disaster response personnel, whose effectiveness directly impacts the success of disaster management efforts. Their psychological well-being is crucial not only for their personal health but also for the safety and recovery of affected communities. Prioritizing resilience ensures responders remain capable of providing effective care during increasingly frequent and severe disasters (Soto-Baño, 2021).

Effective interventions such as trauma therapy, resilience training, and stress management equip responders with tools to navigate high-stress environments. Peer support programs and cognitive-behavioral strategies further enhance coping mechanisms, fostering a culture of psychological safety within teams. These approaches contribute significantly to the success of disaster recovery efforts.

Emergency psychologists play a pivotal role in coordinating psychological assistance during crises. Given the diverse organizational structures involved in disaster response (e.g., Red Cross, Civil Protection, National Health Systems), their coordination ensures efficient and effective interventions while avoiding duplication of tasks. This strategic oversight optimizes psychological support for affected populations, reinforcing the broader disaster management framework (Soto-Baño, 2021).

Disaster response professionals often face a range of mental health challenges, including stress (García et al., 2014), professional burnout, post-traumatic stress disorder (PTSD) (Roa, 2010), vicarious trauma (Paredes-Núñez et al., 2017), and compassion fatigue (Palacios-Hernández et al., 2017). While much research focuses on healthcare professionals and general emergencies, natural disasters present unique psychological stressors.

One critical factor is the prolonged nature of natural disasters, which keeps affected populations in states of alertness and uncertainty. This prolonged exposure increases the risk of emotional exhaustion, anxiety, fear, and impaired decision-making abilities, as highlighted by Roa (2010).

Additionally, natural disasters differ significantly from individual crises in their impact on social networks. According to the Pan American Health Organization (2006), disasters often disorganize or destroy these networks, leaving individuals and responders without the support systems typically available in other crises. For disaster professionals, managing their own stress while addressing the suffering of others exacerbates the psychological toll, leading to both immediate and long-term consequences (Roa, 2010).

4.1.1. Psychological First Aid (PFA)

The Council of Europe's Implementation Guidelines for Psycho-Social Support in Disasters (2021) provide critical guidance for psychological interventions targeting disaster responders. These guidelines highlight the importance of tailored mental health support for first responders, emphasizing immediate psychological interventions during and after disaster operations. Psychological First Aid (PFA) is a cornerstone of these recommendations, offering immediate emotional relief and practical support to stabilize responders and mitigate acute stress reactions (Council of Europe, 2021; WHO, 2023).

PFA has been shown to reduce stress levels and enhance psychological resilience among disaster responders. For example, a study by Bekircan et al. (2024) on volunteers aiding the 2023 Kahramanmaraş earthquakes in Türkiye demonstrated that PFA significantly decreased stress and improved resilience in those who received the intervention compared to a control group. Early intervention helped responders adapt better to the traumatic conditions of disaster work, underscoring the importance of immediate psychological support.

The effectiveness of PFA was also observed during the Rethymno wildfires in Crete, where the Hellenic Red Cross provided physical care and emotional counseling to firefighters and displaced residents. The intervention helped stabilize responders and prevent severe psychological trauma. Early support, combined with practical

assistance, is critical in reducing the risk of PTSD and other mental health issues among response teams (IASC, 2007).

4.1.2. Psychological Interventions for Disaster Response Personnel

The Council of Europe (2021) guidelines emphasize the critical need for both immediate and long-term psychological care for disaster responders to prevent worsening trauma effects. These guidelines recommend that mental health services extend beyond the disaster period, including therapy sessions and regular psychological check-ups to monitor progress and address conditions like delayed-onset PTSD. The integration of psychosocial support services into broader community recovery plans is also highlighted. For example, Türkiye has adopted proactive measures to integrate psychosocial services into its disaster response framework, strengthening the resilience of both rescuers and affected communities. Similarly, Italy's approach includes using community health centers to provide continuous mental health care to responders and victims, facilitating collective recovery after disasters (Council of Europe, 2021).

Interventions such as trauma-focused therapy, resilience training, and peer support are essential in mitigating the psychological toll of disaster work. According to Umeda et al. (2020), structured mental health interventions—such as cognitive-behavioral therapy (CBT), peer support programs, and early psychological interventions—are effective in reducing stress and preventing long-term issues like PTSD and depression. For example, CBT has been extensively used in Greece following major wildfires to address PTSD symptoms among firefighters, significantly reducing fear, insomnia, and intrusive thoughts (Theleritis et al., 2020). Similarly, EMDR has been successfully applied in Italy after disasters like the L'Aquila earthquake, helping to reduce flashbacks and emotional hyperactivation in rescuers (Fernandez et al., 2017).

4.1.2.1. Resilience Training

Resilience training has become a cornerstone of mental health programs for responders, with initiatives such as the Warr;or21 program showing significant improvements in stress management and emotional regulation. The program incorporates practices like controlled breathing and mindfulness, enhancing responders' capacity to handle stress effectively (Thompson & Drew, 2020). In Greece, resilience-building efforts include the establishment of training facilities like the Stavros Niarchos Foundation Hellenic Fire Corps Training Centre, which provides advanced simulations to improve mental stamina and teamwork under stress (Stavros Niarchos Foundation, 2023).

4.1.2.2. Peer and Social Support

Peer support programs play a crucial role in disaster response, providing emotional stabilization through debriefing sessions and peer-led groups. These programs

create a safe space for responders to process their experiences collectively, reducing feelings of isolation and promoting resilience (Battistini & Galli, 2017). In Greece, Psychological First Aid (PFA) has been a central focus, especially during emergencies like the 2018 wildfires, where responders benefited from emotional counseling provided by the Hellenic Red Cross.

4.1.2.3. Stress Management and Self-Care

Stress management techniques, including mindfulness and relaxation exercises, are essential for mitigating burnout. Programs like Warr;or21 incorporate daily practices that promote calmness and gratitude, while organizations are encouraged to offer psychoeducation and emotional check-ins to support responders during and after traumatic events (Thompson & Drew, 2020; Lumb, 2016). Self-care strategies, such as ensuring rest between shifts and engaging in regular physical activity, are also vital for maintaining responders' mental health (Umeda et al., 2020).

4.1.2.4. Long-Term Psychosocial Interventions

Long-term psychosocial support, such as ongoing counseling and rehabilitation programs, ensures lasting mental health improvements for responders. This includes therapy sessions, group workshops, and mental health check-ups to address delayed trauma effects and promote recovery. Integrating these services into primary healthcare and providing access to mental health professionals is critical for ensuring holistic and sustained support (The Lancet, 2023; CSTS, 2023).

4.1.2.5. Peer Support Networks

Informal peer support networks play a crucial role in promoting psychological well-being among responders. These networks provide a sense of community and shared understanding, helping professionals navigate the challenges of their roles. However, their lack of formalization limits their scalability and effectiveness. Scarinci (2016) advocates for integrating peer support into organizational policies, which would enhance their impact and sustainability.

4.1.3. Legal Framework and Regulations

Legal frameworks significantly influence how psychological support is integrated into disaster response protocols. These frameworks vary across countries, reflecting differences in cultural attitudes, resources, and policy priorities.

4.1.3.1. Portugal

In Portugal, disaster response professionals such as firefighters, medical teams, and civil protection agents frequently face high-stress environments, heightening their risk for psychological strain and trauma. To address this, key organisations like ANEPC, INEM, and the Portuguese Psychologists Association (OPP) have developed systems to support mental health resilience and psychosocial care.

Notably, the Psychosocial Support Teams (EAPS) offer tailored psychological interventions for firefighters, enhancing resilience and fostering peer support, while the CAPIC provides 24/7 crisis intervention nationwide. Additionally, the OPP has mobilized volunteer psychologists for disaster response, complementing comprehensive health guidelines and training manuals to support the mental and physical well-being of responders.

4.1.3.2. Spain

In Spain, emergency psychology has emerged as a crucial professional discipline since the late 1990s, driven by the consistent demand for psychological support in scenarios involving multiple victims, natural disasters, terrorist attacks, traffic accidents, and suicides. However, despite its growth and recognition, the field lacks specific legislation to govern its practice. Recent disasters such as the volcanic eruption in La Palma, the Filomena snowstorm, recurring forest fires, and frequent floods in the Levante region highlight the urgent need for comprehensive public policies. These policies should not only institutionalize emergency psychology as a critical field for aiding affected populations but also address the psychological needs of first responders.

Efforts to formalize the discipline include a 2018 Non-Legislative Proposal in the Congress of Deputies, which sought to recognize the importance of emergency psychology and promote its integration into Spain's public healthcare system. Although this proposal did not pass into law, it underscored the necessity of ensuring professional qualifications for psychologists working in emergencies and reinforced the discipline's relevance for both practitioners and society.

As Spain continues to face natural disasters and other crises, policymakers must prioritize the regulation of emergency psychology. By establishing comprehensive legislation and integrating psychological expertise into disaster response frameworks, Spain can enhance its preparedness and ensure effective psychological care for both victims and first responders, fostering resilience and improving overall emergency management.

4.1.3.3. Italy

In Italy, psychological support in emergency situations is governed by a robust legal framework, including the Civil Protection Code (D.lgs. 1/2018) and guidelines from the Istituto Superiore di Sanità (ISS). These regulations mandate psychological care for both victims and responders throughout all disaster phases, emphasizing a multidisciplinary approach involving psychologists, social workers, and medical personnel.

Key measures include pre-deployment training in psychological first aid (PFA), emotional regulation, and trauma recognition. During emergencies, embedded

psychological teams provide immediate support, such as on-site counseling and group debriefings, while long-term care includes follow-ups and therapies like CBT and EMDR. Peer support systems further foster emotional resilience among responders.
Italy's framework integrates psychological care into community recovery plans, ensuring sustained mental health support for both responders and affected populations. By prioritizing mental health in disaster management, Italy enhances responder resilience and effectiveness, ensuring comprehensive recovery efforts.

4.1.3.4. Greece

In Greece, legal frameworks such as the Greek Civil Protection Law (Law 3013/2002, amended by Law 4249/2014) and the Xenokratis Plan establish the foundation for integrating psychological support into disaster management. These laws mandate the inclusion of mental health services for first responders, including firefighters, healthcare workers, and rescue teams, during and after emergencies. The Civil Protection Law emphasizes coordinated disaster response, while the Xenokratis Plan outlines strategies for psychological first aid (PFA) and trauma counselling during emergencies, along with post-crisis mental health care for affected individuals and responders.

Despite these provisions, challenges remain in implementing continuous psychological monitoring and systematic support for high-risk responders. Programs like the Stavros Niarchos Foundation's Hellenic Fire Corps Training Centre have improved resilience training, yet healthcare workers and other emergency responders often receive insufficient support. The aftermath of the COVID-19 pandemic further exposed gaps in Greece's disaster response system, highlighting the need for robust enforcement and better resource allocation to enhance the resilience and mental well-being of disaster response teams.

4.1.3.5. Türkiye

In Türkiye, the Turkish Red Crescent's 2021–2030 Strategic Plan emphasizes integrating mental health and psychosocial support (MHPSS) into disaster response, with initiatives focusing on capacity building, community involvement, stakeholder collaboration, and accessible services. Training staff and volunteers in psychological first aid (PFA), fostering resilience through local networks, and ensuring services are culturally adaptive and multilingual are key priorities. The plan also includes ongoing monitoring and advocacy to raise awareness about mental health in disaster contexts, aiming to enhance psychological support capabilities over the next decade.

The Afet ve Acil Durum Müdahale Hizmetleri Yönetmeliği (Regulation on Disaster and Emergency Response Services) outlines existing provisions for mental health care during and after disasters, designating the Ministry of Family and Social Services as the coordinating body for psychosocial support. While psychosocial

analyses and general training for responders are mandated, there is a notable lack of detailed guidelines specific to first responders' mental health.

To address these gaps, recommendations include implementing dedicated mental health protocols, such as pre- and post-deployment screenings, structured PFA programs, and resilience training tailored for first responders. Peer support systems and access to trauma specialists are essential, alongside cultural competence training to enhance effectiveness in diverse communities. Legal reforms should formalize mental health services for responders, incorporate mandatory mental health breaks, and establish rotations to reduce stress exposure. By addressing these areas, Türkiye can strengthen its disaster response framework and support the mental well-being of its responders.

After conducting an initial review of relevant literature and research, the project team advanced to subsequent phases of the investigation to broaden the scope of information and validate the findings from the bibliographic analysis. Specifically, the team conducted semi-structured interviews with professionals in the fields of emergency and disaster response, distributed 693 evaluation questionnaires to gather additional insights, and organised various focus group discussions with experts from these professional domains.

These focus groups provided a platform for participants to discuss training needs related to resilience and psychological intervention, as well as to propose specific content to be included in the project's training curriculum.
The following is a summary of the results obtained from each phase of the project.

4.2. Conducted Interviews

This section consolidates findings from interviews conducted in Portugal (5 interviews), Spain (5), Italy (5), Greece (5), and Türkiye (10). These interviews were aimed at understanding the psychological challenges faced by disaster response professionals, evaluating the effectiveness of current support systems, and proposing detailed recommendations for enhancing resilience and well-being. Each section provides in-depth insights into the unique and shared challenges experienced across these countries, alongside country-specific recommendations. The focus is on understanding the nuances of mental health challenges faced by professionals, drawing lessons from their experiences, and suggesting actionable strategies to address these challenges.

4.2.1. Findings Per Country

- **Findings from Portugal**

The interviews reveal consistent mental health challenges among disaster response professionals, including high-stress environments, exposure to trauma, and the emotional toll on personal lives. Participants highlighted significant stigma around mental health, with discussions often occurring only after critical incidents, underscoring the need for cultural change. Existing mental health support services are reactive and inconsistent, while training is often insufficient for the practical demands of high-stress situations. Informal peer support is valued but lacks structure and regularity.

To address these gaps, participants recommended realistic, ongoing training that incorporates disaster simulations, stress recognition, and burnout management. Leadership training should emphasize supporting team mental health, fostering open discussions, and creating a stigma-free work culture. Structured peer and group support systems, alongside external psychological resources, were suggested to provide confidential and judgment-free avenues for assistance. Additionally, improvements in compensation and working conditions were identified as essential for reducing external stressors and enhancing resilience.

The findings underscore the urgent need for comprehensive mental health frameworks in disaster response, emphasizing realistic training, engaged leadership, peer support, and accessible external services. Implementing these measures can create a supportive culture, ensuring responders maintain their mental well-being while effectively managing the emotional demands of their roles.

- **Findings from Spain**

Disaster response professionals in Spain face significant mental health challenges due to the unpredictable nature of emergencies, emotional strain from witnessing human suffering, and the pressure of managing teams in high-stakes environments. While their sense of purpose and attachment to affected communities provide resilience, the intense experiences often lead to emotional exhaustion and difficulty reintegrating into personal life. Mental health discussions, though increasingly recognized, remain under-prioritized, with existing support mechanisms often reactive rather than preventative. Effective leadership and coordination are critical, as a strong manager can optimize resources, address team needs, and foster a supportive culture. However, inadequate coordination among organizations frequently results in inefficiencies, compounding stress for responders.

Current mental health training focuses primarily on safety measures and reactive interventions, leaving many professionals unprepared for the psychological toll of their work. While peer and professional support are valued, there is a consensus on the need for proactive, practical training to build resilience, self-assessment skills, and emotional regulation. Leadership involvement in mental health initiatives is

particularly emphasized, with responders calling for workshops and interventions led by experienced fieldworkers who understand the unique challenges of disaster response.
To address these gaps, recommendations include establishing clear communication channels, enhancing peer support systems, and integrating mental health training into regular preparedness programs. Suggested improvements include "buddy" systems, group activities to alleviate stress, and proactive leadership engagement in mental health discussions. Future steps must prioritize these measures, fostering a culture of resilience and well-being among responders, thereby improving both individual outcomes and overall disaster response effectiveness.

- **Findings from Italy**

The findings in Italy highlight the profound impact of emotional strain, delayed grief, burnout, and stigma surrounding mental health on responders' well-being and performance. Challenges such as balancing professional demands with personal lives and insufficient leadership support exacerbate these issues.

The current state of mental health training and support reveals significant gaps. Training often focuses on technical skills rather than psychological resilience and is predominantly reactionary, initiated after crises rather than proactively. Informal peer support, while valued, lacks structure and consistency, and smaller organizations frequently struggle with resource accessibility. Cultural barriers, particularly in hierarchical structures, discourage open discussions on mental health, leaving many responders unsupported in managing emotional stress.

To address these challenges, the participants recommended integrating comprehensive mental health training into regular programs, with a focus on stress management, resilience, and self-assessment. Structured peer support networks, proactive leadership engagement, and accessible virtual resources are essential to providing consistent care. Initiatives to reduce stigma and create tailored support plans can foster a more supportive workplace culture. Collaborating with external experts for specialized training and neutral counseling spaces further strengthens the framework for mental health care.

Addressing these gaps requires leadership to prioritize mental health as a core component of disaster response. Proactive measures, such as refining training programs, strengthening peer networks, and ensuring accessible resources, will enhance the resilience and effectiveness of responders. By committing to these strategies, organizations can improve both the well-being of their teams and the overall quality of disaster response efforts.

- **Findings from Greece**

Disaster response professionals in Greece face significant mental health challenges due to the unpredictable nature of emergencies and the emotional strain of their roles. Responders frequently encounter high-stakes environments, which lead to anxiety, psychological exhaustion, and burnout. The demanding schedules and limited recovery time exacerbate these challenges, particularly for those in emergency departments and high-pressure roles. These stressors also affect personal lives, as responders struggle to balance their professional and family responsibilities, often leading to emotional disconnection and strained relationships.

Current mental health support for responders is largely informal, relying on peer discussions to foster solidarity. However, structured mental health programs remain scarce, leaving professionals without the tools to manage intense psychological stress. Training in mental health resilience is minimal, with most responders reporting insufficient or outdated training that fails to address the specific demands of disaster response. The lack of consistent, proactive mental health resources and infrastructure further compounds the problem, with most support mechanisms only activated after major incidents. Additionally, cultural barriers and stigma surrounding mental health deter responders from seeking professional help, reinforcing a reliance on inadequate peer support.

To address these issues, recommendations include implementing structured mental health programs, such as annual workshops, resilience training, and regular counseling sessions. Strengthening infrastructure to provide basic support during prolonged operations—such as rest areas, food, and immediate psychological aid—would mitigate burnout and improve performance. Moreover, fostering a culture of openness around mental health is crucial. Leaders should actively promote mental health awareness and normalize help-seeking behaviors to reduce stigma and build a supportive environment.

By prioritizing these measures, Greece can create a proactive framework for mental health support that empowers responders to manage the psychological demands of their roles, ensuring a more resilient and effective disaster response workforce.

- **Findings from Türkiye**

KSU's findings reveal that disaster response professionals face significant psychological challenges due to the unpredictable nature and emotional strain of their roles. The necessity of empathy, effective communication, and family safety emerged as critical themes. Participants noted that the chaotic environment of disasters exacerbates stress and anxiety, leading to mental fluctuations despite growing resilience over time. The absence of formal training on mental health

exacerbates this issue, leaving responders reliant on past experiences and personal resilience. Current training programs prioritize technical skills, neglecting the psychological readiness needed to manage the intense mental stress of disaster response. Responders highlighted the importance of structured training that includes workshops, one-on-one counseling, and peer support. Public figures and community solidarity were identified as motivational tools to foster resilience and morale. Ultimately, the participants emphasized the need for institutionalized mental health initiatives, including regular training, leadership involvement, and a culture that integrates psychological support as a core component of disaster management.

TENGO's findings underscores the pervasive psychological toll on disaster responders, driven by fears of inefficiency, delayed emotional reactions, and the long-term impact of high-stakes environments. Participants highlighted challenges such as disrupted sleep patterns, persistent fatigue, and strained personal relationships, which complicate recovery post-disaster. Stigma surrounding mental health and the absence of proactive psychological support further compound these difficulties. While some informal peer support exists, it remains insufficient for addressing deep-seated challenges. Training programs are primarily technical, leaving responders unprepared for the emotional and psychological demands of their work. Recommendations include implementing comprehensive mental health training focused on resilience, stress management, and emotional regulation. Establishing formal counseling services, structured peer support systems, and leadership engagement are also critical. TENGO advocates for a culture shift to normalize mental health discussions and provide flexible, accessible support tailored to responders' needs, ensuring a sustainable and resilient workforce.

4.2.2. Recommendations and Conclusions

Across all countries, respondents consistently identified challenges such as high emotional strain, cultural stigma around mental health, and insufficient training programs. These challenges are compounded by the reactive nature of current support systems and the lack of preventative measures. Professionals reported that the emotional demands of their roles often extended into their personal lives, affecting their relationships and overall well-being.

While some organizations offer psychological support, it is often reactive and insufficient to meet the needs of disaster response professionals. Peer support systems, although valued, are typically informal and lack the structure necessary to address significant psychological issues. There is a pressing need for organizations to adopt a more proactive approach to mental health support, focusing on resilience-building and prevention.

Recommendations:

- Develop comprehensive mental health training programs tailored to the specific demands of disaster response roles.
- Foster a culture of openness and reduce stigma around mental health through organizational initiatives.
- Enhance leadership engagement in promoting and supporting mental well-being within teams.
- Provide consistent access to professional counseling services, both in-person and virtual, to ensure support is readily available.
- Establish structured peer support networks to encourage shared experiences and collective resilience-building.

This section highlights the critical need for a comprehensive approach to mental health support for disaster response professionals. By addressing the gaps identified through these interviews and implementing the proposed recommendations, organizations can foster a resilient workforce capable of effectively responding to the psychological demands of their roles. The findings and insights presented here provide a roadmap for developing sustainable strategies that prioritize the mental well-being of disaster response teams.

4.3. Questionnaires

To understand the specific needs of disaster responders across diverse contexts, the project conducted a comprehensive survey in Greece, Spain, Türkiye, Portugal, and Italy. This survey aimed to evaluate existing training frameworks, identify gaps in preparedness, and explore preferences for future training content and delivery methods. A total of 693 questionnaires were administered across these five countries, representing a diverse cross-section of roles, experiences, and regions.

The findings from this research form the foundation for designing a tailored training curriculum, addressing the unique psychological and practical needs of disaster responders. This report presents the key findings from each participating country, followed by a detailed analysis of overarching challenges, and concludes with recommendations for the development of the training framework.

4.3.1. Finding per country

- **Findings from Portugal**

In Portugal, 108 questionnaires were distributed, targeting professionals aged 20–64 years. While 64.8% of participants reported having received formal training, significant gaps were identified in addressing large-scale emergencies and cultural sensitivity.

Respondents expressed a strong preference for concise, frequent training sessions that incorporate practical exercises. This reflects a demand for training formats that balance effectiveness with time efficiency, accommodating the dynamic schedules of disaster responders. The preference for training delivery methods was also notable, with 53.7% expressing a strong inclination towards face-to-face training formats.

- **Findings from Spain**

In Spain, 101 questionnaires were administered to disaster response professionals, covering a wide age range from 19 to 64 years. The majority (76.8%) had prior experience in disaster response. However, only 49% felt confident in their ability to provide psychological first aid, reflecting a widespread need for targeted training in this area.

Participants expressed a clear preference for blended training approaches, combining online theoretical components with practical, hands-on exercises. This preference aligns with the need for flexible learning opportunities that cater to the varying schedules and commitments of disaster responders.

- **Findings from Italy**

In Italy, 112 questionnaires were completed, capturing a diverse participant pool aged 20 to 69 years. Despite 59.8% reporting formal training experience, gaps in scenario-based practice were a recurring theme. Responders reported feeling unprepared to manage complex emergencies involving multi-agency coordination or hazardous materials.

The findings emphasized the importance of advanced disaster simulations and psychological first aid training. These approaches are critical for building confidence and competence in high-stakes environments.

- **Findings from Greece**

In Greece, 144 questionnaires were completed by professionals in the disaster response field. Participants were predominantly aged 21–50+ years, with 94.9% reporting prior experience in disaster response operations. Despite this experience, significant gaps in psychological preparedness were identified, with 43.1% of respondents highlighting insufficient training in psychological first aid and cultural sensitivity.

- **Findings from Türkiye**

Türkiye had the largest sample size, with 228 questionnaires completed by responders (114 by TENGO and 114 by KSU). The average age of participants was 35.61 years, and 68% reported prior experience in disaster response. A critical challenge identified was the lack of post-intervention psychological support, with 87.7% of respondents indicating they had no access to mental health resources following disaster operations.

4.4. Focus Groups

To understand the specific needs of disaster responders across diverse contexts, the Resilient Responders Project conducted a comprehensive series of focus group discussions in Greece, Spain, Türkiye, Portugal, and Italy. These discussions aimed to evaluate existing mental health support frameworks, identify challenges in psychological resilience, and explore preferences for training content and delivery methods. A total of six focus groups were conducted, engaging a diverse cross-section of roles, experiences, and cultural perspectives.

This section presents the participant overview by Country and Partner, followed by a detailed analysis of overarching challenges, and concludes with recommendations for the development of the training framework.

4.4.1. Participant Overview by Country and Partner

The participant composition across the consortium countries in the Resilient Responders project offered a rich and diverse array of perspectives on the psychological and operational challenges faced by disaster response professionals. Each partner country provided unique insights derived from the experiences of their participants, highlighting both shared and context-specific issues.

- **Finding from Portugal**

In Portugal, Animam Viventem facilitated the participation of nine professionals, including firefighters, police officers, military personnel, and healthcare providers. These individuals ranged in age from 27 to 56 years and brought with them professional experience spanning 8 to 35 years in disaster response. The group provided critical insights into the intersection of operational demands and psychological resilience. In particular, participants highlighted the immense pressure of high-stakes environments that demand immediate decision-making, often without adequate mental health resources to support them.

- **Finding from Spain**

In Spain, Ahora ONG conducted two focus groups that included a mix of seasoned professionals and first-time volunteers who had participated in the response to the Valencia floods. This comparative setup provided a nuanced understanding of the psychological coping mechanisms employed by experienced responders versus the challenges faced by untrained volunteers. Volunteers often expressed feeling overwhelmed and unprepared for the emotional demands of disaster response, contrasting sharply with seasoned professionals who had developed coping strategies through experience. Across both groups, participants underscored the need for structured psychological support and expressed a preference for blended training models that combine theoretical online learning with practical, hands-on exercises.

- **Finding from Italy**

In Italy, EGINA facilitated a focus group comprising five disaster response practitioners, including civil protection experts, healthcare responders, and police officers. This group provided valuable perspectives on the operational challenges of disaster response, such as managing emotional fatigue, ensuring public safety, and navigating coordination in multi-agency scenarios. Participants highlighted the necessity of role-specific psychological training and advanced simulations to prepare responders for complex emergencies. They also emphasised the importance of psychological first aid, both as a means of supporting victims and as a vital tool for maintaining their own mental resilience during crises.

- **Finding from Greece**

In Greece, the Institute of Entrepreneurship Development (IED) organised discussions involving ten professionals representing psychologists, social workers, volunteer rescuers, firefighters, and medical professionals. Organisations such as the International Organization for Migration (IOM), NGO IASIS, the Municipality of Larissa, and volunteer rescue teams were among those represented. Participants in this group delved into the psychological toll of prolonged exposure to human suffering, citing gaps in mental health support systems within emergency services. These professionals emphasised the importance of scenario-based training to better prepare responders for real-world challenges and mitigate emotional exhaustion.

- **Finding from Türkiye**

In Türkiye, two groups contributed to the findings, beginning with Kahramanmaraş Sütçü İmam University (KSU). This cohort consisted of ten professionals actively engaged in search and rescue operations, healthcare provision, and educational roles. The participants represented various key organisations, including the Disaster

and Emergency Management Authority (AFAD), the Turkish Red Crescent, the Provincial Health Directorate, and the Ministry of National Education's Search and Rescue Team. A unique aspect of this group was that many participants had served dual roles during the Kahramanmaraş Earthquake on February 6, 2023, acting as both disaster victims and responders. This duality provided valuable perspectives on the compounded psychological strain experienced when personal distress and professional responsibilities intersect in the midst of a crisis.

Similarly, TENGO in Türkiye engaged another group of ten participants, comprising field operators such as firefighters and police officers, alongside managerial roles including health team chiefs, Red Crescent field managers, and administrative leaders. These individuals represented organisations such as the Kahramanmaraş Provincial Police Department, the Health Directorate, and the Fire Department Directorate. Discussions with this group emphasised the psychological burden of balancing personal and professional obligations during high-stress scenarios, as well as the cultural stigma surrounding mental health that often prevents responders from seeking the support they need.

Overall, the participant contributions from each country illuminated critical aspects of disaster response work, revealing both shared challenges and unique, context-driven needs. These findings serve as a robust foundation for developing tailored training interventions that address the psychological and operational demands faced by disaster response professionals across Europe.

5. Key Themes and Cross-Cutting Insights

This section presents the key findings derived from the data collected through the literature review, questionnaire, interviews, and focus groups. These findings provide a comprehensive overview of the psychological resilience needs, challenges, and training gaps faced by disaster response personnel across Portugal, Spain, Italy, Greece, and Türkiye. By synthesizing insights from multiple tools, the results offer both broad trends and context-specific nuances, forming the basis for actionable recommendations.

5.1. Thematic Insights from Tools

5.1.1. Challenges Identified

- Emotional and Psychological Strain:
  - In Türkiye, responders highlighted the severe psychological toll of frequent large-scale disasters, such as the February 6 earthquakes, with many reporting symptoms of burnout and emotional fatigue.

- Respondents in Greece cited long shifts and high-pressure environments as primary contributors to exhaustion and stress, often compounded by inadequate recovery periods between crises.
- In Spain, responders working in refugee camps described the emotional strain of witnessing human suffering and managing complex humanitarian operations.

- Stigma Around Mental Health:
- In Portugal, responders expressed reluctance to seek psychological help due to the perceived stigma surrounding mental health, which many attributed to cultural norms and workplace dynamics.
- Italian participants reported that cultural taboos around mental health discussions often prevented them from accessing support, leading to delayed responses to stress and trauma.

- Resource Constraints:
- Across all countries, respondents noted a lack of structured mental health services during and after crises. For example, only 29.9% of responders in Portugal reported access to psychological support following interventions, while in Türkiye, 87.7% indicated no post-crisis psychological assistance.

5.1.2. Support Needs and Gaps

- Proactive Mental Health Interventions:
- In Spain, participants emphasized the need for mental health training that anticipates potential crises rather than reacting after the fact.
- Greek responders called for workshops focused on stress management and resilience-building, suggesting these should be regular and mandatory.

- Organizational Engagement:
- Responders in Italy expressed the need for greater leadership involvement, highlighting the role of managers in promoting mental health awareness and facilitating access to resources.
- Portuguese participants noted that leadership often prioritized operational goals over psychological well-being, creating barriers to implementing mental health initiatives.

- Crisis-Specific Training:
- Responders in Türkiye cited the need for advanced training on managing psychological trauma in culturally diverse populations, particularly in large-scale emergencies involving displaced individuals.
- Spanish responders stressed the importance of preparing for complex disaster scenarios, including multi-agency coordination and psychological support for victims.

5.1.3. Training Preferences

- Practical and Scenario-Based Training:
  - In Portugal, responders overwhelmingly supported immersive training exercises, such as mock disaster drills, to improve readiness for real-life challenges.
  - Turkish participants highlighted the value of scenario-based modules focused on psychological first aid and emotional stabilization in large-scale disasters.

- Blended Learning Approaches:
  - Responders in Portugal expressed a preference for a face-to-face training model, while in Spain expressed a preference of a combination of formats: online modules considering in-person sessions for practical skills development.
  - Italian participants noted that blended approaches allowed them to integrate training into their demanding schedules without compromising quality.

- Cultural Sensitivity Modules:
  - In Spain, participants emphasized the importance of training on cultural sensitivity, given the increasing involvement of responders in diverse, multicultural contexts, such as refugee crises.
  - Responders in Türkiye echoed this sentiment, citing the need for tailored training to address the unique needs of disaster victims from different cultural and linguistic backgrounds.

5.1.4. Psychological Resilience Needs

- Building Coping Mechanisms:
  - In Portugal, participants reported that training on coping mechanisms, such as mindfulness and tactical breathing, significantly improved their ability to manage stress during crises.
  - Italian responders called for resilience training that includes strategies to address delayed trauma responses, particularly in the aftermath of high-casualty events.

- Peer Support Networks:
  - Responders in Greece and Spain highlighted the role of informal peer networks in mitigating stress, while also advocating for the establishment of formalized, structured peer support systems.
  - Turkish participants noted that peer networks played a critical role during the February 6 earthquakes, helping responders manage the emotional toll of the disaster.

- Post-Intervention Support:
  - Across all countries, respondents underscored the importance of consistent psychological support after disaster responses. For instance, in Italy, 68.5% of participants reported gaps in accessing post-crisis counseling, despite recognizing its importance for long-term resilience.

- Greek responders suggested the implementation of routine debriefings and counseling sessions immediately following high-stress events.

These insights provide a detailed understanding of the challenges faced by disaster responders, highlighting critical gaps in training, support, and organizational practices. Addressing these needs through targeted interventions and culturally sensitive frameworks is essential for building a resilient and effective workforce.

5.2. Comparative Trends and Cross-Cutting Themes

- Shared Challenges: Stress, burnout, and limited access to mental health resources were common across all countries, with cultural stigma further compounding these issues.

- Training Gaps: There was a consistent demand for hands-on, practical training and scenario-based exercises to prepare responders for the psychological challenges of real-life crises.

- Leadership and Organizational Support: Participants in all regions identified the critical role of leadership in promoting mental health awareness and implementing structured support systems.

- Cultural Sensitivity: The need for training that addresses cultural diversity in disaster response was a recurring theme, particularly in countries with significant immigrant and refugee populations.

5.3. Key Themes and Analysis

This section explores the core themes derived from the findings, highlighting psychological resilience needs, stress management strategies, cultural challenges, and the critical role of organizations and leadership in fostering resilience among disaster response personnel.

5.3.1. Psychological Resilience Needs

Psychological resilience emerged as a foundational element for disaster responders, enabling them to function effectively in high-stress environments. The analysis identified several key aspects of resilience needs:
- Coping Mechanisms: Responders across all countries emphasized the importance of training in coping strategies such as mindfulness, breathing exercises, and emotional regulation to manage stress and trauma during and after crises.
- Peer Support Systems: Structured peer support networks were viewed as essential for fostering resilience, providing a platform for shared experiences, mutual encouragement, and collective problem-solving.

- Post-Crisis Support: Participants highlighted the need for consistent post-intervention psychological support, such as debriefings and access to counseling services, to mitigate the long-term effects of trauma.

5.3.2. Stress Management Strategies

Effective stress management strategies were identified as critical for maintaining the mental health and operational efficiency of responders. The analysis revealed:
- Proactive Training: Regular workshops and scenario-based simulations were frequently cited as effective tools for equipping responders with stress management techniques.
- Practical Techniques: Techniques such as tactical breathing, mindfulness, and physical activity were commonly recommended to reduce immediate stress responses and improve focus.
- Work-Life Balance: Responders emphasized the need for organizations to support work-life balance through flexible scheduling and adequate recovery periods between deployments.
- Crisis-Specific Approaches: Strategies tailored to the unique stressors of specific crises, such as high-casualty events or humanitarian emergencies, were consistently requested.

5.3.3. Cultural and Contextual Challenges

Cultural and contextual factors significantly influenced the experiences and needs of responders across the participating countries:
- Cultural Stigma Around Mental Health: In countries like Portugal and Italy, respondents reported cultural barriers that discouraged discussions about mental health, limiting their willingness to seek support.
- Diverse Populations: Responders in Greece and Spain highlighted challenges in addressing the needs of culturally diverse populations, including refugees and migrants, emphasizing the importance of cultural sensitivity training.
- Regional Differences: While all regions faced shared challenges, differences in organizational practices, resource availability, and disaster frequencies created unique contexts that require localized interventions.

5.3.4. Organizational and Leadership Roles

The role of organizations and leadership was highlighted as a pivotal factor in promoting psychological resilience and mental health:
- Leadership Engagement: Responders stressed the importance of leadership in normalizing mental health discussions, reducing stigma, and ensuring access to support services.

- Organizational Policies: Participants called for clear policies and frameworks that prioritize mental health, including mandatory training, peer support systems, and accessible counseling services.
- Resource Allocation: Across all countries, respondents emphasized the need for greater investment in mental health resources, including on-site psychologists, peer support coordinators, and resilience-building programs.
- Modeling Behavior: Leaders who actively participated in resilience training and demonstrated openness about mental health were seen as instrumental in fostering a supportive organizational culture.

6. Recommendations and Training Framework

This section provides an integrated set of recommendations and a comprehensive training framework to address the challenges identified in the needs analysis. These recommendations focus on organizational policies, training curricula, and resource allocation to enhance the psychological resilience and well-being of disaster responders across Portugal, Spain, Italy, Greece, and Türkiye.

6.1. Key Recommendations

6.1.1. Organizational and Policy Enhancements

- Normalize Mental Health Discussions: Promote open dialogue about mental health to reduce stigma and encourage responders to seek support when needed.
- Establish Peer Support Networks: Create formalized peer support systems to facilitate shared learning, mutual encouragement, and emotional resilience within teams.
- Ensure Post-Crisis Psychological Support: Implement mandatory debriefings and accessible counseling services following high-stress events to address delayed trauma and prevent burnout.
- Invest in Resources: Allocate funding for on-site psychologists, peer support coordinators, and resilience training experts to support responders effectively.

6.1.2. Tailored Interventions

- Localized Training Programs: Develop training content that reflects the unique cultural and contextual needs of each participating country, addressing region-specific challenges and resource constraints.
- Role-Specific Training: Create targeted training programs for various responder roles (e.g., first responders, healthcare professionals, volunteers) to ensure relevance and practicality.
- Leadership Development: Equip leaders with the skills to promote team resilience, reduce stigma, and prioritize mental health within their organizations.

6.1.3. Monitoring and Evaluation

- Impact Assessment: Establish robust mechanisms to measure the effectiveness of training programs and organizational policies, focusing on long-term improvements in responder well-being and performance.
- Feedback Loops: Regularly gather input from participants and stakeholders to refine training content and implementation strategies.

6.2. Proposed Training Framework

The training framework is designed to address the psychological resilience, stress management, and cultural competence needs of disaster responders. It employs a blended learning approach, combining theoretical knowledge with practical, scenario-based exercises.

6.2.1. Core Training Modules

The following modules are designed to provide disaster response personnel with the tools and strategies required to build resilience, manage stress, and operate effectively in high-pressure environments. Each module combines practical skills, theoretical knowledge, and real-world applications to comprehensively address the needs identified through the analysis.

Module 1: Psychological Resilience Training

This module focuses on developing the foundational skills necessary to build resilience and adapt effectively to the challenges of disaster response.

Key Topics:
1. Understanding Resilience: The importance of resilience in maintaining performance and mental health during crises.
2. Building Adaptive Thinking: Techniques for managing stress constructively and enhancing problem-solving capabilities under pressure.
3. Recognizing Personal Resilience Strengths: Self-reflection exercises to identify individual strengths, coping mechanisms, and past experiences that can be leveraged.
4. Team-Based Resilience: Exercises and activities to foster mutual support and collaboration within response teams.

Module 2: Stress Management Techniques

This module equips responders with practical tools to manage stress effectively, ensuring sustained mental well-being and operational readiness.

Key Topics:

1. Immediate Stress Relief: Mindfulness practices such as focused breathing and grounding exercises for on-the-spot stress management.
2. Burnout Prevention: Strategies to identify and address early signs of burnout in individual and team contexts.
3. Stress Recovery Plans: Personal and team-level strategies for recovering from cumulative stress, including structured downtime and self-care routines.
4. Sustaining Long-Term Resilience: Techniques to maintain mental health over prolonged deployments and repeated crisis exposures.

Module 3: Psychological First Aid (PFA) and Trauma-Informed Care

This module trains responders to deliver immediate emotional support to victims while protecting their own psychological well-being.

Key Topics:
1. Core PFA Techniques: Step-by-step methods for stabilizing and comforting individuals in distress.
2. Trauma-Informed Practices: Understanding trauma and providing sensitive care that considers its short- and long-term effects.
3. Managing Secondary Trauma: Tools and strategies for responders to prevent and address vicarious trauma.
4. Cultural Sensitivity in PFA: Adapting PFA approaches to diverse cultural backgrounds and needs.
5. Practical Role-Playing: Application of PFA and trauma-informed care through real-world scenarios and case studies.

Module 4: Crisis Communication and Conflict Resolution

This module focuses on equipping responders with the skills needed to communicate effectively during emergencies, fostering trust and coordination.

Key Topics:
1. Empathy and Active Listening: Techniques for connecting compassionately with victims, colleagues, and stakeholders.
2. De-Escalation Techniques: Strategies to diffuse tensions and resolve conflicts in high-pressure environments.
3. Team Communication: Best practices for clear and consistent communication within multi-agency response teams.
4. Digital Crisis Communication: Using digital platforms such as messaging apps, social media, and collaboration tools to share information rapidly, coordinate team responses, address misinformation, and deliver clear, concise messages during crises.

Module 5: Leadership and Team Coordination in Emergencies

This module prepares leaders to foster resilience, manage teams effectively, and promote mental health awareness within their organizations.

Key Topics:
1. Leadership Resilience: Training leaders to model resilience and manage their stress while supporting their teams.
2. Team Coordination Strategies: Enhancing collaboration and cohesion within diverse response teams during high-pressure situations.
3. Recognizing and Addressing Team Stress: Tools to identify signs of stress and intervene effectively to maintain morale and performance.
4. Remote Team Management: Techniques for leading virtual or hybrid teams effectively during large-scale or digital response operations.

Module 6: Post-Disaster Mental Health Support Systems

Long-term mental health support is essential for fostering recovery and resilience. This module emphasizes the importance of structured systems and professional support.

Key Topics:
1. Structured Peer Support Networks: Establishing online systems for responders to share experiences and provide mutual encouragement.
2. Debriefing Sessions: Conducting online structured discussions after crises to process emotional impacts and promote collective learning.
3. Sustainability of Support Systems: Developing strategies to maintain peer support and counseling during large-scale or prolonged recovery operations.
4. Differentiating Peer Support and Professional Counseling: Clarifying the roles and boundaries between informal peer networks and professional psychological services.

6.2.2. Delivery Methods and Formats

- Online Learning: Self-paced modules for foundational knowledge, supplemented with videos, quizzes, and interactive activities.
- In-Person Training: Hands-on workshops and scenario-based simulations to develop practical skills.
- Peer Learning: Facilitated discussions and peer support exercises to encourage shared experiences and learning.
- Digital Resources: A repository of materials, including quick-reference guides, self-assessment tools, and mental health resources.

6.2.3. Implementation and Monitoring

- Pre- and Post-Training Assessments: Measure knowledge, skills, and confidence levels before and after training sessions.
- Feedback Mechanisms: Use participant surveys and focus groups to gather insights for continuous improvement.
- Long-Term Impact Evaluation: Monitor changes in responder well-being and organizational performance over time, using standardized metrics.

7. Conclusion and Future Directions

The Resilient Responders Project has highlighted the critical need to address psychological resilience, stress management, and mental health support for disaster response personnel across Europe. By synthesizing insights from literature reviews, questionnaires, interviews, and focus groups, this report has provided a comprehensive understanding of the challenges faced by responders and the gaps in current training and support systems.

The findings underscore the pervasive issues of stress, burnout, and cultural stigma surrounding mental health, coupled with a lack of proactive and structured interventions. Despite these challenges, responders across Portugal, Spain, Italy, Greece, and Türkiye demonstrated a strong willingness to engage in resilience-building initiatives, emphasizing the need for targeted, scenario-based training and enhanced organizational support.

7.1. Summary of Findings

- Psychological Resilience Needs: There is a clear demand for training programs that equip responders with practical tools to manage stress, trauma, and emotional challenges effectively.
- Support Gaps: Insufficient access to mental health resources and limited post-crisis interventions were identified as significant barriers to resilience.
- Training Preferences: Responders favored blended learning approaches that balance theoretical knowledge with hands-on, practical exercises.
- Cultural and Contextual Challenges: The diversity of challenges and cultural nuances among participating countries highlights the importance of localized and culturally sensitive interventions.
- Leadership and Organizational Roles: Leaders play a pivotal role in fostering a culture of mental health awareness and resilience within their teams.

7.2. Next Steps for Implementation

Building on the insights and recommendations outlined in this report, the following steps are proposed to ensure effective implementation:

1. Development of Training Modules: Create comprehensive, scenario-based training programs aligned with the proposed curriculum to address the psychological needs of responders.
2. Strengthening Organizational Support: Collaborate with organizational leadership to develop policies and frameworks that prioritize mental health and resilience.
3. Localized Interventions: Tailor training and support initiatives to the unique cultural and contextual needs of each participating country.
4. Pilot Testing and Feedback: Conduct pilot training sessions to evaluate the effectiveness of the proposed curriculum and gather feedback for refinement.
5. Monitoring and Evaluation: Establish mechanisms to measure the long-term impact of training and interventions on responder well-being and operational performance.

The Resilient Responders Project represents a significant step toward addressing the psychological resilience needs of disaster response personnel. By implementing the proposed recommendations and training framework, organizations can enhance the mental health and effectiveness of their teams, ultimately improving disaster response outcomes and community recovery efforts. Continued collaboration, investment, and innovation will be essential to achieving these goals and fostering a culture of resilience and well-being across Europe.

8. References

Araya, C. (2013). Psicología de la Emergencia (8ª Ed.) [Emergency Psychology]. PSICOPREV.

Battistini, A., & Galli, L. (2017). Peer support among Italian firefighters: A preventive strategy for stress management. Journal of Emergency Services, 12(3), 189-197.

Bekircan, E., Usta, G. & Torpuş, K. The effect of psychological first aid intervention on stress and psychological resilience in volunteers participating in 2023 earthquakes centered in Kahramanmaraş, Türkiye. Curr Psychol, *43*, 11383–11393 (2024). https://doi.org/10.1007/s12144-023-05239-z

Cascales, M. C., Molina, A. R., Maldonado, A. L., & Esteban, B. L. (2004). ¿Qué pueden hacer los psicólogos en una situación de desastre? [What can psychologists do in a disaster situation?]. Global Nursing, 3(1)

Diário da República. (n.d.-a). Proteção civil. https://diariodarepublica.pt/dr/lexionario/termo/protecao-civil

Diário da República. (n.d.-b). Agentes de proteção civil. https://diariodarepublica.pt/dr/lexionario/termo/agentes-protecao-civil

Decreto Legislativo 2 gennaio 2018, n. 1, Codice della Protezione Civile, Gazzetta Ufficiale della Repubblica Italiana.

Fernandez, I., Maslovaric, G., & Mucci, F. (2017). EMDR therapy for Italian rescue workers after the earthquake of Amatrice. Trauma and Dissociation, 5(2), 120-135.

García Martínez, F. E., Jaramillo, C., Martínez, A. M., Valenzuela, I., & Cova Solar, F. (2014). Respuestas psicológicas ante un desastre natural: Estrés y crecimiento postraumático [Psychological responses to a natural disaster: Stress and post-traumatic growth]. Liberabit, 20(1), 121-130.

González, F. A. I. (2021). Algunas reflexiones sobre el concepto de desastre natural [Some reflections on the concept of natural disaster]. Espaço e Economia. Revista brasileira de geografia econômica, (22).

Inter-Agency Standing Committee (IASC). (2007). *Guidance on mental health and psychosocial support in emergency settings*. https://www.interagencystandingcommittee.org

Lumb, Richard C., "Strengthening Resilience of Our Police and First Responders" (2016). Criminal Justice Faculty Publications. 20. https://digitalcommons.brockport.edu/crj_facpub/20 Ordem dos Psicólogos Portugueses. (n.d.). Mil psicólogos para catástrofes. https://www.ordemdospsicologos.pt/pt/p/mil-psicologos

PAHO (2002). Protección de la salud mental en situaciones de desastres y emergencias [Protection of mental health in disaster and emergency situations]. Washington DC: Organización Panamericana de la Salud.

Palacios Hernández, B., & Bernarda Téllez Alanis, M. D. L. C. (2017). La importancia de la atención a la salud mental en una situación de desastre. Experiencia de brigadas de apoyo psicológico de emergencia universitarias después del Sismo del 19 de septiembre 2017 en México [The importance of mental health care in a disaster situation: Experience of university emergency psychological support brigades after the September 19, 2017 earthquake in Mexico]. Revista de la Universidad Industrial de Santander. Salud, 49(4), 513-516.

Prati, G., & Pietrantoni, L. (2010). The relationship between perceived and received social support and mental health among Italian rescuers: A meta-analysis. *Psicologia della Salute*, 16(2), 225-238.

Roa, K. (2010). Estrés y el burnout como riesgos en los escenarios laborales después de la emergencia: conceptualizaciones y ejes de análisis para la gestión preventiva en las organizaciones [Stress and burnout as risks in workplace scenarios after emergencies: Conceptualizations and analysis frameworks for preventive management in organizations]. Revista de trabajo social, (78), 37-48.

Robles, J., I., Medina, J. L. (2003). Intervención psicológica en las catástrofes [Psychological intervention in disasters]. Madrid: Síntesis.

Soto-Baño, M. A., & Clemente-Suárez, V. J. (2021). Psicología de emergencias en España: Delimitación conceptual, ámbitos de actuación y propuesta de un sistema asistencial [Emergency psychology in Spain: Conceptual delineation, areas of action, and proposal for a support system] Papeles del psicólogo, 42(1), 56-66.

Scarinci, A. (2016). Psychological debriefing in emergencies: A critical analysis of applications in Italy. *Psychology of Emergency*, 7(3), 43-57.

Stavros Niarchos Foundation. (2023). Stavros Niarchos Foundation (SNF) Hellenic Fire Corps Training Center inaugurated near Athens. Retrieved from https://www.snf.org/en/news-stories/news/announcements/stavros-niarchos-foundation-snf-hellenic-fire-corps-training-center-inaugurated-near-athens/

The Lancet. (2023). Post-earthquake mental health services for emergency responders.

Theleritis, C., Psarros, C., Mantonakis, L., Roukas, D., Papaioannou, A., Paparrigopoulos, T., & Bergiannaki, J. D. (2020). Coping and its relation to PTSD in Greek firefighters. The Journal of Nervous and Mental Disease, https://www.researchgate.net/publication/338461469_Coping_and_Its_Relation_to_PTSD_in_Greek_Firefighters

Thompson, J., & Drew, J. M. (2020). Warr;or21: A 21-day program to enhance first responder resilience and mental health. Frontiers in Psychology, 11, 2078. https://doi.org/10.3389/fpsyg.2020.02078

Umeda, M., Chiba, R., Sasaki, M., Agustini, E. N., & Mashino, S. (2020). A literature review on psychosocial support for disaster responders: Qualitative synthesis with recommended actions for protecting and promoting the mental health of responders. *International Journal of Environmental Research and Public Health, 17*(6), 2011. https://doi.org/10.3390/ijerph17062011

World Health Organization (WHO). (2023). Dealing with the psychological aftershocks of the Türkiye earthquakes: Why mental health and psychosocial support are so desperately needed. https://www.who.int