Sustaining Probation Officer Resilience in Europe (SPORE):

A Transnational Study

Author: Joanna Clarke PhD

The project was managed by the State Probation Service of Latvia

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Contents

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Tables and Figures

Page No:

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Executive Summary

Some occupations are unique with respect to which members risk exposure to traumatic events. Paton & Violanti (1996) describe these as 'critical occupations', a term coined to encapsulate the critical role played by such individuals in protecting communities, as well as the fact that "in the course of acting in this capacity, these professionals can encounter traumatic events which may, under certain circumstances, exert critical impact on their psychological well-being" (Paton and Violanti, 1996; p vii).

The SPORE proposal, initiated by the State Probation Service of Latvia in 2011, highlights key elements of the probation officer role in Europe that qualifies the work as a "Critical Occupation"; daily work with complicated cases (e.g. unmotivated, violent and/or dangerous clients), high levels of community expectations, and increased workloads (due to the growing popularity of alternative sanctions) are examples of such features. It was recognized over 20 years ago that therapeutic intervention with offenders can be one of the most demanding tasks for workers in the entire area of mental health (Scott, 1989), but concern remains, as highlighted in the SPORE proposal, that there is limited opportunity to address the well-being and resilience needs of probation staff.

Background, Rationale and aim of study

Project SPORE was developed to address the issue of wellness of probation officers in Europe. This was in recognition that the capacity and personal suitability of staff is closely related to the effectiveness of the complex work they do. The project aims included:

- Recognizing good practice in probation agencies
- Strengthening the resources and support mechanisms of criminal justice organisations to support the resilience and wellness of employees
- Averting burnout, stress and trauma

Project activities were designed to promote mutual cooperation and share experience for developing and sustaining probation officers' resilience in Europe.

The intended results included:

1. Increased knowledge on resilience recognition and significance in probation; its impact on the probation work
2. Increased knowledge on resilience practice assessment and identification of risk factors
3. A cataloguing of the different and promising approaches identified, in order to develop and sustain resilience while averting the negative outcomes of probation work.
4. Improved cooperation, communication and learning within different EU member states in the field of sustaining staff resilience

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5. Strengthened capacity of probation agencies in sustaining and promoting the quality of staff resilience support tools
6. Contribution to the Specific Programme Criminal Justice 2007-2013, namely improving mutual knowledge and exchanging best practice.

The intended outputs from the project included:

1. Research reports from local studies in four European countries on staff resilience and the factors influencing it.
2. An established methodology as a tool for the evaluation of staff resilience in probation agencies.
3. A final-summary report on staff resilience and the factors influencing it.
4. A transnational conference disseminating results from the study.
5. Three focus groups run in each partner country involving front-line staff (two focus groups per country) and probation managers (one focus group per country)
6. Problem-solving models for averting negative outcome – pilot schemes / action plans in each partner country.
7. Project web page and publications / articles in relevant websites and newsletters.

The project was conducted over an 18-month period between March 2012 and September 2013 and was co-ordinated and managed by the State Probation Service of Latvia. The key components of the project were:

1. An on-line psychometric survey, for completion by front line staff from the four partner countries
2. Focus groups involving front line and managerial staff
3. Desk studies by each partner country to identify relevant literature and collect organisational data
4. An international workshop aimed at identifying good practice in developing and maintaining resilience in probation services across Europe

Methodological approach

In order to establish the main contributory factors to resilience, a mixed-methods cross-sectional design was employed. A comprehensive survey was constructed by the Senior Researcher, quantitatively testing the key components of the Stress Shield Model (**SSM**: Paton, Violanti, Johnston, Burke, Clarke & Keenan, 2008), the chosen model to provide a comprehensive examination of factors theorised and evidenced to predict resilience in critical occupations (see Section 1: Introduction). Qualitative data were collected via open-ended questions on the questionnaire, and also by focus groups involving front-line and managerial staff. An international workshop involving 21 staff from nine European countries (Bulgaria (1), Estonia (2), Germany (2), Hungary (1), Latvia (3), the Netherlands (6), Norway (1), Spain (2) and the UK (3)) was undertaken to support the development of preventative strategies. In addition, each country undertook a desk study to provide hard data on organisational

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factors potentially related to resilience and well-being, including case loads, critical incidents, organisational structure, sickness absence and salary scales.

Questionnaire study

The questionnaire study was presented as an online survey to probation staff across the four partner countries. The survey comprised 12 scales, each measuring different elements of the Stress Shield Model. A comprehensive demographic questionnaire asked respondents for personal information regarding factors evidenced to be related to resilience; for example age, gender, time in the role and parental status. Further qualitative data were collected through open-ended questions assessing experience of personal or professional trauma and factors that contributed to good and bad days at work. For the full questionnaire, please see Appendix 1.

Focus Groups

Each partner country conducted three focus groups, two with front-line workers and one with managers. A protocol was devised, based on the **SSM**, which was followed by all focus group facilitators (See Appendix 2). Each focus group consisted of six to eight staff members. Information derived from the focus group was used to support and where appropriate to explain quantitative findings. Comprehensive reporting of the focus groups can be found in each partner country's local report.

Desk Study

Each partner country supplied organisational data, including details of staffing levels, turnover rates, sickness absence, caseloads, and risk levels of offenders. As with focus group data, organisational data was used to explain and/or support quantitative results. Full organisational data pertaining to each country can be found in the local reports.

Working groups to generate action plans

Based on the quantitative findings, focus group discussions and desk study data, each partner country produced an action plan to address key areas of concern. These can be found at http://spore-resilience.eu

Main findings from the quantitative study

International results

The questionnaire dataset was subject to a number of statistical analyses to establish A) key differences between the partner countries and B) which variables, considered to contribute to a resilient work force, actually

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made the most important contribution to probation staff resilience across Europe. In line with the **SSM**, in the absence of a comprehensive outcome measure, resilience was measured through the variables of job satisfaction, resilient coping styles as a measure of adaptive capacity (future capacity to adapt to unpredictable and challenging critical incidents), and stress related growth (see Section 2: Method).

As expected, owing to different organisational practices and varying levels of organisational maturity (in terms of years established), there were statistically significant differences between the partner countries on a number of scales. However, the differences were not generally consistent, in that the particular countries did not differ consistently across all scales. The comparative results are described in detail in Sections 4.2. and 4.3. Comparative Study: Demographic Data Analysis and Comparative Study: Psychometric Data Analysis.

In terms of the overall model, data were subjected to three hierarchical regressions to test the predictive value of occupational and personal factors on job satisfaction, adaptive capacity and stress related growth. Job satisfaction was measured by the Job Satisfaction Index (Brayfiled & Roth, 1951), adaptive capacity by the Resilient Coping Styles Questionnaire (Sojo & Dudgeon, 2011) and stress related growth by the Stress Related Growth scale (Park, Cohen & Murch, (1996). A full theoretical explanation of these concepts can be found in Section 1. In each analysis, age, gender and country were controlled for in order to enable the contribution of the other variables to be understood after the contribution of these three factors had been examined. A full description of the analyses can be found in Section 4.4. Main Study Results.

Job Satisfaction

Overall, age, gender and country did not make a difference to respondents' reported levels of job satisfaction. Levels of job satisfaction were predicted by conscientiousness, organisational climate, physical work environment, holding a managerial role and number of contracted hours.

Stress related growth

Despite being considered a theoretically important indicator of resilience, only a very small amount of the variation in scores for this factor (8%) was accounted for by the overall model. Country of origin made a small but significant difference to reported levels. Stress related growth was minimally predicted by organisational climate and practicing a faith. In analyses of national data, stress related growth was not predicted by any variables for Bulgaria, Latvia or the Netherlands and only by organisational climate for Estonia.

Adaptive capacity

Which country of origin respondents' were from made a small but significant difference to reported levels of resilient coping. The key variables that had a significant impact on levels of adaptive capacity were conscientiousness and a detached coping style. For a full explanation of international analyses, see Section 4.4.: Main Study Results and Appendix 4.

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A key feature of these findings is that they address the debate regarding the relative importance of organisational versus individual factors, in that they suggest both play an important part. Organisational climate and physical work environment clearly reflect workers' perceptions of their organisations, whilst conscientiousness and detached coping are important characteristics of the individual. Adaptive capacity was predicted primarily by detached coping followed by conscientiousness. The largest contribution to job satisfaction was made by the physical work environment, followed by detached coping style, organisational climate and conscientiousness respectively.

National findings

For each partner country, regression analyses were conducted to identify which factors contributed to the outcome variables of job satisfaction, adaptive capacity and stress related growth. Only for Estonia was stress related growth predicted by any of the measured variables. For all the analyses, the effect of gender and age were controlled. Summaries are provided below, together with key findings from the qualitative data. Full details of these analyses can be found in Section 4.5. and Section 5.3. respectively.

Bulgaria

Job satisfaction

Age and gender did not have a significant impact on levels of job satisfaction. However, practicing a faith, conscientiousness, organisational climate and physical work environment all made unique positive contributions to the levels of job satisfaction reported by Bulgarian respondents.

Adaptive capacity

While age and gender did not have a significant impact on reported levels of resilient coping style, levels of detached coping emerged as an important positive predictor.

Good and bad day at work

Bulgarian participants did not complete the section of the questionnaire requesting this information.

Estonia

Job satisfaction

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Age and gender did not make a significant difference to levels of job satisfaction reported by Estonian respondents. However, detached coping and organisational climate were important unique positive predictors of this outcome.

Adaptive capacity

Age and gender did not have a significant impact on reported levels of adaptive capacity among Estonian respondents, but levels of detached coping emerged as an important positive predictor.

Stress Related Growth

Age made a small but significant contribution to levels of stress related growth. Similarly, perceptions of the organisational climate provided a small but significant unique contribution to this outcome variable.

Good and bad day at work

Based on the frequency of comments, the top five factors identified by Estonian probation staff that contributed to a bad day at work were:

1. Difficulties and issue with clients, such as re-offending
2. Increasing workloads and difficulties with deadlines
3. Difficulties with managers or supervisors
4. Difficulties with colleagues
5. Accidents, obstacles or unexpected problems that made work difficult

Based on the frequency of comments, the top five factors identified by Estonian probation staff that contributed to a good day at work were:

1. Task completion and absence of obstacles
2. Good relationships with colleagues
3. Cooperation and positive feedback from clients
4. Adequate workload
5. Positive relationships with manager or supervisor

Latvia

Job satisfaction

Age made a small contribution to levels of job satisfaction in Latvian respondents. Conscientiousness, detached coping, organisational climate and the physical work environment uniquely contributed significantly and positively to this level.

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Adaptive capacity

Age and gender did not account for variations in resilient coping style, while conscientiousness and detached coping both made unique predictive contributions to this factor.

Good and bad day at work

Based on the frequency of comments, the top five factors identified by Latvian probation staff that contributed to a bad day at work were:

1. Lack of/poor equipment
2. Workloads/tasks
3. Client problems
4. Aggressive clients
5. Bad relationships with colleagues

Based on the frequency of comments, the top five factors identified by Latvian probation staff that contributed to a good day at work were:

1. Good relationships with colleagues
2. Completed work tasks
3. Successful meeting with clients
4. Positive feedback
5. Good working conditions

Netherlands

Job satisfaction

Age and gender did not account for variations in levels of job satisfaction among Dutch respondents, but conscientiousness, detached coping, organisational climate and physical work environment all made a unique positive contribution to this factor.

Adaptive capacity

Age impacted significantly on adaptive capacity for Dutch respondents. Organisational climate and detached coping also both made unique positive contributions to variations.

Good and bad day at work

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Based on the frequency of comments, the top five factors identified by Dutch probation staff that contributed to a bad day at work were:

1. Client problems
2. Workload/tasks
3. Bad relationships with colleagues
4. Unexpected events
5. Frustration with organisational procedure

Based on the frequency of comments, the top five factors identified by Dutch probation staff that contributed to a good day at work were:

1. Good relationships with colleagues
2. Successful meetings with clients
3. Achievable workloads
4. Completed work tasks
5. Good working conditions

Table 1: Summary of the most frequently occurring predictors of job satisfaction and adaptive capacity overall and by country

	Bulgaria	Estonia	Latvia	Netherlands	Overall
Job Satisfaction					
Organisational climate	X	X	X	X	X
Detached coping		X	X	X	X
Physical work environment	X		X	X	X
Conscientiousness	X		X	X	X
Adaptive Capacity					
Detached coping	X	X	X	X	X

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Conscientiousness			X		X
Organisational climate				X	X

Key Recommendations

To enhance job satisfaction, address organisational climate and the physical work environment. Organisational climate and the physical work environment emerged consistently in all analyses as the two factors most predictive of job satisfaction. Organisational climate, measured by the Climate Survey (C-SURV: Roger 2010), measures four facets including Management Style, Empowerment, Workload and Communication. Management style is measured by views regarding managers' technical abilities, such as knowledge of their work and ability to delegate, as well as skills in the more people orientated aspects of their role such as being trustworthy, flexible and supportive. The Empowerment facet is characterised by being enabled to make decisions, create new opportunities, acquire new skills and develop to full potential, as well as feeling supported by colleagues and having the opportunity to be involved in company decision making. Workload is characterised by realistic expectations about work, high morale, a positive and optimistic attitude, no repeated restructuring and a low stress culture. Finally, Communication is measured by being praised for good work, humour, feeling certain about one's role, open communication channels and responsive management (see Appendix 1).

Understanding the features that comprise organisational climate (as assessed in this research) should enable senior leaders to consider the features of their own organisation that may require attention to enhance the levels of job satisfaction, and therefore resilience, amongst the work force. More detailed assessment of the organisational climate by unit or region is also encouraged.

The physical work environment was measured using the Physical Work Environment Satisfaction Questionnaire (PWESQ: Carlopio, 1996) and assessed satisfaction with Facilities, Work and System Characteristics and Worksite Characteristics. The Facilities factor assesses levels of satisfaction with areas such as restrooms, recreational facilities and eating areas, particularly in terms of cleanliness size and pleasantness. Work and Systems relates to how work was scheduled, flexibility in work pace, the management of information and time provided to undertake tasks. The Worksite factor relates to issues of noise, distraction and ability to control physical surroundings (see Appendix 1).

Items from the PWESQ relate closely to the issues frequently raised by respondents regarding good and bad days at work, reinforcing the importance of such matters to probation workers across Europe. Attention to and remediation of physical work environment factors that are under par could have a disproportionately positive impact on workers' well-being and may be regarded as quick wins for senior leaders.

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Develop a psychological proforma for probation staff to identify personal areas of strength and vulnerability. Psychometric assessment of resilience characteristics can be helpful in enabling staff to consider their own well-being. Recognising how different coping styles and other attributes can impact on both emotional health and performance provides opportunities for individuals to develop adaptive coping styles and recognise when and why they may be vulnerable. A resilience proforma can also provide a focus for supervision, allowing managers and other senior staff improved opportunities to support front line workers. Supervisors and managers should also be encouraged to monitor their own well-being.

To enhance adaptive capacity, train probation workers in detachment. Detachment was measured using the relevant items from the Coping Styles Questionnaire (Roger & Jarvis and Najarian, 1993). Roger et al., describe detachment as the ability to disengage oneself from overwhelming emotion and keep matters in perspective. Research into the impact of training staff in detachment has yielded encouraging results (e.g. Roger & Hudson, 1995), including significant increases in job satisfaction, reduced absenteeism and reduced turnover of staff.

Partner countries should consider the quantitative results in the context of the qualitative findings. Data from the focus groups and qualitative questions in the survey provide a rich context in which to interpret some of the quantitative findings, for example, the link between conscientiousness, resilience and job satisfaction. Whilst some analysis has been undertaken in this report, partner countries are encouraged to make detailed exploration of the local reports in the context of the regression models detailed here, in order that local action plans can be supported and evidenced.

To enable the cost-effective targeting of resources to support staff in their efforts to maintain high performance, **an understanding of the levels of exposure of staff to potential trauma for each partner country would be helpful.** Whilst it is recognized that the risk of exposure is high, the reality may be different. Information regarding frequency and intensity of trauma exposure can inform a proportionate and tailored organizational response.

Consider the value of appropriate sharing of personal information in the workplace. Trauma outside the workplace has been evidenced to negatively effect well-being within the workplace. For this reason, there is a case for employers and employees to have an awareness of potentially traumatic events that may impact on well-being and performance. Clearly, this needs to be handled sensitively, but it is proposed that, dealt with appropriately, such procedures can mitigate against potential misunderstandings and enable the implementation of apposite support infrastructures. A number of options are available, such as specialist guidance to supervisors, personal well-being proformas that are regularly updated, training of peer mentors or use of employee assistance programmes.

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1. Introduction

In the critical occupations literature, resilience is defined as the capacity of organisations and individuals to draw on their resources and competencies (individual, collective and institutional), to cope with, adapt to and develop from the demands, challenges and changes encountered during and after a critical incident (Paton et. al., 2008). This definition originally focused on emergency service type roles (e.g. police, disaster recovery workers and so on) where demand tends to be acute i.e. related to specific incidents. However, it is recognized that some roles can involve more daily or chronic exposure to high psychological demand that can also result in the psychological disequilibrium experienced by emergency workers. Lewis, Lewis and Garby (2013) note that, "in the past two decades, research has consistently demonstrated that professionals who work in human service occupations are impacted by the traumatic experiences of those they serve (Figley, 2002; Lipsky & Burk, 2009; Pearlman & Mac Ian, 1995)" (p.68). Scott (1989) contends that working in criminal justice is one of the most demanding contexts in the entire human services field, and in their recent paper, Lewis et al. provide an evocative summary as to why this is the case:

"*From their initial involvement in the case during the pre-sentence investigation stage, probation officers are exposed to varying aspects of trauma as they read police reports, interview victims, and assess offenders' criminal and social histories. After sentencing, field officers regularly meet with offenders and conduct home visits where they often bear witness to dysfunctional lives. In order to be most effective, probation officers also establish and develop relationships with the spouse, children, friends and collateral individuals involved in the offender's life. The practice exposes the officers to the global impact of the offenders' choices when they return to drug use, abscond, are incarcerated, or re-victimize the family or community" (p.68)*

The conceptualisation of probation work as a critical occupation enables the application of a pioneering new model; the Stress Shield Model (SSM: Paton, Violanti, Johnston, Burke, Clarke & Keenan, 2008). Based on the above definition of resilience, it is comprised a number of features recognized to be important in the development, maintenance and enhancement of resilience in such professions. Paton et al. argue that understanding and managing resilience requires recognition that positive outcomes are possible in the face of occupational adversity. Such outcomes result from individuals and groups being empowered to use their resources (psychological and physical) in ways that mean a sense of coherence, manageability and meaningfulness is brought to challenging events (Antonovsky, 1990). The key is to identify those variables that reliably predict such salutary consequences. Further, the model allows a proactive approach to developing individual and organisational resilience, by facilitating the identification of those factors that can be developed *prior* to exposure to traumatic critical events; factors which predict individual capacity to develop the requisite schema to render a broad range of challenging experiences meaningful, manageable and coherent.

The SSM is a multi-level model with a strong theoretical basis and sound practical utility that aims to identify those resources and competencies that can be developed through selection, training and organisational

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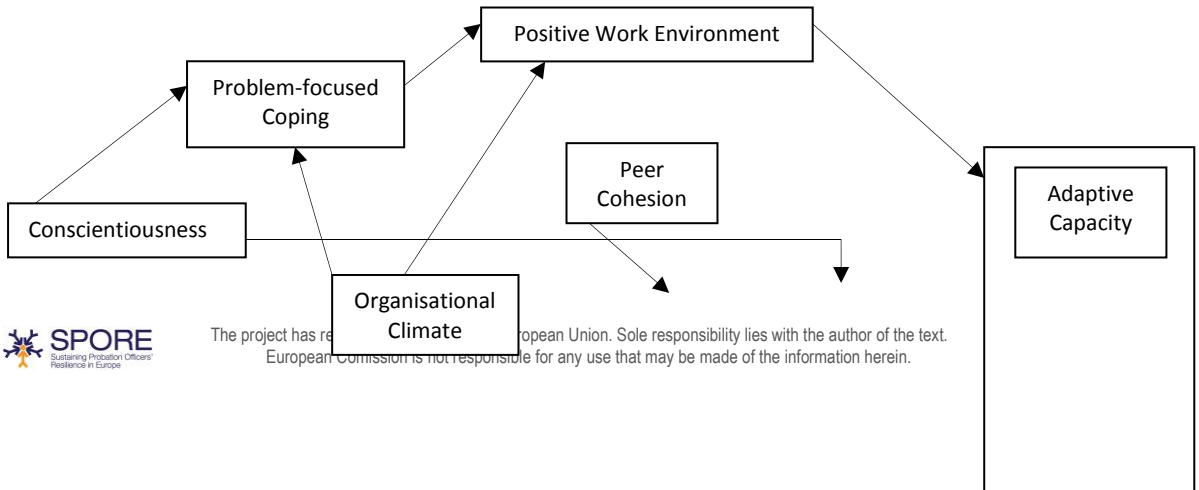
development programmes. What follows is a description of the component parts, with a rationale for their inclusion.

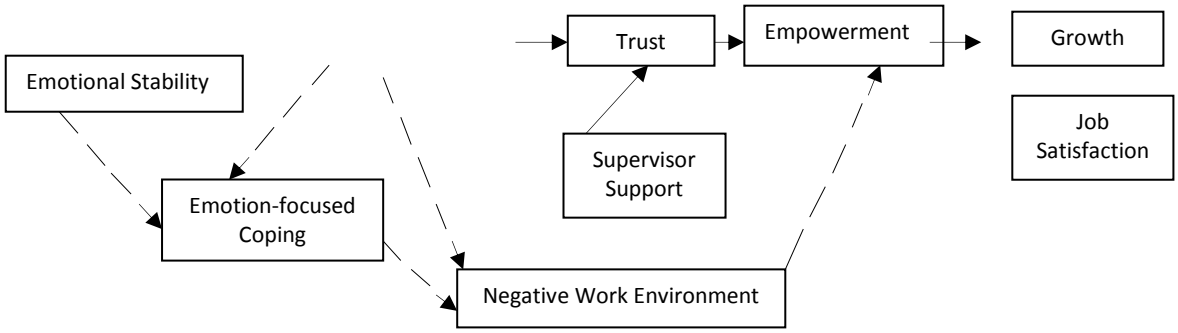
1.1. The Stress Shield Model (SSM)

The Stress Shield Model is depicted diagrammatically in Fig.1 and integrates organisational, team and individual components. Paton et al., argue that organizational factors exert the most influence over the development of resilience, as it is within this context that workers make sense of operational experiences, as well as being the place where future capabilities are nurtured or restricted. Individual and team level factors however, such as social support, team cohesiveness and coping style, have a complementary role in predicting resilient outcomes and are therefore necessarily incorporated. For the purposes of this report, only those elements of the model that were directly measured are described. For a comprehensive review of the theoretical basis of the SSM, please refer to Paton et. al., 2008.

One of the main conceptual challenges when modelling resilience is how to capture the myriad of ways in which workers successfully adapt to the diverse challenges presented by their jobs, in ways that render those challenges meaningful and manageable. No single measure has yet been developed that can fulfil that role. However, the construct of job satisfaction has been found to capture changes in the meaningfulness and manageability aspects of resilience in critical occupations (Britt, Adler & Bartone, 2001: Hart & Cooper, 2001; North et al., 2002). In addition, Paton et al., argue that job satisfaction is an important indicator of future capacity to adapt to unpredictable and challenging events. The cognitive and behavioural aspects of adaptive capacity, while partially reflected in levels of job satisfaction, also need to be assessed independently of the job satisfaction construct, as indicated in the model. Finally, to ensure a comprehensive approach to assessing the outcome of working in a critical occupation, a measure of posttrauma growth is also included.

Fig. 1 The Stress Shield Model of Resilience





1.1.1. Empowerment

Empowerment is linked to levels of satisfaction, in individuals and in teams. It is associated with motivation to act in conditions of uncertainty. The theory is, if people have sufficient resources (psychological, social, and physical), and the capacity to use them, they will be able to confront effectively the challenges presented by events and the environment. Whether there is potential to use resources depends on the relationship between the organisation and the individual, and on organisational climate. Empowerment is about removing organisational practices that foster powerlessness and encouraging practices that develop individuals' resourcefulness.

An empowered workforce would be characterised by four main components; meaningfulness, competence, choice and impact.

1.1.1.1. Meaningfulness

Meaningfulness (or meaning), describes the degree of congruence between an individual's values, attitudes and behaviours and the tasks to be performed. Lack of meaning would lead to lowered job satisfaction and therefore lowered resilience. Empowered individuals feel a sense of personal significance, purpose and commitment to their involvement with work activities. These are increased by experiencing "uplifts", such as receiving recognition and being given responsibility, and restrained by "hassles", such as red tape, that shift the emphasis from meaningful role to meeting administrative expectations (Paton et al., 2008).

In a recent study by Deering (2010), an overwhelming majority of 103 respondents in his UK based research cited having a satisfying and meaningful job as their main motivation for undertaking training as a probation officer. In this case, meaning was derived through 'helping people' (p.19) by engaging in transformative work with offenders. Understanding the meaning probation staff ascribe to their work, as well as how this may be compromised, is important in the development of resilient organisations. White, Gasperin, Nystrom, Ambrose & Esarey (2005), found that role ambiguity (law enforcement versus social work) and role conflict (punishment versus rehabilitation), were reported as major stressors for probation officers in their study, both of which relate to the meaning given to the role.

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Individuals who find their work meaningful are likely to perceive problems and demands as welcome challenges (Antonovsky, 1990) rather than barriers or obstacles that can impede both well-being and performance. Incongruence may arise for several reasons, such as changes in the values of the individual, changes in organisational practices or changes in the wider political agenda. Thus, although inherently personal, meaning should be viewed as a dynamic and fluid variable that may fluctuate and change.

1.1.1.2. Competence

Competence is about an individual's belief in his or her ability to perform their operational role successfully. Importantly, there is a direct relationship between competence and the level of effort and persistence individuals invest in facing challenging events (Bandura, 1977) Consequently, competence makes an important contribution to an individual's capacity to adapt to the unexpected as well as to performance. Importantly, work with offenders has been demonstrated to be potentially highly challenging to criminal justice workers. For example, anecdotal evidence suggests that some sex offenders are particularly skilled at leaving professionals feeling distinctly lacking in competence, especially early in their careers (Clarke, 2004).

1.1.1.3. Choice

Choice reflects the extent to which individuals perceive their behaviour as self-determined (Spreitzer, 1997). A sense of choice is perceived when staff feel they are actively involved in defining how they perform their role, rather than just being passive recipients. It is particularly important for dealing with emergent, contingent emergency demands and for creative crisis decision making. An ability to exercise choice also facilitates learning from training and operational experiences and, in an empowering climate, facilitates others to do likewise and pass it on. Choice can be difficult to facilitate in some environments, such as prisons, that rely on highly structured and manualised procedures to maintain security. Identifying opportunities for probation staff to exercise discretion in professional judgement, especially given the importance to being able to help and support offenders, are important to highlight and act upon.

1.1.1.4. Impact

Impact describes the degree to which someone perceives they can influence important organisational outcomes (Spreitzer, 1997) and concerns the notion of personal control over organisational outcomes (unlike choice, which concerns control over one's work behaviours). Johnston and Paton (2003) argue that identification of organisational conditions that cultivate powerlessness is the first step to developing an empowered workforce. Removal of those conditions, together with encouragement of self-reliance, leads to the experience of empowerment, resulting in behaviours characterised by initiative and perseverance. Given that many probation staff are typically motivated by wanting to make a difference (Deering, 2010; Knight, 2007), having an impact in the workplace is clearly advantageous.

1.1.2. Trust

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Spreitzer and Mishra (1999) argue that trust plays a crucial role in empowering people. This is particularly the case when they have to deal with uncertain future events and rely on organisational sources to provide the information, training and so on required to prepare themselves for these uncertainties. People operating in trusting reciprocal relationships are left feeling empowered and are more likely to experience meaning in their work. Trust is a significant predictor of a person's ability to cope with complex, high-risk events (Siegrist & Cvetkovich, 2000), particularly when relying on others to provide information or assistance. This may be because trust has been found to influence perception of other's motives, competence and credibility (Earle, 2004).

People are more willing to work co-operatively in high-risk situations when they believe that those they are working with or for are competent, dependable and likely to act with integrity (Dirks, 1999). Organisations that value openness and trust create opportunities for learning and thus contribute to the development of adaptive capacity.

1.1.3. Peer Cohesion and Supervisor support

The relationships between co-workers predict the meaning that staff find in their work (Liden, Wayne & Sparrow, 2000), and colleagues are invariably cited as the primary source of support (Kadambi & Truscott, 2006). Cohesive teams share knowledge and skills, which is an essential pre-requisite of a learning culture and thus individual and organisational resilience. Managers play a central role in developing and sustaining empowering environments, because it is generally through them that the organisational culture is translated into day-to-day values and procedures. Quality supervisor-subordinate relationships not only enhance general feelings of competence, they also encourage the creation of similar value structures between staff.

Further, cohesive teams are more likely to support the expression of emotion, which is known to have salutary effects on health, build more resilient self-concept, enhance self-perception and result in long-term improvements in mood (King & Miner, 2000; Pennebaker, 2000; Pennebaker & Keough, 1999). There is a risk in critical occupations, where the risk of exposure to potential trauma is high, that the actual experience of the emotion may be very intense, but expression of it proscribed. Friedman and Higson-Smith (2003) refer to this as ''disenfranchised distress'', distress that is experienced but prohibited or rejected by, for example, the culture of the organisation, which appears not to tolerate the expression of emotion. Cohesive teams and supportive supervisors may minimize this risk.

1.1.4. Organisational climate

The term "organisational climate" describes staff perceptions of how their organisation functions, and these

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perceptions influence both their well-being and performance in their job. Organisational climate has been found to be the single best predictor of job satisfaction (Burke & Paton, 2006), and therefore, by inference, represents a significant influence on an individual's ability to make sense of critical incidents/demands. A positive climate would be a key source of an individual's ability to impose and sustain a sense of meaning and manageability over a critical incident. It is also the context in which staff attempt to render critical events coherent after the event. Gist and Woodall (2000) found that vulnerability to trauma symptoms increased in organisations where there is persistent use of established decision procedures, internal conflicts regarding responsibility and a predisposition to protect the organisation from blame or criticism.

1.1.5. Personality

Although organisational climate can provide the conditions necessary to enable staff, this doesn't automatically imply that individuals will be able to utilise those opportunities. It is necessary to have an empowering environment and staff with the dispositional characteristics to be empowered. There has been less research into personality variables but one factor that has attracted attention is that of conscientiousness. Thomas and Velthouse (1990) found that conscientious individuals experience a stronger sense of meaning and competence in their work, especially during times of change, whilst Behling (1998) found such individuals demonstrate greater levels of perseverance. Paton et.al. (2008) argue that this has a positive effect on levels of support and cooperation between co-workers, helping to sustain a cohesive team response to complex events.

Preferred coping styles represent stable individual characteristics that will influence how people respond or adapt to stressful events (Roger, 2002). The three primary coping components most often referred to are problem-focused, emotion focused and avoidance coping (Roger, Jarvis & Najarian, 1993). However Roger et al., identified a fourth style labelled detachment "defined by the feeling of being independent of the event and the emotion associated with it" (p.623). Detached coping has been assessed in the context of criminal justice critical occupations and has been found to be a reliable predictor of resilience (Clarke, 2004; Fox, 2010)

1.2. Bringing it all together

The Stress Shield Model of Resilience (Fig. 1) brings together all the factors discussed to provide organisations in the critical occupations field with a model that can be used to guide the development and maintenance of resilience. It has been developed by integrating and building on theoretically robust and empirically tested work, and describes resilience as resulting from an interaction between the person, team and organisation. The most important benefit though is its utility in informing the design of practical programs to develop resilience in staff. All the model components (with the exception of conscientiousness) are amenable to change through organisational intervention and change strategies.

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2. Method

2.1. Design and procedure: Quantitative data

To collect the necessary data to achieve the aims of the SPORE project, a mixed-methods cross-sectional design was employed. Quantitative data were collected by means of an on-line survey, comprised of a comprehensive demographic questionnaire and a composite psychometric questionnaire containing measures pertaining to all aspects of the SSM. Some qualitative information was also collected via the online survey (see Appendix 1; Questions 31-38). The on-line survey was available from September to December 2012.

At the start of the survey, respondents were informed about the purpose of the study, provided with contact details of the lead researcher and provided with contact information of local support services should they find any aspect of involvement in the research distressing. Consent to participate was implicit in submission of the completed survey, which was anonymous. Withdrawal from the research was not possible once the completed survey was submitted. The University of York, Department of Psychology, Ethics Committee approved the materials and procedure.

Latvia and Estonia recruited participants to the research through direct emails to all serving probation officers. The Netherlands identified specific serving staff believed to be representative of the entire population of probation officers. Bulgaria used opportunity sampling to recruit staff to the study by approaching individuals to complete a pen and paper questionnaire in the presence of the local researcher. The implications of variations in data collection methods are discussed in Section 5: Discussion of Comparative findings. The total number of possible respondents was 2,200. The total number of respondents completing the questionnaire was 547, or 24.8%.

Table 2. Respondents by country and gender

	Bulgaria	Estonia	Latvia	Netherlands	TOTAL
Number (%)	64 (11)	130 (23.8)	185 (33.8)	168 (30.7)	547 (100%)
Gender					
Males	44 (69)	25 (19)	30 (16)	78 (46)	177 (32%)

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Females	20 (31)	105 (81)	155 (84)	90 (54)	370 (68%)

2.2. Materials (See Appendix 1)

All demographic information and scales were originally presented in English and required translation in the four partner country languages. Local researchers undertook this task. Ideally the newly translated work would have then been retranslated to English to ensure the integrity of the information was maintained. (Sperber, 2004) However, time restrictions prevented this process occurring and instead, integrity was monitored by using two translators where possible.

2.2.1. Outcome measures

2.2.1.1. The Job Satisfaction Index (Brayfield & Roth, 1951)

This scale consists of 18 items rated on a Likert scale of 1 – 7 (e.g. I feel that I am happier in my work than most other people). High scores indicate higher levels of job satisfaction. The scale demonstrated good reliability (alpha = 0.76). Despite the age of this scale its reliability and validity have been recently well documented (e.g. Judge, Heller and Klinger, 2008), with the added advantage of having been applied across a number of different cultures (e.g. Ronen & Mikulincer, 2011).

2.2.1.2. Resilience Coping Style Questionnaire (RCSQ: Sojo & Didgeon, 2011)

The RCSQ is comprised of four 9-item factors and one 8-item factor totalling 44 items, answered on a 4-point Likert scale. High scores indicate high levels of resilient coping, with a maximum score of 176. Alpha co-efficients are as follows:

Total α = 0.897; Acceptance & Resources Management (e.g. Don't try to control things that are out of your control: α = 0.760); Situation Management (e.g. Come up with a realistic plan of what to do: α = 0.778); Positive Evaluation (e.g. Think whatever doesn't kill you makes you stronger: α = 0.801); Seeking Social Support (e.g. Talk to people that will help you get some perspective on the situation: α = 0.846); Positive Disengagement (e.g. Try to find something new to do: α = 0.606).

2.2.1.3. Stress Related Growth (SRG: Park, Cohen & Murch, 1996)

The SRG scale has 15 items answered on a three-point scale and assesses what respondents have learned as a result of experiencing stressful events (e.g. I learned to work through problems and not just give up). Scores range from 0 to 30, with high scores indicating good levels of stress related growth. The alpha co-efficient for this scale was α = 0.904

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2.2.2. Independent measures

2.2.2.1. Work Environment Scale (WES: Moos, 1994)

The Co-worker cohesion sub-scale the WES is used in the SPORE project as a measure of peer cohesion. It contains nine items that are answered true or false, pertaining to relationships in the work place (e.g. Employees often eat lunch together). Scores range from 0 to 9, with higher scores indicating a more positive work environment. The Alpha co-efficient for this scale was $\alpha = 0.662$

2.2.2.2. Emotion Control Questionnaire (Rumination sub-scale) (ECQ: Roger & Najarian, 1989)

The ECQ Rumination subscale contains 18 items that are answered true or false. The items measure the extent to which someone is likely to be pre-occupied with emotionally upsetting events (e.g. I wish I could banish from my mind memories of past failure). Scores range from 0 to 18 and high scores indicate higher levels of pre-occupation. The alpha co-efficient was $\alpha = 0.806$

2.2.2.3. Climate Survey (C-SURV: Roger, 2010)

The C-SURV contains 40 items answered on a four-point Likert scale and measure people's satisfaction with their organisation. Scores range from 40 to 160. The scale can be further broken down into four separate factors with 10 items each and a score range of 10 to 40. Management (e.g. Feeling supported by management): $\alpha = 0.869$; Empowerment (e.g. Empowered to make independent decisions): $\alpha = 0.822$; Workload (e.g. Realistic expectations about workload): $\alpha = 0.764$; Communication (e.g. feeling respected and valued): $\alpha = 0.848$. The total alpha co-efficient was $\alpha = 0.945$

2.2.2.4. Coping Styles Questionnaire (Detached Coping subscale) (Roger, Jarvis & Najarian, 1993)

The CSQ Detached Coping subscale contains 22 items answered on a four-point scale. The highest score is 66 and high scores represent an adaptive response to stress (e.g. Resolve the issue by not becoming identified with it). The alpha co-efficient for this scale was $\alpha = 0.812$

2.2.2.5. The Physical Work Environment Satisfaction Questionnaire (Carlopio, 1996)

This is a 27-item scale, divided into three subscales and answered on a 5-point scale. High scores indicate high levels of satisfaction. The highest total score is 108 ($\alpha = 0.97$), 32 for Facilities (e.g. The recreation facilities provided: $\alpha = 0.91$); 36 for Work & Systems (e.g. The amount of time you are given to complete your work: $\alpha = 0.89$); and 40 for Work Site (e.g. Your ability to control your physical surroundings: $\alpha = 0.88$).

2.2.2.6. NEO-PI-R (Conscientiousness sub-scale) (Costa & McCrae, 1992)

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The Conscientiousness assessment consists of 48 items answered on a 5-point scale. The highest score is 192, indicating high levels of conscientiousness (e.g. I try to perform all the tasks assigned to me conscientiously). The alpha co-efficient α = 0.89

2.2.2.7. The Supervisor Support assessment (Federal Bureau of Prisons, 1995)

This scale consists of 10 items answered on a 7-point scale with a high score of 60 and an alpha co-efficient of α = 0.88. High scores indicate good levels of supervisor support (e.g. I often receive feedback from my supervisor for good performance).

2.2.2.8. The Interpersonal Workplace Trust Scale (Cook & Wall, 1980)

This scale consists of 9 items answered on a 7-point scale. High scores indicate high levels of trust, with 54 being the highest possible score (e.g. I can trust the people I work with to lend me a hand if I needed it). The alpha co-efficient is α = 0.48

2.2.2.9. The Psychological Empowerment Inventory (Spreitzer, 1995)

This scale consists of 12 items answered on a 7-point scale. It is comprised 4 factors of 3 items each. A high total score (maximum 72, α = 0.87) indicates good levels of empowerment scale. The four subscales (total score 18) are Meaning (The work I do is meaningful to me: α = 0.71); Competence (e.g. I have mastered the skills necessary or my job: α = 0.81); Autonomy (e.g. I can decide on my own how to go about doing my work: α = 0.81); and Impact (e.g. My impact on what happens in my department is large: α = 0.85).

3. Design and Procedure: Qualitative study

Qualitative information was collected via three focus groups in each partner country, two for front line staff and one for probation managers. Each country followed the same procedure for conducting the focus groups and analysing the resulting information (See Appendix 2). Recruitment of participants was decided at a local level to accommodate local need and demands. Full reports detailing the findings for each focus group are available on the SOPRE Website (http://spore-resilience.eu). However, findings pertinent to and supportive of the outcome of the quantitative analyses are referred to in the discussion.

4. Results

4.1. Comparative study

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Working across several different European countries requires consideration of the data in a way that enables genuine psychological differences to be identified and explained. While this may be the case with some of the variables being assessed, other differences may arise from cultural or demographic differences. For example, are differences in levels of resilience more readily explained by case load levels, where no differences exist between countries, or by contracted hours where participants in one country work considerably longer hours than those in others? What follows is a comparative analysis of all variables measured during the SPORE project, both demographic and psychometric, with a rationale (either theoretical or empirical) for their inclusion in this research.

4.2. Comparative study: Demographic data analysis

4.2.1. Age

The age of workers in critical occupations has been demonstrated to significantly impact on people's levels of resilience and risk of distress (Clarke, 2004). In general, younger workers (those under 25) reported higher levels of work related distress than older workers. Significant differences exist between the Netherlands and Estonia, where it can be seen that the former has, on average, the youngest workers in the sample and Estonia the oldest.

Table 3. Age of respondents by country

	Bulgaria	Estonia	Latvia	Netherlands
Mean (SD)	41.00 (8.34)	43.17 (12.11)	41.30 (9.42)	39.00 (10.83)
Range	24-57	20-66	24-66	22-63

4.2.2. Living Arrangements and Religious Beliefs Factors

Relationship status has a bearing on a number of areas related to resilience, for example, the nature of social support and opportunities for disclosure. As with marital status, living arrangements can also provide information about the nature of support possibilities.

Research (Clarke, 2004) indicates that parental status may impact significantly on overall well-being. In particular, working with sex offenders can have a negative impact on relationships with children (Turner, 1992). It is unclear if the age of children influences well-being, with the hypothesis being that younger children may make workers more vulnerable to distress (see Tables 4 and 5) Analysis of number of children respondents have under the age of 18 indicates similarities between Estonia and Latvia, but significant differences between all

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other countries, with Dutch respondents having the most children and Bulgarians having the fewest. The information provided indicates that a vast majority of respondents, 86.7%, live with other adults and/or children.

In relation to religion, practising a faith has previously been demonstrated to be protective to both physical and psychological health (e.g. Townsend, Kladder, Ayele & Mulligan, 2002). However, it is unclear whether the importance an individual places on the faith makes a difference. Participants' perceived importance of faith was rated on a scale of 1 (Not important) to 10 (Very Important (see Tables 4 and 5). Whilst Bulgaria has the highest proportion of respondents practicing a faith, in terms of how importantly that practice was rated (on a scale of 1 – 10), Bulgarians rate their faith as significantly less important than respondents in the remaining three countries.

Table 4. Living status, parental status and faith.

Scale	Bulgaria	Estonia	Latvia	Netherlands	Total
Respondents	64	130	185	168	547
Marital status					
Single	9	16	33	53	111
Married	55	95	125	102	377
Divorced	0	15	21	12	48
Widowed	0	4	6	1	11
Living arrangements					
Alone	5	21	15	32	73
Other adults and/or children	48	94	127	128	397
With Children	9	12	18	0	39
Other	2	3	25	8	38
Children					

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Yes	48	98	144	90	380
No	16	32	41	78	167
Practicing a religious faith					
Yes	49	37	50	70	206
No	15	93	135	98	341

Table 5. Number of children and importance of faith

	Bulgaria		Estonia		Latvia		Netherlands	
Scale	M (SD)	Range	M (SD)	Range	M (SD)	Range	M (SD)	Range
Children under 18	1.44	1-3	1.91	1-6	1.88	1-5	2.43	1-6
Children over 18	1.27	1-3	2.31	1-5	1.97	1-5	1.78	1.6
Importance of faith	5.33 (1.95)	1-9	7.43 (2.22)	3-10	7.38 (2.37)	1-10	7.07 (2.00)	2-10

4.2.3. Education and Occupational Factors (see Table 6)

Although data relating education level and job role were collected, variations in systems across the partner countries made meaningful comparisons problematic. However other occupational factors were amenable to analysis.

4.2.4. Time in Job

Research regarding time in the job has produced mixed results. Thomas (1988) noted a linear relationship between seniority and burnout, while Whitehead (1985) demonstrated a curvilinear relationship, with staff between one and five years of service indicating higher levels of burnout than very new or more established staff. Still other research indicates that new workers appear to experience higher levels of work-related distress than more experienced workers (Clarke, 2004). Despite these mixed findings, it suggests that there is a period during which workers are likely to be most resilient. It is possible that this might be related to age. Significant differences are apparent between Estonia and Latvia and Estonia and the Netherlands, with Estonian respondents having been in their jobs for the longest.

4.2.5. Contracted hours

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Working long hours has been associated with increased risk of burnout. There are significant differences between all four countries in terms of hours worked, with Bulgarian respondents contracted for the longest hours and Latvian respondents for the fewest hours.

4.2.6. Overtime hours

Given the above, it is important to know the total hours worked per week. Bulgarian respondents work significantly fewer over time hours than all other countries.

4.2.7. Total hours

In total, Bulgarian and Estonian respondents work significantly more hours than Latvian and Dutch respondents.

4.2.8. Sick leave

Sick leave is a rather blunt measure of organisational health. While it should not be assumed that sickness related absence is stress related, there is evidence to suggest that high levels of sickness absence are common in organisations characterised with particular types of culture e.g. blaming culture. There were no significant differences in sickness absence among the four partner countries.

- 57.2% of the total sample had taken no days of sick
- 80% of the sample had taken less than 7 days of sick
- 90% of the sample had taken less than 15 days of sick
- 10% of the sample had taken 15 days or more off sick

4.2.9. Stress Leave

Although based on self-report, it can be useful to know how much sickness absence is reported as stress-related. Notably, 89% of the sample had not taken stress related leave. Only 6% of the sample had taken any time off through not wanting to be at work. There were no significant differences between countries in terms of this type of absence.

4.2.10. Intention to stay in Job

Self-reported intention to stay in a role may indicate satisfaction with work. However it should also be considered that intention to stay may be indicative of something else, such as poor prospects of employment elsewhere. A 1997 study of American probation officers, Simmons, Cochran and Blount noted that half the sample indicated they would leave their job as soon as better employment could be found. Dutch respondents indicated the highest level of intent to stay and were significantly different from Estonian and Latvian respondents. Bulgarian

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respondents also indicated a significantly higher intent to stay than Latvian respondents. It should be noted though that the average intent to stay, across all countries, was scored above seven (out of a possible ten).

Table 6. Occupational factors

	Bulgaria		Estonia		Latvia		Netherlands	
Scale	M (SD)	Range	M (SD)	Range	M (SD)	Range	M (SD)	Range
Time in job	6.88 (3.92)	0-31	8.20 (5.56)	0-26	5.79 (4.86)	0-37	6.42 (5.98)	0-25
Contracted hours	40.55 (2.37)	35-50	38.45 (6.56)	8-48	31.99 (3.27)	8-40	34.64 (4.36)	12-40
Overtime hours	0.83 (2.06)	0-10	3.27 (4.65)	0-20	4.58 (5.85)	0-20	3.49 (5.23)	0-20
Total hours	41.37 (4.12)	35-60	41.72 (8.30)	8-60	36.56 (6.67)	8-52	38.13 (6.70)	8-60
Sick Leave	3.61 (8.97)	0-60	6.43 (13.06)	0-90	5.21 (13.79)	0-90	4.38 (11.55)	0-86
Stress leave	0	0	2.17 (8.88)	0-76	1.66 (7.86)	0-72	1.26 (9.10)	0-86
Felt like it leave	0	0	0.79 (3.29)	0-25	0.51 (5.32)	0-72	1.15 (9.10)	0-86
Intent to stay in job	8.20 (2.27)	1-10	7.82 (2.67)	1-10	7.14 (2.82)	1-10	8.76 (1.89)	1-10

4.2.11. Managerial Role

It is hypothesised that managerial workload may increase the risk of stressful responding, although it has also been posited that managers have greater autonomy and therefore increased resilience.

Table 7. Managerial role

		Bulgaria	Estonia	Latvia	Netherlands	Total
Managerial role	Yes	17	59	60	3	139
	No	47	71	125	165	408

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4.2.12. Number of people managed

It is helpful to be able to identify if there is an optimum number of people to manage in order to improve resilient outcome. Excluding the Netherlands from the analysis, on the basis of only 3 respondents managing staff, of those respondents that did manage staff Latvian respondents managed significantly fewer than Bulgarian and Estonian respondents.

Table 8. Number of people managed

	Bulgaria		Estonia		Latvia		Netherlands	
Scale	M (SD)	Range	M (SD)	Range	M (SD)	Range	M (SD)	Range
Number people managed	16.29 (10.19)	0-40	14.33 (15.38)	0-51	8.08 (6.01)	0-32	16.33 (13.87)	1-28

4.2.13. Client age and gender

It is not known if client age or gender impacts on resilience levels with workers. However, it is hypothesised that younger offenders may present greater challenges than older offenders. The impact of gender of the client may be influenced by gender of the worker, but this is unclear. The age and gender client demographics were similar across the four partner countries, with a majority of staff managing adult male offenders.

Table 9. Percentage case-load by age and gender

Scale	Bulgaria	Estonia	Latvia	Netherlands
Mean age of clients				
12-18	3.27	9.15	4.26	1.39
19-23	14.70	15.91	19.32	31.23
24-60	72.44	57.63	56.29	60.83
61+	3.27	2.40	3.29	4.62
Gender				
Male	88.16	82.15	73.70	84.01

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Females	7.16	4.91	13.07	13.75

4.2.14. Hours face-to-face general

The number of hours spent working directly with clients may be associated with levels of resilience, although at this stage it is not assumed that this is in a negative direction. Higher levels of client work may be associated with higher levels of resilience. Bulgarian staff spend significantly more time in direct contact with clients than the other partner countries.

4.2.15. Hours face-to-face with sex offenders

Working with sex offenders has been identified as particularly challenging to well-being and is therefore measured as a separate variable. A significant difference between the Netherlands and all other countries is apparent, with Dutch staff spending more contact time with sex offenders.

4.2.16. % case load considered dangerous

Workers' perception of the dangerousness of their clients is likely to impact on their resilience levels. Lewis, Lewis and Garby (2013) found, in a sample of 309 American probation staff, that those who reported violent and sexual recidivism on their caseload, and threats and assaults in the line of duty, reported significantly higher on measures of traumatic stress than other staff. A significant difference exists between Estonian and Latvian staff case load of dangerous clients.

Table 10. Client information

	Bulgaria		Estonia		Latvia		Netherlands	
Scale	M (SD)	Range	M (SD)	Range	M (SD)	Range	M (SD)	Range
Hours face –to-face	22.55 (10.94)	0-40	14.52 (10.62)	0-50	13.15 (8.13)	0-32	13.86 (7.46)	0-40
Hours face-to-face with sex offenders	0	0	0.79 (1.98)	0-14	0.82 (2.27)	0-20	2.13 (3.75)	0-40
Dangerousness caseload (%)	26.12		30.15		20.73		22.88	

4.2.17. Places of contact

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It is suggested that the level and nature of security available with working with offenders is likely to influence levels of workers' well-being, especially if clients are considered dangerous. Working with offenders in their own home versus a probation office, for example, may impact differently on resilience levels.

Table 11. Places of contact

Place		Bulgaria	Estonia	Latvia	Netherlands	Total
Home	Yes	44	50	130	83	307
	No	20	80	55	85	240
Prison	Yes	0	53	45	88	186
	No	64	77	140	80	361
Hospital	Yes	0	2	7	46	55
	No	64	128	178	122	492
Probation office	Yes	61	81	162	161	465
	No	3	49	23	7	82
Public place	Yes	6	15	70	33	124
	No	58	115	115	135	423
Other	Yes	0	4	0	64	68
	No	64	126	185	104	479

Variations in places of contact are evident form the data provided. It is noteworthy that many probation staff meet with clients in the client's own home, second only to meeting with clients in probation offices.

4.2.18. Trauma outside work

Recent trauma has been demonstrated to impact on resilience. Gauging the prevalence and perceived intensity of trauma is helpful in understanding the impact on resilience, whether that trauma has occurred within or outside the work context.

Table 12. Experience of trauma outside work

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	Bulgaria	Estonia	Latvia	Netherlands	Total
Yes	4	55	122	36	217
No	60	75	63	132	330

A majority of respondents had not experienced trauma outside work, although for Latvian respondents more staff had experienced such trauma than had not.

4.2.19. Level of trauma

Table 13. Reported level of trauma (on a scale of 1 -10)

	Bulgaria	Estonia	Latvia	Netherlands
Mean (SD)	6.25 (0.96)	6.46 (2.26)	6.61 (2.38)	6.67 (1.88)
Range	5 -7	1 – 10	1 -10	2 -10

There were no significant differences between countries in terms of perceived level of trauma outside work.

4.2.20. Trauma in Work

Table 14. Experience of trauma inside work

	Bulgaria	Estonia	Latvia	Netherlands	Total
Yes	5	36	101	26	168
No	59	94	84	142	379

As with trauma outside work, Latvian respondents were more likely to have had a traumatic experience in work than not, whilst the reverse trend is true for Bulgaria, Estonia and the Netherlands.

4.2.21. Level of trauma

Table 15. Reported level of trauma (on a scale of 1 -10)

	Bulgaria	Estonia	Latvia	Netherlands

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Mean (SD)	8.80 (0.84)	5.70 (2.38)	6.39 (2.16)	5.56 (2.33)
Range	8 – 10	2 – 10	1 - 10	1 – 8

Those respondents from Bulgaria who had experienced a work-related trauma, rated it as significantly more traumatic that respondents from the Netherlands or Estonia, but not Latvia.

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4.3. Comparative study: Psychometric data analyses

To test the Stress Shield Model, 12 different psychometric assessments were used. Table 3.9 below shows the average (mean) score for each country for each assessment. The average for all the countries combined is also provided in order that partner countries can assess their score against the total.

Owing to anomalies in the distribution of the data, statistical procedures were varied to ensure the most appropriate tests were used. Details of these procedures, together with relevant output, can be found in Appendix 5.

Table 16. Means of All Scales by Country

Scale	Bulgaria	Estonia	Latvia	Nether.	Total	Range (min –max)
WES	5.69	4.73	5.68	6.17	5.60	0-9
ECQ	3.88	5.63	6.15	4.43	5.24	0-18
SRG	20.78	18.23	15.95	17.18	17.42	0-30
CSURV	100.97	95.29	96.81	112.67	101.78	42-157
Management	27.98	23.72	24.50	27.48	25.63	10-40
Empowerment	25.14	24.45	24.03	28.46	25.62	10-39
Workload	23.66	23.38	23.77	27.48	24.80	10-40
Communication	24.19	23.73	24.51	29.24	25.73	10-40
RCSQ	126.20	118.67	117.81	116.49	118.53	85-169
Accept. & Res. Manag	24.86	24.33	24.14	24.12	24.26	13-36
Situation Manag.	28.72	26.11	26.18	25.07	26.10	17-36
Pos. Evaluation	26.80	24.62	23.72	22.80	23.99	11-35
Seeking SS	23.42	23.69	23.69	24.70	23.96	11-36
Pos. Disengagement	22.41	19.92	20.08	19.80	20.21	11-32
CSQ	46.22	41.47	39.65	42.82	41.80	23-63
PWESQ	2.78	2.55	2.19	2.51	2.44	.15-4

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Facilities	2.65	2.59	2.32	2.50	2.48	0-4
Work & System	2.78	2.46	2.09	2.70	2.45	.2-4
Work Site	2.87	2.59	2.20	2.33	2.41	.2-4
JSI	51.22	47.03	42.59	50.42	47.06	12-72
NEO-PI-R	141.56	128.60	124.61	128.80	128.83	72-181
Supervisor Support	35.09	34.09	37.12	36.93	36.12	0-55
IWTS	33.63	33.50	32.88	34.61	33.64	10-48
PEI	48.36	49.92	51.89	51.18	50.81	5-72
Meaning	13.14	13.20	13.48	13.67	13.43	2-18
Competence	14.13	14.84	14.30	14.83	14.58	0-18
Autonomy	12.00	13.00	13.80	12.96	13.15	0-18
Impact	9.09	8.88	10.31	9.72	9.65	0-18

4.3.1. Data Exploration

Exploration of the psychometric data indicated a number of anomalies, indicating that non-parametric statistics would be more suitable for some analyses (full details of analyses can be found in Appendix 5).

4.3.2. Differences in main scales between countries

Scores for the RCSQ were normally distributed, enabling use of parametric statistics. There was a significant difference in RCSQ Total scores, indicating that Bulgaria had a significantly higher score (mean = 126.2) compared to Estonia (118.67), Latvia (117.81), and The Netherlands (116.49).

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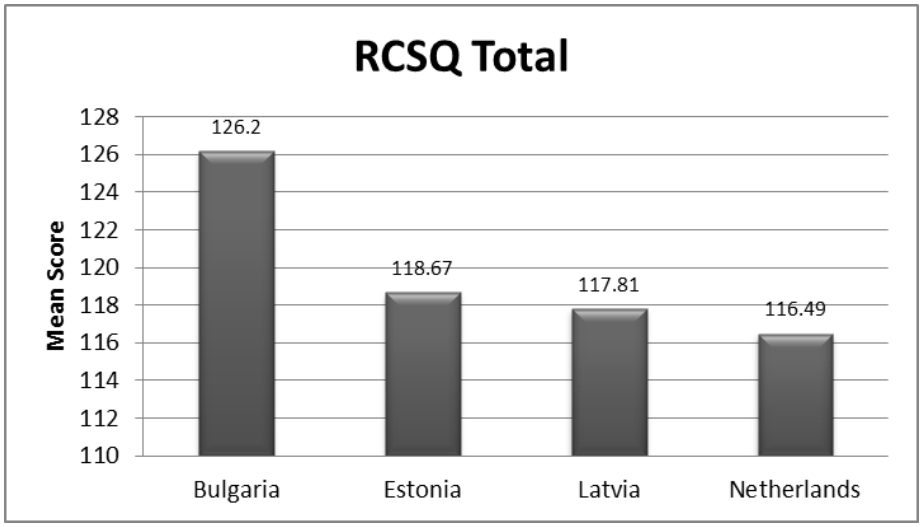


The remaining data were analysed via non-parametric tests. Based upon the Kruskal-Wallis test, there was no difference between countries in the scores of RCSQ ARM, PEI Total, PEI Meaning and PEI Autonomy.

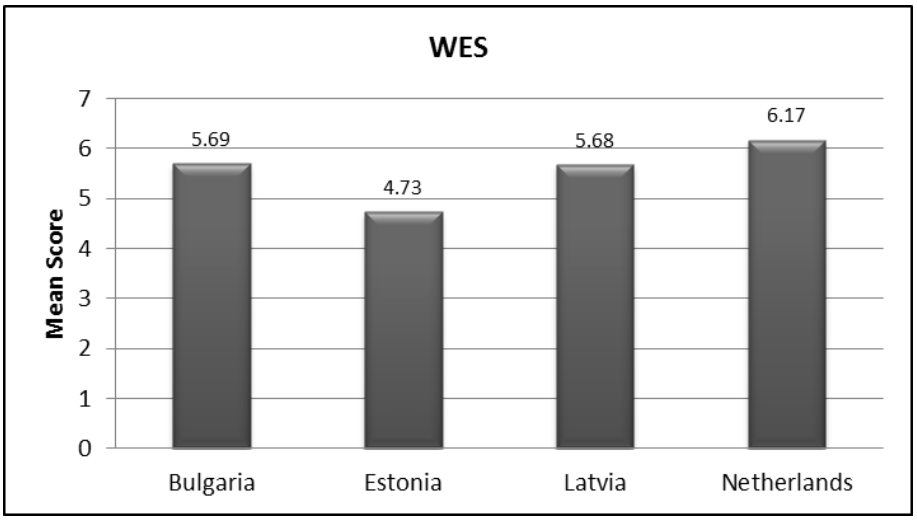
The following varied significantly between countries: WES, ECQ, SRG, CSURV management, CSURV empowerment, CSURV workload, CSURV communication, RCSQ Situation management, RCSQ positive evaluation, RCSQ seeking support, RCSQ positive disengagement, CSQ, PWESQ Total, PWESQ facilities, PWESQ work & system, PWESQ work site, JSI, NEO-PI-R, SS, IWTS, PEI competence, PEI impact.

The following post-hoc analyses were performed using the Mann-Whitney test, with Bonferroni correction (critical value = .0083):

4.3.3. Work Environment Scale (Moos, 1994)

Estonia had significantly lower WES scores compared to Bulgaria, Latvia, and The Netherlands.

Fig 2 WES score by Country



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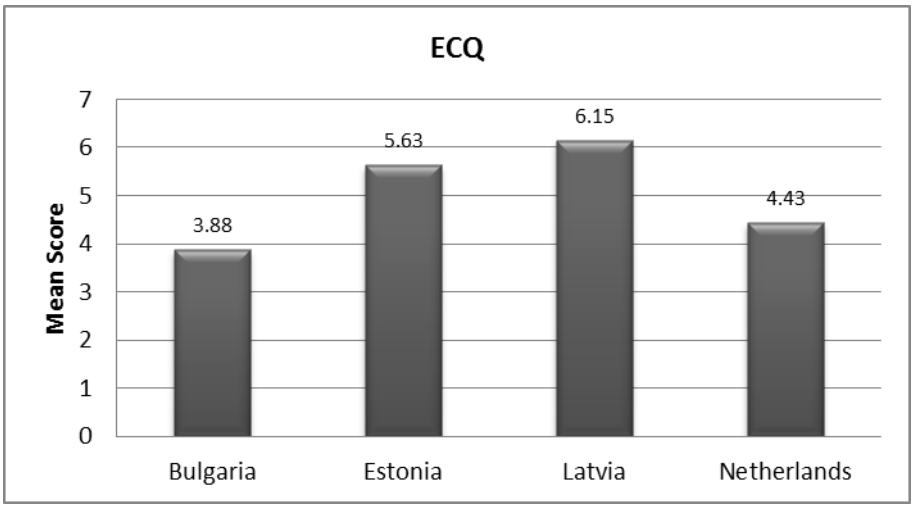
4.3.4. Emotion Control Questionnaire (Roger & Najarian, 1989)

Latvia had significantly higher ECQ scores compared to Bulgaria and The Netherlands, and Estonia was higher compared to Bulgaria.

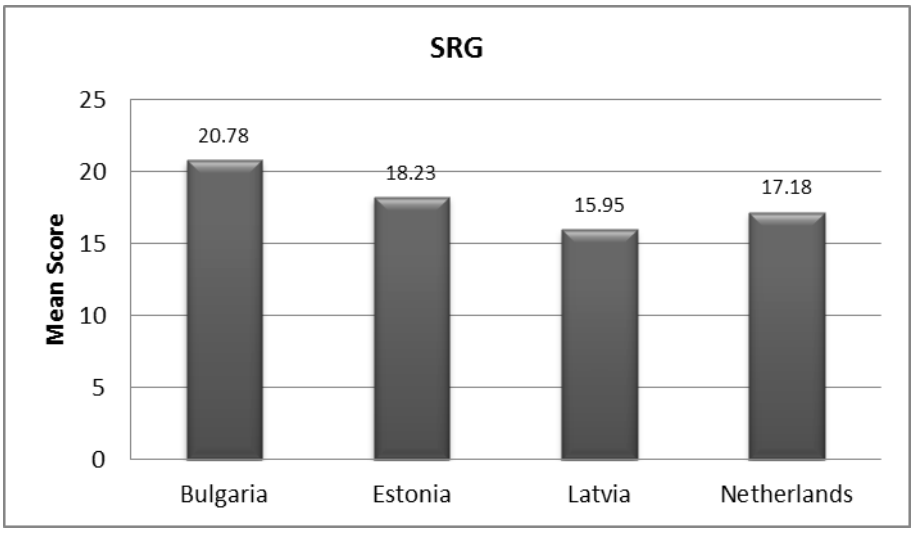
Fig. 3 ECQ score by country



4.3.5. Stress Related Growth (SRG – Park, Cohen & Murch, 1996)

Bulgaria had significantly higher SRG scores compared to Estonia, Latvia, and The Netherlands, while Estonia was higher than Latvia.

Fig. 4 SRG score by country



4.3.6. Climate Survey (C-SURV – Roger, 2010)

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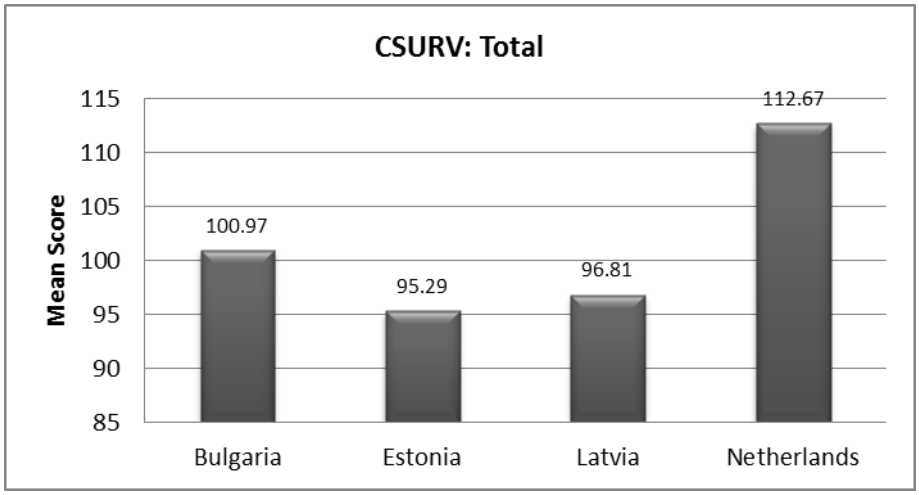
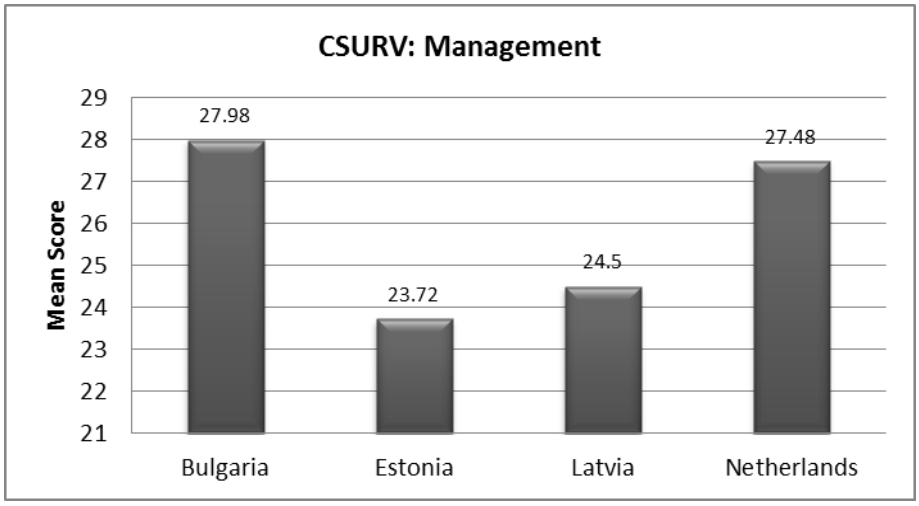
The Netherlands had significantly higher CSURV Total compared to Bulgaria, Estonia, and Latvia.

Fig. 5. CSurv total score by country



CSURV Management: Bulgaria and The Netherlands were significantly higher in CSURV Management compared to both Estonia and Latvia.

Fig. 6. CSurv Management score by country



CSURV Empowerment: The Netherlands had significantly higher CSURV Empowerment scores than Bulgaria, Estonia and Latvia.

Fig. 7. CSurv Empowerment score by country

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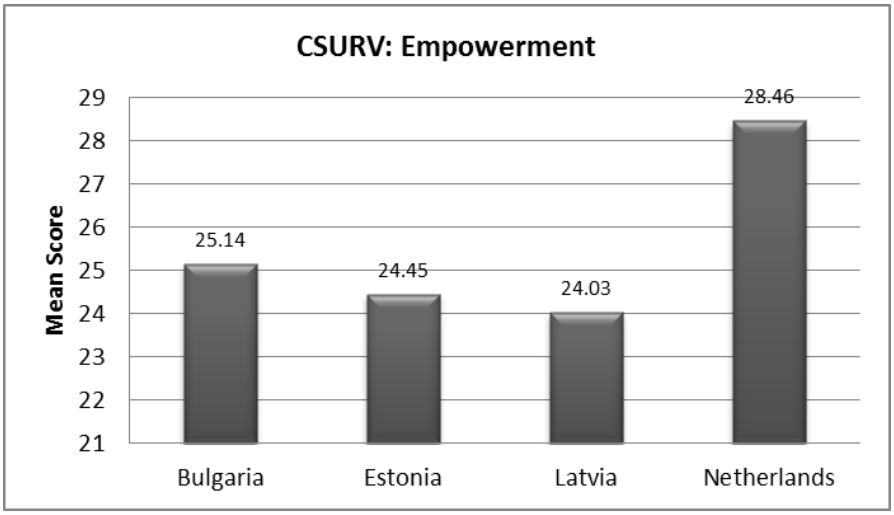
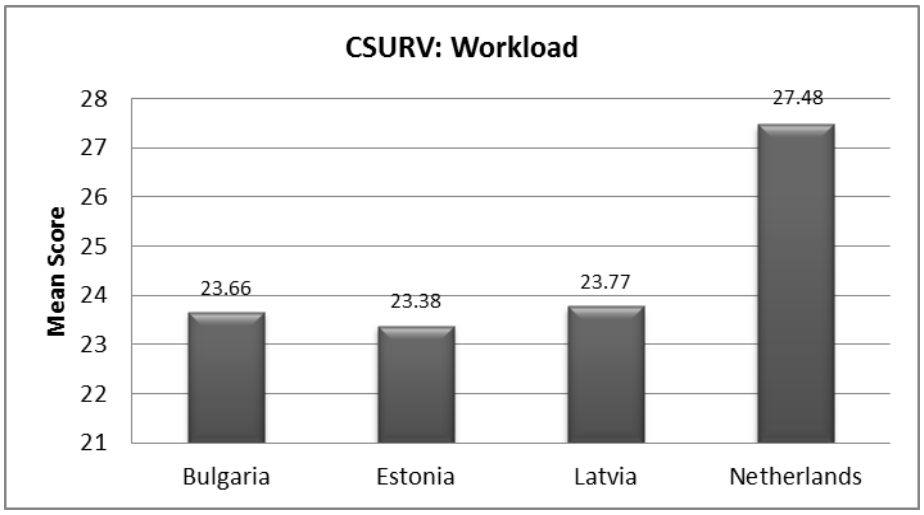


CSURV Workload: The Netherlands had significantly higher CSURV Workload compared to Bulgaria, Estonia, and Latvia.

Fig. 8. CSurv Workload score by country



CSURV Communication: The Netherlands had significantly higher CSURV Communication compared to Bulgaria, Estonia, and Latvia.

Fig. 9. CSurv Communication score by country

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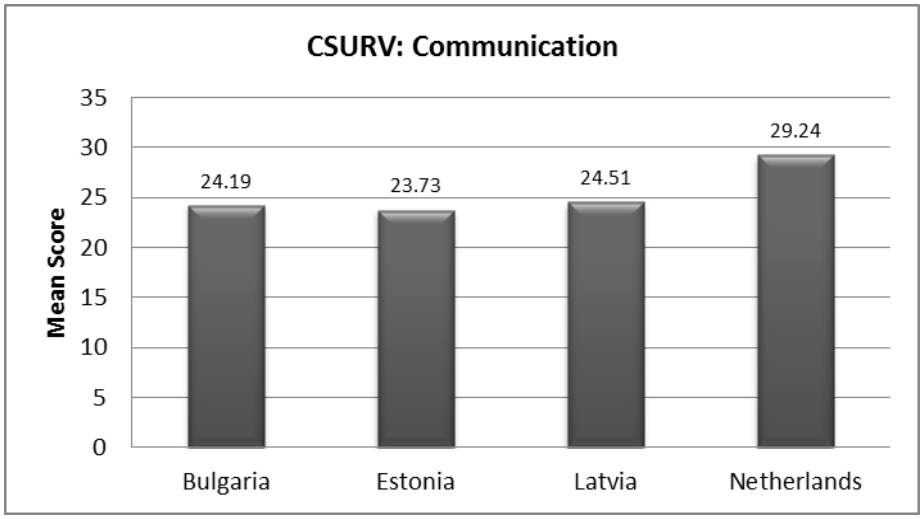
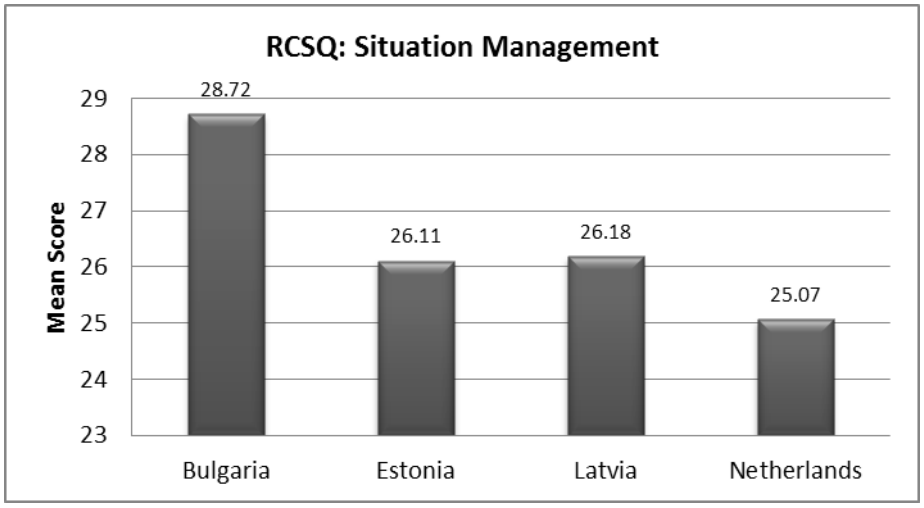


4.3.7. Resilient Coping Styles Questionnaire (RCSQ: Sojo &Dudgeon, 2011)

RCSQ Acceptance and Resource Management: No significant differences

RCSQ Situation Management: Bulgaria had significantly higher RCSQ Site Management compared to Estonia, Latvia and The Netherlands. The Netherlands was further lower in RCSQ SM scores than Estonia and Latvia.

Fig. 10. RCSQ Situation Management score by country



RCSQ Positive Evaluation: Bulgaria had significantly higher RCSQ Positive Evaluation compared to Estonia, Latvia and The Netherlands. The Netherlands was further lower in RCSQ Positive Evaluation than Estonia.

Fig. 11. RCSQ Positive Evaluation score by country

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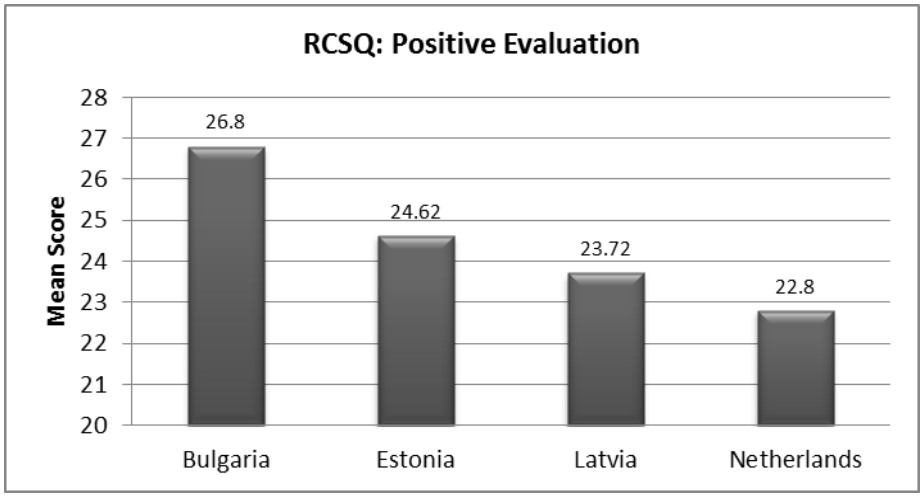
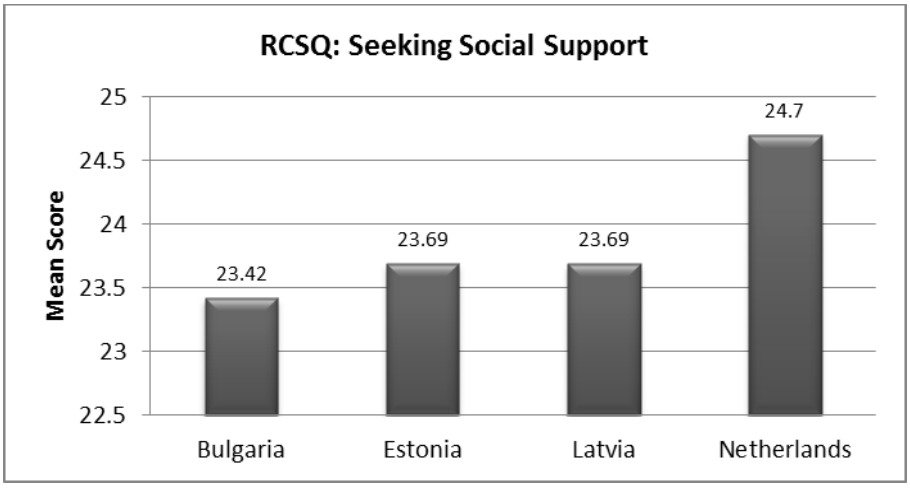


RCSQ Seeking Social Support: The Netherlands had greater RCSQ Seeking of Social Support than Bulgaria.

Fig. 12. RCSQ Seeking Social Support score by country



RCSQ Positive Disengagement: Bulgaria had significantly higher RCSQ Positive Disengagement compared to Estonia, Latvia and The Netherlands.

Fig. 13. RCSQ Positive Disengagement score by country

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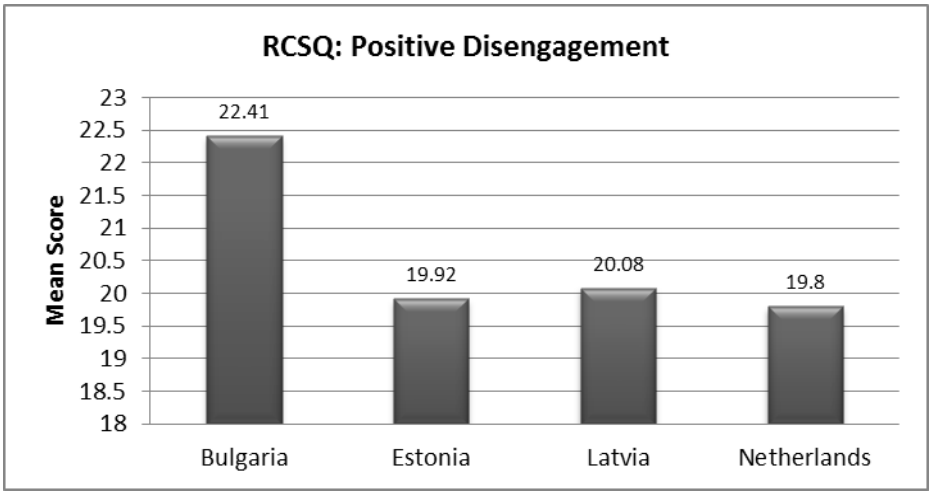
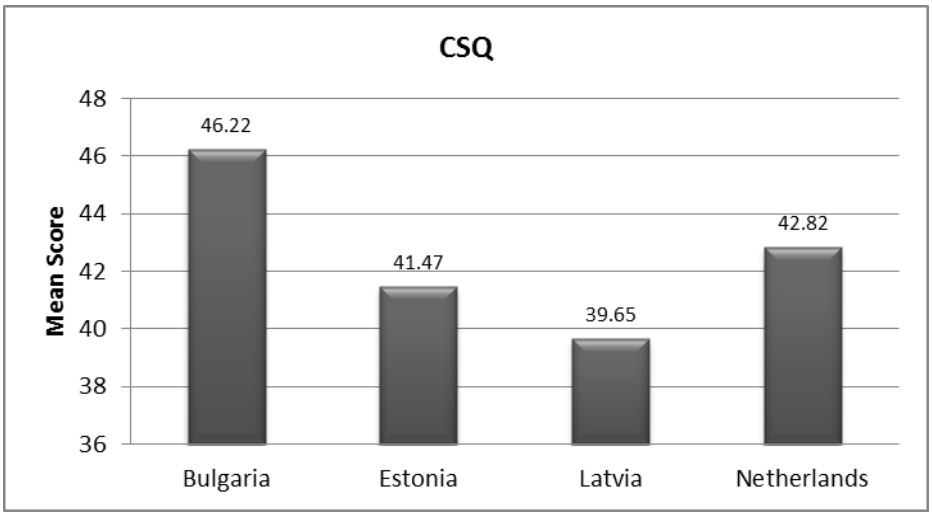


4.3.8. Coping Styles Questionnaire (Roger, Jarvis & Najarian, 1993)

Bulgaria had significantly higher CSQ compared to Estonia, Latvia and The Netherlands Latvia was further lower in CSQ than The Netherlands.

Fig. 14. CSQ score by country



4.3.9. The Physical Work Environment Satisfaction Questionnaire (PWESQ: Carlopio, 1996)

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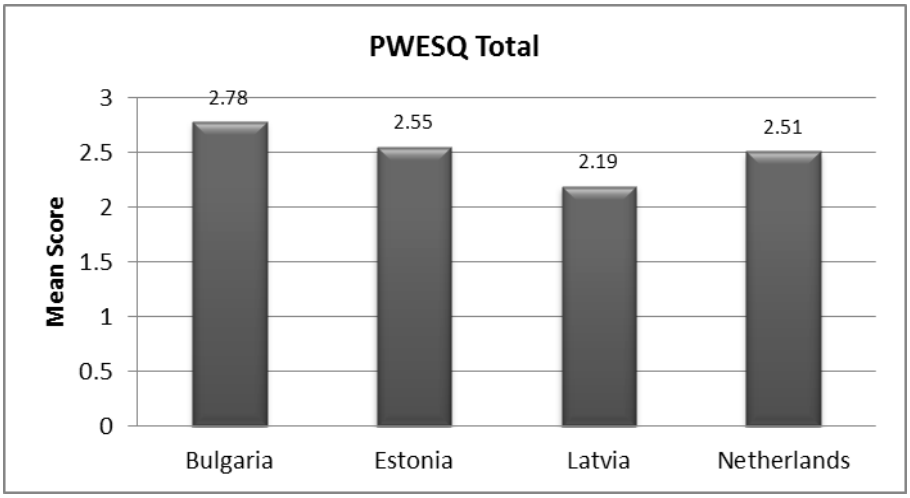
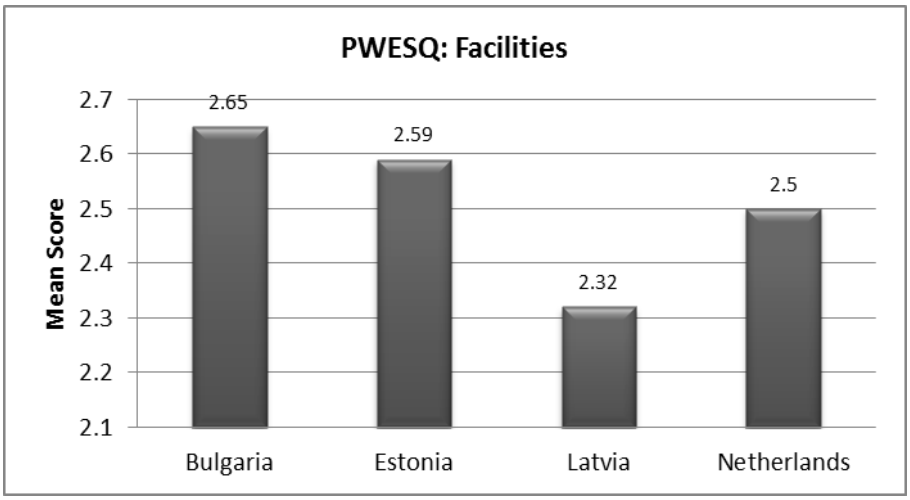
PWESQ Total: Bulgaria had significantly higher PWESQ Total compared to Estonia, Latvia and The Netherlands Latvia was further lower in PWESQ Total than Estonia and The Netherlands.

Fig. 15. PWESQ Total score by country



PWESQ Facilities: Bulgaria has significantly higher PWESQ Facilities score than Latvia.

Fig. 16. PWESQ Facilities score by country



PWESQ Work & System: Latvia had the lowest PWESQ Work & System scores compared to Bulgaria Estonia and The Netherlands. Estonia had lower scores compared to Bulgaria and The Netherlands.

Fig. 17. PWESQ Work and Systems score by country

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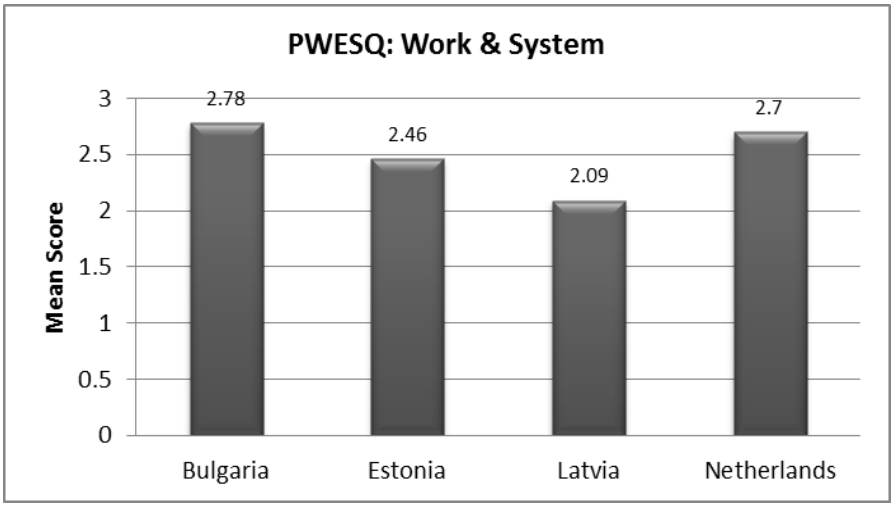
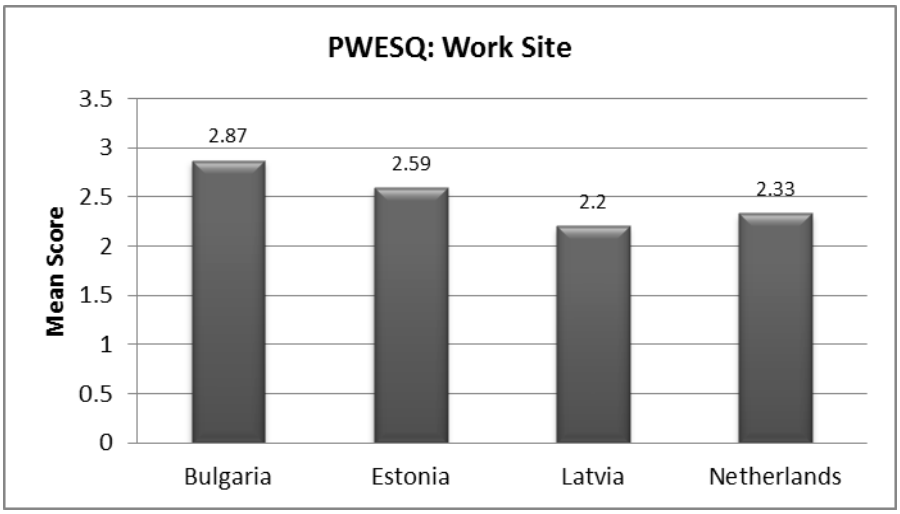


PWESQ Work Site: Bulgaria had significantly higher PWESQ Work Site scores compared to Estonia, Latvia, and The Netherlands. Estonia was significantly higher than Latvia and The Netherlands.

Fig. 18. PWESQ Work Site score by country



4.3.10. The Job Satisfaction Inventory (JSI: Brayfield & Rothe, 1951)

Latvia had the lowest JSI scores compared to Bulgaria, Estonia and the Netherlands. Estonia had lower scores compared to Bulgaria and The Netherlands.

Fig. 19. JSI score by country

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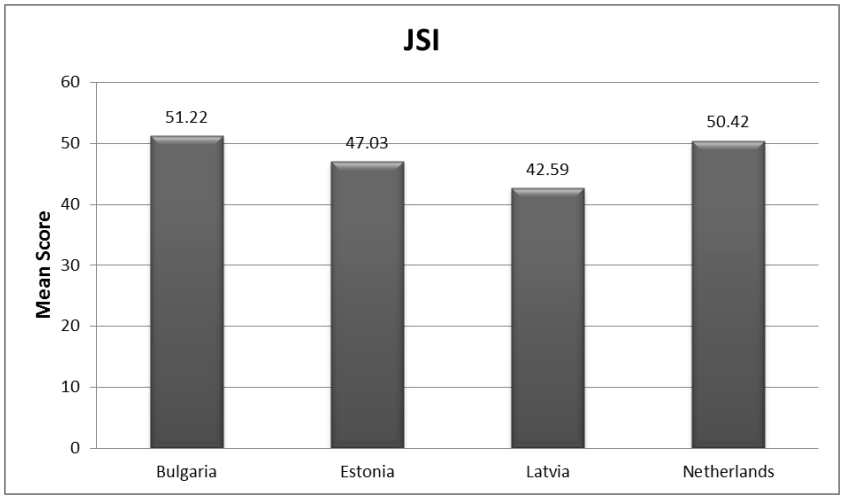
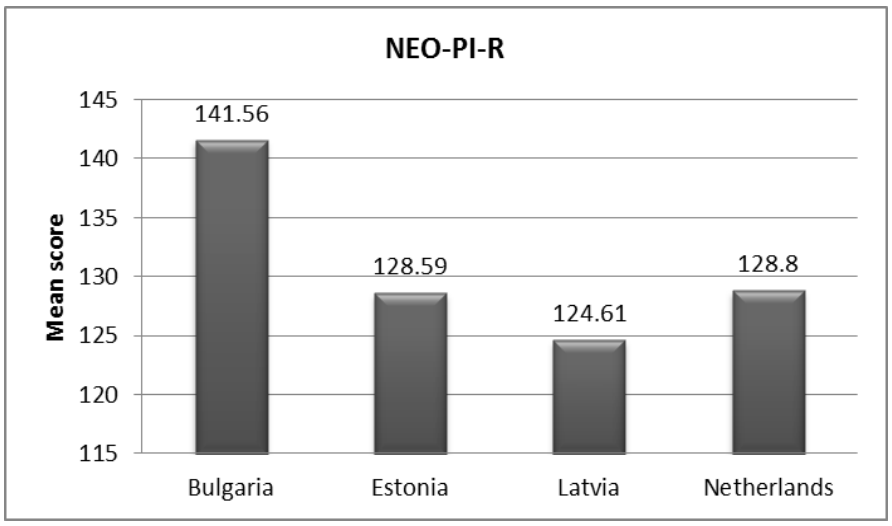


4.3.11. NEO-PI-R Conscientiousness sub-scale (Costa & McCrae, 1992)

Bulgaria had the lowest NEO-PI-R scores compared to Estonia, Latvia [and The Netherlands. The Netherlands was further lower compared to Latvia.

Fig. 20. NEO-PI-R Conscientiousness score by country



4.3.12. The Supervisor Support assessment (SS: Federal Bureau of Prisons, 1995)

Estonia had significantly lower Supervisor Support scores compared to Latvia and The Netherlands.

Fig. 21. Supervisor Support score by country

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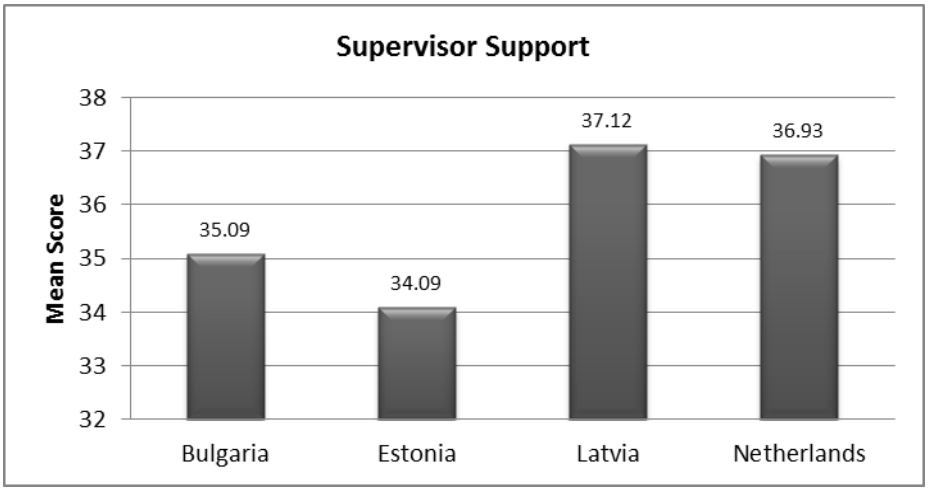
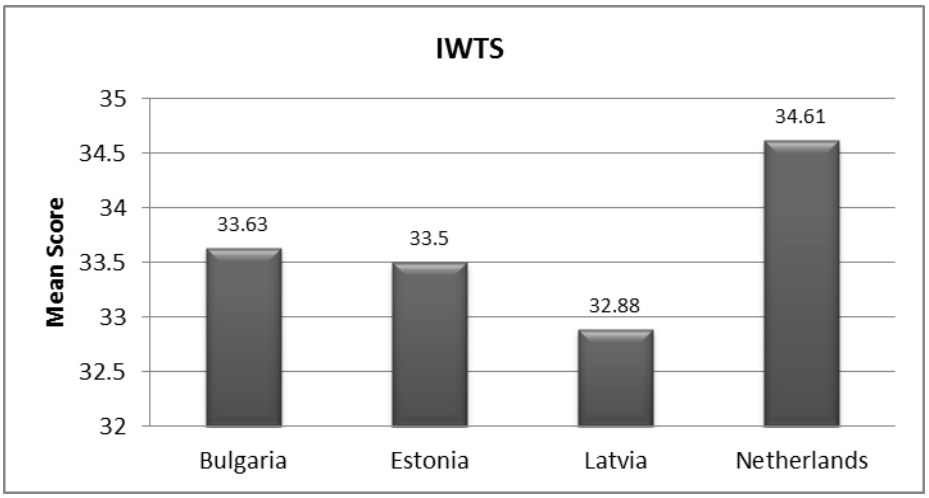


4.3.13. The Interpersonal Trust at Work Scale (ITWS: Cook & Wall, 1980)

The Netherlands had significantly higher ITWS scores compared to Latvia.

Fig. 22. Interpersonal Trust at Work score by country



4.3.14. The Psychological Empowerment Inventory (PEI: Spreitzer, 1995)

PEI Total: No significant differences

PEI Meaning: No significant differences

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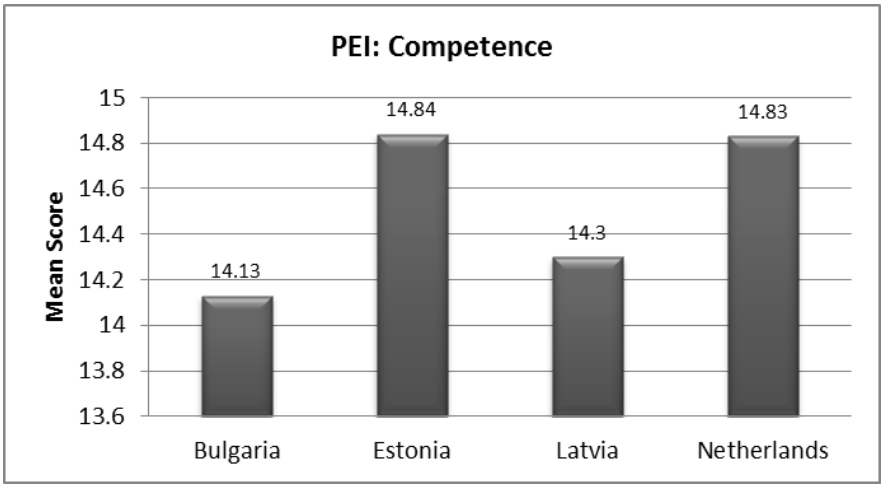
PEI Competence: Latvia had significantly lower PEI Competence scores compared to Estonia and The Netherlands.

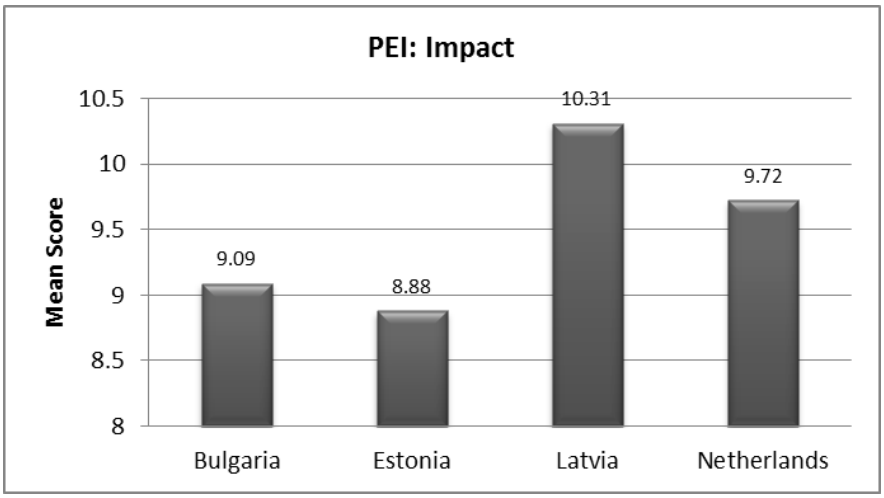
Fig. 23. Psychological Empowerment Inventory (Competence) score by country



PEI Autonomy: No significant differences

PEI Impact: Latvia had significantly higher PEI Impact scores compared to Estonia.

Fig. 24. Psychological Empowerment Inventory (Impact) score by country



4.4. Main study results: Testing the Stress Shield Model

In order to identify factors predictive of resilience, in line with the aims of the SOPRE project, a number of hierarchical regressions were undertaken. These were conducted for the dependent variables RSCQ and JSI. The variables age, gender, and country of respondents were placed in the first step of the regression to control

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for possible confounding effects. The independent/predictors religious status, time in job, management/supervision role, contracted hours work per week, amount of clients aged 12-18, amount of clients aged 19-23, amount of clients aged 24-60, amount of clients aged 61 and over, dangerousness of case load, traumatic event at work, traumatic event outside of work, Neo-PI-R, CSQ, CSURV, and PWESQ were placed into the second step of the equation to test for main effects. These inclusions were based on the significance of the correlations between the variables (See Table 27 Correlation Matrix for Occupational Factors, RCSQ, JSI, and SRG by Country)

4.4.1. RSCQ

The first set of analyses explored the predictive value of occupational and personal factors on RSCQ while controlling for age, gender, and country. In step one a significant amount of variance (3.2%) in RSCQ was explained by the covariates age x gender x country of residence (R^2 change = .032, p< .001). After controlling for age, gender, and country of respondents, in step two, a significant amount of the variance (23.8%) of RSCQ was explained the independent variables (R^2 change = .238, p< .001), with the overall model explaining 27% of the variance in RSCQ scores (R^2 = .27, adjusted R^2 = .244, [F (18,513)= 10.54, p< .001]). In step 2, the variables NEO-PI-R (B = .15, p< 001) and CSQ (B = .85, p< 001) emerged as making individual unique contributions to RSCQ.

4.4.2. JSI

The next set of analyses explored the predictive value of occupational and personal factors on JSI while controlling for age, gender, and country. In step one the covariates did not contribute a significant amount of variance to JSI overall (R^2 change = .01, *ns*). After controlling for age, gender, and country of respondents, in step two, a significant amount of the variance (46.2%) of JSI was explained the independent variables (R^2 change = .462, p< .001), with the overall model explaining 46.6% of the variance in JSI scores (R^2 = .466, adjusted R^2 = .447, [F (18, 513)= 24.88, p< .001]. In step 2, the variables management role (B = -1.69, p< .05), weekly contracted hours (B = .13, p< .05), NEO-PI-R (B = .14, p< .001), CSQ (B = .28, p< .001), CSURV (B = .16, p< .001), and PWESQ (B = 3.16, p< .001) emerged as making individual unique contributions to JSI.

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Table 17. *Hierarchical Regression Analyses for RCSQ, JSI and SRG Overall*

	RCSQ			JSI			SRG		
Source	B	Beta	R^2 change	B	Beta	R^2 change	B	Beta	R^2 change
1. *Control variables*			.03			.01			.03
Age	.01	.01		.002	.002		.04	.07	
Gender	-.47	-.02		-1.33	-.07		-.112		
Country	-2.47**	-.18		.08	.009		-1.02*		
2. *Main effects*			.24			.44			.08
Religious status	-.46	-.01		-.47	-.03		-1.20*	-.09	
Time in job	-.004	-.02		-.002	-.02		.000	-.001	
Management role	-.47	-.02		-1.69*	-.08		.023	.000	
Contracted hours /week	.03	.01		.13*	.07		.01	.009	
Clients aged 12-18	-.01	-.01		.02	.04		.03	.078	
Clients aged 19-23	.01	.01		.02	.05		.007	.028	
Clients aged 24-60	.003	-.01		.01	.03		-.003	-.017	
Clients aged 61 and over	-.08	-.03		.07	.04		-.012	-.009	
Dangerousness of workload	.03	.05		-.001	-.004		.012	.05	
Traumatic event outside work	-2.24	-.08		.25	.02		-1.08	-.08	
Traumatic event at work	-2.00	-.07		.75	.04		-.53	-.037	
NEO-PI-R	.15**	-.18		.14**	.23		.03	.72	
CSQ	.85**	.39		.28**	.18		-.006	-.006	
CSURV	.07*	.10		.16**	.33		.08**	.232	
PWESQ	.65	.03		3.16**	.20		.16	.015	

Note. *p< .05, **p< .001

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4.5. Main study results: Testing the Stress Shield Model by country

Prior to hierarchical regression analyses, a correlation matrix was assessed for possible significant relationships existing between the occupational factors and relevant outcome measures: RCSQ, JSI, and SRG per country (See Table 27. Correlation Matrix for Occupational Factors, RCSQ, JSI, and SRG by Country)

Hierarchical regression analyses were then conducted for each of the outcome variables: JSI, SRG, and RCSQ. The covariates age and gender were placed in the first step of the regressions to control for possible confounding effects. The independent variables (as indicated by the correlation matrix) were placed into the second step of the equation to test for main effects.

4.5.1. Bulgaria

Based upon the correlation matrix, JSI was significantly associated with: practicing a religion, Trauma outside of work, NEO-PI-R, CSQ, CSURV, and PWESQ. SRG was significantly associated with: Time in job and PWESQ. RCSQ was significant associated with NEO-PI-R, CSQ, CSURV, and PWESQ.

4.5.1.1. *Job Satisfaction (JSI)*

The first set of analyses explored the predictive value of occupational and personal factors on JSI while controlling for age and gender. In step one the covariates did not contribute a significant amount of variance to JSI overall (R^2 change = .06, *ns*). After controlling for the covariates, in step two, a significant amount of the variance (67%) of JSI was explained the independent variables (R^2 change = .672, p< .001), with the overall model explaining 73% of the variance in JSI scores (R^2 = .728, adjusted R^2 = .688, [F (8, 55)= 18.36, p< .001]. The variables practicing a faith (B = -4.76, p< .01), NEO-PI-R (B = .20, p< .001), CSURV (B = .10, p< .05), and PWESQ (B = 4.98, p< .001) emerged as unique contributors to JSI.

Table 18. *Hierarchical Regression Analyses for JSI Bulgaria*

	JSI		
Source	B	Beta	R^2 change
1. *Control variables*			.06
Age	.04	.04	
Gender	2.92	.15	
2. *Main effects*			.67
Religious status	-4.76**	-.22	
Traumatic event outside work	-1.95	-.05	
NEO-PI-R	.20**	.41	
CSQ	.10	.06	

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CSURV	.15*	.18
PWESQ	4.98**	.30

Note. *p< .05, **p< .01

4.5.1.2. Stress Related Growth (SRG)

The next set of analyses explored the predictive value of occupational and personal factors on SRG while controlling for age and gender. In step one the covariates did not contribute a significant amount of variance to SRG overall (R^2 change = .01, *ns*). After controlling for the covariates, in step two, the variables together and independently did not significantly predict variance in SRG (R^2 = .036, adjusted R^2 =-.029) [F (4, 59)= .55, ns].

4.5.1.3. Adaptive Capacity (RSCQ)

The first set of analyses explored the predictive value of occupational and personal factors on RSCQ while controlling for age and gender. In step one the covariates failed to directly predict RSCQ (R^2 change = .034, ns). After controlling for the covariates in step two, a significant amount of the variance (32.3%) of RSCQ was explained the independent variables (R^2 change = .323, p< .001), with the overall model explaining 35.7% of the variance in RSCQ scores (R^2 = .357, adjusted R^2 = .289, [F (6,57)= 5.26, p< .001]). The independent variable CSQ (B = .90, p< .001) emerged as a unique predictor of RSCQ.

Table 19. *Hierarchical Regression Analyses for RCSQ Bulgaria*

		RCSQ	
Source	B	Beta	R^2 change
1. *Control variables*			.03
Age	-.15	-.10	
Gender	1.93	.07	

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2. Main effects			.32
NEO-PI-R	.07	.10	
CSQ	.90**	.42	
CSURV	.17	.15	
PWESQ	2.43	.11	

Note. ***p*< .001

4.5.2. Estonia

Based upon the correlation matrix, JSI was significantly associated with: Trauma at work, NEO-PI-R, CSQ, CSURV, and PWESQ. SRG was significantly associated with: clientele 12-18, clientele aged 61 and over, CSURV, and PWESQ. RCSQ was significant associated with NEO-PI-R, CSQ, CSURV, and PWESQ.

4.5.2.1. Job Satisfaction (JSI)

The predictive value of occupational and personal factors on JSI, while controlling for age and gender, was examined. In step one the covariates did not contribute a significant amount of variance to JSI overall (R^2 change = .001, *ns*). In step two, a significant amount of the variance (32%) of JSI was explained the independent variables (R^2 change = .321, p< .001), with the overall model explaining 32.2% of the variance in JSI scores (R^2 = .322, adjusted R^2 = .283, [F (7, 122)= 8.27, p< .001]. The variables CSQ (B = .36, p< .01) and CSURV (B = .13, p< .005) emerged as unique predictors of JSI.

Table 20. *Hierarchical Regression Analyses for JSI Estonia*

		JSI	
Source	B	Beta	R^2 change
1. Control variables			.001
Age	-.04	-.06	
Gender	2.85	.13	
2. Main effects			.32
Traumatic event at work	-.49	-.03	
NEO-PI-R	.07	.13	
CSQ	.36**	.24	

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CSURV	.13**	.28
PWESQ	2.55	.19

Note. *p< .05, **p< .001

4.5.2.2. Stress Related Growth (SRG)

Next the predictive value of occupational and personal factors on SRG while controlling for age and gender was examined. In step one the covariates contributed a significant amount of variance to SRG overall (R^2 change = .05, p< *.05*). In step two, a significant amount of the variance (15%) of SRG was explained the independent variables (R^2 change = .145, p< .001), with the overall model explaining 19.3% of the variance in SRG scores (R^2 = .193, adjusted R^2 = .154, [F (6, 123)= 4.92, p< .001]. The variable CSURV (B = .10, p= .005) emerged as a unique predictor of SRG.

Table 21. *Hierarchical Regression Analyses for SRG Estonia*

	SRG		
Source	B	Beta	R^2 change
1. *Control variables*			.05
Age	.12*	.22	
Gender	1.63	10	
2. *Main effects*			.15
Clients aged 12-18	.02	.07	
Clients aged 61 and over	-.20	-.13	
CSURV	.10**	.29	
PWESQ	.79	.08	

Note. *p< 05; **p< .01,

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4.5.2.3. Adaptive Capacity (RSCQ)

RSCQ was then examined. In step one the covariates did not contributed a significant amount of variance to RSCQ overall (R^2 change = .02, *ns*). In step two, a significant amount of the variance (33%) of RSCQ was explained the independent variables (R^2 change = .326, p< .001), with the overall model explaining 34.2% of the variance in RSCQ scores (R^2 = .342, adjusted R^2 = .310, [F (6, 123)= 10.65, p< .001]. The variable CSQ (B = 1.19, p< .001) emerged as a unique predictor of RSCQ.

Table 22. *Hierarchical Regression Analyses for RCSQ Estonia*

		RCSQ	
Source	B	Beta	R^2 change
1. Control variables			.02
Age	.07	.06	
Gender	7.96	.21	
2. Main effects			.33
NEO-PI-R	.10	.11	
CSQ	1.19**	.47	
CSURV	.13	.17	
PWESQ	.27	.01	

Note. ***p*< .001.

4.5.3. Latvia

Based upon the correlation matrix, JSI was significantly associated with: NEO-PI-R, CSQ, CSURV, and PWESQ. SRG was significantly associated with: NEO-PI-R and CSURV. RCSQ was significant associated with NEO-PI-R and CSQ.

4.5.3.1. Job Satisfaction (JSI)

In step one the covariates contributed 5% of variance to JSI overall (R^2 change = .05, *p*< .05). In step two, a significant amount of the variance (29%) of JSI was explained the independent variables (R^2 change = .287, p< .001), with the overall model explaining 33.3% of the variance in JSI scores (R^2 = .333, adjusted R^2 = .310, [F (6, 178)= 14.78, p< .001]. The variables NEO-PI-R (B = .13, p< .01), CSQ (B = .26, p< .05), CSURV (B = 17, p< .001) and PWESQ (B = 2.30, p< .05) emerged as unique predictors of JSI.

Table 23. *Hierarchical Regression Analyses for JSI Latvia*

		JSI	
Source	B	Beta	R^2 change

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1. *Control variables*			.05
Age	.16*	.15	
Gender	1.35	.05	
2. *Main effects*			.29
NEO-PI-R	.13**	.18	
CSQ	.26*	.16	
CSURV	.17**	.33	
PWESQ	2.30*	.14	

Note. *p< .05, **p< .001

4.5.3.2. Stress Related Growth (SRG)

The next set of analyses explored the predictive value of occupational and personal factors on SRG while controlling for age and gender. In step one the covariates did not contribute a significant amount of variance to SRG overall (R^2 change = .02, *ns*). After controlling for the covariates, in step two, the variables together (R^2=.04) and independently did not significantly predict variance in SRG (R^2 = .064, adjusted R^2 =.033) [F (6, 178)= 2.04, ns].

4.5.3.3.Adaptive Capacity (RSCQ)

RSCQ was then examined. In step one the covariates did not contributed a significant amount of variance to RSCQ overall (R^2 change = .02, *ns*). In step two, a significant amount of the variance (13%) of RSCQ was explained the independent variables (R^2 change = .131, p< .001), with the overall model explaining 15.4% of the variance in RSCQ scores (R^2 = .154, adjusted R^2 = .136, [F (4, 180)= 8.22, p< .001]. The variables NEO-PI-R (B = .21, p< .005) and CSQ (B = .62, p< .001) emerged as unique predictors of RSCQ.

Table 24. *Hierarchical Regression Analyses for RCSQ Latvia*

		RCSQ	
Source	B	Beta	R^2 change
1. *Control variables*			.02
Age	.13	.08	
Gender	3.29	.09	
2. *Main effects*			.13
NEO-PI-R	.21*	.21	
CSQ	.62*	.27	

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Note. *p< .005

4.5.4. The Netherlands

Based upon the correlation matrix, JSI was significantly associated with: time in job, trauma at work, NEO-PI-R, CSQ, CSURV, and PWESQ. SRG was significantly associated with: management role, clientele 24-60, dangerous workload, and trauma outside of work. RCSQ was significantly associated with: time in job, trauma outside of work, NEO-PI-R, CSQ, and CSURV.

4.5.4.1. Job Satisfaction (JSI)

The predictive value of occupational and personal factors on JSI while controlling for age and gender was examined. In step one the covariates did not contribute a significant amount of variance to JSI overall (R^2 change = .011, *ns*). In step two, a significant amount of the variance (50.2%) of JSI was explained the independent variables (R^2 change = .502, p< .001), with the overall model explaining 52.4% of the variance in JSI scores (R^2 = .524, adjusted R^2 = .503, [F (7, 160) = 25.13, p < .001]. NEO-PI-R (B = .12, p< .005), CSQ (B = .25, p< .005), CSURV (B = .19, p< .001), and PWESQ (B = 3.31, p< .001) all emerged as unique predictors of JSI.

Table 25. *Hierarchical Regression Analyses for JSI The Netherlands*

	JSI		
Source	B	Beta	R^2 change
1. *Control variables*			.02
Age	-.05	-.08	
Gender	.68	.05	
2. *Main effects*			.50
Total time in job	.01	.09	
Trauma outside of work	.49	.03	
NEO-PI-R	.12*	.21	
CSQ	.25*	.18	
CSURV	.19*	.42	
PWESQ	3.31*	.20	

Note: *p< .005

4.5.4.2. Stress Related Growth (SRG)

Next, the predictive value of occupational and personal factors on SRG while controlling for age and gender was examined. In step one the covariates did not contribute a significant amount of variance to SRG

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overall (R^2 change = .001, *ns*). In step two, a small amount of the variance (7%) of SRG was explained the independent variables (R^2 change = .071, p< .05). However, overall the model failed to account for SRG scores (R^2 = .072, adjusted R^2 = .037, [F (6, 161)= 2.08, *ns*].

4.5.4.3. Adaptive Capacity (RSCQ)

RSCQ was then examined. In step one the covariates contributed a significant amount of variance to RSCQ (R^2 change = .046, *p< .05*), with age making a unique contribution. In step two, a significant amount of the variance (29%) of RSCQ was explained the independent variables (R^2 change = .286, p< .001), with the overall model explaining 33.7% of the variance in RSCQ scores (R^2 = .337, adjusted R^2 = .304, [F (8, 159)= 10.10, p< .001]. The variables CSQ (B = .90, p< .001) and CSURV (B = .13, p< .05) emerged as unique predictors of RSCQ.

Table 26. *Hierarchical Regression Analyses for RCSQ The Netherlands*

	RCSQ		
Source	B	Beta	R^2 change
1. Control variables			.05
Age	-.24*	-.22	
Gender	-3.53	-.15	
2. Main effects			.29
Time in job	.02	.11	
Trauma outside of work	1.14	.04	
NEO-PI-R	.11	.13	
CSQ	.91**	.44	
CSURV	.13*	.18	

Note. *p< .05. **p< .001.

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Table 27. Correlation Matrix for Occupational Factors, RCSQ, JSI, and SRG by Country

	Bulgaria			Estonia			Latvia			Netherlands		
Scale	JSI	SRG	RCSQ	JSI	SRG	RCSQ	JSI	SRG	RCSQ	JSI	SRG	RCSQ
Practice a religion	-.36**	-.05	-.11	-.03	-.08	-.14	.09	-.02	.10	-.04	-.13	-.08
Time in job	-.01	-.27*	-.14	-.01	-.08	-.09	.09	.07	.06	-.25***	.01	-.20**
Management role	-.20	-.02	.07	-.16	.002	-.17	-.18*	-.02	-.01	-.06	-.19*	-.09
Contracted hrs/week	-.06	.02	-.07	.04	.000	-.01	.03	.10	.02	-.06	-.06	.07
% Clients 12-18	.15	-.09	.07	-.01	.21	.05	-.07	-.08	.03	-.07	-.02	.01
% Clients 19-23	-.01	.15	.05	-.10	.04	.05	-.16*	-.02	-.01	.07	-.09	-.01
% Clients 24-60	.24	.09	.09	-.01	-.05	-.03	-.003	.04	.03	.02	.18	.07
% Clients 61 and over	-.04	.12	-.02	-.06	-.21*	-.11	-.07	-.05	-.04	.12	-.004	-.05
% Dangerous workload	.15	.18	.06	.03	-.01	.15	-.10	.09	.08	-.08	-.16*	-.10
Trauma outside of work	-.30*	-.14	-.15	-.02	-.11	-.09	.14	-.001	-.02	.12	-.16*	.15*
Trauma at work	.09	-.14	-.03	.19*	.03	.08	.13	-.13	-.04	.17*	.05	.07
NEO-PI-R	.73***	.19	.35**	.29***	.07	.25**	.24***	.15*	.22**	.37***	-.01	.23**
CSQ	.32**	-.02	.49***	.41***	.01	.51***	.28***	.12	.35***	.29***	.06	.45***
CSURV	.34**	.19	.31*	.38***	.30***	.23**	.42***	.17*	.09	.52***	.09	.28***
PWESQ	.41***	.26*	.30*	.38***	.23**	.23**	.28***	.05	.02	.43***	-.03	.12

*p< .05, **p< .01

Table 28. Correlations between psychometric measures

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Scales	1	2	3	4	5	6	7	8	9	10	11
1. WES											
2. ECQ	-.18***										
3. SRG	.06	-.04									
4. CSURV	.38***	-.32***	.17***								
5.RCSQ	.15***	-.29***	.36***	.16***							
6. CSQ	.16***	-.56***	.10*	.29***	.44***						
7.PWESQ	.18***	-.22***	.15***	.49***	.18***	.29***					
8. JSI	.22***	-.38***	.20***	.53***	.28***	.41***	.47***				
9. NEO-PI-R	.06	-.21***	.14***	.17***	.32***	.32***	.21***	.40***			
10. SS	.07	.02	.08	.13***	-.03	-.05	.01	.07	-.04		
11. IWTS	.10*	-.05	.12**	.15***	-.02	.04	.07	.07	-.08	.54***	
12. PEI	.10*	-.01	-.01	.05	.03	.03	-.04	-.02	-.11*	.50***	.44***

*p< .05, **p< .01. ***p< *.001*

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5. Discussion

The SPORE project undertook to investigate the resilience of probation staff across four European countries, with a view to; establishing a methodology to evaluate resilience; identify the factors influencing it; and, to develop models for averting the potential for negative outcome for staff working in the field. To achieve these aims, the methodology employed included the collection of quantitative data via an on-line survey and qualitative data via the survey and national focus groups. Additional information regarding best practice across Europe was gathered at an International workshop run in March 2013. Dissemination of the findings is through this final summary report, four local reports incorporating the findings of the focus groups, an International Conference (September 2013), and the SPORE website (http://spore-resilience.eu). This final summary report details the findings regarding the three aims above; methodology, factors and models. Local reports provide accounts of focus groups and local action plans, although where relevant, information is drawn from these reports to support the overall findings.

Before discussing the findings in detail, it is important to highlight the possible impact that different methods of data collection, referred to in the method section above, may have had on the findings. Two key differences existed. The first is that a vast majority of participants responded to an on-line survey that preserved anonymity. However, Bulgarian participants completed the survey by hand, in the presence of the local researcher, who later input the responses onto the electronic database. The impact of this was a reduction in anonymity, an increased risk of error in data entry, and a reduction in opportunity for a wider range of staff to participate in the study. The second difference is that respondents from the Netherlands were selected as a representative sample of the probation population, meaning not all staff had the opportunity to participate, which was the case with Estonia and Latvia. It is not clear what impact these variations may have had on the final results. Indeed, a further, more general issue is the lack of involvement of staff who were absent from work during the data collection period, possibly owing to ill-health, sabbaticals or extended leave, and therefore not accessing emails which would have enabled participation in the study. Such anomalies of applied research, whilst difficult to surmount, should be considered when appraising the findings. Further shortcomings are highlighted at the end of the discussion.

For discussion purposes, consideration of the results will be divided into a number of sections. The first section will briefly examine the differences in the demographic composition of the partner countries and the implications for future practice. Attention will then be given in the second section to the Stress Shield Model in its entirety; the European Stress Shield Model. The third section will consider each partner country's comparative psychometric results and Stress Shield Model analysis, with specific recommendations by country. Finally, recommendations based on the findings of the overall study will be made.

5.1. Comparative Study: Demographic data

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Demographic and psychometric data from the four partner countries were compared to establish similarities and differences that may influence the development and maintenance of resilience. Given the different histories and comparative levels of maturity of the services, differences in the criminal justice systems as a whole, variations in function and size, and variations in working practices (See Table 29: Summary of key differences in partner country probation services or Appendix 4 for more details), differences in demographic and psychometric details were to be expected.

Table 29. Summary of key differences in partner country probation services

	Bulgaria	Estonia	Latvia	Netherlands
Total population	7.64m	1.35m	2.26m	16.44m
Rate of imprisonment	144:100,000	273:100,000	319:100,000	100:100,000
Organization	State Centralized	State Regional	State Centralized	Private Regional (Reclassering Nederland)
Staff total	500+	225	374	1,500+
Service Established	2005	1998	2003	1910

Demographically, statistically significant differences were apparent in age (between the Netherlands and Estonia); the number of children respondents had (Dutch respondents having the most children); the importance of faith (Bulgarians rating their faith as more important); time in job (Estonians having been in their job the longest); hours worked (Bulgarians and Estonians working the longest hours), intent to stay in role (Dutch respondents indicating greatest intent to stay); number of people managed (Latvian respondents managing the fewest staff); hours contact with offenders (Bulgarians spending the most time in face-to-face contact); face-to-face contact with sex offenders (Dutch staff spending the most hours); dangerousness of case load (Estonian staff having the highest level of dangerous clients); and trauma, both inside and outside work, where Latvians respondents reported higher incidence of trauma, but for trauma outside work, Bulgarians reported the highest intensity of response.

There did not appear to be any pattern in the nature of the differences between countries and although some differences were statistically significant, most differences were nonetheless small. The demographic findings may be helpful in explaining differences in psychometric measures and will be referred to later in this context. However, some findings are worthy of note in their own right. In particular, Bulgarian probation staff do not work with sex offenders, Estonian staff report the highest caseloads of dangerous clients and Latvian staff appear to

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be the only group where a majority have had a recent experience of trauma (either personal or professional) rather than a minority, as in the other partner countries.

Working with sex offenders, working with high proportions of dangerous clients and recent experiences of trauma characterize why probation work is defined as a critical occupation. Later analyses allow a more detailed investigation of the effect of these variables on resilience in the wider organizational context, but they are worth highlighting as significant elements of the work for partner countries. They are particularly important features because as Lewis et al. (2013) emphasize, exposure to trauma can result in reductions in empathy and mistrust, resulting in impairment to work productively with offenders. They argue that if officers begin to deliberately avoid traumatic material, become desensitized or minimize criminal behavior, then competence, ability to embrace complexity and capacity to work creatively with offenders may be compromised, preventing the collaborative working so critical to effective probation work.

Understanding the levels of exposure of staff to potential trauma and the relationship with psychological variables can inform a proportionate and tailored organizational response. This in turn can enable the cost-effective targeting of resources to support staff in their efforts to maintain high performance, even in the face of adversity. The regression analyses undertaken as part of the test of the SSM did not identify the experience of trauma either inside or outside work as predictive of job satisfaction, adaptive capacity or stress related growth for either the main model or for individual countries. However, a number of significant relationships emerged between the experience of trauma, either in or outside work, and the outcome variables (see Table 27: Correlation Matrix for Occupational Factors, RCSQ, JSI, and SRG by Country). For example, for both Estonia and the Netherlands, higher levels of job satisfaction were significantly related to no experience of trauma in work. This result is relatively self-explanatory and confirms the common sense understanding that the absence of trauma is beneficial to resilience. However, the experience of trauma outside work was significantly associated with higher levels of job satisfaction for Bulgarian respondents, and higher levels of stress related growth for Dutch respondents. This may indicate that work is where Bulgarian respondents experience some relief from other pressures, which, given how positively they rated their experience of work, would follow. Dutch respondents may find their ability to render traumatic events outside work more meaningful and manageable than work related trauma, which is reflected in stress related growth scores and perhaps reflects their slightly lower than average scores for organisational climate. Additionally for Dutch respondents, no experience of trauma outside work was related to higher levels of adaptive capacity, suggesting perhaps they were better resourced to respond adaptively in the absence of such trauma.

There is a strong argument for employees being encouraged to keep their home and work lives separate, and much has been made in recent years of maintaining a balance between the two. The concept of a work life balance is an EU policy priority (Crompton & Lyonette, 2008), a central tenet of which is to have a clear distinction between home and work life. However, while a physical distinction may be relatively easy, a

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psychological one may be harder, as illustrated above. It is argued that even in non-critical occupations, the experience of a work related trauma cannot easily be left in the workplace each time the employee leaves for home. Conversely, it can prove extremely difficult to leave personal traumas at home upon return to work. This may be compounded even further in critical occupations where the risk of exposure to work related trauma is, by definition, high, and where the emotional demands of the work such, that managing non-work related trauma may be experienced as an emotional demand too far. For this reason, there is a case for employers and employees to have an awareness of potentially traumatic events that may impact on well-being and performance. Clearly, sharing personal information in the workplace needs to be sensitively handled. It is proposed that, dealt with appropriately, such procedures can mitigate against potential misunderstandings if performance is compromised by psychological trauma, and enable the implementation of apposite support infrastructures. This will be discussed further in the recommendations section.

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5.2. Modelling Resilience in Probation: The European Stress Shield Model

A key aim of the SPORE project was to increase knowledge on resilience practice assessment and identification of risk factors, as well as to establish a methodology as a tool for the evaluation of staff resilience. These two aims were addressed by the adoption of the Stress Shield Model (Paton et al., 2008) to investigate resilience in probation staff in the four partner countries. Using regression analysis, a series of investigations were undertaken to establish which of the theorised organisational and personality predictors of resilience (measured by job satisfaction (JSI), adaptive capacity (RCSQ) and stress related growth (SRG)), would emerge as significant. For each partner country and for the database as a whole, three models were tested, one for each of the three outcome variables.

5.2.1. Job Satisfaction

The Job Satisfaction Index (JSI: Brayfield & Roth, 1951), an 18-item scale with good validity and the added advantage of being test across cultures, tested levels of job satisfaction. Paton et al., argue that this construct, in the absence of a bespoke measure, can capture the meaningfulness and manageability facets of resilience. They also propose that it acts as an indicator of future capacity to adapt to unpredictable and challenging events. The analysis showed that the overall model explained 46.6% of the variance in JSI scores. The covariates of age, gender and country of origin did not contribute a significant amount of the variance, but organisational climate, conscientious, detached coping and physical work environment each made a unique and significant contribution to the model of 6%, 4.4%, 2.5% and 2.4% respectively.

There are a number of important observations to make about these findings. One concerns the relative contributions of organisational and individual factors to resilience. The comparative importance of each of these has been debated for some time, with Hart and Cooper (2001) proposing that salutary outcomes in organisational health are predicted by an interaction between individual and organisational factors. The findings from this research fully support this hypothesis and achieve a key aim of the project, to identify factors that predict resilience. Another observation is that transposing the findings onto the model, conscientiousness is related to coping, which in turn leads to perceptions about the work environment (here measured as physical work environment), which leads to levels of job satisfaction. In the SSM, perceptions of organisational climate impact on job satisfaction through perceptions of trust and empowerment. In the current research, the measure of trust used failed to meet the criterion for reliability and empowerment failed to emerge as a significant predictor (both of which will be discussed later). However, organisational climate was repeatedly demonstrated to make an important contribution to job satisfaction. Although individual differences will influence how people perceive various aspects of their work role and experience, what is clear is that the climate of the organisation, the context in which critical events are processed and rendered manageable, meaningful and coherent, has the greatest influence on job satisfaction. These findings have several implications, especially regarding the selection and

training of staff and the development of work environments conducive to the development and maintenance of resilience.

Most organisations have selection criteria for the recruitment of staff, and invariably these centre on the technical skills, competencies and qualifications required to undertake the role. It is unusual however for selection methods to assess resilience characteristics. The identification of personal qualities that are evidenced to influence resilience and well-being, enables the inclusion of assessment methodologies that can support recruitment processes. However, careful consideration should be given to whether or not selection decisions should be made on such assessment, or whether psychometric resilience profiles should be introduced in support of the development needs of candidates. For example, the recruitment of staff that are highly conscientious would clearly be advantageous, both in terms of resilience and performance. Conscientiousness is a personality characteristic that is not considered amenable to change. Therefore, a decision could be taken about a cut-off score that prospective employees were expected to reach in order to be considered for employment. Conversely, recruitment decisions based on lack of detachment may result in highly skilled staff being rejected. Detachment is a skill that can be trained (Roger, 2002). Consequently, if potential candidates meet other selection criteria but are weaker on detached coping, consideration could be given to investment in training to enhance resilience capacity. Such investment in staff well-being is also likely to improve perceptions of the organisational climate.

Organisational climate was measured using the Climate Survey (CSurv: Roger, 2008) This is a comprehensive audit, based on 40 scaled job characteristics in the four key areas of management style, empowerment, workload and communication. The scores yield individual assessments in each area as well as an overall team and organisational climate score. A review of the items (See Appendix 1: The SPORE survey) would enable senior leaders to identify highly specific aspects of the organization that may need attention. As all items are positively scored, the aim would be for each item to be identified as fairly or very typical of the organization to achieve a healthy audit. Some aspects of the climate may be easier to address than others, such as having clear promotion prospects and not having rigid, long hours. Others, such as open communication channels or feeling respected and valued, may require more detailed attention. However, being able to identify specific needs in teams, units, institutions or the whole organization is likely to have a beneficial effect on resilience through the enhancement of job satisfaction.

Similarly, the physical work environment, measured by the Physical Work Environment Satisfaction Questionnaire (PWESQ: Carlopio, 1996) was predictive of job satisfaction. Identification of areas of dissatisfaction among staff, if addressed, is likely to enhance satisfaction with work. The scale identifies three key areas: Facilities, such as availability, cleanliness and pleasantness of washrooms and eating areas; Work and system characteristics, such as how work is scheduled, rest breaks permitted, flexibility and autonomy; and,

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Work site characteristics, related to the space, noise, temperature and privacy of the work space. As with CSurv, a review of items with which a majority of staff are dissatisfied, means that sources of concern for staff in this context could be remedied.

The identification of four key domains that are statistically significant predictors of job satisfaction in probation work can empower organisations to target those areas most in need of attention. For the four partner countries, there is the added advantage of nation specific data (see below), and the supplementary information gleaned from focus groups. For other European nations, a general approach to enhancing job satisfaction can be based on these findings. More detailed research can be supported by the application of the research methodology presented here, in line with one of the aims of the SPORE project.

5.2.2. Stress Related Growth

Only a very small amount of the variance in stress related growth was predicted in the main model (see Table 17: Hierarchical Regression Analyses for RCSQ, JSI and SRG overall). However, given that it was central to the original SSM, it is worth considering why it was not accounted for by the predictor variables in this dataset.

Paton et al. included posttraumatic growth as an outcome variable in the SSM on the basis that it had not been specifically examined in the occupational and empowerment literatures. They argued that for a comprehensive understanding of the resilience concept posttrauma growth was key component. The results from this dataset would suggest that the predictor variables were less powerful at predicting growth that they were at predicting job satisfaction and adaptive capacity. This may be a function of the population being tested by the model. The model was developed in the context of policing and applied to probation staff in recognition of the potential for exposure to psychological trauma. In the critical occupations literature a distinction can be drawn between acute exposure to the critical events more characteristic of policing e.g. dealing with crime scenes, public unrest, arresting unknown assailants, and the chronic exposure associated with probation work, such as building therapeutic relationships with offenders, becoming immersed in offender's dysfunctional lives, or dealing with the psychological trauma of systematic abuse (Clarke, 2008). It is feasible that in order for growth to be measured in the way intended by the Stress Related Growth measure, it would need to be prompted by an incident more in keeping with the police experience, than the chronic exposure experienced by probation. However, to draw this conclusion with confidence, further investigation would be needed. The potential for probation staff to not only remain psychological unscathed by their work, but to experience personal growth as a result of it, can only be advantageous for both individuals and organisations. How this can be brought about will undoubtedly be an area of future research interest.

5.2.3. Adaptive Capacity (RCSQ)

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Adaptive capacity was measured using the Resilient Coping Styles Questionnaire, developed by Sojo & Dudgeon (2011). This 44-item scale is comprised five factors (see Section 2.2.: Materials) which assess cognitive and behavioural responses to stress. It was chosen for use in the SPORE project owing to its positive, adaptive approach to assessing stressful responding, whether that response is to day-to-day or critical events. Three variables emerged as predictive of adaptive capacity, detached coping, conscientiousness and organizational climate. Given that detachment is a coping style it might be expected that it would predict a resilient coping style, and in fact it accounted for 11.4% of the unique variance. However, examination of the two scales reveals important differences, whereby the RCSQ identifies behaviours and strategies for responding to stress, while detachment reflects a style of thinking. The training in detached coping (Roger, 2002) referred to earlier is expressively preventative, in that the goal is to inoculate against stressful responding, whereas the RCSQ assesses how people respond after stress, thereby demonstrating adaptive capacity. Training in detachment is therefore predicted to enhance capacity.

Conscientiousness also emerged as uniquely predictive of adaptive capacity, accounting for 2.6% of the variance. It is characterized by thoroughness, carefulness and vigilance and individuals high on the trait generally achieve more and have higher levels of well-being (Boyce, Wood & Brown, 2010), assertions supported by the current findings. As previously discussed, as conscientiousness is a trait that is considered fixed (Paton et al., 2008), the implications of these findings to organizational practice are largely related to issues of selection. Ideally, further research would be undertaken to establish optimum levels of conscientiousness, as although the characteristics of the trait are clearly advantageous to organisations, some researchers (e.g. Boyce et al.,) caution that high levels of conscientiousness can be deleterious in the face of failure. In a profession where success or failure may be almost entirely dependent on the behavior of someone who is, by definition antisocial, it is suggested that high levels of detachment would ideally accompany high levels of conscientiousness.

Organisational climate also emerged as a unique predictor of adaptive capacity for the European model, although the amount of variance accounted for was minimal (0.6%). This is somewhat surprising given that the organization is likely to be main context in which adaptation to critical events occurs. However, as adaptive capacity relates to the individual it follows that other personal characteristic emerge as more important. The importance of organizational climate to job satisfaction means that it remains a focal point for intervention.

Table 1 below summarises the main predictors of job satisfaction and organizational climate, both overall and by country. The following section provides further details of predictors of these variables by country, and makes more specific recommendations based on national findings.

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Table 1. Summary of the most frequently occurring predictors of job satisfaction and adaptive capacity overall and by country

	Bulgaria	Estonia	Latvia	Netherlands	Overall
Job Satisfaction					
Organisational climate	X	X	X	X	X
Detached coping		X	X	X	X
Physical work environment	X		X	X	X
Conscientiousness	X		X	X	X
Adaptive Capacity					
Detached coping	X	X	X	X	X
Conscientiousness			X		X
Organisational Climate				X	X

5.3. Comparative study: Psychometric data and Stress Shield models by country

Analyses of the psychometric data revealed some interesting differences between the partner countries. Accounting for these differences is complex and many factors need to be taken into consideration including; cultural, social, political and language differences, differences in data collection, variations in working practices, relative maturity of each of the probation services, number of participants from each country contributing to group scores and a myriad of other, unknown factors. For this reason, only trends in differences by country will be highlighted, with a view to setting a context for the test of the country specific test of the SSM.

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5.3.1. Bulgaria

In terms of the outcome measures, Bulgarian respondents scored significantly higher on the total Resilient Coping Style Questionnaire (RCSQ), as well as in three of the questionnaire's subscales (Positive Evaluation, Situation Management and Positive Disengagement). They scored significantly lower the fourth subscale where differences were apparent; Seeking Social Support. Job satisfaction, conscientiousness and Stress Related Growth scores were also the highest of the four partner countries. In terms of organizational factors, Bulgarian respondents rated their physical work environment highly and their managerial systems based on the CSurv Management subscale. Bulgarian respondents also scored most highly on Detached Coping, an adaptive coping style.

These scores paint an interesting profile of the Bulgarian probation service as having a resilient workforce, satisfied with their physical work environment and management, adaptive in their coping with the demands of the work, highly conscientious and less likely to seek social support. Within the resilience literature, this latter finding is somewhat contradictory. Social support almost irrefutably emerges as a key factor in enhancing resilience, yet Bulgarian respondents appeared the least likely to seek it. It may be possible that support is derived from elsewhere and that other adaptive coping styles, such as detachment, ameliorate the need for it. For example, Bulgarian staff reported the highest proportion of respondents with a religious affiliation. Although *importance* of faith was rated the lowest among the four partner countries, that so many of the workforce practice a faith suggests a level of support integral in daily living that may buffer the effects of stress at work. Shaw, Joseph and Linley (2005), found that religion is one of the influences on stress related growth, possibly because it helps to apply meaning to traumatic events.

Further, Bulgarian respondents scored significantly higher on conscientiousness than all other respondents. Conscientiousness is associated with perseverance (Behling, 1998) and commitment to the collective effort (Hough, 1998) and makes a positive contribution to levels of co-operation and team cohesiveness (Paton et al. 2008). For these reasons, it is a desirable feature and possibly related to reduced support-seeking behavior.

To contextualize these findings, it is important to note that Bulgaria has the lowest response rate, both in terms of contribution to the study (N=63) and proportion of total service (11%). Additionally the data collection method (pen and paper in the presence of the local researcher) may have impacted on response style, with a potential to increase socially desirable responding if participants believed their responses could be tracked back to them. Further, Bulgarian officers do not work with sex offenders or work with offenders in the post release phase of the sentence, both of which may influence types and levels of exposure to potential trauma.

To validate these findings it is recommended that Bulgarian leaders seek to either build on the existing database or replicated the study. Greater confidence in the findings will enable the identification of areas where resources can reliably be targeted to enhance the well-being of Bulgarian staff even further.

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Regression analysis of the SSM showed that significant predictors of job satisfaction included, in order of contribution, conscientiousness, physical work environment, practicing a faith and organizational climate, after the influence of age and gender was controlled for (neither of which contributed to the variance). The overall model explained 73% of the variance in job satisfaction, which is considered high. Detached coping was the only significant predictor of adaptive capacity, explaining 35.7% of the variance, and no variables uniquely predicted stress related growth. The combined findings suggest that both individual characteristics (detached coping style, conscientiousness and practice of a faith), and organizational factors (organizational climate and physical work environment) are important in influencing the resilience of the Bulgarian work force.

With the exception of practicing a faith, all these variables are also predictive of resilience in the wider European SSM. With regards practicing a faith, is not known if probation staff are representative of the wider Bulgarian population. If so, this emergence of this factor of predictive would not necessarily prompt further action in terms of recruitment or well being, other than to monitor ongoing representation in the probation population. However, organizational support of staff wishing to practice their faith is likely to met positively.

5.3.2. Estonia

On the three outcome measures, Estonian respondents performed similarly to Latvia and the Netherlands, although job satisfaction scores were slightly lower. Estonian respondents were the least satisfied with their organizational climate, although moderately satisfied with the physical work environment. Supervisor support was rated very low, as was peer cohesion. Conscientiousness was in line with Latvia and the Netherlands but competence was rated highly. These features were combined with high levels of emotional rumination and low levels of detachment. The extent to which these latter results are related to having the highest case-load of dangerous clients is worthy of consideration, as high-risk case-loads have been demonstrated to impact negatively on resilience. Lewis et al., (2013) reported that participants in their study of 309 probation staff who reported challenging caseload events, scored higher on measures of negative job impacts. If the context in which case load events are rendered meaningful and manageable is compromised, as implicated by perception of organizational climate, peer cohesiveness and supervisor support, managing high levels of dangerous cases has the potential to increase the risk of psychological harm. In this context it is noteworthy that sickness and stress absence rates are highest amongst the Estonian respondents, with the second highest levels of trauma experienced outside (42%) and inside (approximately 1/3) work.

In terms of the SSM, a detached coping style was the greatest predictor of job satisfaction, followed by organizational climate. No other variables made a significant unique contribution to the model, unlike the other three partner countries where conscientiousness and physical work environment also contributed. Importantly, detached coping also significantly predicted adaptive capacity. Estonia was the only country for which stress related growth was predicted by any variable, and in this case it was organizational climate. Thus detached

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coping and organizational climate are the two key areas on which attention could usefully be focused. As both these variables also emerged as significant in the European SSM, no further recommendations are made.

However, specific to the Estonian findings are the issues of supervisor support and peer cohesion, both of which were scored significantly lower when compared with the other partner countries. Peer cohesion was measured by nine items from the Work Environment Scale (Moos, 1994), covering areas such as people taking an interest in each other, people going out of their way to make new staff feel comfortable and people being frank about how they feel. Supervisor support, assessed by the Supervisor Scale covered areas such as staff appraisals, supervisor expectations, feedback and working relationships. In order to try and establish possible reasons for lower scores in these areas, focus group output was considered. Comments included lack of support ("nobody does not support"), lack of concern for the individual ("lack of attention to a person, how he's doing"), too many changes and "manager's ignorance". In addition to this, it is likely that many Estonian respondents were prison-based, which may have implications for how probation staff are supported. One participant in the focus groups commented that there was an "unequal attitude in uniform and not in uniform" which may impact on perceptions of peer cohesion.

Further investigation into cohesion and support is recommended for the Estonian probation Service. Staff participating in the focus groups generated a range of ideas that they felt would enhance resilience. Building on these, as well as on existing areas of good practice, could then be evaluated in the context of ehnahced job satisfaction and adaptive capacity.

5.3.3. Latvia

Latvian respondents gained the lowest scores on two of the three outcome measures; job satisfaction and stress related growth. Adaptive capacity scores were on a par with Estonia and slightly higher than the Netherlands. Latvian respondents also rated their physical work environment and levels of trust as lower than that of other participants, and had the lowest scores for detachment and conscientiousness. These findings perhaps reflect a recent period of economic upheaval for the service. Focus group information supports this: "It was during the crisis and before the crisis that, first, vision, and second, sense of identity of each worker, why he or she is in the service, was lost". It is noteworthy that when asked what contributed to a bad day at work, Latvian respondents most frequently noted lack of, or poor, equipment (physical work environment), and workload/task problems (organisational climate), both of which might be considered indicative of "crisis".

Importantly though, supervisor support and overall empowerment were highest of the four partner countries, and this again is borne out by contributions made to the focus groups; "he (superior) is always helpful. He listens and says that we will try to deal with it"; "Competent superiors are certainly helpful – they…indicate what has been done, how to do things better, how to solve something. Since we have been having this superior I do not delay my work at all. Absolutely mystical". This is suggestive of a staff pulling together in adversity.

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High levels of rumination and low levels of detachment however, suggest higher risk of psychological distress, and in difficult organizational climates, tendency to ruminate can be exacerbated. Fortunately, as was discussed in the context of the European SSM, this can be addressed through training.

In terms of the SSM for Latvian participants, age contributed a small but significant amount of the variance to job satisfaction overall, with physical work environment, detachment, organizational climate and conscientiousness accounting for decreasing amounts of the variance in step two of the model. Detached coping followed by conscientiousness made significant unique contributions to adaptive capacity. Latvia was the only individual country for which conscientiousness was predictive of adaptive capacity, although it was similarly predictive in the European model. What this indicates is that despite some areas where Latvian staff reported lower levels of well-being than the other partner countries, similar variables are predictive of resilience.

In addition to addressing the areas common to all partner countries, particular attention could be given to supporting the maintenance and enhancement of supervisor support and empowerment (see below).

5.3.4. The Netherlands

Probation staff in the Netherlands report levels of job satisfaction higher than the European average but have the lowest levels of adaptive capacity of all partner countries. This is set in the context of the highest levels of satisfaction with the organizational climate, peer cohesion and interpersonal trust, and high levels of supervisor support, satisfaction with the physical work environment and empowerment. High levels of detached coping, low levels of rumination and reasonable levels of conscientiousness all indicate a healthy workforce. It therefore appears an anomaly that adaptive capacity should be lowest, although there is no significant difference between the Netherlands, Estonia and Latvia.

The probation service in the Netherlands is the most well established of the four partner countries and indeed of all the European probation services. It is comparatively large, and unlike the other three partner countries is not state run but privately run. It is possible that given the relative stability and satisfaction with other aspects of the organization, there is less demand on staff to rely on their own coping resources. All these factors are likely to contribute to a resilient profile. However, it should also be noted that Dutch participants were recruited differently to the study in that they were selected as representative of the larger population. It is not possible to know the extent to which this skewed the findings.

With regards the prediction of resilience, the findings from the Netherlands reflected those of the partner countries. Physical work environment, detached coping, organizational climate and conscientiousness respectively predicted Job satisfaction, while detached coping and organizational climate predicted adaptive capacity. The Netherlands was the only country for which organizational climate was predictive of adaptive capacity. This may reflect the previous finding regarding high levels of satisfaction and the possibility that this is related to a lesser requirement on responding adaptively to the demands of the work, because the environment

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is conducive to well-being. Age was also implicated in the prediction of adaptive capacity for the Netherlands, with younger staff reporting greater levels. Whilst this is contrary to earlier research (Clarke, 2004) the average age of Dutch respondents to this study was 39 years, excluding them from the vulnerable group. Like the European model, organizational climate was also predictive of adaptive capacity, which is likely to reflect an environment where critical incidents can be rendered meaningful, manageable and coherent.

6. Limitations of the SPORE study

The SPORE study has yielded some potentially very useful results, with strong applicability to probation practice. However, whilst interpreting the findings it is important to remain mindful of factors that can influence the results, and which may either change or inform the direction of future research. A major consideration for the SPORE research team was the language and cultural differences among the partner countries. Analysis of data by individual country helped ensure that both general and specific findings were considered, however, the issue of translation of the scales and the cultural applicability of each scale remained central. All psychometric and demographic information was originally presented in English and then translated into the language of each partner country. Ideally these translations would have been re-translated back into English to ensure the original meaning had not been lost. Time and resource limitations prevented the second part of this process occurring. Efforts to minimize the loss in translation included the use of two translators for each partner country, however there was some language used in the original scales that did not translate easily into all languages. Future research on this scale should adopt best practice by adhering to the re-translation protocol. (Ref)

Additionally, no papers were found that reported the validation of any of the scales in the partner countries or Eastern Europe in general. For this reason normative data were derived from the total database. The reliability of each scale was statistically tested, and with the exception of the Interpersonal Trust at Work Scale (ITWS: Cook & Wall, 1980), all met the required standard for use. Future similar research should draw on the current database to develop the validation process for use of the psychometrics with Eastern European populations. The failure of the ITWS scale to meet reliability requirements is difficult to explain as, like the others used, it is a well-validated questionnaire. Further validation would therefore be required before continued use with a similar population, or alternative measures of interpersonal trust should be sought.

Research of this scale, administered online, necessarily results in the presentation of questionnaires in a fixed order. To collect the range of data required to test the SSM, 12 psychometric scales were use, preceded by a lengthy demographic survey. The total number of items requiring a response exceeded 250. It is well established that the fixed ordering of lengthy questionnaires can impact on the quality of the data collected (Bowling, 2005). One potential consequence of this for the current study was the failure of empowerment to emerge as significantly predictive of resilience. Empowerment is central to the SSM, based on previous research demonstrating the mediating role that it plays between conscientiousness, trust and resilience (Johnston & Paton, 2003). That it did not contribute in the overall model may be a function of the fact that The

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Psychological Empowerment Instrument (PEI: Spreitzer, 1997) was the last questionnaire presented. This anomaly of order effects may be overcome in future by the randomized presentation of questionnaires, although for the current research this option was not available. However, the fact the empowerment as measured by the PEI did not emerge as predictive could also be accounted for by the influence of CSurv (Roger, 2010). The empowerment facet of that measure may have overridden the influence of the PEI.

The SPORE project, undertaking research of this kind for the first time across Europe, was cross sectional in nature. This type of research design enables the comparison of different population groups at a single point in time, which was precisely the aim of the SPORE study; to enable the observation of the psychological health of probation staff in the partner countries. However cross-sectional research does not allow the examination of cause and effect relationships. Therefore no firm conclusions can be drawn about, for example, why Bulgarian staff report the highest levels of adaptive capacity. To infer cause and effect, longitudinal research, assessing psychological well-being and resilience over a period of time would be necessary, and extremely informative.

Undertaking transnational research across four countries and involving a number of researchers would inevitably result in some variations in approach. For the SPORE project this manifest in the recruitment of participants, with three different methods being described. These variations partly arose as a result of operational necessity and reflect the challenges of conducting applied research. The extent to which they impacted on the final results is hard to say, but ideally, future research will ensure rigid adherence to a data collection protocol to avoid such disparity.

7. Key Recommendations

To enhance job satisfaction, address organisational climate and the physical work environment. Organisational climate and the physical work environment emerged consistently in all analyses as the two factors most predictive of job satisfaction. Organisational climate, measured by the Climate Survey (C-SURV: Roger 2011), measures four facets including Management Style, Empowerment, Workload and Communication. Management style is measured by views regarding managers' technical abilities, such as knowledge of their work and ability to delegate, as well as skills in the more people orientated aspects of their role such as being trustworthy, flexible and supportive. The Empowerment facet is characterised by assessment of being enabled to make decisions, create new opportunities, acquire new skills and develop to full potential as well as feeling supported by colleagues and having the opportunity to be involved in company decision making. Workload is characterised by realistic expectations about work, high morale, a positive and optimistic attitude, no repeated restructuring and a low stress culture. Finally, Communication is measured by being praised for good work, humour, feeling certain about ones role, open communication channels and responsive management (see Appendix 1).

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Understanding the features that comprise organisational climate (as assessed in this research) should enable senior leaders to consider the features of their own organisation that may require attention to enhance the levels of job satisfaction amongst the work force. More detailed assessment of the organisational climate by unit or region is also encouraged.

The physical work environment was measured using the Physical Work Environment Satisfaction Questionnaire (PWESQ: Carlopio, 1996) and assessed satisfaction with Facilities, Work and System Characteristics and Worksite Characteristics. The Facilities factor assessed levels of satisfaction with areas such as restrooms, recreational facilities and eating areas, particularly in terms of cleanliness size and pleasantness. Work and Systems related to how work was scheduled, flexibility in work pace, the management of information and time provided to undertake tasks. The Worksite factor related to issues of noise, distraction and ability to control physical surroundings (see Appendix 1).

Items from the PWESQ relate closely to the issues frequently raised by respondents regarding good and bad days at work, reinforcing the importance of such matters to probation workers across Europe. Attention to and remediation of physical work environment factors that are under par could have a disproportionately positive impact on workers well-being and may be regarded as quick wins for senior leaders.

Develop a psychological proforma for probation staff to identify personal areas of strength and vulnerability. Psychometric assessment of resilience characteristics can be helpful in enabling staff to consider their own well-being. Recognising how different coping styles and other attributes can impact on both emotional health and performance provides opportunities for individuals to develop adaptive coping styles and recognise when and why they may be vulnerable. A resilience proforma can also provide a focus for supervision, allowing managers and other senior staff improved opportunities to support front line workers. Supervisors and managers should also be encouraged to monitor their own well-being.

To enhance adaptive capacity, train probation workers in detachment. Detachment was measured using the relevant items from the Coping Styles Questionnaire (Roger & Jarvis and Najarian, 1993). Roger et al., describe detachment as the ability to disengage oneself from overwhelming emotion and keep matters in perspective. Research into the impact of training staff in detachment has yielded encouraging results (e.g. Roger & Hudson, 1995), including significant increases in job satisfaction, reduced absenteeism and reduced turnover of staff.

Partner countries should consider the quantitative results in the context of the qualitative findings. Data from the focus groups and qualitative questions in the survey provide a rich context in which to interpret some of the quantitative findings, for example, the link between conscientiousness, resilience and job satisfaction. Whilst some analysis has been undertaken in this report, partner countries are encouraged to make detailed exploration

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of the local reports in the context of the regression models detailed here, in order that local action plans can be supported and evidenced.

To enable the cost-effective targeting of resources to support staff in their efforts to maintain high performance an understanding the levels of exposure of staff to potential trauma for each of the partner countries would be helpful. Whilst it is recognized that the risk of exposure is high, the reality may be different. Information regarding frequency and intensity of trauma exposure can inform a proportionate and tailored organizational response.

Consider the value of appropriate sharing of personal information in the workplace. Trauma outside the workplace has been evidenced to negatively effect well-being within the workplace. For this reason, there is a case for employers and employees to have an awareness of potentially traumatic events that may impact on well-being and performance. Clearly, needs to be handled sensitively, but it is proposed that, dealt with appropriately, such procedures can mitigate against potential misunderstandings and enable the implementation of apposite support infrastructures. A number of options are available, such as specialist guidance to supervisors, personal well-being proformas that are regularly updates, training of peer mentors or use of employee assistance programmes.

Work towards developing an empowered workforce. Even though empowerment, as measured in this project, did not emerge as a significant predictor of resilience, there is robust and comprehensive evidence of its centrality in critical occupations. Furthermore, the measure of organisational climate used in this study, and so clearly predictive of resilience, contains a reliable measure of empowerment. Therefore organisations can remain confident that an empowered workforce is a resilient workforce. Below are a number of actions, gleaned from a range of literature and in many cases supported by focus group data, which organisations can take in pursuit of promoting good psychological health.

Empowerment in Practice

1. Set inspirational, meaningful goals
2. Express confidence in subordinates together with high performance expectations
3. Foster opportunities for subordinates to participate in decision making
4. Provide autonomy from bureaucratic constraints
5. Appoint leaders that use power positively
6. Introduce reward systems that emphasise innovative and unusual performance
7. Ensure task variety
8. Ensure personal relevance by conducting skills/task audits
9. Allow and encourage appropriate autonomy
10. Keep levels of established routine and rules to a minimum
11. Set progressively more challenging but attainable targets

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12. Promote vicarious experience – seeing similar others perform successfully can be highly motivating
13. Use verbal persuasion such as praise
14. Support staff to manage their own emotion through training, having clearly defined roles, reducing information overload and offering technical and administrative assistance

Conclusion

The SPORE project aimed to address probation officer well-being through a number of activities, including developing a methodology for evaluating resilience and reporting on the factors that influence it. This document accounts for the research process undertaken to achieve those aims. Through quantitative research based on the Stress Shield Model of Resilience, not only was a robust methodology tested, but also a number of factors emerged that made a significant contribution to the resilience of probation officers. These included organisational factors (organisational climate and physical work environment) and individual factors (detached coping and conscientiousness). As a result, a number of recommendations were made for enhancing the psychological well-being of probation staff.

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Kalev Kuljus (Viru Prison, Estonia)
Anvars Zavackis (State Probation Service of Latvia, Latvia)
Kristiāna Lapiņa (State Probation Service of Latvia, Latvia)

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Appendix 1

SPORE QUESTIONNAIRE

1.	What is your age?	Options	18 - 66 or older

2.	What is your gender?	Female	Male

3.	What country are you currently working in?				
	Bulgaria	Estonia	Latvia	The Netherlands	United Kingdom

4.	What is your marital status?			
	Single	Married/civil partnership	Divorced	Widowed/Widower

5.	How would you best describe your current living arrangements?			
	Living alone	Living with other adults/adults with children	Living with children	Other

6.	Do you have any children?	
	Yes	No

7.	If yes, how many children do you have UNDER the age of 18 years old?					
	None	1	2	3	4	5 or more

8.	How many do you have OVER 18 years of age?					
	None	1	2	3	4	5 or more

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9.	Do you currently practice a faith or follow a religion?	
	Yes	No

10.	How important is your faith											
	Not important	1	2	3	4	5	6	7	8	9	10	*Very important*

11.	What is your highest level of education?				
	High school	Bachelor	Master	Doctor (PhD)	Other (specify)

12.	What is your official job title?			
	Front line worker	Administrative staff	Mid-level manager	Senior manager

13.	How long have you worked in the criminal justice in total?	
	Years	Months

14.	Does your role involve the management/supervision of individuals or teams?	
	Yes	No

15.	If yes, how many people do you typically manage/supervise day-to-day? (specify number)	
	Options	*1 - More than 50*

16.	What are your weekly contracted hours for a job you are filling this questionnaire (number of contracted hours)	
	Options	*5 – 50 hours*

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17.	What are your weekly contracted hours for other jobs (choose '0' if no other job)	
	Options	0 – More than 50

18.	In the past 6 months approx. how many HOURS per week have you worked overtime	
	Options	0 – 20 hours

19.	Approx. how many DAYS have you had off sick in the last 12 months	
	Options	0 – More than 100 hours

20.	How many of these days (that you had off sick) were due to stress?	
	Options	0 – 100 days

21.	How many of these days (that you had off sick) were due to simply not wanting to be at work?	
	Options	0 – 100 days

22.	Please rate how likely you are to stay in your current job for the next 12 months.											
	Not likely	1	2	3	4	5	6	7	8	9	10	*Very likely*

23.	If you have scored 4 or less on the previous question, briefly describe why you are unlikely to stay in your current job.
	(Open Ended String Answer)

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24.	What percentage of your client group are male/female? Skip if you are not involved with clients.	
	% Male	% Female
	%	%

25.	What is the make-up of your caseload by age group? (Total must equal 100%)					
	% are 12 – 18 years old	% are 19 – 23 years old	% are 24 – 60 years old	% are 12 – 18 years old	% are 61 and older	TOTAL
	%	%	%	%	%	100%

26.	On average, how many hours per week do you have direct face-to-face contact with all types of clients? (choose '0' if none)	
	Options	0 – 50 hours /week

27.	On average, how many hours per week do you have direct face-to-face contact with sex offenders? (choose '0' if none)	
	Options	0 – 50 hours /week

28.	What percentage of your current case load is judged as dangerous to others or yourself (choose '0' if none)
	%

29.	Where do you have contact with your clients/service users		
	In the homes where they live or temporarily stay	Yes	No
	Prison	Yes	No
	Hospital/Ward	Yes	No

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	Probation office	Yes	No
	Public place	Yes	No
	Other (specify)	Yes	No

30.	What percentage of your working time do you spend having face-to-face and telephone contact with your clients/service users (choose '0' if no)
	%

31.	In the past 6 months have you experienced an EVENT OUTSIDE OF WORK that you would consider to be 'traumatic'											
	Yes	No										
32.	If yes, on a scale of 1-10 how traumatic would you consider this event to be?											
	Somewhat traumatic	1	2	3	4	5	6	7	8	9	10	*Very traumatic*

33.	Please can you provide a very brief description of the event?
	(Open Ended String Answer)
34.	In the past 6 months have you experienced an EVENT AT WORK that you would consider as "traumatic"?
	Yes / No

35.	If yes, on a scale of 1-10 how traumatic would you consider this event to be?											
	Somewhat traumatic	1	2	3	4	5	6	7	8	9	10	*Very traumatic*

36.	Please can you provide a very brief description of the event?
	(Open Ended String Answer)

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37.	Please can you list 3 things that contribute to you having a BAD day at work?
	(Open Ended String Answer)

38.	Please can you list 3 things that contribute to you having a GOOD day at work?
	(Open Ended String Answer)

39.	Work Environment Scale (WES: Insel & Moos, 1975)		
		True	False
1	People go out of their way to help a new employee feel comfortable.	1	0
2	The atmosphere is somewhat impersonal.	1	0
3	People take a personal interest in each other.	1	0
4	Employees rarely do things together after work.	1	0
5	People are generally frank about how they feel.	1	0
6	Employees often eat lunch together.	1	0
7	Employees who differ greatly from the others in the organization don't get along well.	1	0
8	Employees often talk to each other about their personal problems.	1	0
9	Often people make trouble by talking behind others' backs.	1	0

40-41. Emotional Control Questionnaire (ECQ: Roger & Najarian, 1989)			
		True	False
1	I remember things that upset me or make me angry for a long time afterwards.	1	0
2	I don't bear a grudge – when something is over, it's over and I don't think about it again.	1	0
3	I get worked up just thinking about things that have upset me in the past.	1	0
4	I often find myself thinking over and over about things that make me angry.	1	0

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5	I seldom get preoccupied with worries about my future.	1	0
6	If I see something that frightens or upsets me, it stays in my mind for a long time afterwards.	1	0
7	My failures give me a persistent feeling of remorse.	1	0
8	For me, the future seems to be full of troubles and problems.	1	0
9	I often feel as if I'm just waiting for something bad to happen.	1	0
10	When I am reminded of my past failures, I feel as if they are happening all over again.	1	0
11	Sometimes I have to force myself to concentrate on something Else to keep distressing thoughts about the future out of my mind.	1	0
12	Intrusive thoughts about problems I'm going to have to deal with make it difficult for me to keep my mind on a task.	1	0
13	I don't let a lot of unimportant things irritate me.	1	0
14	I wish I could banish from my mind memories of past failures.	1	0
15	I never get so involved in thinking about upsetting things that I am unable to feel positive about the future.	1	0
16	I worry less about what might happen than most people I know.	1	0
17	It takes me a comparatively short time to get over unpleasant events.	1	0
18	Any reminder about upsetting things brings all the emotion flooding back.	1	0

42-43. Stress-Related Growth Scale (SRG: Park, Cohen & Murch, 1996). Please rate how much you experienced each item below as a

result of past year's most stressful events.

		Not at all	Some what	A great deal
1	I learned to be nicer to others.	0	1	2
2	I feel freer to make my own decisions.	0	1	2
3	I learned that I have something of value to teach others about life.	0	1	2

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4	I learned to be myself and not try to be what others want me to be.	0	1	2
5	I learned to work through problems and not just give up.	0	1	2
6	I learned to find more meaning in life.	0	1	2
7	I learned how to reach out and help others.	0	1	2
8	I learned to be a more confident person.	0	1	2
9	I learned to listen more carefully when others talk to me.	0	1	2
10	I learned to be open to new information and ideas.	0	1	2
11	I learned to communicate more honestly with others.	0	1	2
12	I learned that I want to have some impact on the world.	0	1	2
13	I learned that it's OK to ask others for help.	0	1	2
14	I learned to stand up for my personal rights.	0	1	2
15	I learned that there are more people who care about me than I thought.	0	1	2

44-47. C-SURV (Roger, 2010) please rate the following statements according to how typical they are of your job.

		Not at all typical	Hardly typical	Fairly typical	Very typical
1	Proper checks on both process and outcomes	1	2	3	4
2	Being able to create new opportunities	1	2	3	4
3	No repeated restructuring	1	2	3	4
4	Feeling certain about my role in company	1	2	3	4
5	Flexible, open-minded attitude about different ways of doing things.	1	2	3	4
6	Empowered to make independent decisions	1	2	3	4
7	High staff morale	1	2	3	4
8	Getting praised for good work	1	2	3	4

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9	A non-blaming culture	1	2	3	4
10	Challenging work - always room for growth	1	2	3	4
11	Realistic expectations about workload	1	2	3	4
12	Culture in which things can be joked about	1	2	3	4
13	Management not remote from the rest of the company	1	2	3	4
14	Being able to see projects through from start to finish	1	2	3	4
15	Nothing to spend too much time away from home	1	2	3	4
16	Feeling respected and valued	1	2	3	4
17	Managers acknowledge their art in failures as well as successes	1	2	3	4
18	Being able to acquire new skills	1	2	3	4
19	Colleagues and management having a passion for the job	1	2	3	4
20	A non-judgement culture	1	2	3	4
21	Appropriate delegation of work	1	2	3	4
22	Having job flexibility	1	2	3	4
23	Not having rigid, long, hours	1	2	3	4
24	A culture which isn't gossipy or complaining	1	2	3	4
25	Feeling supported by management	1	2	3	4
26	Having clear promotion prospects	1	2	3	4
27	Generally positive, optimistic attitude	1	2	3	4
28	Open communication channels	1	2	3	4
29	Trust in management	1	2	3	4
30	People being able to develop to their full potential	1	2	3	4
31	No constant pressure	1	2	3	4
32	Management responsive to people's needs	1	2	3	4

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33	Management being able to keep issues in perspective	1	2	3	4
34	Feeling supported by colleagues	1	2	3	4
35	A low-stress culture	1	2	3	4
36	Not being criticised in front of colleagues	1	2	3	4
37	People who are in charge of projects knowing what they're talking about	1	2	3	4
38	Being involved in company decision-making	1	2	3	4
39	Not forced into 'corporate' belief system	1	2	3	4
40	Lack of negative critical attitudes about people	1	2	3	4

48-51. Resilient Coping Style Questionnaire (RCSQ: Sojo, 2012). How would you describe the way you typically react to stress?

		Never	Some-times	Often	Always
1	Come up with a realistic plan of what to do.	1	2	3	4
2	Think whatever doesn't kill you will make you stronger.	1	2	3	4
3	Don't try to control things that are out of your control.	1	2	3	4
4	Work out the situation from the very beginning avoiding procrastination.	1	2	3	4
5	Talk to people that will help you get some perspective on the situation.	1	2	3	4
6	Avoid taking the situation too seriously.	1	2	3	4
7	Define clearly your priorities.	1	2	3	4
8	Ask people you trust about what they would do if they were in your situation.	1	2	3	4
9	Leave the stressful event where it belongs and don't take it around with you.	1	2	3	4
10	Tell yourself what you are doing is worthy.	1	2	3	4

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11	Talk to people just to help you organise your thoughts.	1	2	3	4
12	Set clear boundaries.	1	2	3	4
13	Accept the situation for what it is without overreacting	1	2	3	4
14	Create the routine you know will help you cope with the situation.	1	2	3	4
15	Try to find something new to do.	1	2	3	4
16	Feel more experienced.	1	2	3	4
17	Plan some relaxing activities to do after the situation is over.	1	2	3	4
18	Think the situation will help you appreciate life more.	1	2	3	4
19	Take care of all the practicalities of the situation.	1	2	3	4
20	Think that next time you will know better your personal resources.	1	2	3	4
21	Talk to your friends openly about what is going on.	1	2	3	4
22	Think that you will get through it and be stronger afterwards.	1	2	3	4
23	Spend time with your family.	1	2	3	4
24	Talk about the situation with someone more experienced.	1	2	3	4
25	Think what else can be done to work things out.	1	2	3	4
26	Analyse what you have done so far and what can be done next.	1	2	3	4
27	Look for support from your friends.	1	2	3	4
28	Exercise and practice sports regularly.	1	2	3	4
29	Keep present your other interests and activities.	1	2	3	4
30	Tell yourself you have the capability to deal with it.	1	2	3	4
31	Understand that you can't be everywhere and do nothing.	1	2	3	4
32	Think that talking to people will make you feel better.	1	2	3	4
33	Go for a walk.	1	2	3	4
34	Try and enjoy the experience as much as you can.	1	2	3	4

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35	Try to be more objective than emotional about it.	1	2	3	4
36	Keep a balance with all other things that are also important to you.	1	2	3	4
37	Feel comfortable enough to express how you are feeling to other people.	1	2	3	4
38	Try to understand that there is no point in stressing about something you cannot control.	1	2	3	4
39	Set small clear goals and stick to them.	1	2	3	4
40	Play games.	1	2	3	4
41	Ask other people in your same situation to their opinion.	1	2	3	4
42	Try to make the most out of the situation.	1	2	3	4
43	Let what has happened pass, and move on.	1	2	3	4
44	Think that what is done is done and let it go.	1	2	3	4

52-53. Coping Style Questionnaire (CSQ: Roger, Jarvis & Najarian, 1993). How would you describe the way you typically react to stress?

		Never	Some-times	Often	Always
1	Feel overpowered and at the mercy of the situation.	3	2	1	0
2	See the situation for what it actually is and nothing more.	3	2	1	0
3	Become miserable and depressed.	3	2	1	0
4	Feel that one-one understands.	3	2	1	0
5	Do not see the problem or situation as a threat.	3	2	1	0
6	Feel that you are lonely or isolated.	3	2	1	0
7	Feel helpless – there's nothing you can do about it.	3	2	1	0
8	Feel independent of the circumstances.	3	2	1	0
9	Take my frustrations out on the people closest to me.	3	2	1	0

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10	Resolve the issue by not becoming identified with it.	3	2	1	0
11	Respond neutrally to the problem.	3	2	1	0
12	Get things into proportion – nothing is really that important.	3	2	1	0
13	Feel completely clear –headed about the whole things.	3	2	1	0
14	Try to keep a sense of humour - laugh at myself or the situation.	3	2	1	0
15	Believe that I can cope with most things with the minimum of fuss.	3	2	1	0
16	Decide it's useless to get upset and just get on with things.	3	2	1	0
17	Feel worthless and unimportant.	3	2	1	0
18	Become irritable and angry.	3	2	1	0
19	Criticise or blame myself.	3	2	1	0
20	Think or talk about the problem as if it did not belong to me.	3	2	1	0
21	Prepare myself for the worst possible outcome.	3	2	1	0
22	Look for sympathy from people.	3	2	1	0

54-56. Physical Work Environment Satisfaction Questionnaire (PWESQ: Carlopio, 1996)

		Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied	Not applicable
54. Facilities							(Dummy)
1	In general, the type of facilities provided at work.	0	1	2	3	4	9
2	The cleanliness of the facilities at work.	0	1	2	3	4	9
3	The size of the eating facilities/lunch room provided.	0	1	2	3	4	9
4	The cleanliness of the eating facilities/lunch room provided.	0	1	2	3	4	9

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5	The pleasantness of the eating facilities/lunch room provided.	0	1	2	3	4	9
6	The pleasantness of the restrooms you use.	0	1	2	3	4	9
7	The cleanliness of the restrooms you use.	0	1	2	3	4	9
8	The recreation facilities provided.	0	1	2	3	4	9
55. Work & System Characteristics							
9	How your time at work is scheduled.	0	1	2	3	4	9
10	The length of the rest breaks you receive.	0	1	2	3	4	9
11	The amount of work you are required to do.	0	1	2	3	4	9
12	The amount of activity/movement required to do your job.	0	1	2	3	4	9
13	The flexibility of your work pace.	0	1	2	3	4	9
14	The general design of your work system.	0	1	2	3	4	9
15	The amount of time you are given to complete your work.	0	1	2	3	4	9
16	The quality of information you receive to do your work.	0	1	2	3	4	9
17	How information is handled	0	1	2	3	4	9
56. Work Site							
18	The amount of privacy you have at work.	0	1	2	3	4	9
19	The level of noise from your work area.	0	1	2	3	4	9

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20	The number of times you are distracted while working.	0	1	2	3	4	9
21	The amount of space in which you have to work.	0	1	2	3	4	9
22	The size of your work area.	0	1	2	3	4	9
23	Your ability to control your physical surroundings.	0	1	2	3	4	9
24	Your ability to change/rearrange the physical surroundings.	0	1	2	3	4	9
25	The temperature in your work areas.	0	1	2	3	4	9
26	The colours used in your work area.	0	1	2	3	4	9
27	The amount of tobacco smoke to which you are exposed.	0	1	2	3	4	9

57-58. Job Satisfaction Index (JSI: Brayfield & Rothe, 1951))

		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1	My job is like a hobby to me.	4	3	2	1	0
2	My job is usually interesting enough to keep me from getting bored.	4	3	2	1	0
3	It seems that my friends are more interested in their jobs.	4	3	2	1	0
4	I consider my job rather unpleasant	4	3	2	1	0
5	I enjoy my work more than my leisure time.	4	3	2	1	0
6	I am bored with my job.	4	3	2	1	0
7	I feel fairly well satisfied with my present job.	4	3	2	1	0
8	Most of the time I have to force myself to go to work.	4	3	2	1	0
9	I am satisfied with my job for the time being.	4	3	2	1	0

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10	I feel that my job is no more interesting than others I could get.	4	3	2	1	0
11	I definitely dislike my work.	4	3	2	1	0
12	I feel that I am happier in my work than most other people.	4	3	2	1	0
13	Most days I am enthusiastic about my work.	4	3	2	1	0
14	Each day of work seems like it will never end.	4	3	2	1	0
15	I like my job better than the average worker does.	4	3	2	1	0
16	My job is pretty uninteresting.	4	3	2	1	0
17	I find real enjoyment in my work.	4	3	2	1	0
18	I am disappointed that I ever took this job.	4	3	2	1	0

59. Conscientiousness (NEO-PI-R: Costa and McCrae, 1992)

		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1	I am known for my prudence and common sense	4	3	2	1	0
2	I don't take civic duties like voting seriously.	4	3	2	1	0
3	I keep myself informed and usually make intelligent decisions.	4	3	2	1	0
4	I often come into situations without being fully prepared	4	3	2	1	0
5	I pride myself on my sound judgement	4	3	2	1	0
6	I don't seem to be completely successful at anything	4	3	2	1	0
7	I'm a very competent person	4	3	2	1	0
8	I am effective and efficient at my work	4	3	2	1	0
9	I would rather keep my options open than plan everything in advance	4	3	2	1	0

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10	I keep my belongings neat and clean	4	3	2	1	0
11	I am not a very methodical person	4	3	2	1	0
12	I like to keep everything in its place so I know just where it is.	4	3	2	1	0
13	I never seen to be able to get organised	4	3	2	1	0
14	I tend to be somewhat fastidious or exacting	4	3	2	1	0
15	I'm not compulsive about cleaning	4	3	2	1	0
16	I spend a lot of time looking for things I've misplaced	4	3	2	1	0
17	I try to perform all the tasks assigned to me conscientiously	4	3	2	1	0
18	Sometimes I'm not as dependable or reliable as I should be	4	3	2	1	0
19	I pay my debts promptly and in full	4	3	2	1	0
20	Sometimes I cheat when I play solitaire	4	3	2	1	0
21	When I make a commitment, I can always be counted on to follow through	4	3	2	1	0
22	I adhere strictly to my ethical principles	4	3	2	1	0
23	I try to do jobs carefully, so they won't have to be done again	4	3	2	1	0
24	I'd really have to be sick before I'd miss a day of work	4	3	2	1	0
25	I am easy-going and lackadaisical	4	3	2	1	0
26	I have a clear set of goals and work toward them in an orderly fashion	4	3	2	1	0
27	When I start a self-improvement program, I usually let it slide after a few days.	4	3	2	1	0
28	I work hard to accomplish my goals.	4	3	2	1	0
29	I don't feel like I'm driven to get ahead.	4	3	2	1	0

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30	I strive to achieve all I can	4	3	2	1	0
31	I strive for excellence in everything I do	4	3	2	1	0
32	I'm something of a 'workaholic'	4	3	2	1	0
33	I'm pretty good about pacing myself so as to get things down to work	4	3	2	1	0
34	I waste a lot of time before settling down to work	4	3	2	1	0
35	I am a productive person who always gets the job done	4	3	2	1	0
36	I have trouble making myself do what I should	4	3	2	1	0
37	Once I start a project, I almost always finish it	4	3	2	1	0
38	When a project gets too difficult, I'm inclined to start a new one	4	3	2	1	0
39	There are so many little jobs that need to be done that I sometimes just ignore them all.	4	3	2	1	0
40	I have a lot of self-discipline	4	3	2	1	0
41	Over the years I've done some pretty stupid things	4	3	2	1	0
42	I think things through before coming to a decision	4	3	2	1	0
43	Occasionally I act first and think later	4	3	2	1	0
44	I always consider the consequences before I take action	4	3	2	1	0
45	I often so things on the spur of the moment	4	3	2	1	0
46	I rarely make hasty decisions	4	3	2	1	0
47	I plan ahead carefully when I go on a trip	4	3	2	1	0
48	I think twice before I answer a question	4	3	2	1	0

63. Supervision Scale (SS: Prison Social Climate Survey, Federal Bureau of Prisons, 2005)

	Strongly disagree		Disagree a little	Not sure	Agree a little		Strongly agree

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			Disagree				Agree	
1	My supervisor gives me adequate information on how well I am performing	0	1	2	3	4	5	6
2	Information I receive about my performance usually comes too late for it to be of any use to me	0	1	2	3	4	5	6
3	My own hard work will lead to recognition as a good performer	0	1	2	3	4	5	6
4	I often receive feedback from my supervisor for good performance	0	1	2	3	4	5	6
5	The standards used to evaluate my performance have been fair and objective	0	1	2	3	4	5	6
6	My last annual performance rating presented a fair and accurate picture of my actual job performance	0	1	2	3	4	5	6
7	My supervisor engages me in the planning process such as developing work methods and procedures for my job	0	1	2	3	4	5	6
8	My supervisor asks my opinion when a work-related problem arises	0	1	2	3	4	5	6
9	I have a great deal of say over what has to be done on my job.	0	1	2	3	4	5	6
10	On my job I know exactly what my supervisor expects of me.	0	1	2	3	4	5	6

64. Interpersonal Workplace Trust Scale (IWTS: Cook & Wall, 1980)

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		Strongly disagree	Disagree	Disagree a little	Not sure	Agree a little	Agree	Strongly agree
1	Management at my firm is sincere in its attempts to meet the workers point of view	0	1	2	3	4	5	6
2	Our firm has a poor future unless it can attract better managers	0	1	2	3	4	5	6
3	If I got into difficulties at work I know my workmates would try and help me out	0	1	2	3	4	5	6
4	Management can be trusted to make sensible decisions for the firm's future	0	1	2	3	4	5	6
5	I can trust the people I work with to lend me a hand if I needed it	0	1	2	3	4	5	6
6	Management at work seems to do an efficient job	0	1	2	3	4	5	6
7	I feel quite confident that the firm will always try to treat me fairly	0	1	2	3	4	5	6
8	Most of my workmates can be relied upon to do as they say they will do	0	1	2	3	4	5	6
9	I have full confidence in the skills of my workmates	0	1	2	3	4	5	6

65. The Psychological Empowerment Instrument (PEI: Spreitzer, 1995)

		Very Strongly disagree	2	3	Neutral	5	6	Very Strongly agree
1	The work I do is very important to me	0	1	2	3	4	5	6

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2	My job activities are personally meaningful to me	0	1	2	3	4	5	6
3	The work I do is meaningful to me	0	1	2	3	4	5	6
4	I am confident in my ability to do my job	0	1	2	3	4	5	6
5	I am self-assured about my capabilities to perform my work activities	0	1	2	3	4	5	6
6	I have mastered the skills necessary for my job	0	1	2	3	4	5	6
7	I have significant autonomy in determining how I do my job	0	1	2	3	4	5	6
8	I can decide on my own how to go about doing my work	0	1	2	3	4	5	6
9	I have considerable opportunity for independence and freedom in how I do my job	0	1	2	3	4	5	6
10	My impact on what happens in my department is large	0	1	2	3	4	5	6
11	I have a great deal of control over what happens in my department	0	1	2	3	4	5	6
12	I have significant influence over what happens in my department	0	1	2	3	4	5	6

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Appendix 2

SPORE Focus Group research protocol

Preparation: Make a verbatim report of the FG. Write down as much as possible.

Doing the research: The goal of the reserarch is to describe good and bad practices regarding the resilience of probation workers. Look for examples in the text that represent good and bad practices.

You need to describe these examples using *categories* that represent *concepts* in the SSM. By doing this, the knowledge becomes comparable across stories, and Jo and Bas can then relate the findings to the theory.

a. Using the verbatim text look for ***elements.*** **These are labelled in the diagram below from A to G**. For example, elements can be found in the *context* (organisation, team, part A), in situations or events (B), or in the probation worker (C through G).
    - Conditions in the context (A), e.g. forms of colleague support, or the possibility of working at home (you can divide the elements in *organisation* and *team*). For example "My organisation allows me to work from home and I find this very helpful" or "I have to work a lot from home and I find this very isolating"
    - Situations (acute and chronic stressors), client related or organisation related (B). For example "I see clients alone in their own homes and sometimes this is frightening"
    - Individual *characteristics (*C, e.g. being an experienced, long time worker) and individual *coping behaviour* (D, including cognitive and emotional behaviour) of line staff and managers. For example "I tend to respond very emotionally to things and doing this job leave me feeling emotional much of the time" or "I never take work home with me – I am able to switch off emotionally"
    - Results of these elements and strings in terms of conclusions about situations being coherent, manageable and meaningful, followed by (self) asessements (E), feelings of empowerment (F) and – of course – aspects of *resilience* (G)

- Look for strings: after marking the elements, look for descriptions of FG participants of the relationships between elements. For instance: certain conditions in the context lead to certain situations and these lead to certain behaviours and resilience results (G). Of course, G (the resilience variables) is a very important part. Strings should always relate to G in one way or another. For example " I have always managed well with a high workload, but having a strong team, a supervisior who is very supportive and good working conditions, makes it even easier"

Describe the elements and strings in your report as (good, mediocre or bad) ***practices***

- The elements and strings that you have found must be described as practices in the organisation and in teams, practices by managers /supervisors, practices by probation workers, and other practices. For strings, these practices can be described as packages or little stories. The end result of these practices should always be described in terms of resilience results (G).

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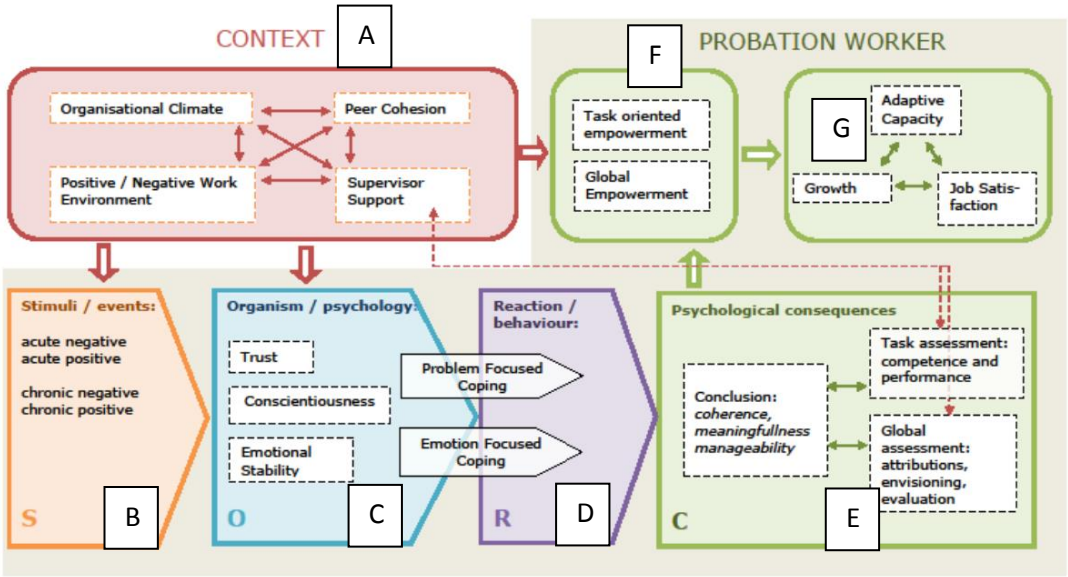
Look for elements and strings in the text that the SSM seems to be **missing.** Describe them also as practices.

Try to limit your description to 7000 words.

B. **Narratives** of best practices. Choose examples of practices in the organisation and in teams, practices by managers /supervisors, practices by probation workers, and other practices that you think are the most worthwhile to share in the international focus group and in the final report. Report about each practice in 500-750 words.



Appendix 3.

Pearson's Correlation for SPORE Psychometric Measures

Scales	1	2	3	4	5	6	7	8	9	10	11
1. WES											
2. ECQ	-.18***										
3. SRG	.06	-.04									

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4. CSURV	.38***	-.32***	.17***								
5.RCSQ	.15***	-.29***	.36***	.16***							
6. CSQ	.16***	.56***	.10**	.29***	.44***						
7.PWESQ	.18***	-.22***	.15***	.49***	.18***	.29***					
8. JSI	.20***	-.36***	.21***	.52***	.27***	.40***	.47***				
9. NEO-PI-R	-.06	.21***	-.14**	.17***	-.32***	-.32***	-.21***	-.37***			
10. SS	.07	.02	.08	.13**	-.03	-.05	.01	.07	.04		
11. IWTS	.08**	-.05	.12**	.15***	-.02	.04	.07	.07	.08	.54***	
12. PEI	.10**	-.01	-.01	.05	.03	.03	-.04	-.01	.11*	.50***	.44***

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Appendix 4
Brief descriptions of the probation services in each partner country

Reproduced with kind permission of CEP from the book *Probation in Europe*, the most comprehensive survey of probation systems and services in Europe today.

SUMMARY INFORMATION ON PROBATION IN BULGARIA

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General Information

. Number of inhabitants: 7.64 million at the beginning of 2008[1].

. Prison population rate per 100,000 inhabitants: 144.

. Link to Probation Service: - Bulgarian National Probation Service; part of the General Directorate Execution of Penalties (GDEP) that is positioned in the Ministry of Justice (www.mjeli.government.bg).

. Links to websites: - www.iga-bg.org

. The Bulgarian National Probation Service became CEP member in 2009.

Characteristics of the Probation Service

- The notion of setting up a Probation Service started in 1994-1995 can be seen as part of the intensive reforms within the judicial system. In the establishment of the probation several experts and high ranked officials of the country's penal system were involved. It is relevant as well that since 1990: 1. an intensive development of the non-governmental sector took place; 2. the Open Society Foundation (OSF) through a special programme has taken the initiative for penal system reforms. Financed by the OSF, the Crime Prevention Fund – IGA established in Pazardjik (1999) the first Centre for Social Support to ex-offenders that laid to the foundation of a 6-year pilot probation model.

- The probation system is strongly centralized (part of the GDEP). The Probation Services are regional divisions of the General Directorate "Execution of Penalties" at the Ministry of Justice.

- Other organizations involved in probation work:

  - Probation Councils (public bodies that also involve civil society representatives).

[1] International Centre for Prison Studies (2009), Prison Brief for Bulgaria London: King's College. Available online at: www.kcl.ac.uk/depsta/law/research/icps/worldbrief/.

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Through the Probation Councils state control over the probation activities can be exerted and on the other hand the general public can take part in the correction and rehabilitation of offenders);

- municipality (main partner of the Probation Services in the execution of probation measures, particularly in community service execution);

- representatives of the non-government sector, volunteers or citizens.

- The Probation Services provides services to adults and juveniles (persons between 14 and 18 years).

Tasks

Activities that should be carried out by the Probation Services are the following:

- Provision of pre-sentence reports upon request of a judge;
- Evaluation of the offending behavior of people sentenced to probation through the use of special methods for offender assessment;
- Execution of sentences, case planning and supervision of sentenced persons;
- Assessment of the need for corrective interventions and planning of the application of special programmes;
- Support to offenders for the establishment of constructive contacts with relatives and with the public institutions;
- Preparation of different reports and analyses related to the execution of probation measures;
- Establishment of effective work relationships with representatives of other institutions;
- Providing up-to-date and quality information at the meetings of the Probation Councils;
- Coordination of the activities of the institutions and the organizations that are linked to the supervision. The Probation Service in Bulgaria is not directly engaged with crime prevention activities. Number of staff Bulgaria counts 28 District Probation Services, which correspond to the jurisdiction of the District Courts. The District Probation Services are located in all of the district capitals and use own or adapted premises rendered by the state or municipality. The total number of probation officers (employees/staff) is 537 (509 state employees and 28 private employees working on full-time contracts), of which:

  - 28 Unit Directors;
  - 305 Probation Inspectors (organize and manage the activities);
  - 28 Technical Assistants;
  - 28 Inspectors with police skills;
  - 120 Junior Inspectors with police skills and
  - 28 Lawyers – Consultants.

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- Number of volunteers: none.
- Daily average number of offender clients dealt with by professional staff: average caseload of 40 offender clients per probation inspector.

New developments

- Strategic Plan priorities 2007-2009: most important priorities of the Probation Services' development:
  - strengthening the establishment of the infrastructure of the probation service;
  - securing the effective operation of the Probation Service throughout the country;
  - extension of the probation staff.
- In 2007 a reform of the structure of the Probation Service was carried out. District "execution of penalties" units were created to unite Probation Services and pre-trial detention.
- In 2009 the ongoing debates on the introduction of pre-trial reports and electronic monitoring led to a new set of legislation amendments. They introduced pre-trial reports albeit not for all trial cases but only upon request of a judge. The other significant change is the introduction of electronic monitoring, which will be piloted in one of the District Probation Services in 2010.
- The issue of public-private partnership (PPP) in the activities of the Probation Service is discussed by politicians as well. Expectations of the debate (which was started by the former Bulgarian government) are that this will additionally stimulate development of professional capacity and competences of the probation system and will raise the efficiency of the supervision.
- The Probation Services have implemented programs, such as anger management, tackling drunk driving, communication skills optimization and changing the way of thinking. A program for sexual offenders is being developed at the moment and another aimed at offenders with drug addictions is expected to be introduced in 2010. Most of these activities though are implemented only in the biggest probation districts. Probation during the different stages of the criminal procedure

	Pre-Trial Phase	Trial and Enforcement Phase	Post Release Phase
Preparing a Social Enquiry Report (prepared by the probation service after the sentence of the	X	x	

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court has come into force)	
Supervising / organizing etc. community service	x
Compulsory address registration	x
Compulsory meetings with a probation officer	x
Free movement restriction	x
Attending professional qualification courses and programs for corrective influence	x
Corrective labour	x
Supervising etc. conditional sentence	x
Supervising etc. conditional release/parole	x

The European Organisation for Probation

SUMMARY INFORMATION ON PROBATION IN ESTONIA

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General Information

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. Number of inhabitants: 1.34 million at beginning of 2009[2].

. Prison population rate per 100,000 inhabitants: 273.

. Link to Probation Service: - www.just.ee (Estonian Ministry of Justice)

. Links to websites: -

. Member of the CEP in: 1995. Characteristics of the Probation Service

- In May 1998, the Probation Service started to work all over Estonia.
- The probation system falls under the competence of the Ministry of Justice. Until the 1st of June of 2008, the Probation Division of the Courts department of the Ministry of Justice was responsible for the activities of probation.
- Because the probation system was united with prisons as at 1st of June of 2008, the Probation Division at ministerial level has been integrated (as at 1st of January 2008) in the structure of the Prisons Department of The Ministry of Justice The Division of Social Rehabilitation is currently responsible for coordination of Probation system and Social Welfare of prisoners.
- The Estonian imprisonment rate is one of the highest ones among European countries, the main challenge for the probation organisation is to promote the wider use of probation through the better use of alternatives and parole.
- Internal organization:

- four regional probation departments work at three regional prisons (Tallinn, Tartu and Viru); - probation departments also have voluntary probation workers (about 20 all over Estonia); - the departments are divided into smaller services and reception points throughout Estonia.

• The age of criminal responsibility is 14. Probation deals with adults and juveniles according to the applied sentence.

Tasks

The probation system is responsible for implementing all community sanctions and measures that involves pre-sentence reports, community service (also at pre-trial stage), probation order (supervision of conduct), probation order as a measure for juveniles, parole order and electronic monitoring (combined with parole order). The basis of the activities is the court's decision, which sets the framework of the probation officers work. Risk-assessment is a cornerstone of probation, the same methodology is also used in prisons; the focus is on the management of risks with aim to prevent criminal behaviour of offenders. Probation officers daily work has two major parts: supervision and assistance.

[2] International Centre for Prison Studies (2009), Prison Brief for Estonia. London: King's College. Available online at: www.kcl.ac.uk/depsta/law/research/icps/worldbrief/.

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Number of staff[3] -

Probation officers (including senior officers): 185 –
Management: 25[4]
Secretary: 14
Total: 224

•Daily number of offenders/clients dealt with: 8,460[5].

New developments

- On the first of June 2008 the probation departments have become part of the regional prisons (this change follows the idea of better implementation of punishments).

- The role of the Probation Service has increased in the criminal justice system. The working methodology has been developed:

- the risk-assessment system is used for assessment of offender's risks of re-offending and dangerousness; and used as input for individual sentence plan;

- the palette of alternative sanctions and their use has been widening. For instance, in 2007 together with changes in the parole system the electronic monitoring was introduced, which resulted in wider use of probation after imprisonment. The discussions about widening the use of electronic monitoring to various groups of offenders takes place as well.

The Ministry of Justice is exploring the possibilities to strengthen the system of dealing with ex-prisoners, by providing more services and involving more partners. The background is that the number of released offenders is increasing as well as the number of high risk offenders (drug addicts, sexual offenders). The probation system will play a key role in this development from the side of criminal justice agencies.

Development and enforcement of the systematic scientific evaluation system regarding sanctions (incl. CSMs) and rehabilitation programmes used by probation and prison officials.

Probation during the different stages of the criminal procedure

	Pre-Trial Phase	Trial and Enforcement Phase	Post Release Phase
Supervising / organizing etc. community service	x	x	
Supervision of conduct as a sanction applicable for minors		x	
Pre – sentence report		x	

[3] At 19 October 2009, source: http://www.vangla.ee/41291.
[4] 4 Regional Managers (managers), 21 Heads of sub-regional bureaus (partly dealing with actual cases).
[5] At 31 December 2008.

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	x		
Supervision of conduct (Supervising sanction of probation)		x	
Supervising conditional release (parole)			x
Electronic monitoring (combined with parole)			x
Advisory report with respect to conditional release		x	

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SUMMARY INFORMATION ON PROBATION IN LATVIA

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General Information

. Number of inhabitants: 2.26 million at July 2009[6]

. Prison population rate per 100,000 inhabitants: 319.

. Link to Probation Service:

- www.probacija.lv/page.php?id=174 (Website State Probation Service Latvia).

• Links to websites: - www.tm.gov.lv/lv/ (Website Ministry of Justice).

• Member of the CEP in: 2004.

Characteristics of the Probation Service

- The State Probation Service (SPS) is a public organization, which is part of the Ministry of Justice.
- The SPS has a centralized structure. General policy and standards are made by the headquarters in Riga. Local offices (28) take part in the drafting of legal regulations.
- The SPS exists of professional probation officers (civil servants). Volunteers are also involved in probation work, e.g. leading the offender-victim mediation process. However, because the volunteer system is still rather young, it still has to be developed. Voluntary mediators are supported and coordinated by probation officers.
- The Service deals with adults as well as juveniles. All persons above the age of criminal responsibility (14 years) can become client of the Service. Tasks The SPS is in charge of the enforcement of community sanctions, like community service, supervision of persons with suspended sentence and persons released on parole (conditionally), and victim-offender mediation. Furthermore, a judge or a public prosecutor can request the SPS to make a pre-sentence report. The SPS is also able to provide the Prison Administration with these reports (on their request in case they want to release a person from prison conditionally). The reports include a characterization of the offender and an evaluation of his or her social circumstances, as well as an opinion of the Probation Service regarding the person. Moreover, the Service organizes community work for minors, who committed criminal offence (aged 11-18 years). This type of community work can not be regarded as a criminal sanction. As a result of the economic recession, aftercare has been abolished and several other probation tasks are reduced for the period from the 1st of July 2009 until the 31st of December 2012. Amendments of the law determine

[6] International Centre for Prison Studies (2009), Prison Brief for Latvia. London: King's College. Available online at: www.kcl.ac.uk/depsta/law/research/icps/worldbrief/

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that:

- Mediation support is only available within the pre-trial phase;

- Supervision is cancelled for persons who are conditionally released from criminal liability by the public prosecutor;

- Pre-sentence reports can be requested by the judge or a public prosecutor only if it concerns juvenile offenders or in case of sexual offences.

Number of staff (January 2010)
Headquarters: 48;
Local Offices: 326;
Total: 374.

Daily average number of offenders/clients dealt with: 9,300. Number of volunteers: 53 trained persons, of which 19 are already certified.[7]

New developments

Main future developments and new initiatives in the operation of the SPS cover the following areas:

The groundwork for the implementation of the EU Framework Decision on the Transfer of Probation Sanctions;

The implementation of the public policy concept paper on the criminal punishment. The concept paper was adopted by the Cabinet of Ministers in 2009. The possibility of wider use of community work service is discussed, according to the concept paper;

The broadening of voluntary work in the SPS, involving voluntary probation workers also in other functions of the Service;

The development of the training process and contents: implementation and evaluation of the new professional training programme;

The development of the sex-offender supervision system, including the implementation of risk and need assessment tool, the sex-offender treatment programme and multi-agency cooperation for effective sex-offender supervision in community;

The further implementation of the 'Conferencing' mediation method.

Probation during the different stages of the criminal procedure

[7] Training was held in January 2010 and the rest of trainees are in the process of getting their certifications.

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	Pre-Trial Phase	Trial and Enforcement Phase	Post Release Phase
Preparing a Social Enquiry report	+/-		
Supervision/assistance etc. to offenders whose cases were conditionally waived	X	+/-	+/-
Mediation/victim support	X	x	
Supervising/organizing etc. community service		x	
Supervising etc. drug/alcohol treatment programs		x	x
Supervising etc. other community sanctions, namely community work service	X	x	
Pre - sentence report		x	
Supervising etc. suspended sentence		x	
Assistance/ support to prisoners in prison		x	
Supervising etc. conditional release/parole		x	
Report before conditional release from prison		x	

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SUMMARY INFORMATION ON PROBATION IN THE NETHERLANDS

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General Information

. Number of inhabitants: 16.44 million at the end of August 2008[8].

. Prison population rate per 100,000 inhabitants: 100.

. Links to Probation Services:

- www.reclassering.nl (Reclassering Nederland: Dutch Probation Foundation);
- www.legerdesheils.nl (Salvation Army);
- www.svg.nl (Salvation Rehabilitation of Addicted Offenders).

Links to websites:

- www.justitie.nl (Ministry of Justice);

- www.jeugdzorg-en-reclassering.nl.

• Member of the CEP in: the biggest private probation organization (Reclassering Nederland) became CEP member since its foundation in 1981. The predecessor of Reclassering Nederland was one of its founders.

Characteristics of the Probation Services

• The Minster of Justice is politically responsible for the (non state) probation organizations.

• The three private probation organizations are for 100% funded by the State:

- Reclassering Nederland (the Dutch Probation Foundation): no specific target group; 63% of the budget, 1,500 full time jobs.

- Social Rehabilitation of Addicted Offenders (SvG): target group: a direct relationship between the offender's dependency on/addiction to alcohol, drugs and the offence; 11 branch offices, 28% of the budget, 450 full time jobs.

- Salvation Army: probation clients that are homeless and juveniles in multi-problem situations; 8% of the overall budget, 220 full time jobs.

• Within each of the 19 districts, probation counters are located in the offices of the Public Prosecutors agency

[8] International Centre for Prison Studies (2009), Prison Brief for the Netherlands. London: King's College. Available online at: www.kcl.ac.uk/depsta/law/research/icps/worldbrief/.

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for registration, selection and allocation.

- The probation organizations have a centralized organization with regional offices. These offices maintain contact with the partners in the judicial chain (Public Prosecuting Office, Custodial institutions, Police)

Tasks and with the municipalities to deliver service geared to the type of problems as defined them.

- The Probation Services provides services to adults only; for minor offenders there are separate organisations.

The tasks of the Probation Service are closely intertwined with the criminal justice process. The Service is active in every phase of the criminal justice process, from arrest to enforcement. The tasks are the following:

- Diagnosis and advice;

- Supervision of conditional sanction modalities;

- Performing behavioural interventions;

- Performing task penalties, in particular labour penalties. The Probation Service can only perform probation activities as commissioned by the judicial authorities: the Public Prosecutor Service, the judiciary and the prison system. That means that there is no 'voluntary contact' with detainees. Ex-detainees are not supervised by the Probation Service, unless this is within the framework of the Penitentiary Programme (in that case, detention is still continuing) or for the conditional release if special conditions have been imposed; the Probation Service then supervises and helps to achieve compliance with those conditions.

Number of staff

	RN	SvG	Salvation Army	Total
Management	159	23	27	209
Executive personnel	1,153	573	168	1,894
Administrative personnel	159	85	23	267
Total	**1,471**	**681**	**218**	**2,370**

- Daily average number of offenders/clients dealt with: -

New developments

A large and extensive project to increase the number of conditional sanctions as alternative to non-suspended prison sentence started in 2006 (31% of the prison sentences is < one month).

A new law on conditional release with –if needed- supervision by the probation service came into force in July 2008.

A project was set up in 2008 to improve transition from penitentiary institutions to community (70% of the detainees is sentences again within six years).

A project to modernize the task of advice and supervision was set up (2008).

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• The Dutch probation aims to strengthen ties with the world of science: research programmes, improved education and training, special 'probation' Professors and Lecturers in universities and schools of social work.

Probation during the different stages of the criminal procedure

	Pre-trial phase	Trial and enforcement phase	Post-release phase
Preparing a social enquiry report/recommendation request	x	X	x
Early help/intervention (during the period of arrest at the police station)	X		
Supervision/assistance to pre-trial detainees	X		
Supervision/assistance etc. to offenders whose cases are conditionally waived	X		
Supervision/assistance to offenders whose pre-trial detention has been conditionally suspended	x		
Supervising/organizing etc. community service	x	X	
Supervising/organizing training or learning projects	x	X	
Supervising etc. drug/alcohol treatment programmes	X	X	
Pre-sentence report	x	X	
Supervising etc. suspended sentence	X	X	
Supervising etc. mentally ill or retarded offenders (in-out patient orders)		X	x
Supervising etc. special measures for drug addicts	x	X	x
Supervising etc. conditional release/parole			x
Advisory report with respect to amnesty/pardon		X	x
Assistance/support to persons who are granted			

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amnesty/pardon		x
Supervising a custody probation order	X	

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Appendix 5.
Statistical data relating to Comparative Study: Psychometric data analyses

Data Exploration

Based upon the Levene's test of homogeneity of variance, RCSQ Arm, RCSQ Positive evaluation, RCSQ Seeking support, RCSQ positive disengagement, CSQ, JSI, and PWESQ facilities were not significant [F (3,542) = *ns*], indicating that the spread of scores were similar across the countries. The scales CSURV total [F (3,542) = p < .01], CSURV management [F (3,542) = p < .01], CSURV empowerment [F (3,542) = p < .01], CSURV workload [F (3,542) = p < .01], CSURV communication [F (3,542) = p < .01], RCSQ total [F (3,542) = p < .05], RSCQ SM [F (3,542) = p < .05], PWESQ total [F (3,542) = p < .01], PWESQ work and system [F (3,542) = p < .01], PWESQ work site [F (3,542) = p < .05], NEO-PI-R [F (3,542) = p < .01], Supervisor support [F (3,542) = p < .01], IWTS [F (3,542) = p < .01], PEI total [F (3,542) = p < .01], and PEI meaning [F (3,542) = p < .01] were significant.

Differences in main scales between countries

A Kolmogorov-Smirnov (K-S) test assessed the distribution of the scores. Of the scales and sub-scales, only RCSQ Total was normally distributed [D (546) = .03, *ns*]. A one-way between-groups analysis of variance (ANOVA) explored possible differences in RCSQ Total scores between countries. There was a significant difference in RCSQ Total scores [F (3,543)= 8.26, p<.01], with a Tukey HSD post-hoc indicating that Bulgaria had a significantly higher score (mean = 126.2) compared to Estonia (118.67), Latvia (117.81), and The Netherlands (116.49).

Kruskal-Wallis H with Post-Hoc

The remaining data were analysed via non-parametric tests. Based upon the Kruskal-Wallis test, there was no difference in the scores of RCSQ ARM [H(3)= 2.61, *ns*], PEI Total [H(3)= 4.73, *ns*], PEI meaning [H(3)= 4.14, *ns*] and PEI Autonomy [H(3)= 7.03, *ns*] between countries.

The following varied significantly between countries: WES [H(3)= 33.54, p = .001], ECQ [H(3)= 26.76, p = .001], SRG [H(3)= 30.71, p = .001], CSURV [H(3)= 80.06, p = .001], CSURV management [H(3)= 50.57, p = .001], CSURV empowerment [H(3)= 71.51, p = .001] , CSURV workload [H(3)= 70.97, p = .001], CSURV communication [H(3)= 98.43, p = .001], RCSQ SM [H(3)= 45.78, p = .001], RCSQ positive evaluation [H(3)= 41.63, p = .001], RCSQ seeking support [H(3)= 10.35, p = .016], RCSQ positive diseng. [H(3)= 30.35, p = .001], CSQ [H(3)= 57.25, p = .001], PWESQ Total [H(3)= 63.86, p = .001], PWESQ facilities [H(3)= 11.95, p = .008], PWESQ work & system [H(3)= 101.51, p = .001], PWESQ work site [H(3)= 60.46, p = .001], JSI [H(3)= 84.16, p = .001], NEO-PI-R [H(3)= 45.85, p = .001], SS [H(3)= 11.06, p = .011], IWTS [H(3)= 12.95, p = .005], PEI competence [H(3)= 9.92, p = .019], PEI impact [H(3)= 9.26 , p = .026].

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The following post-hoc analysis was performed using the Mann-Whitney test, with Bonferroni correction (critical value = .0083):

Work Environment Scale (Moos, 1994)

Estonia had significantly lower WES scores compared to Bulgaria [U =2991.00, -3.21, p= .001], Latvia [U =9000.00, -3.84, p< .001], and The Netherlands [U =6877.00, -5.53, p< .001].

Emotion Control Questionnaire (Roger & Najarian, 1989)

Latvia had significantly higher ECQ scores compared to Bulgaria [U =3881.50, -4.13, p< .001] and The Netherlands [U =11752.50, -3.98, p< .001], and Estonia was higher compared to Bulgaria [U =2984.00, -3.22, p= .001].

Stress Related Growth (SRG – Park, Cohen & Murch, 1996))

Bulgaria had significantly higher SRG scores compared to Estonia [U =3170.50, -2.70, p = .007], Latvia [U =3272.00, -5.34, p< .001], and The Netherlands [U =3870.50, -5.36, p= .001], while Estonia was higher than Latvia [U =9419.50, -3.28, p= .001].

Climate Survey (C-SURV – Roger, 2010)

The Netherlands had significantly higher CSURV Total compared to Bulgaria [U =2927.50, -5.36, p< .001], Estonia [U =5437.50, -7.43, p< .001], and Latvia [U =8497.50, -7.36, p< .001].

CSURV Management: Bulgaria and The Netherlands were significantly higher in CSURV Management compared to both Estonia (*respectively*, [U =2169.00, -5.43, p= .001] and [U =6783.00, -5.62, p< .001]) and Latvia (*respectively*, [U =3816.50, -4.24, p< .001] and [U =11134.00, -4.61, p< .001]).

CSURV Empowerment: The Netherlands had significantly higher CSURV Empowerment scores than Bulgaria [U =3195.00, -4.78, p< .001], Estonia [U =6491.00, -6.01, p< .001], and Latvia [U =7965.50, -7.93, p< .001].

CSURV Workload: The Netherlands had significantly higher CSURV Workload compared to Bulgaria [U =2687.00, -5.90, p< .001], Estonia [U =5805.50, -6.95, p< .001], and Latvia [U =9112.00, -6.73, p< .001].

CSURV Communication: The Netherlands had significantly higher CSURV Communication compared to Bulgaria [U =2039.00, -7.32, p< .001], Estonia [U =4896.50, -8.18, p< .001], and Latvia [U =8281.00, -7.60, p< .001].

Resilient Coping Style Questionnaire (RCSQ: Sojo &Dudgeon, 2011)

RCSQ ARM: No significant differences

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RCSQ SM: Bulgaria had significantly higher RCSQ Site Management compared to Estonia [U =2591.50, -4.28, p< .001], Latvia [U=3665.00, -4.56, p< .001], and The Netherlands [U =2306.00, -6.75, p< .001]. The Netherlands was further lower in RCSQ SM scores than Estonia [U =8866.50, -2.80, p= .005]and Latvia [U=12593.50, -3.09, p= .002].

RCSQ PosEval: Bulgaria had significantly higher RCSQ Positive Evaluation compared to Estonia [U =2924.00, -3.37, p= .001], Latvia [U =3531.00, -4.82, p< .001], and The Netherlands [U =2625.00, -6.04, p< .001]. The Netherlands was further lower in RCSQ Positive Evaluation than Estonia [U =8253.00, -3.63, p< .001].

RCSQ Seeking SS: The Netherlands had greater RCSQ Seeking of Social Support than Bulgaria [U =4166.50, -2.66, p= .008].

RCSQ PosDiseng: Bulgaria had significantly higher RCSQ Positive Disengagement compared to Estonia [U =2485.00, -4.58, p< .001], Latvia [U =3597.00, -4.70, p< .001], and The Netherlands [U =2941.00, -5.36, p< .001].

Coping Styles Questionnaire (Roger, Jarvis & Najarian, 1993)

Bulgaria had significantly higher CSQ compared to Estonia [U =2424.50, -4.73, p< .001], Latvia [U =2573.50, -6.75, p< .001], and The Netherlands [U =3734.50, -3.60, p< .001]. Latvia was further lower in CSQ than The Netherlands [U =10646.00, -5.12, p< .001].

The Physical Work Environment Satisfaction Questionnaire (PWESQ: Carlopio, 1996)

PWESQ Total: Bulgaria had significantly higher PWESQ Total compared to Estonia [U =3012.00, -3.12, p= .002], Latvia [U =2356.00, -7.18, p< .001], and The Netherlands [U =3208.50, -4.75, p< .001]. Latvia was further lower in PWESQ Total than Estonia [U =8470.50, -4.47, p< .001] and The Netherlands [U =10754.50, -5.00, p< .001].

PWESQ Facilities: Bulgaria has significantly higher PWESQ Facilities score than Latvia [U =4428.50, -3.01, p= .003].

PWESQ Work & System: Latvia had the lowest PWESQ Work & System scores compared to Bulgaria [U =2105.50, -7.60, p< .001], Estonia [U =8409.50, -4.55, p< .001] and The Netherlands [U =6997.00, -8.93, p< .001]. Estonia had lower scores compared to Bulgaria [U =2758.50, -3.70, p< .001] and The Netherlands [U =8494.50, -3.29, p= .001].

PWESQ Work Site: Bulgaria had significantly higher PWESQ Work Site scores compared to Estonia [U =2905.00, -3.42, p= .001], Latvia [U =2408.00, -7.09, p< .001], and The Netherlands [U =2554.00, -6.19, p< .001]. Estonia was significantly higher than Latvia and [U =8577.00, -4.34, p< .001] and The Netherlands [U =8834.00, -2.83, p= .005].

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The Job Satisfaction Inventory (JSI: Brayfield & Rothe, 1951)

Latvia had the lowest JSI scores compared to Bulgaria [U=2763, -6.36, p< .001], Estonia [U=8827, -4.02, p< .001], and the Netherlands (U=7687, -8.21, p< .001. Estonia had lower scores compared to Bulgaria [U=2832, -3.62, p< .001] and The Netherlands [U=8142, -3.77, p< .001].

NEO-PI-R (Costa & McCrae, 1992) Conscientiousness

Bulgaria had the lowest NEO-PI-R scores compared to Estonia [U =2499.50, -4.52, p< .001], Latvia [U =2692.00, -6.50, p< .001] and The Netherlands [U =3123.00, -4.93, p< .001]. The Netherlands was further lower compared to Latvia[U =12731.00, -2.94, p= .003].

The Supervisor Support assessment (SS: Federal Bureau of Prisons, 1995)

Estonia had significantly lower Supervisor Support scores compared to Latvia [U =9792.00, -2.81, p= .005] and The Netherlands [U =9684.50, -2.83, p= .005].

The Interpersonal Workplace Trust Scale (IWTS: Cook & Wall, 1980)

The Netherlands had significantly higher IWTS scores compared to Latvia [U =11948.50, -3.76, p< .001].

The Psychological Empowerment Inventory (PEI: Spreitzer, 1995)

PEI Total: No significant differences

PEI Meaning: No significant differences

PEI Competence: Latvia had significantly lower PEI Competence scores compared to Estonia [U =9939.00, -2.67, p= .008] and The Netherlands [U =12934.00, -2.76, p= .006].

PEI Autonomy: No significant differences

PEI Impact: Latvia had significantly higher PEI Impact scores compared to Estonia [U =9701.50, -2.93, p= .003]

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