A survey on the training needs of caregivers in five European countries

PAVLIDIS, George, DOWNS, Carolyn, KALINOWSKI, Bartek, ZWIATEK-BARYLSKA, Ilona, LAZURAS, Lambros <http://orcid.org/0000-0002-5075-9029>, YPSILANTI, Antonia <http://orcid.org/0000-0003-1379-6215> and TSATALI, Marianna

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Corresponding author information

George Pavlidis

Linköping University

South East European Research Centre

Campus Norrköping, Spetsen, Bredgatan, Norrköping

george.pavlidis@liu.se

+46011363145

Authors

Carolyn Downs, Lancaster University, c.downs@lancaster.ac.uk

Bartek Kalinowski, University of Lodz, tbkalinowski@uni.lodz.pl

Ilona Zwiatek-Barylska, University of Lodz, ilona.swiatek@uni.lodz.pl

Lambros Lazuras, Sheffield Hallam University, L.Lazuras@shu.ac.uk

Antonia Ypsilanti, Sheffield Hallam University, a.ypsilanti@shu.ac.uk

Marianna Tsatali, South East European Research Centre, matsatali@citycollege.sheffield.eu

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DR GEORGE PAVLIDIS (Orcid ID : 0000-0003-2480-7100)

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Abstract

Aim: This survey explored caregivers' perceived training needs in 5 European countries (United Kingdom, Greece, Bulgaria, Poland and Italy).

Background. Training can enhance the professional capacity of caregivers, however, caregivers' training needs within Europe has not been examined recently.

Methods: A survey conducted in 2015 captured data from 550 caregivers using a convenience sampling strategy, through a structured questionnaire and additional open-ended items and by conducting statistical and content analysis.

Results: The results indicated *basic nursing skills* and *specialization*, as well as training in *psychology-related skills* like *time management*, *emotion regulation*, *communication, and advanced health care systems* as the emerging training needs There were some country differences in specific training needs areas.

Conclusions: It was concluded that training in basic nursing skills and specialization in nursing specific conditions, in advanced health care systems, as well as in *psychology-related skills* could add to the professional capacity of European caregivers employed in health and social care.

Implications for Nursing Management: The findings inform about employed caregivers' training needs in Europe, which may contribute in the provision of quality care and organizational efficiency in health and social care.

Keywords: health and social care, training needs, nursing skills, European Union

In the European Union, rising demands for long-term health and social care has increased the necessity for a greater number of qualified caregivers providing direct health and social care (European Commission, 2018; Hirst, 2019; World Health Organization [WHO], 2015). These demands are associated with demographic change associated with an ageing population and an increased prevalence of chronic diseases amongstthe older, leading to a rise in numbers of frail older persons (Buckinx, Rolland, Reginster, Ricour, Petermans, & Bruyère, 2015; WHO, 2019).

Care provision is frequently dichotomized as formal and informal (Wimo, von Strauss, Nordberg, Sassi, & Johansson, 2002), where services delivered in health settings (e.g., hospitals, day care centres, nursing homes) or at home by employed caregivers has been described as formal care (Shultz, 2013; Wimo et al., 2002). In contrast, care covered by close relatives, spouse, friends or a resident worker has been termed as informal (Bien et al., 2013; Wimo et al., 2002). However, the division between formal and informal care does not overlap with that of paid and unpaid care provision, and does not depend solely on the licenced, registered, or qualification status of caregivers (Lyon & Glucksmann, 2008). For example, it is common in Italy for un-licensed migrant caregivers to be informally hired for in-home services (Lyon & Glucksmann, 2008), whereas unskilled caregivers are often employed in the formal health and social care sector in order to reduce staff costs (Candiano, 2014; Merrota, 2016). As stated in the survey of healthcare personnel from Eurostat (2019); *"Nursing and caring professionals provide services directly to patients in hospitals, ambulatory care and patients' homes. These professionals include, among others: qualified nurses and midwives; associate nurses; other caring personnel (aids and assistants)".*

This study addresses the perceived training needs of a diverse group of formal and informal caregivers that directly provide healthcare in Europe from different positions (i.e., nurses, nursing assistants, homecare aides). There is a growing consensus that shaping a skillful health care workforce can be achieved equally by reinforcing recruitment and by enhancing caregivers' qualifications and professional capacity (Gould, Kelly, White, & Chidgey, 2004). As such, exploring and addressing caregivers' training needs are an essential aspect in developing a sustainable long-term social care and health system in Europe, with the aim of improving health outcomes, reducing hospital admissions and encouraging prompt discharge from hospital among care recipients (Majeed et al, 2012).

Training needs in the workplace are traditionally addressed through formal training and education programs, ideally in the context of evidence-based Continuous Professional Development (CPD) courses (Gould et al., 2004). According to Gould et al. (2004), the content of such training courses should be based on a context-specific Training Need Analysis (TNA), namely the empirical examination of training needs at the workplace. Such analysis moves beyond the exploration of the value or the adequacy of existing CPD training schemes and expands into the identification of specific shortcomings in professional practice. Studies examining the training needs of health professionals through TNA have been conducted in the United Kingdom (Gould et al., 2004), Indonesia (Hennessy, Hicks, Hilan, & Kanowal, 2006), Saint Lucia (Gaspard & Yang, 2016) and Greece (Markaki, Alegakis, Antonakis, Kalokerinou-Anagnostopoulou, & Lionis, 2009). These studies have focused on establishing caregivers' own perceptions of their CPD requirements (Hicks, Hennesy, & Barwell, 1996), revealing training needs in communication skills, management, clinical skills and research methods, human resources, managing budgets, and (especially for older caregivers) using information technology (Gaspard & Yang, 2016; Gould et al., 2001; Markaki et al., 2009). Research examining the training needs of informal caregivers has revealed training needs in communication skills (Haberstroh, Neumeyer, Krause, Franzmann, & Pantel, 2011), general nursing skills (Van Ryn et al., 2011) and the use of information technology (Carretero, Stewart, & Centeno, 2015).

Although valuable as a starting point for developing useful CPD programmes for caregivers, these studies are in many cases outdated and do not offer any cross-country comparisons. In face of the need for a skilled health and social care workforce in Europe, and the mobility of caregivers around Europe, the evaluation of caregivers' training needs should be explored anew to identify key areas for development.

Therefore, the HelpCare project - an Eramus Plus funded project – running over the period 2014-2017 aimed to establish a range of research-based recommendations for workforce development in health and social care, focusing on professionalization, career development, recruitment and retention. The HelpCare project had two elements, qualitative and quantitative, with a detailed survey of 550 caregivers. This paper focuses on the quantitative work, presenting findings in 5 European countries (The United Kingdom, Greece, Bulgaria, Poland and Italy), aiming to survey training needs of caregivers and help support career development through focused training.

Method

Participants

For the survey, 550 caregivers from 5 European countries (The United Kingdom, Greece, Bulgaria, Poland and Italy) were invited by the project's consortium, using a convenience sampling strategy. Sample size calculation was conducted to ensure enough data was collected. We took as reference the population of 23 million people (based on the Labour Force Survey data) employed in the health and social care sector in Europe (Shultz, 2013). The confidence level was set to 95% with 5% for the margin of error. The results for the minimum sample size needed (N = 365) indicate that our sample was adequate.

The consortium partners placed open calls for participation and approached care providers (hospitals, care homes, domiciliary care providers and workers) in each country through their professional networks. Sampling was not uniform across the partner countries, as it depended on the project partner's access to suitable samples and differences in policy and practice of covering caregiving needs in the national level. In Italy, cultural mediators were used when necessary to approach migrant caregivers with poor Italian language skills to enable their participation. The sample characteristics of this study are detailed in Table 1.

Instruments

The survey was initially produced in English, the project language, and was translated using principles of good practice set out by Hambelton (2003) using the steps; forward translation, reconciliation, back translation and back translation review, to ensure accuracy. In Italy, cultural mediators were used to translate the questionnaires to migrant caregivers' mother tongue, as well as to translate their responses in Italian.

Demographics: Respondents were asked to report their age, gender, education, whether they are currently employed in health/social care, and if so, the type of employment (part-time, full-time, or other).

Training Needs: The questionnaire that assessed training needs was based on an established questionnaire developed by Hicks et al. (1996). Following the suggestions of Hicks et al (1996) and a consultation with the HelpCare partners, as well as with stakeholders engaged in care provision in the 5 partner countries, the questionnaire was adapted to reflect current training needs. Therefore, the questionnaire comprised 20 items; the first 10 items derived from the Hicks et al. (1996) original questionnaire, the remaining 10 items were

newly introduced, enquiring about tasks requiring communication skills, emotion regulation, general nursing skills, and ICT skills.

The first section (A) of the questionnaire assessed, using a 7-point Likert scale, respondents' perception of the importance of certain tasks in the workplace, providing a *criticality index*. The second section (B) accessed, using a 7-point scale, caregivers' perception of their current performance level on the tasks, providing a *skill index*. Subtracting the scores (section A – section B) in each task gave a *training needs index* (Hicks et al., 1996).

Participants' scores in the *training needs index* were categorized as i) scoring less than -1 (indicating a *skill index* greater than the *criticality index*), ii) score 0 (indicating a *skill index* equal to the *criticality index*), iii) score 1 (indicating a *skill index* poorer than the *criticality index* by 1 point), iv) score 2 (indicating a *skill index* poorer than the *criticality index* by 2 point), and lastly v) scoring 3 (indicating a *skill index* poorer than the *criticality index* by 3 point). As such, negative scores or scores of 0 in the *training needs index* indicate no need for training in the specific area. Contrarily *training needs index* scores of 1 and greater indicate the need for training in the specific area. Based on the proportion of participants reporting a training need index 1 or more, the items were ranked from the most needed training area to the least needed. The proportion of the participants per category and per country are reported in Figures 1 to 7.

In the open-ended section of the questionnaire (Section C), participants were asked to report 10 training needs that would help them better manage their daily tasks in an open-ended format. The raw responses were grouped together in three steps. First, the raw responses were grouped together based on their semantic similarity (e.g., *dementia care* was grouped together with *dementia training*, under the item *care for dementia)*. Thereafter, each partner in the research group reviewed the results of the first step and proposed a categorization system, to group the items together in thematic subcategories, and lastly in thematic categories. A final agreement was reached in a group meeting to use 6 thematic categories, which were divided in 19 subcategories. These were:

1. *Nursing and Medical Issues*, describing competencies pertinent to nursing practice. The subcategories of this theme were: nursing specific conditions (e.g., care for dementia, stemming from participants raw response like "dementia training", "in depth dementia training", "dementia care"), general nursing (e.g., general nursing skills, stemming from

participants' raw responses like "care for the sick lying", "nursing care", "nursing training"), diagnostics (e.g., assessment and diagnosis, laboratory analysis), first aid skills (e.g., first aid, intoxication), general medical information (e.g., medical training, illnesses and diseases), and using medical Information Technology (IT; e.g., training in devices, training in new technologies)

2. *Psychology related Soft Skills*, describing competencies in counselling, emotional regulation, collaboration and communication. The subcategories of this theme were: providing support through counseling (e.g., counselling, bereavement support), emotion regulation skills (e.g., stress management, emotion regulation), communication skills (e.g., general communication skills, communication with patients), and collaboration skills (e.g., conflict resolution, general collaboration skills)
3. *Personal Development*, describing items reflecting continuous professional development with the subcategories: formal education (e.g., foreign languages, education) informal education (e.g., courses-seminars, training), and education on specific disciplines (e.g., psychology, medicine).
4. *Administration Skills*, describing competencies in administration and leadership with the subcategories: general administration (e.g., administration, paperwork), human resources (e.g., staff recruitment and training, HR management), organizing-planning care strategies (e.g., care planning, organization), and general Information Technology (e.g., computer skills, informatics)
5. *Security and Safety* describing competencies to safeguard caregivers and care recipients from physical harm (e.g., safeguarding, health and safety)
6. *Social Services and Legal Issues*, referring to competencies to collaborate with social services, as well as being able to work according to ethical standards of practice, with the subcategories: use of social services (e.g., collaboration with health and social services), legal issues and ethics (e.g., legal issues, confidentiality and data protection).¨

Thereafter, participants responses were counted and cross-tabulated based on the proposed thematic categories and subcategories.

Procedure and Ethics

Hard copies of the questionnaires were handed over to the workplaces' head nursing directors, managers or social workers for further distribution to the personnel. After their completion, the questionnaires were returned to the research team. In Italy, cultural mediators were asked to contact migrant participants and helped the research team with the translation of the questions and the responses from Albanian, Romanian and Bulgarian into Italian. All questionnaires were anonymous. The study was approved by the Ethics Committee of the International Faculty of the University of Sheffield. Whenever applicable, the distribution of the questionnaires was approved by the scientific committees of the institutions that gave access to their employees.

Results

The data from the 20-item TNA questionnaire were analyzed using SPSS v20. A Bonferroni correction was applied to correct for multiple comparisons type I errors. Therefore, the p value that indicated statistical significance was set to $p = .002$ resulting from the equation p/N_{items} (0.05/20 = .002). Based on these criteria, no statistically significant differences emerged in any of the items of the 20-item TNA questionnaire between; male and female caregivers; employed and not employed caregivers; caregivers' educational levels; type of employment (i.e., part-time, full-time, or other). In addition, no statistically significant correlation emerged between age and hours of work with any of the TNA items of the 20-item TNA questionnaire.

A visual inspection of the Figure reveals that 50% of caregivers in Europe have a training index more than 1 in *Stress Management*. This item ranked first in the UK, Bulgaria, and Poland, second in Italy and third in Greece. *Evaluating Patients' Psychological and Social Needs* was the second ranked item in the whole sample, ranking second in the UK, 4th in Italy and Greece, 5th in Poland and 6th in Bulgaria. *Advanced Health Care Systems* was the third ranked item in the survey, ranking 1st in Greece, 3rd in the UK and Italy, 7th in Poland, and only 16th in Bulgaria. The items *Handling Other People's Emotions Effectively* and *Handling your Emotions Effectively* completed the list of the top 5 ranked items, being at the top in Bulgaria and Poland.

Of the 550 participants, 341 participants (response rate 62%) reported at least one item in Section C (average 3.2 responses per participant). All responses in this section were translated from the local language into English by the local partners. In total, 1094 raw responses were documented, forming 625 different items. From the total, 77 raw responses

were excluded, as they did not describe training needs (e.g., better salaries), or they were too vague (e.g., clean setting). The raw responses were grouped together based on their semantic similarity forming in total 203 items.

Participants responses were counted and cross-tabulated based on the proposed thematic categories and subcategories (see Table 3). The country-specific proportion of responses for each country and for each thematic category was calculated using the formula *country-specific category count/total country-specific count x100* (see Figure 7). The thematic category with the most responses were that of *Nursing and Medical Issues* (*N* = 576) having the highest proportion of responses in all countries except Bulgaria. The thematic subcategories with the most responses were that of *General Nursing Skills* (*N* = 266), *Nursing Specific Conditions* (*N* = 175), and *First Aid Skills* (*N* = 78), reflecting the importance placed by caregivers on training for competencies pertinent to nursing practice.

Psychology Related Soft skills was the thematic category with the second most frequent responses (*N* = 136), with the proportion of responses ranging from 10 to 19 percent between countries. The *Personal Development* category was the third in frequency of responses (*N* = 136), with the highest share of responses being among Bulgarian caregivers (39%) and the lowest among caregivers in the UK (3%).

Discussion

This survey was developed to explore caregivers' training needs in 5 European countries (United Kingdom, Greece, Bulgaria, Poland and Italy). The sample comprised mainly middle-aged, female, employed full-time caregivers working in average 8 hours per day (5 days per week), of a Level 3 (12 years) education. The sample's characteristics in this survey are consistent with those depicted on Shultz (2013) report, based on the Labour Force Survey data of 23 million people employed in the health and social care sector in Europe. In this report, Shultz (2013) found the health and social care workforce to be predominately female, with the greatest proportion being between the age of 25-50, working in average 41.6 hours per-week. Notably, Shultz (2013) reported that 20% of caregivers in Europe occupy part-time employment positions, with Greece, Bulgaria and Poland having the lowest rates in this respect, with the UK and Italy having higher rates. These findings are comparable to our study, where 27% of the participants occupied part-time jobs, with Greece, Bulgaria and Poland having the lowest rates, whereas UK and Italy had the highest.

Based on the structured 20-items questionnaire, further education in stress management and emotion regulation seems to be the most important training need. More precisely, the items *Stress Management*, *Handling Your Own Emotion Effectively*, *Handling Other Peoples' Emotion Effectively, and Evaluating Patients Emotional and Social Needs* are 4 of the 5 items with the greatest proportion of caregivers (whole sample) having a *training need index* of at least 1 point or more. The item *Stress Management* ranked as the most important training need in the UK, Bulgaria and Poland, and occupied the second and third place in the relevant rankings in Italy and Greece respectively.

These findings are consistent with previous research finding in nursing, which found it to be an emotionally demanding profession (Broom et al., 2015; Chou, Hecker, & Martin, 2012; Oflaz et al., 2010; Spector, Zhou, & Che, 2014). Blanco-Donoso, Garrosa, Demerouti, and Moreno-Jiménez (2017) argued that the emotional strain of nurses derives from spending a great amount of contact hours with illnesses, human suffering, intense emotional reactions, uncooperative patients, as well as aggressive behaviors deriving from patients and relatives on daily basis.

In this working climate, nurses (and equally, caregivers) need to find adaptive ways of responding effectively to their own and others' emotions. Therefore, becoming skilled at emotion regulation may be a useful capacity to develop in caregivers, as it allows them to reduce the interference of negative emotions in performing goal-oriented behaviors, as well as being able to handle adaptively behaviors that are driven by emotional distress (Gratz & Roemer, 2004). In our study, there were country difference in the importance placed on emotion regulation. The item *Handling Your Own Emotion Effectively* ranked in first places for Greece, Poland, and Bulgaria, but not in Italy and the UK. In the same vein, the item *Handling Other Peoples' Emotion Effectively* was ranked in the first places in Italy, Poland and Bulgaria, but not in Greece and in the UK. Given the heterogeneity in the underlying health policies and practices within the European Union however, it is uncertain if the observed inconsistencies in training needs among the partner countries reflect differences in stress levels at the workplace, or relevant differences in caregivers' competencies.

According to the results of this study, training on *Advanced Health Care Systems* is perceived as an important need among European caregivers. The relevant items ranked 3rd on the whole sample based on the greatest proportion of caregivers having a *training need index* of at least 1 point or more. For this item as well, the evidence depicts country difference in

the importance placed, as the specific item ranked as the most important training need in Greece, whereas in Bulgaria it was considered as one of the least important ones.

Underpinning this finding is the fact that health care systems are subjected to constant changes worldwide. As Gonsalo et al. (2017) argued, health care systems are shifting towards services delivery from multi-professional teams within a context characterized by advances in technology, data management systems, as well as payment systems. According to the same authors, health care is becoming more focused on patient experiences, on health promotion, and on reducing costs. Risling (2015) argued for the necessity to educate current and future nurses on the fast pace of technological advancements in health care, adapting the curricula beyond the current practice paradigms. The same author acknowledges that curricular revisions are time consuming with inherent challenges in matching the pace of technology trends, particularly in keeping nurses already in practice up to date with such advances. In our study, the significant proportion of caregivers requiring training in *Advanced Health Care Systems* may reflect a specific gap of their education.

According to evidence from our study, time management was another important training need for caregivers. The evidence indicates that 40% of the participants had a *training need index* equal or more than 1 in the item *Organizing your own Time Effectively*, with this need to be more evident in Bulgaria (ranked as 3rd in the training need items). Caregivers are under great pressure to complete their working duties in a specific amount of time. As Bowers, Lauring, and Jacobson (2000) illustrated, time pressure is also typically a problem for nurses, forcing them to adopt various compensatory strategies to catch up. In the same study, nurses expressed the opinion that the time-related demands posed by their assigned responsibilities make it impossible to provide high quality care, an aspect of their work that they perceive as duty.

In a recent study on nurses led by Halcomb and Ashley (2017), time constraints were found to be one of the least satisfying aspects of their profession. In the UK, much care work is domiciliary, where care workers are given insufficient time resources to travel and deliver care services (Fleming & Taylor, 2007; Rubery, Grimshaw, Hebson, & Ugarte, 2015; Urgenson & Yeandle, 2005). This time-related working pressure for caregivers in Europe may be reflected in our data, and while structural issues such as staffing levels may be the main issue it is nevertheless also identified by caregivers as an aspect of their work which they feel could perhaps be improved by training.

The content analysis revealed caregivers' training need for basic nursing and medical skills. The category *Nursing and Medical Issues* accounted for 576 out of the 1017 total responses for all categories (57% share), with the subcategory *General Nursing Skills* comprising 266 of those 576 responses in this category (46% share). These findings may reflect the expected and continuous need for caregivers employed in the health/social sector to receive further training in their area of practice. At the same time, it may reflect the need for basic training among caregivers, who are often expected to manage a range of complex issues (stroke care, dementia care, frailty, end-of-life care) without having sufficient skill for the role they are expected to fulfil.

The tendency to employ unskilled caregivers in the health and social care sector because of the fiscal (compressing costs) and social challenges (increased demands) has been well documented in the past (Candiano, 2014; Merrota, 2016). The distribution of our study's sample educational level depicts most caregivers (60%) to have primary or secondary education, namely at Levels 1, 2 and 3 according to the International Standard Classification of Education. Given the lack of uniformity in the regulation of the caregiving profession in Europe (Lyon & Glucksmann, 2008), no certain conclusion about educational or training adequacy can be made in this study. Despite the education background of the current health and care workforce however, it seems that basic nursing skills may be the core area of training in relevant CPD programmes for caregivers in the workplace.

Besides *General Nursing Skills*, the subcategory *Nursing Specific Conditions* was the second most frequently reported in the *Nursing and Medical Issues* category. This finding indicates a great need for specialization in treating or managing specific conditions (e.g., patients with dementia, patients with cancer, etc.), or working in specific settings (e.g., mental hospitals, intensive care units, etc.). Specialization among nurses has been linked in past research with improved professional status (McHugh & Lake, 2010; Thomas, DiSabatino, & Rojas, 2019), enabling better collaboration between health professionals of the same specialty, and enabling increased nursing autonomy (Kramer et al., 2007). Therefore, developing programmes of training across a range of specializations (such as stroke, dementia, cancer, frailty) may be a core area of CPD programs for European caregivers.

The content analysis of the questionnaire's third section data supported the findings deriving from the 20-items structured questionnaire, indicating European caregivers' training need for psychology-related skills. Within the category *Psychology-Related Skills*, the

subcategories *Providing Support Through Counselling, Emotion Regulation Skills, Communication Skills*, and *Collaboration Skills,* accounted for 136 out of the 1017 total responses (13% share). These items echo the findings deriving from the *training need index* in the items *Handling Your Own Emotion Effectively*, *Handling Other Peoples' Emotion Effectively, and Evaluating Patients Emotional and Social Needs* from the 20-items structured questionnaire, giving additional support for their importance in the context of developing a CPD program for caregivers.

Limitations

The survey relied on self-report questionnaires distributed to caregivers; hence, the importance of specific types of training reflect the caregivers' own perception of their own training needs. However, caregivers' perceptions may not always reflect their actual needs. Triangulating the findings using caregivers', care recipients' and other health professionals' (those collaborating with caregivers) would improve confidence in the identification of specific areas for CPD. In addition, this survey only covers 5 European countries, meaning the findings may not be generalizable at a European level. Future studies could expand the survey beyond the countries involved in this survey, use triangulation research strategies to confirm caregivers' training needs from multiple sources of information, and explore potential differences between formal-informal, or part time-full time caregivers. Lastly, this survey did not explore differences in the training needs between different types of caregivers employed in the health/social care sector. It is possible that caregivers of different specialties (e.g., nurses, nurse assistants, family caregivers) have specific training needs pertinent to their qualifications and assigned roles.

Implications for Nurse Managers

Our findings indicate that training in basic nursing skills and specialization in specific conditions (such as diabetes, stroke, dementia) would be valuable as part of CPD programmes for caregivers in the workplace. In addition, the survey indicates that training in advanced health care systems, as well as in psychology-related skills like time management, emotion regulation and communication, could improve caregivers' professional capacity of European caregivers.

Conclusion

Despite the limitations outlined above this survey obtained (to a large extent) a representative sample of the health and social care workforce in Europe. Our findings indicate that training in basic nursing skills and specialization in caring for patients with specific conditions would be valuable for caregivers in 5 European countries (The United Kingdom, Greece, Bulgaria, Poland and Italy). In addition, the survey indicates that training in advanced health care systems, as well as in psychology-related skills like time management, emotion regulation and communication, could improve the professional capacity of European caregivers.

Future studies could expand the survey beyond the countries involved in this survey, could use triangulation research strategies to confirm caregivers' training needs from multiple sources of information, and look more in depth for any potential differences in training needs between health and social care professional (e.g., between nurses, nurse assistants, unregistered caregivers, etc.).

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Appendices

Appendix I

TRAINING NEEDS ANALYSIS

Scores are given from **1 = not well at all** to **7 = very well** The first rating (**SECTION A**) is concerned with **how important the activity is to the successful performance of your job**. The second rating (**SECTION B**) is concerned with **how well you currently perform that activity**.	**SECTION A** *How important it is…*	**SECTION B** *How well you perform…*
Establishing a relationship with patients		
Doing paperwork and/or routine data inputting		
Communicating with patients face-to-face		
Treating patients		
Giving information to patients and/or careers		
Planning and organizing an individual patient's care		
Evaluating patients' psychological and social needs		
Organising your own time effectively		
Using technical equipment, including computers		
Making do with limited resources		
Communicating with the patients' family		
Stress management		
New technologies		
Job-related skills/Knowledge		
Communication skills		
Advanced health care systems		
ICT generic skills		

Care provider-patient relationship		
Handling your emotions effectively		
Handling other people's emotions effectively		

Please specify other areas of your job in which you would like to receive further training or instruction.

List these in order of importance in the right hand box before you finish:

Draw up a quick list of all your training needs below to help you prioritise these in the right hand box:-	Position 1 being the 'most important' training needs Position 10 being the 'least important' training needs
	1
	2
	3
	4
	5
	6
	7
	8
	9
	10

"You have now finished your questionnaire"

The HELPCARE team thank you very much for your support and participation in our research project

If you need to contact the research team then please email: c.downs@lancaster.ac.uk or a.k.clifton@lancaster.ac.uk

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Table 1. *Demographic characteristics of the sample, with percentages, means (M) and standard deviations (SD)*

		Bulgaria	Greece	Italy	Poland	UK	Total
	N	100	100	100	121	129	550
Age (years)	*M*	47.67	40.33	46.19	47.84	27.08	41.14
	SD	13.09	8.60	10.64	11.66	12.77	14.21
Gender (%)	Male	8	27	8	7	12	12
	Female	92	73	92	93	88	88
Education (%)	Higher	11.7	50	15.7	20.2	15	21.2
	Vocational[4]	6.3	14.4	0	11.1	64	17.8
	Level 3[3]	60.9	28.9	73.6	29.3	9	42.9
	Level 2[2]	16.4	6.7	0	39.4	11	14.3
	Level 1[1]	3.1	0	10.7	0	1	3.3
Employed (%)	Yes	99	97	89	93	95	94.5
	No	1	3	11	7	5	5.5
Employed (%)	Full time	94	91	54	97	39	73
	Part time	6	9	46	3	61	27
	Other	0	28	0	0	0	5.6
Work (hours)	*M*	8.4	7.6	6.9	8.9	8.1	8.0
	SD	2.4	1.7	4.2	2.5	3.8	3.15

[1] Primary education, [2] Lower secondary education, [3] Upper secondary education, [4] Post secondary non-tertiary education

Table 2. *Means and Standard Deviations of the criticality index (Section A) and the skill index (Section B) in the 20-items questionnaire assessing Training Needs.*

	Items	**SECTION A** *M(SD)*	**SECTION B** *M(SD)*
1	Establishing a relationship with patients	6.50 (1.14)	6.05 (1.21)
2	Doing paperwork and/or routine data inputting	5.53 (1.84)	5.35 (1.65)
3	Communicating with patients face-to-face	6.45 (1.14)	6.15 (1.13)
4	Treating patients	6.16 (1.66)	5.61 (1.81)
5	Giving information to patients and/or caregivers	6.25 (1.34)	5.87 (1.39)
6	Planning and organizing an individual patient's care	6.38 (1.17)	5.82 (1.33)
7	Evaluating patients' psychological and social needs	6.25 (1.34)	5.57 (1.48)
8	Organizing your own time effectively	6.27 (1.23)	5.72 (1.36)
9	Using technical equipment, including computers	5.43 (1.88)	5.05 (1.92)
10	Making do with limited resources	5.61 (1.84)	5.21 (1.78)
11	Communicating with the patients' family	6.20 (1.36)	5.71 (1.44)
12	Stress management	6.26 (1.40)	5.34 (1.56)
13	New technologies	5.43 (1.89)	4.90 (1.90)
14	Job-related skills/Knowledge	6.38 (1.19)	5.86 (1.34)
15	Communication skills	6.47 (1.13)	5.98 (1.22)
16	Advanced health care systems	5.94 (1.63)	5.15 (1.17)
17	ICT generic skills	5.55 (1.77)	5.07 (1.74)
18	Care provider-patient relationship	6.54 (.97)	6.06 (1.17)
19	Handling your emotions effectively	6.46 (1.05)	5.81 (1.22)

20	Handling other people's emotions effectively	6.31 (1.28)	5.67 (1.37)

* Each item was scored in a 7-point Likert Scale. Higher scores in section A denote more importance of the specific task in the workplace. Higher scores in section B denote better performance level on the specific task

Table 3. *Count of responses among European caregivers, grouped and cross-tabulated by country, thematic category and subcategory*

	UK	PL	IT	BG	GR	Total
Participants	*96*	*75*	*83*	*16*	*57*	*327*
Responses	*454*	*177*	*218*	*18*	*150*	*1017*
Nursing and Medical issues	**278**	**100**	**136**	**1**	**61**	**576**
Nursing Specific Conditions	63	33	54	0	25	175
General Nursing Skills	154	44	57	0	11	266
Diagnostics	3	0	5	0	3	11
First Aid Skills	46	17	8	0	7	78
General Medical Information	7	5	4	1	4	21
Using Medical IT	6	1	8	0	11	26
Psychology Related skills	**61**	**33**	**21**	**3**	**18**	**136**
Providing Support Through Counselling	9	3	0	1	8	21
Emotion Regulation Skills	18	13	5	1	3	40
Communication Skills	18	5	11	0	2	36
Collaboration skills	16	12	5	1	5	39
Personal Development	**14**	**13**	**25**	**7**	**32**	**91**
Formal Education	12	0	7	0	8	27
Informal Education	2	10	5	0	18	35
Education on a Specific Discipline	0	3	13	7	6	29
Administration Skills	**28**	**11**	**20**	**2**	**24**	**85**
General Administration	11	5	2	0	9	27
Human Resources	4	1	1	0	6	12
Organizing-Planning Care Strategies	4	1	5	2	2	14
General Information Technology	9	4	12	0	7	32
Security and Safety	**55**	**8**	**5**	**0**	**5**	**73**
Social Services and Legal Issues	**18**	**8**	**7**	**1**	**7**	**41**
Use of Social Services	4	6	5	1	2	18
Legal Issues and Ethics	14	2	2	0	4	22

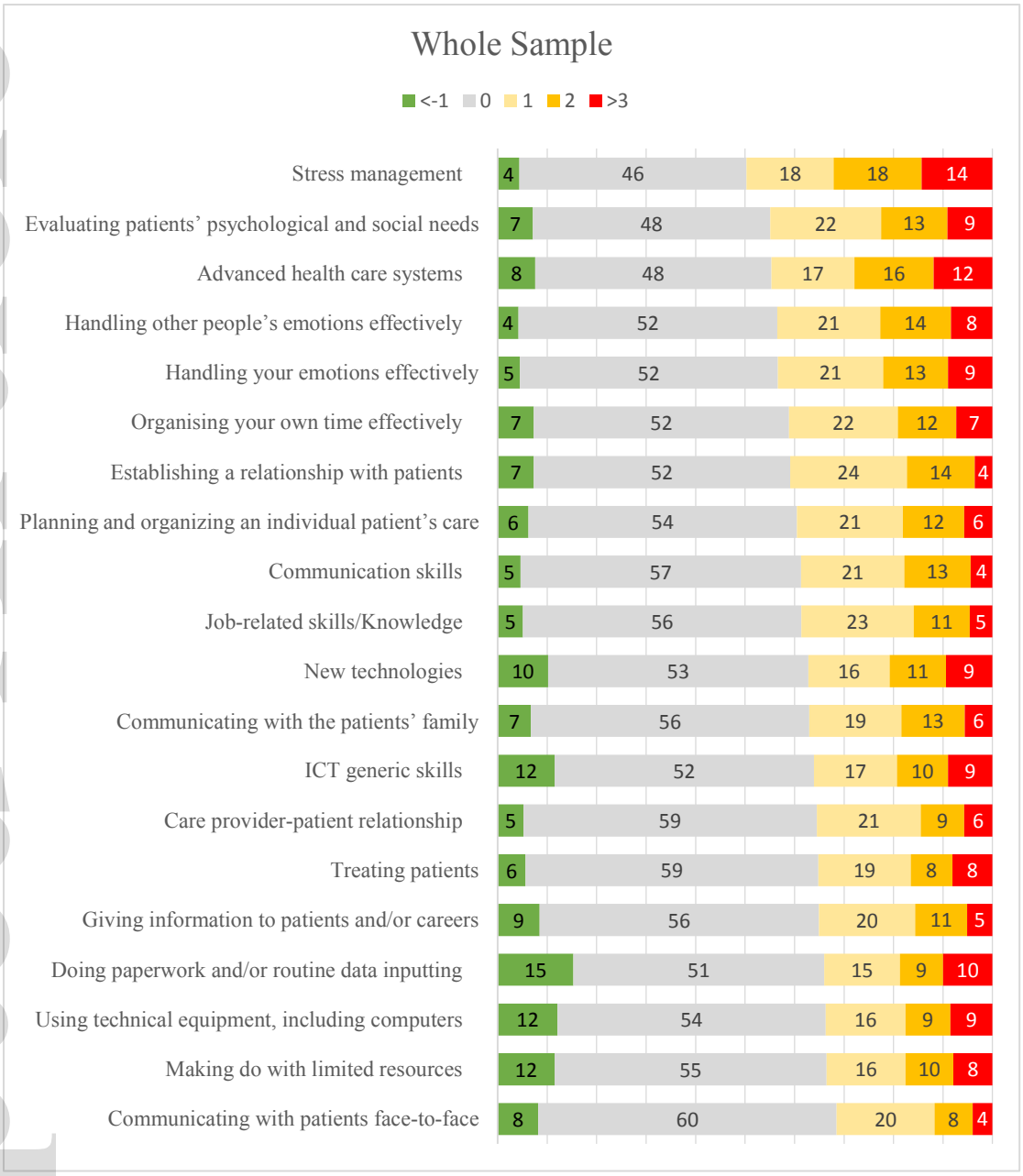

Figure 1. Proportion (%) of caregivers (whole sample) per *training needs index* score category i) less than -1, indicating a *skill index* greater than the *criticality index*, ii) score 0, indicating a *skill index* equal to the *criticality index*, iii) score 1, indicating a *skill index* poorer than the *criticality index* by 1 point iv) score 2, indicating a *skill index* poorer than the *criticality index* by 2 points, v) scoring more than 3, indicating a *skill index* poorer than the *criticality index* by at least 3 points or more. The items are ranked based on the proportion of respondents with a positive *training need index*.

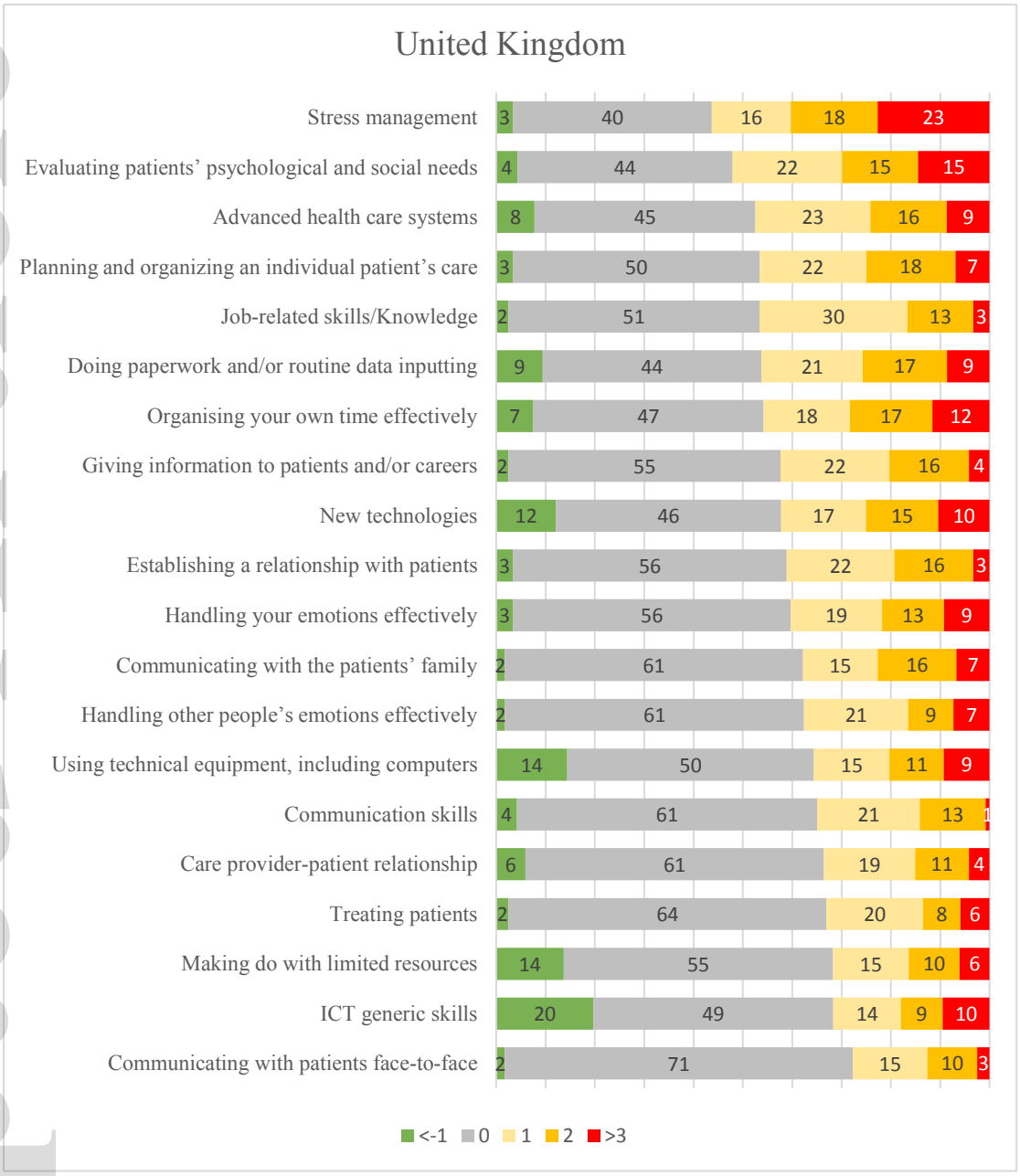

Figure 2. Proportion (%) of caregivers (United Kingdom) per *training needs index* score category i) less than -1, indicating a *skill index* greater than the *criticality index*, ii) score 0, indicating a *skill index* equal to the *criticality index*, iii) score 1, indicating a *skill index* poorer than the *criticality index* by 1 point iv) score 2, indicating a *skill index* poorer than the *criticality index* by 2 points, v) scoring more than 3, indicating a *skill index* poorer than the *criticality index* by at least 3 points or more. The items are ranked based on the proportion of respondents with a positive *training need index*.

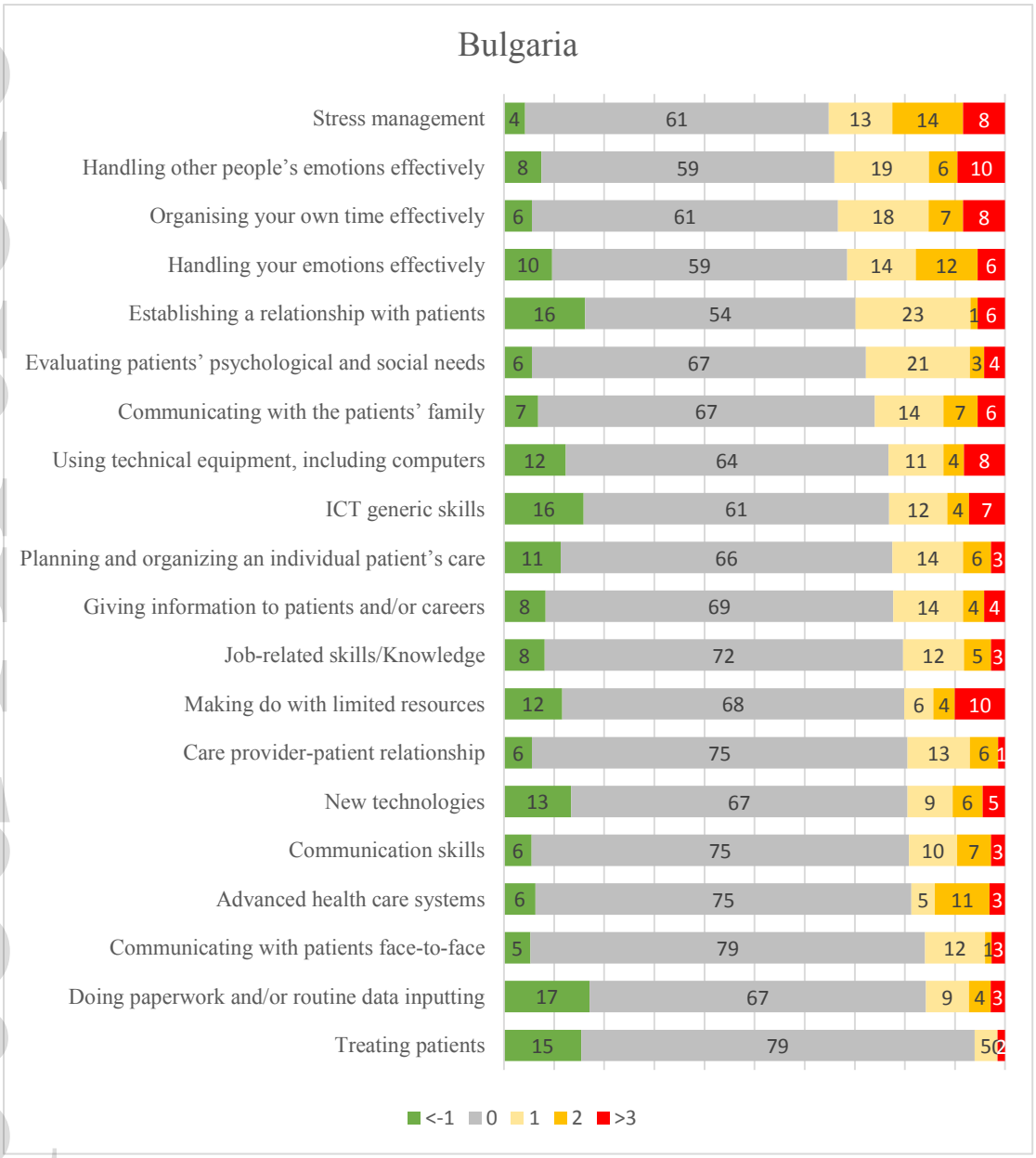

Figure 3. Proportion (%) of caregivers (Bulgaria) per *training needs index* score category i) less than -1, indicating a *skill index* greater than the *criticality index*, ii) score 0, indicating a *skill index* equal to the *criticality index*, iii) score 1, indicating a *skill index* poorer than the *criticality index* by 1 point iv) score 2, indicating a *skill index* poorer than the *criticality index* by 2 points, v) scoring more than 3, indicating a *skill index* poorer than the *criticality index* by at least 3 points or more. The items are ranked based on the proportion of respondents with a positive *training need index*

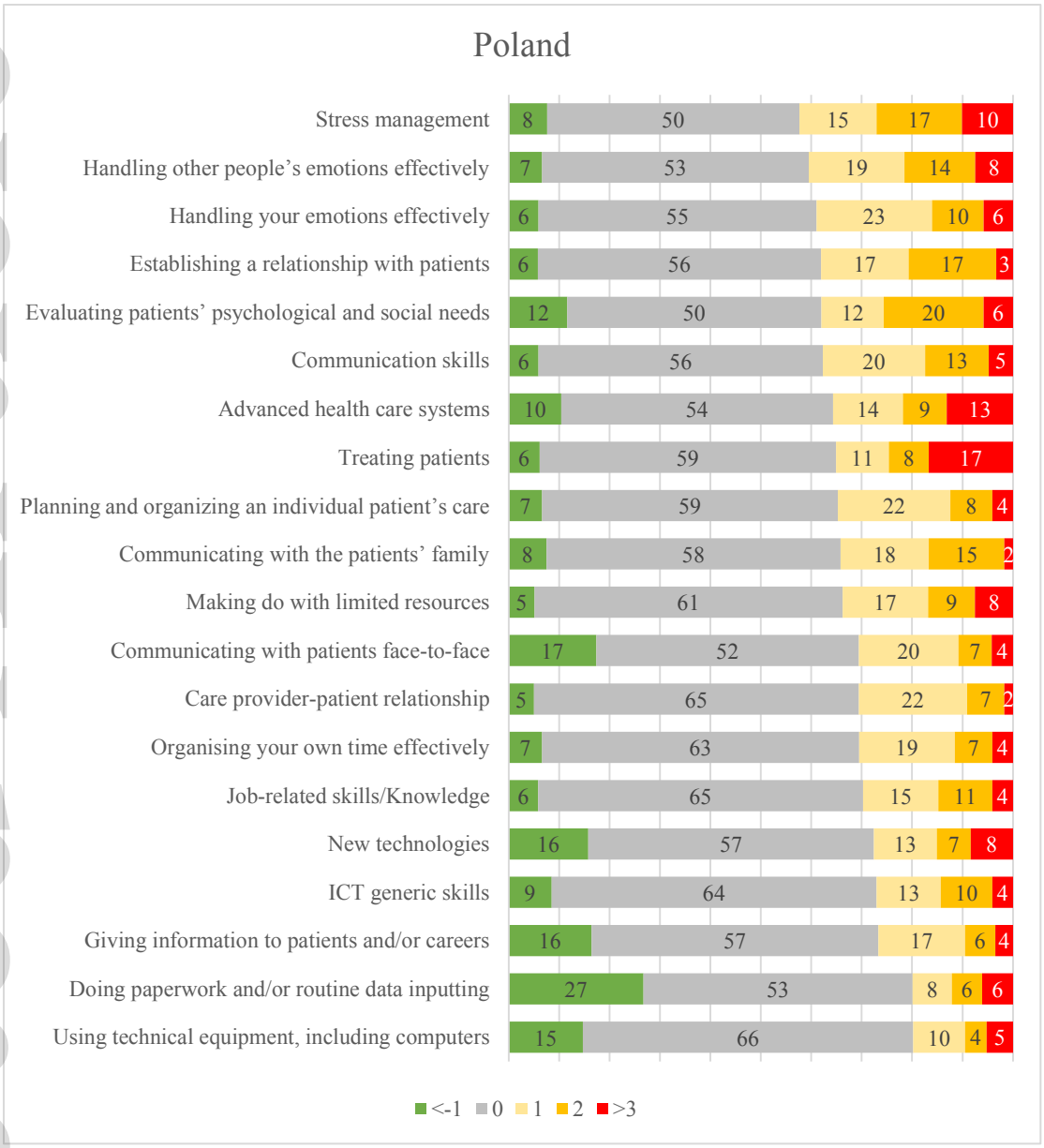

Figure 4. Proportion (%) of caregivers (Poland) per *training needs index* score category i) less than -1, indicating a *skill index* greater than the *criticality index*, ii) score 0, indicating a *skill index* equal to the *criticality index*, iii) score 1, indicating a *skill index* poorer than the *criticality index* by 1 point iv) score 2, indicating a *skill index* poorer than the *criticality index* by 2 points, v) scoring more than 3, indicating a *skill index* poorer than the *criticality index* by at least 3 points or more. The items are ranked based on the proportion of respondents with a positive *training need index*.

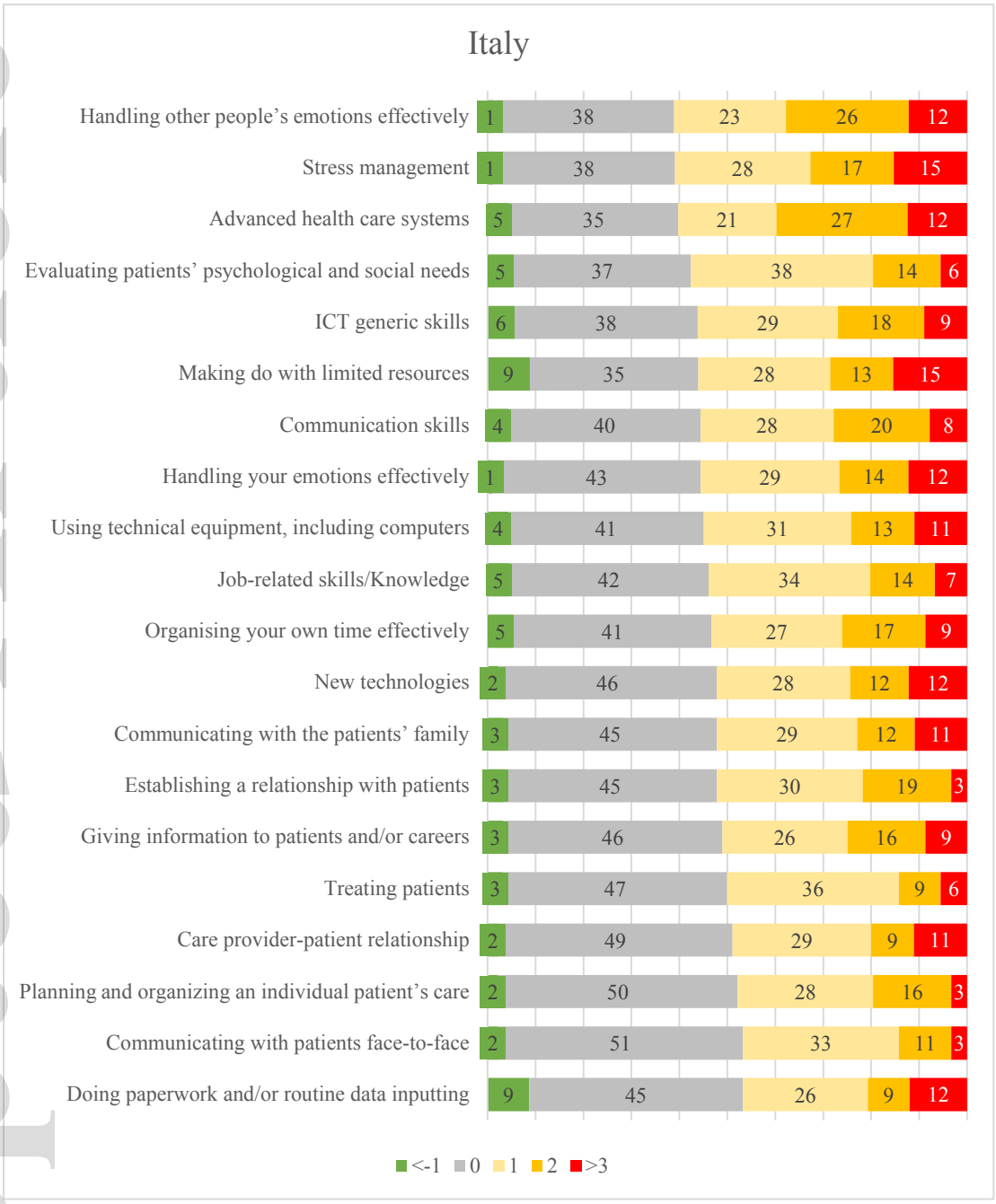

Figure 5. Proportion (%) of caregivers (Italy) per training needs index score category i) less than -1, indicating a skill index greater than the criticality index, ii) score 0, indicating a skill index equal to the criticality index, iii) score 1, indicating a skill index poorer than the criticality index by 1 point iv) score 2, indicating a skill index poorer than the criticality index by 2 points, v) scoring more than 3, indicating a skill index poorer than the criticality index by at least 3 points or more. The items are ranked based on the proportion of respondents with a positive training need index

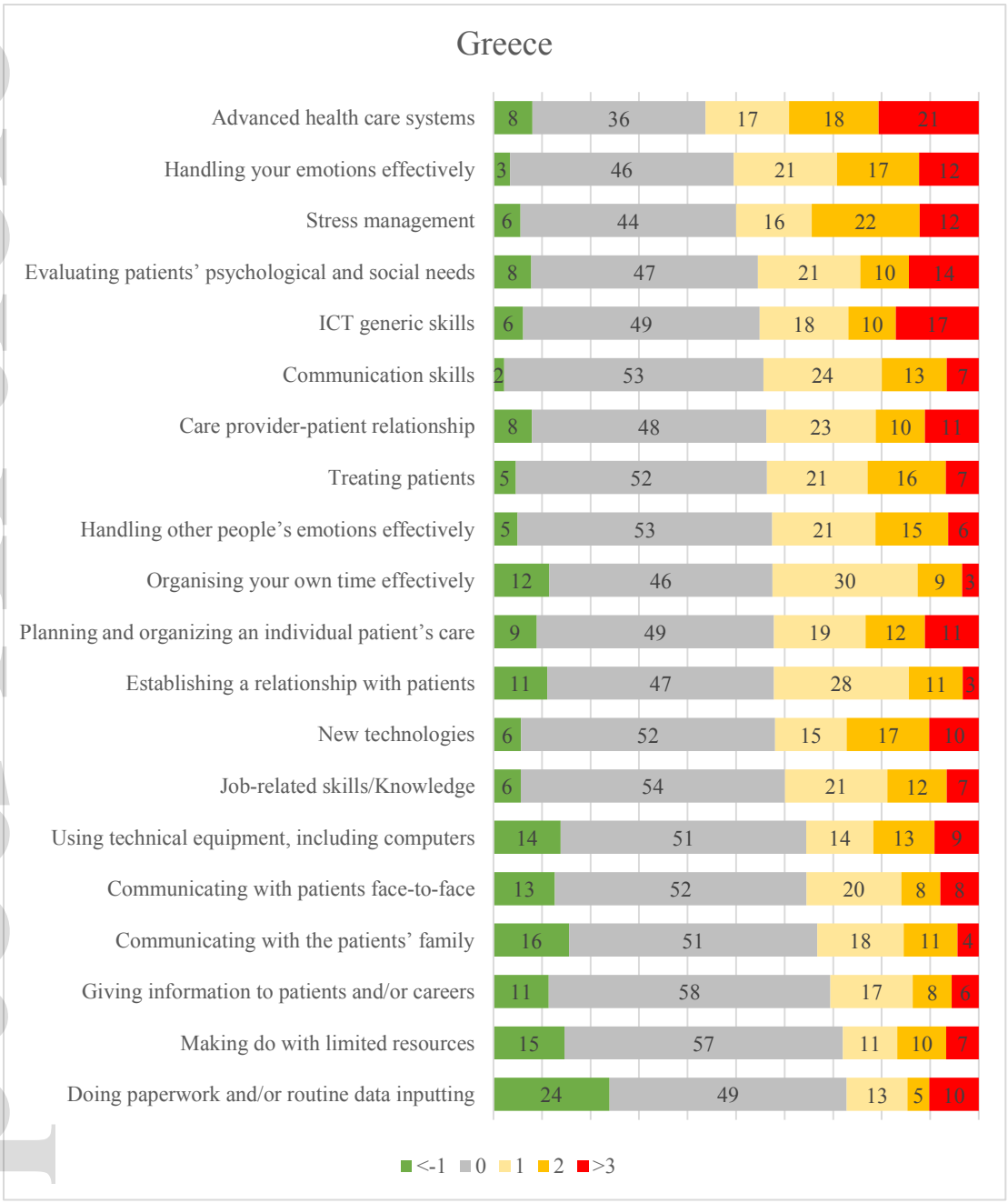

Figure 6. Proportion (%) of caregivers (Greece) per *training needs index* score category i) less than -1, indicating a *skill index* greater than the *criticality index*, ii) score 0, indicating a *skill index* equal to the *criticality index*, iii) score 1, indicating a *skill index* poorer than the *criticality index* by 1 point iv) score 2, indicating a *skill index* poorer than the *criticality index* by 2 points, v) scoring more than 3, indicating a *skill index* poorer than the *criticality index* by at least 3 points or more. The items are ranked based on the proportion of respondents with a positive *training need index*.

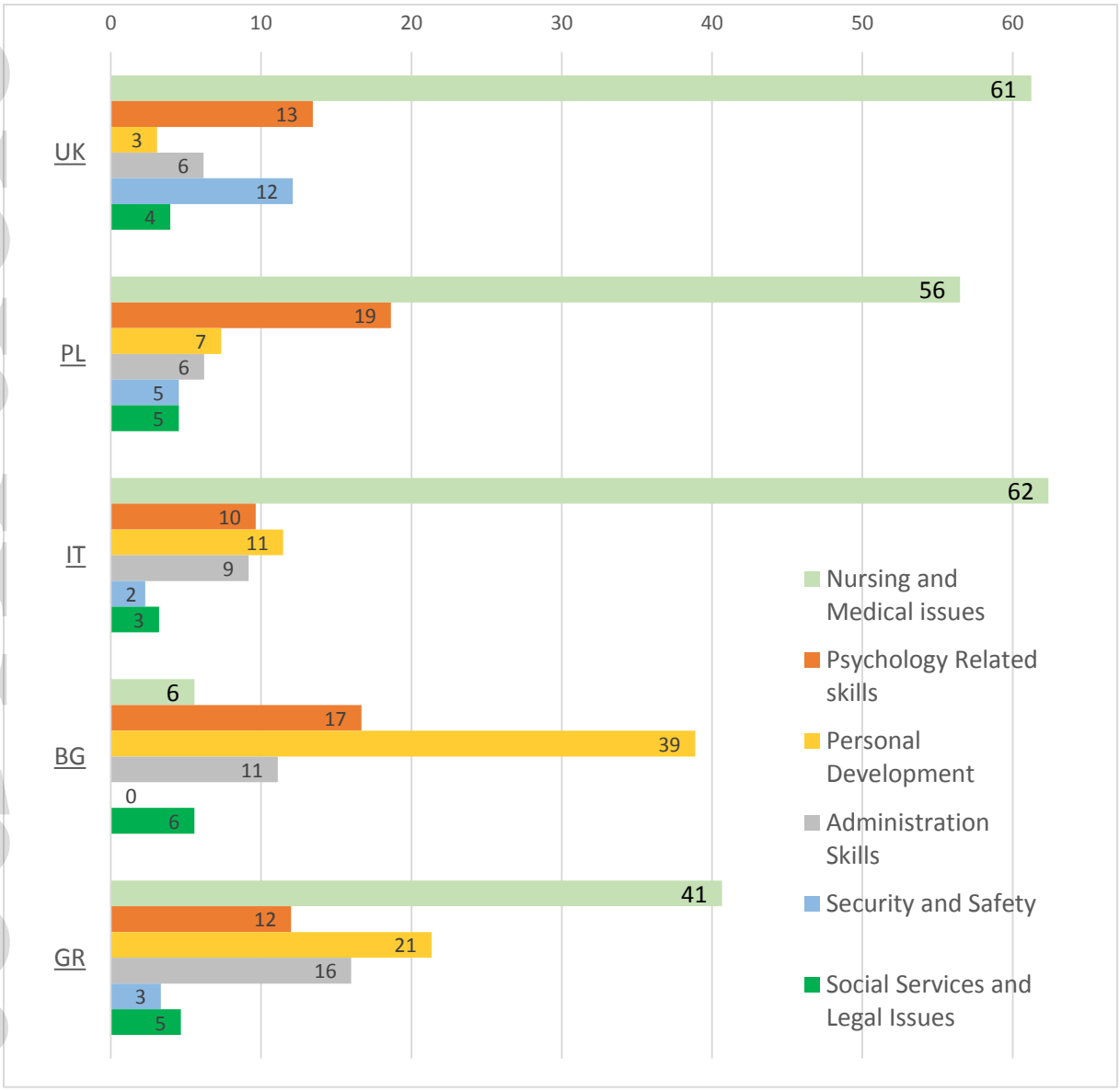

Figure 7. The proportion of responses (%) to the total, per thematic category for the United Kingdom (UK), Poland (PL), Italy (IT), Greece (GR), and Bulgaria (BG)