

*Scientific report on project implementation in 2013*

**Project Title: Assessment of Psycho-Social and Communication needs in Oncology patients (APSCO)**

**Project Code: PN-II-RU-TE-2012-3-0011**

**Single stage: May - December 2013**

Objectives and activities for the 2013 single stage were:

\* Objective (1): Development of research methodology, of the set of indicators and of instruments to be employed in the research. Activities included here were (1.1) Development of the conceptual framework and the set of indicators and (1.2) Detailed planning of the research project and development of specific tools: questionnaires and interview guides.

Assumed deliverables for this objective were: (1) the design and completion of protocols for meetings, work visits by national and international experts in the field of oncology, and (2) devising of a specific questionnaire dedicated to oncology patients - in Romanian and Hungarian languages, as well as of a guide for semi-structured interviews.

\* Objective (2): Clinical data collection, which involved (2.1.) establishing contact with the envisaged oncology institutions and obtaining their approval for field research, training of interviewers according to the NIH ethical code, and (2.2.) initiating empirical research at institutional level and on specific subgroups of oncology patients.

Assumed deliverables were: (1) drawing up the list of institutions participating in the research project and obtaining of NIH course graduation certificates by team members, and (2) drawing of an interim report based on a questionnaire survey and completing at least half of the total number of interviews planned in the research project.

\* Objective (3): Dissemination of the results, consolidation of academic relations with certain institutions, participation in conferences, achieved through (3.1) Publishing of scientific papers on the topic, (3.2) Participation in international conferences and workshops, and (3.3) Creation of the project's web page.

Assumed deliverables were: (1) Publication of one scientific paper, (2) delivery of oral presentations and/or poster sessions with abstracts published in peer-reviewed journals, design and upgrading of the project website (<http://www.psychooncology.ro>).

(1) Achieving the first objective involved the design of protocols to be used in meetings, planning of work visits by national and international experts and development of a questionnaire for assessing targeted variables in both Romanian and Hungarian languages, and of a semi-structured interview guide.

A first workshop was held on May 22nd-23rd, 2013, in Târgu Mureş, where dr. Kristie Foley from Davidson College, NC, USA, addressed specific methods during Research Methods Training. The topics approached covered conceptual research models and designs specific for the particular field of interest, effective assessment tools for the targeted population, specific instruments applicable for populations of different sizes (e.g. small groups), analytical approaches and their relevance in the consolidation of scientific spirit. Particular emphasis was placed on the method of initiating and implementing thorough new trans-disciplinary research. Further discussions focused on ways in which specialized agencies could implement such processes and how research results could be disseminated and integrated into the development of effective prevention and intervention policies and programs.

A second workshop took place in Nyíregyháza, Hungary, from May 31 to June 3, 2013. Assoc. Prof. dr. Kiss János, institute director at the University of Debrecen, Hungary, who mentored project director lecturer dr. Dégi L. Csaba in the DOMUS fellowship offered by the Hungarian Academy of Sciences (Magyar Tudományos Akadémia), discussed various research methods in the field of psycho-oncology and the importance of developing appropriate interventions based on the multidimensional needs of the patients.

The next workshop took place on June 11th-13th, 2013, in Miskolc, Hungary, where dr. László Dobos, representative of the Hungarian Academy of Sciences, and Dr. Olga Tóth from the Sociological Research Institute of the Hungarian Academy of Sciences, contributed significantly to the development and refinement of research methods taking into account the specifics of this project. The need for a multidimensional assessment of patients based on a multi-varied methodology was also addressed on this occasion.

Various meetings with national and international experts were dedicated to the development of work-protocols. From June 26 to 29, 2013, the project director participated at the International Symposium on Supported Care in Cancer, MASCC/ISOO 2013 in Berlin, Germany. This international symposium in the field of psycho-oncology emulated valuable discussions on issues of scientific methodology between the project director and dr. Natalia Carafizi from the Charity Foundation for Public Health "Angelus Moldova" in the Republic of Moldova, the main themes revolving around the issue of fair and efficient evaluation of patients diagnosed with various forms of cancer.

Between July 3 and 14, 2013, several meetings took place in Bucharest and Cluj Napoca, Romania, where Prof. Shari Munch, associate professor at Rutgers University, Michael Moroiu, American Fulbright Program Director, and Dena O'Malley, specialist in design and development of supervisory programs at the Cancer Institute of New Jersey and the Rutgers Robert Wood Johnson Medical School, addressed problems encountered in choosing efficient screening scales for specific populations (such as those diagnosed with various forms of cancer) and the characteristics of an efficient interview guide required for obtaining in-depth information related to the specific needs of these neoplasm patients.

Between the 15<sup>th</sup> and the 18<sup>th</sup> of September 2013, Cluj-Napoca (Romania) hosted the 16<sup>th</sup> European Partnership for Action Against Cancer (EPAAC), where Dr. Dégi L. Csaba attended as International Psycho-Oncology Society (IPOS) Romanian representative and Ms. Simona Ene as European Cancer Patients Coalition (ECPC) representative, favoured work meetings with Dr. Luzia Travado and Dr. Joan Prades.

Under the EPAAC – WP7 framework, on October 24 and 25, 2013, IPOS organized at the "Prof. Dr. Ion Chiricuță" Oncology Institute in Cluj-Napoca the Efficiency in Communication Skills training aimed for health professionals working in the field of oncology. Employees of major NHS cancer centres and relevant public hospitals in Romania attended this training.

At the end of this training, organizers and participants agreed on a course of action needed to be approached:

1. IOCN, through its Oncology Commission, shall submit to the Ministry of Health a report on the necessity of providing psycho-oncology care to cancer patients as part of the new global cancer control strategy developed within the EPAAC partnership by creating

specialized psycho-oncology structures in comprehensive cancer centres within oncology institutes and other regional centres whose activities regulated under the IPOS standards should be included in the list of services discounted by the local health insurance system.

2. Measures of aligning the specific nomenclature and training curricula to the models implemented in other countries within the European Community will be proposed to the Ministry of Labour and the Ministry of Education.

3. Under IPOS guidance, the Romanian Society of Psycho-Oncology (SRPO) will ensure the translation and dissemination of professional standards for the clinical network. SRPO will emerge as the national representative.

The series of work meetings continued with the Cancer and Work Network (CANWON) meeting in Amsterdam on November 4th-5th, 2013, where specific challenges of current research in the field of psycho-oncology were discussed. This meeting was attended by distinguished guests such as dr. Angela de Boer of the Coronel Institute of Occupational Health and dr. Tyna Taskila.

From the 5<sup>th</sup> to the 7<sup>th</sup> of November 2013, project director dr. L. Csaba Dégi participated in the 15th International Congress of Psycho-Oncology and Psycho-Social Academy and the IPOS-EPAAC Task Force meetings. At these elite events, the project director approached scientific research methodology topics relevant for the project with renowned international specialists such as Luzia Travado, Maggie Watson, Neil Aaronson, Elisabeth Andritsch, Sylvie Dolbeault, Luigi Grassi, Christoffer Johanssen, Anja Mehnert etc.

On November 8, 2013, the project director attended a meeting with psycho-oncology professionals (ECPPs) during the IPOS conference in Rotterdam. The discussions on research in psycho-oncology topics with Dr. Andrea F. Patenaude of the Cancer Genetics and Prevention Centre, Director of the Psychological Research and Clinical Services Program at Dana-Farber Cancer Institute, Psychology Professor in the Department of Psychiatry, Harvard Medical School, USA, proved to be most valuable for the project.

The professional encounters continued with the Oncology Psycho-Social Support meeting on November 18th-20th, 2013, in Cluj Napoca which targeted the optimization of the activities conducted by the medical staff providing psychosocial care: health psychology specialists, as well as nurses and oncologists working in the major NHS centres and public hospitals in Romania.

As for the detailed planning of research and development of specific tools (questionnaires and interview guides), the design and research methodology were developed by the project director, dr. L. Csaba Dégi, with the assistance of dr. Kristie Foley from Davidson College, NC, USA. The research follows the design of a non-probabilistic cross-sectional study with repeated measurements (repeated cross-sectional design, see Steel, 2008), while the proportional quota sampling method (see Sedgwick, 2012) was applied in the four most important Romanian cancer centres (Bucharest, Cluj-Napoca, Iasi, Oradea) to produce a nationally representative pool of oncology patients in terms of gender and ethnic affiliation percentages. According to the application submitted and the subsequent contract the project planning for 2013 included the surveying of 300 patients diagnosed with various forms of cancer. This goal was exceeded by far.

The final sample of 700 surveyed cancer patients was based on data collected in 2012, when the Oncology Institute in Cluj-Napoca reported 17,484 ambulatory cases and 10,565 hospitalized patients. In the present research study, approximately 200 of the 25,000 cases of

oncological conditions recorded in the Cluj-Napoca centre were planned to be evaluated, i.e. a target of 200 questionnaires to be completed. In 2012 the Oncology Centre in Bucharest reported a number of cases similar to the oncology centre in Cluj-Napoca, which resulted in the need to assess other 200 cases, i.e. 200 more questionnaires to be completed on behalf of the Bucharest patients. In 2012 the Oncology Centre in Iasi reported about 800 patients per month, resulting in roughly 9,600 new cases of neoplasm patients per year, requiring the evaluation of 100 patients and further 100 questionnaires. In the Oradea centre the number of oncology cases assessed in 2012 was about 10,800, hence other 100 cases needing evaluation and 100 questionnaires to be filled in.

These estimates were checked by comparing them with the data reported by Globocan (Cancer Estimated Incidence, Mortality, and Prevalence Disability-Adjusted Life Years (DALYs) Worldwide) for 2008 and 2011, which refer to an annual number of 70,100 new patients yearly diagnosed with cancer in Romania (see <http://globocan.iarc.fr/>). Thus, taking 1% of the yearly records of oncology cases newly detected (70,000 according to Globocan figures and reports from the four cancer centres of national interest), a target of 700 neoplasm patients to be surveyed was set. These figures were supplemented with 100 more cases of oncology patients residing in Harghita and Covasna counties. Based on available data, the research focused on the assessment of the five most frequent types of cancer etiology for both genders: lung, colorectal, breast, stomach and prostate (statistical data show that lung, colorectal, prostate, stomach and bladder cases account for 55% of male cancer etiology, while breast, colorectal, cervical, lung and ovary cancers account for 45% of all women cases).

To be eligible for this study, patients must be at least 18 years old at the time of evaluation, must consent to participating in the study and must exhibit a mental and physical condition enabling them to complete the questionnaires and respond to questions posed during the interview.

The design and implementation of the research were approved beforehand by the Board of Ethics of the "Prof. Dr. Ion Chiricuță" Oncology Institute in Cluj-Napoca, based on the "Health through Science" agreement protocol signed by the four major universities in Cluj-Napoca ("Babeş-Bolyai" University, "Iuliu Hațieganu" University of Medicine and Pharmacy, the University of Agricultural Sciences and Veterinary Medicine and the Technical University).

Also, all collaborators involved in the evaluation of the oncology patients signed a confidentiality agreement, pledging their personal responsibility not to disclose information about the institutions, processes and people involved in the project obtained during the research and to strictly abide to confidentiality clauses and ethical conduct regarding the protection of personal data of the participants in the research study. Meanwhile, team members and collaborators attended the online training "Protecting Human Research Participants" organized by the National Institutes of Health (NIH) Office of Extramural Research. The certificates for team members dr. Dégi L. Csaba PhD MSW, dr. Kállay Éva PhD, Cîmpianu Mihaela Elvira, Lukács Gyula Ignác and for the collaborators Ambrus Beáta, dr. Cristina Faludi, Gábor Ferenc and Vágási Júlia can be accessed at <http://www.psychooncology.ro/team/>.

The choice of assessment instruments was based on the analysis and synthesis of the literature on the most effective methodology in the field of psycho-oncology studies (e.g. Vodermeier, Linden, & Siu, 2009). The resulting package of questionnaires included several scales and sets of questions, as follows: (1) emotional thermometer - DT - assessing the patient's emotional state in the 7 days preceding the assessment, sets of questions regarding (2) the patient's knowledge about his/her condition, (3) the patient's availability to talk about his/her disease, (4) the patient's mental state, (5) the quality of life scale, (6) personal data

(gender, age, residence, education level, marital status, financial status, income, frequency of physical activity, alcohol/tobacco consumption), (7) assessing health status, (8) psychosocial factors involved in their medical condition [Functional Assessment of Cancer Therapy - General (FACT-G 4.0); Beck Depression Inventory (BDI); Spielberger's State-Trait Anxiety Inventory (STAI-T); Beck's Shortened Hopelessness Scale; Appels' Shortened Vital Exhaustion Questionnaire; Rahe's Shortened Life Events Rating Scale; DiTommaso's Social and Emotional Loneliness Scale for Adults (SELSA); Wallston's Multidimensional Health Locus of Control Scale (MHLCS), Devins' Illness Intrusiveness Rating Scale (IIRS) Folkman - Lazarus Shortened Ways of Coping Questionnaire, Rahe's Sense of Coherence Scale, Schwarzer's Shortened Generalized Self-Efficacy Scale, Weissman's Shortened Dysfunctional Attitude Scale, Denollet's Shortened Type-D Scale BI], (9) collateral life events and social support, (10) the patient's general condition, (11) other data resulted from the evaluators' investigations.

The second part of the evaluation included a semi-structured interview based on an intervention protocol concerning patients diagnosed with various forms of cancer (Psychosocial Factors Relevant to Brain Disorders in Europe, 2010). The major objective of this semi-structured interview is to identify and explore the psychosocial difficulties faced by the patient, emphasizing the patient's point of view. A standardized guide including open questions and an evaluation sheet to document specific socio-demographic and illness-related data will be deployed for this purpose. The evaluation sheet should contain: (1) a list of psychosocial difficulties (functional damage, mobility limitation or restriction; (2) information about the emergence and evolution of the psychosocial problems faced by the patient; (3) information on the factors that triggered the emergence and development of the psychosocial problems faced by the patient. To be eligible for the interview, patients must meet the following criteria: (1) to be diagnosed with a tumour condition, (2) to possess the cognitive skills needed to respond to interview questions, (3) to possess oral communication skills, and (4) to be aged 18 or older.

Interviewed patients will be informed about the purpose and objectives of the study to fully understand the implications of their commitment and the investigators will answer all questions regarding the interview prior to the patient's consent to willingly participate in the study. The patient's personal data shall be documented by using individually assigned anonymous identification three digit codes assigned to each participant prior to commencement of the study.

To guide the interview, the interviewer will present the major issues that will be addressed, while informing the patient that he/she can withdraw from the study at any time without any repercussions. After stating the objective of the study, the interviewer will use the list of open questions to explore the psychosocial difficulties faced by the patient, identifying the triggering factors and dynamics of his condition. The interview will be recorded using a digital device, but the interviewer can take notes to document various key issues not captured in the audio transcripts.

Analysis of these qualitative data will follow several steps: (1) word-for-word transcript of the recording, (2) transcript checking by the interviewer, and (3) extracting the data by using the "condensation of meaning" method.

Data processing will produce important information on the psychosocial difficulties faced by cancer patients seen from their perspective, a hierarchy of psychosocial problems faced by the patient, detailed descriptions concerning the onset and the evolution of the problems they are facing and the factors that triggered their condition. The data extracted from the transcript will be double-checked by a second professional involved in this research

using the multiple encoding method to confirm the identified psychosocial issues facing the oncology patient (Kvale, 1996).

In parallel with these activities procedures to set up the research team were initiated. The research assistant and master student positions were advertised in several national and international forums, as follows:

a. Research Assistant:

National Authority for Scientific Research: <http://jobs.ancs.ro/anunt.php?id=660> and [http://jobs.ancs.ro/docs/Asistent\\_cercetare\\_stiintifica\\_9750.pdf](http://jobs.ancs.ro/docs/Asistent_cercetare_stiintifica_9750.pdf)

Euraxess Romania: <http://www.euraxess.gov.ro/ro/locuri-de-munca/in-romania.html> and <http://ec.europa.eu/euraxess/index.cfm/jobs/jobDetails/33861580>.

b. Master Student:

National Authority for Scientific Research: <http://jobs.ancs.ro/anunt.php?id=659> and [http://jobs.ancs.ro/docs/post\\_cercetare\\_student\\_masterand\\_9197.pdf](http://jobs.ancs.ro/docs/post_cercetare_student_masterand_9197.pdf)

Euraxess Romania: <http://www.euraxess.gov.ro/ro/locuri-de-munca/in-romania.html> and <http://ec.europa.eu/euraxess/index.cfm/jobs/jobDetails/33861572>.

To select the members of the research team a public contest was announced and four candidates were registered: Cîmpianu Elvira, Lukács Ignác, Enikő Osváth and Asif Khan of Pakistan.

The two persons competing for the research assistant position were Cîmpianu Elvira and Enikő Osváth.

Following the debates of the examination commission composed by Lecturer dr. L. Csaba Dégi, Lecturer dr. Paul Teodor Hărăguș and Lecturer dr. Mihai Bogdan Iovu, all from the Babeș-Bolyai University in Cluj-Napoca, Mrs. Elvira Cîmpianu was employed as Research Assistant.

The only person that applied for the "research master student" position, Lukács Gyula Ignác, met all job requirements and was considered suitable for this position by the same examination commission.

In addition to individual meetings between the project director and each member of the research team, when specific aspects concerning the activity of certain team members were discussed, the entire research team attended a number of specific work meetings, when all the key issues related to the research study were debated:

The first full team meeting: May 10, 2013.

The second full team meeting: June 10, 2013.

The third full team meeting: July 10, 2013.

The fourth full team meeting: August 14, 2013.

The fifth full team meeting: September 10, 2013.

The sixth full team meeting: October 10, 2013.

The seventh full team meeting: November 15, 2013.

(2) The achievement of the second research objective, collection of clinical data, implied several activities such as drawing the list of oncology institutions of interest for the research study, contacting those institutions and requesting the necessary approvals for field

research, instructing and certifying the trained operators according to the NIH code of ethics and beginning the empirical research in oncology institutions on specific subgroups of neoplasm patients. As mentioned, the institutions contacted for field research operations were the four major oncology institutes in Bucharest, Cluj-Napoca, Iasi and Oradea, plus the County Hospitals in Sfântu Gheorghe and Miercurea Ciuc.

Also in this stage of the project various cooperation methods were initiated or continued with the institutions listed below: Executive Unit for Financing Higher Education, Research, Development and Innovation (UEFISCDI), Romanian Association of Psychosocial Oncology (ARPO), European Partnership for Action Against Cancer (EPAAC), Cancer and Work Network (CANWON), Rutgers School of Social Work, School of Social Work at the University of Alabama, Romanian Ministry of Health, International Psycho-Oncology Society (IPOS), Multinational Association of Supportive Care in Cancer (MASCC), National Institute of Oncology, Budapest, Hungary (ONCOL), Central and Eastern European Society of Behavioural Medicine (CEEEM), National Association of Social Workers (NASW), Psycho-Oncology Co-operative Research Group (PoCoG), Hungarian Academy of Sciences (MTA – Domus Hungarica), The Institute of Behavioural Sciences - Semmelweis University, the Faculty of Medical Sciences - University of Debrecen, Diakonia Christian Foundation - Charity Service of the Reformed Church in Transylvania, the Caritas organization of the Satu Mare diocese, "Prof. Dr. Ion Chiricuță" Oncology Institute in Cluj-Napoca (IOCN), "Prof. Dr. Al. Trestioreanu" Institute of Oncology in Bucharest (IOB), "Dr. Gabriel Curteanu" Municipal Clinical Hospital in Oradea, the Regional Institute of Oncology in Iasi (IRO), "Dr. Fogolyán Kristóf" Emergency County Clinical Hospital in Sfântu Gheorghe, Harghita Emergency County Clinical Hospital in Miercurea Ciuc, the Philosophy and Medical Anthropology Workshop (AFSAM), the National College of Social Workers (CNASR), the Romanian Cancer Association - Common Destinies Group in Târgu Mureș, Palliative Care Network (PCN), Paliatia (Journal of Palliative Care), the Pro Helpers Association and so on. For detailed information see <http://www.psychooncology.ro/collaboration/>.

Inception of the empirical research in oncology institutions and on specific subgroups of neoplasm patients was another sub-objective of the second major objective, obtaining of clinical data. It implied preparation of an interim report on the questionnaire-based survey and completion of about half of the envisaged interviews, i.e. 30 interviews). This goal was exceeded, a number of 48 interviews being completed during the May to December 2013 interval (of which 8 in Cluj County, 18 in Mureș County, 7 in Covasna County and 15 interviews in Satu Mare County).

Regarding the evaluation based on the selected set of questionnaires, during the 8-month interval in 2013 a number of 12 work visits by the team members in hospitals and oncology clinics included in this research study were dedicated to survey implementation: in July - two to Sfântu Gheorghe (3-8.07.2013, Lukács Ignác and Cîmpianu Elvira, 21-26.07.2013 Lukács Ignác and L. Csaba Dégi), one to Oradea (17-21.07.2013, Cîmpianu Elvira, L. Csaba Dégi), one to Miercurea Ciuc (28.07-04.08.2013, Lukács Ignác and L. Csaba Dégi); in August: two in Iasi County (7-11.08.2013, Cîmpianu Elvira and L. Csaba Dégi, 22-26.08.2013, Cîmpianu Elvira and L. Csaba Dégi); in September: one to Oradea (20-24.09.2013, Cîmpianu Elvira, L. Csaba Dégi) and one to Miercurea Ciuc (25-30.09.2013, L. Csaba Lukács Ignác and Dégi); in October: one in Cluj-Napoca (IOCN) and one to Sfântu Gheorghe (11-14.10.2013, Lukács Ignác and L. Csaba Dégi); in November two to the Oncology Institute of Bucharest (10-14.11.2013, Cîmpianu Elvira, Lukács Ignác and L. Csaba Dégi, 24-28.11.2013, Cîmpianu Elvira, Lukács Ignác and Dégi L. Csaba). The 12 work visits scheduled in 2013 resulted in a number of 400 completed questionnaires out of the total target of 700, significantly exceeding the initial APSCO planning (originally scheduling a number

of 300 assessment applications in 2013). The assessments covered a wide range of cancer conditions and were fulfilled in monthly rates of 76 patients in July, 97 in August, 78 in September and 149 during October and November.

(3) The third objective was to disseminate the results obtained so far by publishing one scientific paper, delivering an oral communication and/or a poster with peer-reviewed abstracts, and creation of the website [www.psychooncology.ro](http://www.psychooncology.ro).

The publications resulted in this stage are as follows:

1. Csaba L. DÉGI (2013). In search of the sixth vital sign: cancer care in Romania. *Supportive Care in Cancer*, 21, 1273-1280. DOI 10.1007/s00520-012-1657-7.
2. Csaba L. DÉGI (2013). Assessment of psycho-social and communication needs in Romanian oncology patients (APSCO). *Supportive Care in Cancer*, 21 (Suppl 1), 156.
3. Csaba L. DÉGI & Tünde SZILAGYI (2013). Mindfulness-based stress reduction intervention in Romanian breast cancer inpatients. *Cognition, Brain, Behavior. An Interdisciplinary Journal*, 17(2), 135-148.
4. Csaba L. DÉGI (2013). Psychosocial Aspects of Cancer in Hospitalized Adult Patients in Romania. *Procedia - Social and Behavioral Sciences* 82, 32 – 38.
5. Csaba L. DÉGI, Eva KALLAY, & Maria KOPP (2013). Trends in Cancer Distress: Results of a Representative Population-Based Investigation. *Psycho-Oncology* 22 (Suppl. 3), 124–362, DOI: 10.1111/j.1099-1611.2013.3394.

A detailed presentation of the dissemination efforts in 2013 is presented below:

*In search of the sixth vital sign: cancer care in Romania* was published in May 2013 in one of the most prestigious international journals in the field of psycho-oncology research, at that time holding an impact factor of 2.649. This article can be accessed from the following link: <http://link.springer.com/article/10.1007/s00520-012-1657-7>. In this study funded by the UEFISCDI grant, the author presents a review of psychosocial and communication needs of Romanian patients diagnosed with various forms of cancer as identified on a sample of 203 cases. The article points out the high level of distress exhibited by the oncology patients that were evaluated, which associated with lower scores on the quality of life scale, a finding similar to those of other studies in literature. Regarding the psychosocial state of well-being, the study did not reveal significant differences among hospitalized or rehabilitated patients and those in palliative care. The author has applied for having this article awarded (PN-II-RU-PRECISI-2013-7-2984).

The *Assessment of Psycho-Social and communication needs in Romanian oncology patients (APSCO)* abstract of the paper presented at the International Symposium on Supported Care in Cancer, MASCC/ISOO in Berlin (June 26-29) was also published in *Supportive Care in Cancer* (impact factor of 2.649). The abstract can be accessed at <http://link.springer.com/journal/520/21/1/suppl/page/1>. In this presentation the author argued for the need to implement new perspectives, research approaches and intervention/prevention policies in the field of psycho-oncology in Romania.

The *Mindfulness-based stress reduction intervention in Romanian breast cancer inpatients* was published in extenso in *Cognition, Brain, Behavior*, an interdisciplinary journal with a prestigious editorial board indexed BDI+ in international databases. In this article, the authors investigated the effect of a mindfulness intervention on the level of anxiety, depression, coping mechanisms and quality of life in the neoplasm patients enrolled in the



study. The major result of this experimental study funded by an UEFISCDI grant (the first of its kind in Romania) was the finding that this type of intervention has reduced the sense of isolation in the experimental group of patients. This article can be accessed following the link <http://goo.gl/30yGrd>.

*Psychosocial Aspects of Cancer in Hospitalized Adult Patients in Romania* was published in *Procedia - Social and Behavioral Sciences*, an open access product focused on publishing full sets of conference proceedings, enabling fast, world-wide dissemination so that conference delegates can publish their papers in a dedicated online issue on ScienceDirect. This is the first extensive inter-disciplinary research addressing aspects of psychosocial functioning in hospitalized cancer patients in Romania, in which data obtained through extensive screening at multiple sites were processed by multivariate analysis. Based on the results of this study funded by an UEFISCDI grant, the author proposes the use of self-administered scales for effective investigation of psychosocial needs of cancer patients admitted to hospitals and clinics in Romania. This paper can be accessed at <http://www.sciencedirect.com/science/article/pii/S1877042813012883>.

*Trends Distress in Cancer: Results of a Population-Based Representative Investigation* appeared in October 2013 in one of the most prestigious international journals in the field of psycho-oncology research with an impact factor of 3.506.

This article publication was funded by an UEFISCDI grant and can be accessed at <http://onlinelibrary.wiley.com/doi/10.1111/j.1099-1611.2013.3394/abstract>.

All published studies can be accessed and downloaded from the project website, accessing the following links: <http://www.psychooncology.ro/publications/> and <http://www.psychooncology.ro/resources/>.

#### Participation in national and international conferences

The project manager and part of the team members attended several conferences and prestigious international training programs:

- 1) 31.05-03.06.2013, international conference in Nyíregyháza, Hungary
- 2) 11-13.06.2013, international conference in Miskolc, Hungary. Presented paper: Erdélyi tapasztalatok of segítő áldozatvállalásról időskori daganatos betegeknél (Transylvanian experience of sacrifice to help elderly cancer patients)
- 3) 26-29.06.2013, the International Symposium on Supported Care in Cancer, MASCC/ISOO in Berlin, Germany. Presented paper: *Assessment of Psycho-Social and Communication Needs in Romanian Oncology Patients - APSCO*. Abstract published in Supportive Care in Cancer 21 (Suppl. 1): MASCC-0451 (impact factor of 2.649).
- 4) 21-23.10.2013, "Trans-national Leadership Academy. Avoid, ignore, manage? Understanding and dealing with conflict in hospice & palliative care". A "train the trainers" programme held at Kardinal König House in Vienna, Austria, where renowned specialists in hospice and palliative care such as Ingrid Schneider and Dr. Annette Henry addressed tools and techniques that can improve the quality of life for oncology patients.

5) 05-08.11.2013, the 15th World Congress of Psycho-Oncology and Psychosocial Academy, Rotterdam, the Netherlands. Presented paper: Trends in distress cancer: results of a representative population-based investigation. Abstract published in Psycho-Oncology 22 (Suppl. 3), 124-362, DOI: 10.1111 / j.1099-1611.2013.3394 (impact factor of 3.506).

6) Palliative Care Network Community online platform, Invited lecture (2013 series): Models of Care and Strategies to Provide Early Palliative Care in Romania. Information can be found on the web page <http://bit.ly/1bSzeMM>.

All studies presented at international conferences can be accessed and downloaded from the project website, by accessing the following link:  
<http://www.psychooncology.ro/resources/>.

Updated information about participation in national and international conferences is found on the <http://www.psychooncology.ro/news/> page.

The last sub-objective of the 2013 single stage implied the design of a web page dedicated to this research project. It was completed and launched on July 26, 2013, at the <http://www.psychooncology.ro> address.

According to access reports provided by Google Analytics, as of December 1, 2013, this site was accessed 1627 times, of which more than half (a rate of 52.65%) were multiple accesses. The rate of new hits is above 78.79%.

The site access frequency is also reflected in the hierarchy of the Google browser, where the first search result after inserting key terms like “psycho oncology Romania” gives access to the project website - <http://www.psychooncology.ro>.

The site exhibits a high complexity level doubled by easy-to-follow logical coherence abiding the basic principles of digital excellence.

The HOME page describes the project’s mission and objectives, highlighting effective investigation of the specific need that cancer patients face in Romania and alignment of related services pursuing improvement in the quality of life of these patients.

The second page, NEWS, contains relevant information about national and international scientific meetings related to the research. This information is continually updated and renewed to adjust to the actual needs and interests of site readers.

The third menu option, RESEARCH, provides updated evaluation of the current psychosocial needs regarding patients diagnosed with cancer, offering a solid starting point to support and provide arguments for the entire scientific approach.

The next page, TEAM, presents the research team, providing basic information on individual skills of each member and full access to their résumés (CVs) or various course certificates.

The RESULTS section provides relevant information on psychosocial items reflected in the quality of life in neoplasm patients as resulted from our research.

The CONTRIBUTORS page lists all institutions and foundations collaborating in this project, as presented in the report.

The RESOURCES section presents a series of documents relevant to the field, which can be accessed and downloaded by those interested in deepening their knowledge in this field of growing interest.

The PUBLICATIONS section contains additional materials published by the project manager and team members that can be accessed and viewed.

The last page, CONTACT, provides contact details for the project manager.

One of the extraordinary advantages of this site is that it can be accessed in several international languages, thereby significantly favouring dissemination of information in the areas of interest.

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