GAMIAN-Europe
European Research project

April 2015

FIRST RESULTS & INTRODUCTION TO PARTNERS IN THE PROJECT

Current state of traditional, internet-based and blended depression treatment in European countries.

WP1 : LINKOPINGS UNIVERSITET (LIU) (Sweden)
WP6 : University of Bern (Switzerland)

A first report from the E-COMPARED (European Comparative Effectiveness Research on Internet-based Depression Treatment) project under the lead of the Swedish partners aimed to investigate the current state of treatment-as-usual of adult depression in routine practice as well as Internet-based treatment and blended treatment.. The methods applied included: 1. desktop research and an online survey asking key mental health care stakeholders in E-COMPARED's eight European trial countries about their perspectives on Internet-based care and treatment as usual for depression. 2. Meta-analysis, reviewing the current scientific state of the art of Internet-based depression treatment compared to (waiting list) controls and standard treatment. 3. Collecting data for Individual patient data meta-analyses (IPDMA), providing sufficient statistical relevance to explore what is known about current advantages, disadvantages and harm of Internet-based treatments compared to treatment-as-usual.

In general, first results indicate that there is a marked difference in the availability and support for internet-based depression treatments throughout Europe, associated to between-country differences in terms of e-health implementation and associated preconditions such as reimbursement policies. Mental health care stakeholders' knowledge of Internet treatment varies, but potential benefits of internet-based treatment – e.g. increased capacity in the mental health care system are readily identified. Blended depression therapy (blending traditional face-to-face and internet therapy) was generally viewed more favourably compared to stand-alone Internet-based therapy. A majority of stakeholders indicated that their organisation would/did recommend blended therapy for mild (70.5%) and moderate depression (58.4%). Finally, although the current number of studies is low, the systematic review and IPDMA? has shown that blended treatments do show promising results in terms of clinical effectiveness. It was revealed that there is a gap regarding clear descriptions of what blended treatments exactly entail in terms of face-to-face versus online components. Regarding the current state of depression care in Europe, the report concludes that gaps exist between current practice and distributed care.

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In summary, the report indicates that there is a clear need for advancing research on blended depression treatments in Europe and for informing stakeholders of the possibilities as well as the limits of internet-based and blended treatment for depression

Status update

After a year of preparations GGZ inGeest started collecting data. The Dutch study protocol is finalised, andthe data management team is in place. The Medical Ethics Committee confirmed that the "Medical Research Involving Human Subjects Act" (WMO) does not apply to the MasterMind study in The Netherlands. Therefore, inclusion of patients is approved. In January and February 2015, the first patients (n=17) within a blended CBT

programme have been included (recruited from secondary mental health care). GGZ inGeest is preparing the start of the trial at the locations of the basic mental health care in Amsterdam. GGZ inGeest is also still contacting new partners for joining the MasterMind project. Regarding videoconferencing GGZ inGeest is exploring which care units may have the greatest benefit from ccVC when used for depression care and is developing a protocol for therapists using ccVC in depression care.

Results of research work:

SWPS
SZKOŁA WYŻSZA PSYCHOLOGII SPOŁECZNEJ

SZKOLA WYZSZA PSYCHOLOGII SPOLECZNEJ (SWPS) (Poland)

The Polish member of the E-COMPARED consortium aims to evaluate current status of depression treatment in Poland and the perspectives for integrating new technologies - e.g. use of internet and mobile phone applications - in depression treatment. To accomplish this, two steps were taken. First, the team has carried out an extensive research of regulations governing depression treatment in Poland, treatment methods, their direct and indirect costs and the current level of ICT technologies integration in the mental health care system. Secondly, a survey was carried out among professionals working in the field of mental health care (e.g., psychologists, psychiatrists, GPs, researchers, policy makers) aimed at identifying their knowledge, attitudes, behaviours and expectations regarding the use of internet–based treatment.
Results of both lines of research indicate that the level of technology integration in depression treatment in Poland was low with neither internet–based nor blended treatment solutions (combining traditional therapy with internet–based sessions) being offered to patients. The use of technology is limited to managing the administrative side of the treatment (e.g. making appointments online, checking test results). In private practice it is occasionally possible to participate in the psychotherapy session via Skype or to contact the therapist via e–mail. Responding health care professionals perceived the internet–based treatment for depression as a potentially beneficial solution in treating mild and moderate but not severe depression. They considered a web-based treatment method to be useful as a support to face-to face psychotherapy or pharmacotherapy rather than as a stand–alone solution. When asked about the main advantages of internet–based treatment, respondents list its cost–efficacy, wider accessibility and lower stigmatisation for patients engaging in treatment. However, respondents were concerned with its clinical efficacy, limited access to the technology among patients and health care providers as well as with integrating the technology in the current health care system. These concerns are the challenges in the successful implementation of internet–based treatment in Poland.

Introduction to :

LEUPHANA UNIVERSITAT LUNEBURG (Germany)

LEUPHANA
UNIVERSITÄT LÜNEBURG

Leuphana University Lüneburg is a state- funded university in the northern part of Germany with around 8.000 students and 150 professors. The university combines excellence in teaching (award winning study model) and research. It has recently received 100 Mio. EUR project funding from the European Union and the Federal state of Lower Saxony. The Department of Information Systems Research at Leuphana University follows two broad research directions: one focuses on software engineering, the other on machine learning, model building, and big data. Within the first area mobile and web as well as ambient-assisted living applications have been developed and studied in several research projects.

Role in project:
The Leuphana team will develop the technical infrastructure that collects and stores the data from the internet-based interventions (WP2). This infrastructure will also serve as the back-end for building the predictive models using Genetic Programming techniques (WP4).

Personnel involved :
Prof. Dr. B. Funk, PhD (M), is professor for information systems research and Vice President for Information Technology at Leuphana University Lüneburg. His research areas encompass web and mobile applications for the eMental Health domain (architecture and usability) as well as model building and machine learning in E-Business applications. He is currently co-leading a large EU-funded project that focuses on building and evaluation internet-based and mobile interventions to treat depressive disorders.
Prof. Dr. R. Welge, PhD (M) is professor for Technical Informatics. His research focuses on ambient-assisted living, probabilistic systems as well as knowledge representation and inference. He has lead several interdisciplinary research projects funded by the German Ministry of Research and Education.

Introduction to:

INESC PORTO - INSTITUTO DE ENGENHARIA DE SISTEMAS E COMPUTADORES DO PORTO (Portugal)

INESC Porto is an Associate Lab, a private non-profit institution associated (M), and a researcher at INESC Porto with the University of Porto (Faculty of Engineering and Science), INESC and the Polytechnic Institute of Porto. Research is done by 600 researchers, (200 PhDs). In successive periodic evaluations of the Portuguese Foundation for Science and Technology, R&D work at INESC PORTO was rated as "excellent".

INESC PORTO's activity runs under the paradigm of the knowledge to value production chain: knowledge and results generated through basic research are typically injected in technology transfer projects and therefore they receive added social relevance. INESC Porto has vast experience in research projects both at the national and international level, as well as and in contracts with industry. Over the past 20 years INESC has actively participated in a number of projects in the framework of EU programmes, namely the European Strategic Programme on Research in Information Technology - ESPRIT, Advanced Communications Technology and Services – ACTS, and IST.

INESC PORTO has broad experience in developing suitable infrastructures for data collection and running complex algorithms, e.g. in the FP6 projects CAALYX and AAL eCAALYX, the FP7 ICT4Depression, and in developing new methods and techniques in the areas of data mining, artificial intelligence, and statistical data analysis, mainly used for decision support.

Role in project:

INESC PORTO will participate through the Computer Graphics and Information Systems Unit (USIG) and Laboratory of AI and Decision Support (LIAAD), addressingthe following topics: development and deployment of the technical infrastructure, data mining algorithms, software application development and system integration, all within WPs 2 and 4.

Personnel involved

Dr. A. J. Rocha, PhD: since 1998 an associate member of CERN, European Lab for High Energy Physics, IT Division/Web Office (1996-97).

He will contribute hisknowledge in software architecture, system modeling and design, interoperability and service oriented architectures.

Dr. J. Correia Lopes, PhD (M) in Computing Science from Glasgow University Assistant Professor at the Department of Informatics Engineering, Univ. of Porto, researcher at INESC Porto, teaches undergraduate and graduate courses in databases, software engineering and Web technologies.

Dr. R. Camacho, PhD (M) Associate Professor, Faculdade de Engenharia, Universidade do Porto. PhD in Electrical Engineering and Computers from University of Porto in 2000 is also a senior researcher at LIAAD, INESC Porto. He has extensive experience in the application of Data Mining to Bioinformatics and Life Sciences.

Introduction to :

UNIVERSITE PARIS XII VAL DE MARNE - (UPEC) (France)

With 32 000 students (13% foreign, >118 countries), and 12 faculties, UPEC is the largest multidisciplinary and vocational university in the Ile-de-France region. UPEC is a member of the "Université Paris-Est" Higher Education and Research Cluster, along with Paris Est Marne la Vallée University, the ENPC (School of Civil Engineering), the LCPC (Civil Engineering Central Laboratory) and ESIEE-Paris (engineering school). Within the School of Medicine, Department of Public Health, the research unit (RU) LIC (lab of Clinical Investigations) and the Paris RU in health economics (URC Eco) carry out research on the value (effectiveness and costs) of innovative technologies.

They have been involved in the majority of assessments of new diagnostic tests and devices in the past 6 years. The RU did the economic evaluation of telemedicine projects supported by the French government. UPEC works in 2 FP7 projects in Mental Health, ROAMER and Refinement. UPEC and members of URC Eco have extensive experience in collaborative research across countries and disciplines.

Role in project: WP 3 leader developing a model to evaluate the effects of the implementation of web-based depression treatment on clinical outcomes and cost in the long term, conduct a pragmatic clinical trial (WP2).

Personnel involved

Dr. K. Chevreul, PhD (F), specialist in public health. PhD from the London school of economics and political science, Master degrees in health services management and in public health in developing countries. He has been technical adviser to ministers of

health and of social security, older people, disabled and family. He is head of ERASM (applied research team in mental health), and deputy head of URC. Furthermore, he is ECO and researcher in the Public health dept. of the Henri Mondor teaching Hospital.

Prof. Dr. I. Durand-Zaleski, PhD (F), Professor in Public Health. PhD in economics and management, Paris IX University. Masters in Public Health from Harvard University and a diploma from the Political Study Institute of Paris.

She was head of the Evaluation Dept. in the National Health Authority and is head of the Paris Health Economics and Health Services RU and of the Public Health Dept. of the Henri Mondor teaching hospital in Créteil.

Dr. M.Leboyer, PhD (F), Prof. of Psychiatry at UPEC, head of the Psych. dept. at the UPEC med. Centre, runs the Lab of Genetic Psychiatry at the INSERM Mondor Biomedical Research Institute. Executive director of the mental health research foundation FondaMental, federating the French networks of specialised centres in the field of refractory depressive disorders (12 centres), 4 year follow-up cohort of 400 resistant depressive patients

B.Cadier, MSc (M), research fellow at the URC Eco since 2010. Holds a MSc in applied mathematics and has recently been working on the economic evaluation of medical devices and the modeling of the cost effectiveness of full coverage of smoking cessation in France via a Markov model.

M. Brunn, MD(M), specialised in public health, currently conducting PhD research in social policy at the Univ. of Versailles, Master in public health from EHESP, participation in FP7 projects: Dismeval, Refinement and Roamer.

<Introduction to

STICHTING VU-VUMC (VUA) (Netherlands)

vrije Universiteit amsterdam

The VUA is a large, state funded University with over 26,000 students and over 2000 academic staff. The University was founded in 1880 and throughout the past century it has continued to expand. It now comprises twelve faculties, at which research in a wide variety of technical, natural and humanitarian disciplines is conducted.

The VUA participates in two national research centres of excellence and forty accredited research schools. The high quality of research at VUA has been repeatedly recognized by visiting evaluation commissions. The Clinical Psychology Department of the VUA is part of the Faculty of Psychology and Education which hosts eleven Research Programmes and is engaged in various interdisciplinary Research Institutes.

Role in project:

The Clinical Psychology Department of the VUA will coordinate the E-COMPARED project and takes the lead in WP2 where the clinical and cost effectiveness of Internet-based treatment for depression in routine primary care and specialised care will be assessed.

Personnel involved :

Prof. dr. M.M. Riper, PhD (F) is professor of E-Mental-Health and works at the department of Clinical Psychology of the VUA in Amsterdam and the University of Leuphana in Luneburg. Her research is focused on the use of novel and innovative E-Health applications to promote the prevention and treatment of common mental disorders.

Prof. dr. P. Cuijpers, PhD (M) is professor of Clinical Psychology and head of the department of Clinical Psychology at the VU-VUmc.

Dr. A.M. Kleiboer, PhD (F) is assistant professor at the department of Clinical Psychology. Her research interests comprise finding the best evidence-based psychological treatments for people with common symptoms such as depression.

Prof. F Smit is Professor of Evidence-Based Public Mental Health at the department of Epidemiology and Biostatistics, VU University Medical Centre (VUmc), Amsterdam, and is part of the interdisciplinary research institute EMGO.

The Artificial Intelligence Section of the Computer Science department, Faculty of Sciences (FEW) is one of the leading research units in the Computer and Information Science in The Netherlands. In the project, two research groups within the Artificial Intelligence section participate, namely (1) the Agent Systems group which investigates dedicated dynamic modeling methods, techniques and tools for modeling and analysis of (large- scale) agent systems, and (2) the Computational Intelligence group, focused on learning techniques, in particular on learning by means of evolutionary algorithms and data mining techniques.

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E-COMPARED European Comparative on Internet-base

The E-compared project is part of the FP7 research programme funded by the European Commission