

## Special issue internet interventions: Editorial “integrating technology into mental health care delivery in Europe (ICare)”



Mental illness represents an enormous personal, social, and societal burden for European citizens (Wittchen et al., 2011). Existing models of mental health care delivery need to be expanded to reduce this burden. The need to move to novel models to reduce the mismatch between need and provision of mental health services has been recognized for decades, yet only recently have there been increasing calls for novel models of delivering mental health care. Psychotherapy research and practice leaders have proposed a radical change or “rebooting” in this field (Christensen and Hickie, 2010; Kazdin and Blasé, 2011; Kazdin and Rabbitt, 2013). These experts emphasized the need for consideration of different intervention contexts, especially prevention and treatment integration, and the potential of technology and non-traditional service provision to reach more people than traditional face-to-face approaches.

The pressing need to apply Information and Communication technologies (ICT) to health and healthcare systems and overcome existing barriers to implementation of these technologies has also been expressed by the European Commission in the eHealth Action Plan 2012–2020 (European Commission, 2012). The vision of this Action plan addresses both disease management, strengthening prevention and health promotion practices, sustainability and efficiency of health systems, as well as cross-border and equity aspects. It also addresses barriers, such as interoperability, technical and legal questions but also proposes research and policy priorities in eHealth to be supported by the European Commission.

In 2015, a group of European researchers and technology providers in response to a call announced by the European Commission as part of the Horizon2020 program were granted funding for a large, collaborative network to be conducted in six European countries (Germany, Austria, Switzerland, UK, Spain, The Netherlands). The overarching goal of this network is to establish a novel, comprehensive model of mental health service delivery in and across different European countries. The name of the network, “ICare”, stands for the promotion, risk detection, disease prevention, treatment, and relapse prevention of common mental health disorders (CMHD) and related conditions delivered through an online platform. Between 2015 and 2019, ICare will be integrated into different mental health services and other settings in Europe in collaboration with a network of established stakeholders (e.g., school districts, schools, universities, cities, health care providers). Within ICare, partners will examine and compare the feasibility, acceptance, efficacy and (cost-) effectiveness, reach, and dissemination of the included online interventions on the ICare platform. The comprehensive model of an online screening and intervention platform will serve as adjunct or substitute to existing health services across different parts of Europe by creating “independent e-health services” (Kazdin

and Rabbitt, 2013; European Commission, 2012).

In the past decade, a range of interventions (from universal prevention to treatment) for different mental health conditions and disorders have been developed and evaluated. The number of studies reporting on effects of online interventions for mental health conditions or disorders is already large and rapidly growing (e.g., Carlbring et al., 2018; Ebert et al., 2016; Păsărelu et al., 2017; Sander et al., 2016). However, previous research mostly focused on individual interventions for specific conditions and disorders. An online platform through which an integrated screening and a range of tailored interventions are provided to individuals with different, “transdiagnostic” risk conditions or mental disorders has not been deployed and evaluated. Nevertheless, such a model could be readily disseminated, easily adopted by organizations for independent (and flexible) use, and easily translated for use in different countries, resulting in reduced economic and societal burden for mental health services while increasing access to care and reducing health care disparities.

### 1. Characteristics of ICare interventions and studies

The ICare network is composed of 7 multi-country, clinical studies (2 efficacy randomized controlled trials (RCTs), 4 effectiveness RCTs or pragmatic trials [98] and 1 dissemination study) centered around different online interventions for the prevention and treatment of the following six common mental health problems and disorders: Depression, anxiety, alcohol- and adjustment disorders, eating problems/disorders, and obesity. All trials will recruit participants from several European countries.

Across domains, the interventions cover a broad spectrum of interventions from universal preventive interventions focusing on health promotion and strengthening resilience, targeted preventive interventions for vulnerable risk groups to self-help for individuals with identifiable symptoms of mental health disorders or for individuals with full-syndrome disorders as part of a stepped-care intervention design. All included interventions have been evaluated in previous efficacy trials and will now be evaluated in different contexts (e.g., closer to real-life conditions), with different target groups (e.g., different age groups, subclinical instead of full-syndrome samples, sample with higher comorbidity) or with regard to different outcomes (prevention outcome in addition to treatment outcome).

Additionally, three core studies and elements of the project across intervention domains and countries will focus on the following: 1. Assessment of the key collaborating stakeholders' needs and requirements for the successful implementation and dissemination of specified interventions in each country, 2. Health economic evaluation of the

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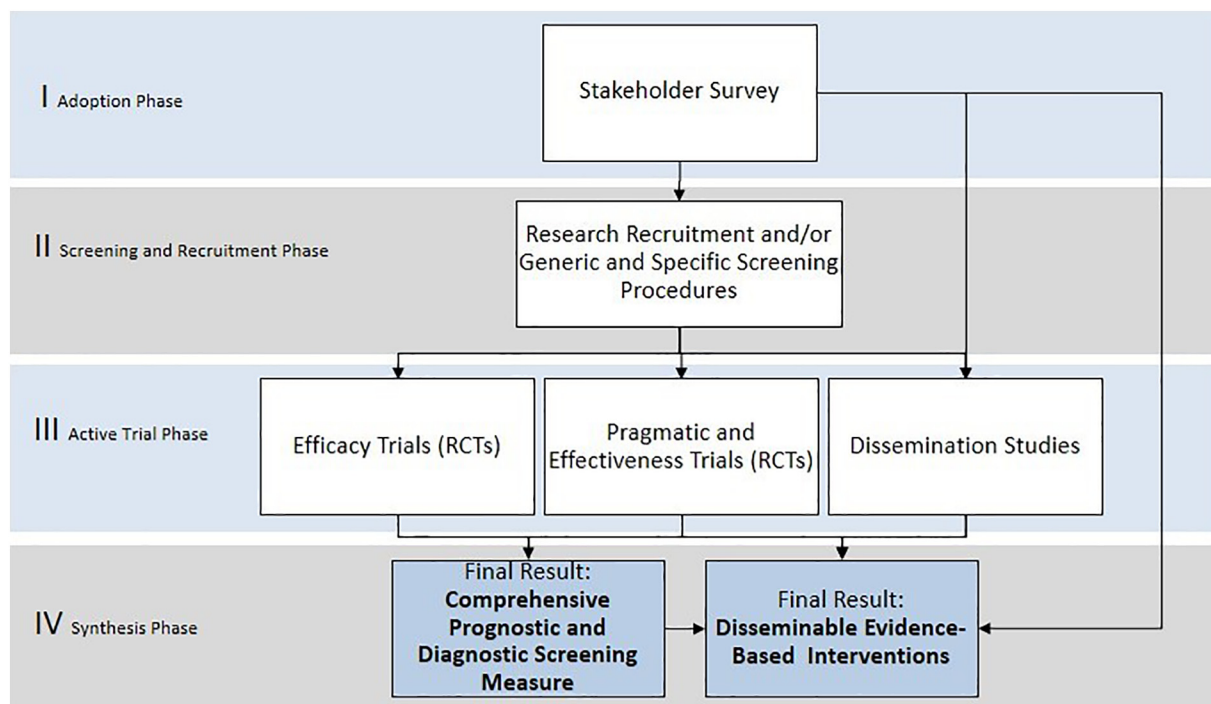
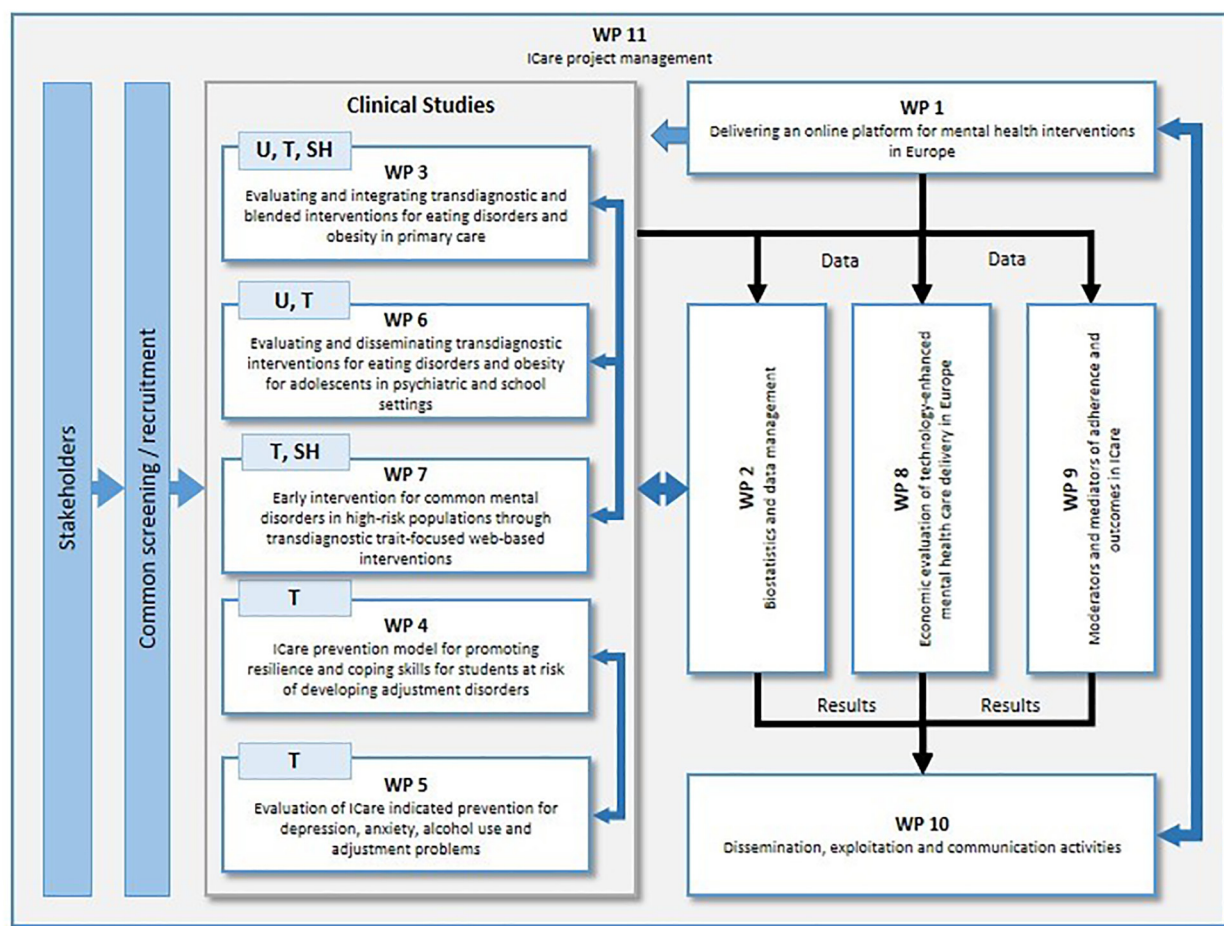


Fig. 1. ICare overall design approach.



Intervention level: U – universal prevention, T – targeted prevention, SH – self-help

Fig. 2. ICare overall project structure and work package interrelations.

interventions included in the online-platform and 3. Identification of moderators and mediators of adherence and outcomes within and across all included interventions.

The overall study design of ICare involves four different phases (Fig. 1):

- I) **Adoption Phase** to assess the key collaborating stakeholders' needs and requirements in each country for the successful implementation and dissemination of specified interventions as well as for future programs to be developed and evaluated.
- II) **Screening and Recruitment Phase** to determine overall and specific domain of risk or subclinical symptoms for the 7 clinical trials involved in ICare.
- III) **Active Trial Phase** to conduct randomized controlled efficacy trials (RCTs) for interventions without existing or sufficient evidence-base, effectiveness RCTs evaluating interventions with existing evidence-base (i.e., already evaluated under laboratory conditions in previous studies) to real-life conditions and one uncontrolled dissemination study for interventions with existing evidence-base which focus on providing the interventions to large samples.
- IV) **Synthesis Phase** to compile a comprehensive, two-stage, diagnostic and prognostic screen for all included mental health domains to refer end-users to an intervention that is suitable for them once online interventions have been implemented into general health-care.

In addition to the overall impact of ICare as outlined above, we expect the following specific impacts from the individual work packages (WPs) and included interventions: Clinically significant improvements in eating disorders (EDs) (e.g., bulimia nervosa, binge eating disorder, Other Specified Feeding or Eating Disorder (OSFED)) and reductions in risk factors for EDs (e.g. weight and shape concerns), reductions in risk and onset for obesity, increase in resilience, positive emotions and well-being and decrease in symptoms of depression and anxiety, decreased risk of onset of CMHDs and decreased therapy and other indirect health-related cost. These impacts are expected for diverse populations, age groups and settings and affect a range of stakeholders (participants/patients, health care providers, educational institutions and policy makers).

## 2. Overall structure of ICare consortium

Fig. 2 shows work package (WP) interrelations and the overall structure of the consortium. The project is managed as part of WP11 (Technische Universität Dresden, Faculty of Psychology, Department of Clinical Psychology and E-Mental Health). The core empirical work in this project will be undertaken in WP3–WP7, all of which include at least one randomized controlled trial. WP1 is closely related to each work package, as in this WP, an online platform is being created, which allows for the intervention delivery and data collection in WP3–WP7. In addition, this platform will also be used for dissemination and exploitation activities undertaken as part of WP10. All data generated in the clinical studies in WP3–WP7 will be managed by WP2. Upon completion of the trials, data will either be submitted to WP8 (for analysis of the cost-effectiveness), WP9 (for analysis of moderators and mediators), or to WP2 (for analysis of the primary and any other secondary outcomes). The results obtained in the analyses in WP2, WP8 and WP9 will be integrated and disseminated in WP10.

The purpose of this special issue is to summarize the overall goals of ICare, to report the latest advances in the field of interventions for the common mental health disorders included in ICare. We present details of the study protocols of the seven clinical trials and address questions relevant for all trials (e.g., data management, role of guidance, cost and cost-effectiveness, interrelations between participant and study variables and outcomes).

Specifically, Görlich and Faldum (in press) summarize the data

management and data protection concept for the consortium as a whole and explain main data analytic and biometric strategies of ICare. Beecham et al. (2018) address cost and cost-effectiveness aspects of the interventions included in ICare. Beintner et al. (2018) present the study protocol for overarching analyses of participant and intervention characteristics, process variables and outcomes within and across seven clinical trials in ICare. Vollert et al. (2018) present the study protocol for a randomized, controlled trial (RCT) conducted in Germany and the UK, to evaluate the Internet-based self-help intervention, everyBody PLUS compared with a waiting-list control condition for patients with bulimia nervosa, binge eating disorder and Other Specified Feeding and Eating Disorders (OSFED). Nacke et al. (2018) present the study protocol for a dissemination trial for the prevention of eating disorders conducted in Germany. The included interventions are tailored to individual risk and range from universal prevention targeting individuals without any risk factors, over selective prevention program that target woman with weight and shape concerns to indicated prevention targeting individuals with subclinical symptoms of symptoms of eating disorders. Herrero et al. (2018) describe the study protocol of an RCT conducted in Spain, Switzerland and Germany. The trial evaluates an unguided or mobile-based, online preventive intervention to improve resilience and coping skills in college students at risk for developing an adjustment disorder compared with a waiting list control group. Weisel et al. (2018) present the study protocol for a transdiagnostic, indicated preventive intervention to reduce the onset of depression and anxiety. The three-arm RCT compares the efficacy and cost-effectiveness of guided and unguided self-help with a non-treated control group and is conducted in Germany, Switzerland, Spain and the Netherlands.

Jones Bell et al. (2018) describe the study protocol of an RCT conducted in Austria and Spain, evaluating unguided or mobile-based prevention of eating disorders and obesity in adolescents in school settings. Musiat et al. (2018) present the study protocol of a randomized controlled prevention trial. The focus of this trial is on personality traits as a risk factor for common mental health disorders in university students from UK, Austria and Germany. Finally, Spencer et al. (2018) summarize the study protocol of an RCT including three versions of the online intervention “We Can” for carers of patients with anorexia nervosa in the UK and Germany.

Taken together, the articles in this issue address a novel model of health care delivery to target the most prevalent mental health problems and disorders. We hope that this compilation will inform both researchers and health care providers about the state of the art in the respective fields and most recent research questions. We also hope that the ICare network will inform policy development to further improve the prevention of mental health problems and the provision of more innovative mental health care models for diverse populations in Europe.

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