# Digital Applications in Mental Health Support

***Webinar Report***

***October 04, 2024 // 11:00 – 12:30 CET***

*Held via Zoom Webinar (University of Copenhagen)*

***In celebration of World Mental Health Day (2024)***

***Hosted by:***

*Smile (www.horizonsmile.eu)*

***Coordinating team:***

*Khaoula Mouhand (RDIUP)*

*Joyce Anne Quinto (University of Copenhagen)*

*Charlotte Marchandise (European Public Health Association)*

*Kerry Rodriguez Mc Greevy (Universidad Autonoma de Madrid)*

*Natassa Stylianou (Citizens in Power)*

***Co-organised by:***

*Advance (www.advancementalhealth.ku.dk)*

*MentBest (www.mentbest.com)*

*ReConnected (www.reconnected-project.eu)*

*BootStrap (www.internetandme.eu)*

*Improva (www.improva-project.eu)*

*ASP-Belong (www.augmentedsocialplay.com)*

***In cooperation with:***

*European Public Health Association (https://eupha.org)*

*European Health and Digital Executive Agency (https://hadea.ec.europa.eu)*

***Key Statistics:***

| *Registrations* | *Unique Viewers* |
|---|---|
| *164* | *106* |

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# Introduction

*Charlotte Marchandise, Executive Director, European Public Health Association (EUPHA).*

*Welcome to the mental health dialogues webinar series. I'm Charlotte Marchandise, the Executive Director of EUPHA - European Public Health Association, which gathers Public Health National Associations in Europe, a 47th country of the 53rd country of WHO region. We work very closely with HaDEA and the European Union. This topic is extremely important for us because public health professionals are witnessing a rapid increase in mental health challenges. We also see the increase in the use of digital technology to address mental health challenges, and in this landscape, in the post-pandemic context, digital tools have become essential in providing accessible mental health support. For us, it's important to ensure that those tools are evidence-based, equitable, and inclusive. This webinar will allow us to explore the intersection of technology, privacy, motivation, and human oversight, all critical for building sustainable mental health interventions. This discussion is organised by seven EU Horizon projects under the European Commission's call for boosting mental health in times of change. The seven projects - Advance, Smile, Mentbest, Reconnected, Improva, BootStRaP, and ASPbelong - are all powered by the European Health and Digital Executive Agency, which we call HaDEA for the rest of the time. We are also really honoured to have HaDEA represented here today.*


*The mental health dialogues is a series where researchers, practitioners, and policymakers come together to discuss the latest trends, challenges, and advancements in mental health care. Today, we'll explore pressing concerns regarding the integration of digital technology in promoting and supporting mental health and wellbeing. Digital tools for mental health are becoming cornerstones, and we must ask ourselves: Are these innovations genuinely enhancing mental health promotion, prevention, and support, or are they introducing new challenges that we are not fully addressing? How do we ensure that these mental health interventions are effective and really serve our needs in Europe? We'll try to answer these questions. We do not have formal presentations, but we will engage in dynamic, interactive discussions. You can ask provocative questions and we will direct them to our esteemed panellists.*

*Let me give you an overview of the programme for today. We start the webinar with an opening speech by Mr. Stéphane Hogan, Head of Unit at HaDEA. Then we'll have lightning talks where all seven projects will share how they use digital applications for mental health support within their project. Following that, we'll have a moderated discussion with some key questions focusing on data privacy, user motivation, adherence, and human-in-the-loop approach. Of course, we'll open the floor for Q&A and we'll close by encouraging you to keep connected for the next steps. I hope this was clear, and now I would like to give the floor to Mr. Stéphane Hogan to deliver the opening speech. The floor is yours, Stéphane.*

# Opening Speech

*Stéphane Hogan, Head of Health Research Unit, HaDEA.A3 – Health and Digital Executive Agency, European Commission*

*Thank you very much, Charlotte. My name is, indeed, Stéphane Hogan, so good morning. I am from the Health and Digital Executive Agency, which we will call HaDEA for short, where I am the Head of Unit for Health Research. HaDEA is responsible for the implementation of various programmes on behalf of the Commission, such as the Health Cluster of Horizon Europe and the Mission on Cancer.*

*But first, I'd like to thank you for this opportunity to say a few words about mental health research. I would also like to convey my apologies on behalf of my colleague, Sara Brazys, who could not be here today. However, I would like to say that we are both very excited about this cluster of seven projects and the considerable efforts that you are making to work together and what this could help deliver.*

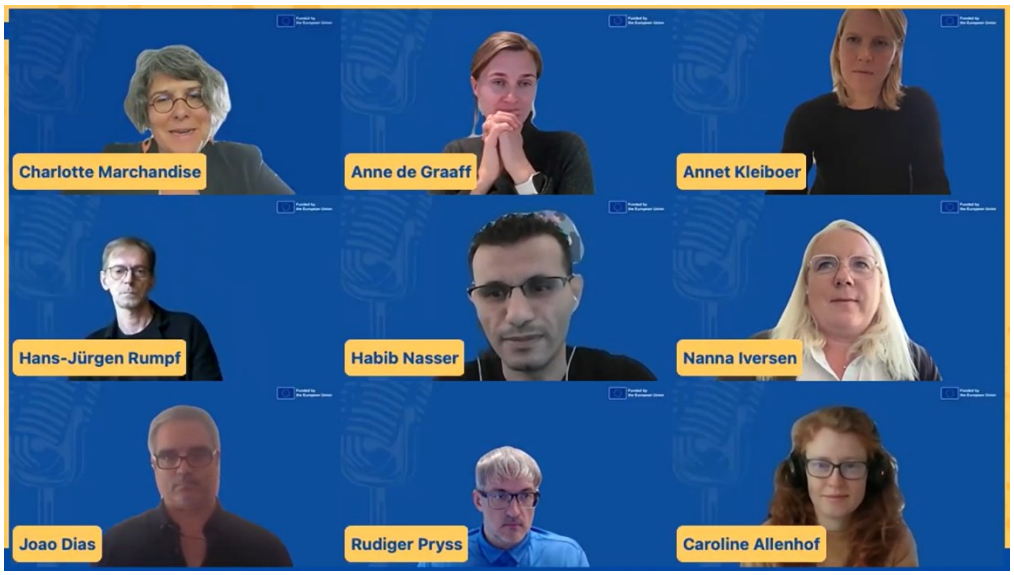

*As you know, mental health challenges have been on the rise globally, especially since the COVID-19 pandemic, which has magnified the need for comprehensive support mechanisms. The European Commission has recognised mental health as a critical issue and has significantly ramped up its support for mental health over recent years, including via research and innovation. The EU for Health programme and the Horizon Europe programme stand at the forefront of these efforts.*

*The Commission announced a comprehensive approach to mental health with 20 flagship initiatives, and EU-level funding opportunities amount to € 1.2 billion. These initiatives aim to integrate mental health into broader healthcare policies, acknowledging its pivotal role in societal well-being. Horizon Europe, in particular, is actively supporting projects that integrate digital innovation, such as the sister projects we can call them, organising the webinar today to enhance mental health promotion, mental health services, and overall care.*

*As we look ahead, digital applications have the potential to revolutionise how we approach mental health care by making support more accessible, scalable, and personalised. Digital platforms can provide real-time interventions, bridge geographical gaps and offer innovative tools for prevention, treatment, and recovery. From AI-powered counseling apps to virtual reality therapy and telemedicine services, these applications hold promise for reaching more people, particularly those in underserved or remote areas.*

*However, as we embrace this potential, we must also ensure that these tools are evidence-based, user-friendly, and ethically designed, always placing the individual's well-being at the forefront. Today's seminar is an important opportunity to share insights, discuss challenges, and explore how you can collectively harness the power of digital solutions to provide effective, compassionate, and inclusive mental health support. I wish you a very fruitful meeting. Thank you.*

# Summary of Discussions




Moderator:

- Charlotte MARCHANDISE, Executive Director, European Public Health Association (EUPHA).

Panellists:

- **Reconnected**: Annet **KLEIBOER**, Vrije Universiteit Amsterdam.
- **Improva**: Rüdiger **PRYSS**, University of Würzburg.
- **Smile**: Habib **NASSER**, RDIUP.
- **Advance**: Anne **DE GRAAFF**, World Health Organisation Geneva.
- **ASPbelong**: João **DIAS**, University of Algarve.
- **Mentbest**: Caroline **ALLENHOF**, Deutsche Depressionshilfe.
  Nanna **IVERSEN**, Monsenso.
- **BootStRaP**: Hans-Jürgen **RUMPF**, University of Lübeck.

## Lightning Talks

How does your project utilise digital applications for mental health support? Explain the specific technologies and its potential benefits for users.

**Anne De Graaff (Advance)**

- The Advance project focuses on **mental health promotion and prevention** through digital applications.
- The STARS intervention, one of Advance solutions, is a **digital chatbot** specifically designed to assist **youth experiencing psychological distress**.

**Habib Nasser (Smile)**

- Smile focuses on co-creating digital services and tools to support and motivate **young**

**people** in assessing their mental health. The project targets **depression** and **anxiety risks** among youth and aims to assist clinicians in making **faster diagnoses** and **accurate decisions** through an **explainable decision support system**.

- Two user-friendly applications are being developed: The **Companion mobile app**, which enhances **data collection** and includes an **assistive chatbot** to promote awareness of positive mental health and active well-being. A **CBT-driven gamification app** that helps adolescents learn coping skills and practices to improve **cognitive flexibility** and **resilience** against mental health risks.
- The gamification app employs **personalised scenarios** and **digital interventions**, like **storytelling**, to encourage **positive thoughts** and effective **problem resolution** in stressful situations.
- Currently, a **prototype** is being developed to integrate these models for testing and to provide valuable services and tools for both **young people** and **clinicians**.

**Caroline Allenhof (Mentbest)**

- Among other solutions, Mentbest focuses on developing and testing the **Mentina app**, which targets individuals suffering from **depression** or those at risk.
- Mentina aims to **empower users** to collect and understand their own data over time, utilising both **self-report measures** and **passively collected sensor data** from their mobile phones.
- The app provides **personalised content recommendations** based on data analysis, offering **informational articles** and **exercises** tailored to users' current needs.
- A **sophisticated rule engine** scans data for meaningful patterns, such as the relationship between **physical activity** and mood changes, allowing for timely feedback to users.
- Users receive recommendations on relevant content, helping them understand their **symptom trajectories** and how they connect to daily activities, enabling them to adjust behaviors that affect their **mental well-being**.
- The Mentina app combines **evidence-based CBT materials** with personalised feedback to support users in managing their own mental health, aligning with the overarching goal of psychotherapy interventions for depression.

**Annet Kleiboer (Reconnected)**

- Reconnected develops and tests **web and app-based self-guided digital support systems** aimed at improving the mental health of **vulnerable populations** across Europe.
- Focus populations include individuals with **low socioeconomic status** in **France** and **Kosovo**, **migrant populations** in the **UK** and **Spain**, as well as **youth** in **Denmark**, **Finland**, and **Germany**. Interventions are tailored to their unique **needs and preferences.**
- The digital interventions are implemented on the **MOODBOOSTER platform**, co-owned by INESCTECH in Porto and Vrije Universiteit in Amsterdam, primarily designed as a

**research platform** rather than for routine practice or scaling.

- Reconnected targets key areas such as **mental health literacy**, **community participation**, and **psychological resilience**.
- **Micro-interventions** supported by a **machine learning algorithm** are developed to enhance psychological resilience among users.

**Rüdiger Pryss (Improva)**

- Improva focuses on a comprehensive platform with several modules to support mental health. One module allows **psychologists** and **medical experts** to **create tailored interventions for over 10,000 students across Europe**.
- A **mobile app is utilised to monitor the mental health and well-being** of students, parents, and teachers throughout the project.
- The **web-based platform facilitates intervention creation and implementation**, allowing for individual or collaborative approaches.
- The project is set to commence a **randomised controlled trial** in **November 2024** across **four European countries**, involving more than **10,000 students**.

**Hans Jürgen Rumpf (BootStRaP)**

- BootStRaP aims to address **problematic Internet use** among **12 to 16-year-old students** in **nine countries**.
- The project includes **phases for data assessment to identify determinants of problematic Internet use** using machine learning.
- **Phase Two involves a pilot study** establishing two candidate interventions focusing on **emotional regulation and inhibitory control**.
- Follow-ups will use machine learning to develop **individualised algorithms considering specific risk factors and intervention efficacy**.
- The final phase will compare **two approaches**: one with randomised allocations and another based on algorithms for **personalised interventions**, aiming for improved outcomes in tackling problematic Internet use.

**João Dias (ASPbelong).**

- ASPbelong explores **"augmented social play"** using **augmented reality** to merge the physical and virtual worlds.
- The project integrates **immersive storytelling, interactive theater, and evidence-based psychology** to create digital interventions for **adolescent mental health**.
- An example is **ASP Number One**, where children act as students searching for clues about a missing classmate, Lena.

- Each child uses their smartphone to find markers in the classroom, promoting **collaboration in pairs and larger groups**.
- This design aims to foster **positive interactions, improve classroom dynamics**, and enhance **real-world connections and a sense of belonging**, ultimately supporting adolescents' **mental and social well-being**.

## Moderated Discussion

**1: Addressing data privacy concerns**: Recent studies reveal growing user scepticism towards digital applications, particularly regarding data privacy. How does your project address data privacy and security for users interacting with your digital tools?

**Nanna Iversen (Mentbest)**

- **User Assurance**: Emphasizing the app's safety and security is crucial for enrollment and adherence.
- **Security Measures**: The app uses a PIN code, encrypts data during transit, and provides clear communication about security in welcome emails.
- **Consent for Data Collection**: Consent is obtained from participants for data collection, and they can withdraw it at any time.
- **Private Recommendations**: Personal recommendations are delivered through a private messaging module, not visible to others.
- **User Involvement**: A co-creation network engages users to identify and address their privacy concerns.

**Rüdiger Pryss**

- **User Trust**: Over 90% of users shared their GPS data due to trust in the official institution backing the app.
- **Complexity of Data Control**: The app allows users to regulate data sharing across eight dimensions, but this complexity can overwhelm users.
- **Balance of Responsibility**: While data privacy is crucial, placing the entire burden on users can be ineffective; a balanced approach is necessary.**Privacy by Design**: Building trust through integrated privacy measures from the beginning is crucial.

**Anne De Graaff**

- **Human-Centered Design**: The design phase incorporated a human-centered approach, involving feedback from over 200 young people across six countries.
- **Limited Personal Data Collection**: The chatbot does not collect extensive personal data; users choose from predefined responses instead of providing written answers.
- **Privacy Protections**: The chatbot is password-protected, and notifications sent via SMS contain minimal information to protect users' privacy.
- **Engagement Strategy**: Users receive up to five phone calls per week from a trained helper to encourage engagement and motivation without compromising privacy.
- **Ongoing Privacy Consideration**: Privacy and data protection have been integral to the design of the intervention and will continue to be a focus as testing progresses.

**Hans Jürgen Rumpf**

- **Use of Random GPS Data**: Instead of collecting real GPS data, a method was developed to use random locations (e.g., the Pacific Ocean) to protect participants' privacy.
- **Emphasis on Safeguards**: Significant effort is invested in explaining the privacy safeguards to participants.
- **Educational Materials**: Videos have been created and translated for use in other countries to inform participants about the privacy measures in place.

**Habib Nasser**

- **GDPR Compliance**: Tools are designed to comply with GDPR guidelines and ethical standards from the early design phase.
- **User Consent**: Consent is collected from all users during recruitment, with clear communication about their rights and how their data will be used.
- **Data Security Measures**: Personal data is secured via a Keycloak server, with techniques including JWT, encryption, and authentication.
- **Structured Storage**: Patient-related information is stored on a dedicated FHIR server to ensure privacy and data protection.
- **Dynamic Authorisation**: The SAPL tool allows for dynamic authorisation based on user roles and access policies.
- **Anonymisation**: Users, especially young people, are represented by avatars in the mobile and gamification apps to protect their identity and encourage participation.

**João Dias**

- **Privacy by Design**: The project prioritises privacy during the development phase of the digital tools.
- **Ethical Framework**: An ethical framework is created by collecting empirical data from stakeholders and users during the design phase.
- **Classroom Personalisation**: Personalisation focuses on the entire classroom rather than individuals, considering existing relationships to enhance grouping.
- **Participant Security**: Framing questions is important to ensure participants feel secure when providing information, with an option to opt out.
- **Data Storage Security**: Data is stored on local machines accessible only to researchers, mitigating risks of non-anonymisable information being exposed.

**Annet Kleiboer**

- **Non-Identifiable Information**: The system does not collect identifiable information, such as names or IP addresses, simplifying security and privacy.
- **Addressing Misconceptions**: There are misconceptions about technology and algorithms

that contribute to user concerns about data security.

- **Stakeholder Engagement**: Plans to hold stakeholder meetings to discuss effective communication strategies regarding data privacy and user control.
- **User Empowerment**: Emphasis on ensuring participants understand they have choices and control over their data, and that participation is voluntary.

**2: Sustaining user motivation and adherence**: Ensuring sustained user engagement is a significant challenge in digital mental health interventions. How does your project design applications that not only motivate initial use but also support long-term adherence, while aligning with both technical requirements and medical protocols?

**Annet Kleiboer**

- **Stakeholder Involvement**: Engages stakeholders thoroughly in a structured way to adapt the intervention to their needs, ensuring relevance to end users.
- **Focus on Resilience**: Aims for self-guided interventions that help build resilience, equipping users to manage daily stress and enhancing mental health awareness.
- **User Choices**: Provides numerous options and choices for users to determine what they want to work on, promoting personalisation and engagement.
- **Feedback Integration**: Utilises algorithms to analyse user preferences and feedback, allowing for adjustments in exercises and support systems based on user interests.
- **Interactivity and Engagement**: Incorporates interactive elements such as notifications, gamification, rewards, and engaging features to encourage active participation in the intervention.

**Caroline Allenhof**

- **Diverse Needs for Adherence**: Individuals have varying needs for adherence to digital interventions, highlighting a gap in the evidence base regarding effective engagement strategies.
- **Experimentation with Strategies**: The importance of experimenting multiple strategies to create tailored interventions that cater to individual user preferences.
- **Sparking Curiosity**: Focuses on engaging users by fostering curiosity, using relatable and light-hearted content to encourage participation, reminiscent of quizzes from youth magazines.
- **Data Collection and Feedback**: Aims to use data collection and rule-based feedback to help users learn about themselves, enhancing their engagement with the intervention.
- **Gamification and Technical Support**: Implements gamification elements, such as earning badges, along with regular push notifications to remind users of the programme and encourage ongoing engagement.

**Hans-Jürgen Rumpf**

- **Focus on Motivation and Self-Efficacy**: Emphasises addressing motivation and self-efficacy to prevent participant drop-out.
- **Individualised Feedback**: Provides tailored feedback based on participants' motivation levels, enhancing their engagement.
- **Regular Progress Updates**: Shares frequent updates on participants' progress to sustain their motivation and adherence to the intervention.

**Rüdiger Pryss**

- **Contextual Relevance**: Warns against transferring findings from one project to another without considering contextual differences, highlighting that results may not be universally applicable.
- **Understanding Underlying Problems**: Fully understand the issues before implementing measures like gamification, which might improve adherence but compromise data quality.
- **Valuable Data Collection**: Stresses the importance of not only focusing on adherence but also ensuring that the data collected is meaningful and valuable for analysis.
- **Use of Contextual Information**: Advocates for collecting contextual data (e.g., asking where participants are when answering questions) to enhance the relevance and insights gained from measurements.
- **Cautious Approach**: Advises caution in relying on complex measures and suggests that small, carefully designed measures can often yield better outcomes.

**Habib Nasser**

- **User Experience Focus**: Emphasises enhancing user engagement by creating a user-friendly and intuitive application, making it easier for clinicians and users to recognise the benefits.
- **Incentives for Participation**: Discusses the implementation of a rewards system to motivate users, particularly young people, by recognising achievements related to self-reflection and data accuracy.
- **Balancing Engagement and Data Integrity**: Acknowledges the need to ensure that the focus on rewards does not lead to superficial engagement; stresses the importance of maintaining the integrity of the data collected.

**Anne De Graaff**

- **Engagement Calls**: Highlights the importance of an "engagement call" with participants prior to starting the intervention. This allows participants to ask questions and sets clear expectations.

- **Guided Component**: Including a guided component alongside a chatbot is shown to be more effective in promoting user engagement compared to unguided self-help approaches.

**João Dias**

- **Immersion and Engagement by Design**: ASPbelong intervention is intentionally designed to be fun and engaging, incorporating technology and augmented reality to enhance user interaction.
- **Storytelling as a Tool**: Highlights the innovative use of storytelling to maintain participant engagement. The narrative involves a mystery surrounding a character named Lena, which unfolds over time as users interact with the intervention.
- **User Connection**: Suggests that the storytelling approach not only engages users but also encourages them to invest in the process, as they piece together Lena's story through their experiences in the intervention.

**3: Human in the loop approach**: While digital tools offer valuable possibilities for mental health support, the role of human healthcare professionals remains crucial. How does your project integrate human expertise and oversight alongside digital interventions and ensure that human practitioners are involved when necessary?

**João Dias**

- **Complementary Tools**: Digital interventions are designed to complement, not replace, human expertise.
- **Integration with Educators**: Interventions are integrated into classroom settings with active participation from teachers.
- **Follow-Up Discussions**: Importance of follow-up discussions with educators to reinforce learning and address key issues.
- **Collaborative Approach**: Emphasis on integrating human oversight to enhance the effectiveness of digital tools.

**Habib Nasser**

- **Co-Creation with Clinicians**: Smile solutions are co-created through living labs, emphasising collaboration with healthcare professionals.
- **Assistive Tools**: Smile digital tools are designed to assist clinicians, not replace them, enhancing assessment and follow-up processes.
- **Clinician Decision-Making**: Final decisions in treatment processes remain with clinicians, acknowledging that machines cannot be fully trusted.
- **Personalised Workflow Support**: In smile, clinicians can trigger specific questionnaires for tailored remote decision-making, supporting informed choices.

- **Integration of Subjective Observations**: The platform allows young people to provide observations through reflective exercises, enriching the data collected.
- **Empathy in Digital Assistance**: The system incorporates empathy and recommendations, reinforcing the role of human oversight in the process.

**Anne De Graaff**

- **Importance of Human Oversight**: The human-in-the-loop approach is crucial for the STARS intervention in Advance.
- **Task-Sharing Model**: The approach aligns with WHO recommendations, advocating a task-sharing model where non-specialists and specialists collaborate.
- **Supervisory Role of Specialists**: Mental health professionals take on a supervisory role, training and overseeing non-specialists who deliver the interventions.

**Rüdiger Pryss**

- **Co-Creation Process**: Improva emphasises a careful co-creation process involving various stakeholders, including teachers, parents, and students.
- **Integration with Domain Experts**: The project tightly integrates digital applications with medical professionals and technical solutions, ensuring a collaborative approach.
- **Ecological Momentary Assessments**: The use of patient-reported outcome measures and ecological momentary assessments facilitates real-time feedback and data collection.
- **Feedback Protocols**: A defined protocol for feedback cycles allows for quick incorporation of changes based on results, ensuring continuous improvement and involvement of the entire team, including non-specialists.

**Annet Kleiboer**

- **No Human in the Loop**: The Reconnected intervention is designed without a human component to ensure scalability for a large population.
- **Focus on Health Promotion**: The project emphasises health promotion rather than crisis intervention, suggesting that human involvement may be less critical for those with low symptom levels.
- **Self-Help Approach**: The intervention teaches individuals how to help themselves, providing guidance on actions to take for mental health problems, thereby promoting autonomy.
- **Consideration of Effectiveness**: While acknowledging that having a human in the loop can enhance effectiveness during crises, the decision was based on the desire for a more scalable solution without the need for coaching or infrastructure.

**Anne De Graaff**

- **Diversity of Interventions**: Emphasises the necessity for a range of interventions tailored to different groups, highlighting that not all interventions need to be guided.
- **Implementation Considerations**: Acknowledges that unguided interventions are easier to implement from a logistical perspective.
- **Comprehensive Approach**: Stresses the importance of having both guided and unguided interventions to cater to the varied perspectives and needs of individuals.

# Questions from the Audience

## Question 1 from Chat (answered live):

Q1: The ability of every person to cope with an equanimous mind (aka mental health) to their daily situations and experiences is affected not only by their temperament and the choices they make, but also the systemic pressures they are going through. This is especially true for young people, who also go through hormonal changes/pressures. So, how much of an open perspective (e.g. systemic, transgenerational) do the apps have when they are "diagnosing" the challenges of young people?

**Anne De Graaff**

- Interventions cited in the webinar prioritises **self-help strategies** over diagnostic methods.
- Emphasis on **skills-building** to assist young people in coping with daily challenges, which is considered generally applicable for managing distress.
- There is less emphasis on **systemic or transgenerational** pressures within the apps' approach.

**João Dias**

- The ASPbelong game is designed to **improve social dynamics** in the classrooms.
- It raises awareness about **children with mentally ill parents**. The game promotes **perspective-taking**, allowing children to understand **Lena's perspective** and reactions. This fosters **empathy** and encourages **support** for those facing challenges.
- Uses **storytelling and shared experiences** to illustrate others' struggles.

**Annet Kleiboer**

- Mental health is influenced by **environmental, social, and societal factors**.
- Reconnected incorporates **complexity science** to understand these influences.
- Focus is on **individual coping skills** to help with stress enhancing individual capabilities to indirectly address **larger societal issues**.
- Acknowledges that **large societal changes** are difficult to influence.

**Anne De Graaff**

- Advance recognises the importance of interventions beyond psychology, such as **economic interventions** (e.g., cash transfers), that address social determinants of mental health.
- The STARS intervention focuses on **teaching self-help strategies**, acknowledging other

factors that influence mental health.

- Advance includes a partner focused on **young people experiencing climate distress**, emphasising the importance of addressing various determinants of mental health.
- Suggests combining **environmental and economic interventions** with psychological support for improved outcomes, especially for disadvantaged youth.

## Question 2 on-camera answered live:

Q2: How can we adopt a two-directional approach to mental health, where we not only support individuals in diagnosing and treating mental health conditions but also focus on cultivating mental well-being and resilience in daily life? How can professionals help people, especially young individuals, manage everyday pressures and prevent the escalation of anxiety or depression, without always resorting to a clinical diagnosis?

**Habib Nasser**

- Companion mobile app includes a **peer support feature** where adults (parents/teachers) can share experiences and skills with young users.
- Thematic discussions center on **developing positive thoughts** and flexibility when facing stress.
- Each peer support room has a **qualified moderator** to ensure safe sharing of experiences.
- This emphasis on experience sharing promotes **resilience and mental wellbeing** without relying solely on clinical diagnoses.

## Other questions answered from chat

Q1: May I ask the name of the last app mentioned by Mentbest, please?

**Caroline Allenhof**: *Within the project it is called the "MENTINA app", but when/if it will be available outside of the trial it might be easier to find it through the company's name: Monsenso.*

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Q2: Can the project representatives please explain if they use the medical model to present mental health, whereby they actually mean mental illness symptoms (or symptoms of challenges to mental health) when they are talking about mental health? For example, on the Advancementalhealth website, one reads "Mental health is a big concern in Europe". They probably mean "mental illness" or "mental challenges" is a big concern in Europe. Because mental health, aka the presence of one's peace of mind, is not a problem. It's a skill that needs to be cultivated and has to be differentiated from Mental illness/challenges.

**Joyce Anne Quinto (Advance project)**: *Hi Charis, very good point and that we indeed need to be very careful with language and message we send out there because it is important that we fight stigma. The seven projects address very different facets of mental health. In Advance, for example, and as Anne said, we actually focus on 'healthy' groups. And the interventions we are testing are*

*focused on 'promoting' mental health rather than treatment, because we are aware with the structural issues and threats that we face in Europe. In the website our message was, our mental health is at risk because of the "threats of climate change, digitalisation, socio-economic inequities, migration…*

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Q3: Which measures are implemented in detecting, directing and in reacting to detect immedeaty psychosocial crises occuring during the use of e-mental health apps?

**Attendee**: *That's a very interesting questions and point. I'd even add, that what's the line that will differentiate the real need of a e-mental health help/app vs a real medical professional.*

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Q4: I have a question to the panel, if I may. Being mental health a topic so personal and personalised, because as we know each brain is a brain and works in a different way, what's the line that differentiates these digital products vs a medical mental health professionals? Do you see them as a replacement or as an enablement tool for medical professionals to take more and better decisions?

**João Dias**: *In my perspective (and I think in general it is the perspective of ASPbelong) we do not see the type of applications we develop as replacements, but as tools that can be used to diagnose, understand, and improve mental health.*

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Q5: My question has to do with self care interventions and digital mental health interventions how effective could they be and is there hope to use digital mental health interventions in this area

**Hans Jürgen Rumpf**: *Interventions to increase digital mental health have not studied so often yet. However, some data are quite promising. In fact, a broad implementation of such interventions would be very fruitful. We hope that the BootStRaP study will add to the evidence here.*

**Attendee**: *please I want to know more about this study. Thanks.*

**Anne De Graaffe:** *Dear Didier, please get in touch with our department for more information about self-help interventions. You can check out https://www.who.int/teams/mental-health-and-substance-use/treatment-care/innovations-in-psychological-interventions to find all open-access psycholgoical interventions. DWM is an unguided self-help intervention.*

# Polls

As part of our ongoing efforts to engage the audience and gather valuable insights, we've launched four polls during the webinar. These polls are designed to capture participants' perspectives on various topics related to the geographic distribution of the attendees, as well as the topics discussed in the webinar. By inviting attendees to share their opinions, we aim to foster a dynamic environment.

## Poll #1 "Where are viewing this webinar from"

**Total Responses**: 65.

| Location | Number of Responses | Percentage (%) |
|---|---|---|
| Spain | 9 | 13.8% |
| United Kingdom | 9 | 13.8% |
| Denmark | 6 | 9.2% |
| Germany | 6 | 9.2% |
| Portugal | 5 | 7.7% |
| Belgium | 4 | 6.2% |
| Netherlands | 4 | 6.2% |
| Slovenia | 4 | 6.2% |
| Iceland | 2 | 3.1% |
| Italy | 2 | 3.1% |
| Sweden | 2 | 3.1% |
| Austria | 1 | 1.5% |
| Brazil | 1 | 1.5% |
| Croatia | 1 | 1.5% |
| Cyprus | 1 | 1.5% |
| Greece | 1 | 1.5% |
| Hungary | 1 | 1.5% |
| Indonesia | 1 | 1.5% |
| Ireland | 1 | 1.5% |
| Jordan | 1 | 1.5% |
| Lithuania | 1 | 1.5% |
| Nepal | 1 | 1.5% |
| Romania | 1 | 1.5% |

**Key Insights**

- **Top Locations:** Both Spain and the United Kingdom had the highest number of responses (13.8% each).
- **Diversity of Participation:** Responses came from a variety of countries, showcasing a diverse international audience.

## Poll #2 “Can you suggest a way to ensure data privacy is respected in digital mental health applications?”

**Total Responses**: 12.

| |
|---|
| *Encoding, password, update frequently.* |
| *Having a proper data protection protocol and ensure all staff adhere to it.* |
| *Adhere to the GDPR and national laws.*<br>*Anonymize any data.*<br>*Conduct regular audits to ensure data privacy is being respected.* |
| *1: Legislative regulation on the basis of IT best practises.*<br>*2: Official and european-wide approval of infrastructures, that aggregate, store and process mental health based data.*<br>*3: Transp information* |
| *Transparency but anonymous above all, collecting the minimum data necessary, but exposing in detail for what, why and how is colleted. Then, showing users the advantage of them sharing their data.* |
| *Use university servers.* |
| *With ad blockers and cookie deleting additions, that the applications should allow users to have.* |
| *- Encrypted data.*<br>*- Password protected.*<br>*- Follow HIPPA or similar standards and guidelines.*<br>*- Using Participants codes rather than fullnames.* |
| *Consent, Ananyumisation, Adhere to the GDPR, Minimal data required should only be collected, Publica consultation in regards to privacy should be conducted.* |
| *Probably the main thing is always to be very clear about what you are going to collect, the purpose. Also, it is important to collect exactly what is needed and no more.* |
| *Establish a board reviewing digital human rights.* |
| *Include endorsing statements from other users/patients.* |

**Key Insights**

1. **Regulatory Compliance**: Many suggestions emphasise adherence to established regulations like GDPR.
2. **Transparency and Communication**: Respondents highlighted the need for transparency in data collection, including clear communication about data collection processes, including the purpose and use of data.
3. **Data Minimisation**: Multiple respondents mentioned collecting only the minimum necessary data, reinforcing risk reduction and enhancing privacy
4. **Technical Security Measures**: Suggestions included the use of encryption, password protection, and secure servers, indicating a recognition of the need for robust technical safeguards to protect user data.

5. **User Empowerment**: Several participants advocated such as using ad blockers, ensurign anaonymity and giving control to usersover their data, which reflects a desire for user control over their personal information.

**Lessons Learned**

- **Building Trust Through Transparency**: Clear communication regarding data practices can foster trust between users and service providers.
- **Importance of Compliance**: Adhering to regulatory frameworks like GDPR is essential for protecting user rights and ensuring ethical data practices.
- **User-Centric Design**: Incorporating user feedback and preferences in data collection practices can enhance the user experience and respect for privacy.
- **Collaboration for Best Practices**: Establishing boards or committees to review and guide digital rights can provide oversight and ensure adherence to ethical standards.

## Poll #3 “Can you suggest a way to sustain long-term motivation to use a digital mental health application?”

**Total Responses**: 16.

| |
|---|
| *Integrate with other health app such as exercise tracker like the health app in iphone.* |
| *Providing user with periodic stats and insights about the information collected.* |
| *Use behavioural change available research to implement positive reinforcement and other important aspects. Ask in the beggining what kind of feedback the person would like to receive. Personalization!* |
| *In that term I consider intersenting the experience of EMPOWER project, the platform about mental health in the workplace.* |
| *1) promote awareness in the general public.*<br>*2) create trust and show beneficial use to users.*<br>*3) fair and transparent ""in-tool"" rewarding schemes.*<br>*4) enable connection of user groups"* |
| *Gamification by showing user’s progress and real impact on their mental health and life.* |
| *Check-in with users to collect feedback.* |
| *In face-face interactions with a mental health specialist, the professional rapport and relationship plays a huge role in the client wanting to continue the interaction and therapeutic work.* |
| *- Feeling of improvement through using app so that they get motivited to use it.*<br>*- An intuitive to use app.*<br>*- Continuous feedback and motivation based alert for the activities done.* |
| *1) Have a proffesional who assists with use of the app.*<br>*2) Tailor the interventionn to specific group of population and the mentla health condition.* |
| *Encourage self-reflection.*<br>*Provide tools to jog their memory of their emotional state at the beginning of the intervention.*<br>*Showcase their trajectory so they can look back and see how far they've come.* |

| |
|---|
| *Use social media mindfully by curating a positive feed and avoiding comparison.*<br>*Engage in offline activities like exercise, reading, or hobbies to maintain balance.* |
| *In my experience, the best way is to give an output of the work being done through the app and the possibility to monitor progress. Other important things are to share information about the project.* |
| *You can include gamification, some support (an online check in for 10 min without adressing their mental health in depth), attractive UX, personification, short questionnaires...* |
| *Need to see that it helps me, direct involvement, e.g. ways of personalization.* |
| *The app needs to give some kind of feedback. End-users should see the value in it.* |

**Key Insights**

1. **Integration with Existing Tools**: Many respondents emphasised the importance of integrating mental health applications with existing health apps to create a more comprehensive user experience.
2. **Personalisation and User Engagement**: Suggestions for tailoring feedback and providing personalised experiences highlight the need for applications to cater to individual user preferences and needs.
3. **Gamification**: Incorporating gamification elements to track progress and provide real-time feedback can enhance user motivation and engagement.
4. **Feedback Mechanisms**: Regular check-ins and continuous feedback were noted as critical for maintaining user involvement and ensuring the app meets their needs.
5. **Community and Support**: Building a sense of community through user connections and professional support is seen as vital for encouraging ongoing engagement with the app.

**Lessons Learned**

- **User-Centric Design**: Prioritising user needs and preferences in app design can lead to higher engagement and satisfaction.
- **Feedback and Improvement**: Continuous feedback mechanisms are crucial for adapting the app to better serve users and demonstrate its value.
- **Balancing Online and Offline Activities**: Encouraging users to engage in offline activities while using the app can promote overall well-being and reduce the risk of comparison with others on social media.
- **Building Trust Through Transparency**: Clear communication about the app's benefits and user progress can help build trust and encourage sustained use.

## Poll #4 Importance of Combining Human Support with Digital Interventions

**Poll Question:** If you are a user of these digital interventions, how important do you think it is to combine human support alongside these applications when it comes to mental health support?

**Response Scale:** 0 (Not Important) to 10 (Extremely Important)

**Total Responses:** 41.

**Summary of Responses:**

| Rating | Number of Responses | Percentage (%) |
|---|---|---|
| 0 | 0 | 0% |
| 1 | 0 | 0% |
| 2 | 1 | 2.44% |
| 3 | 2 | 4.88% |
| 4 | 0 | 0% |
| 5 | 3 | 7.32% |
| 6 | 0 | 0% |
| 7 | 6 | 14.63% |
| 8 | 9 | 21.95% |
| 9 | 4 | 9.76% |
| 10 | 16 | 39.02% |

**Key Insights**

1. **High Demand for Human Support:** A significant majority of respondents (over 80%) rated the importance of combining human support with digital interventions as 7 or higher, indicating a strong consensus on the value of personalised human interaction in mental health care.
2. **Varied Perceptions on Importance:** The responses ranged from 2 to 10, reflecting a diversity of opinions on the necessity of human support. While most respondents view it as crucial, a small minority feel less strongly about it.
3. **Strong Preference for Maximum Ratings:** The most frequent rating was 10, with 16 responses (39.02%), suggesting that many users believe human support is essential for effective mental health interventions.
4. **Moderate Support for Lower Ratings:** The lower ratings (2 and 3) indicate that there are some users (7.32%) who may feel confident using digital interventions without human oversight or support, pointing to varying levels of comfort with technology and mental health applications.

**Lessons Learned**

1. **Need for Integration of Human Elements:** Given the overwhelming importance placed on human support, future digital mental health applications should emphasise integrating human elements, such as access to professionals or peer support, alongside the technology.
2. **Personalisation is Key:** The responses suggest a need for more personalised interventions that cater to individual preferences and comfort levels with digital tools and human support. Tailoring solutions can improve user engagement and effectiveness.

## Contact Information

For any inquiries or further information regarding this webinar, please reach out to:

**Khaoula Mouhand**
European Project Manager
RDIUP
Website: www.rdiup.com
Email: khaoula.mouhand@rdiup.com

# Annex

## Programme

**Introduction** (welcome & programme overview) (2')

**Opening Speech** by **Stéphane Hogan,** Head of Unit, HaDEA.A3 – Health Research (2')

**Lightning Talks** (3' per project) (21')

**All projects:** How your project utilises digital applications for mental health support. Explain the specific technologies and its potential benefits for users.

**Moderated Discussion** (36')

**Addressing data privacy concerns (all projects)**:

*Recent studies reveal growing user scepticism towards digital applications, particularly regarding data privacy. How does your project address data privacy and security for users interacting with your digital tools?*

**Sustaining user motivation and adherence** (Reconnected, Mentbest, BootStRaP, Advance):

*Ensuring sustained user engagement is a significant challenge in digital mental health interventions. How does your project design applications that not only motivate initial use but also support long-term adherence, while aligning with both technical requirements and medical protocols?*

**Human in the loop approach (**Smile, Improva, ASPbelong, Advance**)**:

*While digital tools offer valuable possibilities for mental health support, the role of human healthcare professionals remains crucial. How does your project integrate human expertise and oversight alongside digital interventions and ensure that human practitioners are involved when necessary?*

**Q&A** (27')

**Final Message** (Announcing the Series and the global Registration Link) (2')

## Links

### Recording

Smile YouTube Channel: https://www.youtube.com/watch?v=QYFylt-Z30E

### Webinar Series Registrations

Mental Health Dialogues Series: https://ec.europa.eu/eusurvey/runner/JointWebinar2024

## One Stop Shop


Pager-one-stop-shop-7-Projects-Joint-Action.

## Communication Materials

### General Poster


### Speakers Poster

Registration to webinar series


Individual Speakers Cards and BIOs


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Vrije Universiteit Amsterdam
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Annet KLEIBOER
Vrije Universiteit, Amsterdam
RECONNECTED
Dr. Kleiboer is an Associate Professor of Clinical Psychology at the Department of Clinical, Neuro, and Developmental Psychology at Vrije Universiteit Amsterdam.
With expertise in developing and evaluating digital interventions for stress-related disorders like depression and anxiety, she is at the forefront of digital mental health innovation. Her work focuses on understanding the mechanisms behind these interventions and using novel, rigorous methods to test their effectiveness.
Throughout her career, Dr. Kleiboer has been involved in numerous national and international projects, supervised 14 PhD students and published over 90 peer-reviewed papers. In addition to her research, Dr. Kleiboer is an Associate Editor for the journals Internet Interventions and Frontiers in Psychiatry; Digital Mental Health.
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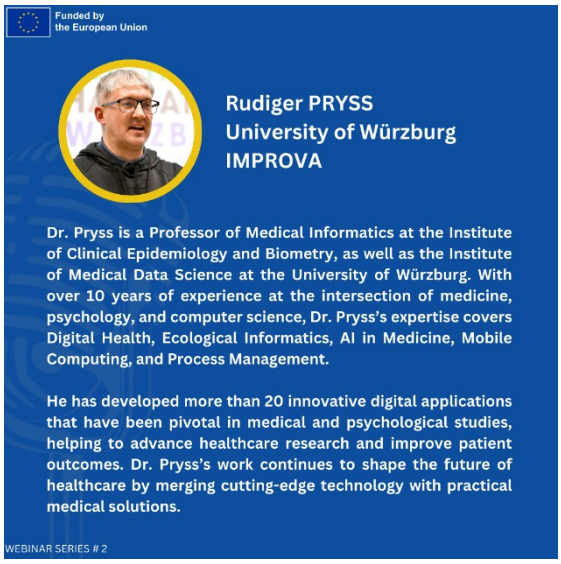
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Rudiger PRYSS
University of Würzburg
IMPROVA
Dr. Pryss is a Professor of Medical Informatics at the Institute of Clinical Epidemiology and Biometry, as well as the Institute of Medical Data Science at the University of Würzburg. With over 10 years of experience at the intersection of medicine, psychology, and computer science, Dr. Pryss's expertise covers Digital Health, Ecological Informatics, AI in Medicine, Mobile Computing, and Process Management.
He has developed more than 20 innovative digital applications that have been pivotal in medical and psychological studies, helping to advance healthcare research and improve patient outcomes. Dr. Pryss's work continues to shape the future of healthcare by merging cutting-edge technology with practical medical solutions.
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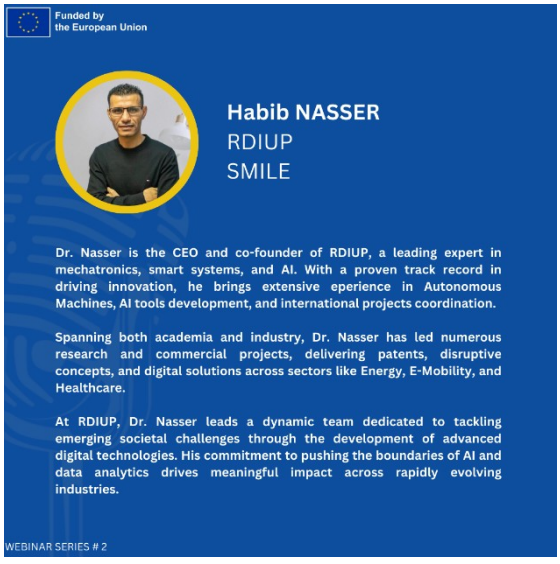
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Habib NASSER
RDIUP
SMILE
Dr. Nasser is the CEO and co-founder of RDIUP, a leading expert in mechatronics, smart systems, and AI. With a proven track record in driving innovation, he brings extensive eperience in Autonomous Machines, AI tools development, and international projects coordination.
Spanning both academia and industry, Dr. Nasser has led numerous research and commercial projects, delivering patents, disruptive concepts, and digital solutions across sectors like Energy, E-Mobility, and Healthcare.
At RDIUP, Dr. Nasser leads a dynamic team dedicated to tackling emerging societal challenges through the development of advanced digital technologies. His commitment to pushing the boundaries of AI and data analytics drives meaningful impact across rapidly evolving industries.
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WHO Geneva
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Anne DE GRAAFF
WHO Geneva
ADVANCE
Anne de Graaff is a Technical Officer in the Mental Health Unit at the World Health Organization (WHO) in Geneva. With a strong background in psychology, Anne has been involved in numerous international research initiatives, particularly focusing on mental health interventions within humanitarian settings.
As a key member of the ADVANCE project, Anne works on adapting mental health promotion interventions, both digital and face-to-face, across diverse contexts.
Driven by a passion for making mental health care accessible to those in need, Anne is committed to improving mental health service delivery for forcibly displaced persons.
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Joao DIAS
University of Algarve
ASPbelong
João Dias is an Assistant Professor at Faculty of Science and Technology at University of Algarve, and the Coordinator of CISCA (Cyber-physical Systems Research Center of Algarve). He also collaborates with INESC-ID bringing a wealth of experience in Artificial Intelligence and Human-Machine Interaction. With over 70 peer-reviewed publications and involvement in 9 research projects, Dr. Dias is recognised as a leading expert in his field.
His research focuses on the design and development of Intelligent Interactive Systems, such as Serious Games and Intelligent Learning Environments. Passionate about leveraging technology to address social and educational challenges, Dr. @Dias is committed to creating innovative solutions that have a meaningful impact on society.
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Deutsche Depressionshilfe
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Caroline ALLENHOF
Deutsche Depressionshilfe
MENTBEST
Dr. Caroline Allenhof is a psychologist and researcher specialising in digital interventions for patients with depression at Deutsche Depressionshilfe. As a key member of the MENTBEST team, she is currently working on the development of the MENTINA app, a digital solution designed to provide accessible, user-friendly, and effective mental health support.
Driven by a passion for optimising digital tools, Dr. Allenhof is committed to making mental health care more impactful and available for those who need it most.
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Nanna IVERSEN
Monsenso
MENTBEST
Nanna Iversen has been with Monsenso since 2016 and has served as Chief Operating Officer (COO) since 2020 and as a member of management since 2023.
She leads the Implementation/Support and Development teams, overseeing customer and research project implementation, support, product development, and compliance with legislative requirements.
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Hans-Jürgen RUMPF
University of Lübeck
BootStRaP
Prof. Rumpf is a renowned psychologist and Associate Professor at the Department of Psychiatry and Psychotherapy at the University of Lübeck. His expertise includes brief interventions, e-health interventions, screening, classification, and understanding the natural course of addictive behaviors, positioning him as a leading expert in addiction research.
As a member of the World Health Organization's expert group on Public Health Implications of Addictive Behaviors, Prof. Rumpf plays a critical role in shaping global health strategies. With over 450 published journal articles, his extensive research and contributions have made him a globally recognized thought leader in both academic and clinical settings.
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