

**Introduction:** Over the past few years, Psychiatry has undergone a significant transformation with the integration of Artificial Intelligence (AI). This shift has been driven by the increasing demand for mental health services, as well as advances in AI technology. AI analyzes extensive datasets, including text, voice, and behavioral data, aiding in mental health diagnosis and treatment. Consequently, a range of AI-based interventions has been developed, including chatbots, virtual therapists and apps featuring cognitive-behavioral therapy (CBT) modules. Notably, chatbots, as conversational agents, have emerged as valuable tools, assisting users in monitoring emotions and providing evidence-based resources, well-being support, psychoeducation and adaptive coping strategies.

**Objectives:** This study aims to investigate the impact of AI chatbots on improving mental health, evaluate their strengths and weaknesses and explore their potential for early detection and intervention in mental health issues.

**Methods:** A literature review was conducted through PubMed and Google Scholar databases, using keywords 'artificial intelligence', 'chatbot' and 'mental health'. The selection focused on the most relevant articles published between January 2021 and September 2023.

**Results:** Mental health chatbots are highly personalized, with a primary focus on addressing issues such as depression or anxiety within specific clinical population groups. Through the integration of Natural Language Processing (NLP) techniques and rule-based AI algorithms, these chatbots closely simulate human interactions and effectively instruct users in therapeutic techniques. While chatbots integrating CBT principles have gained widespread use and extensive research attention, some also incorporate alternative therapeutic approaches, including dialectical behavior therapy, motivational interviewing, acceptance and commitment therapy, positive psychology or mindfulness-based stress reduction. AI chatbots provide substantial advantages in terms of accessibility, cost-effectiveness and improved access to mental health support services. Nonetheless, they also exhibit limitations, including the absence of human connection, limited expertise, potential for misdiagnosis, privacy concerns, risk of bias and limitations in risk assessment accuracy.

**Conclusions:** AI-based chatbots hold the potential to enhance patient outcomes by enabling early detection and intervention in mental health issues. However, their implementation in mental health should be approached with caution. Further studies are essential to thoroughly evaluate their effectiveness and safety.

**Disclosure of Interest:** None Declared

## EPV0439

### Starting well to stay well - randomised controlled trial of Whitu, an app for improving the well-being of university students

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doi: 10.1192/j.eurpsy.2024.1144

**Introduction:** University students often face challenges to their well-being and up to a third develop mental health problems. Given high rates of smartphone use among this group, app-based digital mental health interventions may play a role in preventing these

problems. Previously demonstrated to improve well-being and mental health outcomes in young people aged 16-25, 'Whitu: seven ways in seven days' is a well-being app based on positive psychology, cognitive behaviour therapy (CBT) and psychoeducation principles.

**Objectives:** This randomised controlled trial was undertaken to evaluate the efficacy, usability and acceptability of Whitu with first year university students.

**Methods:** Ninety first year university students were recruited via a social media advertising campaign to take part in a prospective randomised controlled trial of Whitu against a standard university self-help website, with 45 participants in each arm. Primary outcomes were changes in well-being on the World Health Organisation 5-item well-being index (WHO-5) and short Warwick-Edinburgh mental well-being escale (SWEMWBS). Secondary outcomes were changes in depression on the Centre for Epidemiological Studies Depression Scale (CES-D), anxiety on the Generalised Anxiety Disorder seven item scale (GAD-7), self-compassion on the Self Compassion Scale- Short Form (SCS-SF), stress on the 10-item Perceived Stress Scale (PSS-10), sleep on the single-item Sleep Quality Scale (SQS), and self-reported acceptability of the app. Outcomes were evaluated at baseline, four weeks (primary study endpoint) and three months.

**Results:** At 4 weeks, participants in the intervention group experienced significantly higher mental well-being and significantly lower depression compared to controls. Emotional well-being among the Whitu group was greater in the intervention group at 3 months. Other outcomes did not differ between groups. User feedback was positive, with 88% of those who provided feedback saying they would recommend the app to a friend.

**Conclusions:** Our findings provide preliminary evidence that Whitu is an acceptable and more effective, scalable and multi-modal means of improving some aspects of well-being and mental health among university students than direction to a self-help website.

**Disclosure of Interest:** None Declared

## EPV0440

### Assesment of Generative AI abilities to diagnose and propose treatment in comparison with psychiatrists from Poland and Tunisia

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doi: 10.1192/j.eurpsy.2024.1145

**Introduction:** Increasing popularity of Generative AI systems such as GPT provides us with new dilemmas concerning the future of diagnosis and novel tools to improve daily psychiatrists's work.

**Objectives:** The aim of the study was to assess the abilities of generative AI to diagnose and propose treatment in comparison with real psychiatrists and performing a Turing test.

**Methods:** We examined the ability to diagnose and propose treatment of various Generative AI versions (CHatGPT/CHATGPTpro etc.) and then compare the results with 10 clinicians performing the same task. Then a group of 10 psychiatry specialists not involved in the first evaluation assessed whether the diagnosis and treatment were established by Generative AI or a clinician.

**Results:** The results showed that the generative AI systems were able to provide valid diagnosis in most of the cases with favour to newer and most proficient version of CHATGPT. Proposed treatment results were less accurate. The comparison between human and AI group was hard to accurately assess, with tendency to favouring psychiatrists group assessment as the right decision.

There is huge need to further explore the possibilities and limitations of Generative AI use in psychiatry.

**Conclusions:** There is huge need to further explore the possibilities and limitations of Generative AI use in psychiatry.

**Disclosure of Interest:** None Declared

## EPV0441

### Evaluation of an App-based brief Cognitive Behavioral Therapy for individuals with Nonsuicidal Self-injury

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doi: 10.1192/j.eurpsy.2024.1146

**Introduction:** Nonsuicidal self-injury (NSSI), the deliberate and direct destruction of one's own body tissue without suicidal intent, has represented a significant public health concern among adolescents and young adults worldwide, yet they have limited access to evidence-based interventions. App-based digital therapy, with its advantages of high cost-effectiveness, accessibility, and user receptivity, could be an effective intervention for NSSI. We expected that the use of an app-based brief cognitive-behavioral therapy (CBT) would improve depressive symptoms and emotion dysregulation, the most prevalent symptoms among individuals with NSSI.

**Objectives:** This study aimed to evaluate the efficacy of a 3-week app-based brief CBT program focusing on cognitive distortion correction for individuals with NSSI.

**Methods:** A total of 34 participants who engaged in NSSI were included in the final analysis, with 18 individuals assigned to the 'app group' and 16 to the 'waitlist group.' The brief CBT program consisted of three quizzes designed to prompt the users to identify cognitive distortions embedded in a series of short scenarios, develop more realistic perspectives, and imagine advising to significant others. The app group was instructed to complete three quizzes per day for three weeks, while the waitlist group received no intervention.

**Results:** Baseline and follow-up assessments of depression and emotion regulation were conducted. After the 3-week program, the app group showed a significant reduction in depressive symptoms ( $F = 8.30, P = .007$ ) compared to the waitlist group. There was no group difference regarding emotion regulation.

**Conclusions:** Depression is a prominent symptom in individuals with NSSI. Our findings suggest that an app-based brief CBT

intervention targeting cognitive distortions can effectively alleviate depression in individuals with NSSI. The results also highlight the need for digital interventions that are tailored and designed to improve emotion regulation in this population.

**Disclosure of Interest:** None Declared

## EPV0443

### Mitigating Psychological Symptoms in Public Safety Personnel Through Supportive Text Messaging Program

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doi: 10.1192/j.eurpsy.2024.1147

**Introduction:** Public safety personnel (PSPs) often suffer from mental health issues due to the challenging and intricate nature of their work. Various barriers may prevent them from seeking necessary support and treatment. Therefore, implementing innovative and cost-effective interventions can potentially enhance the mental well-being of PSPs.

**Objectives:** The study sought to assess the influence of the Text4PTSI program on symptoms of depression, anxiety, trauma, and stress, as well as the resilience of public safety personnel after six months of receiving supportive text message intervention.

**Methods:** PSP subscribed to the Text4PTSI program and received daily supportive 1 SMS text messages for six months. Participants were invited to complete standardized self-rated web-based questionnaires to assess depression, anxiety, posttraumatic stress disorder (PTSD), and resilience symptoms measured on the Patient Health Questionnaire-9 (PHQ-9), Generalized Anxiety Disorder-7 scale (GAD-7), Posttraumatic Stress Disorder Checklist-Civilian Version (PCL-C), and the Brief Resilience Scale (BRS), respectively. The assessment of mental health conditions was conducted at enrolment, six weeks, three months, and six months after enrollment.

**Results:** One hundred and thirty-one subscribers participated in the Text4PTSI program. A total of 31 participants completed the baseline survey, and 107 total surveys were recorded at all follow-up time points. The baseline prevalence of likely major depressive disorder (MDD) was 47.1%, likely generalized anxiety disorder (GAD) was 37.5%, low resilience was 22.2%, and likely PTSD was 13.3%. At six months post-intervention, the prevalence of psychological conditions. There was a decrease in the mean scores on the PHQ-9, GAD-7, PCL-C, and the BRS from baseline to post-intervention by 25.8%, 24.7%, 9.5%, and 0.3%, respectively. However, the decrease was only statistically significant for the mean change in GAD-7 scores with a low effect size ( $t(15) = 2.73, p = 0.02$ ).

**Conclusions:** The results of this study suggest a reduction in the prevalence of likely MDD as well as the severity of anxiety symptoms from baseline to post-intervention for subscribers of the Text4PTSI program. The program has the potential to complement existing services, aiding in mental health support for public safety personnel.

**Disclosure of Interest:** None Declared