and end of the ASCL1 gene. The sgRNA construct was transduced into the SH-SY5Y-Cas9 cell line in parallel with a nontemplate control (NTC gRNA) as a negative control. Cas9 expression was induced with oxytetracycline for 2 days. Individual clones were obtained by serial dilutions. *ASCL1* partial deletion in the clones was confirmed by PCR followed by Sanger sequencing. Disruption of ASCL1 protein synthesis was confirmed by western blot analysis. SH-SY5Y differentiation was induced by retinoic acid (RA). The transcriptomes of mutant clones and NTC controls before and after RA-induced differentiation were sequenced using Illumina technology.

**Results:** RNAseq data show that a wide range of genes are differentially expressed between control NTC gRNA and wild-type SH-SY5Y. This can be explained by insertional mutagenesis of lentiviral vectors and/or cellular response to the presence of lentiviral constructs. Therefore, we compared the transcriptomes of the ASCL1-del line with NTC control. Differentially expressed genes (DEGs) are predominantly associated with the pathogenesis of SZ, bipolar and depressive disorders. DEGs in ASCL1-del are involved in cell mitosis, neuronal projection, neuropeptide signaling, and formation of intercellular contacts including the synapse. During RA-induced differentiation, ASCL1 activity is restricted to the regulation of a small subset of genes involved in neuroplasticity.

**Conclusions:** We have established a valid cellular model to study ASCL1-mediated mechanisms associated with SZ. ASCL1 dysfunction promotes SZ development predominantly before neuronal differentiation begins, slowing cell proliferation and preventing the formation of neuronal signatures.

**Disclosure of Interest:** None Declared

## Mental Health Care

### EPP0589

### A Randomized Clinical Trial Comparing the Effects of Mindfulness-Based and Cognitive Behavioral Therapy-Based Stress Reduction in Medical Students

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**Introduction:** Medical students face an enormous amount of stress (Dyrbye LN *et al. Ann Intern Med* 2008; **149:** 334-41). They suffer from higher rates of depression, anxiety, and suicide compared to the general population. Despite experiencing more mental health problems, there is a lack of research exploring ways to improve their mental health. Although there are a few small sample studies investigating the effectiveness of Mindfulness-Based Stress Reduction (MBSR) on medical students, there is no study comparing its effectiveness against an active intervention group in the literature (van Dijk I *et al. Acad Med* 2017; **92:** 1012-1021)
**Objectives:** We aimed to compare the effects of the Mindfulness-Based Stress Reduction (MBSR) and the Cognitive Behavioural

Based Stress Reduction (CBSR) group interventions on depressive and anxious symptoms and perceived stress of medical students.
**Methods:** 323 medical students applied to participate in one of the group interventions and were assessed with the Mini International Neuropsychiatric Interview. Of these, 253 (77% female, mean age=21.9 ± 2.9 years) were allocated into online MBSR (n=127) and online CBSR (n=126) groups after randomization. Their anxiety and depressive symptoms and perceived stress levels were assessed at baseline and after 8 weeks of interventions. 33,2% of participants (MBSR: n=39; CBSR: n=45) completed the protocol by attending five or more sessions. Both intention-to-treat (ITT) analysis and per-protocol (PP) analysis were used to assess outcomes. In the ITT analysis, we used multiple imputation to address missing values. All assessments and group interventions were done online.
**Results:** In the ITT analysis, both MBSR and CBSR were found to be slight to moderately effective in reducing symptoms of depression (MBSR: d=.50; CBSR: d=.40), anxiety (MBSR:d=.73; CBSR: d=.52), and perceived stress (MBSR: d=.48; CBSR: d=.42), but they were no superior to each other. In the PP analysis, both interventions moderately to strongly improved the symptoms of depression (MBSR: d=1.03; CBSR: d=.74), anxiety (MBSR: r=-.74; CBSR: r=-.72), and perceived stress (MBSR: r=-.80; CBSR: r=-.68). While there was no statistically significant difference between them in reducing depressive symptoms and perceived stress, MBSR was found to be significantly more effective than CBSR in reducing anxiety symptoms (u=469, z=-2.756, p=0.006).
**Conclusions:** Both MBSR and CBSR improve symptoms of depression and anxiety in medical students after 8 weeks of interventions. Completing the protocol or attending more sessions may increase the effectiveness of the interventions. While the interventions did not show superiority to each other in terms of effectiveness in reducing depressive symptoms and perceived stress, MBSR appears to be more effective in reducing anxiety symptoms compared to CBSR in the group that completed the protocol.

**Disclosure of Interest:** None Declared

### EPP0590

### Validating and Adapting the Brief Resilient Coping Scale for Greek Humanitarian Workers

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**Introduction:** Humanitarian workers (HWs) face significant challenges while providing aid to those in need, often leading to psychological exhaustion and the risk of primary or secondary trauma.
**Objectives:** Our study aimed to validate and adapt the Greek version of the Brief Resilient Coping Scale (BRCS) for HWs in Greece.

**Methods:** We conducted a cross-sectional study between September and December 2022. Participants were recruited through a self-administered questionnaire distributed via social media to humanitarian groups. Additionally, the questionnaire was sent via email to these groups' members, who then forwarded it to their respective networks. The questionnaire included the BRCS, a 4-item measure designed to capture tendencies to cope with stress in a highly adaptive manner. A score of 4-13 points indicates low resilient copers, 14-16 points medium resilient copers and 17-20 points high resilient copers. Cronbach's alpha was used to assess internal consistency. Confirmatory Factor Analysis (CFA) was employed to evaluate model fit. Adequate or good fit criteria included a χ2 test p-value ≥ 0.05, Root Mean Square Error Approximation (RMSEA) ≤ 0.08, Standardized Root Mean Squared Residual (SRMR) ≤ 0.05, and a Comparative Fit Index (CFI) or Tucker–Lewis Index (TLI) ≤ 0.90. Statistical analyses were performed using STATA and SPSS software.

**Results:** A total of 151 humanitarian workers (76% females), with a mean age of **39.3**±10.6 years participated in the study. The mean BRCS score was 65.6/100. Participants were categorized as follows: 34.6% as low resilient copers, 38.6% as medium resilient copers, and 26.8% as high resilient copers. Cronbach's alpha for the BRCS was 0.84, indicating good internal consistency. CFA results supported the one-factor solution proposed by the original researchers, with acceptable global fit indices: Chi-square p-value = 0.303, SRMR = 0.028, RMSEA = 0.036, CFI = 0.991, TLI = 0.974.

**Conclusions:** The findings of our study show that the Greek version of BRCS is a valid and reliable tool that can be used to evaluate resilient coping among humanitarian workers in Greece.

**Disclosure of Interest:** None Declared

pursue mental well-being with the modified death concept. We mainly searched the PubMed and Web of Science databases using relevant keywords. All retrieved studies were assessed for eligibility to reduce the selection bias.

**Results:** Current cybernetics have meaningfully recontextualized death that allows interaction with deceased individuals (for example, scholars and artists) to establish their virtual, besides biological, existence using AI-based chatbots. Furthermore, AI consistently provides evidence-based answers to public health inquiries; nevertheless, it may offer unsuitable advice rather than referrals that can sometimes facilitate suicide or harm (instead of help) people in grief, thus requiring more fine-tuned governance. Accordingly, the maladaptive use of existing AI-related communication (such as metaverse characters) can increase Internet addiction prevalence and further complicate autonomy and self-motivation. In addition, excessive internet access is frequently associated with reduced self-control, cognitive flexibility, and exaggerated automatic processing.

**Conclusions:** We are challenged to acknowledge the tradeoffs of AI and consider ways to compromise by employing flexible perspectives. The emerging concept of death affects or improves the conventional one. The potential advantages and pitfalls of AI-related technology must be carefully weighed against the profound effects they may have on people's identities, relationships, and mental health. These issues require continued monitoring and assessment in light of the AI/cybernetic-related studies. We hope these results will inspire further research into the appropriate use of AI and palliative care, including suicide prevention, euthanasia, and grief management.

**Disclosure of Interest:** None Declared

## EPP0591

### Artificial intelligence, Internet addiction, and palliative care

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**Introduction:** Recent advances in artificial intelligence (AI) have recaptured and revised the essential roles of death in life and mind. However, their prospects and risks require further study. Because of the development of digital technologies (for example, AI-based chatbots), the process of bereavement may have become complex, immersive, and even addictive. Furthermore, AI-enabled generation of medical notes can ease the administrative burden for healthcare professionals; however, the clinical application of generative AI remains largely speculative.

**Objectives:** This study aimed to illuminate the emerging concept and experience of death, bereavement, and addiction associated with cybernetics, thereby expanding their cognitive and ethical aspects.

**Methods:** In this preliminary review, we performed a literature search to identify the current state-of-the-art literature on AI and Internet addiction. We also inspected the possible adaptations to

## EPP0592

### Assessing Changes in Quality of Life Measures, Resilience, and Personal Recovery, Pre- and Post-Discharge from Inpatient Mental Health Units in Alberta: Analysis of Control Group Data from a Randomized Trial.

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**Introduction:** The transition from hospital to community settings for most mental health service users is often hindered by challenges that affect community adjustment and continuity of care. The first few weeks and days after discharge from mental health inpatient units represent a critical phase for many service users.

**Objectives:** This paper aims to evaluate the changes in quality of Life status, resilience, and personal recovery of individuals with mental health challenges recently discharged from acute mental health care into the community.

**Methods:** Data for this study were collected as part of a pragmatic stepped-wedge cluster-randomized, longitudinal approach in