

"Digital Mental Health: From Telepsychiatry to AI"

Introduction

- Overview of digital mental health
- Current trends and technologies

Telepsychiatry

Part 1.

- *Historical review of TP*
- *Patients´ and professionals´ attitudes toward TP*
- *TP impact on therapeutic relationship*
- *TP evidence and practice*

Part 2.

- **How to set up a standardized Telepsychiatry service** (*equipment, the room, development of a protocol, ethical considerations; specific populations and settings i.e. clinically supervised vs unsupervised settings; primary care settings; in- and outpatient facilities etc*).
- Advantages and disadvantages of home-based and institution-based TP

Part 3.

- **DO`s and DONT`s related to remote consultations:**
- *Pre-session preparation and "framing".*
- *Legal and regulatory issues: informed consent, privacy, and confidentiality.*
- *Getting started with patients: adjusting personal and professional styles*
- *During and after the TP session*

AI based applications and approaches

Part 1.

Digital Assessment and Diagnosis (Early Detection and Diagnosis)

- AI-driven early detection
- Use of wearables and mobile apps (*Monitoring and Long-Term Care*)

Part 2.

Digital Interventions

- Personalised Treatment Plans
- AI supported CBT & VR therapy
- Effectiveness and outcomes

Part 3.

Ethical Considerations

- Concerns over safety and trustworthiness
- Data security and informed consent

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Speakers: D. Mucic, J. Torous, D. Hilty

Suggested readings:

TELEPSYCHIATRY:

1. WPA Telepsychiatry Global Guidelines, 2021. Available at: https://3ba346de-fde6-473f-b1da536498661f9c.filesusr.com/ugd/e172f3_19ce700c2a1f484b98efdcaf02c3c6ff.pdf
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3. Shore J.H. , Yellowlees P, Caudill, R. et al. Best Practices in Videoconferencing-Based Telemental Health April 2018 . *Telemedicine and e-Health* , Vol. 24, No. 11., 2018. Available at: <https://www.liebertpub.com/doi/full/10.1089/tmj.2018.0237>
4. Mucic D. Transcultural telepsychiatry and its impact on patient satisfaction". *Journal of Telemedicine and Telecare* 2010; 16: 237–242. Available at: <https://davormucic.com/academic-papers/>
5. Mucic D. International Telepsychiatry, patient acceptability study". *Journal of Telemedicine and Telecare*. 14:241-243, 2008. Available at: <https://davormucic.com/academic-papers/>
6. Mucic D. Training in Telepsychiatry. In: Edmond H. Pi, Tan Chay Hoon and Marc H.M. Hermans (Eds). *Mental Health and Illness Worldwide. Education about Mental Health and Illness* , Springer publisher, 2018. Available at: [Training in Telepsychiatry](#)
7. D. Mucic, J. H. Shore, D. M. Hilty, K. Krysta, M. Krzystanek. Lessons Learned or Forgotten? Impacts of COVID-19 on the Future Direction of Global (e-)Mental Health Care. *Current Psychiatry Reports* (2021) 23: 86. Available at:

Lessons Learned or Forgotten? Impacts of COVID-19 on the Future Direction of Global (e-)Mental Health Care

AI :

1. Lee EE, Torous J, De Choudhury M, Depp CA, Graham SA, Kim HC, Paulus MP, Krystal JH, Jeste DV. Artificial Intelligence for Mental Health Care: Clinical Applications, Barriers, Facilitators, and Artificial Wisdom. *Biol Psychiatry Cogn Neurosci Neuroimaging*. 2021 Sep;6(9):856-864. doi: 10.1016/j.bpsc.2021.02.001. Epub 2021 Feb 8. PMID: 33571718; PMCID: PMC8349367.
2. Harvey PD, Depp CA, Rizzo AA, Strauss GP, Spelber D, Carpenter LL, Kalin NH, Krystal JH, McDonald WM, Nemeroff CB, Rodriguez CI, Widge AS, Torous J. Technology and Mental Health: State of the Art for Assessment and Treatment. *Am J Psychiatry*. 2022 Dec 1;179(12):897-914. doi: 10.1176/appi.ajp.21121254. Epub 2022 Oct 6. PMID: 36200275.
3. Breitinger S, Gardea-Resendez M, Langholm C, Xiong A, Laivell J, Stoppel C, Harper L, Volety R, Walker A, D'Mello R, Byun AJS, Zandi P, Goes FS, Frye M, Torous J. Digital Phenotyping for Mood Disorders: Methodology-Oriented Pilot Feasibility Study. *J Med Internet Res*. 2023 Dec 29;25:e47006. doi: 10.2196/47006. PMID: 38157233; PMCID: PMC10787337.
4. Romanowicz M, Croarkin KS, Elmaghraby R, Skime M, Croarkin PE, Vande Voort JL, Shekunov J, Athreya AP. Machine Learning Identifies Smartwatch-Based Physiological Biomarker for Predicting Disruptive Behavior in Children: A Feasibility Study. *J Child Adolesc Psychopharmacol*. 2023 Nov;33(9):387-392. doi: 10.1089/cap.2023.0038. PMID: 37966360; PMCID: PMC10698791.
5. Dellazizzo L, Potvin S, Luigi M, Dumais A. Evidence on Virtual Reality-Based Therapies for Psychiatric Disorders: Meta-Review of Meta-Analyses. *J Med Internet Res*. 2020 Aug 19;22(8):e20889. doi: 10.2196/20889. PMID: 32812889; PMCID: PMC7468638.
6. Schueller SM, Wasil AR, Bunyi J, DeRubeis RJ, Weisz JR. Mental Health Apps for Children and Adolescents: A Clinician-Friendly Review. *J Am Acad Child Adolesc Psychiatry*. 2023 Dec 18:S0890-8567(23)02251-7. doi: 10.1016/j.jaac.2023.07.1004. Epub ahead of print. PMID: 38123125.
7. Meyer A, Wisniewski H, Torous J. Coaching to Support Mental Health Apps: Exploratory Narrative Review. *JMIR Hum Factors*. 2022 Mar 8;9(1):e28301. doi: 10.2196/28301. PMID: 35258468; PMCID: PMC8941429.