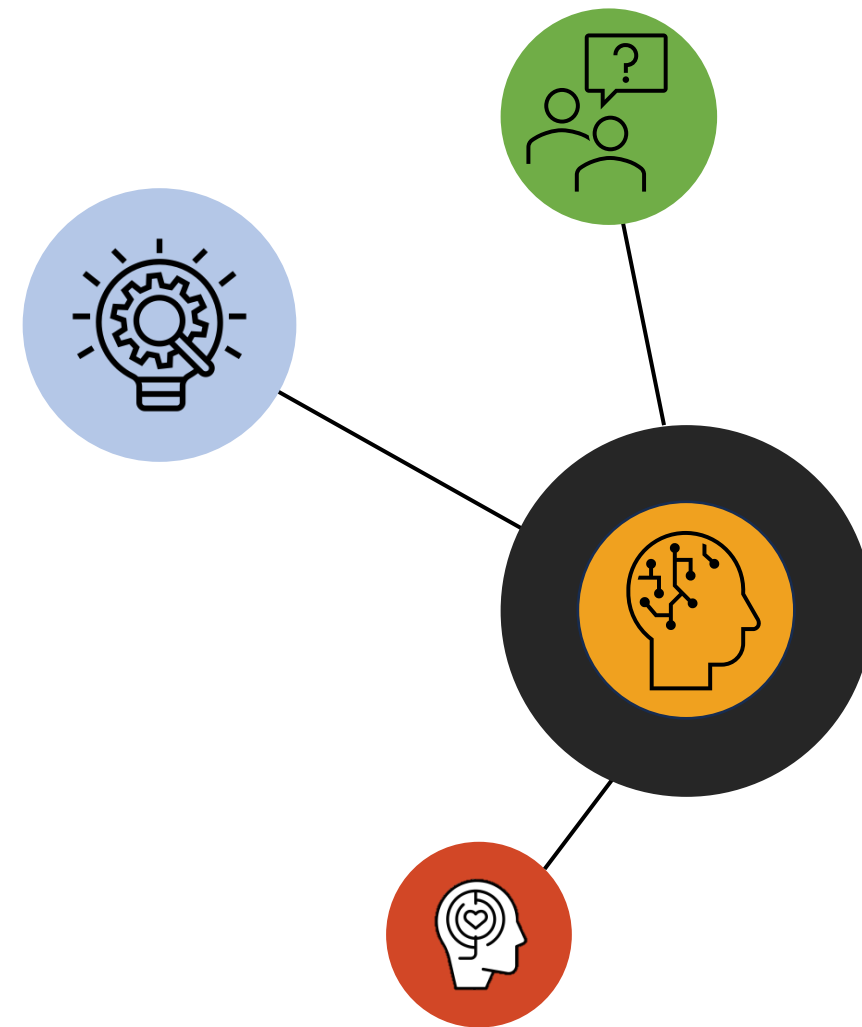


A potential impact of mindfulness intervention on emotional intelligence in postgraduate pharmacists

Dejan Senćanski, PhD, MBA, Health Care Consultant, LNS Consulting & Human Development, Belgrade, Serbia

Valentina Marinković, PhD, Full Professor, Faculty of Pharmacy, University of Belgrade, Belgrade, Serbia

Ivana Tadić, PhD, Institut für Pharmazie, Clinical Pharmacy Section, Universität Innsbruck, Innsbruck, Austria



Background: Emotional intelligence (EI) and Pharmaceutical Care

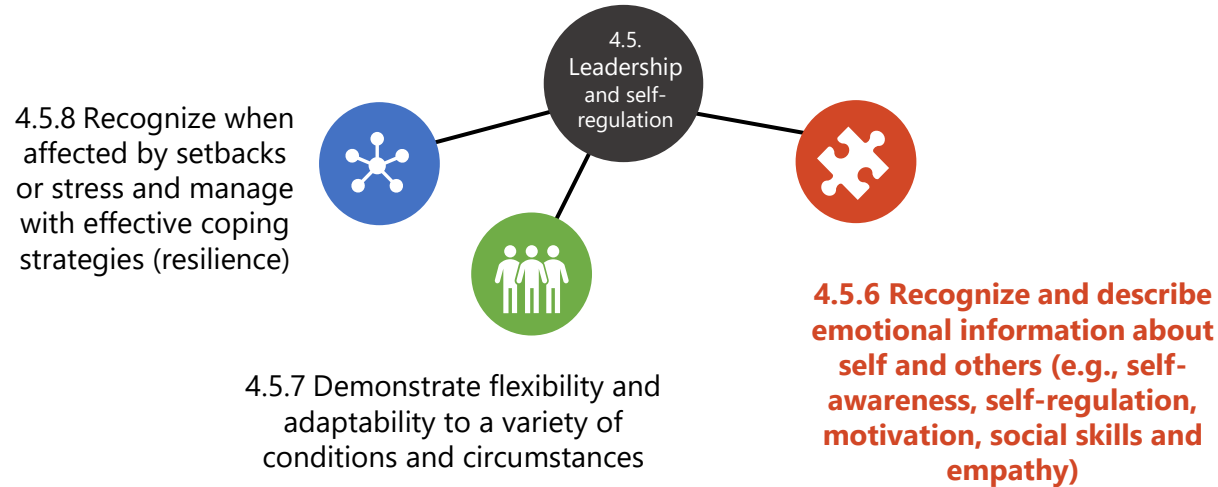


Figure 1. Essential skill set for pharmacists in Pharmaceutical Care^{1,2,3}

Emotionally intelligent clinical pharmacists (CP) may develop effective stress-coping strategies^{4,5,6}

Mindfulness practice may elevate EI levels in healthcare professionals⁷



Figure 2. Characteristics of an emotionally intelligent clinical pharmacist (the relative frequency of a code is indicated by its size)⁴

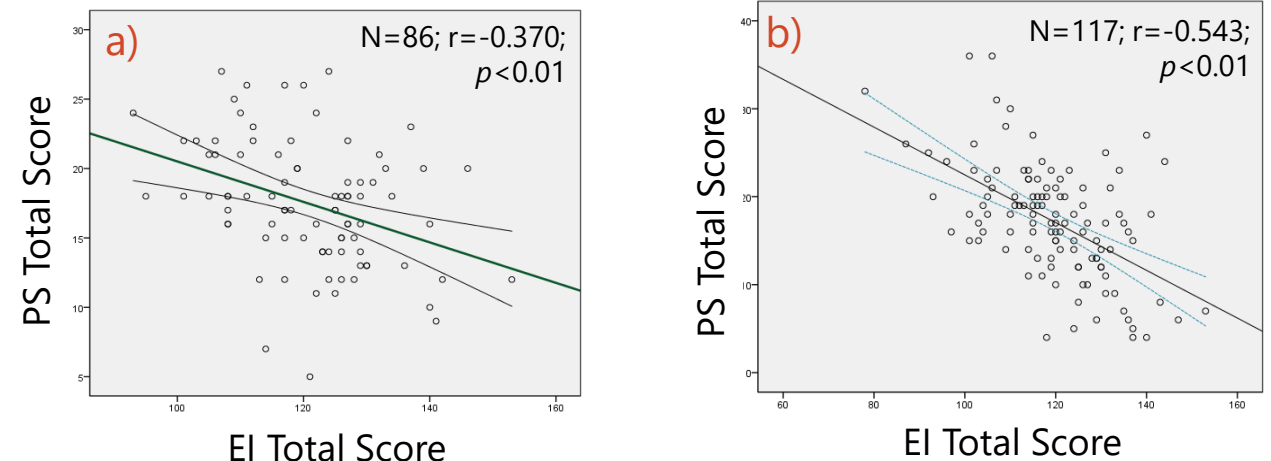
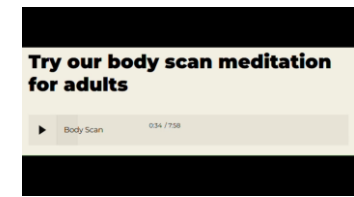


Figure 3. Pearson correlation between EI and PS total scores amongst a) community pharmacists⁵ b) postgraduate pharmacists (different practice domains)⁶

Purpose and Method



Source of the Exercise: <https://www.smilingmind.com.au/smiling-mind-app> Accessed 23.01.2025

To test the **potential impact of mindfulness intervention on EI levels** in postgraduate pharmacists and to **correlate EI and perceived stress levels** before and after the intervention

Type of the study: interventional with pretest-posttest design

Population: postgraduate pharmacists (CPs, Pharma Industry (PhI)-QA, PhI-M&S, Others (CRO & Logi)

Sampling method and the setting: purposeful sampling; Faculty of Pharmacy, University of Belgrade, Serbia

Intervention: two trainings on EI and *Mindfulness techniques* (180 minutes, meditation (*"focused attention and open monitoring"*), journaling, intention-setting & gratitude practices)

Outcome measurement: EI scale: **Genos Emotional Intelligence Inventory (GEII) Scale - Concise Version** (31 items)⁹, **Perceived Stress Scale (PS)** (10 items)¹⁰

Statistics: Paired Samples T-Test, Wilcoxon Signed-rank Test, ANOVA, correlation (*Pearson's or Spearman's correlation test*)

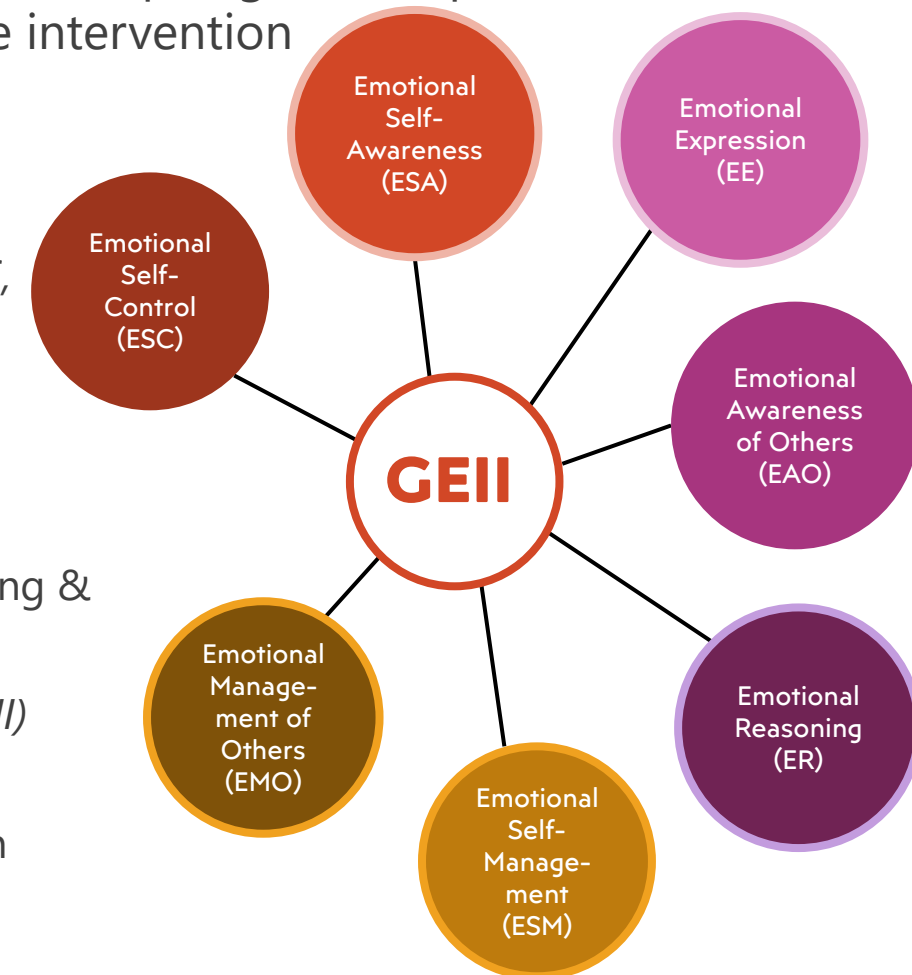


Figure 4. Genos Emotional Intelligence Inventory (GEII) with its subdomains⁹

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Findings

Response:

- Invited participants: N=44
- Participated: n=35 (response rate 80%)
- Analyzed: n=28 (dropout rate 20%)

Outcomes:

- El and PS scores change at $p>0.05$ level
- Significant increase in the *Emotional Self-Control* El subdomain levels after the intervention
- Highest El level change in clinical pharmacy (5.1 ± 6.6) and other pharmacists' groups (5.5 ± 6.2)

El and PS scores and subdomains	Differences (t/Z test), significance (p) and effect size (d/r)
El total score	t = -1.323, p = 0.197, d = -0.250
• ESA	Z = -0.231, p = 0.818, r = -0.031
• EE	Z = -0.869, p = 0.385, r = -0.116
• EAO	Z = -0.622, p = 0.534, r = -0.083
• ER	Z = -1.113, p = 0.266, r = -0.149
• ESM	Z = -0.164, p = 0.870, r = -0.022
• EMO	Z = -1.355, p = 0.175, r = -0.181
• ESC*	Z = -3.005, p = 0.003, r = -0.402
PS total score	t = -0.055, p = 0.957, d = -0.010
• Positive subscale	Z = -1.258, p = 0.208, r = -0.168
• Negative subscale	Z = -0.961, p = 0.336, r = -0.128

*significance at $p<0.005$ level

Table 1. Score difference before and after the intervention

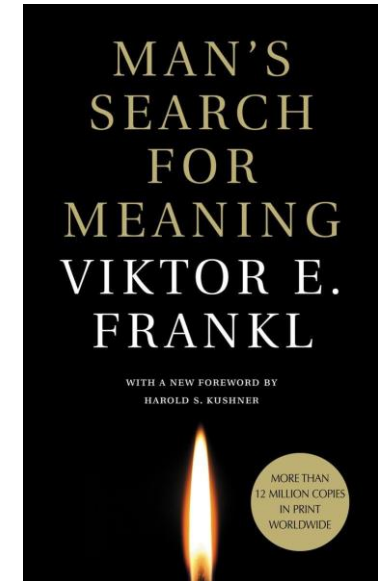
El Subdomains	Before intervention (Spearman's ρ)	After intervention (Spearman's ρ)
ESA	-0.210	-0.439*
EE	-0.309	-0.158
EAO	0.037	-0.164
ER	-0.165	0.014
ESM	-0.380*	-0.399*
EMO	-0.306	-0.095
ESC	-0.457*	-0.037

*significance at $p<0.05$ level

Table 2. Correlation analysis between El and PS scores

Conclusion

- Short-term mindfulness interventions may positively impact some EI competencies, particularly the *Emotional Self-Control* subdomain
- Intervention may increase *Emotional Self-Awareness*' protective effects against perceived stress in pharmacists
- Mindfulness-based interventions to be considered throughout the continuum of pharmacists' professional development, particularly in pharmaceutical care
- Additional research with longer-term interventions is needed to confirm the findings



“When we are no longer able to change a situation, we are challenged to change ourselves.”

Dr Viktor Frankl, 1946

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Thank you!

dejan.sencanski@LNS.rs

