

Summary of research within the ERASMUS+ project called “ Taking the bridge over dementia valley”

Between April 1st 2025, and February 28th 2026, we conducted 8 20-week bridge courses in Nursing Homes, six in Poland and two in Latvia. Below are the results, with a discussion.

The present study evaluated the effectiveness of the **20-week bridge courses** using a pre–post design in a sample of 130 participants. The results show statistically significant and clinically meaningful improvements in psychological well-being (WHO-5), depressive symptoms (GDS-15), and global cognitive functioning (MMSE). Collectively, these results suggest that the 20-week bridge courses produced broad and robust benefits across emotional and cognitive domains.

Because the distributions of the scores deviated significantly from normality, nonparametric Wilcoxon signed-rank tests were used. All three outcome measures showed highly significant improvements ($p < .001$). Importantly, given the sample size ($N = 130$), statistical significance alone could have been achieved with relatively small effects; however, the observed effect sizes indicate that the changes were substantial rather than trivial. The consistent direction of change across measures further strengthens the interpretation of a genuine intervention effect. Psychological well-being increased, depressive symptom severity decreased, and cognitive functioning improved, suggesting multidimensional benefits rather than isolated statistical artefacts.

Beyond statistical reliability, clinical relevance was evaluated using distribution-based minimal clinically important difference (MCID) thresholds and the Reliable Change Index (RCI). Observed mean changes approached or exceeded moderate MCID thresholds (0.5 SD of baseline variability), indicating that improvements were not only statistically detectable but also likely meaningful in real-world clinical contexts.

RCI analyses indicated that the magnitude of change exceeded that expected from measurement error alone, supporting the interpretation that participants experienced reliable improvement. Together, these findings indicate that the

20-week bridge courses produced statistically robust and clinically meaningful changes.

The simultaneous improvement in well-being, depressive symptoms, and cognitive functioning may reflect synergistic mechanisms underlying the 20-week bridge courses. Structured, sustained engagement over 20 weeks may support psychological activation, cognitive stimulation, social interaction, and emotional regulation. Improvements in well-being could mediate reductions in depressive symptoms, while cognitive engagement may enhance global cognitive functioning.

From a practical standpoint, the results suggest that structured, medium-term interventions, such as the 20-week bridge courses, can yield measurable improvements across multiple domains relevant to mental health and functional independence. The magnitude of observed effects indicates potential utility in both clinical and community-based settings.

A key strength of this study lies in the comprehensive evaluation of both statistical and clinical significance. By incorporating effect sizes, MCID thresholds, and RCI analyses, the study provides a multidimensional assessment of intervention impact.

However, several limitations should be acknowledged. The absence of a control group limits causal inference, as improvements cannot be unequivocally attributed to the intervention alone. The pre–post design may also be susceptible to regression to the mean, expectancy effects, or time-related changes. Additionally, distribution-based MCID approaches, while informative, do not replace anchor-based clinical validation.

Future research should incorporate randomised controlled designs, long-term follow-up assessments, and external clinical anchors to strengthen causal conclusions and evaluate the durability of effects.

The present results indicate that the **20-week bridge courses** were associated with significant and clinically meaningful improvements in psychological well-being, depressive symptoms, and cognitive functioning. The convergence of large effect sizes, MCID-consistent changes, and reliable improvement indices supports the intervention’s practical relevance. These results suggest that the 20-week bridge courses represent a promising multidomain intervention with potential applicability in mental health and cognitive support contexts.