**PROJECT 2**

1. Check the data (the reviewed dataset: **DataCollect\_PainDepr\_UPD.xlsx**).
2. Classify the diagnoses to “musculoskeletal pain” vs. “cancer-related pain” (the variable **`Dx`**).
3. Classify the Ukrainian cities due to their **war status** as “air attacks only” vs. “active war” (**`war\_status`**).
4. Find the best way to model the time trajectory of pain (measured by the Visual Analogue Scale (VAS) score; `**VAS\_before`** to **`VAS\_300`**) and depression (measured by the Patient Health Questionnaire-9 (PHQ-9) score; **`PHQ-9\_before`** to **`PHQ-9\_300`**). Test whether pain and depression increased over time. (Visualization, effect sizes, and report).
5. Test the association between pain and depression. Does the association depend on the time points (`**VAS\_before`** to **`VAS\_300`**; **`PHQ-9\_before`** to **`PHQ-9\_300`**)? If yes, how?
6. Do the **`age`**, treatment analgesics (**`Tx`**), and pain initial reduction after analgesics being taken before the full-scale war (**`ini\_pain\_red`**)moderate the time trajectory of pain and depression? If yes, how?
7. Do the **`war\_status`** and **`Dx`** moderate the time trajectory of pain and depression? If yes, how?
8. Find the best way to model the time trajectory of the changes in analgesics usage. Does the analgesics usage increase over time (**`add\_Tx\_15`** to **`add\_Tx\_300`**)? (Visualization, effect sizes, and report).
9. Do **`age`**, **`ini\_pain\_red`**, **`VAS\_before`** to **`VAS\_300`** moderate the time trajectory of analgesics usage (**`add\_Tx\_15`** to **`add\_Tx\_300`**)? If yes, how?
10. Do the **`war\_status`** and **`Dx`** moderate the time trajectory of analgesics usage (**`add\_Tx\_15`** to **`add\_Tx\_300`**)? If yes, how?
11. Test the association between depression and pain with analgesics usage increase (**`add\_Tx\_15`** to **`add\_Tx\_300`**). Are the associations affected by the **`Tx`**, time points, **`ini\_pain\_red`**, **`war\_status`** or **`Dx`**?