

Component-Therapy Mapping

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1 Aim

In the course of the past 20 years, a large number of eHealth applications for mental health and more specifically for the treatment and prevention of depression have been developed. Various literature surveys and meta-analyses of the clinical outcomes of evaluations of these systems have reached the conclusion that the systems are more effective than waitlist and as effective as face-to-face treatment. However, a continuous concern in the domain are high attrition rates, especially in systems that leave users entirely to their own devices (self-guided systems). Surveys have, to date, mostly concerned themselves with the “what?” of eHealth solutions, i.e. the therapeutic framework of the intervention or the type of guidance, rather than the “how?” of eHealth solutions, i.e. the manner in which certain intervention aspects have been implemented or the types of technology used (mobile, website, virtual reality, etc.). We have therefore set out to construct a database for providing a record of the various systems for eHealth for depression prevention and treatment, their versions, their intervention components, their technological realization, and their evaluation. The database hence strives to systematically link clinical outcomes not only to intervention content, but also to intervention form.

2 Task

2.1 General Task

In addition to these instructions, you will be provided with the document *component_list.xlsx*. This file contains one table of the entire database, the *Component* table. The component table links the different therapeutic components of e-health systems to their therapeutic frameworks (e.g. component 186, “identifying, monitoring, and challenging automatic thoughts,” is linked to the framework of Cognitive Therapy). In the first column, you see the Component

Keys, these are unique identifiers for the components. In the second column, you see a brief functionality description of the component. Finally, the third column is for you to fill. The second row (first row below header) provides you with the codes for the different therapeutic frameworks. You may assign multiple codes (i.e. numbers) to each component. If you are uncertain or would like to make remarks, please use the fourth column for commenting.

2.2 Website

The functionality descriptions may not always be particularly clear or straight-forward. To help you in case of uncertainty, I have created a simple website that allows you to query an additional table of the database, the *VersionComponent* table. In this table, the concrete implementation of components in specific systems is detailed (e.g. how is component 186 implemented in Deprexis, a specific system). This also includes the exact wording that the system creators (e.g. the creators of Deprexis) chose to describe this component. You can reach this website by typing the following into your browser address bar: (info to come). You then reach a website with a simple input field. Here you can type the component key or a list of component keys separated by commas. When you click *Search* you will see a table with four columns: VersionKey, ComponentKey, ComponentName, Description. The VersionKey is a unique identifier for a system, the ComponentKey is the one(s) that you searched for, the ComponentName is the functionality description, and finally the Description is the manner in which the authors of the system with this particular VersionKey have written about this component in their publication. Thus, if you search for component 186 on the website, you will get many descriptions from various papers and these descriptions might give you a better idea of the therapeutic framework that this component should be linked to.

2.3 Specific Codes

Some components may fit with multiple frameworks (e.g. component 35, “sleep management”). You may then assign category 19 (integrative/multiple), but always try to be as specific as possible (use category 19 only when you cannot be more specific). Similarly, if you feel that a component does not reflect a therapeutic technique belonging to any framework, you may assign category 0 (not relevant). Category 9, Psychoeducation, is only used for the education about depression (possibly with comorbid condition) or the intervention (e.g. therapeutic model underlying the intervention). Teaching specific skills or knowledge around other specific topics, we did not classify as psychoeducation. Finally, you may find that some functionality descriptions already contain the name of the therapeutic framework in the description. In this case, simply assign that framework.

3 Closing Remarks

A possible strategy may be to first assign all components to a framework where you are relatively certain and to then double check those that are unclear. For the latter group, the website should be helpful. In case of questions, we will deal with them as you go. Thus, do not hesitate to ask questions during the coding process! Happy Coding!