Homoeopathic medicine validation: Do it, but do it right!

In a series of papers in this issue, three lesser known homoeopathic medicines (Cynodon, Formic acid, and Ocimum canum) are evaluated, based on an impressive number of cases. It is clear that we are now entering a new era in the scientific development of Homoeopathy: the quantitative evaluation of clinical cases. The homoeopathic community relied too long only on its original scientific flagship, the proving. With proving, in fact Phase I clinical studies, Homoeopathy was once way ahead of conventional medicine in scientific respect. However, conventional medical science has evolved in methodology and statistics. Thanks to huge funds and infrastructure that conventional medicine has developed high standards in clinical research, with many physicians specialized in statistics and methodology by several years of training after their graduation as a medical doctor.

Medical doctors are hardly trained in statistics and research methodology, but statistics is very relevant for homoeopathic practitioners because their knowledge depends on the experience of themselves and their colleagues. One homoeopath may say that he has one “Sulphur patient” with the symptom of “Fear of death,” another that he has one “Cenchris-Contortrix patient” with “Fear of death.” If both practitioners report this to the repertory manufacturer, Sulphur as well as Cenchris-Contortrix will hitherto be added to the repertory-rubric “Fear of death.” Basic knowledge of statistics learns that this is absolutely wrong! There are many more “Sulphur patients” than “Cenchris-Contortrix patients” in the world database of successful cases, possibly 100 Sulphur cases against five Cenchris-Contortrix cases. In statistical terms, we should not compare absolute numbers but prevalence (= relative occurrence) of a homoeopathic symptom. Hence, the symptom “Fear of death” is twenty times more relevant for Cenchris-Contortrix than for Sulphur.

Learning from experience is in fact a scientific process; it is even described in a mathematical formula that is used in many computer programs: Bayes’ formula. If we apply Bayes’ formula in Homoeopathy, we should compare the prevalence of a specific symptom, say “Fear of death,” in a population responding well to a specific medicine, say Sulphur, with the prevalence of the same symptom in all other patients (the remainder of the practice population). Intuitively this makes sense. Then, we will find that the prevalence in the Sulphur population is even lower than in the remainder of the population, and that the symptom “Fear of death” is no indication for Sulphur although this medicine is actually present in the repertory-rubric. Bayes’ formula explains why an experienced homoeopath does not trust many repertory-rubrics, especially the “polyechrest medicines” in these rubrics.

The only way to know the prevalence of symptoms is by systematic evaluation of daily practice, also called “prognostic factor research.” A homoeopathic symptom is a prognostic factor, influencing the chance that a specific homoeopathic medicine will work. This is expressed in Bayes’ formula, and the comparison of the prevalence of a symptom in a specific medicine population and in the remainder of the population is called likelihood ratio (LR). If the difference between medicine population and remainder population is higher, LR is higher, and the symptom is a better indication for that specific medicine.

This simple conclusion that we have to assess homoeopathic symptoms systematically has far fetching implications: while conventional doctors rely on colleagues and scientists with extensive additional training, homoeopathic doctors have to become scientists themselves.

Good research depends on a good research protocol that is prepared before the research starts. The difficulty of making a good research protocol is often underestimated, also in the protocol for the assessment of the three medicines mentioned above. Due to protocol limitations, the authors could only compare the prevalence of symptoms in patients that were “cured” after the medicine was prescribed and in patients who were not “cured.” This causes two major problems regarding the validity of the results. First, we cannot make LR calculations because the medicine populations were incomparable. The second and greatest problem was the missing evaluation of causal relationship between “cure” and medicine. A symptom can only be related to a specific medicine if the medicine really worked. In this case, the “cure” was after the medicine, not necessarily caused by the medicine. The main value of this research is that it indicates symptoms that should be evaluated properly in better research. A better protocol would have rendered valid prognostic factors with the same effort during the actual research project.

Many times, we are too eager to start with a research project and neglect the preparation. We can better use this eagerness to perform pilot studies investigating possible problems of all aspects of the study. An example: if we use a questionnaire, this questionnaire should be tested, evaluated, and improved step by step. If we use an instrument to assess causal relationship between “cure” and medicine, we can test it in a limited number of patients. These are relatively small projects that help us in thinking again and again about all possible pitfalls. Only good prognostic factor research will improve Homoeopathy.

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REFERENCES


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