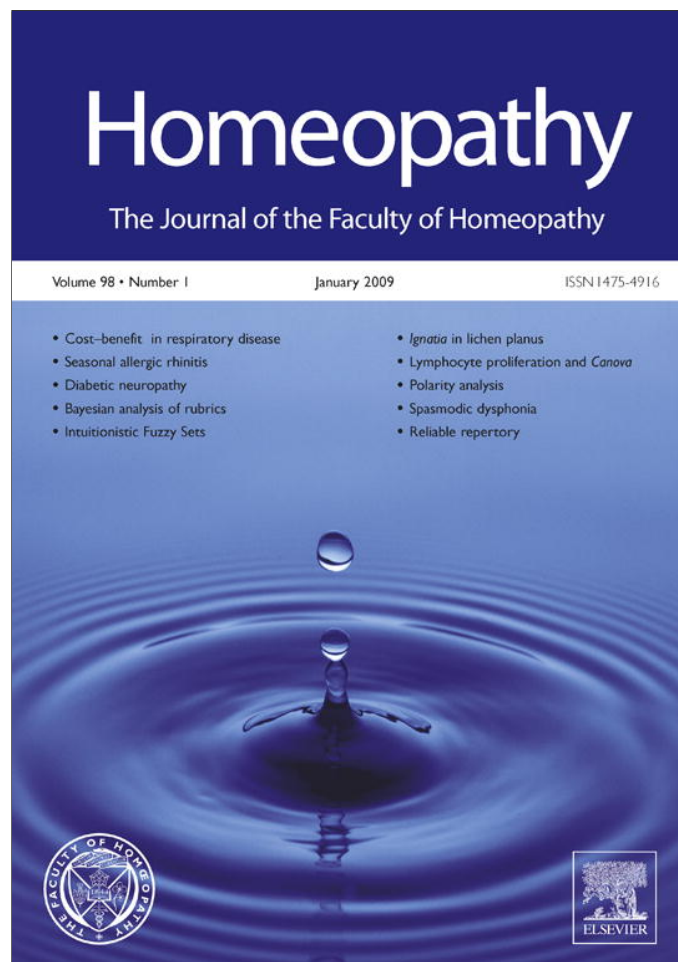


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ORIGINAL PAPER

Polarity analysis, a new approach to increase the precision of homeopathic prescriptions[☆]

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Introduction: The Swiss randomised controlled trial of homeopathy for attention deficit hyperactivity disorder (ADHD) was a rigorous test of homeopathy. In each of its three phases it delivered evidence for a specific effect of homeopathic treatment, but it also unmasked weaknesses of the method. Misleading reports of sensations and mind symptoms by parents were frequent, while modalities and polar symptoms usually proved to be reliable information for repertorisation. The problem of cases with a paucity of symptoms was resolved by reintroduction of (pathognomonic) perception symptoms into the repertorisation. Additionally polarity analysis, a further development of Boenninghausen's concept of contraindications, was tested and introduced. It allows a precise differential diagnosis of possible homeopathic medicines. Increasing the rate of optimal prescriptions by 20%, polarity analysis turned out to be the most efficient modification to case analysis. This paper describes the transfer of the new insights to the treatment of other diseases and as the evaluation of this process.

Methods: Polarity analysis was tested and applied in acute diseases by completing patient histories with repertory specific checklists, mainly based on modalities and polar symptoms. The checklists encompassed eleven different complaints. Treatment results were compared with results reached by conventional homeopathic case analysis methods. The same procedure was applied in chronic diseases with repertory-specific questionnaires. Again, eleven different areas were covered. Treatment results for chronic diseases were also compared with a conventional case analysis approach.

Results: Polarity analysis, checklists and questionnaires led to an increase in optimal prescriptions of 22% in acute diseases and 16% in chronic diseases. In addition, the average improvement rates in chronic disease were 9% higher than with conventional homeopathic procedures. The new method is demonstrated by a case example with a verified clinical cure, and its impacts on homeopathy are discussed.

Conclusion: The use of polarity analysis as an integral part of case analysis and differential diagnosis of possible remedies together with an increased awareness for assessing the reliability of symptoms in repertorisation lead to a substantial improvement in the precision of homeopathic prescriptions. *Homeopathy* (2009) 98, 49–55.

Keywords: polarity analysis; reliability of symptoms; repertory specific checklists and questionnaires; efficiency of homeopathic prescriptions

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[☆]Lecture held on Aug. 21st, 2008, at the Euro-India First International Conference on Holistic Medicine in Kottayam, Kerala, India.

Received 28 May 2008; revised 13 October 2008; accepted 23 October 2008

Introduction

The objective of the Swiss double blind randomised controlled trial of homeopathy for attention deficit hyperactivity disorder (ADHD) was to find evidence of a specific therapeutic effect attributable to homeopathic treatment of hyperactive children. Each of the three phases of the trial

yielded positive results. In the open label treatment phase prior to the double blind trial, a highly significant difference between the effect of initial suboptimal and the final optimal prescriptions were observed ($p < 0.0001$). This demonstrates that the effect of homeopathic treatment is causally tied to the choice of an appropriate homeopathic remedy and not just the result of the physician's attention to the patient.¹ During the double blind phase the effect of homeopathy was significantly different from placebo ($p = 0.0479$).² Sixty of 62 participants of the crossover trial were available for a 5-year follow-up. Twenty-eight patients (47%) who were still on homeopathic treatment had a mean longtime-improvement of the Conners Global Index (CGI) ratings of 63%, and 25 patients (42%) who had stopped any treatment at all had a mean persistent improvement of the CGI of 53%, suggesting a partial healing of ADHD following homeopathic treatment.³

The study, being a rigorous clinical test of homeopathy, also unmasked weaknesses of the method. Due to a low percentage of initially correct prescriptions the suspicion arose, that parents do not report symptoms precisely. Analysis of 100 unsuccessful prescriptions in children who finally improved with another homeopathic remedy, enabled identification of misleading symptoms. Frequently these were sensations and mind symptoms, while modalities (especially aggravations) and polar symptoms usually proved to be reliable information for repertorisation. The exclusion of unreliable symptoms led to an improvement of results, but also often resulted in oligosymptomatic cases, i.e., cases with only few usable symptoms. This problem was resolved by an experimental reintroduction of (pathognomonic) perception symptoms into repertorisation, which again improved our positive treatment results significantly.

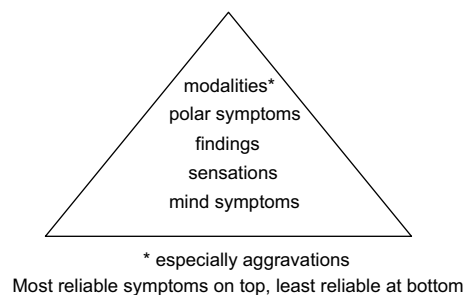
To allow for a precise differential diagnosis of possible homeopathic medicines, polarity analysis, a further development of Boenninghausen's concept of contraindications, was introduced and tested. It increased the rate of optimal prescriptions by 20% and thus turned out to be the most efficient improvement to our case analysis. The treatment modifications for ADHD-patients have been reported in an earlier publication.⁴ This paper describes the transfer of insights gained in the treatment of ADHD into general case analysis strategies applicable also to other diseases. The results reached with the new approach are compared with the effects of a conventional homeopathic procedure.

Methods

The use of reliable symptoms

The reliability of the observation of symptoms as found in ADHD-patients can be summarized in a pyramid with the most reliable symptoms at the top and the least reliable ones at the bottom (Table 1). This pyramid was used for designing and testing checklists for acute diseases and questionnaires for chronic diseases (see below). As outlined in the publication on the treatment modifications in ADHD-patients,⁴ pathognomonic symptoms are no longer excluded from repertorisation if they are characteristic, because such

Table 1 Reliability of symptoms



an exclusion violates the law of similars. (In ADHD-patients we found that by the introduction of perception symptoms – which are pathognomonic for the syndrome – into the repertorisation, the rate of successful prescriptions increased significantly).

Polarity analysis

Polarity analysis is the result of the search for a way to better match the characteristic patient symptoms with the “genius symptoms”⁵ of a homeopathic medicine (i.e., the most characteristic symptoms, of high grade), thereby improving the reliability of the prescriptions. To this end Boenninghausen's idea of contraindications was modified: almost every homeopathic medicine includes a number of polar symptoms. These are symptoms which also encompass their opposite, e.g., desire to move/aversion to move; thirst/thirstless; warmth ameliorates/warmth aggravates; etc. A medicine may exhibit both poles, usually in different grades. According to Boenninghausen, high grade symptoms (grade three, four and five) correspond to the characteristics of the medicine. In choosing the medicine for a patient we have to find the one, whose characteristics best corresponds to the characteristic patient symptoms. All important symptoms of the patient ought to be covered by the correctly chosen medicine, in as high a grade as possible. If, in a given polar symptom, the opposite is covered by a particular medicine in a high grade, whereas the pole exhibited by the patient occurs only in a low grade, then this medicine – according to Boenninghausen – is contraindicated and will not cure the patient. *Nux vomica*, for example, has aversion to movement in third grade, desire to move, however, only in first grade. Consequently, *Nux-v* will likely not cure a patient who exhibits a strong desire to move, even though it covers this symptom in principle. Boenninghausen used this method to check his choice of medicines.⁵

Polarity analysis is a further development of this concept of genius symptoms and contraindications: by summing the grades of all polar patient symptoms for each likely medicine and subtracting the grades of the corresponding opposite polar symptoms, one arrives at the polarity difference.⁴ For example: a patient suffers from tonsillitis with the following symptoms: <swallowing, <speaking, <cold food, <after waking, >after eating, thirst increased. All these symptoms are polar and covered by 19 medicines. However, only three of those are not contraindicated according

to Boenninghausen: *Natrium carbonicum*, *Mercurius solubilis* and *Magnesium carbonicum*. The concept of polarity difference for these three medicines is illustrated in Table 2. The *polarity difference* is the sum of the grades of polar patient symptoms minus the sum of the grades of polar opposite symptoms.

The higher the polarity difference, the more likely the medicine matches the characteristic symptoms of the patient, provided there are no contraindications. A negative polarity difference points to remedies which cover the patient symptoms in an unspecific way, i.e., do not cover all patient symptoms with their *genius symptoms*. Such remedies have very little chance of curing the presenting complaint in the patient. According to our example, *Nat-c* exhibits the highest probability to cure, *Merc* the second highest. Using this method, the best suited medicine in a repertorization containing several medicines, which cover all the patients symptoms, can be more readily identified. The algorithm of polarity analysis has been since integrated in several repertorization programs of Boenninghausen's Therapeutic Pocketbook.⁶⁻⁹ The case example given below demonstrates the practical application of polarity analysis.

Checklists for acute diseases and questionnaires for chronic diseases

After testing reliable symptoms and polarity analysis in ADHD-patients with good results,⁴ we attempted the transfer of the method into the treatment of other diseases. To this end checklists and questionnaires with repertory-specific wordings of symptoms were created *to complete conventional case histories*, emphasizing modalities and polar symptoms. They were structured as follows: cause of the disease (free formulation)/general modalities/local modalities, findings and sensations/mind symptoms/symptoms not contained on checklist or questionnaire

Table 2 Polarity analysis showing patient- and opposite-symptoms and polarity difference for a patient with tonsillitis

	Medicine, degree of symptom				
	Nat-c	Merc	Mag-c	Rhus-tox	Graph
<i>Patient symptoms</i>					
<Swallowing	1	3	2	3	1
<Speaking	4	1	2	4	3
<Cold food	1	2	1	4	3
<After waking	4	4	3	4	5
>After eating	4	1	1	2	2
Thirst increased	2	4	1	3	1
Total	16	15	10	20	15
<i>Opposite symptoms</i>					
>Swallowing	1	2	1	1	2
>Speaking	0	0	0	0	0
>Cold food	0	2	1	1	0
>After waking	1	0	0	0	0
<After eating	3	1	2	4CI*	3CI*
Thirstless	1	1	0	2	0
Total	6	6	4	8	5
Polarity difference	10	9	6	12	10

* CI = Contraindication i.e., patient symptom low grade, opposite symptom high grade.

(free formulation). Eleven checklists for acute diseases and eleven questionnaires for chronic diseases were outlined for different main complaints (Table 3). In chronic illnesses, patients had also to complete a general questionnaire for additional symptoms not concerning the main complaint.

Organisation of the homeopathic consultation

We organise a consultation for acute disease as follows: Open case history, physical examination, then parents or patients work through the specific questionnaire concerning their complaint and write down the symptoms observed, discussion of symptoms followed by repertorisation. Finally, the specific homeopathic remedy (single dose, 200 C) is given to the patient. In addition, parents receive a second possible remedy as a backup, which they can administer if the patient does not improve at least 50% within two days.

In chronic diseases the case taking is split into two consultations. During the first session a short open case history is recorded, followed by a physical examination. Then the questionnaire for the specific main complaint and the general questionnaire are explained. The patients take them home to give them sufficient time to answer all questions accurately. In the second session, the symptoms reported on the questionnaires are discussed and the case history is completed by an additional interview of the patient. The repertorisation is made in the presence of the patient, and the differential diagnosis is also discussed with the patient. Finally, the choice of the patient's homeopathic remedy is arrived at after a careful materia medica comparison. Then the patient receives the remedy, usually as a single dose in the 200 C potency.

Table 3 Checklists for acute disease and questionnaires for chronic disease

- (A) Checklists
 - Airways
 - Allergic rhinitis and conjunctivitis
 - Disease of infants
 - Ear-, nose- and throat disease
 - Epidemic childrens disease
 - Gastro-intestinal disease
 - Headache and vertigo
 - Influenza
 - Musculo-skeletal disease
 - Travel sickness
 - Urinary tract disease
- (B) Questionnaires
 - General questionnaire
 - ADD/ADHD and sensory disturbances
 - Allergies
 - Disease of ear, nose, throat and airways
 - Gastro-intestinal disease
 - Gynecologic disease
 - Heart and circulatory disturbances
 - Musculo-skeletal disease
 - Neurologic disease
 - Psychosomatic disease
 - Sleep-disturbances
 - Urinary tract disease

A case example

A woman, 46 years of age, a secondary school teacher presented with intense pain in her left shoulder. The problem began a few months ago with a strain of the left shoulder after gymnastics, which exacerbated to a florid acute inflammation. Any movement of her arm is painful, she is extremely sensitive to touch at the shoulder, and has a numbness in the fourth and fifth fingers of her left hand. The pain prevents sleep and is of such intensity that she cannot work.

The physical examination reveals redness, swelling, heat and sensitivity to touch anterior to the left humero-scapular joint. The movement of the left arm is severely restricted. No other findings in the general physical examination. The laboratory values show no signs of inflammation or rheumatic disease. An X-ray of the left shoulder two days later confirms the diagnosis of a calcific tendonitis of the rotator cuff tendons (Figure 1).

In the questionnaire for musculo-skeletal disease the patient underlines the following symptoms:

- <touch
- <external pressure
- <warmth
- <warmly wrapping up
- <exertion of body
- <motion
- <raising affected limb
- <sitting
- >standing
- >letting limb hang down

She returns the general questionnaire without any symptoms, and further inquiry did not reveal any additional symptoms.

The repertorisation with the PC-version of the revised edition of Boenninghausen's Therapeutic Pocketbook⁶ results in twelve homeopathic remedies covering all symptoms, but only three have no contraindications: *Ledum*, *Nitricum acidum* and *China* (polarity difference of *China* = 6, cf. Table 4).



Figure 1 X-ray of left shoulder with calcific tendonitis of rotator cuff tendons before treatment.

The patient received one dose of *Ledum* 200 C (due to the totality of characteristic symptoms, highest polarity difference and confirmation of symptoms in the materia medica).

Her sleep in the following night is undisturbed. The pain returns two days later after the X-ray examination, for which she has to stand in an unfavorable position. Following *Ledum* 500 C it improved again, but only for four days. *Ledum* 1 M acts for another ten days. Finally *Ledum* Q3 (LM3) daily over one month improves all symptoms by 80%. Further *Ledum* Q-potencies (6, 9, 12, 15, 18, each over one month) follow. Eight months after the beginning of treatment the patient is completely cured, i.e., free of any symptoms, even after vigorous exertion. In the follow-up X-ray image the calcification of the rotator cuff tendons has completely disappeared (Figure 2). No relapse up to the present (observation time 3½ years).

Evaluation of results

Acute diseases: Initially, the results reached with polarity analysis alone in 100 patients with cough were compared with the results of an earlier investigation, in which the cough rubrics of Boenninghausen's Characteristics and Repertory¹⁰ were prospectively tested in 103 patients.¹¹ All patients with cough who consulted the paediatric-homeopathic practice within a given interval of time were included. After four days, parents reported the results of treatment by phone. A prescription was counted as a "hit", if the first remedy was associated with an improvement of symptoms by at least 50% within two days, or if the backup remedy led to a total cure within another two days. "Cure" was defined as disappearance of all acute symptoms for at least two months. In a second step, the results of polarity analysis in combination with the checklist for airways were evaluated with another 48 cough patients. And in a third step, all the other checklists were evaluated in 206 patients with a mixture of corresponding diseases.

Chronic diseases: 153 patients with a variety of different diseases were prospectively analysed with questionnaires and polarity analysis. Their results were compared with 50 patients of an earlier study which served to compare the results of different ranking-systems of symptoms (as proposed by Hahnemann, Boenninghausen, Hering and Kent).¹² From this study a group of 50 patients, their symptoms for case analysis ranked according to Hahnemann, served as a baseline. In each group all patients with chronic diseases treated within a given span of time were included. Two months after receiving a single dose of the 200 C potency, patients or parents were asked to rate the subjective improvement of each reported symptom as well as to make an overall rating of the (subjective) improvement of the total of symptoms on a percentage scale. A total improvement of 50% or more was counted as a successful prescription ("hit").

Results

Acute diseases: In the reference group with cough patients treated according to Boenninghausen's

Table 4 Repertorisation

Homeopathic remedy	Led	Rhus	Bry	Nux-v	Calc	Phos	Nit-ac	Borx
Number of symptoms	10	10	10	10	10	10	10	10
Sum of grades	24	22	21	20	19	18	16	16
Polarity difference	18	3	7	4	1	3	12	7
<i>Patient symptoms</i>								
<Touch	3	3	3	4	1	1	3	2
<Pressure external	2	1	1	1	3	2	3	1
<Warmth	3	1	1	1	1	1	1	1
<Wrapping up	1	1	1	1	3	2	1	3
<Exertion of body	1	4	4	3	3	2	2	1
<Motion	4	1	4	4	2	3	2	2
<Raising affected limb	3	3	2	1	1	1	1	1
<Sitting	1	4	1	1	2	1	1	2
>Standing	3	1	2	3	2	4	1	2
>Hang down affected limb	3	3	2	1	1	1	1	1
<i>Opposite symptoms</i>								
>Touch	0	0	2	0	4CI*	3CI	0	0
>Pressure external	1	3CI	2	2	1	1	0	3CI
>Warmth	1	4CI	2	4CI	1	2	1	3CI
>Wrapping up	1	4CI	1	3CI	0	1	0	1
>Exertion of body	0	0	0	0	0	0	0	0
>Motion	0	4CI	1	0	1	1	1	0
>Raising affected limb	0	0	0	1	4CI	2	0	0
>Sitting	2	1	4CI	4CI	2	2	1	2
<Standing	1	3CI	2	1	1	1	1	0
<Hang down affected limb	0	0	0	1	4CI	2	0	0

PC-version of Boenninghausen's Therapeutic Pocketbook, rev. ed. 2006.⁶

* CI = Contraindication.

Characteristics and Repertory, 75 of 103 children (73%) were cured within four days. In the first group, polarity analysis alone was applied in 100 patients with cough: here 81 patients were cured within four days (81%). In a group, the checklist for airways was added to the application of polarity analysis: here 40 of 48 patients were cured within four days (83%). The other checklists were tested in combination with polarity analysis in 206 patients with a mix of different acute diseases (tonsillitis, sinusitis, otitis media, enteritis, influenza, abdominal colic, difficult dentition



Figure 2 X-Ray of left shoulder after eight months of continued homeopathic treatment of calcific tendonitis of rotator cuff tendons.

etc.). Of these patients 175 were cured within four days (85%, **Figure 3**).

Chronic diseases: In the conventionally treated reference group 34 of 50 prescriptions in patients with a mixture of different diseases were “hits” (68%), and the average subjective improvement rating was 75%. With the application of questionnaires and polarity analysis in the test collective, also with a mixture of different diseases, 128 of 153 patients had an improvement of 50% or more after two months (84% “hits”), and the average subjective rating of their improvement was 85% (**Figure 4**).

Figure 5 shows the results found with each of the different questionnaires. The lowest number of evaluated patients was 8 (heart and circulation/gynaecology), the highest number 20 (neurology).

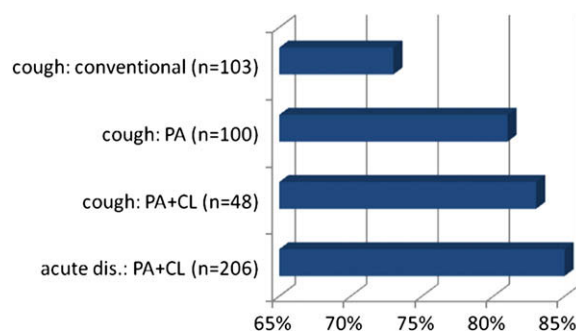


Figure 3 Percentage of cures in acute diseases within four days: Conventional homeopathic procedure compared to the application of repertory specific checklists (CL) and polarity analysis (PA).

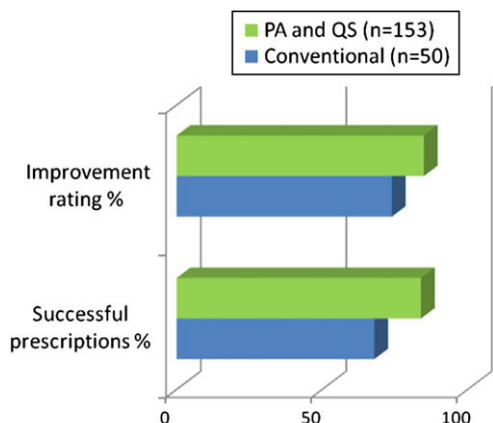


Figure 4 Treatment results in chronic diseases with application of repertory specific questionnaires (QS) and polarity analysis (PA) compared to a conventional homeopathic procedure.

The application of polarity analysis, checklists and questionnaires has been published along with case examples in a book entitled “Effiziente Homöopathische Behandlung” (Efficient homeopathic treatment) in German.¹³

Discussion

The introduction of checklists and questionnaires deviates from the Organon § 82–95 which demand an open case taking.¹⁴ But questionnaires have a long historical tradition. Hahnemann himself treated many patients by written correspondence only. To enhance an exact observation of symptoms he urged them to read the Organon and pointed out a number of helpful paragraphs. A first actual questionnaire was Boenninghausen’s publication *Die homöopathische Diät (The Homeopathic Diet)* from 1833.¹⁵ It contains an extended list of symptoms according to the head-to-foot scheme, with detailed modalities, serving patients for the preparation of the homeopathic consultation. Many later authors, including J.T. Kent, have used similar tools. Nevertheless, there may be disadvantages of such a procedure: A structured interview could prevent a free description of symptoms and force patients into

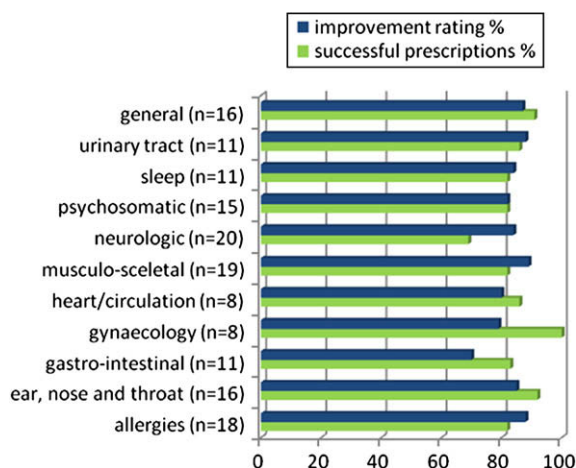


Figure 5 Evaluation of single questionnaires in chronic diseases.

a certain direction. It is important to point out, that checklists and questionnaires are mainly used *to complete* the patient history with important symptoms. Beside them there is still room for an open case interview. New in the approach presented here is the use of repertory-specific formulations. They have the advantage, that the patients’ symptoms do not have to be translated into the language of the repertory, a process which itself might be a source of misunderstandings.

Any introduction of new methods into homeopathy should be carefully evaluated. Polarity analysis has been tested in the highly frequented paediatric practice of the author. Possible consequences of a new procedure could be (a) that the precision of the prescriptions suffers, leading to a lower number of cures, or (b) a restriction of prescribed remedies to polychrests only. Concerning the rate of cures, we observed an increase of the rate of successful prescriptions. To get information on the variety of homeopathic medicines used, the prescriptions in the conventionally treated reference group were analysed and compared with the two groups in which polarity analysis and checklists were applied in acute disease (checklist for airways and all other checklists). In the cough reference group 75 patients were cured with 24 different remedies, i.e., a mean of 3.13 patients received the same remedy. In the test group for acute disease the 215 cured patients needed 65 different remedies, i.e., a mean of 3.3 patients received the same remedy. This shows that the individualisation of the treatment remains the same. In addition, we made the experience that by using the new method, *small remedies* not rarely lead to spectacular results.

Concerning the results in acute diseases, one may argue that part of the cures is spontaneous. This is certainly the case, but since each group has been evaluated the same way, the relative increase of successful treatments is what matters. Another objection may be, that polarity analysis is only based on the symptom grading by Boenninghausen as a possible source of bias. Since Boenninghausen’s grading is very homogeneous and incorporates the experience of other physicians of his time including Hahnemann, the problem is presumably small. It will be resolved by the complete revision of the materia medica being undertaken by the *Boenninghausen Working Group* in Germany. First results of this revision have already been published.^{16–21} Basing the new method on the revised edition of Boenninghausen’s *Therapeutic Pocketbook* (published in 2000) inherently restricts the spectrum of homeopathic remedies to those 133 remedies contained therein. Possibly, the 16% treatment failures encountered in the evaluation of the treatment of chronic diseases are due to this limitation. With the progress of the complete revision of the materia medica this problem will hopefully disappear. So far it has to be circumnavigated by a good personal knowledge of materia medica.

Conclusion

Polarity analysis and repertory specific checklists and questionnaires lead to a higher precision in homeopathic

prescriptions. The awareness of the individual patient or parent for the observation of their own relevant symptoms is sharpened, and the consultation requires less time, which may be a great advantage in busy homeopathic practice.

Conflicting interests

None declared.

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