Role of adjuvant homoeopathic medicines in the management of intellectual disability – A purposive, non-randomised, self-controlled, pre- and post-intervention pilot study

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Abstract

Background: Intellectual disability (ID) is characterised by below-average intelligence and a lack of skills necessary for day-to-day living. A study was conducted by our institute at a school for students of special needs. **Objectives:** The objectives of the study were to demonstrate the role of homoeopathic management in ID. **Methods:** A purposive, non-randomised, self-controlled, pre- and post-intervention study of 25 participants was done. The initial 6 months were the control period, thereafter, the same participants were treated for 18 months, with homoeopathy. Treatment outcomes were assessed using domains of Diagnostic and Statistical Manual-V-V. Scores of each domain were observed at 6 months interval and analysed. **Results:** A statistically significant difference ($P < 0.001$) was observed in adaptive functioning treatment scores for conceptual domain, social domain and practical domain. It justifies the clinically significant improvement in the features of ID, reflected in all domains of adaptive functioning, cognition, hyperactivity, behavioural dysfunction and communication difficulty. Furthermore, it was seen that the dosage of pharmacological medicines was gradually tapered off in most cases. **Conclusion:** The study has demonstrated the utility of homoeopathic treatment as an adjuvant in the management of ID, which is reflected through significant improvement in psychosocial adaptation of the subjects and improved their quality of life.

Keywords: Adaptive functioning, Conceptual, Social, Practical and individual domains, Diagnostic and Statistical Manual-V-V, Cognition

Introduction

Intellectual disability (ID) is a disorder with onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social and practical domains. Overall, males are more likely than females to be diagnosed with both mild (average male: female ratio 1.6:1) and severe (average male: female ratio 1.2:1) forms of ID. However, gender ratios vary widely in reported studies.[1]

ID is present in about 2–3% of the population. It can be defined as cognitive ability that is markedly below average and a decreased ability to adapt to one's environment. ID comprises five general categories: Borderline, mild, moderate, severe and profound.[2] These various levels of severity are defined on the basis of adaptive functioning and not intelligence quotient (IQ) scores, because it is adaptive functioning that determines the level of supports required. To measure adaptive behaviour, professionals use structured interviews, with which they systematically elicit information about the person's functioning in the community from someone who knows them well. There are many adaptive behaviour scales, and accurate assessment of the quality of someone's adaptive behaviour requires clinical judgement as well.[3]

Adaptive functioning involves adaptive reasoning in three domains: Conceptual, social and practical. The conceptual (academic) domain involves competence in memory, language, reading, writing, math reasoning, acquisition of practical knowledge, problem-solving and judgement in novel situations, among others. The social domain involves

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awareness of others' thoughts, feelings and experiences; empathy; interpersonal communication skills; friendship abilities and social judgement, among others. The practical domain involves learning and self-management across life settings, including personal care, job responsibilities, money management, recreation, self-management of behaviour and school and work task organisation, among others.[1]

In a study on 58 cases suffering from ID, 47 participants showed improvement with single homoeopathic remedy at a time.[4] A study regarding social development of children with ID, on a sample of 35 intellectually disabled children concluded that the social quotient (SQ) increases as level of ID decreases from profound to mild.[5] A study on 449 children in managing the behavioural problems with homoeopathic medicines in ID showed that drugs such as *Belladonna, Tarentula hispanica, Tuberculinum* and *Sulphur* were found to be more effective in hyperactive children and drugs such as *Baryta carbonica* and *Pulsatilla* were more useful in shy and underactive children.[6]

Mental health is vital for the growth and productivity of every society and for a healthy and happy life. Homoeopathy plays a key role in the treatment of psychological disorders.[7] Homoeopathy could be an important great supportive treatment modality in cases of ID. Homoeopathic medicines help in resolving negative traits and patterns of behaviour, assisting other therapies in action.[8]

The above studies demonstrated modifications in the behaviour of participants with ID as well as improvement in social development of the individuals, thus encouraging us to undertake a systematic study.

The present study was undertaken with the following objectives:

- To evaluate the usefulness of homoeopathic therapeutics in managing adaptive functioning and neuropsychological dysfunctions in ID.
- To demonstrate the role of homoeopathic medicines in managing behavioural dysfunctions such as hyperactivity, impulsiveness, speech disorders, oppositional defiant disorder, autism and learning disorders in ID.

Materials And Methods

Study design and setting

The study was conducted from September 2017 to September 2019, at Gurukrupa Residential School for students of special needs. The study proposal was approved by the Institutional Ethics Committee of Shree Dr. V. H. Dave Homoeopathic Medical College (Approval number IEC/01/2017 dated 29.06.17). The study was conducted according to the standards of Good Clinical Practice of India, and all procedures were in accordance with the ethical standards of the responsible committee on human experimentation and with the Helsinki Declaration of 1975, as revised in 2013.[9] The study was not registered with Clinical Trials Registry India since it was not mandatory at the time of initiation of this research project.

This study was a purposive non-randomised, pre- and post-intervention study wherein 6 months were a self-control period (washout) and 1 ½ years were the treatment period. Participants were initially kept on observation for 6 months without homoeopathic treatment and their scores were recorded before and after observation period. This was followed by the homoeopathic intervention with an observation period of 18 months during which the participants were evaluated every 6 months. The initial 6 months of observation were used as the control period (self-controlled) and the same participants were treated and compared for 18 months. They were asked to continue their pharmacological treatment for convulsions and other comorbid conditions during the entire period of study; with the plan to gradually decrease the doses as and when the participants improved with the homoeopathic treatment.

Study population and recruitment

The cases were enrolled from the project site that is, Gurukrupa Residential School for students of special needs. A series of workshops were held for parents to educate them.

Potential cases identified from the above sources were screened by the attending physicians for prominent symptoms of ID. Voluntary informed, written consent was taken from their parents/guardians before their enrolment into the study that is, before the observation period.

A detailed homoeopathic case was taken on a specially designed case record for ID and each case was processed through standardised protocol (case analysis, evaluation, totality formation, repertorisation, drug differentiation and arriving at similimum).[10]

The participants from special school receiving occupational therapy were receiving therapy regularly. Some of them were also receiving brain stimulation therapies, physiotherapy, behavioural therapy and speech therapy. This mode of adjuvant therapeutic inputs received by the participants regularly or irregularly, during self-control phase of 6 months, was not disturbed during the intervention phase.

A quantitative study was carried out with respect to change in various scores. However, in addition to this, a qualitative observation was also made regarding changes in participant's behaviour, social interaction, activities, interests and academic performance.

Eligibility criteria

Inclusion criteria

Participants were of any sex or age group, diagnosed as ID as per Diagnostic and Statistical Manual (DSM)-V and confirmed with disability certificate from health and family welfare department of Gujarat state government; while those suffering from any comorbid chronic infections like tuberculosis, or profound ID, with severe symptoms or history of severe and frequent violent exacerbations that required continuous allopathic medications and/or hospitalisation were excluded from the study.

Sample size

Study sample was selected by purposive sampling method. Individuals who fulfilled the inclusion criteria were selected.

Intervention

Study participants were given the homoeopathic medicine based on the totality of symptoms in each case. All participants were given medicine in centesimal scale. Symptomatology was reviewed periodically. When there was no further improvement, potency was raised. Changes in the symptomatology necessitated second prescription.

Outcome measures

The diagnosis of intellectual developmental disorder was made by homoeopathic physicians and psychiatrist. Diagnostic parameters were different domains of DSM-V; an intellectual developmental disorder patient presents with varying degree of cognitive disability. They were further assessed by SQ through Vineland Social Maturity Scale. IQ was measured through Stanford-Binet Intelligence scale. In addition, electroencephalogram, audiometry and genetic karyotyping were confirmed from previously done reports at the time of enrolment. The details of domains picked for analysis from DSM-V are given below.

Domains from DSM-V

Treatment response was evaluated through change in areas such as adaptive functioning, communication skills, socialisation, cognitive and sensory awareness and general behaviour.

Adaptive functioning was assessed by different domains such as conceptual, social and practical (taken from DSM-V). One more domain was added called individual domain which includes participant's own symptoms based on homoeopathic concept of individualisation.

All the participants were assessed in all of the above four domains, at intervals of every 6 months, including control period and the score obtained. Improvement was assessed subjectively.

In variables of conceptual domain, increase in score shows improvement, while lower scores signify regression of skills. In social domain, a few variables show improvement with increase in score and other few with decrease in score, so both were assessed separately. Practical and individual domains both signify improvement with decrease in scores.

In all the domains, scores were marked as follows for each point:

1. Never
2. Occasionally
3. Often
4. Very often.

Improvement was based on the following criteria:

- In conceptual domain, increase in the baseline and pre-treatment score was taken as improvement, so if score remained 0, it was taken as status quo, if it increased from 0 to 1 then mild improvement, if it went to 2 then moderate improvement and if it reached 3 then significant improvement
- In practical and individual domains, decrease in the baseline and pre-treatment score was taken as improvement, so if score remained 3, it was taken as status quo, if it decreased from 3 to 2 then mild improvement, if it went to 1 then moderate improvement and if it reached 0 then significant improvement
- In social domain, a few points show improvement with increase in score and other few with decrease in score, so both were assessed separately and accordingly marked.

Assessment criteria

Primary outcome was change in the conceptual, social, practical and individual domains of DSM-V.

Secondary outcomes were adverse events if any, with tapering of allopathic doses, and changes in activities of daily living.

Statistical analysis

The statistical observations were made from the study data using R-Language software. Friedman test was used for comparison of scores taken at interval of 6 months in each domain. Pairwise comparisons of all domains were done using Bonferroni test. Resulting *P*-values are considered explorative, and $P < 0.05$ was considered statistically significant.

Results

Out of the 38 patients screened, 13 were excluded and 25 were enrolled as per the inclusion criteria.

A study flowchart showing that the number of participants at each stage of the study is provided in Figure 1. The project site is the residential special school where such patients reside, so there were no dropouts in this study.

Among the enrolled cases, 98% ($n = 23$) were male with age group ranging from 8 to 49 years, with positive family history in 36% (n = 9) participants. There were 28% ($n = 7$) participants on conventional antipsychotic treatment; occupational therapy 56% ($n = 14$), speech therapy 36% ($n = 9$), physiotherapy 48% ($n = 12$), behavioural therapy 16% ($n = 4$) and brain stimulation therapy 24% ($n = 6$). The baseline information is given in Table 1.

Adaptive functioning was assessed by different domains such as conceptual, social, practical and individual domains. Scores were taken at baseline, pre-treatment, after 6 months, after 1 year and after 1 ½ years of treatment which were obtained and compared. Friedman test was used for comparison of scores at interval of 6 months in each domain [Table 2].

A statistically significant difference was observed in adaptive functioning treatment scores at 1 ½ years compared with baseline scores. *P* value for all domains was found to be <0.001: Conceptual domain, social domain (points which show improvement with increase in score), for social domain (points which show improvement with decrease in score), for

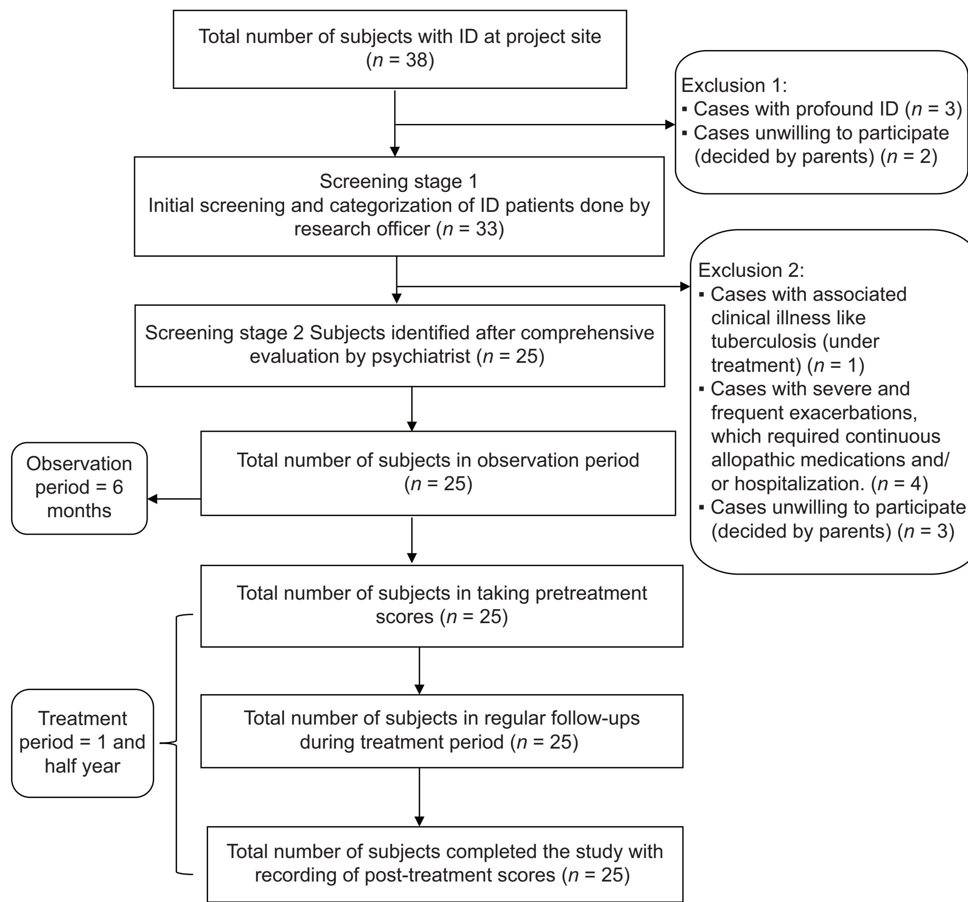

Figure 1: Study flowchart

practical domain and for individual domain; which justifies the clinically significant improvement in features of ID reflected in all domains of adaptive functioning.

This boxplot [Figure 2] shows comparison of mean, median and standard deviation of all domains. Maximum improvement was seen in practical domain of adaptive functioning and least in conceptual domain.

This graph [Figure 3] shows pairwise comparisons of all domains of adaptive functioning. Bonferroni test was used to compare all combinations of group.

Improvement was considered subjectively. This Table 3 shows specific number of cases in each domain showing status quo and mild, moderate or significant improvement.

In 25 participants of ID, total nine medicines were prescribed. Out of which, maximum cases were treated with *T. hispanica* and *Calcarea carbonica* which were prescribed in seven cases, *B. carbonica* was indicated in three cases, *Hyoscyamus niger* and *Anacardium* orientale in two cases and *Natrum muriaticum*, *Nux vomica, Stramonium* and *Gelsemium sempervirens* in one case each. Improvement status and indications of medicines are depicted in Table 4.

The allopathic drugs, namely sodium valproate, risperidone, clobazam, escitalopram, lamotrigine, carbamazepine,

Boxplot

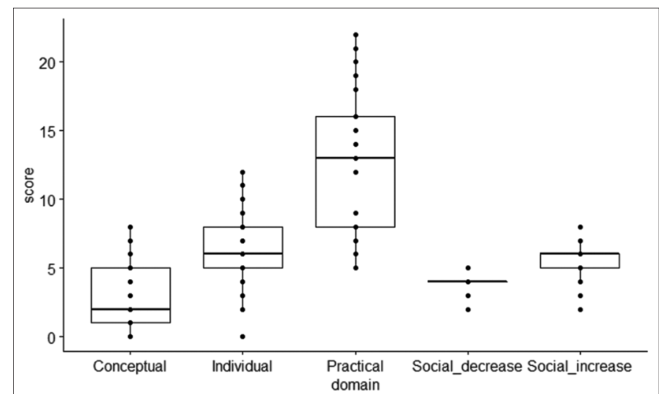

Figure 2: Comparison of mean, median and standard deviation in all domains

aripiprazole, quetiapine and olanzapine advised by the psychiatrist were prescribed singly or in varied combinations in few patients. The dosage of these medicines was tapered in 22 participants and withdrawn in six participants. The details of these are depicted in Table 5.

In neuropsychological complaints found in 25 participants of ID, significant improvement was seen in features such as restlessness, difficulty in concentration, difficulty in

Post Hoc Analysis Graph

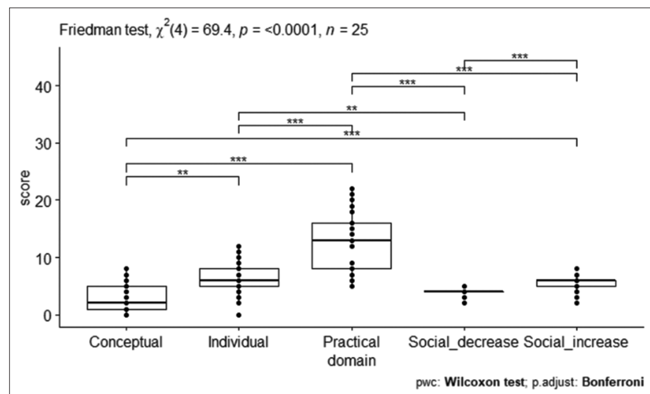

Figure 3: *Post hoc* analysis test

Table 1: Baseline distribution of subjects

Variables	Subgroups	Number of subjects	Percentage
Age	<17	16	64
	>17	09	36
Sex	Male	23	92
	Female	02	8
Degree of ID	Borderline	02	8
	Mild	05	20
	Moderate	14	56
	Severe	04	16
Associated diseases with ID	ADHD	05	20
	Autism	04	16
	Down syndrome	01	4
	ODD	01	4
History of convulsions	Before diagnosis of ID	11	44
	After diagnosis of ID	05	20
	No convulsions	09	36
Adjuvant therapy	Occupational therapy	14	56
	Speech therapy	09	36
	Physiotherapy	12	48
	Behavioural therapy	04	16
	Brain stimulation therapy	06	24
Family history	Present	09	36
	Not present	16	64
Allopathic treatment	Receiving	07	28
	Not receiving	18	72

ADHD: Attention deficit hyperactivity disorder, ODD: Oppositional defiant disorder, ID: Intellectual disability

communication, mood swings, impulsiveness and activities of daily living. The details of these are depicted in Table 6.

In behavioural dysfunctions found in 25 participants of ID, significant improvement was seen in features such as restlessness, difficulty in concentration, difficulty in communication, impulsiveness, hyperactivity, anger and violent destructive behaviours and repetitive behaviour. The details of these are depicted in Table 7.

Discussion

Although homoeopathy has been found useful for the patients of ID over the years, scientific evidence is lacking. The study demonstrated a significant reduction in features of ID in all the four domains. The maximum improvement was seen in practical domain followed by individual domain, and improvement ranked social domain. Lesser improvement is seen in conceptual and social domains. A study regarding social development of children with ID had found that the SQ increases as level of ID decreases from profound to mild.[5]

Improvement in all domains shows changes in intensity of symptoms in all domains but category did not change at the end of intervention period. Possibly, further interventions are required to change the category of ID.

Improvement was observed in neuropsychological dysfunctions such as cognition, concentration, socialisation, communication and learning disability. A study also concluded that least improvement is seen in difficulty in reading and writing, difficulty in socialisation and poor cognitive abilities. In a study on the management of learning disabilities, the children under homoeopathic treatment with remedial education showed an early response to remedial inputs and a statistically significant change in the indicators of dyslexia and dysgraphia. About 53.12% of children needed Calcarea salts. The other significant remedies indicated in 9.3% of children were *Medorrhinum*, *Argentum Nitricum, Calc-flour* and *Natrum* salts; indicated in 6.25% of children.[11] It is interesting to note that another study on 58 patients with mental disability showed some improvement in 47 patients with single remedy at a time.[4]

Improvement was also observed in behaviours such as hyperactivity, impulsiveness, violent destructive behaviours, repetitive behaviour, shyness and self-injurious behaviours. Such behavioural problems are the most challenging task faced with ID in which homoeopathic intervention may prove to be a boon for the family and society. A study concluded that less improvement is seen in other behaviours such as defiant behaviour, involuntary laughing, shyness and self-injury. A study regarding managing the behavioural problems with homoeopathic medicines in ID of 449 cases showed that major behavioural problems in ID are irritability, restlessness, hyperactivity, lack of concentration, salivation, disobedience, involuntary laughing, involuntary urination, sleeplessness, etc. Drugs such as *Belladonna, T. hispanica, Tuberculinum and Sulphur* were found more effective in hyperactive children and drugs such as *B. carbonica* and *Pulsatilla* were more useful in shy and underactive children. In nocturnal enuresis, drugs such as *B. carbonica, Calcarea carbonica, Cina, Mercurius solubilis, Nitricum acidum, Sulphur* and *Tuberculinum* were found useful.[6]

In 25 cases of ID, total nine medicines were prescribed; *Tuberculinum*, *Syphilinum*, *Thuja occidentalis* and *Carcinosin* were used as intercurrent remedies. As for acute complains,

Table 2: Comparison of mean, standard deviation and P value in all domains

Domains	Baseline scores	Pre-treatment scores	Scores at 6 months	Scores at 1 year	Scores at 1 ½ years	P-value
	Mean±standard deviation					
Conceptual domain	1.6±2.58	1.6±2.58	2.64±2.94	4±4.08	4.44±4.6	<0.001
Social domain (points which show improvement with increase in score)	3.8±2.50	3.8±2.50	6.28±2.32	8.28±2.75	9.16±2.90	<0.001
Social domain (points which show improvement with decrease in score)	10.3±2.11	10.3±2.11	8.8±2.38	7.52±2.26	6.64±2.22	<0.001
Practical domain	45.3±7.99	45.3±7.99	40.3±7.45	34.8±7.38	32.6±7.82	<0.001
Individual domain	12.2±6.35	12.2±6.32	9.48±5.24	7.2±4.64	5.96±4.47	<0.001

Table 3: Distribution of cases according to the improvement in all domains

Improvement	Number of cases				
	Conceptual domain	Social domain (points which show improvement with increase in score)	Social domain (points which show improvement with decrease in score)	Practical domain	Individual domain
Status quo	06	00	00	00	01
Mild	12	07	19	04	06
Moderate	07	12	06	08	12
Significant	00	06	00	13	06

Table 4: Medicines found useful

Name of medicine	Total number of patients prescribed (n)	Improvement status, n (%)			Indications*
		Mild	Moderate	Significant	
Tarentula hispanica	7	3 (42.8)	4 (57.14)	0 (0.0)	Extreme restlessness Sudden alteration of mood Destructive impulses Sensitive to music Twitching and jerking Worse by motion and noise Better by open air and music
Calcarea carbonica	7	2 (28.5)	3 (42.8)	2 (28.5)	Pituitary and thyroid dysfunctions Chilly patient Fearful and forgetful Obstinate Profuse perspiration Convulsions Obesity Timidity Late learning to walk Difficult in comprehension
Baryta carbonica	3	1 (33.3)	2 (66.6)	0 (0.0)	Mentally and physically retarded Loss of memory Shyful Confused Grief over trifles Delayed milestones Moody
Hyoscyamus niger	2	1 (50.0)	1 (50.0)	0 (0.0)	Obscene character Quarrelsome Talkative Suspicious Epileptic convulsions Great restlessness

(Contd...)

Table 4: *(Continued)*

Name of medicine	Total number of patients prescribed (*n*)	Improvement status, *n* (%)			Indications*
		Mild	Moderate	Significant	
Anacardium orientale	2	1 (50.0)	1 (50.0)	0 (0.0)	Impaired memory Absentminded Uses bad words Two different personalities Suspicious Hallucinations
Natrum muriaticum	1	0 (0.0)	0 (0.0)	1 (100.0)	Irritable Hurriedness Weeps easily Awkwardness Consolation aggravates Worse from noise and music Likes open air Craves salt
Nux vomica	1	1 (100.0)	0 (0.0)	0 (0.0)	Irritable Quarrelsome Convulsions Cannot bear noises Always find faults
Stramonium	1	0 (0.0)	1 (100.0)	0 (0.0)	Talkative Fear of darkness Singing Fear of being alone Visual and auditory hallucinations
Gelsemium sempervirens	1	1 (100.0)	0 (0.0)	0 (0.0)	Lack of muscular coordination Dullness Desire to be quiet and alone Vertigo Trembling

*Boericke's homoeopathic Materia Medica and repertory[12]

Table 5: Allopathic dosage in patients

Generic name of the drug*	At baseline drugs given in total (*n*) number of patients	After 1 ½ years of treatment				
		Reduction in dosage in (*n*) number of patients	Increased in dosage in (*n*) number of patients	Same dosage in (*n*) number of patients	Withdrawal of drug in (*n*) number of patients	Change of drug in (*n*) number of patients
Sodium valproate	7	4	1	1	1	--
Lamotrigine	5	3	--	--	1	1
Escitalopram	3	2	--	--	1	--
Risperidone	4	3	--	--	1	--
Clobazam	6	3	--	2	1	--
Carbamazepine	5	2	--	3	--	--
Aripiprazole	4	2	--	2	--	--
Quetiapine	3	2	--	--	1	--
Olanzapine	3	1	--	1	--	1
Total	40	22	1	9	6	2

*More than 1 medicine was given in some patients

acute remedies were prescribed when needed. It was also observed that cases which required *T. hispanica* and *Stramonium* in first instances ended up requiring *Calcarea carbonica* later. Centesimal scale potencies were utilised requiring 20°C potency in majority of cases and 3°C was used in a few cases.

Allopathic medications, namely sodium valproate, risperidone, clobazam, escitalopram, lamotrigine, carbamazepine, aripiprazole, quetiapine and olanzapine could be tapered during the treatment. A study on homoeopathy for the treatment of cerebral palsy with seizures has shown this as a possibility, with

Table 6: Changes observed in neuropsychological dysfunction

Neuropsychological complaints	Number of cases	Improvement status			
		Status quo	Mild	Moderate	Significant
Mood swings	12	2	4	5	1
Impulsiveness	8	1	3	3	1
Restlessness	13	0	4	6	3
Difficulty in concentration	20	1	10	7	2
Difficulty in communication	16	3	6	5	2
Difficulty in reading and writing	21	10	7	4	0
Difficulty in socialisation	15	5	6	4	0
Poor cognitive abilities	17	3	9	5	0
Support needed in activities of daily living	15	1	7	6	1

Table 7: Improvement status of behavioural dysfunction

Behavioural dysfunctions	Number of cases	Improvement status			
		Status quo	Mild	Moderate	Significant
Anger/violent	4	1	1	1	1
Hyperactivity	5	0	2	2	1
Impulsiveness	8	1	3	3	1
Restlessness	13	0	4	6	3
Difficulty in concentration	20	1	10	7	2
Difficulty in communication	16	3	6	5	2
Defiant behaviour	1	0	0	1	0
Repetitive behaviour	4	2	1	0	1
Involuntary laughing	2	1	0	1	0
Shyness	3	0	1	2	0
Self-injury	2	0	1	1	0

improvement in intensity, exacerbation and complete cure of seizures with homoeopathic treatment.[13] In a study by Manfred Mueller, he discusses three cases of children with organic brain pathology, apparently cured of seizures with homoeopathic treatment, indicating role of homoeopathy in seizures.[14]

In the present study, the participants with age group below 17 years showed significant improvement as compared to those with age above 17 years. This is expected, as they are in developmental stage. Older age group showed obstinate features which were difficult to change.

Studies involving persons with ID often end up screening out potential participants due to severe language and communication difficulties. A third-party communication becomes essential in such cases, which takes the form of proxy data. However, it could also be misinterpreted.

Small sample size was a limitation of this study. Number of the participants suffering from borderline, mild, moderate and severe ID is not uniform nor large enough to study comprehensively differential impact on different types of ID. Furthermore, the scale used is an amalgamation of specific domains mentioned in DSM-V under ID and the concept of individualisation of homoeopathy. Even though both sources are authentic in nature, still it is an experimental, self-created scale, requiring validation, used to differentiate scope of homoeopathic medicines in different domains of ID. Initially, it was planned to find scope of homoeopathy in ID under three domains only, but prescribing in homoeopathy could not be done without individualisation and so one more, individual domain was added to the existing domains. The current study was a pilot study on ID providing platform for more extensive researches with larger sample size. Yet, it covered up the entire range of intellectual developmental disorder (except profound) borderline, mild, moderate and severe. However, more systematic, multicentric, self-controlled, non-randomised study is required. Furthermore, scope of studying of individual medicines in such cases could be further explored.

Conclusion

The study has demonstrated the usefulness of homoeopathic treatment in the management of ID, which is reflected through significant improvement in adaptive functioning, cognition, hyperactivity, behavioural dysfunction, communication and learning difficulty. This pilot study was carried out to understand the challenges and improvise the strategies followed in working with ID patients. The study also proves that tailoring the remedy according to the individual's need serves the purpose even in cases of ID.

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Nil.

Conflicts of interest

None declared.

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Papel de los medicamentos adyuvantomoeopáticos en el tratamiento de la discapacidad intelectual: un estudio piloto pre y posterior a la intervención con propósito, no aleatorizado y autocontrolado

Antecedentes: la discapacidad intelectual se caracteriza por una inteligencia por debajo del promedio y una falta de habilidades necesarias para la vida diaria. Nuestro instituto realizó un estudio en una escuela para estudiantes con necesidades especiales. **Objetivos:** Demostrar el papel del manejo homeopático en la discapacidad intelectual. **Métodos:** Se realizó un estudio intencional, no aleatorizado, autocontrolado, previo y posterior a la intervención, de veinticinco participantes. Los primeros 6 meses fueron el período de control, a partir de entonces, los mismos participantes fueron tratados durante 18 meses con homeopatía. Los resultados del tratamiento se evaluaron utilizando los dominios del DSMV. Las puntuaciones de cada dominio se observaron en un intervalo de 6 meses y se analizaron. **Resultados:** Se observó una diferencia estadísticamente significativa (p <0,001) en las puntuaciones del tratamiento de funcionamiento adaptativo para el dominio conceptual, el dominio social y el dominio práctico. Justifica la mejora clínicamente significativa en las características de la discapacidad intelectual, reflejada en todos los dominios del funcionamiento adaptativo, cognición, hiperactividad, disfunción conductual y dificultad de comunicación. También se observó que la dosis de medicamentos farmacológicos se redujo gradualmente en la mayoría de los casos. **Conclusión**: El estudio ha demostrado la utilidad del tratamiento homeopático como coadyuvante en el manejo de la discapacidad intelectual, lo que se refleja en una mejora significativa en la adaptación psicosocial de los sujetos y en la mejora de su calidad de vida.

安居乐业药物在智力障碍管理中的作用-
一个有目的的、非随机的、自我控制的干预前和干预后试点研究

研究背景:智力残疾的特点是智力低于平均水平，缺乏日常生活所需的技能。我们研究所在一所特殊需要的学生学校进行了一项研究.

目标: 展示顺势疗法在智力障碍中的作用.

方法:一个有目的的、非随机的、自我控制的、干预前和干预后的研究已经完成，有25名参与者。最初的6个月为对照期，此后，同样的参与者接受了18个月的同种疗法治疗。治疗结果是用DSMV的领域来评估的。每个领域的分数在6个月的间隔内进行观察和分析。.

结果:在概念领域、社会领域和实践领域的适应性功能治疗得分中，观察到了统计学上的显著差异（P<0.001）。这说明智力障碍的特征在临床上有明显的改善，体现在适应性功能、认知、多动、行为障碍和交流困难等所有领域。此外，在大多数情况下，药物的剂量是逐渐减少的。.

总结:该研究证明了顺势疗法作为一种辅助手段在管理智力残疾方面的效用，这体现在受试者的社会心理适应能力得到明显改善，生活质量得到提高。.

Rolle der adjuvan thomöopathischen arzneimittel bei der behandlung von geistiger behinderung – eine zielgerichtete, nicht-randomisierte, selbstkontrollierte pilotstudie vor und nach der intervention

Hintergrund: Eine geistige Behinderung ist gekennzeichnet durch eine unterdurchschnittliche Intelligenz und einen Mangel an Fähigkeiten, die für das tägliche Leben notwendig sind. Unser Institut hat eine Studie an einer Schule für Schüler mit besonderen Bedürfnissen durchgeführt. **Zielsetzungen:** Aufzeigen der Rolle der homöopathischen Behandlung bei geistiger Behinderung. **Methoden:** Es wurde eine zielgerichtete, nicht-randomisierte, selbstkontrollierte Prä- und Post-Interventionsstudie mit fünfundzwanzig Teilnehmern durchgeführt. Die ersten 6 Monate waren der Kontrollzeitraum, danach wurden die gleichen Teilnehmer 18 Monate lang mit Homöopathie behandelt. Die Behandlungsergebnisse wurden anhand der Domänen des DSMV bewertet. Die Werte für jeden Bereich wurden im Abstand von 6 Monaten beobachtet und analysiert. **Ergebnisse :** Ein statistisch signifikanter Unterschied (p< 0,001) wurde bei den Behandlungsergebnissen für die adaptiven Funktionen im konzeptionellen Bereich, im sozialen Bereich und im praktischen Bereich festgestellt. Dies rechtfertigt die klinisch signifikante Verbesserung der Merkmale der geistigen Behinderung, die sich in allen Bereichen der adaptiven Funktionen, der Kognition, der Hyperaktivität, der Verhaltensstörungen und der Kommunikationsschwierigkeiten widerspiegelt. Außerdem wurde festgestellt, dass die Dosierung der pharmakologischen Medikamente in den meisten Fällen schrittweise reduziert wurde.. **Schlussfolgerung**: Die Studie hat den Nutzen der homöopathischen Behandlung als Hilfsmittel bei der Behandlung von geistiger Behinderung gezeigt, was sich in einer signifikanten Verbesserung der psychosozialen Anpassung der Probanden und einer Verbesserung ihrer Lebensqualität widerspiegelt.

Rôle des médicaments homéopathiques adjuvants dans la gestion de la déficience intellectuelle – une étude pilote intentionnelle, non randomisée et autocontrôlée avant et après l'intervention

Contexte: Le handicap intellectuel se caractérise par une intelligence inférieure à la moyenne et un manque de compétences nécessaires à la vie quotidienne. Une étude a été menée par notre institut dans une école pour élèves à besoins spécifiques. **Objectifs:** Démontrer le rôle de la prise en charge homéopathique dans la déficience intellectuelle. **Méthodes:** Une étude intentionnelle, non randomisée, auto-contrôlée, pré et post-intervention, de vingt-cinq participants a été réalisée. Les 6 mois initiaux ont constitué la période de contrôle ; ensuite, les mêmes participants ont été traités pendant 18 mois, par homéopathie. Les résultats du traitement ont été évalués en utilisant les domaines du DSMV. Les scores de chaque domaine ont été observés à 6 mois d'intervalle et analysés. **Résultats:** Une différence statistiquement significative (p< 0,001) a été observée dans les scores de traitement du fonctionnement adaptatif pour le domaine conceptuel, le domaine social et le domaine pratique. Cela justifie l'amélioration cliniquement significative des caractéristiques de la déficience intellectuelle, reflétée dans tous les domaines du fonctionnement adaptatif, de la cognition, de l'hyperactivité, du dysfonctionnement comportemental et des difficultés de communication. On a également constaté que la posologie des médicaments pharmacologiques a été progressivement réduite dans la plupart des cas. **Conclusion** : L'étude a démontré l'utilité du traitement homéopathique comme adjuvant dans la gestion de la déficience intellectuelle, ce qui se traduit par une amélioration significative de l'adaptation psychosociale des sujets et une amélioration de leur qualité de vie.

मानसिक अक्षमता के प्रबंधन में सहायक होम्योपैथिक दवाओं की भूमिका - एक सोद्देश्य, गैर-यादृच्छिक, स्व-नियंत्रित, पूर्व एवं पश्च मध्यवर्तन प्रायोगिक अध्ययन

पृष्ठभूमि: मानसिक अक्षमता को औसत से कम बुद्धिमत्ता तथा दैनिक जीविका हेतु अपेक्षित कौशल अभाव से चिन्हित किया गया है। हमारे संस्थान द्वारा एक विद्यालय में विशेष जरुरतों वाले बच्चों हेतु एक अध्ययन संचालित किया गया था। **उद्देश्य:** मानसिक अक्षमता में होम्योपैथिक प्रबंधन की भूमिका को दर्शाना। **प्रणालियाँ:** एक सोद्देश्य,गैर-यादृच्छिक,स्व-नियंत्रित पूर्व एवं पश्च मध्यवर्तन अध्ययन 25 प्रतिभागियों का किया गया था। शुरुआती छह महीने का समय नियंत्रण अवधि थी तत्पश्चात्, इन्हीं प्रतिभागियों का उपचार 18 महीने तक होम्योपैथी से किया गया था। डीएसएम V के ज्ञानक्षेत्रों का इस्तेमाल करके उपचार निष्कर्षों का मूल्यांकन किया गया था। प्रत्येक ज्ञानक्षेत्र के प्राप्तांकों को 6 महीने के अंतराल पर अवलोकित एवं विश्लेषित किया गया था।

परिणाम: वैज्ञानिक ज्ञानक्षेत्र,सामाजिक ज्ञानक्षेत्र तथा प्रायोगिक ज्ञानक्षेत्र हेतु अनुकूलनीय कार्यशील उपचार प्राप्तांकों में सांख्यिकीय दृष्टि से एक महत्वपूर्ण भिन्नता (पी < 0.001) देखी गई थी। यह मानसिक अक्षमता के लक्षणों में नैदानिक दृष्टि से महत्वपूर्ण सुधार को उचित ठहराती है, जो कि अनुकूलनीय कार्यशीलता,अभिज्ञान,अतिसक्रियता,व्यवहारिक दुष्क्रिया तथा बोलचाल संबंधी समस्या के सभी ज्ञानक्षेत्रों में प्रतिबिंबित होती थी। साथ ही ये भी देखा गया था कि अधिकतर मामलों में औषधीय दवाओं की खुराक को थोड़ा कम कर दिया गया था।

निष्कर्ष: इस अध्ययन ने मानसिक अक्षमता के प्रबंधन में होम्योपैथिक उपचार की उपयोगिता को सहायक के तौर पर दर्शाया है, जो कि विषयों के मनःसामाजिक अनुकूलता में हुए महत्वपूर्ण सुधार से प्रतिबिंबित होता था तथा उनके जीविका स्तर में सुधार लाया था।