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Management of behavioural problems in intellectual disability using ‘Lectures on homoeopathic *Materia Medica*’ by Dr. JT Kent

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Abstract

Background: Intellectual Disability (ID) is often associated with varied behavioural problems that have a significant emotional and social impact on both the child and parents.

Objective: To identify the indications of homeopathic medicines in the treatment of behavioural problems of children with ID, using ‘Lectures on Homeopathic *Materia Medica* by Dr. J.T. Kent’, and to assess the changes on the standardized scales.

Materials and Methods: A prospective, observational study was conducted on children aged 3 to 18 years with Intellectual disability. A total of 33 cases were assessed using BASIC MR PART B and WHODAS CY scales. The data was recorded and statistically analyzed.

Results: Clinical indications of 17 remedies were obtained from Kent’s *Materia Medica*, according to the totality of symptoms and the key indications obtained and used as prescriptions. *Stramonium* was prescribed in maximum cases (n=5). Changes in behaviour and disability were moderate in most cases and statistically significant for majority of cases.

Conclusion: Medicines selected from ‘Lectures on Homeopathic *Materia Medica* by Dr. J.T. Kent’ proved to be effective in managing behavioural problems of children with ID along with the changes on overall disability levels and gave some very reliable indications for remedy prescription. Significant changes were observed in all domains of both scales. Controlled trials are warranted.

Keywords: Intellectual disability, behavioral problems, BASIC-MR, WHODAS, homoeopathic treatment, Dr. JT Kent

1. Introduction

Intellectual disability (ID), once called mental retardation, is characterized by below-average intelligence or mental ability and a lack of skills necessary for day-to-day living. There are varying degrees of intellectual disability, from mild to profound. Someone with intellectual disability has limitations in two areas which are Intellectual functioning (which refers to a person’s ability to learn, reason, make decisions, and solve problems) and adaptive behaviours (skills necessary for day-to-day life, such as being able to communicate effectively, interact with others, and take care of oneself). The basic problem of such children is that they suffer from varied behavioural problems and their intelligence level is sufficiently below the mean level, preventing them from being able to lead an entirely independent existence, which can be improved by homeopathic treatment [1]. In a previous study by Indira [2], symptoms of behavioural problem in mentally retarded children were studied, which showed that a greater number of general symptoms were obtained than particular symptoms. According to Kent as stated in his philosophy, “Man is prior to organs and the home in which he lives is his body. What is expressed in parts is always preceded by a deviation in the state of health of the person. Such a deviation can be known only through expressions at the general level” [3]. As all the things that are predicted of the patient himself in this disease are things that are general, thus the general symptoms are very important in a condition like ID to select any remedy. Dr. Kent emphasized on the fact that the things that are general are first in importance [3]. Thus, a study was required which would focus on the utility of Kent’s concept of general symptoms, reflected in his work LHMMK, in cases of ID. Existing evidence and clinical experience suggest that through Homoeopathy, we can control existing symptoms and prevent further worsening of the symptoms. However, there are only limited numbers of studies available in this area based on standardized scales and none using LHMMK as an aid in prescription for management of ID.

Hence, this study intended to show the clinical utility of LHMMK in such cases by observing and assessing effects of indicated homeopathic medicines on mental and physical general symptoms obtained in ID by using standardized scales.

2. Aim and objectives

The study aimed at observing and assessing the effect of indicated homeopathic medicines on mental and physical general symptoms obtained in cases of ID.

The primary objective of the study was to identify the reliable indications of homeopathic medicines in the treatment of behavioural problems found in intellectually disabled children with the aid of 'Lectures on Homeopathic *Materia Medica*' by J.T. Kent. The secondary objectives intended to identify change in behavioural problems found in Intellectually Disabled children using BASIC- MR (Part B) scale from baseline to last month of follow up and lastly to ascertain response of prescribed drugs on overall disability levels using WHO DAS 2 Children and Youth scale from baseline to last month of follow up.

3. Materials and Methods

3.1 Study design and Sample size

In a prospective, observational study^[4], 70 individuals were screened out of which 40 cases were enrolled with ID (23 males and 17 females including 7 dropouts) in the age group 3 to 18 years who attended the OPD at the National Institute for the Empowerment of Persons with Intellectual Disabilities (Divyangjan), sector 40 Noida, Uttar Pradesh and OPD, IPD or POPD of Bakson Homeopathic Medical College and Hospital. The treatment was provided irrespective of ongoing supportive therapies - occupational, physiotherapy, vocational, speech and interventions at the study centre. They were briefed regarding the objectives, methods, of the study along with the risks and benefits of Homeopathic treatment in such chronicity of complaints. Out of all the cases the ones accounting to the inclusion and exclusion criteria of the study were enrolled. Before enrolment, written informed consent was taken from either of the parents or guardians of the patients.

Inclusion and Exclusion Criteria

Children aged 3 to 18 years diagnosed with intellectual disabilities, suffering from any co-morbidity like ASD, ODD, ADHD etc. or taking any rehabilitation therapies were included in the study. Patients whose parents/guardians refused consent were excluded from the study.

3.2 Assessment parameters

The following scales were used to assess changes in behaviour and overall disability changes:

1. Behavioural Assessment Scale for Indian Children with Mental Retardation (BASIC-MR) PART B – Peshawaria and Venkatesan, 1992, (NIMH)^[5]
The scale was used to assess the current level of problem behaviours in the child. It comprises of seventy-five items grouped under the following ten domains: 1. Violent and Destructive Behaviour; 2. Temper Tantrums; 3. Misbehaves with others; 4. Self-Injurious behaviours; 5. Repetitive behaviours; 6. Odd behaviours; 7. Hyperactivity; 8. Rebellious behaviours; 9. Antisocial behaviours; 10. Fear.
2. WHO Disability Assessment Schedule 2 (Children &

Youth) (WHODAS – CY) (36-item version)^[6]

The scale has 6 domains which are as follows: Understanding and communicating (D1); Getting around (D2); Self-care (D3); Getting along with people (D4); Life activities (D5); Participation in society (D6). For each one, the respondent considers the level of difficulty on a five-point scale (none, mild, moderate, severe, extreme).

The medicines prescribed to the patients were selected with the help of the description of the medicines given in LHMMK. As Dr. Kent's evaluation lays highest emphasis to mental generals reflecting the inner most of the patient then to physical generals including modalities and characteristic particulars for the final stage of differentiation⁵ thus the BASIC MR Part B scale was used in particular, for the assessment as the scale contains questionnaire emphasizing general symptoms. The disability scale was used to assess the overall changes in disability after prescribing homeopathic remedies. This study focuses on providing a better understanding of the clinical utility of LHMMK in behavioural problems of children with ID.

3.3 Intervention and Statistical analysis

Choice of remedy and potency: The prescription was made according to the totality of symptoms obtained from case taking. The totality of symptoms pointed out the indications which were noted, and the remedy compatible with the particular case was prescribed after correlation from LHMMK. It was seen in the previous dissertation titled "Constitutional Homeopathic Treatment for Children (5-12 years) with Intellectual Disabilities (Intellectual Development Disorder): A Prospective Observational Study" by Dr. Divya Taneja, that higher potencies (above 200CH) when prescribed in the beginning of the treatment led to medicinal aggravations thus, lower potencies were prescribed at the beginning of the treatment to avoid unnecessary aggravations. The potencies were raised according to the progression and regression of improvement of the case. When there was no change observed in the follow up, without any new symptoms appearing, the medicine was continued except that the potency selected was raised to a higher potency. When there was a slight improvement noticed usually the same potency was continued. If marked improvement was observed and the appearance of recurrence of symptoms was noticed, the patient was prescribed *Saccharum Lactis*. The study duration being 6 months, patients were followed up monthly for assessment on both the scales every month but only the baseline and last follow up scores were considered for statistical analysis.

Statistical Analysis: Statistical analysis was done using Statistical Package for the Social Sciences Software (IBM SPSS 15.0 version). Intention to Treat (ITT) analysis was conducted and all cases enrolled in the study with at least one follow-up (n = 33) were included in the final analysis. Paired t test was used for pre and post treatment comparison for both the scales.

4. Observations and Results

A total of 40 patients were enrolled in the study, 7 dropped out and 33 had a minimum of one follow-up. Baseline socio-demographic and other information like distribution of age, the severity of ID, delivery types, birth cry,

complaints in the neonatal period, developmental history, potencies used and types of symptoms used in prescription was compiled and tabulated (Table 1). As per the aim of the study, the clinical indications obtained during case taking correlating to the symptoms described by Dr. J.T. Kent in his book on *Materia Medica*, were tabulated according to mental generals, physical generals and particulars (Table 2). The symptoms obtained in more than 1 patient were given in bold. The various remedies used for prescriptions and the change produced relating to improvement were tabulated (Table 3) as per the aim of the study. The patients were assessed at baseline and at the last follow up with the help of 2 standardized scales (Basic MR Part B & who Das CY 2) and the means were compared pre and post treatment. As per the other objectives of the study, the data was analysed which evidently proved the results to be significant. The mean values at the baseline and at the last visit were calculated for 10 domains of part B for all the 33 cases. The mean result of the behavioural problems was compared and found to be less from the baseline (Table 4). Due to COVID 19 pandemic all the cases could not complete the criteria of 6 months follow up as per the protocol, only 10 cases could complete 6 months follow up, 15 cases were having 2 to 5 months follow up & 8 cases were with 1 month follow up, so the analysis of the data for disability changes was categorized accordingly. The Analysis of paired differences

(t test) was done for both the scales, for the 10 cases that completed 6 follow ups. The result was found to be significant in all the domains of BASIC MR for Part B (Each domain separate) for the 10 cases with complete 6 follow ups (Table 6). Improvement was observed in behaviour for the maximum number of cases. The improvement was comparatively higher for the cases which followed up for longer duration, than the ones which followed up for less duration. The most significant change in the domains of BASIC MR for Part B was in Temper Tantrums and then in Hyperactivity. (Result significant at $p < 0.05$, 95% Confidence interval). There were significant changes observed on disability scale for the cases with 6 follow ups in comparison to those who had just one follow up. Minimal changes were observed in those cases with 1 follow up. After statistically analyzing the data of WHO DAS CY 2 scale the result was found to be significant in all the domains of the scale (each domain separate from D1 to D6) for the 10 cases with complete 6 follow ups (Table 7). The most significant change was in D1 (Understanding & communicating) followed by D6 (Participation in society) [Result significant at $p < 0.05$]. The results were noted to be significant [95% Confidence interval, $p < 0.05$ two-tailed]. Table 8 shows the objectives according to the observations obtained regarding them with the respective results.

Table 1: Distribution of patients by age, severity of ID, delivery types, birth cry, complaints in neonatal period, developmental history, potencies used and types of symptoms used in prescription.

Age	Male	Female	
3 to 6	11	10	21
7 to 10	5	3	8
11 to 14	5	3	8
15 to 18	2	1	3
Total	23	17	40
Severity of Id			
Type of id			Total
Mild			3
Moderate			22
Severe			12
Profound			3
Delivery types			
Type of id	Vaginal deliveries	Caesarean deliveries	Total
Mild	2	1	3
Moderate	15	8	23
Severe	6	5	11
Profound	2	1	3
Total	25	15	40
Birth cry			
Birth cry			Total
Immediate			16
Delayed			24
Unknown			0
Total			40
Conditions in neonatal period			
Sr. no	Conditions		Total
1	Injury- (fall, fracture etc)		3
2	Seizures		8
3	Neonatal jaundice		6
4	Hypoxia at birth		2
5	Infections- (Pneumonia, high grade fever etc.)		4
6	Congenital issues (Cleft palate/lip, tongue tied etc.)		3
7	Hernia (mostly abdominal)		2
8	NAD		12
Developmental history			
Milestones			Total

Normal			7
Delayed			18
Only Motor delayed			1
Only Speech delayed			13
Regressive changes in milestones			1
Potencies used			
Potencies used			Total
6C			31
30C			7
200C			2
Type of symptoms used in prescription			
Type of symptoms obtained			Total
Mental generals			27
Physical generals & particulars			1
Mental and physical generals/particulars			12

Table 2: Clinical indications of medicines prescribed from 'Lectures on Homoeopathic Materia Medica' by Dr. J.T. Kent

No	Medicines prescribed	Mental generals	Physical generals	Physical particulars	No. of cases
1	<i>Alumina</i>	--	Weakness of muscles, paralytic condition; Frequent awakening in sleep due to noises.	Inactivity of rectum; Cannot swallow	1
2	<i>Calcarea Phosphoricum</i>	Weak memory, slow to learn Travel desire; likes solitude; Feeble memory	Weakness of muscles; Aggravation fruits, aggravated after eating; Constipated- hard stool; Perspiration on scalp and forehead. Emaciated Stunted growth; Delayed milestones; Disturbed sleep, sleeps during the day.		4
3	<i>Stramonium</i>	Desires light, watching TV sits still. Shouting for company; Biting others. Violent, Laughter alternates with weeping; Stares at objects; Shrieking; Obstinacy; Fears dark, loud noises; indifferent to surroundings; Joyful mania; Desire to runaway (Clarke). Screaming; Violent; Awakens in middle of night frightened and clings to the person nearby. Clinging; Affectionate;	Cries amidst sleep.		5
4	<i>Tarentula</i>	Restlessness, Violent; desires dance and music. Desire jumping, dancing, music, solitude. Aversion to bright colours; Violent; Striking; Obstinate; Angered when contradicted; Violence along with destructiveness.	likes wandering in open air.		4
5	<i>Lachesis</i>	Loquacity, makes stories, every word leads to a story; Inclination towards religious activity;	Dreams vivid; Repeated infections		2
6	<i>Natrum Mur</i>	Mental prostration; poor memory Laughter at unsuitable times; Loses link when studying;	Emaciation ; wrinkly skin; stunted growth; aversion to rich fatty foods; Prostration; ameliorated in open air.		2
No	Medicines prescribed	Mental generals	Physical generals	Physical particulars	No. of cases
7	<i>Lycopodium</i>	Soft with elders but harsh with younger ones Desires music; Ambitious- employs every possible way; Aversion to company, dreads solitude; Frightful; Dread of something bad about to happen; Harsh on inferiors, want of power. Fearful; Desires being alone; Aversion to change. Want of power; lacks confidence; Aversion to company yet dreads solitude; Oversensitive aggravated by noises;	Staggering gait, imbalance, right side affected; Disturbed sleep, awakens frightened at night. Desires sweets.		5
8	<i>Belladonna</i>	Mania violent; Starts in sleep; Oversensitive to light and noise Wild- striking, biting; Angered easily; Wants to get away from home.			2
9	<i>Opium</i>	No fears; Teeth clenching; No desire even when unwell.	Agg by noise		2
10	<i>Arsenic album</i>	Fastidious; Restlessness; Fears being alone;			2

		Violent when angry. Fearful; anxious; Desires company.			
11	<i>Mercurius</i>	Impulsive; Restlessness; Offensiveness.			1
12	<i>Hyoscyamus</i>	Muttering; Talking to imaginary people; Violent; Plays with genitals; desires being alone; Talks in sleep.			3
13	<i>Chamomilla</i>	Anger due to contradiction; Irritable; Refuses things when given; Likes being carried; Crying always.			1
14	<i>Ignatia</i>	Staring fix look; Grief; Sobs when alone; talks to self; Weeping tendency; Desire to be alone.	Tired after work; fainting episodes;		2
15	<i>Cocculus</i>	Caring; Slow responses; Night watching; Awkwardness;	Imbalance; Agg by noise.		1
16	<i>Veratrum album</i>	Violent; Destructive; Cuts and tears papers.			2
17	<i>Silicea</i>	Desires company; Fears- lacks confidence; Prostration;	Chilly patient; Constipation and Offensiveness		1

Table 3: Medicines used for prescription

Sr.no	Medicines prescribed	Potency	No change	Worsened	Slightly improved	Improved	Drop out	No. of cases
1	<i>Alumina</i>	6C	0	0	0	1	0	1
2	<i>Calcarea Phosphoricum</i>	6C, 30C, 200C	0	0	0	3	1	4
3	<i>Stramonium</i>	6C	0	0	0	5	0	5
4	<i>Tarentula</i>	6C, 200C	0	0	0	3	1	4
5	<i>Lachesis</i>	6C, 30C	0	0	0	1	1	2
6	<i>Natrum Mur</i>	6C, 30C	0	0	0	2	0	2
7	<i>Lycopodium</i>	6C, 30C	0	0	2	3	0	5
8	<i>Belladonna</i>	6C	0	0	1	1	0	2
9	<i>Opium</i>	6C	0	0	0	1	1	2
10	<i>Arsenic album</i>	6C, 30C	1	0	0	1	0	2
11	<i>Mercurius</i>	6C	1	0	0	0	0	1
12	<i>Hyoscyamus</i>	6C	0	0	0	1	2	3
13	<i>Chamomilla</i>	6C	0	0	1	0	0	1
14	<i>Ignatia</i>	6C	0	0	1	1	0	2
15	<i>Cocculus</i>	6C	0	0	0	1	0	1
16	<i>Veratrum album</i>	6C	0	0	0	1	1	2
17	<i>Silicea</i>	6C	0	0	0	1	0	1

Table 4: Change in basic Mr. Part B Mean Scores at baseline and final visit

N=33	Baseline		End-line	
	Mean	SD	Mean	SD
Violent & Destructive Behaviour	7.58	5.73	4.09	4.84
Temper Tantrums	3.61	1.62	2.03	1.36
Misbehaves with Others	2.18	1.86	1.39	1.46
Self- Injurious Behaviours	1.42	2.12	0.54	0.90
Repetitive Behaviours	2.42	2.83	1.33	1.53
Odd Behaviours	1.03	1.86	0.61	1.17
Hyperactivity	4.79	1.80	2.82	1.73
Rebellious Behaviours	0.64	1.05	0.24	0.56
Antisocial Behaviours	0.09	0.38	0.06	0.24
Fears	2.30	2.31	2.06	2.22

Table 5: change in- who Das 2 CY scale mean scores at baseline and final visit

Cases with 1 follow up				
N=8	Baseline		Final	
	Mean	SD	Mean	SD
D1	23.8750	2.16712	21.6250	4.24054
D2	5.7500	.88641	5.6250	.91613
D3	11.8750	3.68152	10.8750	3.94380
D4	10.8750	3.13676	10.5000	3.38062
D5	25.0000	10.37855	22.3750	10.43261
D6	16.8750	2.03101	15.7500	3.24037
Cases with 2-5 follow ups				
N=15	Baseline		Final	
	Mean	SD	Mean	SD
D1	22.6667	4.62395	19.4667	4.73387
D2	10.6000	6.26555	10.0000	5.71964

D3	13.4000	3.41844	12.2667	3.67359
D4	10.1333	3.15926	9.9333	3.23964
D5	26.0000	10.64358	24.0000	9.87059
D6	16.5333	2.29492	14.9333	2.76371
Cases with 6 follow ups				
N=10	Baseline		Final	
	Mean	SD	Mean	SD
D1	26.1000	3.34830	17.8000	4.70933
D2	17.5000	7.48703	12.8000	6.98888
D3	15.1000	4.14863	12.0000	4.78423
D4	16.1000	2.80674	11.8000	3.82390
D5	24.4000	8.14043	19.4000	6.13188
D6	18.1000	2.18327	14.5000	2.59272

Table 6: Statistical analysis paired t test for basic Mr Part b scores

Behaviour Domains		Paired differences				
		Mean	SD	95% Confidence Interval of the Difference		p value
				Lower	Upper	
Violent & destructive	B-A/T	5.60000	5.23238	1.85698	9.34302	.008
Temper tantrums	B-A/T	2.40000	1.26491	1.49514	3.30486	.000
Misbehaves with others	B-A/T	1.40000	1.42984	.37715	2.42285	.013
Self-injurious behaviour	B-A/T	1.60000	2.17051	.04731	3.15269	.045
Repetitive behaviour	B-A/T	2.10000	1.28668	1.17956	3.02044	.001
Odd behaviour	B-A/T	1.40000	1.77639	.12925	2.67075	.034
Hyperactivity	B-A/T	2.60000	1.50555	1.52300	3.67700	.000
Rebellious behaviour	B-A/T	.50000	.97183	-.19520	1.19520	.138
Anti-social behaviour	B-A/T	.10000	.31623	-.12622	.32622	.343
Fears	B-A/T	.40000	.69921	-.10018	.90018	.104
Total	B-A/T	17.6000	10.1675	10.3266	24.8734	.000

B - A/T- Difference between the baseline and after treatment *the mean difference is significant at the $p < .05$;

Table 7: Statistical analysis paired t test for who das CY 2 scores

Domain Description	Disability Domains		Paired differences				
			Mean	SD	95% Confidence Interval of the Difference		Sig. (2-tailed) P
					Lower	Upper	
Understanding & communicating	D1	B-A/T	8.30000	2.16282	6.75281	9.84719	.001
Getting around	D2	B-A/T	4.70000	3.33500	2.31429	7.08571	.002
Self-care	D3	B-A/T	3.10000	2.60128	1.23916	4.96084	.004
Getting along with people	D4	B-A/T	4.30000	2.45176	2.54612	6.05388	.001
Life activities	D5	B-A/T	5.00000	3.71184	2.34471	7.65529	.002
Participation in society	D6	B-A/T	3.60000	1.17379	2.76032	4.43968	.001

A/T- After treatment SD: Standard Deviation; CI: Confidence Interval at 95%; *the mean difference is significant at the $p < .05$;

Table 8: Shows the objectives of the study corresponding to their respective observations and results obtained

Objectives	Observations	Results
Effect of indicated homeopathic medicines on mental and physical general symptoms obtained in cases of ID	The symptoms showed mild improvement in most of the cases with 1 month treatment & drastic improvement in majority of cases with long term treatment; No cases worsened.	The objective was achieved and Tabulated in Table 2 and 3
To identify the reliable indications of homeopathic medicines in the treatment of behavioural problems found in Intellectually Disabled children with the aid of 'Lectures on Homeopathic <i>Materia Medica</i> ' by J.T. Kent	There were more of Mental generals obtained compared to Physical generals and particulars.	The objective was achieved and the indications were Tabulated in Table 2
Identify change in behavioural problems found in Intellectually Disabled children using BASIC-MR (Part B) scale from baseline to last month of follow up	There was improvement observed in all domains of BASIC MR Part B. The changes in most of the cases with 1 month follow up were mild & drastic changes were observed for the cases which followed up for longer duration	Significant changes were observed on analyzing the data and the results were tabulated in Table 4 and 6.
Ascertain response of prescribed drugs on overall disability levels using WHO DAS 2 Children and Youth scale from baseline to last month of follow up.	Slight improvement was observed in cases with 1 follow up. Cases having more than 4 follow ups showed remarkable improvement.	Significant improvement was observed on analyzing the data and the results were tabulated in Table 5 and 7.

5. Discussion

Previous studies like *Indira*⁷ and *Filho*⁸ have shown that

with proper homoeopathic treatment the mentally retarded children can be managed better without further damage to

the vital organs of the affected children. Similarly, this study not only proved that medicines prescribed on basis of LHMMK are useful in different behavioural problems of children with ID, but also showed that medicines had helped them in developing their intellectual and functional skills up to some levels. As per the aim of the study, the general symptoms obtained in the cases showed substantial improvement with Homoeopathic treatment given according to the LHMMK. The various types of symptoms obtained throughout the case taking were- Mental generals, Physical generals and Physical particulars. Out of all the cases 67.5% of cases were prescribed remedies on the basis of key indications belonging to mental generals only. 30% cases were prescribed remedies on the both mental and physical generals. Only one single case has been prescribed a remedy on the basis of physical generals and particulars. The Homoeopathic medicines prescribed using LHMMK, were found to be effective in the cases of ID and showed plenty of indications that were an aid in the treatment of ID as per the objective of the study. A statistically significant improvement was noticed in maximum number of cases especially the ones who followed up for more than 3 months duration. The most frequently used remedy was *Stramonium* (5 cases) and *Lycopodium* (5 cases) followed by *Calcarea Phosphoricum* and *Tarentula H.* (4 cases each). The medicines like *Stramonium*, *Lycopodium*, and *Calcarea Phos* were particularly found useful in behaviours like hyperactivity, aggression and fears. The results with Homoeopathic treatment were promising and satisfactory although the response could also be attributed to the simultaneous on-going therapies. There were 2 cases where *Natrum Mur* showed good response in speech disabilities. The clinical presentation of behavioural problems, termed as challenging behaviour, it was found that the most common presentation was the temper tantrums, hyperactivity and violent and destructive behaviour. In most of the cases, there were restlessness and aggression observed which was very disturbing for the parents. Due to such adamant behaviours, many parents complained about their child not undergoing the rehabilitation therapies properly. Due to their refusal of acceptance of the rehabilitation therapies the improvement had come to a standstill and that is where this study showed significant importance. Repetitive behaviour was present in about two-third (65%) cases, which includes rocking, producing sounds, shaking body parts, or repetition of same words. Three of every five (57.5%) children showed fears of various places, persons, animals or objects. Children suffering from self-injurious behaviours were observed to be 45%, which included head banging, hitting fists on the wall etc. Odd and rebellious behaviour was observed in about one-third (35%) cases each. Only 7.5% of cases showed anti-social behaviour, whereas there were none who reported any inappropriate sexual actions. The Behavioural problems were noted in a greater % of cases with moderate ID as compared to mild and severe. The positive result over the BASIC MR Part B score was found in majority of cases but it was statistically significant in the 10 cases that completed the 6 follow ups, moderate in cases with 2 to 5 months follow up & minimal in 1 month follow up. There has been significant changes in all the domains of behaviour i.e. violent and destructive, temper tantrums, self-injurious behaviours, rebellious, misbehavior, anti-social, fears and repetitive behaviour. The disability changes on WHO DAS 2 CY scale were also significant. The patients who

continued the treatment for longer duration showed comparatively more improvement in disability than the ones who followed up for lesser duration. Considerable decrease was observed in the domains D1 (Understanding and communicating) and D6 (Participation in society) of WHO DAS CY 2 scale. But as the study setting had limitations, to establish a conclusive role due to the COVID 19 pandemic & short span of the duration of the study, large scale studies can be undertaken to achieve it. Also, the recurrence of the complaint needs to be observed as well as any study regarding the duration of the action of the remedy, importance of potencies & anti-miasmatic remedies are some recommendations for the future researchers that can be undertaken for a clear view. There were cases that came to a standstill after showing improvement for some months. Judicious use of nosodes could be studied in further studies to act as an inter-current in such cases and bring progress in non-progressing cases. Also to study the individual effect of Homoeopathic medicines in ID studies could be undertaken on individuals not undergoing any rehabilitation therapies during the treatment given to them. This would clearly differentiate the picture of Homoeopathic treatment as a boon to cases of ID.

6. Conclusion

The Homoeopathic treatment provided with rehabilitation therapies shows a far more positive result in the cases of ID in children and the parents should be encouraged to undertake this line of treatment with the rehabilitation therapies. Behavioural problems & physical disabilities manifested in intellectual disability are different. Homoeopathic remedies helped in bringing an overall change in the behavioural condition along with physical disabilities of children with intellectual disability and also showed its clinical significance for such cases. From this study, it is evident that Homoeopathy plays a beneficial role in the long-term care of children with Intellectual Disability. The results are evident even with a short span (1 month) of treatment as well as significantly evident in long term treatment and follow ups. Homoeopathic remedies selected from the available literature, treat the child as a whole and have proven to be effective in treating behavioural problems along with the physical disabilities to some extent in the children with ID. If the medicine is continued for a longer duration, changes in disability levels can be comparatively higher than those observed in this study which could help in the overall improvement of the cases with ID. The results of the treatment with Individualized Homoeopathic medicines selected from LHMMK evidently showed that the child can improve in all the spheres like conceptual, understanding, communicating, adaptive and social which will ultimately improve the quality of life of the patient & of the family also. The results can further be verified by taking up large scale pragmatic studies based on controlled trials with longer study duration.

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