PILOT STUDY OF THE PERCEIVED EFFECTS OF BOWEN THERAPY ON CHILDREN WITH CEREBRAL PALSY

Catherine Vivian, BSc, BA
Leicester 2004
(United Kingdom)

CONTENTS

[*Appendix 6 has not been included*]

SUMMARY

AIMS: This pilot study looks at the effect of Bowen Therapy treatment on children with the condition of Cerebral Palsy. The aim was to identify and evaluate changes, which took place in the key areas of disability they experienced. The main areas identified were physical function, communication and behaviour.

CONTEXT: Bowen Therapy is a light touch therapy in which the therapist performs a series of gentle rolling movements of skin over tissue at specific points on the body. This stimulates the body to make its own adjustments towards optimum structural integrity, resulting in better functioning, and hence improved health.

METHODS: Ten children took part and were scored according to their parents' observations of changes in their disability level. They were treated on 4 successive occasions at fortnightly intervals with a set procedure of Bowen moves.

RESULTS: Results showed a high level of changes occurring across the broad range of disabilities with no adverse effects. There was a 90% positive response rate. Only one child out of the ten experienced no changes at all. 50% of the children had a sustained improvement; 30% had an improvement, which dropped to a lower level; 70% of the children had an improvement, which lasted no longer than 2 weeks after the conclusion of the treatment.

CONCLUSIONS: The high level of response across the range of disability shows that this therapy is worthy of much more in-depth study. Key functional physical areas of muscle flexibility and co-ordination showed the largest number of changes. Of great interest were the improvements in categories of communication (speech and eye contact), and behaviour, as they have wider implications for human relations and hence impact on people's lives. The results support the premise that these children, their families, and many others can benefit from continued Bowen Therapy treatment.

Introduction

This pilot study looks at parents[i] perceptions of changes that have taken place in their children's condition of Cerebral Palsy and experience of 'normal living' , after a series of four Bowen Therapy treatments over a period of two months.

Rational for the pilot

The aim was to identify and evaluate positive changes in key areas of disability experienced by children with Cerebral Palsy as observed by their parents. The therapy known as 'The Bowen Technique' is not formally recognised; nor is it generally available within the health service or well funded. A group of Bowen therapists in Leicester had anecdotal evidence that Bowen Therapy works well for many children with Cerebral Palsy. Howard Plummer had established a regular Bowen clinic for such children in Cardiff and was having good results. He was encouraging others to also work with these very needy children. We therefore decided to conduct a pilot study investigating these effects.

Nature of Bowen Therapy

The Bowen Technique is a new and unique light touch therapy. It has been available in the United Kingdom since the early 1990's and was developed in Australia in the second half of the 20th century by Tom Bowen who gave it its name. The therapist performs a series of very gentle but specific moves of rolling skin over tissue, which are done at exact points on the body and in particular sequence. This promotes the body's own healing responses through stimulation of nerve reflexes. The whole connective tissue system is stimulated through increased lymphatic activity, and venous and arterial blood flow As a result, the structural integrity of the body is improved, which in turn promotes overall health. A number of theories have been put forward as to how this is achieved, Dr Whitaker has shown that the therapy positively affects Heart Rate Variability, which is a measure of the functioning of the autonomic nervous system. Michael Nixon-Livy who has pioneered another form of Bowen therapy called the Neurostructural Integration known as NST said "The body is a self-regulating and bioenergetic phenomena... Tom Bowen realised that the body would regulate itself and return to balance if the appropriate neurological and neuromuscular context was created."

Sample Group

The criteria for inclusion in the pilot were: the individual was to be below 19 years of age and to have been medically diagnosed as having Cerebral Palsy. A sample group of twelve children was decided upon. Wendy Evans[ii] had already treated one child with good results. That child became the subject for an article appealing for children to take part in the pilot in the Leicester Mercury, the local newspaper. We received twenty-four phone calls and took respondents on a 'first come, first served' basis inviting them to attend during July and August on four occasions at fortnightly intervals. Eleven of the children completed the programme. One child did not return after the first session for unknown reasons, and was not contactable after this time. Another child was not used in the data due to concurrent changes in medical treatment making the data unreliable. None of the other children had major changes in medical treatment.

Problems / Conditions

All the children had a combination of problems from the following areas:

---

[i] The word 'Parent' is used where 'Guardian' or 'Main Carer' may also apply.

[ii] Wendy Evans is a Bowen Therapist working in Quorn, North Leicester, and a participant in the pilot.

Functional: mobility, balance, co-ordination, muscle flexibility, muscle tone, feeding - (appetite, self-feeding, swallowing), toilet (constipation, balance on toilet), sleep, pain, asthma
Communication: speech, ability to sustain eye contact, ability to laugh
Behavioural: comprehension, concentration, general behavioural difficulties (hyperactivity, tantrums, aggression, biting, scratching, dislike of being handled or touched)
Five children, who were quadriplegic, were described as severe.
Three children were described as moderate, one being quadriplegic and two hemiplegic.
Two children were described as mild to moderate, one being quadriplegic, and one hemiplegic.
Five children had epilepsy or regular fits.
One child had autism.
One child had severe asthma.
Three children had moderate to severe behavioural problems.

Methods

Parents' perceptions became the focus of the study due to the difficulty in establishing actual changes under controlled conditions, and because they are best placed to see day-to-day changes. The areas that parents were asked to observe were all the things that the child had difficulty with.
Each child received four Bowen treatments, which were provided by fully insured therapists[iii] The procedure used was the acknowledged basic Bowen treatment consisting of a set sequence of moves, plus further specific movements performed on the final three occasions. The therapist selected additional moves according to the observed body response to the previous treatment. Parents were asked for feedback on each successive occasion, and were visited several weeks after the end of treatment when their opinions and observations were recorded. Functional ability and well being of the children were looked at. Parents were asked to score this on a range from 0 to 10 before, during and after the treatment, and several weeks after the last treatment. Parents were also asked to rate the level of initial improvement on a percentage basis. They where asked to rate change/improvement as having:

a) been sustained over a 4 week period after the last treatment
b) been sustained at a lower level than first experienced, over a 4 week period after the conclusion of the treatment
c) not been sustained longer than 2 weeks after the last treatment
d) not occurred

Results

Parents were asked to report any adverse affects or dissatisfaction with the treatment, care or operation of the pilot. None were reported, except for disappointment and frustration when positive changes were not sustained. Changes that were likely to have had other influencing factors were excluded from the results, e.g. recent botox injections to a limb.

Appendix 1 shows the specific comments by parents. Appendix 2 shows the range and level of results for each child in each category. Appendix 3 shows the incidence of improvements, Appendix 4 shows results by the category of change, number of children and area of disability. Appendix 5 has graphs to support the above data.

- 90% of children had an improvement one or more areas of disability
- 10% of children had no improvement at all in any area of disability.

[iii] Two therapists were just coming up to their final exam so were technically still training, but were fully insured and under full supervision by a qualified and experienced therapist.

- 50% of children had a sustained improvement
- 30% of children had an improvement which was sustained at a lower level
- 70% of children had an improvement which was not sustained
- 70% of parents said they had seen an improvement of 50% or more in one or more areas of disability
- 30% of parents saw a sustained improvement of 50% or more
- One child experienced a significant reduction in the number of epileptic fits, from 12 to 13 'grand mal' fits per day down to one. (This returned two weeks after treatment)
- 5 children experienced improvement that positively affected the function of a limb
- 2 children experienced an improvement in general behaviour which was sustained
- 2 children experienced an improvement in speech which was sustained
- There were 26 improvements which were sustained
- There were 6 improvements which were sustained at a lower level
- There were 22 improvements which were not sustained

Conclusions

There were a number of perceived improvements. These are quite wide-ranging and varied across the majority of the areas of disability. Some improvements were fully sustained 4 weeks after the end of the treatment, whilst some had gradually reduced in level. Other improvements disappeared and disabilities returned to the same level they had been prior to the treatment (see Appendices 2 to 5).

The types of changes observed by the parents did not follow any major pattern relating to the type of disability. However, improvements in co-ordination and flexibility had the largest number of changes. A bigger and more targeted sample would be required to show if this is significant.

The changes to behaviour demonstrate that this holistic therapy affects more than isolated muscles and connective tissue. Two of the children became a lot calmer and showed significantly less agitated behaviour, thereby having impact on other areas of life. These two children (child C and child E) had the most recorded number of changes and were both described as suffering with severe quadriplegia.

Even small individual changes experienced had impact upon the children and the parents. This can be seen in Appendix I in the 'Parents' Specific Comments'.

A high level of improvements were not sustained longer than 2 weeks (70% of children) which suggests that regular or further treatment may be beneficial to maintain it.

It must be noted that this pilot was not subject to the normal controls of research, such as using a control group, or being run by a disinterested party. However, all observations of parents are reported faithfully.

The future

The therapists involved in this pilot are committed to promoting Bowen Therapy as a highly beneficial, non-invasive therapy, which could be much more extensively used bringing relief to children and parents alike. We would all like to continue treating these children and as many others as possible. We urgently need funds to do so, and are attempting to find organisations, that would like to become involved in funding. Further research on the therapy should be carried out, but again more funds are needed to do this.

Appendices

APPENDIX 1: Changes Observed by the Parents 'Specific Comments'

S = sustained longer than 4 weeks after treatment, S^L = slightly sustained i.e. reduced effect at 4 weeks after the treatment, NS = not sustained longer than 2 weeks after the treatment.

FUNCTIONAL	
CO-ORDINATION, BALANCE AND MOBILITY	
"Can now hop (using sticks); unable to before."	S
"No longer using special toilet seat to aid balance."	S
"Used both legs one after another to climb stairs instead of one leg only stepping up."	NS
"Changes position in bed more easily."	NS
"Now stays propped up in an armchair without going rigid and sliding onto the floor."	S
"Hip flexion has improved."	S
"Crawling is better, more co-ordinated. Climbing is with more skill".	S^L
FLEXIBILITY	
"Hand now relaxed and able to be turned over, not rigid."	S
"Arm more relaxed and can be straightened."	S
"Arm more relaxed beside the body when running and walking, not held rigid."	S
TOILET	
"Increased frequency going to the toilet, not as constipated."	S
SLEEP	
"Had a night of unbroken sleep - bliss!"	NS
"Fewer occasions waking in the night."	NS
"Able to turn over more easily in bed."	NS
"Sleep is extended to more continuous hours, sleeping for longer. "	S^L
"Sleep is not so restless, seems better quality. "	NS
FEEDING AND APPETITE	
"Spoon-feeding self a lot more, better control of spoon."	NS
"Greatly increased appetite, not so fussy."	S
COMMUNICATION	
SPEECH AND EYE CONTACT	
"Has increased eye contact to more than a minute where before it was fleeting."	S
"Clearer more distinguishable vocal sounds not heard before."	S
"Better attempts at enunciation."	S
"Increased vocalisation, trying to say more. more noise more often."	S
"Watching Maketon signing a lot more."	S
"More obvious and clearer vowel sounds."	S
BEHAVIOUR	
GENERAL BEHAVIOUR. CONCENTRATION, LEARNING AND COMPREHENSION	
"More alert, more focussed, more able to concentrate for a short while."	S
"Calmer, more relaxed, less agitated, stopped biting, more content."	S^L
"Concentration now more obvious. Observation of toys is better, longer."	S
"Fewer temper tantrums, not so violent, calms down more quickly from them."	NS
"Number of 'grand mal' epileptic fits dropped from 12 or 13 a day to 1 per day."	NS

APPENDIX 2: Changes Observed by Parents in the Children's Areas of Disability, by Category of Change

AREA OF DISABILITY	CHILD A severe quadriplegic				CHILD B mild quadriplegic				CHILD C severe quadriplegic				CHILD D mild to mod. hemiplegic				CHILD E severe quadriplegic				CHILD F moderate hemiplegic				CHILD G moderate hemiplegic				CHILD H moderate quadriplegic				CHILD J severe quadriplegic				CHILD L *severe quadriplegic*			
	S	S^L	NS	X	S	S^L	NS	X	S	S^L	NS	X	S	S^L	NS	X	S	S^L	NS	X	S	S^L	NS	X	S	S^L	NS	X	S	S^L	NS	X	S	S^L	NS	X	S	S^L	NS	X
FUNCTION																																								
Appetite																													S											
Asthma												O																												
Balance				X	S					S^L			S				S						NS								X				X			X	
Co-ordination			NS		S	S^L	NS			S^L	NS		S^2			O	S^2						NS				X				X^2				X			X	
Epilepsy/Fits				X																X							X											NS	
Flexibility			NS			S^L							S^2			O	S^2										X				X				X					
Laughing									S																															X
Mobility			NS				NS			S^L						O	S						NS								X				X				
Muscle Tone				X			NS					X				X				X				X								X				X				
Sleep											NS						S																							
Swallowing				X							NS						S														NS								NS	
Toilet	S																																							
COMMUNICATION																																								
Eye contact			NS							S^L							S																							
Speech			NS						S								S^2																						NS	
BEHAVIOUR																																								
General Behaviour									S		NS						S																							
Comprehension												X				X				X																			NS	
Concentration									S								S																						NS	
Learning												X				X				X																				X

APPENDIX 3: Incidence of Improvement

AREA OF DISABILITY	TOTAL NUMBER OF CHILDREN WITH DISABILITY	Children with an **IMPROVEMENT**	%	Children with **NO IMPROVEMENT**	%
FUNCTION					
Appetite	1	1			
Asthma	1			-	
Balance	9	5		4	
Co-ordination	10	6		4	
Epilepsy / Fits	5	1		4	
Flexibility	8	4		4	
Laughing	1	1			
Mobility	8	5		3	
Muscle Tone	8	1		7	
Sleep	6	4		2	
Swallowing	4	2		2	
Toilet	2	2			
	10	**9**	**90%**	**1**	**10%**
COMMUNICTION					
Autism					
Eye Contact	4	3		1	
Speech	5	4		1	
	5	**4**	**80%**	**1**	**20%**
BEHAVIOUR					
General Behaviour	3	3			
Comprehension	5	1		4	
Concentration	3	2			
Learning	5	0		5	
	5	**3**	**60%**	**2**	**40%**
OVERALL	**10**	**9**	**90%**	**1**	**10%**

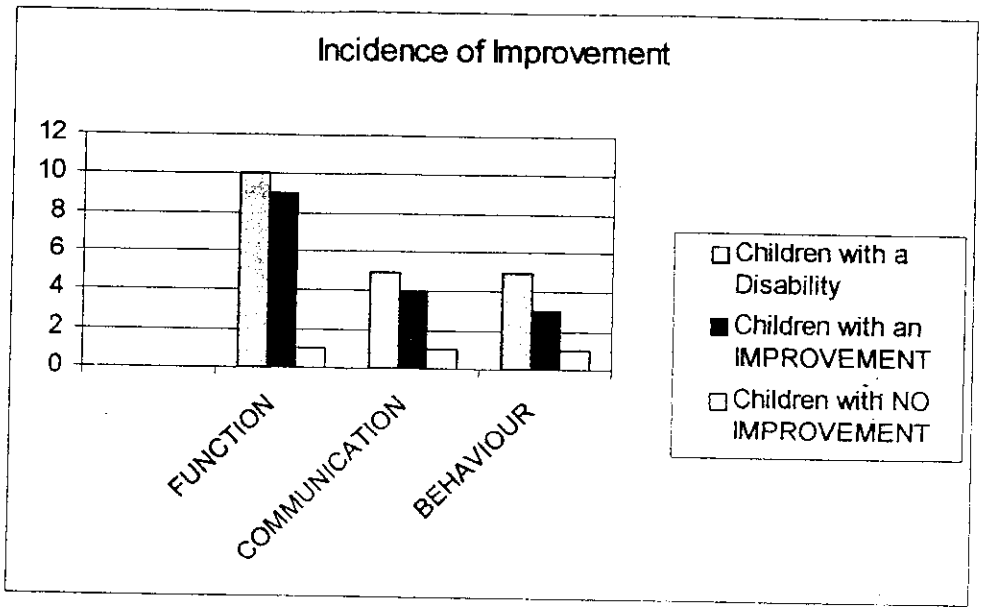
APPENDIX 4: Results by Category of Change and Area of Disability

AREA OF DISABILITY	NUMBER OF CHILDREN WITH DISABILITY	Children with one or more **SUSTAINED IMPROVE-MENTS**	%	Children with one or more improvements **SUSTAINED AT A REDUCED LEVEL**	%	Children with one or more improvements **NOT SUSTAINED**	%
FUNCTION							
Appetite	1	1					
Asthma	1						
Balance	9	3		1		1	
Co-ordination	10	3		2		4	
Epilepsy / Fits	5					1	
Flexibility	8	2		1		1	
Laughing	1	1					
Mobility	8	1		1		3	
Muscle Tone	8					1	
Sleep	6	1				3	
Swallowing	4	1				1	
Toilet	2	1				1	
	10	**4**	**40%**	**3**	**30%**	**7**	**70%**
COMMUNICTION							
Eye Contact	4	1		1		1	
Speech	5	2				2	
	5	**1**	**20%**	**2**	**40%**	**1**	**20%**
BEHAVIOUR							
General Behaviour	3	2				2	
Comprehension	5					1	
Concentration	3	2					
Learning	5						
	5	**2**	**40%**			**2**	**40%**
OVERALL	**10**	**5**	**50%**	**3**	**30%**	**7**	**70%**

Pilot Study of the Perceived Effects of Bowen Therapy on Children with Cerebral Palsy, Leicester 2004

APPENDIX 5

Graph a) Incidence of Improvement by Area of Disability



Graph b) Category of Change by Area of Disability