A report on Rebound Therapy's usefulness with Children with Disabilities

"Rebound exercise is the most efficient, effective form of exercise yet devised by man."

N.A.S.A Study into rebounding inc 1981.[1]

I have worked for a year as a support worker with a Rebound Therapy class, and have had 4 years of experience working with children with additional needs. I have recently qualified as a Rebound Therapist myself and am greatly interested by the therapy. This project aims to investigate and summarise the usefulness of Rebound Therapy when applied to children with a variety of disabilities.

What is Rebound Therapy?

Rebound Therapy uses trampolines to provide therapeutic exercises to people with a wide variety of disabilities and additional needs.

The therapy involves using the moving bed of the trampoline to promote movement in the participant.

By carrying out basic through to highly technical physiotherapy techniques on the trampoline, the therapy can provide many therapeutic and physiological benefits:

- Facilitate and promote movement and balance,
- Improve fitness,
- Increase or decrease muscle tone,
- Help relax the participant,
- Improve sensory integration,
- Improve concentration
- and even improve communication skills.

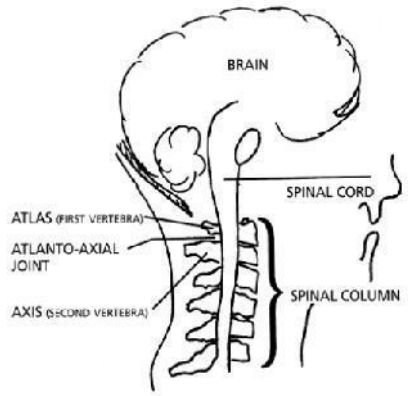
Demonstration of how coordinated stretching and bouncing can relieve muscular tension in those unable to “bounce” themselves.

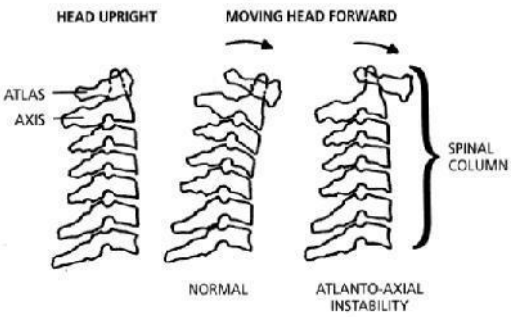
Example Session

Participant arrives in suitable clothing (no jeans, preferably no shorts & cotton socks). Participant (or carer/parents if unable to) informs the therapist of their ex periences since last session, reporting any changes in behaviours, medical needs or response after previous session.
Participant gets onto the trampoline, however they can. This will depend on how ambulant they are. If completely wheelchair bound a hoi st is needed.
Each session should ideally last 30 minutes per child. It is structured in a way that warms up with gentle, familiar exercises, new exercises in the middle and a “calming” session of more gentle, familiar exercises at th e end.
The activities underrtaken in a session vary greatly from each participant. Someone who is ve ry able will participate in more gymnastic style movement, learning seat drops, front drops, swivel-hips and other founda tion gymnastic movements.
The less able may experience supported standing/high-kneeling bouncing using physiotherapeutic aids for stretching (e.g. peanuts/swiss balls.)
Someone who is co mpletely non -ambulant will probably experience rebounding throug h lying down with gentle “bobble” bouncing created by the therapist. The thera pist may also use the colourful parachute for safe stretching with heig htened sensory input of colour and “swooshing” sounds.
The therapy is progressive so new activities are attempted in sessions, that lead on from the pr evious sessions.

Accessibility

Rebound Therapy aims to be accessible to all, as all can benefit. However, there are 6 exceptions to this rule. Unfortunately 6 medical conditions make it too unsafe for a person to rebound or take part in any kind of trampolining (and many other sports).





1. Atlanto-Axial Instability (AAI)[2]: A condition associated with 10-40% of people with Down's Syndrome.

Weakened ligaments is normal in people with Down's Syndrome, causing slack joints. This may cause a weakness in the Atlanto-Axial joint of the first (Atlas) and second (Axis) vertebrae, right below the skull. This makes sufferers of AAI prone to a slippage of these vertebrae which can cause brain damage and paralysis. This Diagram shows the position of the Atlanto-Axial joint and how AAI can affect vertebrae position when moving.

2. **Detaching Retina[3]:** This disorder is caused when the retina (the thin layer at the back of the eye, responsible for light detection) starts to separate from the eye socket. It can cause blindness if not treated early. Trampolining can cause the retina to completely detach, leading to total blindness.
3. **Spinal Rods:** This is a common treatment for Scoliosis[4] (a sideways curvature of the spine, which can also cause the spine to twist and which can pull the ribcage out of position and disrupt the position of vital organs). After spinal fusion surgery active sports are not allowed for at least 6-12 months. Trampolining may disrupt any rods/screws or fusions in the spine made during surgery- worsening the patient's condition.
4. **Growth Hormone Deficiency[5] (Dwarfism):** Someone with GHD may have skeletal and joint stability problems that can worsen with trampolining.

5. **Osteogenisis Imperfecta**[6] **(Brittle Bone Disease):** A congenital disease that means a gene is affected causing a deficit in the production of collagen, a major building block for bones. The condition causes extremely fragile bones that will be prone to breakages and fractures during trampolining.
6. **Pregnancy:** Trampolining during pregnancy can cause disruptions to the womb and has the potential to cause harm to an unborn baby. Also, the extra strain of such a high energy sport may cause damage to the mother whose vital organs are already functioning at a higher than normal level.

History

The common perception of Trampolining is as a sport, used in competition and recreation. There is no clear "invention" of the trampoline, as different sources claim different pioneering activities. However, it seems common acceptance that the first use of anything similar to a trampoline was by court jesters, in medieval times[7]. They would perform moves for entertainment on "stage-wreckers", made of springy wooden planks.

George Nissen invented the first folding trampoline in 1936. He set up a company to produce and distribute trampolines. This started to shape the sport we have today which only recently became an Olympic sport at the 2000 Sydney games. During the Second World War, his trampolines were used by the US military to promote better balance and stability in their Pilots and Navigators for aerial combat.
It is claimed in *"The Diagnosis and Treatment of Speech and Reading Problems - Carl H. Delacato -1963"*that a French neurologist first used the trampoline in a therapeutic way. His work intended to supply therapies for brain-injured children.

Rebound Therapy today incorporates elements of all these early uses. Although primarily a therapy, Rebound is a fun activity that engages participants in a fun way – just as the jesters did. The act of rebounding with physiotherapeutic exercises on the trampoline allows the therapy to promote stability and balance in the same way that trampolines were used in physical training for the U.S military's elite.

The establishment of Rebound Therapy started in the early 1970's. Eddy Anderson pioneered and developed Rebound Therapy as a therapeutic and recreational tool at his own school. He was a remedial gymnast and a head teacher at a school for children with profound needs

From 1979 Eddy Anderson developed a course to train staff of other schools, NHS trusts and Charity Agencies in the practice of rebound therapy. Later in 1993 he won the Toshiba "Year of Innovation" award for his invention the "Sensafloat"- a floatation device for children with severe physical disabilities. This was in close connection to his Rebound Therapy work, as both focussed on a search for movement facilitators for children with severe disabilities.

Reboundtherapy.org[8]

In 2006, Eddy Anderson teamed up with disability sports coaches Paul and Shirley Kaye to form "Reboundtherapy.org". The Kayes were the founders of the Saturn V Rebound Hall - a centre for Rebound Therapy and special needs trampolining in Caterham, Surrey.

Lead by Eddy Anderson, Paul and Shirley Kaye, this organisation is the leading body in providing the training for Rebound Therapy staff. At the request of schools, NHS trusts and charities the team provide "In-House" training for staff to allow them to deliver the therapy themselves.
By 2008 the courses were approved by The Professional Development Board for Physical Education (part of the Association for Physical Education, who work tightly within sport in education in the UK).

In most recent years, Rebound Therapy has started to expand internationally, to Australia in 2010 and to Malaysia in 2011.

Local Context

Horsham District Council run Rebound Therapy activities on weekday evenings through a specialist company "Aiming High for Disabled Children". This company provides trained coaches or art practitioners to deliver a range of inclusive activities from sports to art classes. The clubs run with support from Volunteers and paid Support Workers with experience of disabled childcare to allow smooth running and make sure there is enough support for all children.

A parent lead organisation in Horsham, named "You Can Do It"[9] developed a mission statement to facilitate inclusive extracurricular activities within Horsham for children with disabilities or special needs. The organisation has been involved in the Rebound Therapy project from the start and gives feedback to Horsham District Council on the running of this and other activities.

Horsham District Council relies mostly on external funding from the "Short Breaks"[10] funding scheme that was set up in late 2010 by the Government, promising £800 million in funding over 4 years to local authorities primarily for respite holiday care, but also regular activities that allow respite during the weekday evenings. Aside from Short Breaks, the project relies heavily on funding from Southern Water and Children in Need.

Physiological and Psychological impacts on conditions [11]

One of the major functions of Rebound Therapy is as a physiotherapy, where its main aims are to reduce muscle tone disorders such as Hypotonia or Hypertonia.

Muscle tone (or residual muscle tension) refers to a constant state of semi-contractionin the body's muscles, caused by unconscious nerve impulses firing throughout the day (which only slow down during REM sleep). Keeping the muscles in this constant partially contracted state can help prevent damage when a sudden pull or stretch occurs as the muscle can fully contract quickly. The constant contraction also maintains posture and balance.

Muscle tone is mostly associated with skeletal muscle (striated muscle connected to the skeleton), but it can also be applied to cardiac and smooth muscle that works constantly to maintain the body's function-constantly contracting.

Dysfunctional muscle tone can be caused by motor neuronal disorders, which form muscular disorders such as Hypertonia or Hypotonia. For both of these muscular disorders, Physiotherapy is acknowledged as an effective management.

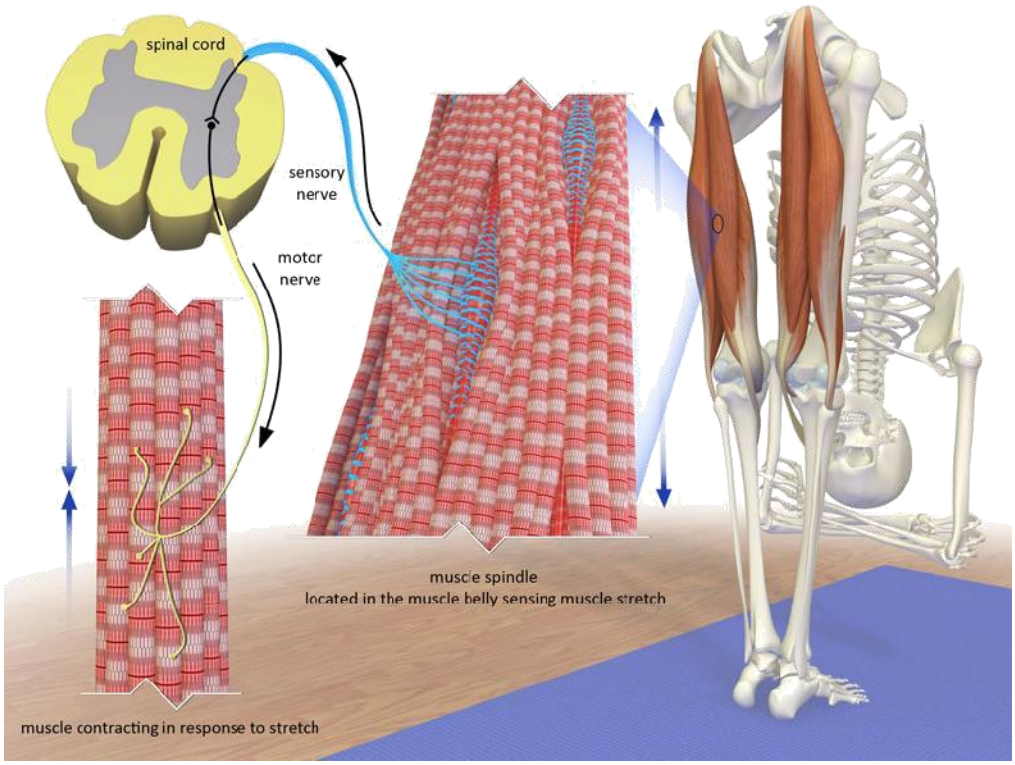


Diagram illustrating the position of the Muscle Spindles, a nervous tissue that enables transport of nerve impulses into muscle. .
Source: http://www.bandhayoga.com/

However, Rebound Therapy works in separate ways for the two opposite disorders.

Hypertonia[12] is the abnormal increase in muscular tension and is caused by lesions in the upper Motor Neurons. A common cause for this dysfunction in children is Cerebral Palsy, a term used to describe injury to the Upper Motor Neurons (usually the Basal Ganglia).
Injury causing lesions to the Upper Motor Neurons inhibit control of the Central Nervous System (CNS) so impulses to muscles become erratic. Patients with Hypertonia experience overcontraction of muscles with loss of control of posture, muscle tone and reflexes. If the severity is high enough, loss of joint movement completely may occur and deformity may arise.

Hypertonia is improved by Rebound Therapy as *soft, rhythmical bouncing* can overload the Muscle Spindle sensory receptors within a muscle that relay information on contraction of the muscle to the CNS, which in response to this information determines the position of the body parts. The spindle regulates the contraction of a muscle, which

may be dysfunctional in someone with Hypertension.) This overload of information to the spindle can cause it to reduce contraction of the muscle, forcing it to relax the muscle and reduce the abnormal muscle tone.

Demonstration of how mats or soft play objects/physiotherapy equipment can be used to "pad out" voids around the body of someone showing Hypertonia. This helps prevent injury in a session and enhances comfort and enjoyment.

Hypotonia[13] **i**s the exact opposite and so needs to be managed differently. It is a state of low muscle tone and rather bluntly labelled in the ICD-10 (P94.2) as "Nonspecific floppy baby syndrome". The disorder is a non-specific medical disorder, so is not caused by one problem, but often as a consequence of the manifestation of disorders that affect motor neurons and the brain. The development of the child in later life depends on the severity of the Hypotonia, but also the underlying condition that is causing their loss in muscle tone.

High amplitude bouncing can increase muscle tone in children with Hypotonia. The strong physical movement caused by high energy bouncing of the bed causes muscles to stretch involuntarily, this in turn stretches the muscle spindle – increasing nerve activity in the muscle. This leads to a stretch reflex occurring where motor neuron activity increases to contract the muscle in order to resist the stretch, increasing contraction in muscle s will increase their muscle tone and reduce the effects of Hypotonia.

In addition to the impact on Hypotonia and Hypertonia, the effective muscular work during the therapy will incorporate other systems, such as joints and the spinal chord to aid postural support- hopefully to reduced the effects of disorders such as Scoliosis.

Sometimes, if a person has impaired motor skill (especially if from birth) they may have reduced perception of spatial awareness and "Body Image". Body Image is someone's perception of their own body within a space; where limbs may be, how wide a space they may need to turn around or how far they can reach. A reduced Body Image affects their coordination and is seen in Parkinson's disease, Cerebral Palsy, Muscular Dystrophy, Multiple Sclerosis and Dyspraxia. Rebound Therapy can increase someone's Body Image and perception skills through movement of joints while bouncing, carrying out exercises on the bed and through touch of objects or people while bouncing. This coupled with the rhythmical movement of the bouncing also improves coordination for the participant, and physical tasks carried out on a moving bed will become much easier to achieve at home.

The therapy also has beneficial effects on those wiith sensory impairments, such as **ASD (Autistic Spectrum Disorder).** When bouncing, a participant will be working with a qualified Rebounder, this person may lead the bouncing or simply facilitate the session. The pairing of the participant with the rebounder during the session can help improve social awareness with the use of constant Eye Contact between participant and Rebounder. Vocalizations may also be increased due to higher cardio-respiratory rates, these may range from gasps through to louder, more confident exclamations.

A child able to follow instructions such as "sit down, stand up" due to their heightened concentration and the focus effect.

A classic symptom of ASD is a lack of concentration. This is proposed to be due to an incapability to process sensory information causing light, sound, smells, tastes touch or motion to bombard the mind with information and cause distress- reducing concentration. It is suggested that this is why people with ASD often show repetitive Autistic behaviours (e.g. rocking, staring at moving objects like chains or bead strings, and making noises/repeating overheard sentences- otherwise known as "stimming") in order to act as a "filter" coping mechanism to deal with this overload of information. During Rebound Therapy the participant will be bouncing, creating rhythmical movement that will replace their repetitive autistic behaviours, acting as a heightened sensory experience and "filter" all other sensory information. Paul Kaye (founder of the Saturn V Rebound Centre, Caterham and general secretary, course tutor and consultant of ReboundTherapy.org) outlines another benefit of the focus effect. He explains that when a child is rebounding, the "*fun they're experiencing takes away other important factors*". Therefore with an effective filter in place the participant is much more able to concentrate on the trampoline to follow instructions, but also after the therapy they may be more aware and focused. This supports ideas that Rebound Therapy will work well within a school environment where it can aid pupils in enhancing concentration for learning across the curriculum.We can also see how this effect can reduce other dysfunctional behaviours. Mr. Kaye reports that he has seen reductions in tactile defensiveness and even vocalisations by elective mutes on the trampoline due to the heightened sensory experience, and excitement from a Rebound session.

In addition, the increased rate of movement involved in bouncing, plus maintaining constant balance on the bed coupled with muscle resistivity to an increase in gravity when descending raises the demand for oxygen for muscle function. This increases cardiac output and respiratory rate for the participant. The increase use of muscles allows the lymphatic and venous system to function faster to return tissue fluid and blood back to the heart.

Benefits and Applications

The therapy can have a massive impact on those with physical disorders. In the following case study, we see how Rebound Therapy can benefit someone with these types of disorders.

Child X

Disability: A complex of neurological deficits- leading to Ataxia14 and Distonia (both disorders that control the muscular system, causing a negative impact on fine motor skills, coordination, stability and balance.)
Aims: Unfortunately, the child's condition is progressive and any therapy is based on maintaining abilities he currently has for the future. Two Rebound Therapists that work closely with Child X met his Physiotherapist to design a programme that could address his formal physiotherapy goals during Rebound Therapy.

Formal Goals

1. Help maintain core stability
2. Help promote static and dynamic balance skills
3. To help promote mobility skills
4. To help promote bilateral integration skills with particular reference to upper limbs
5. To help maintain and improve stamina
6. To help promote normal patterns of movement
7. To help promote functional independence skills, particularly mobility and transition skills.

The programme designed contained exercises that focused on upper limbs, core stability and dynamic balance- while other goals (i.e. maintaining stamina and promoting independence skills) are met passively during a Rebound session, through aerobic exercise of bouncing plus transitional exercises needed to get Child X up onto the trampoline.
Observations: Child X's mother states that as part of this "*very joined up approach"* of linking his physiotherapy with his Rebound Therapy, there has been a *"a hugely positive impact in stretching him [Child X] to reach his full potential".* Since working with the Rebound Therapists and being more involved with the therapy, Child X's physiotherapist has become a "*real advocate of rebound Therapy*" as the therapy allows "*physio and his [Child X's] targets have to be integrated into everything he does*"

Helen Crooks, a qualified rebound therapist said "*Rebound Therapy offers therapy based activities in a fun medium*" when I asked her to sum up the benefits of Rebound Therapy in one sentence. Of course this goes no way in truly describing the positive effects it can produce. Helen goes on to explain that because of the fun nature of the therapy it helps

children that would "*usually resist physio*". This is illustrated by Child Y in the following case study.

Child Y
Disability: ASD (high functioning)
Observed behaviours: Lack of concentration, stimming (repetitive autistic behaviour) and periods of anxiety/tension.
Rebound exercises practiced: Bouncing alone, seat drops, seat pop to stand, turns.
Observations: At times very excitable on the trampoline, but easily calmed using damping (reducing energy in springs by taking shock through therapists' knees- sucking bounce out of trampoline to control participant).Heightened ability to follow instructions and reduced stimming.
Benefits: Child Y more focussed and less resistant to therapy.
Focus increases concentration that will carry across to classroom environment.
Possibility to teach curriculum based activities during session with heightened concentration.

This example shows us how the therapy can work in a non-physiological way to promote a reduction in dysfunctional behaviours such as stimming. It also highlights how the therapy may be applied to an educational environment to heighten a child's learning abilities.

Rebound Therapy may have considerable applications to curriculum based learning on the trampoline. The focus effect heightens concentration and minimises distraction factors and so it seems logical that learning may be possible during a session.

In a recent Rebound Therapy training course, our group explored possible methods of curriculum teaching on the trampoline. The group consisted of physiotherapists; special needs teachers and Paul Kaye. We found that there were endless chances for teaching. Examples include:

1. Using the bouncing as a teaching aid to learn counting, times tables and the alphabet by reciting on every bounce.
2. Spatial awareness can be taught with spotters positioned on the side of the trampoline calling out to the participant, saying "Hello, turn to me, I'm on your right/left/infront/behind." The participant turns to the voice and in doing so learns their left and rights etc (applicable to blind or visually impaired participants). In the same way fractions can be learned with "half/quarter/three-quarter turns".

3. Finally, visual aids such as cards may be placed on the 4 edges of the trampoline- these may be of numbers, letters, words or pictures and can be used to teach anything. For example, a participant may learn colour recognition by “bouncing towards the green card”. This can also develop PEC recognition (a communication device using symbol cards for the non-vocal) by placing symbols in the same way and doing whatever each symbol represents when the child bounces towards it.

Demonstration of how communication can be reinforced in a session, as a child responds to song and questions with sign language.

Aside from the benefit of the “focus-effect” and a potential impact on improving curriculum based learning, another benefit voiced by Helen Crooks is how progressive the therapy is. The level of skill at entry depends entirely on the child and their condition, but even those with most profound learning and physical needs can quickly excel. At first this may be through completing new exercises, or feeling more confident on the trampoline. Then if capable the child may wish to move onto specialist-disabled trampolining, which simulates trampolining as a sport. The child will learn routines, more gymnastic based moves and have the opportunity to compete if they wish. Then if the child is confident enough, they may even want to move into mainstream

trampolining, offering them the chance to continue developing their trampolining skills while improving their social interaction skills with mainstream coaches and other children. No matter what level the child reaches, the key is that they always can improve from where they started. This feeling of achievement is something that can offer great therapeutic effect to the child, improving their confidence and self esteem. Not to forget how this progression can be a great help to parents- who only naturally want to see their children doing as best they can. Rebound delivers this progression at the very earliest stage and can facilitate it throughout the child's participation.

Limitations

However, not all children respond to Rebound Therapy in a way that allows progression. This does not mean the therapy is useless for the child, but benefits may be more limited. The element of fun is always present in the therapy, and sometimes this is all that's needed to make a session worthwhile.In addition it is often obvious how the therapy can provide respite care for parents or carers. See case study of Child Z.

Child Z.

Disability: Fragile X Syndrome[15] (a genetic disorder affecting the FMR1 gene on the X chromosome. This causes too much or too little of the FMR1 protein to be synthesised and the brain will not develop properly- causing mental retardation, hyperactive behaviour, hand biting/clapping behaviours and some physical signs including elongated foreheads, and low muscle tones with flexible joints.)

Abilities on trampoline: Bouncing alone, seat drops to stand, turns.

Observations: Child Z's condition causes similar characteristics as ASD. However, with this particular child the focus effect is less prominent. He goes through phases of being unable to follow instructions on the trampoline and there may be no reduction in dysfunctional behaviours observed off the trampoline.

However, this is not to say the Child does not benefit. Child Z finds Rebound Therapy immensely enjoyable, asking to "jump" all week long. During sessions he becomes elated on the trampoline and can sometimes become very hyperactive. This allows Child Z to use a lot of energy, in productive exercise, calming him for after the session. We can see from this that Rebound Therapy can also work as a form of respite care where participants can finish the session in a calmer frame of mind for their return home.

Another weakness observed when assessing the effectiveness of Rebound Therapy is how hard it is to distinguish its effects. I interviewed a participating child's mother for her opinions on the therapy, and asked "Have you noticed any changes in your child's abilities off the trampoline, at home?" Although this appears a valid question that would give a fairly conclusive answer to the effectiveness of the therapy it was actually very hard to answer. Many children who use the therapy also participate in other activities to improve their abilities. The child in question accesses therapy through daily physiotherapy and regular Hydrotherapy, Horse Riding and Rebound Therapy. Although the child has made tremendous progress on the trampoline ("*His high kneeling balance on the trampoline is amazing* [something he was unable to do 18 months before *and the ability to right himself from a balance perspective again is dramatically improved*" it was extremely hard to tell if it had improved his abilities off the trampoline."*Really hard to be able to isolate the impact of rebound given we have so many other activities and input happening.*"This makes it extremely hard to evaluate the therapy validly, as we cannot infer that any given improvement off the trampoline is due to Rebound Therapy or any other of his activities. Furthermore it would be unethical to restrict a participant to only Rebound Therapy in order to measure accurately its effects.

Currently, Rebound Therapy is fairly unknown outside of its immediate sphere of influence. This does not make it easy to access as many consultants or physiotherapists are unaware of it and its benefits, so children who attend physiotherapy are rarely recommended for Rebound Therapy.

Therefore, at the moment Rebound Therapy is taking the place of an additional therapeutic activity (much like Riding for Disabled) where it can offer therapeutic sessions that can aid improvement of conditions while also improving social and life skills.

Alternatives

There are many possible alternatives to Rebound Therapy that aim to give a physiological and psychological benefit to people with disabilities. However, when I asked Paul Kaye what advantages Rebound Therapy had over these alternatives, he was adamant that all therapies are

"complimentary". We have seen in the case study of Child X how having many therapies undertaken at the same time will allow a child's *"targets to be integrated into everything [they] do".* With this integrated design we should see the best results and most progress with each child. Therefore, it is important to remember that no therapy should really be considered as more beneficial, as the incorporation of multiple therapies will provide the most holistic benefit for each child, helping them to reach their full potential. Other therapies that may be complimentary to Rebound Therapy include:

- Riding for the disabled[16]. Established in 1965, the charity aims to provide inclusive equestrian based activities for people with disabilities. The charity states that the therapy is a good form of physiotherapy, recommended by medical professionals. Suitable for those with physical and learning disabilities the therapy can also offer experiences with animals that participants may not otherwise get, increasing confidence and social skills.

- Hydrotherapy[17] . Working in a similar way to Rebound Therapy, Hydrotherapy exploits the responses of the muscular system to benefit the participant. Using hot and cold water, with exercise and pressure, a therapist can relax or stimulate muscles in order to beneficially affect muscle tone.

"Accessible to all". Demonstration of how with play materials, children with more difficult behaviour may also rebound well and enjoy themselves

Paul Kaye claims Rebound Therapy is often "*more accessible and cheaper to provide*" than other therapies. For example, it does not require a stables and acres of land needed for Horse Riding . Centres are

usually closer to homes and so parents won't have to travel saving on travel expenses. The cost of running Rebound Therapy is relatively cheap. A dedicated space does not need to be provided – it can be done in classrooms, sports halls, village halls. Once the trampolines have been purchased and staff trained, maintenance costs are minimal. Ongoing costs are limited to space hire (if needed) and therapists' wages and these can be contained by using volunteers as spotters. This lowers the cost of sessions and means parents can be charged less for their child's therapy.

Recommendations

1. Rebound Therapy needs to be promoted to those that need it. I believe that the key to this is with physiotherapists. If all physiotherapists knew about the procedure and benefits of the therapy then they would recommend it to their clients as a complimentary therapy to their programmes. Paul Kaye believes the same point. He feels that *"all paediatric physiotherapists should have taken the Rebound Therapy course*" which lasts only two days. This will enable them to all have a deeper insight into the therapy and allow them to easily apply rebound therapy themselves, making sure formal physiotherapy techniques are carried out correctly on the trampoline.

Helen Crooks also makes the point that if Rebound Therapy does become more consistently and widely used, it may be more noticed by the medical profession. Consultants who have previously known little about the therapy and recommended post-operative patients against re-continuing or starting Rebound Therapy could become more likely to allow these patients to engage in the therapy to aid their rehabilitation.

2. A clear benefit of Rebound Therapy aside of any physiological benefits is the increased concentration caused by the focus effect. It seems clear that this factor should be put to better use. Therefore, I believe that Rebound Therapy should be introduced into all schools for children with additional needs. Not only is there the possibility of teaching curriculum during sessions, but the therapy will benefit each child after the session- helping them to learn better. Paul Kaye described reports from national school teachers that when *"a child with ASD has rebound therapy before lessons, they concentrate at a higher level for the rest of the morning."*This clearly shows how the focus effect carries across to the

classroom, even after the therapy session has finished. It also supports the idea of introducing the therapy in schools to benefit curriculum teaching.

Helen Crooks, as coordinator for "Aiming Higher for Disabled Children" is involved in the growth of Rebound Therapy in West Sussex. She has seen the effect of Rebound Therapy being introduced to schools within the area and seen its benefit on curriculum learning. She believes that "*if more schools engage* [in Rebound Therapy] *and it becomes more regular in the curriculum then the therapeutic effects would become much greater and could possibly replace the need for formal physiotherapy in some cases*". This shows that with the introduction of Rebound Therapy into schools, we could see greater benefits for each child with more regular sessions. It should also mean awareness increases, supporting my first recommendation.

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