Guidance on the use of Weighted and Compressing Products

Weighted products such as weighted blankets, weighted vests and lap buddies have been increasingly utilised in recent years, with the supposed aim to assist children with sensory processing difficulties and attention span issues to enhance functional attention to and participation in tasks (VandenBerg, 2001). Theories regarding the neurological basis for these strategies are speculative, and the effect of deep pressure is not clearly understood. Some limited evidence regarding the beneficial effects of weighted blankets is available (Mullen 2008), but this was undertaken with healthy adults so cannot be generalised to apply to children with or without disabilities or to adults with learning disabilities.

Stephenson & Carter's (2009) review of available studies into weighted vests concluded there was limited research evidence to support the use of weighted vests as an intervention for behaviours such as hyperactivity and inattention. Stephensen & Carter (2009) reviewed seven studies highlighting inconsistencies in findings and concluding that on balance, results indicated weighted vests are ineffective.

While the use of weighted blankets would appear widely promoted internationally for a range of different populations, research regarding use with children and more specifically those with disabilities, was not able to be located.

Following the suffocation death of a nine year old boy with autism in a special school in Quebec, Canada, a 2008 coronial report in Ottawa, Ontario served to highlight the risks of weighted blankets, as well as raise the lack of scientific evidence to establish the therapeutic value of this intervention. Coroner Catherine Rudel-Tessier asserted that strict ground rules must be respected by those who wish to use this type of equipment.

Following a review of the evidence by the Australian Department of Education in 2011, they concluded that there is insufficient empirical support regarding the effectiveness of weighted or compressive products aimed at providing 'deep pressure'. Small sample sizes and variance in groups limit the ability to generalise preliminary results. There remains insufficient evidence to guide wearing times and optimal weighting or compressive forces. The risk of negative biomechanical stress has not been adequately examined. Further research is required to inform development of specific guidelines and protocols for practice.

At this time these 'popular' interventions are not supported by adequate research and should not be routinely recommended in the absence of exhaustive clinical reasoning and caution. As a result of this, the Children's Occupational Therapy service in Oxford Health NHS Foundation Trust does not endorse nor advocate the use of weighted or compressive products.

In particular, weighted products **should not be used** for children with:

- Respiratory (breathing) problems
- Cardiac (heart) problems
- Epilepsy
- Serious hypotonia (low tone)
- Skin problems, including certain allergies;
- Circulatory Problems
- Physical, learning or other difficulties which mean the child is unable to remove the blanket independently

Weighted blankets can be a safety risk if not used correctly.

Should parents/guardians choose to use weighted or compressive products anyway, the following are **recommendations for safe use:**

- The child's head and neck must not be covered.
- The child's vital signs should be observable at all times.
- The child must not be rolled in the blanket; it should be placed over them. If in a bed it should not be draped over the sides of the bed
- The child must be able to remove the blanket or get free of the blanket by themselves. When trying out a weighted blanket for the first time, ensure clients are able to physically manoeuvre the blanket with confidence. Remind the child using the blanket that they can take it off at any time, if it feels uncomfortable, too hot or heavy etc.
- The child must be supervised at all times when under the blanket.
- The weighted blanket must never be used as a restraint.
- Manufacturer's instructions on the recommended use of the equipment should be followed as a minimum standard.
- There is no evidence specifying the required weight of a weighted product in relation to the child's body size and weight. However, good practice suggests that the blanket should be as light weight as possible, the weight and size of the blanket or other products should correspond to the client's physical features and should weigh a maximum of 10% of the client's weight.
- The blanket/other weighted products are not to be used for longer than 20 minutes which would prohibit lengthy night time use.

References:

Best Practice Guidelines for Department of Education and Training Occupational Therapists: *Supporting Students with Sensory Processing Challenges,* Department of Education and Training, Queensland 2011

College of Occupational Therapy Briefing 144 on The Safe use of weighted blankets, October 2011