# A Review of the Effects of Specialist Physical Activity on the Psychological Health and Physical Activity of Children

## Literature Review: Plan

### [General introduction]

- Sedentary lifestyle
- Physical activities link to physical and psychological health

#### Relationship between physical activity and mental health

- Relationship in adults is well supported
  - Reference: American College of Sports Medicine, 1998; Australian Institute of Health and Welfare, 2006; Bane & McAuley, 1998; Blair, Kohl, & Paffenbarger, 1989; United States Department of Health and Human Services, 1996.
- Little evidence in children
  - Inconsistencies in previous research on children– attributed to methodological and measurement difficulties rather than no relationship.
  - But if relationship can be consistently demonstrated, physical activity may be a useful tool in enhancing children's mental health. (Trouble in the past determining direction of relationship).
- Discuss decline in children's mental health and rates of mental health in Australian children
  - o 1 in 15 children will develop a mental illness (AIHW)
  - Highlights the relevance and importance of addressing the issue.
  - *Reference: (Australian Institute of Health and Welfare, 2006; ABS, Prosser & McArdle, 1996).*
- Discuss research that supports physical activity for improving mental health in children.
  - Reference: Parfitt & Eston, 2005; Lagerberg, 2005; Calfas & Taylor, 1994; Biddle, Fox & Boutcher, 2002; Cale & Harris, 2005
  - Self esteem and exercise??
  - Previous research shows physical activities effect on:
    - Body Image (Hausenblas & Fallon, 2006; Taveras, Rifas-Shiman, Field et al., 2004; Gehrman, 2003; Monaci and Nuvoli, 2002; McCabe and Ricciardelli, 2003)
    - Stress (Norlander, Moas and Archer, 2005; Annesi, 2004; Bykov, 2001; Uechi, Takenaka and Oka, 2000).
    - Depression (Tomson, Pangrazi, Friedman & Hutchison, 2003; McCabe and Marwit, 1994) James – I'm still yet to decide whether to put this section here or further down. I'm having trouble fitting it in context down the page.

- If Physical activity is a mechanism for improving mental health, we need to look for opportunities for children to be physically active.
  - Introduce the idea of the school and physical education classes to implement programs.
  - Limited research has focused on the use of school physical education as a tool for improving mental health.
  - Previous interventions have focused on improving physical activity levels but haven't addresses or assessed psychological variables.

## School physical education/ Specialist teacher

- Argument for physical education as a targeted setting for mental health intervention and improving physical activity levels.
  - Many studies have focused on PE intervention to increase Physical activity levels but none have looked at PE to improve psychological variables/mental health.
  - Reference: Fairclough & Stratton, 2006; Ridgers, Stratton & Fairclough, 2006; McKenzie et. al., 2004; Trudeau & Shepard, 2005.
  - School physical education provides an opportunity for structured physical activity participation that is available to most young people. (Cale & Harris, 2005)
- Current school guidelines
  - 120 minutes of physical education per week, set down by the ACT Department of Education.
  - o Growing concern that teachers are not reaching guidelines
  - Trouble fitting in curriculum even though previous research demonstrates it benefits (*Faucett, Nugent, Sallis & McKenzie, 1997*).
  - Are existing PE practices sufficient enough in terms of improving psychological variables (body image, depression, stress)/mental health and improving levels of physical activity?
  - Whether its worthwhile using specialist staff
    - Previous research shows specialist PE teacher provides better quality and quantity time in PA. (*McKenzie, Sallis, Koldy & Faucette, 1997; Faucette, McKenzie & Patterson, 1990*)
    - Classroom teachers are typically untrained to conduct quality lessons (*McKenzie, Sallis, Koldy & Faucette, 1997*)
  - If previous research indicates the benefits of a specialist teacher, what are the processes and methods of change / what do they do differently– leading into next topic what has worked in the past?

# Intervention/theory behind intervention – Processes and methods for change

- Previous interventions: What works? What are the processes and methods that work in a program?
  - Modelling?
  - o Learning atmosphere?

- Lesson content Programs oriented towards skill development/designed to increase competence rather than success/failure. – win/lose.
- Other school-based mental health interventions MindMatters (Waring & Hazell, 2002). James – I wasn't going to included this as I thought I might be going over the word limit and wasn't sure how relevant non-physical education mental health interventions would be.
- Little if any previous research has focused on using physical activity interventions with the inclusion of mental health aims and objectives.

#### Conclusion

- 1. Physical activity contributes to mental health, but there is a need for work on providing more specialised PE which can maximise PE's potential mental health benefits.
- 2. There is a need to research to compare, for example, current primary school physical activity practices to programs run by physical education experts, to determine whether a specialist program is worth the effort.
- 3. There is also a need to better understand which specialist program processes are most salient in terms of the any positive changes may transpire.

#### References

American College of Sports Medicine. (1998). The recommended quality and quality of exercise for developing and maintaining cardio respiratory and muscular fitness in healthy adults. *Medicine and Science in Sports and Exercise, 30*, 975-991.

Australian Institute of Health and Welfare. (2006 Retrieved January 9, 2007.). *Australia's Health 2006.*, from http://www.aihw.gov.au/publications/index.cfm/title/10321

- Bane, S., & McAuley, E. (1998). Body image and exercise. In J. L. Duda (Ed.), Advances in sport and exercise psychology measurement (pp. 311-324). Morgantown, WV: Fitness Information Technology.
- Berger, M. A. (2000). The impact of organized sport participation on self-esteem in middle school children. Dissertation Abstracts International: Section B. The Sciences and Engineering, 60(11-B), 5762.
- Blair, S. N., Kohl, K. W., & Paffenbarger, R. S. (1989). Physical fitness and all-cause mortality. *Journal of the American Medical Association* 262, 2395-2401.
- Bluearth Institute. *What is Bluearth Discovery*? Retrieved January 9, 2007 from http://www.bluearth.org/discovery\_what.cfm.
- Cale, L. & Harris, J.(eds.) (2005). Exercise and young people. Issues, implications and initiatives
- Cassidy, K., Kotynia-English, R., Acres, J., Flicker, L., Lautenschlager N. T., & Almeida, O. P. (2004). Associations between lifestyle factors and mental health measures among community-dwelling older women. *Australian New Zealand Journal of Psychiatry*, *38*, 940-947.
- Corbin, C. B. (2002). Physical activity for everyone: What every physical educator should know about promoting lifelong physical activity. *Journal of teaching in Physical Education*, 21(2), 128-144.
- Fairclough, S. J., & Stratton, G. (2006). Effects of a physical education intervention to improve student activity levels.
- Faucette, F. N., Nugent, P., Sallis, J. F., & McKenzie, T. L. (1997). Classroom teachers' responses to an ecologically sensitive professional development program: Project SPARK.
- Landers, D. M., & Arent, S. M. (2001). Physical activity and mental health. In R. N. Singer, H. A. Hausenblas & C. M. Janelle (Eds.), *Handbook of research on sport psychology* (pp. 740-765). New York: John Wiley and Sons.
- Martin, K. A., & Lichtenberger, C. M. (2002). Fitness enhancement and changes in body image. In T. F. Cash & T. Pruzinsky (Eds.), *A handbook of theory, research, and clinical practice* (pp. 414-421). New York: The Guilford Press.
- McKenzie, T. L., Sallis, J. F., Prochaska, J. J., Conway, T. L., Marshall, S. J., & Rosengard, P. (2004). Evaluation of a two-year middle-school physical education intervention: M-SPAN
- Nguyen-Michel, S. T., Unger, J. B., Hamilton, J., & Spruijt-Metz, D. (2006). Associations between physical activity and perceived stress/hassles in college students. *Stress and Health*, 22, 179-188.
- Parfitt, G., & Eston, R. G. (2005). The relationship between children's habitual activity level and psychological well-being. *Acta Pediatrica*, 94, 1791-1797.
- Prosser, J., & McArdle, P. (1996). The changing mental health of children and adolescents: evidence for a deterioration? *Psychological Medicine*, 26, 715-725.

- Ringuet, C., J., & Trost, S., G. (2001). Effects of physical activity intervention in youth: A review. *International Journal of Sports Medicine*, 2(5), 1-10.
- Ridgers, N. D., Startton, G., & Fairclough, S. J. (2006). Physical activity levels of children during school playtime.
- Rohrer, J. E., Pierce, J. R. j., & Blackburn, C. (2005). Lifestyle and mental health. *Preventive Medicine*, 40, 438-443.
- Tomson, L. M., Pangrazi, R. P., & Friedman, G. (2003). Childhood Depressive Symptoms, Physical Activity and Health Related Fitness. *Journal of Sport & Exercise Psychology*, 25(4), 419-439.
- Trudeau, F. & Shepard, R. J. (2005). Contribution of school programmes to physical activity levels and attitudes in children and adults.
- United States Department of Health and Human Services. (1996). Physical activity and health: A report of the Surgeon General. In U.S Department of Health and Human Services (Ed.). Atlanta, Ga.

#### References to be added

Hausenblas & Fallon, (2006); Taveras, Rifas-Shiman, Field et al., 2004; Gehrman, 2003; Monaci and Nuvoli, 2002; McCabe and Ricciardelli, 2003)