In child cancer patients aged six to seventeen years, does cancer related fatigue cause a greater impact on health related quality of life, compared to fatigue experienced by healthy children in the same age range?

## Key Findings:

- Fatigue is reported as the worst side effect of cancer in children (Gibson et al., 2005). Fatigue perception is related to the developmental stage of a child with six to twelve year olds reporting fatigue as a physically draining experience, whereas twelve to seventeen year olds report fatigue is a mentally draining experience (Hooke, Garwick & Gross, 2011). So as a child grows older they begin to develop a better understanding of their disease and therefore internalise their thoughts and feelings about their diagnosis. Thus creating excess stress and mental exhaustion, resulting in a high level of fatigue (Hooke et al., 2011).
- Cancer treatment has a huge effect on the physical aspect of a child's life. Children experiencing physical fatigue became upset due to the fact their body would not allow them to run, play or perform the physical activities they could before their diagnosis (Perdikaris et al., 2008).
- The psychosocial aspect of fatigue has a large effect on the adolescent age range, as this is the age where independence, social skills and puberty all come into action on the body and mind (Gibson et al., 2005). Adolescents had a fear of re-entering social environments due to the fear of rejection or being treated differently than before their diagnosis (Gibson et al., 2005).
- All children diagnosed with cancer will experience hospital related fatigue (Perdikaris et al., 2008). Increased fatigue was directly linked with nocturnal awakenings therefore it is important children get adequate sleep at night. Anxiety about blood tests, chemotherapy and other treatments can also cause trouble in children getting to sleep (Hooke et al., 2011).

## Introduction:

As a nurse in New Zealand one of our responsibilities is to better health outcomes and provide evidence-based practice. A lot of research has been carried out within the last ten years around cancer survival (Ministry of Health, 2010). Child cancer survival rates in New Zealand have now reached eighty percent resulting in more cancer survivors under eighteen (Ministry of Health, 2010). This means more children are struggling with the long-term effects of cancer treatment (Gibson, Mulhall, Richardson, Edwards, Ream & Sepion, 2005). I explored the effect cancer related fatigue has on children six to seventeen years old and what nurses can do to reduce the impact of this fatigue.

## Nursing Recommendations:

- Understand the age and stage of each child cared for and what could be impacting their fatigue in order to plan interventions to relieve this symptom of cancer treatment.
- Implement regular, calculated exercise into a child's treatment routine with the objective to reduce physical fatigue and muscle deterioration in child cancer patients.
- Encourage adolescents to stay engaged with their close friends and include them in their life where comfortable in order to avoid social isolation.
- Minimise the factors creating nocturnal awakenings while in hospital. Such as grouping medication and observations together and creating a comfortable environment by allowing them to have personal possessions where possible.
- Incorporate fatigue into routine assessments during pediatric cancer treatment.
- Encourage adequate nutrition related to physical output.
- Encourage children under going cancer treatment to stay engaged with regular daily life activities they enjoy as possible.

## Conclusion:

Cancer-related fatigue has a large toll on the mind and body of a child due to the developmental stage both cognitively and physically experienced in childhood. As nurses, evidence has supported, that the earlier fatigue in child cancer patients is addressed the greater the success in improving health-related quality of life of these individuals.


**References:**

Gibson, F., Mulhall, A. B., Richardson, A., Edwards, J. L., Ream, E., & Sepion, B. J. (2005). A phenomenologic study of fatigue in adolescents receiving treatment for cancer. *Oncology nursing forum, 32*, 651-660. doi:10.1188/05.ONF.651-660

Hooke, M. C., Garwick, A. W., & Gross, C. R. (2011). Fatigue and physical performance in children and adolescents receiving chemotherapy. *Oncology nursing forum, 38*, 649-657. doi:10.1188/11.ONF.649-657

Ministry of Health. (2010). *National Plan for Child Cancer Services in New Zealand*. Retrieved from http://www.moh.govt.nz

Perdikaris, P., Merkouris, A., Patiraki, E., Papadatou, D., Vasilatou-Kosmidis, H., & Matziou, V. (2008). Changes in children's fatigue during the course of treatment for paediatric cancer. *International Nursing Review, 55*, 412-419. doi:10.1111/j.1466-7657.2008.00644.x


By Jessica Brock 1100462

**Rationale:**

I have chosen to distribute my evidence-based literature review findings by a poster in order to reach a large target audience in a simple and effective way. Posters have been recognised as having the ability to transmit information rapidly and can be effectove in reaching varied audiences (Miller, 2007). This is what appealed to me as I believe that although my recommendations are aimed towards the pediatric nursing work force, parents of children diagnosed with cancer would find these recommendations informative and may be able to implement them or at least understand the reasoning behind why they are beneficial.

I also believe that due to a portion of the explored population being adolescents that the information included on the poster would be beneficial for them to read. In particular the key findings, as the findings included things such a social aspects and physical aspects of cancer-related fatigue that most adolescents could relate to. The language used is also as simple as possible in order to reach all ages and stages.

In relation to nurses, who my litertaure review would be most useful in reaching, they have limited free time so visual products are more successful in catching their attention (Miller, 2007). I made my poster visualling appealing in order to catch their eye. Even if they only have enough time to read the nursing recommendations this would benefit children suffering from cancer induced fatigue.

Table One: The PECOT Model (Whitehead, 2013)

| PECOT category | Information relating to question | Explanation |
|---|---|---|
| Population | Children aged between six and seventeen who have or have had a cancer diagnosis. | This age group is recognised to be vulnerable due to their age and developmental stage. |
| Exposure (Intervention) | Cancer related fatigue | I will be looking for articles that have explored all aspects of cancer-fatigue within the child and adolescent age range. |
| Comparison/Control | Healthy children | I want to find out the difference between fatigue experienced by the child cancer population and the healthy child population. |
| Outcome | Evidence of how cancer-fatigue impacts a child's health related quality of life. | This outcome will help me to understand the impact cancer-fatigue has on a child's life. From this I hope to be able to recommend nursing interventions that will relieve the impact of cancer-fatigue. |
| Time | N/A | N/A |

**References:**


Miller, J. E. (2007). Preparing and presenting effective research posters. *Health services research*, *42*(1p1), 311-328.

Whitehead, D. (2013). Searching and reviewing the research literature (pg35-36). In Z. Schneider and D. Whitehead (Eds). *Nursing and midwifery research methods and appraisal for evidence based practice.* (4th edition). Australia, Elsevier.