

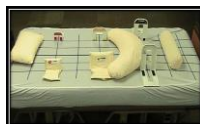
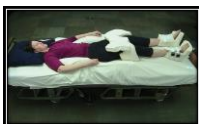
Positioning isn't just for Daytime: Learn about a New Intervention Called Nighttime Postural Care

Jennifer Hutson MS, OTR/L, ATP
St. Catherine University
St. Paul, MN 55105



Sleep Care Positioning Systems have

Modular components for entire body support
Base layer for secure placement of supports



(Hutson, 2017, own images)

Introduction NTPC

What, how & who

- Intervention aimed to affect health and function through use of sleep care positioning systems for persons with impaired mobility or those non-ambulant
- Best intervention outcomes likely depend on
- Person Factors (the right fit, habits & routines), Contextual factors (time, competence of care provider) & choice of technology (Wynn & Wickham, 2009; Gericke, 2006)
- Whether used in combination with daytime postural care (seating/position with wheeled mobility & stander) (Pountney et al., 2012; 2008)
- Use of care pathway & specialist as a part of service delivery (Gericke, 2006; Humphreys & Pountney, 2006; Humphreys et al., 2012)

Objective to Learn about Nighttime Postural Care (NTPC)

- Who might benefit
- State of the evidence
- Risk factors and how to monitor
- Sleep systems in U.S.
- How to position the person
- Measuring outcomes
- Funding

Who Might Benefit & Why

Who

- Persons at level III to V on the Gross Motor Function Classification System & persons with impaired mobility that rest in asymmetrical postures (Gericke, 2006; Postural Care CIC, 2009)

Why

- Persons with impaired mobility have body shape distortions (Holmes, Brock & Morgan, 2018)
- Postural issues and body shape distortions make it difficult for people to change positions and cause pain (Fruitt & Tsai, 2009; Dutt et al., 2015)
- Pain leads to poor sleep (Braau & Camfield, 2011; Engel et al., 2005 & Petersen et al., 2015)
- Supportive daytime positioning is not enough to address health issues

State of the evidence: 8 Publications Impact of NTPC

<p>Examine Affect On</p> <ul style="list-style-type: none"> • occupations (sleep) • body functions (sensory, muscle, respiratory) • body structures (hip joint integrity) • Number of medical procedures • caregiver burden 	<p>Results</p> <ul style="list-style-type: none"> • Sleep either improved or stayed the same • Pain decreased or stayed the same, muscles relaxed & respiratory function did not show immediate change • Hip migration percentages decreased & hip integrity preserved • Number of medical procedures decreased • Caregiver burden depended on level of competence
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(Dawson, 2013; Goldsmith, 2000; Hankinson & Morton, 2002; Hill, Parker, Allen, Paul & Padoa, 2009; Mol et al., 2012;; Pountney, 2002; Pountney, 2009; Underhill, Bryant, & Pountney, 2012)

State of the Evidence: Tracking Results of Intervention Results

Montana Postural Care Project Reports	
2016	2017
<p>5-6 months of part-time sleep system use resulted in</p> <ul style="list-style-type: none"> • Improved body symmetry for more than 80% of users • Reduced pain for more than 50% • Improved sleep quality for nearly 80% 	<p>7-8 months those completing the program showed</p> <ul style="list-style-type: none"> • Improved body symmetry for all • Improved Sleep for majority • Reduced pain for majority

(Kittelson-Aldred, 2017; Kittelson-Aldred & Kittelson-Aldred, 2017)

Risk Factors & Monitoring

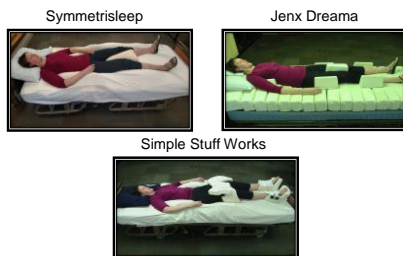
<p>Risks</p> <ul style="list-style-type: none"> • Sleep Disruption • Temperature Regulation • Breathing • Swallowing • Pain • Pressure 	<p>Monitoring Methods</p> <ul style="list-style-type: none"> • Sleep assessment or record • Body temperature • Respiration & oxygen sat. • Secretions & coughing • Pain assessment or scale • Skin checks & mapping device
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Managing Risks with Health Safety Plan

Consider Person, Context, Occupation & Assistive Technology

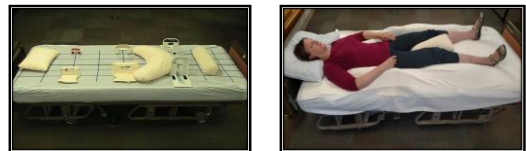
- Sleep disruption – graded approach
- Temperature regulation – control of room temperature, choice of materials or sleep system
- Breathing & Swallowing – ensure open airway, elevate head of bed
- Pain & Pressure – proper placement of parts, full body positioning, supported supine

Sleep Systems in U.S.



(Hutson, 2017, own images)

Symmetrisleep



Symmetrisleep requires a separate mattress, is portable, can mostly be washed in machine & is accessible / resourced in MN

(Hutson, 2017, own images)

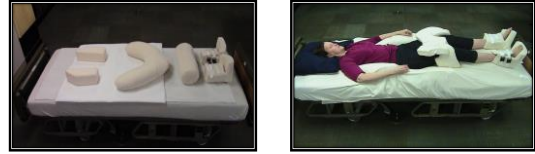
Jenx Dreama



Jenx Dreama includes a mattress, is not portable, can mostly be wiped down to clean & is somewhat accessible in MN

(Hutson, 2017, own images)

Simple Stuff Works

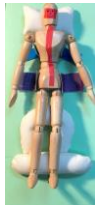


Simple Stuff Works requires a separate mattress, is portable, can all be washed in machine, but is least accessible in MN

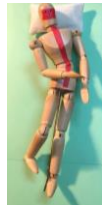
(Hutson, 2017, own images)

Position the Person

Supine, Aligned & Supported



Not with Pelvic Obliquity or Unsupported



Not with Spinal Rotation or Unsupported



(Images from Sleep Care Positioning Program, Hutson et al., 2018)

Measuring Outcomes

Sleep

- Sleep Disturbance Scale for Children
- Pittsburg Sleep Quality Index

Pain

- Paediatric Pain Profile
- Face Legs Activity Cry Consolability Scale

Posture or Body Shape

- Posture and Posture Ability Scale
- Goldsmith Indices of Body Symmetry

Goal Attainment or Self Perception of Performance

- Goal Attainment scaling
- Canadian Occupational Performance Measure

How to Fund

- Coding
- Payers

Conclusion

- NTPC is an intervention aimed to affect health and function through use of sleep care positioning systems for persons with impaired mobility or those non-ambulant
- A variety of factors must be considered for the intervention to meet client's needs and affect health
- Some important factors include: Who might benefit, evidence, managing risk factors, choice of sleep system, method of positioning the person, outcome measures being used and funding
- New interventions require close monitoring and support from the entire team

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