

**THE PREVALENCE AND  
EFFECTS OF  
TRANSITIONAL OBJECTS  
ON CHILDREN AND  
SLEEP PROBLEMS**

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# INTRODUCTION

- Sleep very important for children
- 86% of students- insufficient
- Only 7.6% optimal



<http://usefultipsforyourhealthon.blogspot.com/2012/03/importance-of-sleep-in-psychological.html>



<http://www.socialmoms.com/parenting-2/kids-sleep-night/>

(Eaton et al, 2009)

# INTRODUCTION

- Caregiver's knowledge is critical
- Aware of
  - Healthy sleep practices
  - Importance of sleep
  - Impact of insufficient sleep
  - Signs of sleep problems



<https://drewstarr.wordpress.com/category/sleep/>

(Owens et al, 2011) (Mindell et al, 2003)

# INTRODUCTION

- **Obesity**
  - (Lumeng et al, 2007)(Taveras et al, 2008)
- **Electronics**
  - (Van de Bulck, 2003) (Cain et al, 2010)
- **Pre-Sleep Rituals**
  - (Mindell et al, 2009)



[http://www.heart.org/HEARTORG/GettingHealthy/Overweight-in-Children\\_UCM\\_304054\\_Article.jsp](http://www.heart.org/HEARTORG/GettingHealthy/Overweight-in-Children_UCM_304054_Article.jsp)



<http://www.webmd.com/parenting/raising-fit-kids/recharge/slideshow-make-bedtime-easier>



<http://tobinrogers.com/lifestyle.php>

# INTRODUCTION



[http://www.123rf.com/photo\\_6965386\\_tired-child-with-pacifier-and-teddy-bear.html](http://www.123rf.com/photo_6965386_tired-child-with-pacifier-and-teddy-bear.html)



<http://blackdoctor.org/7754/is-there-a-link-between-obesity-autism/>

- Transitional objects
  - Pacifiers, blankets, toys, stuffed animals, etc.
- Transition from waking into sleep
- Data is limited

(Jenni et al, 2005) (Shaffi, 1986)

# PURPOSE

**Do children between the ages of 3 to 8 years, inclusive, who use transitional objects, such as blankets or toys, sleep differently than children of the same age who do not sleep with transitional objects?**

# HYPOTHESES

**H<sub>1</sub>**

- Children between the ages of 3 and 8, inclusive, who have never used or have stopped using transitional objects will be more likely to have unhealthy sleep problems compared to those who do use them.

**H<sub>2</sub>**

- Younger children (3-5 year olds) are more likely than older children (6-8 year olds) to use transitional objects at bedtime.

**H<sub>3</sub>**

- H<sub>3</sub>: Children who use transitional objects will receive lower scores on the Bedtime Resistance, Sleep Onset Delay, and Night Wakings subscales of the CSHQ compared to children who do not or have stopped using these objects.

**H<sub>0</sub>**

- H<sub>3</sub>: There are no differences between the sleep habits of a child who uses transitional objects and a child who does not use these objects between the ages of 3 and 8 inclusive.

# METHODS

## Characteristics of Participants

```
graph TD; A[Characteristics of Participants] --> B[Total: 105]; A --> C[Age Range: 3–8 years of age]; A --> D[Gender: M: 53, F: 52];
```

Total: 105

Age Range: 3–8  
years of age

Gender:  
M: 53  
F: 52



# METHODS

- Child's Sleep Habits Questionnaire
- Online survey, anonymous
- Six sections
  - General Information, Bedtime, Sleep Behavior, Wakings, Daytime Sleepiness, Child Response

**\*Waking During the Night**

	Usually (5-7 nights a week)	Sometimes (2-4 nights a week)	Rarely (0-1 nights a week)	Don't know
Child awakes once during the night	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Child awakes more than once during the night	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Child returns to sleep without help after waking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Write in the number of minutes a night that waking usually lasts (if you don't know, leave space blank):

# METHODS

## Risks

- **No risks involved**
- **Possible anxiety**

## Benefits

- **Look at child's sleep habits**
- **Gain knowledge**

## Informed Consent

- **Information about study**
- **Going to next page**

# SURVEY FINDINGS

N: 97 (100 %)			
<b>Sex:</b>		<b>Use of Transitional Objects:</b>	
Male	50 (51.5 %)	Usually (5-7 nights a week)	43 (44.3 %)
Female	47 (48.5 %)	Sometimes, Rarely (0-4)	53 (54.7 %)
		Don't Know	1 (1.0 %)
<b>Age:</b>		<b>Child is Afraid of Sleeping Alone:</b>	
Average	5.98	Usually (5-7 nights a week)	13 (13.8 %)
Median	6.00	Sometimes, Rarely (0-4)	81 (86.1 %)
Standard Deviation	1.40	Don't Know	0 (0.0 %)
Range	3-9 years old		
<b>School:</b>		<b>Child is Restless, Moves During Sleep:</b>	
Park School	30 (30.9 %)	Usually (5-7 nights a week)	12 (12.4 %)
Brookside School	16 (16.5 %)	Sometimes, Rarely (0-4)	83 (85.6 %)
Bedford Road School	1 (1.0 %)	Don't Know	2 (2.1 %)
Briarcliff Nursery School	11 (11.3 %)		
Todd Elementary School	39 (40.2 %)	<b>Child Complains about Problems Sleeping:</b>	
		Usually (5-7 nights a week)	9 (9.3 %)
<b>Grade:</b>		Sometimes, Rarely (0-4)	85 (87.6 %)
Pre-School	22 (22.7 %)	Don't Know	3 (3.1 %)
Kindergarten	30 (30.9 %)		
First Grade	24 (24.7 %)		
Second and Third Grade	21 (21.6 %)		

# SURVEY FINDINGS

N: 97 (100 %)			
<b>Child Awakes Once During the Night:</b>		<b>Child Response:</b>	
Usually (5-7 nights a week)	9 (9.3 %)	Ever Slept With Any of These Objects?	
Sometimes, Rarely (0-4)	85 (87.6 %)	Stuffed Animal	
Don't Know	3 (3.1 %)	Doll	78 (81.3 %)
		Blanket	18 (18.8 %)
<b>Awakes More Than Once During the Night:</b>		None	40 (41.7 %)
Usually (5-7 nights a week)	1 (1.0 %)	Other	8 (8.3 %)
Sometimes, Rarely (0-4)	93 (95.9 %)		13 (13.5 %)
Don't Know	3 (3.1 %)	<b>Do You Wake Up During the Night?</b>	
		Yes, every night	
<b>Child Naps During the Day:</b>		Only Sometimes	
Usually (5-7 nights a week)	3 (3.1 %)	Never	7 (7.4 %)
Sometimes, Rarely (0-4)	93 (95.9 %)		71 (74.7 %)
Don't Know	1 (1.0 %)	<b>Still Sleep With this Toy, or Stopped?</b>	17 (17.9 %)
		Yes	
		No	73 (78.5 %)
			20 (21.5 %)

# RESULTS

$H_1$ : Children between the ages of 3 and 8, inclusive, who have never used or have stopped using transitional objects will be more likely to have unhealthy sleep problems compared to those who do use them.

- 2 2-proportion z-tests
- “Child Complains About Sleep Problems” “Child is Restless and Moves A Lot During Sleep”
- First test: produced p-value of 0.01
- Second test: produced p-value of 0.12
- Cannot reject null hypothesis

# RESULTS

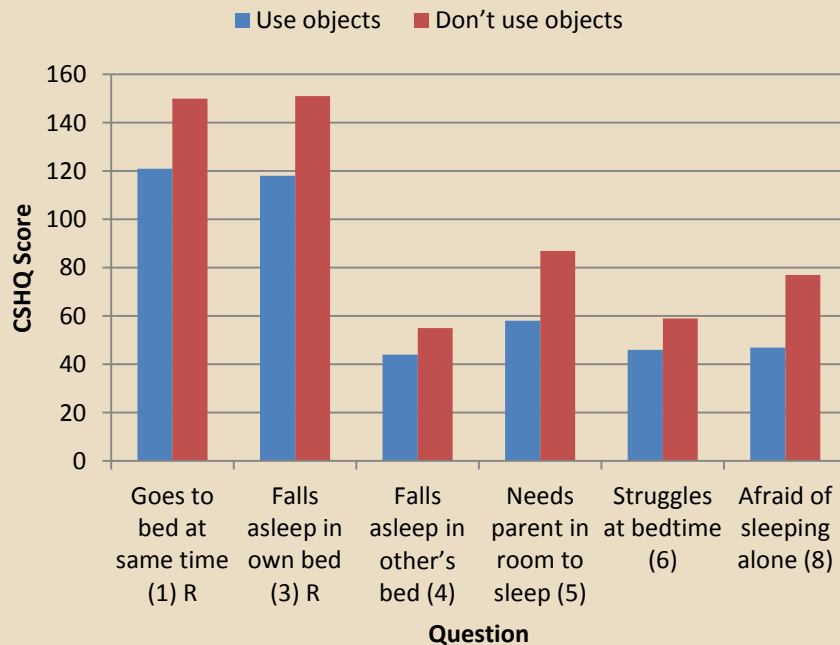
$H_2$ : Younger children (3-5 year olds) are more likely than older children (6-8 year olds) to use transitional objects at bedtime.

- 2-proportion z-test
- Younger children: 14 of 38 (37%)
- Older children: 29 of 59 (49 %)
  
- Produced p-value of 0.88
- Cannot reject null hypothesis

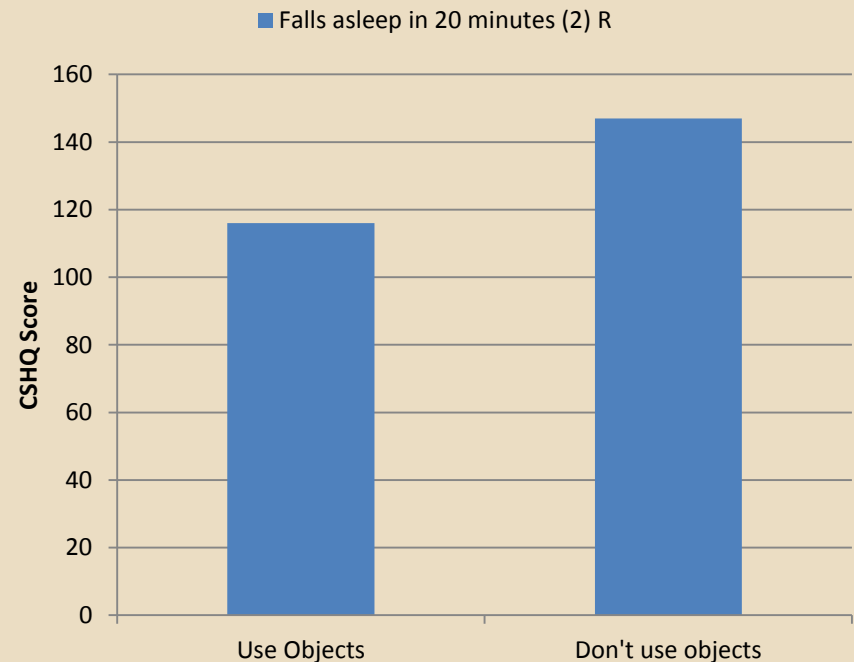
# RESULTS

H<sub>3</sub>: Children who use transitional objects will receive lower scores on the Bedtime Resistance, Sleep Onset Delay, and Night Wakings subscales of the CSHQ compared to children who do not or have stopped using these objects.

## Bedtime Resistance Subscales



## Sleep Onset Delay Subscale

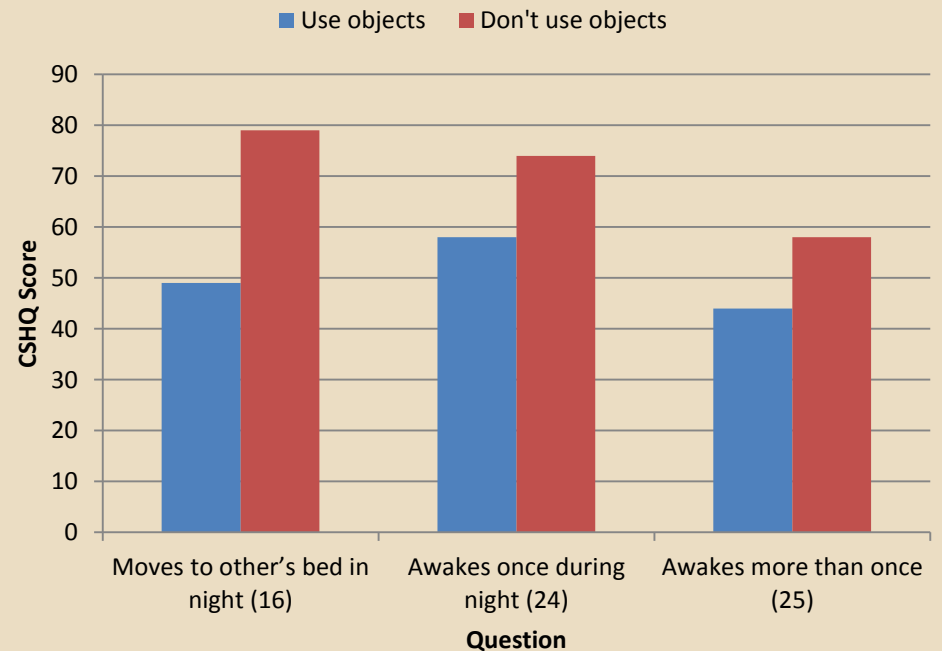


# RESULTS

H<sub>3</sub>: Children who use transitional objects will receive lower scores on the Bedtime Resistance, Sleep Onset Delay, and Night Wakings subscales of the CSHQ compared to children who do not or have stopped using these objects.

- Questions and scores highly varied
- No consistency for either group of children

## Night Wakings Subscales



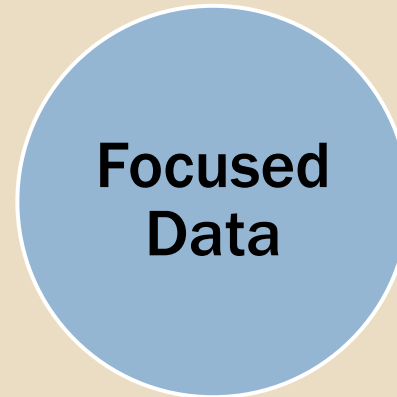


# DISCUSSION



**Limited  
Previous Data**

**Based solely on the  
parents, not from  
the child himself  
(Shaffi, 1986)**



**Focused  
Data**

**Data not only  
focused on results  
from the parents,  
but from the child  
himself**

# SUMMARY

- Introduction →
  - Multiple factors affecting children's sleep
  - Transitional objects, transition from waking into sleep
- Purpose →
  - Do children who use transitional objects sleep at all differently than those who do not or stopped?
- Methods →
  - Online, anonymous survey
  - Statistical analysis of results
- Results →
  - No significance
  - Cannot reject null hypothesis, no significant difference between the two ages

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