

Early Turner Syndrome Feeding Experiences

Student Presenter: Heather Lam

Faculty Advisors:

Margaret DeRamus, M.S., CCC-SLP,
& Debbie Reinhartsen, Ph.D., CCC-SLP



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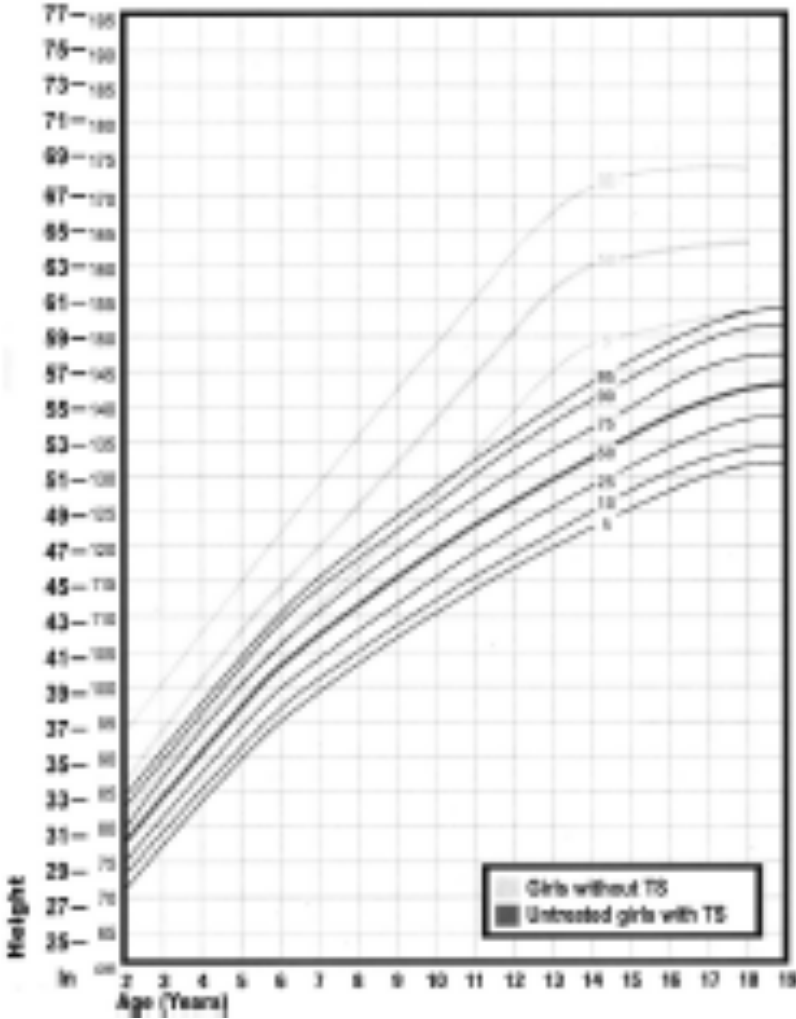
SCHOOL OF MEDICINE

Turner Syndrome

- X chromosome disorder characterized by:
 - Short stature
 - Hearing loss
 - Early: conductive
 - Late: sensorineural
 - **High arched palate & retrognathia**
 - Learning disabilities
 - Ovarian dysgenesis

(Zajac, 2016; Hjerrils, Motensen, & Gravholt, 2008).

Growth



(Frias & Davenport, 2003)

Turner Syndrome Feeding

- Difficulties due to inefficient sucking and swallowing reflexes
 - Impaired oral motor function
- Dysfunctional tongue movement
 - Poorly developed chewing skills
- Prevalence: 74%
 - From birth through 6 months-3 years of age
 - Slow rate, poor appetite, frequent vomit, suck & swallow problems
 - Difficulty introducing solids: poor chewing, vomiting

(Donaldson, Gault, Tan & Dunger, 2006; Frias & Davenport, 2003; Starke, Wikland, & Moller, 2003)

Feeding Study

- In-home interview, feeding observation (video recorded), and *Feeding Assessment Schedule*
- Mother of infants with Turner Syndrome
 - Introduced bottle feeding earlier and solids later
 - Only 4 of 10 had received advice about managing feeding
- Infants with Turner Syndrome
 - Very poor suck-swallow sequence coordination
 - Tongue dysfunction: poor chewing, fewer chewing attempts

(Mathisen, Reilly & Skuse, 1992).

Research Questions

- How common are early feeding disorders in girls with Turner Syndrome?
- When do these difficulties occur, and what characterizes trouble with feeding?

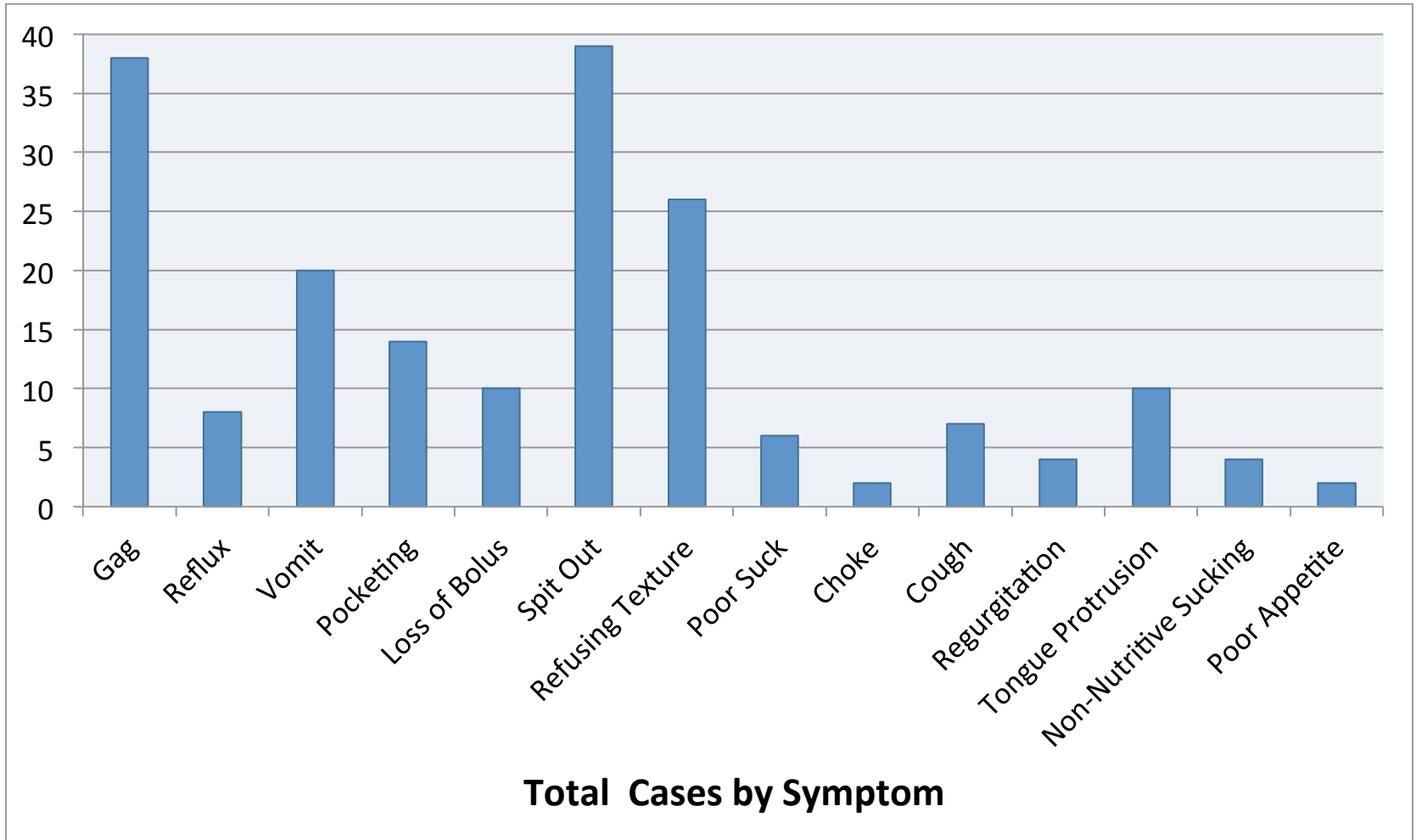
Current Study

- 41 participants from CIDDD Turner Syndrome Clinic, 2010-2013
 - Longitudinal, cross-sectional design
- Clinical observation, parent questionnaire, *Schedule for Oral-Motor Assessment*
- Ages
 - Newborn
 - 6 months
 - 12 months
 - 24 months
 - 48 months

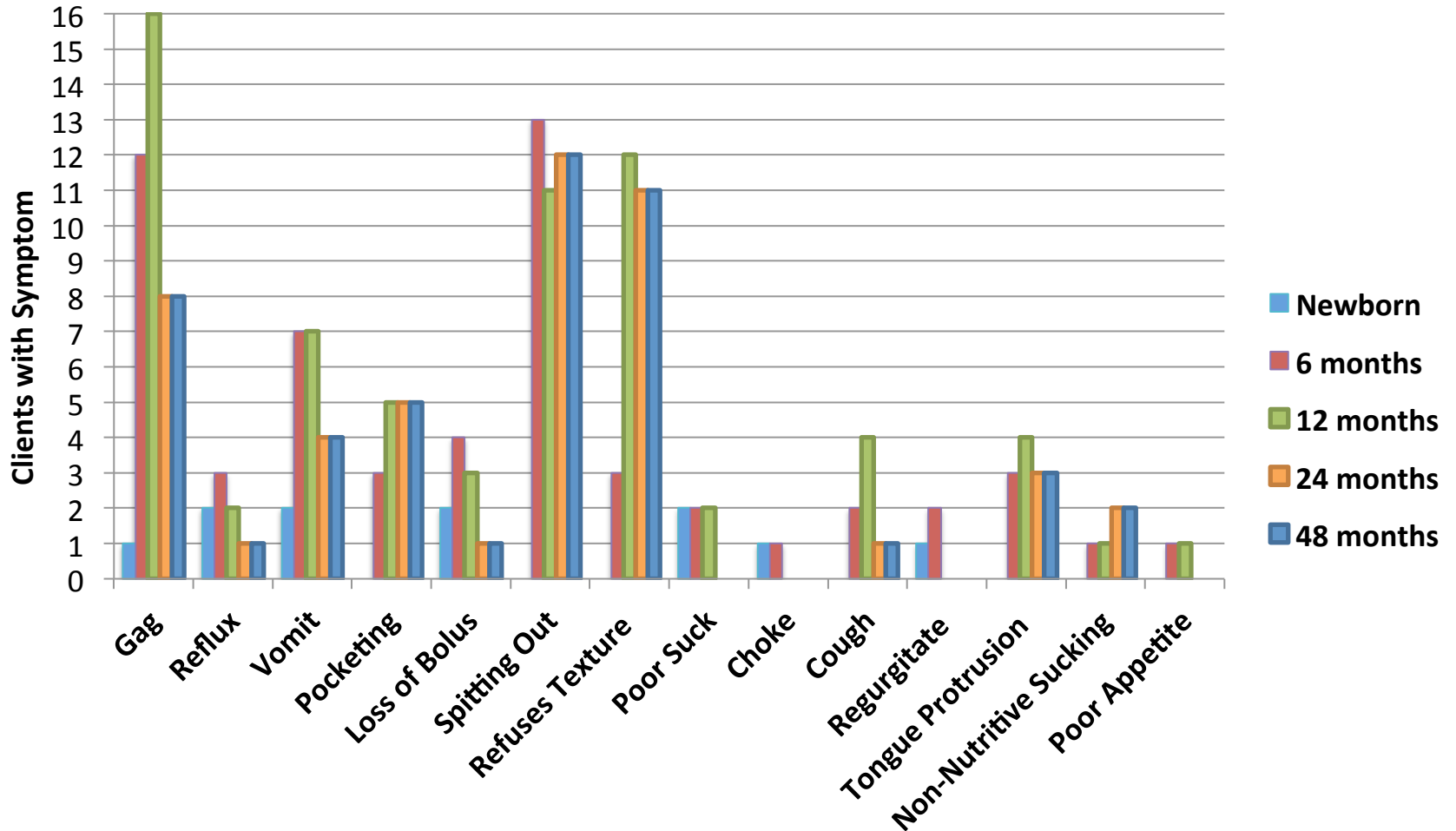
Results

	Number of Participants	Mean Age (months)	Feeding Difficulty	Mean Symptoms per Child
Newborn	8	1.63	25.00% (n=2)	1.34
6 months	22	6.5	59.09% (n=13)	2.77
12 months	28	11.82	39.00% (n=11)	2.43
24 months	23	22.39	47.83% (n=11)	2.09
48 months	7	48.00	0.00% (n=0)	0.86

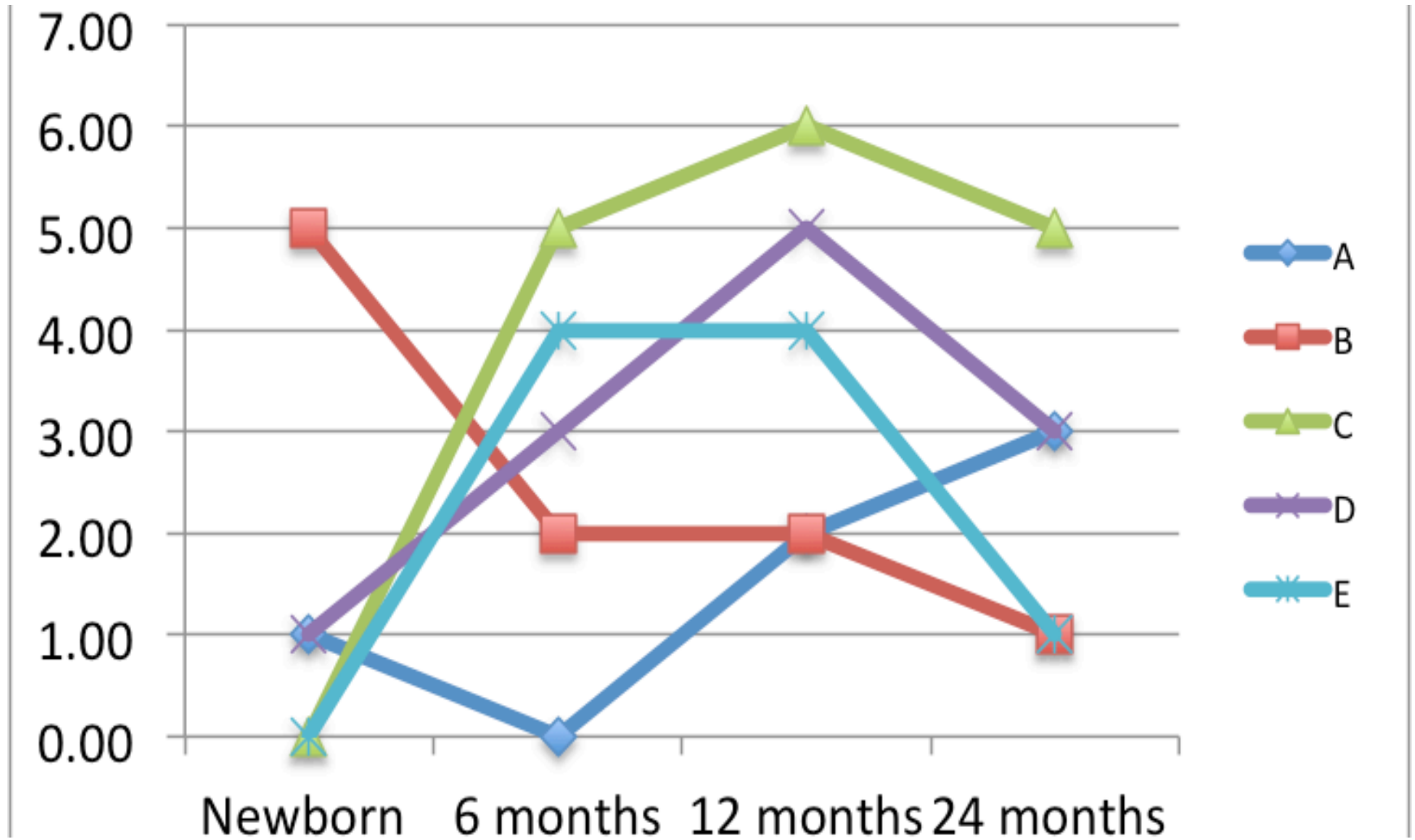
Results



Results



Results



Conclusions & Implications

- Higher rate of feeding problems than expected from typically developing infants
- Utility of adaptive feeding equipment
- Educating families and care providers about feeding concerns upon diagnosis

Team Members

- Family
- Client
- Geneticist
- Pediatrician
- Nutritionist
- Speech Language Pathologist
- Lactation Consultant
- Counselor
- Occupational Therapist

Questions?

Heather_lam@med.unc.edu

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