



Introduction

Somatic dysfunctions (SDs) can contribute to breastfeeding difficulties in infants. Studies have identified some somatic dysfunctions that hinder adequate and efficient breastfeeding such as cranial, cervical, lumbar and sacral dysfunctions.^{1,2} While Osteopathic manipulative treatment (OMT) is efficacious, referrals are limited.^{2,3} The majority of infants are not breastfed for as long or exclusively as recommended. In the United States, only 47.5% of 3-month-olds and 25.4% of 6-month-olds were exclusively breastfed in 2016.⁴ By studying contributing factors which inhibit breastfeeding, we hope to share practical information with healthcare professionals and parents to identify newborns who would benefit from OMT thus increasing breastfeeding rates. Identifying common SDs in infants with lactation difficulty can also improve training for osteopathic residents and students.

Objective

Identify common SDs, features and histories of infants with feeding difficulties to inform criteria for OMT referrals.

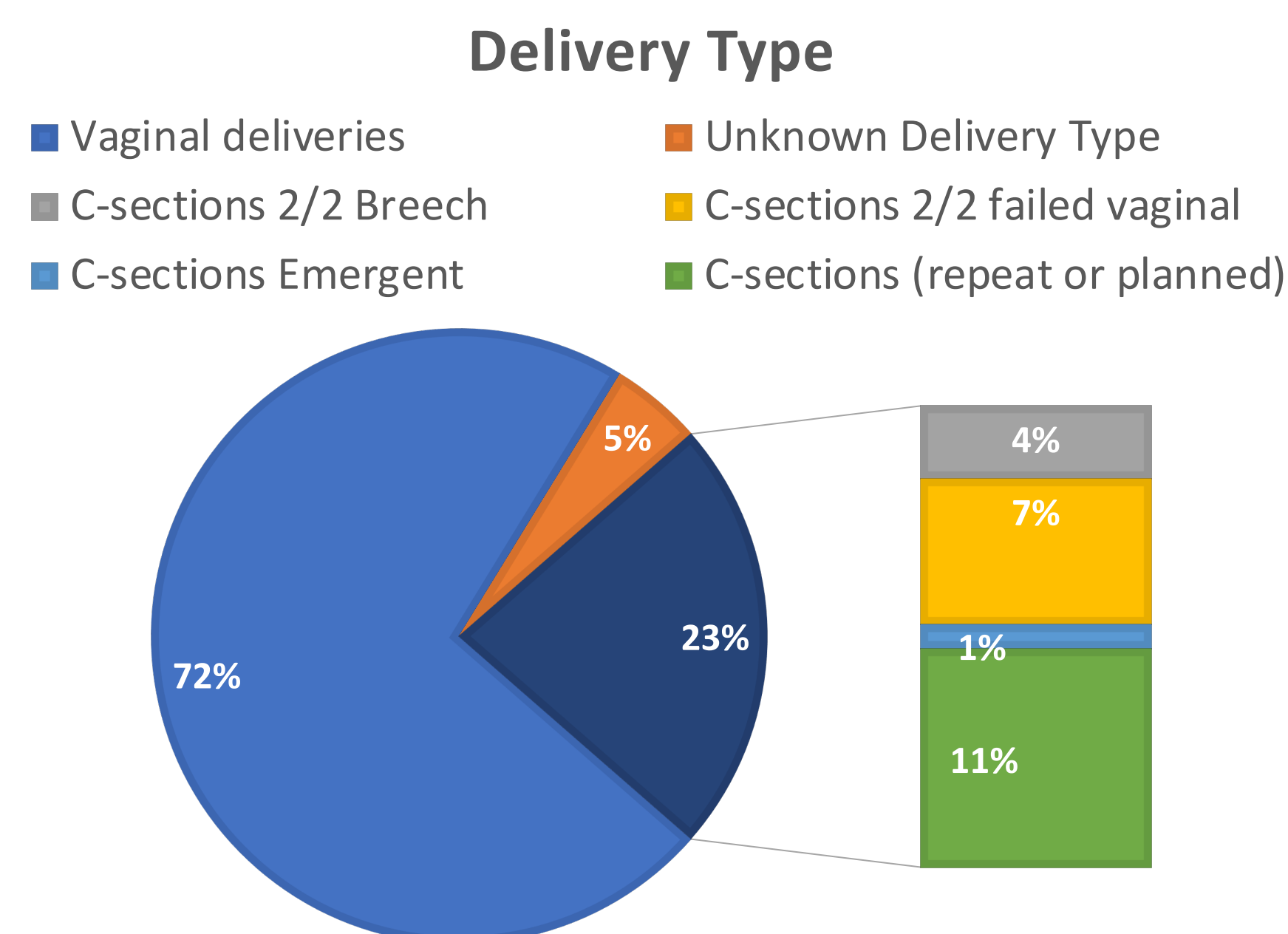


Figure 1: Delivery methods. 83 total deliveries with 60 vaginal, 19 c-sections and 4 unknown. C-sections were further delineated to reason for c-section.

Methods

IRB exempt retrospective chart review of OMT encounters from 7/1/2016 to 7/1/2020 of patients under 8-months were examined. Data of birth history, feeding, physical exam and SDs was collected and correlations between history and SD were explored. The chief complaints (CCs) were used to create patient groups of feeding issues and a control. The feeding issues group included chief complaints of suck-swallow issues, tongue or lip-tie, or latch concerns. The control group included chief complaints of torticollis, plagiocephaly, colic, reflux, clogged tear duct and newborn exam. Patients were also separated by delivery method (Fig. 1).

Results

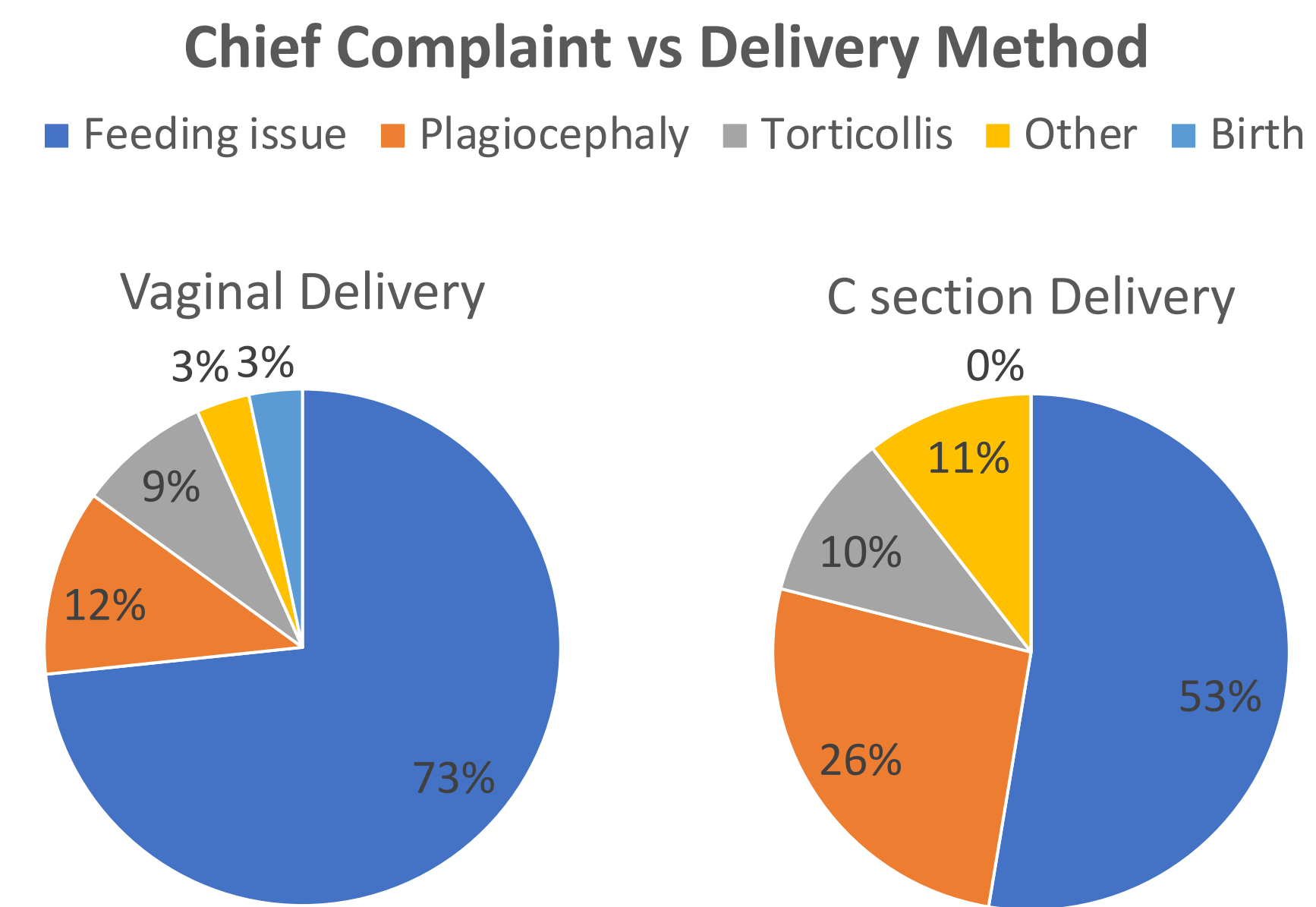


Figure 2: Chief complaint percentages per delivery method. "Other" includes colic, reflux and clogged tear duct.

83 infants with an average age of 63 days (range 0 to 177 days) met inclusion criteria of which 54 (65%) presented with feeding issues as the primary CC. The CCs were similar between delivery method except for colic and reflux which were seen in C-sections at a greater percentage (Fig. 2.) SDs in the cranial base (100%), respiratory diaphragm (96%) and S1-S3 (74%) regions were most common (Fig. 3). No SD differences between delivery type or feeding issues were noted. Of infants with feeding issues, 12 had a secondary CC of torticollis (10) or plagiocephaly (2).

Infants in the control group presented at the average age of 79 days while the feeding issue group averaged 56 days at presentation. Criteria for referral include parent or practitioner concern, delivery via C-section, significant use of bottles or formula, torticollis, plagiocephaly, suck-swallow dysfunction, tongue tie, lip tie and latch difficulties.

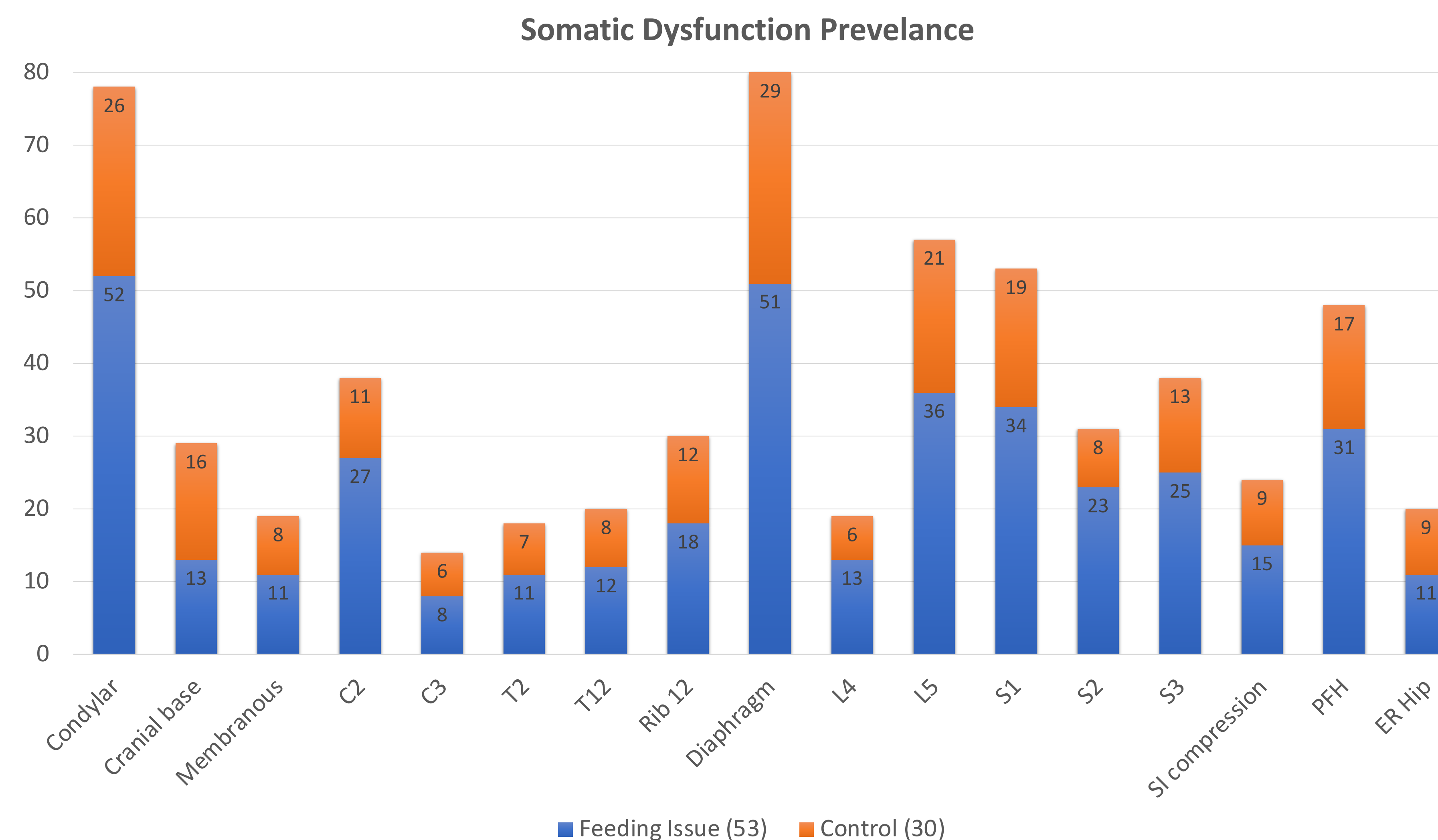


Figure 3: Summary of most common SDs differentiated by group, feeding issue vs control. Condylar compression, diaphragm restriction and sacral restrictions were the most common between all delivery methods and feeding groups.

Discussion

SDs historically associated with feeding issues were found equally among the feeding issue group and the control. SDs were also similar among delivery methods, suggesting that some SDs are likely formed in-utero or similarly formed during delivery. Many infants that presented to the clinic with a non-feeding related CC presented at an older age and had already failed breastfeeding. Referral criteria that can be used to identify newborns who could benefit from OMT at an earlier age could increase breastfeeding success. This study will allow further research into a system-wide referral program and the effect of improved and unified OMT documentation. Study limitations include limited sample size, varied SDs nomenclature and varied availability of birth and feeding history.

Acknowledgements



Thank you to the Departments of Obstetrics and Gynecology, Pediatrics and Family Medicine at Atlantic Health Systems for their support and patient referrals. Thank you to the parents, lactation consultants and pediatricians that have worked with us to find ways to increase breastfeeding success in our community.

Picture 1: Example of hand placement when treating newborn.

Bibliography

- Waddington EL, Snider KT, Lockwood MD, Pazdernik VK. Incidence of Somatic Dysfunction in Healthy Newborns. *J Am Osteopath Assoc*. 2015;115(11):654-665. doi:10.7556/jaoa.2015.136
- Herzhaft-Le Roy J, Xhignesse M, Gaboury I. Efficacy of an Osteopathic Treatment Coupled With Lactation Consultations for Infants' Biomechanical Sucking Difficulties. *J Hum Lact*. 2017;33(1):165-172. doi:10.1177/0890334416679620
- Lund GC, Edwards G, Medlin B, Keller D, Beck B, Carreiro JE. Osteopathic Manipulative Treatment for the Treatment of Hospitalized Premature Infants With Nipple Feeding Dysfunction. *J Am Osteopath Assoc* 2011;111(1):44-48
- Facts. Center for Disease Control and Prevention. <https://www.cdc.gov/breastfeeding/data/facts.html>. Published December 28, 2019. Accessed July 25, 2020.