



Introduction

Neonatal Brachial Plexus Palsy (NBPP) is a leading cause of medical malpractice lawsuits claiming neurologic birth injury, second only to cerebral palsy.¹ Approximately 60% of lawsuits related to NBPP between 1985 and 2001 resulted in payouts of monetary damages.² The median indemnity was \$301,000 (~4 times the median payout for all malpractice claims during this period) with a total payout of \$54 million.³

Recently, \$12.9 million was awarded to a patient of the UM Brachial Plexus Program. Note that we do not provide expert witness or opinion on Obstetrical practices.

The reasons for pursuit of malpractice litigation remain undefined and were the goals of our study.

- Incidence of NBPP is 1-4 per 1,000 live births.⁴
- Etiology remains controversial but intrauterine forces, maternal propulsive forces, and traction during delivery have been reported.^{5,6,7}
- 20-30% of NBPP patients have long-term functional deficits that require lifelong therapy including physical/occupational therapy and specialized medical equipment that often imposes a heavy financial burden.^{8,9}
- Patient families file medical malpractice lawsuits because of the uncertainty regarding the future of the affected child and the possible losses in future earnings, particularly in cases of permanent disability.¹⁰

Objectives

1. Report the prevalence of malpractice litigation in patients of the UM Brachial Plexus Program.
2. Investigate which psychosocial concerns factored into the pursuit of litigation.
3. Determine if the extent of the NBPP is a major factor prompting lawsuits.

Methods

Participants:

- 51 adult parents/legal guardians of NBPP children recruited from University of Michigan Interdisciplinary Brachial Plexus Program clinic.
- Exclusion criteria included comorbid medical conditions and English as a non-primary language.

Data Collection:

- Psychosocial questionnaire modeled after survey developed by Hickson, *et al.*¹⁰
- The NIH-developed PROMIS Parent Proxy instrument (depression, anxiety, anger, peer relationships, fatigue, pain, upper extremity function, and mobility). Reported using standard T-scores.
- Demographic data and Narakas score obtained from an IRB-approved database.

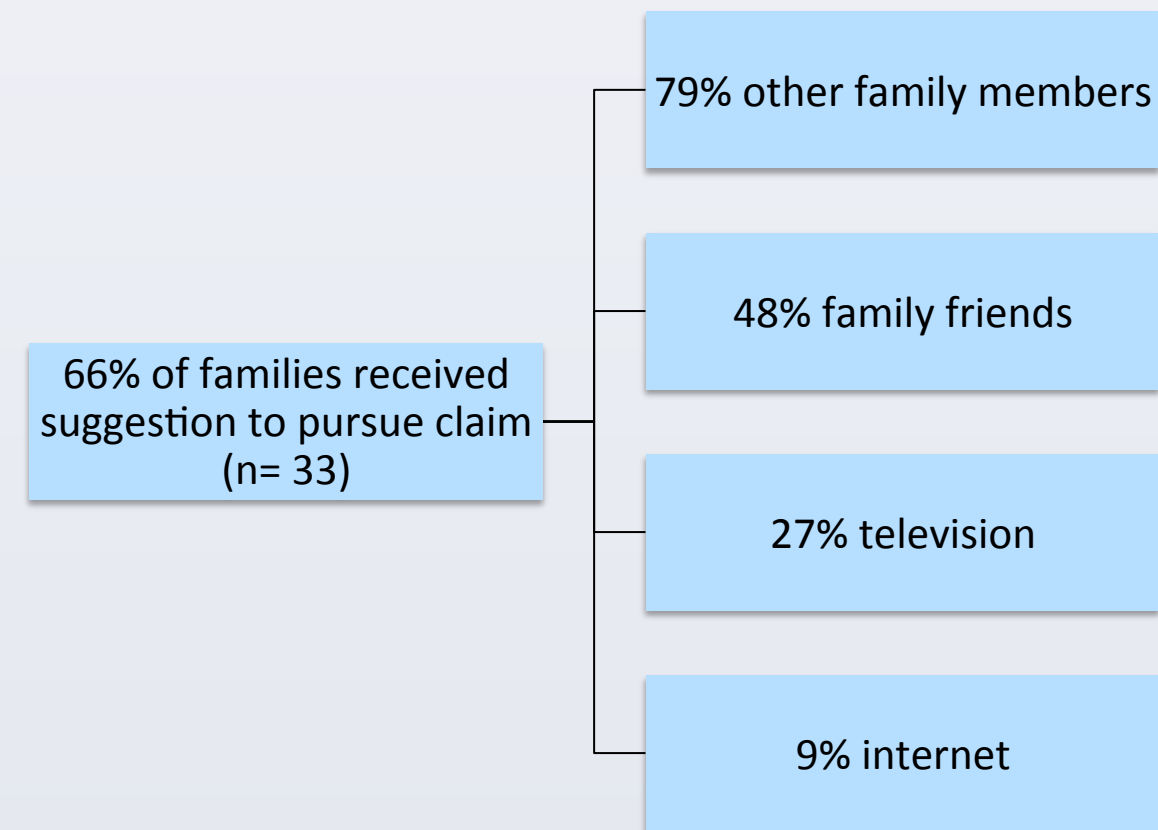
Methods (cont.)

Statistical Analysis:

- Descriptive statistics of demographics/questionnaire responses were performed using SPSS Version 20.0 (SPSS Inc., Chicago, IL). Fisher's exact tests and Chi-square tests were used to compare differences in gender, race, Narakas score between litigation and non-litigation groups and student t-test was applied for group differences in age and PROMIS standardized T-scores. Statistical significance level was established at $p < 0.05$.

Results

1. The prevalence of malpractice litigation in patients of the UM Brachial Plexus Program is 47% (n = 24).



2. The major psychosocial concern(s) factoring into the pursuit of litigation result from a lack of physician-patient communication.

Question	Total Responses	Litigation	No Litigation	p-value
Sustained unnecessary birth injury				0.002 [§]
Yes	36 (75%)	22 (96%)	14 (56%)	
No	12 (25%)	1 (4%)	11 (44%)	
Given adequate info at birth				0.003 [§]
Yes	16 (33%)	3 (13%)	13 (52%)	
No	33 (67%)	21 (87%)	12 (48%)	
Felt ignored				0.005 [§]
Yes	29 (59%)	19 (79%)	10 (40%)	
No	20 (41%)	5 (21%)	15 (60%)	
Received proper referral				0.23 [§]
Yes	38 (75%)	16 (67%)	22 (81%)	
No	13 (25%)	8 (33%)	5 (19%)	
Concerns were dealt with at birth				< 0.001 [§]
Yes	18 (38%)	3 (13%)	15 (62%)	
No	30 (62%)	21 (87%)	9 (38%)	
Advised to seek legal action				< 0.001 [§]
Yes	33 (66%)	23 (96%)	10 (38%)	
No	17 (34%)	1 (4%)	16 (62%)	

[§]Chi-square test or Fisher exact test was applied for group comparison.

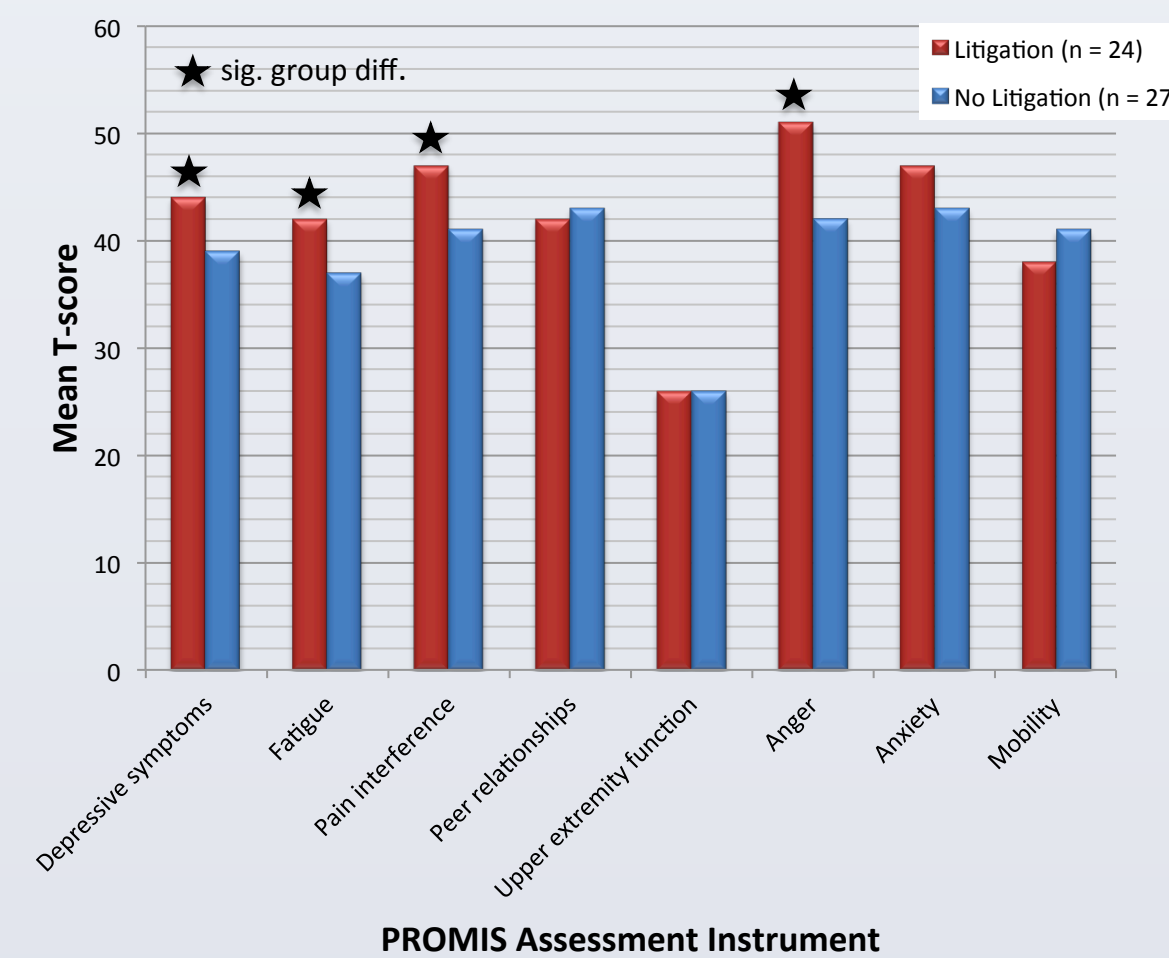
Results (cont.)

3. The extent of NBPP (Narakas Grade) was not a major factor prompting lawsuits. Patient age, gender, and race do not differ significantly between litigation and non-litigation groups.

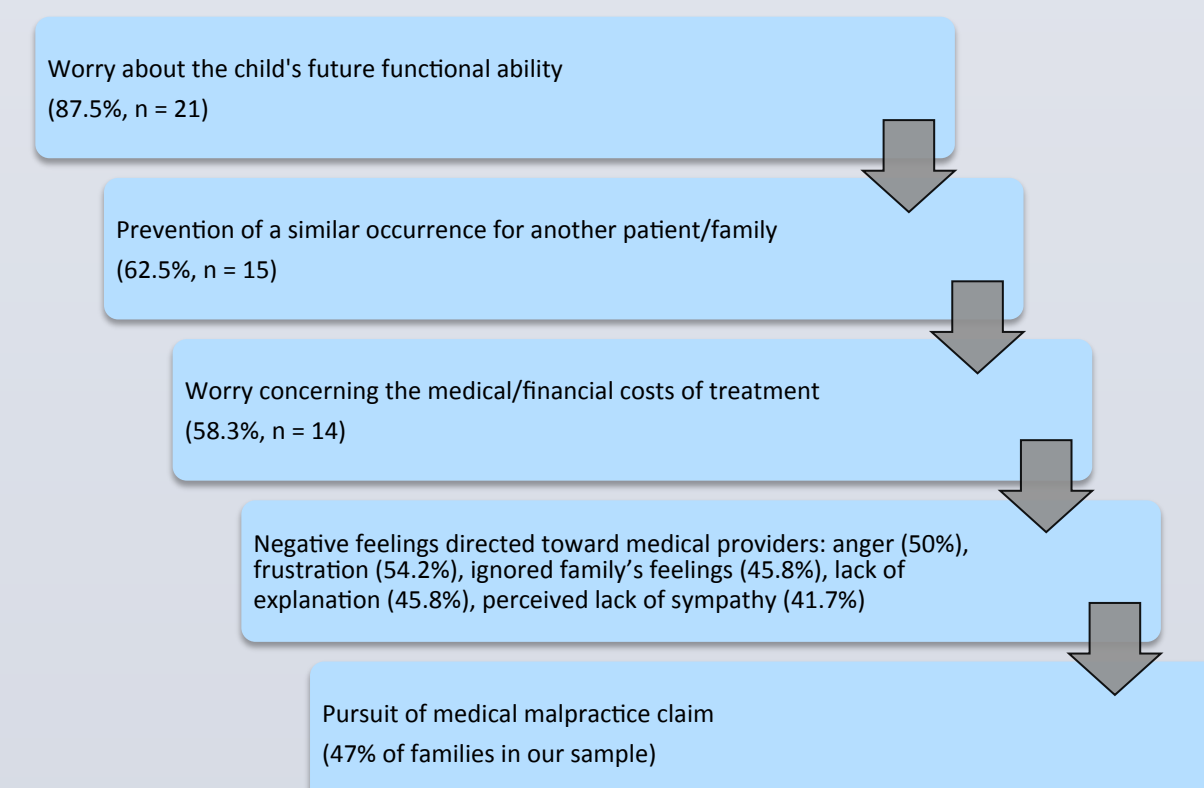
	Total Study			p-value
	Population	Litigation	No Litigation	
No. of patients	51	24 (47%)	27 (53%)	-
Narakas Group I-II	22 (43%)	8 (33%)	14 (52%)	0.18 [§]
Narakas Group III-IV	29 (57%)	16 (67%)	13 (48%)	

[§]Chi-square test or Fisher exact test was applied for group comparison.

Both the "litigation" and "no litigation" groups show equivalent upper extremity function by objective examination. However, families who pursued malpractice litigation reported lower perceived health-related quality of life and greater global disability than non-litigation families.



Proposed evolution of NBPP family decision to pursue malpractice litigation.



Conclusions

- Physician-controllable factors contribute significantly to the decision-making process regarding pursuit of malpractice litigation.
- PROMIS showed group differences in health-related quality of life, which may be difficult for providers to identify during brief interactions.
- Understand family concerns and values in order to provide the best counseling, timely treatment suggestions, and to prevent misunderstandings or misleading conversation.¹¹
- Physical extent of NBPP was not a significant factor in decision-making about litigation and should not deter open communication.

Strengths and Limitations

- Strength of the study lies in the ability to directly compare those who chose to pursue malpractice litigation with those who did not, eliminating medical condition as a possible confounder.
- Limitations include a relatively small sample size, which precluded the use of regression models, and possible confounders including the 2-way nature of communication, reverse causation, and socioeconomic status.

References

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