

Assessing Physician-Parent Communication During Emergency Medical Procedures in Children: An Observational Study of the Efficacy of the Informed Consent Process in a Low-Literacy Latino Patient Population

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Abstract

Objective: Effective physician-patient communication is critical to the clinical decision-making process. We studied parental recall of information provided during an informed consent discussion process prior to performance of emergency medical procedures in a pediatric emergency department of an inner-city hospital with a large bilingual population. Also, we attempted to identify barriers to effective communication in this unique environment.

Methods: Fifty-five parent/child dyads undergoing emergency medical procedures were surveyed prospectively in English/Spanish post procedure for recall of informed consent information. Exact logistic regression was used to predict the ability to name a risk, benefit, and alternative to the procedure based on a parent's language, education, and acculturation.

Results: Among English-speaking parents, there tended to be higher proportions that could name a risk, benefit, or alternative. Our regression models showed overall that parents with more than a high school education tended to have nearly five times higher odds of being able to name a risk.

Conclusion: A gap in communication may exist between physicians and patients (or parents of patients) during the consent-taking process, and this gap may be impacted by socio-demographic factors such as language and education level.

Methods

Parent/child dyads undergoing an emergency medical procedure mandating an informed consent were enrolled prospectively over a 6-month period (August 2012-February 2013). Parents were surveyed in English or Spanish (language of choice for consent) post procedure. Parents rated their satisfaction level to the 4 key elements of informed consent discussion process on a 5-point Likert scale (Excellent: 5 - Very Poor: 0).

Methods

Logistic regression analysis was used to assess the influence of demographic factors on health literacy. The outcome variables were the ability to name a risk, the ability to name a benefit, and the ability to name an alternative to the procedure. Our predictors were language, education, and acculturation.

Results

- ✓ A total of 55 parent/child dyads were recruited over a 6-month period (August 2012 and February 2013). 32 (58.2%) parents completed the post-procedure survey in English, & Spanish was the language of choice in 23 (41.8%) cases.
- ✓ Laceration repair (36.4%) was the commonest procedure for which consent was obtained, followed by lumbar puncture (23.6%), incision and drainage of abscesses (10.9%), fracture reduction (9.1%), excision of ingrown toe nail (7.3%), and other unspecified procedures in 12.7% cases.
- ✓ Approximately half (49.1%) of the parents consenting, were between 25-34 years of age. The majority were female (83.6%) and Hispanic (78.2%). A majority of the Hispanic parents who participated in the survey were less than high school educated compared to non-Hispanic patients (24 of 43 vs. 1 of 12, $p = .0002$).
- ✓ Sixty-three percent of Hispanics also had a lower level of acculturation, with a mean acculturation score on the BASH scale of 2.43 ($SD = 1.51$).

Results of regression analysis showed that respondents with less than a high school education were approximately 20% less likely to be able to name a risk or a benefit, while respondents with a high school education were approximately 24 times more likely to be able to name an alternative procedure (Tables 1-3)

Results

LOGISTIC REGRESSION TABLES:

Table 1. Summary of results from the regression model to predict the ability to name a risk.

Predictor	Coefficient	SE	z value	p value	Odds ratio	95% CI
Language (English vs. Spanish)	1.34	1.04	1.29	0.20	3.81	0.49, 31.96
Education (less than high school)	-1.69	0.78	-2.16	0.03*	0.18	0.04, 0.83
Acculturation (low vs. high)	-0.20	1.13	-0.18	0.86	0.82	0.09, 8.24

* $p < .05$, coefficient = regression weight, SE = standard error, z = standardized test statistic

Table 2. Summary of results from the regression model to predict the ability to name a benefit.

Predictor	Coefficient	SE	z value	p value	Odds ratio	95% CI
Language (English vs. Spanish)	-0.19	1.29	-0.15	0.88	0.82	0.03, 8.36
Education (less than high school)	-1.58	0.84	-1.88	0.06*	0.21	0.04, 1.03
Acculturation (low vs. high)	-1.37	1.29	-1.06	0.29	0.25	0.01, 2.68

*Marginally reliable at alpha = .05, coefficient = regression weight, SE = standard error, z = standardized test statistic

Table 3. Summary of results from the regression model to predict the ability to name an alternative.

Predictor	Coefficient	SE	z value	p value	Odds ratio	95% CI
Language (English vs. Spanish)	2.19	1.80	1.22	0.22	8.92	0.22, 505.03
Education (high school)	3.17	1.27	2.49	0.01*	23.87	2.77, 632.35
Acculturation (low vs. high)	-0.01	1.58	-0.01	0.99	0.99	0.03, 31.98

* $p < .05$, coefficient = regression weight, SE = standard error, z = standardized test statistic

Barriers to Effective Communication

When asked reason for not having asked all questions parents had wanted to ask the physician, a majority of the 27 who responded no felt that "the doctor knew what was best" for the their child, thereby affirming the traditional paternalistic role that a physician generally assumes.

Barriers identified	No. of Responses
Language:	
• I do not speak English well.	5 (9.1%)
Literacy:	
• I could not understand what was written on the form.	2 (3.6%)
Situational anxiety:	
• I did not have time to think through all questions I would like to ask.	1 (1.8%)
• I was too anxious because of my child's illness.	1 (1.8%)
Belief:	
• I feel the doctor knows what is best for my child.	17 (30.9%)
• I do not feel comfortable questioning the doctor	1 (1.8%)

Conclusion

This study demonstrates the existence of a communication gap between physicians and patients during the consent taking process; this gap is significantly impacted by socio-demographic factors like education level, language and acculturation.

To ensure effective health communication, the gap in physician-patient communication needs to be recognized and closed. Innovative strategies are needed to address these specific barriers to communication.