Ethnic Differences in Parent Preference to Be Present for Painful Medical Procedures

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ABSTRACT. Objective. To examine ethnic differences between white, black, and Hispanic (English-speaking and Spanish-speaking) parents in their desire to remain present during their children’s painful medical procedures.

Methods. A convenience sample of parents from each of 4 ethnic groups (black, white, and Hispanic [divided into English-speaking Hispanic and Spanish-speaking Hispanic]) was surveyed regarding their preferences for remaining present for 5 hypothetical painful procedures: venipuncture, laceration repair, lumbar puncture, fracture reduction, and critical resuscitation. For each procedure, a short description of the procedure was read to the parent, and a picture of the procedure was shown. The effect of ethnicity on parental desire to stay was examined by using the χ² test and multivariate logistic regression.

Results. Complete data on 300 parents, 72 to 79 from each ethnic group, were obtained. There were no significant demographic differences between groups except that English-speaking Hispanic parents were younger, and black parents were relatively well educated, whereas Spanish-speaking Hispanic parents were relatively less well educated. Overall, the percentages of those who would wish to remain with their child during the procedures were 94% (venipuncture), 88% (laceration repair), 81% (fracture reduction), and 81% (critical resuscitation). The only significant ethnic difference was that English-speaking Hispanic parents were less likely to want to remain present during a critical resuscitation (P = .01). Black parents were less likely, and English-speaking Hispanic parents were more likely, to want physicians to decide for them whether they should remain present. Parents generally preferred to actively participate during the procedure by coaching and soothing their child rather than to just observe.

Conclusions. We found few ethnic differences in parents’ desire to be present during their child’s painful medical procedures. Overall, the vast majority of parents would prefer to remain present even for highly invasive procedures. Pediatrics 2005;116:e191–e197. URL: www.pediatrics.org/cgi/doi/10.1542/peds.2004-2626; parent, family member presence, procedure, pain, pediatric, survey.

ABBREVIATION. CI, confidence interval.

Historically, parents have often not been allowed to stay in the room when their children were undergoing painful medical procedures. Surveys of health care workers show that many still do not invite parents to remain present for more invasive procedures such as lumbar punctures. The effect of parental presence on children during medical procedures is unclear. Some studies have found that parental presence leads to calmer children, others have found increased distress, and others have shown no effect.

Parents and children, when surveyed, express a clear preference for the parent to remain present. Recent reviews and studies promote providing the option of parental presence even for very invasive procedures. Yet, some parents may not be emotionally capable of remaining present for certain procedures and should not be forced to stay. Health care workers must be prepared to initiate discussions regarding parental presence for pediatric procedures. Because painful medical procedures are performed on children routinely in pediatric clinics, office practices, and emergency departments nationwide, these discussions will occur frequently. Parental factors such as the parent’s own previous pain experiences, anxiety level, and level of education may influence an individual parent’s preference.

Ethnicity and cultural beliefs are other factors that may contribute to parental preferences. Ethnicity and level of acculturation have been shown to contribute significantly to parenting beliefs and other health-related beliefs. A study conducted in Massachusetts on the issue of parents’ presence while their children undergo various painful medical procedures found that parents who wished to remain present with their children were more likely to have other children who had undergone procedures, were more educated, and were more likely to be black (versus white or Hispanic). No study in the literature to date was specifically designed to examine ethnic differences in parents’ desire to remain present.

The purpose of this study was to begin to fill this gap by comparing the preferences of parents from 4 ethnic groups (black, white, English-speaking Hispanic, and Spanish-speaking Hispanic) to remain present for 5 hypothetical pediatric procedures.
MATERIALS AND METHODS

We interviewed parents of 4 different ethnic groups (black, white, English-speaking Hispanic, and Spanish-speaking Hispanic) regarding their preferences for remaining present during 5 hypothetical painful medical procedures commonly performed in the pediatric emergency department: venipuncture, laceration repair with sutures, lumbar puncture, fracture reduction, and critical resuscitation.

Any ethnic differences in parent preferences to remain present are more likely to be a result of cultural factors and belief systems than to genetic racial differences. English-speaking Hispanic parents are assumed to be more assimilated into American culture than Spanish-speaking Hispanic parents, and cultural differences are likely.25-28 For these reasons, Hispanic parents were divided into separate English- and Spanish-speaking groups. The other 2 ethnic groups, black and white, were assumed to not have as much variance in level of acculturation as Hispanic parents.

A convenience sample of parents was enrolled when investigators were present during weekday day shifts. Parents were considered to belong to 1 of the 4 ethnic groups under study according to self-identified ethnicity. If 2 parents were present, both were eligible for enrollment. The interviews were conducted separately, away from the other parent. Grandparents and other caretakers were eligible if they were the primary caretaker and legal guardian of the child. Investigators approached parents as they were waiting in the pediatric emergency department or pediatric clinic waiting rooms. The purpose of the study and the interview methods were explained, and informed consent was obtained. Spanish-speaking parents were enrolled by a fluent Spanish-speaking research nurse. Enrollment procedures were reviewed with the research nurse, and direct observation of the nurse’s enrollment for the initial 10 parents enrolled was conducted by the investigator who enrolled the majority of the English-speaking parents (M.J.). This study was reviewed and approved by the Los Angeles Biomedical Research Institute at Harbour-UCLA Medical Center’s Institutional Review Board.

We interviewed parents regarding their age and gender, level of education, experience with previous procedures performed on this child and other children, and the child’s age and gender were obtained. Level of education was categorized as less than high school, graduate of high school or trade school, some college, and college or higher degree. Parents were asked to self-rate on a 4-level Likert scale how anxious they typically feel before their child is went to undergo a painful medical procedure.

The investigator showed the parent a picture of the procedure and read a short, standardized description. If the parent still had questions about the procedure, they were answered. The parent was then surveyed about preference to stay or leave, the reasons behind this choice, and desire for the physician to determine if the parent could stay or not. This same methodology was used sequentially for the 5 hypothetical situations. The procedures were presented in 1 of 10 predetermined but varied orders, according to the last digit of the subject’s study number. Critical resuscitation was never the first procedure presented. After parents answered the overall questions about critical resuscitation, they were presented with 3 additional, more specific scenarios (critical resuscitation with child awake, critical resuscitation with child unconscious, and critical resuscitation when the child was likely to die) and a lower percentage wished to remain if the child was unconscious, critical when the child was likely to die, and a lower percentage wished to remain if the child was unconscious.

Data were entered into a database using Excel 2000 (Microsoft Corporation, Seattle, WA) and imported for analysis by using SAS 8 (SAS Institute, Cary, NC). Categorical demographic variables were compared between ethnic groups and other possible confounding predictors by using the χ² test, and continuous variables were compared by using the Kruskal-Wallis test. The proportions of parents who had been present for a given procedure previously, who wished to remain present for the hypothetical procedure presented, and who preferred to have a physician determine if they should remain present were compared by ethnic group by using the χ² test. The proportion of parents endorsing a given reason for staying or leaving and a given level of parental involvement were compared by procedure by using the χ² test as well. A probability value of <.05 was considered statistically significant. No correction was made for multiple comparisons. Multivariate logistic-regression analysis was undertaken to examine the effects of possible confounders. Goodness of fit was evaluated by using the Hosmer-Lemeshow statistic for all models. Confidence intervals (CIs) around proportions were calculated by using exact binomial distributions (Stata/SE 8.0, Stata Corp, College Station, TX).

The study was designed to have a power of 0.80 with an α level of .05 to detect a difference in the percentage of parents wishing to remain present for a procedure from 90% to 50% with the χ² test (df = 3). Achieving this power required a sample size of 72 patients in each group. Although this study was designed to detect a very large difference, smaller differences (eg, from 90% to 70%) would likely not warrant a change in the health care worker’s approach to a given parent when discussing remaining present. Only large differences would potentially alter the way the dialogue between health care worker and parent is initiated and conducted.

RESULTS

Three hundred ten caretakers were enrolled. Data on 10 caretakers were discarded because: the person being surveyed was not the primary caretaker of the child; the caretaker was having trouble understanding the questions; or the caretaker could not complete the interview because he or she was called into the doctor’s office. Seven caretakers declined to participate. There were only 5 pairs of caretakers who were mother-father dyads: 2 white, 2 English-speaking Hispanic, and 1 black. Less than 10% of the parents were recruited from pediatric clinics.

Demographic characteristics of the study population are shown in Table 1. The significant differences in demographic characteristics between the ethnic groups were that English-speaking Hispanic parents were significantly younger, and black parents were relatively better educated, whereas Spanish-speaking Hispanic parents were relatively less well educated. There were no statistically significant differences in the percentage of parents from each ethnic group who had previously been present for a particular procedure performed on this or any other child (Table 2).

Overall, the proportions who wished to remain for each procedure were 94% (venipuncture [95% CI: 91–96%]), 88% (laceration repair [95% CI: 84–92%]), 81% (lumbar puncture [95% CI: 76–85%]), 81% (fracture reduction [95% CI: 76–85%]), and 81% (critical resuscitation [95% CI: 76–85%]) (Table 3). In general, as the perceived invasiveness increased (fracture reduction, lumbar puncture, and critical resuscitation), a lower percentage wished to remain (P < .001). However, when parents were presented with the situation of an awake child or their child’s likely death during a critical resuscitation, the desire to stay increased compared with if the child was unconscious during the resuscitation (95% if awake and 93% if likely to die versus 89% if unconscious).

There were few ethnic differences. On univariate analysis, Spanish-speaking Hispanic parents were less likely to want to stay for laceration repair, and English-speaking Hispanic parents were less likely to want to remain present for critical resuscitation (Table 3). On univariate analysis, child gender, caregiver type (mother or father), caregiver age, and child age were not statistically significant predictors of whether the caregiver would want to remain present...
TABLE 1. Demographic Characteristics of Study Sample According to Ethnic Group

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>Black (N = 72)</th>
<th>White (N = 73)</th>
<th>English-Speaking Hispanic (N = 76)</th>
<th>Spanish-Speaking Hispanic (N = 79)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caregiver type, n (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother</td>
<td>60 (83)</td>
<td>57 (78)</td>
<td>61 (80)</td>
<td>75 (96)*</td>
<td>.12</td>
</tr>
<tr>
<td>Father</td>
<td>10 (14)</td>
<td>13 (18)</td>
<td>14 (18)</td>
<td>3 (4)</td>
<td></td>
</tr>
<tr>
<td>Grandparent</td>
<td>2 (3)</td>
<td>3 (4)</td>
<td>1 (2)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td>Child age, y, median, interquartile range</td>
<td>5, 1.4–9 5, 1–12</td>
<td>3, 1–8</td>
<td>.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>26 (37)†</td>
<td>37 (51)</td>
<td>35 (47)‡</td>
<td>44 (56)§</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>46 (63)</td>
<td>36 (48)</td>
<td>32 (43)</td>
<td>31 (40)</td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>8 (11)</td>
<td>11 (15)†</td>
<td>18 (24)§</td>
<td>68 (86)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>College or higher degree</td>
<td>16 (22)</td>
<td>8 (11)</td>
<td>3 (4)</td>
<td>1 (1)</td>
<td></td>
</tr>
<tr>
<td>Parent anxiety (self-rated), n (%)</td>
<td>26 (36)</td>
<td>8 (11)</td>
<td>18 (24)</td>
<td>18 (23)*</td>
<td>.055</td>
</tr>
<tr>
<td>Relaxed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimally anxious</td>
<td>14 (20)</td>
<td>18 (25)</td>
<td>21 (28)</td>
<td>23 (29)</td>
<td></td>
</tr>
<tr>
<td>Moderately anxious</td>
<td>16 (22)</td>
<td>24 (33)</td>
<td>14 (18)</td>
<td>17 (22)</td>
<td></td>
</tr>
<tr>
<td>Very anxious</td>
<td>16 (22)</td>
<td>23 (31)</td>
<td>23 (30)</td>
<td>20 (26)</td>
<td></td>
</tr>
</tbody>
</table>

* N = 78; data are missing on 1 parent.
† N = 71; data are missing on 1 child.
‡ N = 74; data are missing on 2 children.
§ N = 78; data are missing on 1 child.
∥ N = 72; data are missing on 1 parent.
¶ N = 75; data are missing on 1 parent.

TABLE 2. Proportion of Parents Previously Present for a Given Procedure According to Ethnic Group

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Black (N = 72)</th>
<th>White (N = 73)</th>
<th>English-Speaking Hispanic (N = 76)</th>
<th>Spanish-Speaking Hispanic (N = 79)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venipuncture, n (%)</td>
<td>67 (93)</td>
<td>59 (81)</td>
<td>64 (84)</td>
<td>70 (89)</td>
<td>.15</td>
</tr>
<tr>
<td>Laceration repair, n (%)</td>
<td>34 (44)</td>
<td>33 (45)</td>
<td>34 (45)</td>
<td>26 (33)</td>
<td>.34</td>
</tr>
<tr>
<td>Lumbar puncture, n (%)</td>
<td>21 (29)</td>
<td>12 (16)</td>
<td>17 (22)</td>
<td>16 (20)</td>
<td>.31</td>
</tr>
<tr>
<td>Fracture reduction, n (%)</td>
<td>14 (19)</td>
<td>16 (22)</td>
<td>14 (18)</td>
<td>14 (18)</td>
<td>.92</td>
</tr>
<tr>
<td>Critical resuscitation, n (%)</td>
<td>11 (15)</td>
<td>17 (23)</td>
<td>8 (11)</td>
<td>7 (9)</td>
<td>.054</td>
</tr>
</tbody>
</table>

TABLE 3. Proportion of Caregivers Who Wish to Remain Present According to Ethnicity and Procedure

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Black (N = 72)</th>
<th>White (N = 73)</th>
<th>English-Speaking Hispanic (N = 76)</th>
<th>Spanish-Speaking Hispanic (N = 79)</th>
<th>Total (N = 300)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venipuncture, n (%)</td>
<td>68 (94)</td>
<td>66 (90)</td>
<td>71 (93)</td>
<td>77 (97)</td>
<td>282 (94)</td>
<td>.33</td>
</tr>
<tr>
<td>Laceration repair, n (%)</td>
<td>66 (92)</td>
<td>67 (92)</td>
<td>70 (92)</td>
<td>62 (78)</td>
<td>265 (88)</td>
<td>.02</td>
</tr>
<tr>
<td>Fracture reduction, n (%)</td>
<td>58 (81)</td>
<td>60 (82)</td>
<td>59 (78)</td>
<td>65 (82)</td>
<td>242 (81)</td>
<td>.88</td>
</tr>
<tr>
<td>Lumbar puncture, n (%)</td>
<td>60 (83)</td>
<td>58 (81)*</td>
<td>62 (82)</td>
<td>61 (78)*</td>
<td>241 (81)*</td>
<td>.88</td>
</tr>
<tr>
<td>Critical resuscitation, n (%)</td>
<td>64 (89)</td>
<td>57 (78)</td>
<td>53 (70)</td>
<td>68 (86)</td>
<td>242 (81)</td>
<td>.01</td>
</tr>
<tr>
<td>Awake</td>
<td>68 (94)</td>
<td>68 (93)</td>
<td>70 (92)</td>
<td>78 (99)</td>
<td>284 (95)</td>
<td>.26</td>
</tr>
<tr>
<td>Unconscious</td>
<td>61 (85)</td>
<td>62 (85)</td>
<td>66 (87)</td>
<td>77 (97)</td>
<td>266 (89)</td>
<td>.10</td>
</tr>
<tr>
<td>Likely to die</td>
<td>64 (89)</td>
<td>68 (95)</td>
<td>68 (89)</td>
<td>77 (97)</td>
<td>277 (92)</td>
<td>.21</td>
</tr>
</tbody>
</table>

* N = 72; data are missing for 1 parent.
† N = 78; data are missing for 1 parent.
‡ N = 298; data are missing for 2 parents.

Parents who had previously stayed for a given procedure were more likely to wish to remain in the future for laceration repairs (116 of 125 [93%] who had previously stayed vs 149 of 175 [85%] who had not previously stayed; P = .04) but not for the other procedures. A significant difference for level of caregiver education was found only for critical resuscitation, with those with higher degrees more likely to want to stay present (P = .04). These findings were no longer statistically significant on multivariate analysis.

White parents were more likely to rate themselves as moderately to very anxious before any type of painful procedure performed on their child, although this difference was not statistically significant (Table 1). Overall, parents who rated themselves as typically anxious were less likely to want to remain present for venipunctures only (P = .02). This predictor remained significant for venipunctures on multivariate analysis.

Multivariate logistic-regression models were examined for each procedure to control for the effect of the following possible confounders: caregiver and child age, whether the parent had previously stayed for a procedure, and caregiver education level and anxiety (Table 4). The Hosmer-Lemeshow goodness-of-fit statistic did not approach significance for any of the models, demonstrating good fit of the models.
The effect of ethnicity on desire to remain present for laceration repair was no longer statistically significant on multivariate analysis, but the effect of ethnicity on desire to remain present for critical resuscitation remained statistically significant.

For the subset of Spanish-speaking Hispanic parents only, an exploratory multivariate logistic-regression model to examine predictors of their desire to remain present for laceration repair found whether they had stayed previously during a laceration repair to be the only significant predictor (odds ratio: 10.5; 95% CI: 1.6–67.4). For the subset of English-speaking Hispanic parents and the outcome desire to remain present for critical resuscitation, multivariate modeling did not reveal a significant contributing predictor.

Significant ethnic differences were found when parents were asked if the physician should determine if the parent should stay (Table 5). In general, black parents were less likely to want the doctor to determine if they should stay, whereas English-speaking Hispanic parents were more likely to want the physician to decide, and white parents and Spanish-speaking Hispanic parents fell between the two. These results varied by procedure, and the differences were statistically significant for venipuncture ($P = .04$), fracture reduction ($P = .04$), and critical resuscitation ($P = .004$).

In general, there were few differences by ethnicity in the reasons cited for wishing to stay or leave and in what the parent would prefer to do during the procedure (Table 6). Spanish-speaking Hispanic parents were less likely to want to actively participate and coach their children during the procedure. Black and white parents were more concerned that their presence would make the physician nervous during lumbar punctures. Overall, parents indicated that they wanted to stay in the room because they wanted to know what the physician was doing and because they felt that their presence would help calm the child. Parents who would choose to leave generally stated that they themselves would be too nervous to stay. With the exception of critical resuscitations, the majority of parents preferred to actively participate or soothe their children rather than just observe the procedure.

**DISCUSSION**

In contrast to a previous study, our study found few ethnic differences in parents’ desire to be present during their child’s painful medical procedure. The previous study, however, was not specifically designed to look at ethnic differences, and the findings could have been the result of confounding factors. One of the initial ethnic differences in our study was no longer significant on multivariate analysis controlling for confounders.

Our results suggest ethnic differences in the desire to have the physician decide whether the parent should stay, with black parents less likely to want the physician to decide and English-speaking Hispanic parents more likely to want the physician to decide. These findings support the possibility that even larger ethnic differences may exist between black parents and some Hispanic parents than between...
TABLE 5. Proportion Wishing the Physician to Determine Whether Caregiver Stays

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Black (N = 72)</th>
<th>White (N = 73)</th>
<th>English-Speaking Hispanic (N = 76)</th>
<th>Spanish-Speaking Hispanic (N = 79)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venipuncture, n (%)</td>
<td>9 (13)</td>
<td>7 (10)</td>
<td>19 (25)</td>
<td>10 (13)</td>
<td>.04</td>
</tr>
<tr>
<td>Laceration repair, n (%)</td>
<td>9 (13)</td>
<td>11 (15)</td>
<td>21 (28)</td>
<td>18 (23)</td>
<td>.08</td>
</tr>
<tr>
<td>Fracture reduction, n (%)</td>
<td>12 (17)</td>
<td>8 (11)</td>
<td>22 (29)</td>
<td>15 (19)</td>
<td>.04</td>
</tr>
<tr>
<td>Lumbar puncture, n (%)</td>
<td>11 (15)</td>
<td>15 (21)</td>
<td>24 (32)</td>
<td>17 (22)</td>
<td>.11</td>
</tr>
<tr>
<td>Critical resuscitation, n (%)</td>
<td>10 (14)</td>
<td>27 (37)</td>
<td>22 (29)</td>
<td>14 (18)</td>
<td>.004</td>
</tr>
</tbody>
</table>

TABLE 6. Caregiver Reasons Behind Staying or Leaving

<table>
<thead>
<tr>
<th>Why would you want to stay?</th>
<th>Venipuncture</th>
<th>Laceration Repair</th>
<th>Lumbar Puncture</th>
<th>Fracture Reduction</th>
<th>Critical Resuscitation</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>n/N (%) (N = number that wanted to stay)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child wants me</td>
<td>141/282 (50)</td>
<td>147/266 (55)</td>
<td>113/241 (47)</td>
<td>119/242 (49)</td>
<td>103/242 (43)</td>
<td>.07</td>
</tr>
<tr>
<td>Want to know what the doctor is doing</td>
<td>173/282 (61)</td>
<td>167/266 (63)</td>
<td>174/241 (72)</td>
<td>168/242 (69)</td>
<td>199/242 (82)</td>
<td>.001</td>
</tr>
<tr>
<td>Will help calm child</td>
<td>216/282 (77)</td>
<td>200/266 (75)</td>
<td>165/241 (69)</td>
<td>173/242 (71)</td>
<td>142/242 (59)</td>
<td>.001</td>
</tr>
<tr>
<td>If this applies, would you want to, n/N (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actively participate in procedure</td>
<td>210/282 (74)</td>
<td>165/266 (62)</td>
<td>123/241 (51)</td>
<td>132/242 (55)</td>
<td>108/242 (45)</td>
<td>.001</td>
</tr>
<tr>
<td>Observe only</td>
<td>79/282 (28)</td>
<td>94/266 (35)</td>
<td>104/241 (43)</td>
<td>100/242 (41)</td>
<td>148/242 (61)</td>
<td>.001</td>
</tr>
<tr>
<td>Coach and soothe child</td>
<td>151/282 (54)</td>
<td>157/266 (59)</td>
<td>146/241 (61)</td>
<td>142/242 (59)</td>
<td>137/242 (57)</td>
<td>.52</td>
</tr>
<tr>
<td>Why would you not want to stay?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n/N (%) (N = number that didn’t want to stay)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I trust the doctor</td>
<td>2/18 (11)</td>
<td>6/34 (18)</td>
<td>9/58 (16)</td>
<td>13/58 (22)</td>
<td>7/57 (12)</td>
<td>.62</td>
</tr>
<tr>
<td>My child would be more distressed</td>
<td>4/18 (22)</td>
<td>6/34 (18)</td>
<td>10/58 (17)</td>
<td>18/58 (31)</td>
<td>6/57 (11)</td>
<td>.09</td>
</tr>
<tr>
<td>I would be too nervous</td>
<td>10/18 (56)</td>
<td>25/34 (74)</td>
<td>50/58 (86)</td>
<td>43/58 (75)</td>
<td>44/57 (77)</td>
<td>.10</td>
</tr>
<tr>
<td>I would make the doctor nervous</td>
<td>2/18 (11)</td>
<td>4/34 (12)</td>
<td>14/58 (24)</td>
<td>9/58 (16)</td>
<td>15/57 (26)</td>
<td>.27</td>
</tr>
</tbody>
</table>

each of these ethnic groups and those who are white, the traditional reference ethnic group. This is significant because some practitioners may inappropriately generalize findings from 1 ethnic minority group to all ethnic minority groups.

Similar to our findings, a previous survey of 400 parents showed that the majority of parents wished to remain present for their children’s painful medical procedures but that parental desire to be present decreased as the level of procedural invasiveness increased. In that study as well as in ours, a large percentage of parents preferred to be present even during highly invasive procedures (86.5% for lumbar puncture and 80.9% for endotracheal intubation). Our study showed a seemingly paradoxical increase in the percentage of caregivers reporting that they wished to stay present for critical resuscitations when questioned about the specific scenarios of the child being awake, unconscious, or likely to die. The caretakers’ overall answer was probably an initial “gut reaction,” whereas specific resuscitation scenarios required more in-depth examination of their responses.

Parental anxiety significantly impacted whether the parent would wish to remain present only for venipunctures. This finding may be related to needle phobia, a well-described phenomenon. Although some of the other procedure scenarios involved needles, venipuncture is likely to be more associated with needles, as well as previously experienced by caregivers themselves. White caregivers tended to rate themselves as more anxious than parents of other ethnic groups.

Parents generally wanted to actively participate during the procedure by soothing and calming their child. However, there is a clear subset of parents who do not wish to remain present, mainly because they themselves are too nervous. If these parents are forced to remain present by well-meaning health care workers, they may increase their children’s anxiety.

The best approach to parental presence for pediatric procedures is an individualized one. Although the majority of parents wish to remain present, a significant minority do not. If a large ethnic difference in parental preference had been found, there would be possible justification for individualizing discussions with parents based on ethnic group identification. However, although English-speaking Hispanic parents were less likely to wish to remain present for a critical resuscitation, the differences in proportions were small (70% of English-speaking Hispanic parents vs. 84% of all other parents), and the majority still preferred to remain present. This study supports giving all parents the option to remain present but not pressuring them to stay.

Our study was limited by small sample size and the necessity for collecting a convenience sample from heterogeneous sites (clinic and emergency department). Also, there were differences between ethnic groups in parent age and education, which could have confounded our results. We attempted to control for these confounders by using multivariate analysis. However, multiple comparisons without adjustments increased the risk of incurring 1 or more type I errors. Differences seen in Spanish-speaking...
Hispanic parents could be attributed to the fact that a single research nurse interviewed these parents. This was a logistic necessity to use a fluent Spanish-speaking interviewer. We attempted to overcome possible sources of bias by having the lead investigator train this research nurse in interview techniques and directly observe her initial encounters. These findings represent a single geographic area and may not be applicable to similar ethnic groups of different areas. Finally, parents’ answers to hypothetical situations may not match their actions in real situations.

CONCLUSIONS

The only ethnic difference in parents’ desire to be present during their child’s painful medical procedures we found was that English-speaking Hispanic parents were less likely to want to remain present for critical resuscitations. Black parents were less likely, and English-speaking Hispanic parents were more likely, to want physicians to make the decision regarding remaining present than white and Spanish-speaking Hispanic parents. Overall, the vast majority of parents would prefer to remain present and to participate or soothe their child even for highly invasive procedures. The decision to have the parent remain present must be based on each individual parent’s preference; generalizations about ethnic and racial groups’ preferences cannot be made. Additional study on other factors influencing parental desire to stay is needed.

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APPENDIX

Parent Survey

Demographic Information
Ethnicity: Caucasian □ African-American □ Hispanic □
Relationship to Patient: Mother □ Father □ Other (explain) ________
Age: _______ Language □ English □ Spanish
Level of Education:
  a. Elementary School (K-5)
  b. Middle School (6–8)
  c. Some High School
  d. High School Graduate
  e. Trade School/Technical School
  f. Some College
  g. College Graduate
  h. Masters or Doctorate
Number of Children: ________

Child with Parent Today:
  Age:
  Sex:
  Normally before my child is about to undergo a painful medical procedure I feel:
  A. Relaxed
  B. Minimally Anxious
  C. Moderately Anxious
  D. Very Anxious

After Reading Standardized Description and Showing Picture of Procedure:
Would you want to stay and observe while your child is undergoing this procedure?
  Yes □ No □
If Yes:
  1. Have you previously stayed for this procedure with this child or other children?
     Yes □ No □
  2. Why would you want to stay? (Circle all that apply)
     a. My child wants me in the room.
     b. I want to know what the physician is doing.
     c. My presence will help calm child.
     d. Other. Please explain __________________
  3. If this applies (for shots, fracture reductions, and stitches), would you want to
    a. Actively participate (hold child, help doctor)
    b. Just observe
    c. Coach your child (talk, soothe)
  4. Would you want the physician to determine if you can stay or not?
     Yes □ No □
If No:
  1. Have you previously stayed for this procedure with your child or other children?
     Yes □ No □
  2. Why would you not want to stay? (Circle all that apply)
     a. I trust the physician.
     b. My child would be more distressed if I were there.
     c. I would be too nervous.
     d. I would make the physician nervous.
     e. Other. Please explain __________________
  3. Would you want the physician to determine if you can stay or not?
     Yes □ No □
For critical resuscitation only.
Would you want to stay and observe if: (Yes or No)
  a. Child is awake? Yes □ No □
  b. Child is unconscious? Yes □ No □
  c. Child is likely to die? Yes □ No □

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