Rev Esp Anestesiol Reanim. 2017;xxx(xx):xxx–xxx

Revista Española de Anestesiología y Reanimación

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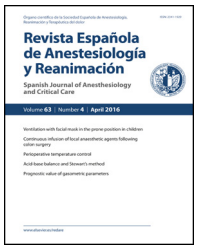

ORIGINAL ARTICLE

Agreement between child self-reported and parent-reported scores for chronic pain secondary to specific pediatric diseases☆

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Received 7 March 2016; accepted 2 June 2016

KEYWORDS
Adolescents;
Children;
Chronic pain;
Numerical rating scale;
Pain intensity;
Parent–child

Abstract
Background: Parental report on a child's secondary chronic pain is commonly requested by anesthesiologists when the child cannot directly provide information. Daily pain intensity is reported as highest, average and lowest. However, it is unclear whether the parents' score is a valid indicator of the child's pain experience.
Methods: Nineteen children (aged 6–18 years) with secondary chronic pain attending our anesthesiologist-run pediatric pain unit participated in this study. Identification of highest, average and lowest pain intensity levels were requested during initial screening interviews with the child and parents. Pain intensity was scored on a 0–10 numerical rating scale. Agreement was examined using: (i) intraclass correlation coefficient (ICC), and (ii) the Bland–Altman method.
Results: The ICC's between the children and the parents' pain intensity reports were: 0.92 for the highest, 0.68 for the average, and 0.50 for the lowest pain intensity domains. The limits of agreement set at 95% between child and parental reports were respectively +2.19 to −2.07, +3.17 to −3.88 and +5.15 to −5.50 for the highest, average and lowest pain domains.
Conclusions: For the highest pain intensity domain, agreement between parents and children was excellent. If replicated this preliminary finding would suggest the highest pain intensity is the easiest domain for reporting pain intensity when a child cannot directly express him or herself.

☆ Please cite this article as: Díez R. Labajo A, Castarlenas E, Miró J, Reinoso-Barbero F. Concordancia en pacientes con dolor crónico secundario a enfermedades pediátricas entre la autovaloración y las puntuaciones reportadas por sus padres. Rev Esp Anestesiol Reanim. 2017. http://dx.doi.org/10.1016/j.redar.2016.06.007
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PALABRAS CLAVE
Adolescentes;
Pediatría;
Dolor crónico;
Escala numérica de dolor;
Intensidad de dolor;
Relación padres-hijos

Concordancia en pacientes con dolor crónico secundario a enfermedades pediátricas entre la autovaloración y las puntuaciones reportadas por sus padres

Resumen
Fundamentos: Habitualmente los anestesiólogos solicitan a los progenitores la información acerca del dolor crónico secundario pediátrico (cuando los propios pacientes no son capaces de hacerlo) incluyendo 3 valores: máximo, medio y mínimo. Se desconoce cuál de estos 3 refleja de un modo más fiable el estado de dolor.
Métodos: Diecinueve niñas/os (6-18 años) con dolor crónico secundario tratados en la unidad de dolor infantil fueron incluidos en el estudio. El dolor crónico máximo, medio y mínimo fueron reportados por los padres y por los pacientes al inicio de su tratamiento usando la escala numérica del dolor del 0 al 10. La correlación entre padres e hijos se realizó con el coeficiente de intraclase (CIC) y el método de Bland-Altman.
Resultados: Los límites de concordancia (al 95%) entre padres e hijos oscilaron entre +2,19 y −2,07, entre +3,17 y −3,88 y entre +5,15 y −5,50, y los CIC fueron de 0,92, de 0,68 y de 0,50 para el dolor máximo, medio y mínimo, respectivamente.
Conclusiones: Solo los valores del dolor máximo mostraron una concordancia excelente entre padres e hijos. Estos resultados, aunque preliminares, parecen indicar que básicamente el dolor crónico máximo pediátrico podría ser interpretado de un modo más fidedigno por los padres de los pacientes que son incapaces de expresarse verbalmente.

Introduction

Chronic pain is a highly prevalent problem among children and adolescents worldwide[1] regardless of whether there is any underlying accompanying physical pathology. Chronic pain can be secondary to specific pediatric diseases that in some cases are treated by pediatric anaesthesiologists.[2] Chronic pain may severely diminish the quality of life of these patients. Published studies have shown, for example, that children or adolescents with chronic pain show worse adjustment to the emotional, social and/or physical demands in their lives.[3–5]

Best practices in the management of pediatric chronic pain involve an initial and routine comprehensive assessment that includes several domains, different units and levels of analysis.[5,6] Pediatric pain assessment is a complex task, more so when children or adolescents are unable to provide the information themselves (e.g. children who have not developed proper communication skills[7]). Proxy-reports are sometimes used as an alternative way of gathering information on the child's pain.[9] In fact, parents are at times a crucial source of information for pediatric pain clinicians and researchers, and some fundamental clinical decisions are based on their reports.[8–10] For instance, analgesic treatments with potent and potentially dangerous drugs like opiates or local anesthetics[10] are currently based on the parent's perception of their child's postsurgical acute pain[11] or cancer-related pain.[12]

Several recent studies have examined the agreement between pain intensity reported directly by the child and by other sources (e.g. parents, physicians), with conflicting results. According to these studies, agreement between the child's self-report and that of a parent proxy-report generally ranges from poor to moderate.[11–14] A recent study, however, demonstrated that parents can offer a clinically valid assessment of their child's chronic pain intensities.[15] The difference in these findings might be due to the pain intensity domain used. For example, the study by Vetter et al. is the only one to assess the influence of pain intensity on agreement between the child's and the parent's perception, but none of the studies consulted used a specific pain intensity domain to explore the agreement between reports. It is unclear which of the pain intensity domains that are regularly used by clinicians or researchers (i.e. highest, average and lowest) works best, that is to say, which would be the best one to use when the child cannot directly report on his or her experience and the clinician must rely on a proxy report.

The objective of this study was to examine the agreement and concordance between a child's pain-intensity report and that of his or her parent. Given the results previously described, we hypothesized that pain intensity scores in the three domains regularly used by pediatric pain experts (i.e. highest, average and lowest) as reported by parents using a numerical rating scale (0–10)[16] would be comparable with their child's self-reported scores on the same scale.

Patient and methods

Participants

Participants in this study were 19 children seen in our institution for chronic pain problems. Exclusion criteria included: (1) patients and/or family members with cultural or language difficulties in understanding the purposes of the