BACKGROUND Multidimensional tools have been recommended to assess chronic pain (von Baeyer & Spargur, 2007). The Adolescent Pediatric Pain Tool (APPT) is a multidimensional tool that assesses pain location (body outline diagram; BOD), intensity (word-graphic-rating-scale; WGRS) and quality (67 pain descriptors).

OBJECTIVES To identify age range, health conditions, settings, and purpose for which APPT has been used; the components used; and its clinical and research utility.


Inclusion criteria: All age groups, health conditions and settings. Type of studies: primary studies published in English and Portuguese.

Review method: Full texts were assessed by two reviewers independently.

RESULTS Search outcome: The search yielded 330 references but only 94 had information related to pain; 74 references were excluded because they did not address the issue of this review. Therefore, 22 primary studies were included.

Age range I. Used in 1714 patients aged 2-68 yo. II. Twelve studies included patients aged 8-17 yo, the age range for which the tool was initially validated.

Settings I. Predominantly used in hospitalized children. II. Also used at home, outpatient clinics and community facilities.


Health conditions I. Sickle cell disease (six studies) II. Surgical procedures (five studies). III. Cancer (four studies). IV. Blunt traumatic injury (two studies). V. Venipuncture (two studies). VI. Human immuno deficiency virus (HIV) (one study). VII. Allergy testing (one study). VIII. Various medical problems (one study).

Regarding pain, it was either acute pain episodes or chronic pain.

Components used I. Most of the studies used the 3 components of the APPT. II. Some studies used the WGRS or the BOD alone. III. In some studies the WGRS was replaced by the Numeric Rating Scale (NRS) or the African-American Oucher (AO).

Outcome measures within each component of the APPT varied among the studies.

Reports on Clinical Utility I. Provides information on etiology, influencing factors, impact on daily life, patterns and quality of pain. II. Provides information on progress of pain during the course of hospitalization. III. Provides information on efficacy of pain management. IV. Helps clinicians to design interventional plans tailored to physical and psychosocial patients’ functions. V. List of pain descriptors reveals the lack of control over pain, fatigue, immobility and fear. VI. Pain location information can be useful in predicting the amount of analgesia a patient will need. VII. Allows patients to talk about their own pain experiences in a concrete way.

DISCUSSION I. Being a multidimensional tool, the APPT facilitates a comprehensive self-report of the pain experience of children and adolescents. II. It provides information on the extensiveness and spatial distribution of pain in the body (BOD) but clinical usefulness and interpretability of these outcomes remain to be confirmed. III. Some studies replaced the WGRS by the NRS or the Oucher which may indicate the existence of potential pitfalls of the WGRS.

IV. Changes in pain descriptors are reported to give information on the effectiveness of pain interventions. However, it is necessary to establish what changes are clinically significant (the number and/or the type of descriptors).

V. The major limitation to clinical use was that clinicians did not know about the tool. VI. Different scoring methods were used which makes it difficult to compare results across the studies.

IMPLICATIONS FOR PRACTICE & RESEARCH I. The APPT is reported as readily understood and completed by the children and helpful to make pain management decisions. Therefore, it can be incorporated into routine pain assessment. Professionals must be educated to use and interpret this tool. II. Further validation is needed in patients below 8yo and above 17yo. Translated versions of the APPT must go through a process of semantic validation. III. Acceptability and properties of the WGRS should be investigated. A reduced version of the list of pain descriptors may be appropriate to reduce burden. IV. The relationship between pain location, intensity and quality needs to be determined.