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Article type : Letter to the Editor

Several PROMs exist for children with atopic eczema / dermatitis but their validity is largely unknown

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To the Editor: There is a current paradigm shift to the inclusion of patient-reported outcome measures (PROMs), such as health-related quality of life or functioning, in clinical trials and evaluative healthcare research. Before incorporating PROMS into studies it is important to review their qualities and characteristics objectively. It is for this reason we welcome Soyiri et al.'s review of PROMs for children with asthma and allergy. This review, in the December 2016 issue of this journal, draws on published systematic reviews and evidence-based guidelines(1), focussing on measures which are 'clinically relevant and validated'. Unfortunately, despite the laudable aim of this review, it conveys a misleading message in the context of PROMS for eczema. Soyiri et al suggest that the IDQOL(2) is the only valid instrument for childhood atopic eczema, but this is incorrect as we explain below.

Using our recently published systematic review of the quality of life instruments used in randomized controlled trials for eczema since 2000 (3), Soyiri et al. extracted from our work one instrument used in children, the Infants' Dermatitis Quality of Life Index (IDQOL)(2), and they referred to it as a valid instrument. There are two issues related to this interpretation of our data that we need to bring to your attention. Firstly, our review found two, not one, PROMs used in children with atopic eczema;

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the Version of Record. Please cite this article as doi: 10.1111/pai.12755

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as well as the IDQOL we also found examples of the Children's Dermatology Life Quality Index (CDLQI)(4) being used in randomized controlled trials of children with atopic eczema. Secondly, our review did not make any comment or assessment of validity. A review investigating validity requires an entirely different search strategy, such as the PubMed search filter for finding studies on measurement properties of measurement instruments (5).

Interestingly, when we subsequently performed such a systematic review of studies on measurement properties of quality of life measurement instruments for infants, children and adolescents with eczema, developed and/or validated for eczema, we found five instruments with some form of validation data in children with eczema(6). Besides the IDQOL and the CDLQI (4), these were the Childhood Atopic Dermatitis Impact Scale (CADIS)(7, 8), the Childhood Impact of Atopic Dermatitis (CIAD) scale(9), and the DISABKIDS Atopic Dermatitis Module (DISABKIDS-ADM)(10). Using the COnsensus-based Standards for the selection of health Measurement Instruments (COSMIN) checklist we performed a best evidence synthesis, combining information on the adequacy of measurement properties and the methodological quality of the included studies (11). Our main finding was that the CADIS has adequate internal consistency, reliability and hypothesis testing and thus has the potential to be recommended in the future once the remaining validation gaps are closed. All other instruments, including the IDQOL, lacked significant validation data meaning that their validity in atopic eczema is largely unknown. These instruments may or may not be suitable for children with atopic eczema, but until there have been more studies on their validity conducted, we should avoid making clear statements concerning validity. Soyiri et al. referred inappropriately to the IDQOL as a 'validated' PROM, probably because there had been some validity studies, but failed to recognize that 'validity studies' and 'validity' are not synonymous. We conclude that several PROMs exist for children with atopic eczema, but their validity are largely unknown.

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