

Use of medicines by children prevalent in Finland

Some 120,000 Finnish children under the age of 12 use at least one prescription medicine each day. The use of over-the-counter (OTC) medicines is equally common. The child's age and general health and parental use of medicines are linked to levels of consumption. Parents are also concerned about adverse effects.

Worldwide, there is little research into the use of medicines by children. In Finland, the latest national study dates back to 1995/1996 (Airinen et al. 1998). This article sets out the findings of a population survey into the use of medicines by children under the age of 12 carried out by the School of Pharmacy at the University of Eastern Finland.

For the survey, a sample (n = 6 000) of Finnish children was randomly selected from the Finnish Population Register Centre database matched for age and gender. The respondents were the children's parents, mostly the mother (n = 4 032, response rate 67%).

The survey investigated the use of prescription-only medicines by children at the time of the survey and the use of OTC medicines, vitamin supplements and alternative remedies in the two days preceding the survey. The survey also included questions on parental attitudes to medicines and the information sources used by them.

Wide spread use of medicines

At the time of the survey, 17% of the children surveyed had used prescription medicines (Ylinen et al. 2010). 17% had also used OTC medicines. This figure does not include vitamin supplements subject to a marketing authorisation.

The most commonly used prescription-only medicine and OTC medicine were salbutamol (4%) and paracetamol (5%) respectively. A total of 37% of children had used a vitamin supplement, including vitamins subject to a marketing authorisation (medicines) as well as dietary supplements. Alternative remedies were consumed by 11% of children.

The most commonly used medicines, vitamins and alternative remedies are set out in Table 1. Although Vitamin D was the most commonly used vitamin, just 50% of children under the age of three had received the recommended dose of supplementary Vitamin D.

In comparison with previous national surveys, the use of OTC medicines and vitamin supplements has increased on 1987 and 1995/1996, while the use of prescription-only medicines has remained steady (Airinen et al. 1998).

Table 1. Most commonly used prescription-only medicines, OTC medicines and alternative remedies used by children under the age of 12 (n = 3 892) (Ylinen et al. 2010)

PREPARATION	% (n)
Prescription-only medicines	
Obstructive airway disease (R03)	6 (216)
Antibacterials for systemic use (J01)	3 (98)
Corticosteroids, dermatological preparations (D07)	2 (93)
Over-the-counter medicines	
Analgesics, anti-inflammatory and antirheumatic preparations (N02, M01)	7 (259)
Cough and cold preparations (R05)	2 (92)
Preparations for treatment of wounds and ulcers (D03)	2 (87)
Vitamins	
Vitamin D	20 (772)
Multivitamins and minerals	15 (569)
Calcium preparations	2 (68)
Alternative preparations	
Fish oil and fatty acid preparations	6 (213)
Probiotics	4 (140)
Homeopathic preparations	1 (31)

No link between socio-economic factors and medicine use

Factors influencing the use of prescription-only medicines in children were young age (particularly for male children), poor health (as assessed by a parent), the number of medical conditions diagnosed by a doctor and parental prescription-medicine use (Hämeen-Anttila et al. 2009). Young age, poor health and parental OTC medicine use were shown to be predictors of OTC medicine use in children (Hämeen-Anttila et al. 2009).

The use of alternative remedies correlated with a different set of factors. The most significant factor was parental alternative remedy use. First-born children, a greater number of symptoms and the use of vitamin supplements were further predictors of alternative remedy use (Siponen et al. 2012).

Socio-economic factors, such as educational attainment, employment status or family income were not predictors of prescription only

medicine, OTC medicine or alternative remedy use. This is in contrast with earlier international studies, which have found these to correlate with children's use of medicines (e.g. Kogan et al. 1994, Low et al. 2008).

Prescription-only medicines considered safe but concerns over adverse effects remain

Healthcare professionals must take into account parental attitudes and views regarding the use of medicines. Of the respondents, 84% considered prescription-only medicines to be safe and effective. Only 49% agreed with this statement on OTC medicines (Hämeen-Anttila et al. 2011).

However, the majority of parents (69%) expressed concern at adverse effects and drug interactions. Almost half (46%) were concerned about the long-term use of analgesics. In general, attitudes towards medicine use were more likely to be positive (37%) or neutral (48%) than negative (15%).

Parents reported seeking information on medicines from doctors (72%), package leaflets (67%), the school nurse (52%) and pharmacies (44%) (Holappa et al. 2012). These were the most highly rated sources of information. 17% of parents sought a significant or fairly significant amount of information online.

Healthcare professionals trusted

The use of medicines is a commonplace, everyday occurrence in families with children. For the parents, healthcare professionals are the most important and reliable source of information. This represents an excellent opportunity for initiating discussions with both parents and children about any concerns they may have as well as the benefits associated with the use of medicines.

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