

# HEALTH LITERACY AND HEALTH ACCORDING TO DUTCH CHILDREN AGED 8-12 YEARS

## A QUALITATIVE STUDY

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### INTRODUCTION

Children of all ages come across a lot of health information from various sources and quality. When children have the skills to recognize, understand, and apply health information in an appropriate way, they can use this information to develop and live a more productive and healthier life (Sorenson & Okan, 2020).

### METHODS

#### Focus groups

- Convenience sample, through schools, grades 4-6
- 5-6 children per group
- Boys and girls aged 9-12 years,
- Topic list
  - Scoping review (van Boxtel et al., unpublished)
  - HLS-Child-Q15-NL (Hanraaths et al., 2021)
- During school time

#### Individual cognitive interviews:

- Convenience sample of children in:
  - Youth health center
  - Research group
- Interview protocol
  - Cognitive processes (Domanska et al., 2018)
  - HLS-Child-Q15-NL (Hanraaths et al., 2021)
- Children aged 8-11 years
- Interviews at home

### PURPOSE

- 1 Gain insight into what children, aged 9 to 12 years, consider important in terms of engaging with health information and health literacy in the context of health promotion.
- 2 Gain more insight in children's understanding of the questions in, and the use of the HLS-Child-Q15-NL for children aged 8-11 years.

### ANALYSIS

All focus groups and interviews have been audio recorded and transcribed verbatim using Amberscript.

#### Focus groups in Atlas.ti

Open and Axial coding guided by topic list

- Health topics
- Accessing, understanding, appraising and applying health information
- Importance of health literacy topics

#### Cognitive interviews in MAXQDA

Deductive analysis based on:

- comprehension of items, retrieval and formulation of relevant information, and reliability of the response.
- tips for improvement, relevancy for child's life, 3 most important items

Inductive analysis for limiting and promoting factors

### COGNITIVE INTERVIEWS

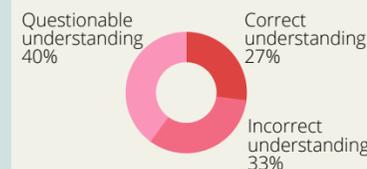


8-9-year-old children  
10-11-year-old children

No 8-9-year-olds completed all items

Three 10-11-year-olds completed all items

#### Item comprehension



*Very difficult!*  
*Because you know why, I love candy and I, love like candy and I Love candy. And I love candy and uh vegetables are gross.*

#### Relevance in children's lives

*"What medicine means. I don't necessarily know. I say maybe those minions [vitamin pills] but those are probably not real medicine. You can take them for your health. But I don't know, what real medicine is."*

The children recognized almost all the topics in the questionnaire.

Rarely experience with:



#### Top 5 most important items according to 8-11-year-olds

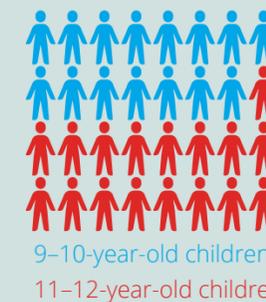
1. Find out what you can do so that you don't get too fat or too thin
2. Find out how you can best relax
3. Find out which food is healthy for you
4. Have a healthy diet
5. Understand why you need vaccinations

#### Improvement advice

- ↑ A Larger font Visually attractive
- Less disease oriented

*Then I wouldn't just do illness. Because you do learn to be healthy and strong. That's not the foundation of being healthy and strong. You also have to eat and sleep healthy."*

### RESULTS



9-10-year-old children  
11-12-year-old children

#### Important health topics



9-10-year-olds have difficulty indicating health topics they would like to learn about.  
*"I don't necessarily need to know anything"*

11-year-olds had future-oriented questions about money and politics.  
*'Increases in money, how to live with that'*  
12-year-olds had specific questions about nutritional values and how much sleep you need.

**Access** Most children do not search for health information on their own. Their first source for health information is parents, followed by YouTube and Tiktok. School was least mentioned.

**Understand** Children do not always understand health information. The most common reason is the use of difficult words or a lot of information.  
*"Sometimes it's a lot, then it takes a long time and I just don't get it."*

**Appraise** 9- 10-year-olds find assessing health information difficult, especially to judge whether a website is reliable.  
*"I assess it by checking a lot of websites, if most of them say the same thing then it is correct."*

**Apply** Most children need help applying health information. Because they forget or don't feel like it. All 12-year-olds indicated they do not need help.

### CONCLUSION

- 1 Children start to consciously learn about health from age 11. From that age, children are aware of their own health and questions arise. To meet children's needs, it is recommended to start focusing on improving health literacy skills from this age.
- 2 When providing health information, more attention should be given to topics about "being yourself," "feelings and emotions," "daily life" and topics that are future oriented. The school can play a role in the development of health literacy skills for using health information.
- 3 Information and explanations should be brief and simple language. Teach children how to do an online search and what to look for in reliable information. Ask children what they need in terms of health information, as they indicated they need help.
- 4 This study confirmed the added value of actively engaging children in research on measurement instruments. Moreover, our findings indicate comprehension issues regarding multiple items of HLS-Child-Q15-NL. This instrument needs to be adapted further for children aged 8-11 and to the context of health promotion.

### LITERATURE

• Domanska OM, Firrings C, Bollweg TM, Sorensen K, Holmberg C, Jordan S. Do adolescents understand the items of European health literacy survey - questionnaire (HLS-EU-Q47)- German version? Findings from cognitive interviews of the project "measurement of health among adolescents" (MOHLAA) in Germany. Arch Public Health. 2018;76:46. doi: 10.1186/s13690-018-0276-z.

• Hanraaths, M. T. H., Heijmans, M., Bollweg, T. M., Okan, O., Willeboordse, M., & Rademakers, J. (2021). PMCB156463; Measuring and Exploring Children's Health Literacy in The Netherlands: Translation and Adaptation of the HLS-Child-Q15. Int J Environ Res Public Health, 18(10):10.3390/ijerph18105244

• Sorensen, K., & Okan, O. (2020). Health Literacy. Health Literacy of children and adolescents in school settings. Global Health Literacy Acad./ Fac. of Educational Science, Univ. Bielefeld / Internat. School Health Network. doi:10.4119/unibi/2942282

• Van Boxtel, W., Jerkovic, K. & Chin A Paw, M., (unpublished)

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