2.P. Workshop: Health literacy in childhood and adolescence: A public health and health promotion perspective

Organised by: EUPHA section on Health promotion and Bielefeld University
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The framework of this workshop is based upon the premise that health literacy is a significant public health, health promotion, and health education concern. Health literacy can be defined as the knowledge and skills to access, understand, appraise and apply health information, yet, the concept still evolves. Most research focuses on adults and indicates that low levels of health literacy are associated with poorer health outcomes. Children and adolescents have been given scant consideration in research, practice, and policy, and to this day, only little is known about their health literacy. This includes conceptual, methodological, and practical knowledge. The main objective of this workshop is to help closing this gap by addressing recent challenges in health literacy research experiences when facing children and adolescents. We aim at interactively discussing prospective developments with audiences, and to introduce research findings informed by two current European health literacy projects, from Portugal (CrAdLiSa) and Germany (HLCA Research Consortium). It is intended to shed light on the population using a range of methodological and theoretical approaches, and to address the promotion of digital health by adding ehealth literacy to the agenda. Thereby, we will link the current debate with contemporary public health approaches to advance the field of health literacy.

While the workshop is primarily designed for researchers, practitioners and policy-makers interested in discussing and improving health literacy in children and adolescents, it also aims at audiences from the public and private sectors. This will not only allow discussing results with regard to their benefit for improving health literacy research, practice, and policy-making, but support further synergies, breaking down barriers between research infrastructures, and allow cross-national comparison and knowledge exchange on health literacy research.

The workshop encompasses 5 coherent presentations which build up on each other as follows: The first two communications will approach the theory level by introducing a conceptual health literacy model for children, and link it to the salutogenic framework. The three subsequent methodology driven presentations will present findings from empirical health literacy projects on measurement tools for (a) children 9-10 years, (b) adolescents 14-17 years, and introduce (c) an overview on ehealth literacy assessment tools for children in general.

The workshop will use a regular 90 minutes design including 5 presentations up to 10 minutes input, followed by discussion afterwards. Presentations will be framed by an opening talk and a closing remark. By dialogue and two-way communication among audiences, researchers, and organisers not only lively interaction will be ensured but vivid discussions on health literacy challenges concerning childhood and adolescence will be facilitated.

Key messages:
- Health literacy in childhood and adolescence operates at the intersection between public health, health promotion and health education
- This workshop invites audiences to actively participate in and contribute to the current discussions about health literacy in childhood and adolescence from the perspective of public health

Figuring out the meaning of health literacy during childhood and adolescence

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Background
Given the limited consensus on a shared understanding of health literacy (HL) in children and adolescents, this contribution will take an exploring approach. It aims at synthesizing available concepts for children and adolescents and discusses how these are operationalized and, hence, could enable health promoting actions and interventions.
Methods
(a) Available HL conceptualizations for children and adolescents and their operationalization were systematically reviewed. (b) We synthesized knowledge and evidence from child/youth health surveys, literacy and educational research, and childhood studies to (c) reflect upon available understandings of HL and to develop a preliminary theoretical framework.

Results
The search identified 21 concepts aiming at children/adolescents, with little consensus regarding multidimensional HL components and poor differentiation to available HL concepts for adults. Drawing on evidence from socio-cultural literacy studies, we propose to focus on both the (1) individual skill level, including the capability to derive meaning from information and to actively undergo health promoting actions, and (2) the social practice level, namely the interaction with different agents in daily life, e.g. parents, peers, media.

Conclusions
While all concepts recognize the interrelatedness with cultural and contextual factors, this complexity is mostly neglected when operationalizing and measuring HL, allowing only for an incomplete picture of a child or adolescent’s HL. As the target group’s specific characteristics were mainly recognized in terms of health care needs and cognitive development issues, our framework considers the socio-cultural dimension, including power relations and underlying sets of (social) dispositions.

The sense of coherence and its impact in the building process of health literacy in adolescents
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Background
The CReAdLiSa project aims to explore the potential of salutogenesis and the sense of coherence (SOC) theory as a backbone to health literacy (HL) development in ChildRen and ADDoleSCIS (CReAd LiSa). Evidence sustains the influence of HL on health promotion and quality of life. But the building process of HL has received few investments on theoretical terms and in the adolescence age group - the objective of this research.

Methods
We conducted a quantitative survey in Portugal. Therein we have used Antonovsky’s Orientation for Life Questionnaire (OLQ-PT, short version) and the European Health Literacy Scale (HLS-EU-PT, full version) (n = 832) with 9th-12th grade students in the school setting during 2015, with both urban and rural schools. Ten indicators were added to construct the SES index. CAWI and SASI were the methods used to gather data.

Results
The HLS-EU-PT instrument (Cronbach alpha =0.97; 47 items) when applied to 12th grades reveal they have higher HL levels than the general population (26% and 60% of limited HL, respectively). There are statistically significant associations between HL and SOC measured by the OLQ (Cronbach alpha =0.87; 13 items). It is noteworthy that when considering the eight predictable types and correspondences with the dimensions of SOC there is a pattern of increase of limited HL from SOC type 1 to type 8 (respectively from 14.6% to 40.9% have limited HL).

Conclusions
The use of validated OLQ-PT and HLS-EU-PT instruments is feasible with such an age group. Salutogenesis seems valuable for use as a framework of HL. However, there is a gap in evidence based intervention studies with respect to salutogenesis, SOC and HL in adolescent populations. The knowledge about the relationship between the effects of HL improvement on increasing SOC is scarce but worthy investigating. More research will be necessary to refine and further elaborate our findings both in terms of common theory development and concept validation.

Development of a health literacy measurement tool for primary school children in Germany
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Background
Lower levels of health literacy (HL) have been found to be associated with poorer health outcomes. Thus, in the last years HL has been increasingly acknowledged as an approach towards health promotion. While there is a large body of studies on adults’ HL, only few studies investigate HL of children. To tackle this research gap, we aim to develop a tool to assess HL of 9- to 10-year-old children attending 4th grade in Germany primary schools.

Methods
We performed a systematic literature review on HL measurements in children and adolescents to identify tools applicable or adaptable for our target population. Then, we conducted interviews with children to deepen our understanding of how they perceive their health and factors contributing to it, and consulted HL and childhood experts. Cognitive interviews are currently being conducted before the final instrument will be validated with n = 1000 participants in a field test.

Results
Our review identified N = 15 generic HL assessment tools, of which n = 5 have been used with children aged 9 to 10. None of the instruments met our requirements of being built on a broad definition of health literacy and combining performance-based with self-report assessment. Hence, we developed an instrument assessing HL-related skills, attitudes and knowledge, while taking into account social and cultural backgrounds. For the assessment of skills, an adapted short form of the HLS-EU questionnaire has been developed. We further apply case vignettes/scenarios to assess children’s behaviour and practice in everyday health-related situations.

Conclusions
To date, little is known about HL in children, despite its importance for different health outcomes. Thus, the development of a HL measurement tool, specifically tailored for children aged 9 to 10, constitutes a major contribution to informing effective and sustainable interventions promoting HL and health in children.

Measurement of health literacy among adolescents (MOHLAA): results of a qualitative study
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Background
There is a lack of instruments measuring general health literacy (HL) of adolescents in Europe. The project “Measurement of HL Among Adolescents” (MOHLAA) aims to develop an instrument for youth aged 14 - 17 in Germany.
We used the HL Survey Questionnaire (HLS-EU-Q47, German version) as a basis for scale development, due to its broad approach of HL, covering the 3 domains healthcare, disease prevention and health promotion. We tested the applicability of the instrument to adolescents. Based on developmental psychology, we explored how dependency and developmental change influence adolescents’ experiences with these domains.

Methods
In a qualitative design, we conducted cognitive interviews (CI) using an interview guide and verbal probing. We complemented the CI with focus groups (FG), using an interview guide including vignettes. Sample: 2 FG’s (n = 5, n = 7), 20 CI, both included females and males, aged 14-17 with different educational background. CI were analysed theory-driven, based on the Framework approach, FG per content analysis (Mayring).

Results
Data show that youth lack experience with the 3 domains. Findings suggest that as a result adolescents overestimate their HL skills. Data indicate that adolescents turn to family members, friends or mentors – “significant others” for advice before making a health decision. However, the use of health measures (e.g. vaccination) is controlled by parents rather than autonomously decided by youth. Moreover youth ability of abstraction is limited, e.g. understanding the impact of laws on health.

Conclusions
For HL scale development, items should reflect youth experiences with the 3 domains to prevent biased data. Moreover adolescents need of “significant others” to make health decisions ought to be considered. Items need to be simplified according to youth cognitive abilities.

Current approaches to measure eHealth literacy with special attention to children and adolescents
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Background
EHealth Literacy (eHL) as part of general Health Literacy (HL) is defined as the ability to seek, find, understand, and appraise health information from electronic resources and applying the knowledge to address or solve health problems (Norman & Skinner, 2006). Newer concepts expand this definition with capabilities of knowledge about one’s own health, interacting and experiences with information and technology (Kayser, 2015). Children and adolescents are active users of media and media is an essential part of their daily life. Misuse can result in several health and developmental problems. Valid measurement of eHL in children and adolescence is desirable, i.e. to assess the effectiveness of interventions to enhance eHL in this target group.

Methods
We searched in PubMed on reviews about HL and eHL measurement instruments.

Results
We identified 31 systematic reviews on HL measurement. HL is understood as a life-long learning process, starting in early childhood (Bröder, 2016). However, the majority of instruments have been developed for adults, only. Nguyen (2015) identified 109 instruments comprising perceived HL and performance based measures, only a few targeted at adolescents. eHL assessments are scarce and instruments measuring eHL in childhood are missing. These reviews did not mention instruments that assess (e)HL in parents.

Conclusions
Parents act as role models for children and influence, as part of the social environment, their eHL skills. Instruments for children measuring eHL, should focus on the one hand on assessments for parents addressing scales for using media and for not using media, like skills limiting screen time, content and dysfunctional use and on the other hand performance orientated eHL should be assessed, like using scenarios.