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# Conceptualisation of critical health literacy—insights from Western and East Asian perspectives: a scoping review

Cindy Yue Tian ,[1,2] Clement Cheuk Wai Ng,[1,2] Luyao Xie,[1] Phoenix K H Mo,[1] Dong Dong,[1,2] Don Nutbeam,[3,4] Eliza L Y Wong[1,2]

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DN and ELYW contributed equally.

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For numbered affiliations see end of article.

**Correspondence to**
Professor Eliza L Y Wong; lywong@cuhk.edu.hk and Professor Don Nutbeam; don.nutbeam@sydney.edu.au

## ABSTRACT

This article describes a scoping review of components of critical health literacy (CHL) and examines how these components have been conceptualised, highlighting fundamental differences from the Western and East Asian perspectives. The review includes 23 studies, with the majority (n=19) from Western countries and only two from East Asia. Three primary components of CHL were identified: 'information appraisal', 'understanding of social determinants of health (SDH)' and 'actions to address SDH'. The findings indicate that these prevailing components of CHL are largely grounded in Western social structures, while East Asian studies primarily focused on the first component. Given the distinct social and cultural norms in these regions, this study explored the potential differences in how social factors influencing health are understood and prioritised in Western versus East Asian contexts. From a Western universalistic perspective, actions to address SDH often involve political and social movements aimed at improving individual and community health. However, such actions may not be feasible or relevant for many East Asian population groups, who may have more limited opportunities to engage in Western-style social movements, and culturally, have a stronger focus on family and local community. Furthermore, building on the theory of 'distributed health literacy', we argued that interpersonal-level actions to address SDH are also crucial and can serve as a stepping stone to social-level actions, which have been more extensively discussed in Western literature. We conclude that CHL is a context-specific concept, and its definition and practical application need further examination across different contexts.

### WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Critical health literacy (CHL) is crucial in today's information-saturated world and shaped by the unique cultural, social and systemic factors of each community.

⇒ However, most work on CHL has emerged from a 'Western' sociopolitical paradigm, often linking CHL to collective political action and assuming that the ability to organise and advocate for change is central to its concept.

### WHAT THIS STUDY ADDS

⇒ This study challenges the Western-centric view by emphasising that CHL is not just about political activism but must be understood in diverse socio-cultural contexts. It highlights the importance of communication and engagement within families and local communities, rather than just focusing on political advocacy and collective actions.

⇒ This perspective calls for a more nuanced understanding of CHL through the lens of distributed health literacy, acknowledging its role in everyday interactions and local-level health improvement.

### HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ The conceptualisation of CHL influences the development of assessment tools, the selection of indicators and the interpretation of results. By broadening the scope of CHL, we can enhance our understanding of how individuals navigate and influence the complex factors that determine health outcomes, leading to more effective public health interventions and education strategies.

## INTRODUCTION

The relationship between low health literacy and a range of health-related outcomes is well established. These include people being less responsive to health education; less likely to use disease prevention services, less successful in using prescribed medicines and less successful in managing chronic disease. All these effects exacerbate existing inequities in health across the social gradient.[1 2]

While there are important differences in emphasis, almost all definitions of health literacy have the same core elements describing the skills that enable individuals to obtain, understand, appraise and use information to make decisions and take actions that will have an impact on their health. Most contemporary definitions of health literacy

also reflect the critical impact of the context, not only in which people apply their health literacy skills but also in how they acquire them.[3] Improving health literacy requires attention both to individuals' skills and the context within which people are asked to apply those skills. Health literacy skills thus not only vary from person to person, but from context to context.

The differences in skills have been categorised as functional, interactive and critical health literacy (CHL).[4] This classification helps clarify the impact that differences in skill levels may have on health-related decisions and actions and highlights the influence of different types of health communication content, media and purpose on these skills. Functional health literacy describes basic-level skills that are sufficient for individuals to obtain relevant health information (eg, on health risks and on how to use the health system) and apply this knowledge to a range of defined activities such as medication adherence, participation in prevention activities and some behavioural change. Interactive health literacy describes more advanced literacy skills that enable individuals to extract health information and derive meaning from different forms of communication, apply new information to changing circumstances and engage in interactions with others to extend available information and make decisions. Individuals with these more advanced health literacy skills are well-positioned to adapt to changes in context. CHL describes the most advanced literacy skills that are required to assess the relevance and trustworthiness of information from a wide range of sources, and information relating to a greater range of health determinants. Individuals with these most advanced skills can obtain and use information to exert greater control over a wider range of situations that impact health.[5]

The concept of CHL has been closely examined over the past 20 years. Some authors have focused on the ability to critically evaluate the quality of information,[6–9] especially concerning sociopolitical aspects of health issues.[4] More recently, there has been a consistent focus on understanding of and acting on the social determinants of health (SDH).[10 11] CHL skills enable people to look at the bigger picture in order to make better informed and more meaningful life choices. As Wills highlighted, "Being able to read a food label is one thing, understanding why a McDonalds is so cheap, filling and ubiquitous is another".[12] CHL has come to be understood as involving a deeper understanding of the conditions and consequences of health actions within a public health framework. For some authors, it follows that the final goal of critical pedagogy in the context of HL should be to train active critical citizens, who are able to reflect critically on their lives and take actions to address the modifiable social factors affecting health to help shape their community's future for the better.[11 13–15] Early studies primarily emphasised the importance of making these improvements through political involvement or participation in social movements.[11 16 17] Recently, several studies revealed that actions at the interpersonal level are also important for CHL.[18 19] Particularly, during the outbreak of COVID-19, Abel and colleagues stressed the significance of CHL not just in selecting information but also in critically reflecting on it and communicating doubts or uncertainties with family members and health-care professionals.[18] They highlighted that participating in public health dialogues within one's own social circles is also a key practice of CHL.

Previous reviews have made important contributions to the theoretical framework of CHL. Chinn, in 2011, described three dimensions of CHL: information appraisal, understanding of SDH and collective action.[20] This work has helped shape subsequent discussions of the different dimensions of CHL described above. Sykes and colleagues' concept analysis of CHL combined a literature review and telephone interviews with relevant stakeholders to gain a comprehensive understanding of CHL in 2013.[21] This literature review identified seven key features of CHL: six features related to the skills needed to critically evaluate information and understand social factors affecting health; one feature, 'empowerment', relates to Chinn's idea of collective action. However, during the interviews, 'empowerment' was not consistently emphasised or mentioned as a component of CHL. This difference between theory and concept and people's real-life experiences highlighted the importance of continuing discussion on the theoretical basis of CHL.

As indicated previously, health literacy is inherently context-specific.[22 23] In CHL, this underscores the need to consider the unique sociopolitical and cultural environments in which health information is embedded when conceptualising CHL as these factors significantly influence how individuals access, interpret and act on health resources. However, most research about CHL showed a focus on the ability to critically evaluate information, often neglecting its broader emphasis on social conditions.[15 24 25] This omission means existing research may not fully capture how different populations understand and engage with CHL in their unique contexts. This gap is particularly important as Western and East Asian populations may conceptualise CHL differently. Western countries, primarily located in Europe and North America, as well as regions influenced by Western culture, such as Australia and New Zealand, have distinct sociopolitical contexts. East Asian countries, defined based on geographical and cultural factors, include China, Japan and South Korea. Currently, most work on CHL has emerged from a 'Western' sociopolitical paradigm and does not fully reflect the evident cultural and systemic differences observable in different parts of the world. For instance, while the term 'collective action' is a key domain in Chinn's framework, it is rarely used in Chinese discourse. Instead, government-led initiatives and community-based cooperation are more common than the grassroots activism typical in Western nations.[26] Understanding these contextual differences is essential for developing health literacy interventions that are not

only effective but also culturally and contextually appropriate for diverse populations.

This study aimed to complement and extend previous work on CHL. Specifically, we sought to update and refine the dimensions of CHL using Chinn's framework, and in doing so, we examine whether these components of CHL work universally or differentially across Western and East Asian countries.

## METHODS

A scoping review was conducted to summarise the available evidence and address the research questions, following the steps outlined by Arksey and Malley.[27]

### Stage 1: identifying the research questions

The two questions that we aimed to answer in this study were: "What are the components of CHL in the literature?" and "Has CHL been understood differently in studies conducted in Western vs East Asian countries, particularly in terms of how the components of CHL are elaborated?"

### Stage 2: identifying relevant studies

The literature search was conducted to identify studies published from January 1990 to May 2024 in four databases (Medline, Embase, Scopus and Web of Science) using the search term "critical health literacy". The search algorithms of the three databases are described in detail in online supplemental appendix 1. The search was supplemented with a general internet search via Google Scholar, a focused search on key authors, and citation and reference tracking.

### Stage 3: study selection

The studies were screened based on the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) flow diagram. From January to July 2022, the researcher (CYT) conducted a literature search for studies published between January 1990 and July 2022, and updated the search in May 2024 to include studies published after July 2022. A publication was included in this study if it (1) targeted adults aged 18 or above and without reference to any specific characteristic (eg, age group and disease type); (2) described key elements of CHL. Specifically, the description indicated how CHL was understood and/or operationalised; (3) published in English and (4) provided full text. Exclusions were made for studies where (1) the population had a specific condition to ensure that the findings reflect generalisable insights into CHL across broader populations; (2) the concept CHL was only mentioned once but not described or discussed in the article. This means that although one paper indicated which definition or framework of CHL was used in the study, it was excluded because it failed to provide any discussion on the components of CHL; (3) published in non-English and (4) there was no full text available. CYT and CCWN independently reviewed the articles from the initial search, while CYT and LX independently reviewed the updated articles to identify the components of CHL.

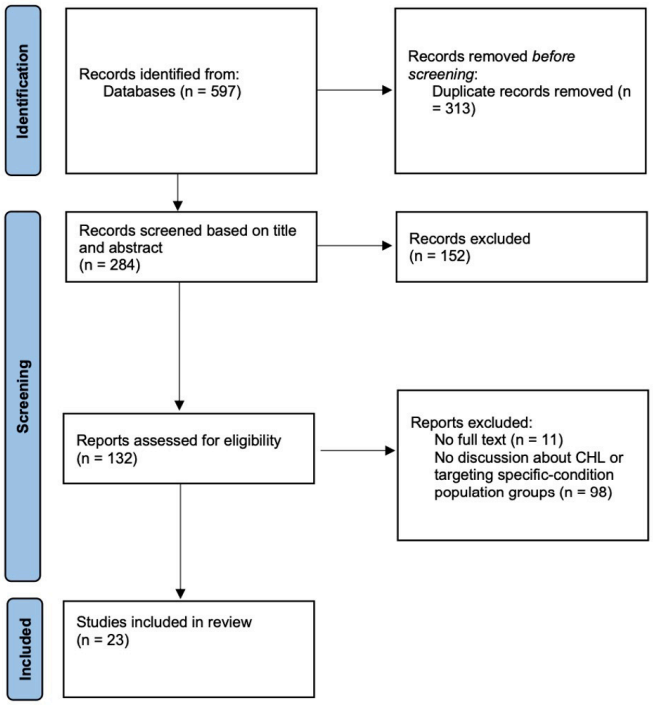


**Figure 1** Preferred Reporting Items for Systematic Review and Meta-Analyses flow diagram.

### Stage 4: data charting and collation

In order to capture important components of CHL within the identified papers, a thematic analysis was therefore carried out. This thematic approach refers to the process of identifying patterns or themes within qualitative data. During the process, we followed an adapted version of Braun and Clark's guidance on the thematic analysis[28]: (1) initially, we familiarised ourselves with the identified papers and made notes for potential codes and themes. (2) We then coded relevant data using adaptive coding, starting with pre-set codes from Chinn's work and allowing new codes to emerge. We also incorporated the 'concept matrix' proposed by Webster and Watson[29] to record the codes. Two researchers (CYT and LX) coded the data independently. Similar to previous studies,[30 31] consensus on the codes was reached by discussing them with the research team to ensure consistency and transparency in the coding process. (3) Finally, we examined the codes and organised them into dimensions.

## RESULTS

The PRISMA flow chart summarised the search process (figure 1). Of the 597 articles identified, 132 underwent full-text review, with less than 15% from East Asia. A total of 23 articles were included in this review. Among these, two-thirds (n=15) of articles were published after 2013, with only two published in East Asia (ie, Japan and Korea). The remaining 21 studies were conducted outside of East Asia, predominantly in Western countries (n=19,

Table 1 Concept matrix of critical health literacy

| No | Year | Authors | Dimensions | | |
|---|---|---|---|---|---|
| | | | Information appraisal | Understanding of SDH | Actions to address SDH |
| 1 | 2022 | Abel and Benkert[15] | | × | × |
| 2 | 2022 | Kyabaggu *et al* | × | × | × |
| 3 | 2022 | Pavelić and Špiranec[33] | × | × | × |
| 4 | 2022 | Dixon *et al*[19] | × | × | × |
| 5 | 2021 | Abel and McQueen[18] | × | × | × |
| 6 | 2020 | Miri *et al*[34] | × | × | × |
| 7 | 2020 | Diviani *et al*[42] | × | | |
| 8 | 2019 | Raphael and Sayani[32] | | × | × |
| 9 | 2018 | Sykes *et al*[35] | × | × | × |
| 10 | 2018 | Sykes and Willls[36] | × | × | × |
| 11 | 2017 | Renwick[10] | × | × | × |
| 12 | 2016 | Robertson and Scheidler-Benns[37] | × | × | |
| 13 | 2016 | Crondahl and Karlsson[17] | × | × | |
| 14 | 2014 | Kang *et al*[43] | × | | |
| 15 | 2014 | Corcoran[11] | × | × | × |
| 16 | 2013 | Suka *et al*[6] | × | | |
| 17 | 2013 | Sykes *et al*[21] | × | × | × |
| 18 | 2013 | Chinn and McCarthy[39] | × | × | × |
| 19 | 2011 | Mogford *et al*[40] | × | × | × |
| 20 | 2011 | Chinn[20] | × | × | × |
| 21 | 2009 | Steckelberg *et al*[8] | × | | |
| 22 | 2001 | Levin-Zamir and Peterburg[42] | × | × | |
| 23 | 2000 | Nutbeam[4] | × | × | × |
| | | | 21 | 19 | 16 |

SDH, social determinants of health.

including Switzerland, Canada, New Zealand, the UK, Denmark, Australia, the USA and Germany). The characteristics of the identified publications, including authors, year of publication, author's country and described elements of CHL, are presented in online supplemental eTable 1. We grouped the components of CHL into three dimensions: information appraisal, understanding of SDH and actions to address SDH. The definitions and measurements of each dimension are described in the section below. Table 1 shows the number of CHL dimensions included in each identified article.

### Information appraisal

The term 'information appraisal' refers to individuals' fundamental skills to identify and appraise the best available information to manage health. Almost all identified (n=21) studies recognised this as one key component of CHL.[4 8 10 11 17–21 32–43] Most studies conducted outside of East Asian countries highlighted that the skills of information appraisal involved the competency to evaluate the credibility, validity, reliability and applicability of health information.[18 20 38] One recent study extended the key abilities to critically appraise information to six competencies involved in a multistep process of accessing information.[42] Namely, individuals' capabilities to start the appraisal process (basic competence, eg, being able to read and write); facilitate the process of information appraisal (predisposition, eg, being curious about knowledge); find the aspects of information that can be useful (identification competency); critically examine information quality in terms of its validity and reliability (evaluation competence); choose the most appropriate information (selection competence) and use them for better health (application competence). Most Western measurements of CHL[34 39] included self-rated items to assess individuals' frequency of evaluating the quality of health information in their daily lives, thereby reflecting their ability to appraise information. Similarly, the two measurements developed in Asia focused on the ability to critically evaluate and use health information as the key components of CHL.[6 43]

### Understanding of SDH

'Understanding of SDH' means individuals' perceptions regarding how the social determinants affect health or the root causes of health issues. A growing number (n=19) of studies have considered this understanding as a component of CHL.[4 10 11 15 17–21 32–41] The two studies from East Asia did not address the significance of understanding SDH within the framework of CHL, while the majority of Western studies did explore this aspect.[4 10 11 15 17–21 32–41] For example, a Canadian scholar's 3D model of CHL incorporated this understanding by suggesting that people should consider why particular health resources are available to specific population groups and communities but not to others.[10] This consideration allows people to see how social, economic and environmental conditions impact health within their sociocultural context. Similarly, theoretical work on CHL by an Australian scholar highlighted the importance of understanding one person's relatedness to the world and the sociopolitical and sociocultural awareness needed to enhance his/her CHL.[11] Moreover, the studies conducted outside of Asia adopted questions like "What do you think matters most for everyone's health?: (a) information and encouragement to lead healthy lifestyles; (b) good housing, education, decent jobs and good local facilities"[39] and "Do you consider the level of candidates' attention to public health issues when choosing representatives for political affairs?" to measure subjects' understanding or awareness of SDH.[34]

### Actions to address SDH

The third dimension, 'actions to address SDH', refers to an individual's ability to act on the SDH for better health. This dimension was the least mentioned in the identified studies (n=16).[4 10 11 15 18–21 32–36 38–40] The two studies from East Asia did not emphasise the importance of taking action to address SDH, whereas most studies conducted outside of Asian countries did. Most of these studies emphasised the importance of taking social responsibility and advocating for health policies to address SDH.[4 10 11 18–21 32–36 38–40] The actions to address SDH mainly included participation in political action and civic activity to change unfavourable environments.[11 17] To measure this dimension, the existing measurements adopted questions like asking participants' frequency of participating in community actions for health, such as environmental cleanup activities and meetings of local health centres.[34]

However, few studies shed insight into the interpersonal level activities to address SDH.[18 19 33] Pavelić and Špiranec stressed how social media and other interactive information platforms are changing the way we understand CHL.[33] They argued that people with high CHL do not just passively receive information, but rather they actively seek out and engage with different viewpoints. This active involvement in social networks influences how people evaluate and use health information. Dixon *et al* further advocated for effective interpersonal interactions to address health inequities, highlighting the importance of advocacy and action within one's social circles to tackle these issues.[19] Based on these findings, we refined Chinn's review of the third dimension of CHL—collective actions—by expanding it to include interpersonal actions, focusing on interactions and relationships. We found no existing scales to measure these interpersonal-level health actions in CHL measurements. We did not find any existing scales to measure these interpersonal-level health actions among adults in available CHL measurements.

## DISCUSSION

### Main findings

This study comprehensively used Chinn's model to group the domains of CHL in the literature into three key areas: information appraisal, understanding of SDH and actions to address these determinants of health. Notably, few studies from Asia were identified in this review. One reason is the limited number of studies published in the region. Another key factor is that many Asian papers[44–46] adopt established CHL tools or frameworks developed in Western countries without further discussion or adaptation for local contexts, which affected their eligibility based on our inclusion criteria. For example, one study examining the relationship between health literacy, self-efficacy, disease knowledge and adherence to secondary coronary artery disease prevention among Chinese participants used a Chinese version of a Western-developed questionnaire without further validation.[47] This reliance on Western models may limit the development of CHL frameworks tailored to Asian contexts. By identifying this gap, our review underscores the need for future research to examine how CHL is conceptualised and applied in Asian contexts, ensuring that health literacy frameworks are both culturally and contextually appropriate.

The review confirmed a limitation on many current conceptualisations of CHL that have a stronger (and sometimes exclusive) emphasis on information appraisal relative to the other two dimensions.[15 33] This emphasis on information appraisal has been explained by other authors as a consequence of CHL traditionally being viewed through a biomedical model, focused on individuals' capacity to find, appraise and understand information that can primarily be applied to improve personal health.[15 48] The social and political dimensions of CHL require a shift towards advanced critical thinking and different forms of social response, including political activism.[36] Although harder to conceptualise, measure and act on, these other two dimensions are crucial parts of CHL.

This study found that both Western and East Asian research have similar approaches to assessing information appraisal. However, a recent Western study provided a detailed breakdown of the skills involved, such as basic competencies, predisposition, identification, evaluation, selection and application of information.[42] Measuring all

these skills in one scale may be impractical due to challenges with length and scoring. Looking at other literacy fields like media and information literacy, it seems that focusing on judgement or evaluation skills—like those highlighted by Diviani and colleagues—could be crucial for this area.[33 49] Therefore, we suggest that the main focus should be on evaluating the credibility, validity, reliability and relevance of health information, which aligns with the approach taken by most studies.

In this review, the identified East Asian studies did not provide original insights into the two dimensions related to SDH. As discussed earlier, in many East Asian countries, it is common to adopt established tools or frameworks of CHL developed in Western countries without fully examining their reliability and validity for adaptation to local contexts.[44] Given this situation, we used the findings from the review to examine potential differences between Western and East Asian countries in their understanding of SDH and in actions to address them.

In understanding SDH, Western and East Asian countries differ in various ways which could lead to differences in how social determinants are conceptualised and prioritised. In Western cultures, where individualism and critical thinking are often emphasised, SDH such as income inequality, race, gender, religion and healthcare access are viewed as critical to health outcomes. Public health education in these countries often seeks to empower individuals by reducing health disparities and ensuring equal opportunities for achieving optimal health outcomes.[50 51] Conversely, East Asian cultures, influenced by traditional East Asian values, such as Confucianism and Buddhism, prioritise collectivism and social harmony.[52 53] As a result, SDH are often viewed through the lens of economic development and social stability. In these Asian countries, public health efforts are often framed in the context of community health, with a focus on maintaining social cohesion while navigating rapid economic growth.[50]

From an economic perspective, Western economies generally have higher average income levels compared with many East Asian economies. Studies have shown that wealthier nations often prioritise reducing health inequalities, while individuals in low-income and middle-income countries (LMICs) may focus on improving overall health outcomes rather than addressing inequalities specifically.[54] This economic divide is further reflected in the availability of resources for monitoring and studying SDH. Wealthier nations benefit from advanced data collection systems, cutting-edge technology and robust research infrastructure, allowing for a more comprehensive understanding of SDH. For example, a recent review on geographical inequalities in COVID-19 mortality rates found that most studies were conducted in high-income regions like the Americas and Europe, with limited research from other WHO regions.[55] In contrast, many LMICs face challenges related to fragmented or outdated data, limiting their ability to fully understand and address SDH. Additionally, limited education and health literacy in LMICs contribute to a gap in knowledge regarding the importance of SDH.

In acting on the social determinants, the emphasis on collective action in addressing SDH mainly stems from studies conducted in Western countries like Switzerland, Australia and the UK, where there are established traditions of social activism for public benefit. Social movements and non-governmental organisations play a significant role in advocating for public health and addressing SDH in these countries. However, this focus on grass-roots 'collective action for health' may not fully resonate with certain East Asian countries. Many East Asian countries have more established, centralised approaches to public health, have less of a tradition or capacity for social movements, and in some cases, fewer legal protections.[56] This highly centralised approach to managing public health challenges can be observed in the rapid and stringent measures taken during the COVID-19 pandemic in China and Singapore.[57]

In this case, we argue that interpersonal actions are also crucial for CHL and can serve as a stepping stone to collective empowerment, especially within diverse contexts. As the theory of 'distributed health literacy' suggests, HL is not solely an individual skill, but a shared resource within a person's social network.[58–60] This means that individuals can rely on friends, family or healthcare professionals to help them understand health information and make informed decisions. Therefore, interpersonal interactions are crucial channels for translating knowledge of SDH into actions. Empirical evidence supports this statement. For instance, a study in Vietnam found that ethnic minority women used family and social networks to share knowledge, assess and evaluate information, communicate with healthcare professionals and support decision-making.[61] Similarly, a systematic review of qualitative studies on decision-making among adolescents and young adults with cancer revealed that they developed health literacy in partnership with their families, who provided support and shared knowledge about the condition and the skills needed to manage it.[62] Additionally, engaging in interpersonal-level actions can build self-esteem and self-efficacy.[63 64] As individuals gain confidence and competence in managing their health, they are more likely to share knowledge and transition to collective actions, such as advocating for better health resources and participating in group initiatives.[17 35 37] However, these transitions are shaped by broader structural factors, including social norms, policy environments and resource availability, which can either enable or constrain collective action. Despite these constraints, fostering health dialogues and peer interactions remains essential as they provide opportunities for individuals to navigate these structural barriers, exchange knowledge and collectively promote health within their communities.

### Practice implications

The way CHL is conceptualised shapes the development of assessment tools, the selection of indicators and the

interpretation of results. For example, if CHL is conceptualised with a focus on information appraisal, the measurements will likely emphasise an individual's ability to evaluate and use health information, which is common in East Asia. Conversely, if the conceptualisation includes broader social and political dimensions, the measurements might also assess an individual's capacity for social advocacy, civic engagement and understanding of SDH. In this review, we found no East Asian CHL assessments focused on individuals' understanding of SDH. However, Japan has recently developed a four-point Likert scale to specifically examine subjects' knowledge of the impact of social determinants on health.[65] An example item is "On a scale from very easy to very difficult, how easy would you say it is to understand that the lesser the income, the greater the tendency to become ill". Despite its potential, the scale's generality raises concerns about its applicability across diverse populations.

Additionally, the limited focus on interpersonal-level actions to address SDH may be due to the dominant emphasis on social-level actions in discussions on this topic. Although we did not find any existing scales to measure these interpersonal-level health actions among adults, two newly developed scales for adolescents can serve as a reference for future development. One is the eight-item Health Literacy Assessment Tool for secondary school students (c-HLAT-8),[66] which asked participants how often they take action to assist their family members or a friend if they have questions concerning health issues during daily life. Another one is the indicators to measure CHL developed in Norwegian secondary schools focusing on children's actions in supporting those around them.[67] In summary, more discussion is needed to develop and validate CHL assessment tools that account for both the understanding of SDH and social-level and interpersonal-level actions to address SDH, particularly in diverse cultural contexts. By broadening the scope of CHL assessments, we can better understand how individuals navigate and influence the complex factors that determine health outcomes, ultimately leading to more effective public health interventions and education strategies.

The measurement of CHL is complex and context dependent. Measurement tools and methods need to be developed in ways that can identify context and reflect this complexity. One way of addressing these challenges is by using a codesign approach, a more collaborative and participatory method. Previous studies have highlighted the value of collaborative and participatory learning strategies in fostering CHL, emphasising the importance of real-world engagement in health-related decision-making.[35 68] Co-designing tools with key stakeholders, such as patients, healthcare providers, educators and policymakers, is gaining increasing attention in the field of health-related measure development.[69 70] This approach can lead to developing context-sensitive measures that resonate with the lived experiences of individuals and communities.

### Limitation

This study possesses some limitations. First, although we followed the PRISMA guidelines to perform our literature review, some relevant literature might have been omitted due to subjective judgements during the process. Second, we only reviewed studies published in English, and thus studies published in other languages have not been reviewed, potentially limiting our analysis of the topic. This limitation may have contributed to the underrepresentation of studies from Asia, where research in non-English languages is prevalent. Moreover, this limitation may inadvertently perpetuate a Western-centric view of CHL, potentially sidelining the diverse representation of studies from Asia, where research in non-English languages is prevalent. Moreover, this limitation may inadvertently perpetuate a Western-centric view of CHL, potentially sidelining the diverse conceptualisations and practices of health literacy in non-English-speaking cultures. Studies published in other languages may offer additional insights into CHL, presenting alternative or complementary frameworks that better capture the social, cultural and healthcare contexts of different regions. As a result, the findings of this review may not be fully generalisable across all cultural contexts, and future research should consider incorporating studies from multiple languages and regions to offer a more comprehensive understanding of CHL. Third, given that some identified HL measurements did not provide the details of the items, precise analysis of the latent variable that the items aimed to measure was not possible in some cases. This lack of clarity may have also contributed to difficulties in assessing inter-coder reliability for the coding process. Therefore, further discussion is needed to achieve a better understanding of how CHL is operationalised in empirical studies.

## CONCLUSION

This study provided a thorough and systematic analysis of how CHL has been conceptualised in the literature, particularly in relation to evaluating and using information for healthier behaviours, understanding SDH problems and addressing unfavourable environmental conditions to promote health. Compared with previous work, we updated the studies discussing CHL after 2013. A fundamental limitation of the current conceptualisation of CHL is its focus on information appraisal rather than the other two dimensions. Moreover, the prevailing components of CHL are contextually grounded in Western social structures. Since CHL is inherently tied to its context, further discussion is essential to understand how it applies across different cultural settings.

**Author affiliations**
[1]Jockey Club School of Public Health and Primary Care, The Chinese University of Hong Kong Faculty of Medicine, Hong Kong, Hong Kong
[2]Centre for Health Systems and Policy Research, Jockey Club School of Public Health and Primary Care, The Chinese University of Hong Kong Faculty of Medicine, Hong Kong, Hong Kong

[3]Sydney Health Partners, Sydney, New South Wales, Australia
[4]Sydney School of Public Health, The University of Sydney, Sydney, New South Wales, Australia

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**Contributors** Conceptualisation: CYT, DN and ELYW. Data curation: CYT and ELYW. Formal analysis and methodology: CYT, CCWN and LX. Supervision: PKHM, DD and ELYW. Writing—original draft: CYT. Writing—review and editing: CYT, PKHM, DD, DN and ELYW. CYT and ELYW are responsible for the overall content as guarantors.

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**ORCID iD**
Cindy Yue Tian http://orcid.org/0000-0002-0083-5185

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