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Health assets in a global context: a systematic review of the literature

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ABSTRACT

Objective To provide an up-to-date overview of health assets in a global context both from a theoretical perspective and its practical applications to address health inequalities and achieve sustainable health.

Design A systematic review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines.

Data sources A comprehensive search, including 10 electronic bibliographic databases and hand searches, was undertaken to capture the wide range of terms associated with 'health assets' and 'asset-based approaches to health'.

Eligibility criteria Any peer-reviewed published and grey literature in English related to 'health assets' or 'assets' in a 'health' context was included without any date, country or study design restrictions and the quality of evidence was appraised according to the Oxford Level of Evidence.

Outcomes A broad consideration of all outcome measures including clinical outcomes, patient-level, community-level and population-level impacts and costs, was adopted.

Results 478 publications were included. Health assets were researched in 40 countries, predominantly in the West such as the USA and the UK. A number of broad health assets were identified including community and individual assets. Even though research was conducted in a number of different settings, most occurred in the community, clinical, care or educational settings. A wide variety of interventions and approaches were implemented, most commonly related to education and/or training, asset mapping or asset approaches.

Conclusions Globally, authors most often referred to general 'health assets', 'assets' or some form of 'community asset' in relation to health. Overall, the idea of health assets is framed within a positive paradigm focusing on health creation rather than curative approaches. The sustained credibility of the global 'health assets' literature depends on future research on definitional, theoretical and evaluative issues in order to convince policy-makers and service commissioners of its necessity and added value to the traditional deficit approach.

Strengths and limitations of this study

- The review provides an up-to-date overview of published literature on health assets in a global context including the grey literature.
- The review focused on highlighting the key research gaps in the health assets global literature and provides a useful starting framework to organise these assets and to identify key areas of future work.
- The exclusion of papers that did not explicitly mention 'health' and 'assets' in the title, abstract, keywords or executive summary is a limitation of the review.
- The broad range of participants, comparators and outcomes prevented a meta-analysis from being carried out.

INTRODUCTION

Globally, across the political landscape, there is an increased focus on different approaches to promote health and well-being, strengthen health systems and tackle inequalities.[1–3] Health, as defined by WHO,[4] is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Health is also seen as a precious global good,[5] a basic human right and a matter of social justice.[6 7] Furthermore, since health is also recognised as an important global economic and security issue as well as a prerequisite for human, economic and social development, it has become a priority on the political and social agendas, locally and globally.[8–12]

Defining health is crucial to understand how best to implement policies and programmes to achieve it. Over the years, there have been a number of criticisms of the WHO definition of 'health' on philosophical and practical levels, such as the criticisms of mixing health and well-being[13] and not reflecting either the current population demographics or disease patterns.[14] Irrespective of these issues, historically, the approaches to promote population health have been based on a 'deficit model'.[15] Deficit models focus on identifying the problems and needs of populations such as deprivation, illness and health-damaging behaviours.[16] In response, services are designed with high levels of dependence on costly curative care and welfare services. While deficit models are important and necessary to identify levels of needs and priorities, they

do have drawbacks such as the tendency to undermine the role that individuals and communities play as active participants to create, acquire and maintain health.[15]

By contrast, an 'asset approach' to health aims to identify those health-promoting or protective factors operating at different levels viz, within individuals,[17] communities,[18–20] organisations[21] and systems[22] that are most likely to lead to higher degrees of overall health, well-being, achievement and sustainability.[23] Furthermore, in order for asset-based approaches to be truly effective, all the above levels would need to work together in an integrated manner.[24] Evidence suggests that individual-level assets include resilience, self-esteem, sense of purpose and commitment to learning; community-level assets include family and relationships or supportive networks, intergenerational solidarity, community cohesion, religious tolerance and harmony[25 26]; organisational-level assets include the environmental resources necessary for promoting physical, mental and social health, employment security, housing, political democracy and social justice.[15]

Overarchingly, a key principle of an asset-based approach is to tilt the focus towards creating health (a salutogenic perspective) rather than fixing it. Antonovsky proposed salutogenesis as a theory to guide health promotion,[27] although others have argued that it is relatively underdeveloped and more empirical work is needed.[28] Nonetheless, there is a plethora of work demonstrating the associations between a range of health and related outcomes and the underlying tenet of salutogenesis.[29] The salutogenesis theory has been useful as a means of explaining the benefits of a health asset approach, although the term is often not explicitly mentioned in the asset-based literature.[24] Often, the community-level activities deal with health maintenance rather than health creation, as creating health and environments conducive to health is a much long-term endeavour and very much relate to a long course perspective to health development.[30]

While there are a few published reviews on health assets, they have specifically focused on health assets in older people,[31 32] faith-based health assets[33] or concept analyses of the idea.[34] Our review aimed to provide a broader understanding of how the approach had been discussed and used in a global context.

Aims

The objective of this descriptive systematic review was to provide a most up-to-date overview of health assets in a global context both from theoretical and methodological perspectives and its practical applications as a 'positive health approach' to address various social and economic issues and inequalities worldwide.

Therefore, a robust systematic review of the global literature on 'health assets' and 'asset-based approaches to health' was considered an important step in developing a better understanding of the 'state-of-the-art' health asset landscape. We systematically gathered peer-reviewed and grey literature in order to answer the following questions:

1. What are health assets?
2. How and where are they being applied?
3. What is their importance/significance for health and well-being?

Understanding health assets in the global context and addressing these three questions is important given the increased emphasis on 'health assets' and 'asset-based approaches' to health promotion and improvement internationally.

METHODS

Literature was identified through a broad search strategy aimed at capturing the wide range of terms associated with 'health assets' and 'asset-based approaches to health' in the global literature. The strategy aimed to capture literature concerning the utilisation of 'health assets' at the microlevel, mesolevel and macrolevel, for example, biological, individual, population, communities, organisational, services, policies and systems level assets.

The search was completed on 15 July 2018. A comprehensive search of 10 electronic bibliographic databases (Medline, Embase, CINAHL, PsycINFO, HMIC, Health Business Elite, Scopus, Web of Science, ASSIA, SCIE) and hand searches of key journals were undertaken following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidance (online supplementary data 1).

Search strategy

Electronic searches

An iterative procedure was used to develop the search strategy, with input from an information specialist. A strategy consisted of the following terms: 1. 'health asset*'; 2. 'asset* based'; 3. 'asset* approach*'; 4.a. 'asset* map*'; 4.b. 'map* asset*'; 4.c. 'map* health asset*'; 5.a. 'asset* build*'; 5.b. 'build* asset*'; 5.c. 'build* health asset*' (full search strategy in online supplementary data 2). This search strategy was adopted to find papers, which self-identify as 'health asset' literature. The final search strategy needed to be kept broad (ie, no keywords for specific conditions, populations or interventions, etc) in order to capture all available literature relating to 'health assets' and 'asset-based approaches to health'.

Searching other resources

In addition to searching academic research databases and Google Scholar, a comprehensive search of internet resources was also implemented to identify grey literature on the subject. Each search term was entered into the Google search engine with file extensions '.com', '.org' and 'un.org'. The first 10 pages were screened to identify publications related to health assets. In order to capture a wide array of publications, both reports and written presentations were included. These results were imported into Mendeley V.1.16.3 adding to the search results from electronic databases. Duplicates were identified and deleted (full list of included papers in online supplementary data 3).

A total of 25 authors were also contacted via email and websites (such as ResearchGate and Academia.edu) to request copies of their papers that were otherwise unobtainable to us; only four responded.

Selection and appraisal of documents

Selection of studies

Titles and abstracts were screened for relevance. Articles were eligible for consideration if the paper explored principles of asset thinking and approaches in a health context anywhere around the world. Publications initially screened to be relevant were imported into reference management software Mendeley V.1.16.3.

Inclusion criteria

Publications related to health assets were included without any restrictions on date or country. All study designs (qualitative, quantitative randomised experimental, quantitative non-randomised controlled, quantitative observation and mixed methods) were included if published in English. Books and book chapters, reports, commentaries, letters, editorials, previous reviews, dissertations and conference proceedings were also included. A broad consideration of all outcome measures, including clinical outcomes, patient-level, community-level and population-level impacts and costs, was adopted.

Exclusion criteria

Papers that did not mention either 'asset', 'asset-based' or 'asset map' with the term 'health' were excluded, since we specifically looked at understanding the (self-identified) global 'health asset' literature and landscape. Economic and market-based assets and asset-based frameworks were also excluded such as asset-based lending, asset-based finance/financing, asset-based transactions, asset-based operational strategies, asset-based lenders and asset-based index. Papers that reported and/or discussed only financial assets were excluded, for example, certain individual financial assets, fuel assets, building assets, asset poverty, family income and personal contingency assets, land-based assets, intellectual assets, business assets, information assets, wealth creation and real estate assets. However, if a paper explicitly mentioned the term 'health

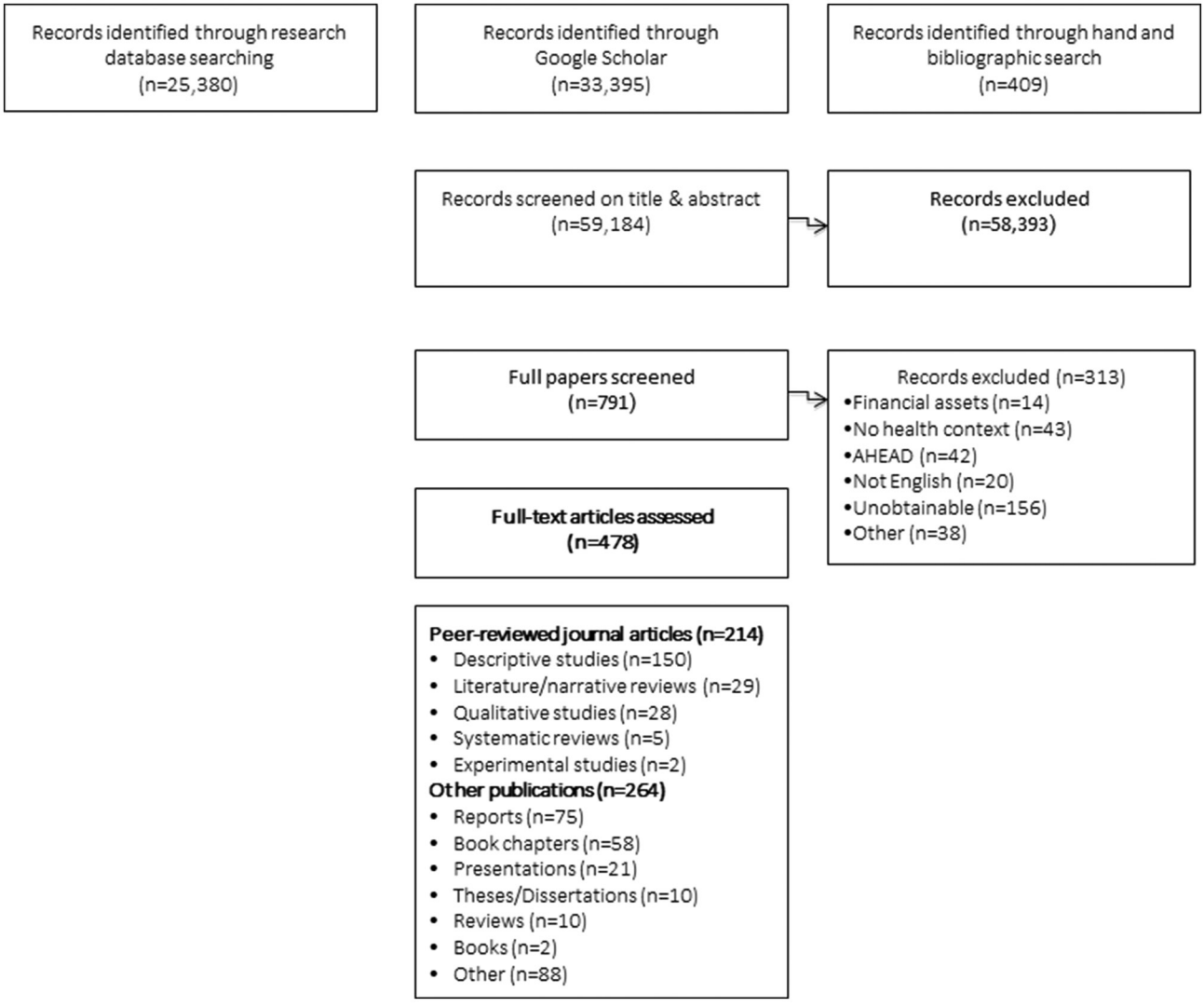

Figure 1 Flow diagram of article selection. AHEAD, Asset and Health Dynamics Among the Oldest Old.

Table 1 Included studies by WHO region and country

Research by WHO regions	
European region (n=192, 40.2%)	
UK	n=148
Spain	n=13
Norway	n=8
Germany	n=6
Sweden	n=5
The Netherlands	n=3
Greece/Romania	n=2
Finland/Hungary/Israel/Portugal/Switzerland	n=1
Region of the Americas (n=119, 24.9%)	
USA	n=100
Canada	n=11
Brazil	n=3
Argentina/Columbia/Guatemala/Paraguay/Latin America	n=1
African region (n=62, 13.0%)	
South Africa	n=22
Africa (not specified)	n=19
Nigeria	n=4
Sub-Saharan Africa/Zambia	n=3
Benin/Ghana	n=2
Angola/East Africa/Kenya/Swaziland/Tanzania/Uganda/West Africa	n=1
Western Pacific region (n=9, 1.9%)	
Australia	n=3
Cambodia	n=2
Malaysia/New Zealand/South Korea/Taiwan	n=1
South-East Asia region (n=4, 0.8%)	
India/Indonesia	n=2
Eastern Mediterranean region (n=2, 0.4%)	
Afghanistan/Iran	n=1
International (n=78, 16.3%)	
Unreported or unclear (n=12, 2.5%)	

asset' or if a paper discussed any other additional relevant assets, we did included it in this review.

The literature search identified a number of papers published using data from the Asset and Health Dynamics Among the Oldest Old (AHEAD) study; however, because the AHEAD study included only financial assets, these studies were excluded from this review.

Assets solely relating to automated workflow, operating data, processing time, production, productivity, pattern recognition, equipment reliability and efficiency, maintenance optimisation and maintenance intervals, operations and maintenance, performance monitoring were also excluded even if the title or abstract contains the term 'health asset'. While we were interested in health outcomes, studies demonstrating the use of asset health monitoring technologies, asset maintenance operations, asset availability, asset tracking and response to actual health events, these were also excluded.

Data extraction

A full list of excludes was recorded. All the literature identified was then data extracted by two independent reviewers. Issues were resolved in discussion with a third independent reviewer who also screened a random selection of 10% of the included papers as quality control. The bibliographies of all included papers were also screened and a significant number of additional papers (n=262) were found this way and were included in the analysis.

Quality of studies

To assess the quality of evidence identified in this review, the included literature was ranked according to the Oxford level of evidence.[35] One reviewer coded the level of evidence and 10% was quality-assessed by an independent reviewer.

Analysis and synthesis

The wide heterogeneity of the included studies—due to the broad range of study designs, participants, comparators and outcomes—prevented a meta-analysis and measures of consistency (eg, I^2) from being carried out. A quality assessment and narrative synthesis was undertaken. The analysis and synthesis processes occurred iteratively and were conducted by two independent reviewers. Data were extracted into and managed in Microsoft Excel. Any issues were resolved with a third independent reviewer.

The search revealed 59 184 papers of which 17 355 were duplicates; 791 papers were read in full, with 478 included in this review. Figure 1 displays the flow diagram for selection of eligible papers for inclusion in the analysis.

Patient and public involvement

Patients and public were not involved in the development of the research question, choice of outcome measures or the design and conduct of this systematic review.

RESULTS

Characteristics of included studies

A wide variety of material was retrieved from the search including different types of study design, peer-reviewed and non-peer-reviewed literature. This review contained 214 peer-reviewed journal articles (44.8%) and 264 other publications (55.2%). The peer-reviewed journal articles included 150 different descriptive studies (31.4%), 29 literature/narrative reviews (6.1%), 28 qualitative studies (5.9%), 5 systematic reviews (1.0%) and 2 experimental studies (0.4%). Other types of publications mainly included reports (n=75, 15.7%), book chapters (n=58, 12.1%) and presentations (n=21, 4.4%).

According to the Oxford level of evidence, this review contained 1 inclusion rated as 1b (0.2%); 5 rated as 2a (1.0%); 2 rated as 2b (0.4%); 177 rated as 2c (37.0%); 39

rated as 3a (8.2%); 145 rated as 4 (30.3%) and 109 rated as 5 (22.8%).[35] This assessment of quality infers that there is still some work to be done to enhance the robustness of the evidence to demonstrate that investing in the health asset approach makes a difference to the overall effectiveness of programmes and initiatives.

The below addresses the research aims of this review.

What are health assets?

A number of broad assets were identified, which included what authors specified as 'health assets', 'assets' or an 'asset-approach' in a health context (n=316, 66.1%), with several looking at community assets (n=23, 4.8%) and individual assets (inclusive biological, perspectives, lifestyle, leisure activities) (n=28, 5.9%). Some studies focused on religious health assets, or religion (n=43, 9.0%), organisational assets (n=15, 3.1%) and resilience (n=11, 2.3%). A number of papers focused on asset mapping (n=28, 5.9%) and co-production (n=3, 0.6%). A number of assets were not defined or unclear (n=9, 1.9%). Health assets, and what they are, will be explored further in the discussion.

How and where are they being applied?

'Health assets' have been researched and written about in a number of different countries (table 1). Research was conducted in a total of 40 countries, and 6 regions (in some papers a country was unspecified). Most research has been conducted in Western countries including the UK, European countries and the USA. Fewer studies have been conducted in the Middle East, Africa and Latin America.

Table 2 illustrates the different types of health assets described in the included studies by WHO region.

A variety of different populations have been the focus of the health asset literature, including community residents, migrant communities, minor offenders, students, disadvantaged women and women in the general population. Most studies, reports and whitepapers report on mixed gender studies (n=361, 75.5%); however, a few focused on female populations (n=14, 2.9%) and on males (n=16, 3.3%) alone. In some studies, the gender was not applicable, for example, in a conceptual paper on the meaning of health assets (n=68, 14.2%), not reported, collected or unclear (n=19, 4.0%).

The ages of populations also varied, most included a mix of ages (n=261, 54.6%), followed by those looking at young people (n=72, 15.1%), adults (n=36, 7.5%) and older people (n=20, 4.2%). Some inclusions reported that population was not applicable, for example, in a conceptual paper on the meaning of asset mapping (n=67, 14.0%), whereas others were not reported or unclear (n=22, 4.6%). Table 3 illustrates different types of health assets described in the global literature in different age categories.

Research has also been conducted in a number of different settings (table 4); however, most research has been conducted in the community, a clinical care setting or an educational setting. There was limited research

Table 2 Different health assets of the included studies by WHO region

Type of assets	WHO region							Total
	European region	Region of the Americas	African region	Western Pacific region	South -East Asia region	Eastern Mediterranean region	International	Unreported or unclear	
'Health assets', 'assets' or an 'asset-based approach' in a health context	153 (48.4%)	63 (19.9%)	28 (8.9%)	8 (2.5%)	4 (1.3%)	–	51 (16.1%)	9 (2.8%)	316 (100.0%)
Community assets	10 (43.5%)	9 (39.1%)	1 (4.3%)	–	–	–	2 (8.7%)	1 (4.3%)	23 (100.0%)
Individual assets	7 (25.0%)	14 (50.0%)	–	1 (3.6%)	–	1 (3.6%)	5 (17.9%)	–	28 (100.0%)
Religious health assets, or religion	1 (2.3%)	5 (11.6%)	29 (67.4%)	–	–	–	7 (16.3%)	1 (2.3%)	43 (100.0%)
Organisational assets	5 (33.3%)	8 (53.3%)	1 (6.7%)	–	–	1 (6.7%)	–	–	15 (100.0%)
Resilience	5 (45.5%)	2 (18.2%)	1 (9.1%)	–	–	–	3 (27.3%)	–	11 (100.0%)
Asset mapping	7 (25.0%)	13 (46.4%)	1 (3.6%)	–	–	–	6 (21.4%)	1 (3.6%)	28 (100.0%)
Co-production	1 (33.3%)	–	–	–	–	–	2 (66.7%)	–	3 (100.0%)
Cultural assets	–	2 (100.0%)	–	–	–	–	–	–	2 (100.0%)
Not defined or unclear	3 (33.3%)	3 (33.3%)	1 (11.1%)	–	–	–	2 (22.2%)	–	9 (100.0%)

Table 3 Different health assets of the included studies by age categories

Type of assets	Age categories					Total
	Mixed age group	Young people	Adults	Older people	Not applicable	Not reported/ unclear	
'Health assets', 'assets' or an 'asset-approach' in a health context	165 (52.2%)	47 (14.9%)	28 (8.9%)	15 (4.7%)	44 (13.9%)	17 (5.4%)	316 (100.0%)
Community assets	11 (47.8%)	3 (13.0%)	5 (21.7%)	1 (4.3%)	3 (13.0%)	–	23 (100.0%)
Individual assets	9 (32.1%)	12 (42.9%)	2 (7.1%)	1 (3.6%)	3 (10.7%)	1 (3.6%)	28 (100.0%)
Religious health assets, or religion	35 (81.4%)	1 (2.3%)	–	–	6 (14.0%)	1 (2.3%)	43 (100.0%)
Organisational assets	7 (46.7%)	1 (6.7%)	–	–	6 (40.0%)	1 (6.7%)	15 (100.0%)
Resilience	9 (81.8%)	2 (18.2%)	–	–	–	–	11 (100.0%)
Asset mapping	17 (60.7%)	3 (10.7%)	–	3 (10.7%)	5 (17.9%)	–	28 (100.0%)
Co-production	2 (66.7%)	–	1 (33.3%)	–	–	–	3 (100.0%)
Cultural assets	–	2 (100.0%)	–	–	–	–	2 (100.0%)
Not defined or unclear	6 (66.7%)	1 (11.1%)	–	–	–	2 (22.2%)	9 (100.0%)

conducted in industry, public services or the military. Little research has been conducted in prisons, slums, youth detention centres and in the policy setting.

Health asset importance to promoting health and well-being

A wide variety of interventions and approaches have been implemented, most commonly including education or/and training, asset mapping or asset approaches (table 5). Other interventions included community assessment and health promotion programmes. Some research has also explored the role of the church as an intervention, however, due to the combination of grey and academic literature, not all included documents would have an intervention, and hence, they are not applicable.

A wider variety of outcomes were also reported, these include individual-level outcomes (including reference to Antonovsky's sense of coherence, perspectives on health and healthcare, sexual and reproductive health, knowledge and skills) (n=206, 43.1%); conceptual outcomes (n=78, 16.3%); community-based outcomes (eg, engagement, health promotion) (n=54, 11.3%); organisational outcomes (eg, costs, structure, delivery, sustainability) (n=32, 6.7%) and the development of a tool (n=8, 1.7%). For some documents, an outcome was not applicable (n=68, 14.2%), and for others, the outcome was unclear (n=32, 6.7%).

The included studies have used a wide variety of study measures/tools and the most frequently reported tools included the Warwick-Edinburgh Mental Well-being Scale (n=6), Sense of Coherence test (n=6) and The Health Behaviour in School-aged Children questionnaire (n=4). Among the wide variety of key indicators routinely collected, health service records (n=5), morbidity and mortality records (n=4) and body mass index (n=4) were the more frequent indicators.

DISCUSSION

This review aimed to elicit from the published and grey literature what we could say about the nature of health assets, how and where they are being applied, and what their importance is in promoting sustainable health, well-being and social inclusion, while addressing health inequalities.

What are health assets?

This comprehensive descriptive systematic review showed that 'health assets' were identified from the microlevel (eg, gut microbia), right through to the macrolevel (eg, policy and systems level). Although a broad number of assets were identified (eg, resilience), no specific asset was more prevalent in the research. Most often authors referred to general 'health assets' or 'assets', or some form of 'community asset' in relation to health. There are also important differences in how assets and health (mental and physical health) are defined. Despite the various definitions used in relation to the health asset global literature, the most frequently cited definition of 'health assets'

Table 4 Study setting of the included studies by WHO region

Settings	WHO region								
	European region	Region of the Americas	African region	Western Pacific region	South-East Asia region	Eastern Mediterranean region	International	Unreported or unclear	Total
Community	107 (37.2%)	76 (26.4%)	49 (17.0%)	4 (1.4%)	3 (1.0%)	–	42 (14.6%)	7 (2.4%)	288 (100.0%)
Clinical or a care setting	40 (50.6%)	15 (19.0%)	4 (5.1%)	3 (3.8%)	–	–	16 (20.3%)	1 (1.3%)	79 (100.0%)
Educational settings (schools, universities)	12 (36.4%)	11 (33.3%)	4 (12.1%)	2 (6.1%)	–	1 (3.0%)	3 (9.1%)	–	33 (100.0%)
Church	2 (25.0%)	2 (25.0%)	4 (50.0%)	–	–	–	–	–	8 (100.0%)
Industry/workplace	3 (37.5%)	4 (50.0%)	–	–	–	–	1 (12.5%)	–	8 (100.0%)
Mixed settings	8 (57.1%)	4 (28.6%)	–	–	–	–	2 (14.3%)	–	14 (100.0%)
Research settings	2 (50.0%)	–	–	–	1 (25.0%)	–	1 (25.0%)	–	4 (100.0%)
Policy and public sector	2 (50.0%)	–	–	–	–	–	2 (50.0%)	–	4 (100.0%)
Military	–	1 (100.0%)	–	–	–	1 (100.0%)	–	–	2 (100.0%)
Prisons	1 (100.0%)	–	–	–	–	–	–	–	1 (100.0%)
Slums	–	–	1 (100.0%)	–	–	–	–	–	1 (100.0%)
Social work	2 (66.7%)	1 (33.3%)	–	–	–	–	–	–	3 (100.0%)
Youth detention centres	1 (100.0%)	–	–	–	–	–	–	–	1 (100.0%)
Marine ecosystems	–	–	–	–	–	–	1 (100.0%)	–	1 (100.0%)
No specific setting/unclear/ setting was not applicable	12 (38.7%)	5 (16.1%)	–	–	–	–	10 (32.3%)	4 (12.9%)	31 (100.0%)

Table 5 Interventions and approaches of the included studies by WHO region

Interventions and approaches	WHO region								
	European region	Region of the Americas	African region	Western Pacific region	South-East Asia region	Eastern Mediterranean region	International	Unreported or unclear	Total
Asset approaches (including co-production)	22 (43.1%)	9 (17.6%)	4 (7.8%)	1 (2.0%)	2 (3.9%)	–	11 (21.6%)	2 (3.9%)	51 (100.0%)
Health promotion programmes	19 (46.3%)	13 (31.7%)	3 (7.3%)	2 (4.9%)	1 (2.4%)	–	3 (7.3%)	–	41 (100.0%)
Asset mapping	7 (24.1%)	13 (44.8%)	7 (24.1%)	–	–	–	2 (6.9%)	–	29 (100.0%)
Community assessment	15 (71.4%)	5 (23.8%)	–	–	–	–	–	1 (4.8%)	21 (100.0%)
Education and/or training	5 (29.4%)	9 (52.9%)	–	–	–	–	3 (17.6%)	–	17 (100.0%)
Changing policy and practice	6 (50.0%)	4 (33.3%)	2 (16.7%)	–	–	–	–	–	12 (100.0%)
Physical health and diet	5 (50.0%)	2 (20.0%)	–	1 (10.0%)	–	–	2 (20.0%)	–	10 (100.0%)
Church or religion as an intervention	–	1 (20.0%)	3 (60.0%)	–	–	–	1 (20.0%)	–	5 (100.0%)
Photovoice	1 (33.3%)	2 (66.7%)	–	–	–	–	–	–	3 (100.0%)
Unclear in describing the intervention or approach	4 (36.4%)	–	–	–	–	1 (9.1%)	5 (45.5%)	1 (9.1%)	11 (100.0%)
Not applicable/appropriate	108 (38.8%)	61 (21.9%)	43 (15.5%)	5 (1.8%)	1 (0.4%)	1 (0.4%)	51 (18.3%)	8 (2.9%)	278 (100.0%)

was the one provided by Morgan and Ziglio.[15] '*A health asset can be defined as any factor (or resource) which enhances the ability of individuals, groups, communities, populations, social systems and/or institutions to maintain health and well-being and to help to reduce health inequalities'*. While the literature often refers to this definition, it is seldom used explicitly to guide the aims of studies. More recent definitions distinguish between health assets (pertaining to resources to individuals) and the health asset approach, which involves a systematic engagement with communities and systems stakeholders. For example, Morgan and Aleman-Diaz[36] offer a definition in the context of young people's health as *'a system which creates positive paradigms for building the capacities of young people to be active in their own development and strengthens their ability to connect to a range of networks that facilitate health and well-being gains for themselves and for others'*. However, problematically, the global health asset literature has thus far failed to explicitly contextualise these definitions across different disciplines. Roy asserts that despite the lexicon of health assets becoming more central to health policy discourse, there remains a lack of precision in operational definitions.[37] However, despite the variance in language, the commonality in the literature is that the approach is underpinned by theoretically driven positive concepts (such as salutogenesis or positive aspects of social capital) and the need to involve individuals and communities fully in the health development process.

How and where are health assets applied?

Health assets have been researched in a number of different settings, including community and care facilities, predominantly in Western countries such as the UK, the USA, Spain and Norway. The skew in terms of geography may also be due to the fact the term 'asset' does not translate sufficiently well to be used in some sociocultural and political contexts. Where research has been conducted in the African region, these studies have largely been assessments of religious health assets. Most studies have been conducted in the general population; however, a variety of different groups such as migrant communities, minor offenders and disadvantaged people have also been studied. The majority of the studies recruited mixed gender samples; only a few studies have focused solely on female or male populations. In terms of age, few studies have looked specifically at the health assets of older people. Among the few studies on individual health assets, the majority were focused on young people. Given the premise that health assets have the potential to contribute reductions in health inequalities, one would have expected a greater emphasis of the literature to be focused on vulnerable or low-income populations.

Health asset importance to health and well-being

A variety of interventions that take an asset-based approach have been implemented, including education and training, relationship interventions and physical activity. Although this review was not primarily concerned

with the effectiveness of interventions, based on existing research, it is evident that health promotion programmes that address the multilevel nature of health problems are more complex to conceptualise and implement, but are more likely to result in a lasting behaviour change.[38] There is also an inherent recognition that health assets research is interdisciplinary, and that strategies and practice must recognise this and be inclusive of all key stakeholders.

Overall, most of the literature frames the idea of 'health assets' within a positive paradigm that encourages us to think about how health can be '(co-)created' rather than how it can be 'fixed'. It is also clear from the literature that health assets have a range of meanings from the skills and competencies that individuals possess to those that can be used by communities to support the achievement of a vision for their health. These assets are external to the individual, but through a process can be brought together for health and well-being goals. The original premise of the health asset approach asserted less reliance on health services as individuals and communities take more control of their own health and work more collaboratively with health services leading to effective and equitable service.[39] While this premise remains, robust evidence to demonstrate this case is lacking. In addition, Friedli stated that in relation to asset-based approaches 'the fatal weakness has been the failure to question the balance of power between public services, communities and corporate interests'.[17]

While the intention of this review was not to conduct a comprehensive analysis of included studies, a number of themes arise from the included studies that are noteworthy. First, there is a clear distinction between those studies that focus on individual level assets (sometimes referred to as developmental assets)[40] and those studies, which describe the process of working with local communities (usually described in the context of co-production) to promote health. Both are legitimate in promoting a more positive approach to health, although interestingly, they seem to be developing as parallel entities when in fact they are inextricably linked. The question of how individual assets link to effective community development is largely missed.

Second, many of the sources provide a discourse on how to make the case for a health asset approach, although these are more generally based on theoretical assumptions rather than on robust evidence. While some authors argue for specific settings to be classified as health assets such as schools and religious establishments, others explain why concepts such as social capital and resilience have the potential to be health enhancing. Evidence to support these propositions is generally provided by cross-sectional studies exploring the association between individual assets and various health outcomes.

Third, all those studies that describe community-level working, stress the importance of finding appropriate means of involving people in the health development process. Many of the included studies report the use of asset mapping processes to do this, such as toolkits supporting newcomers to the area to implement the approach[41]; and descriptions of asset maps being created in local communities as a means of involving them in the process of health development. In the main, these studies focus more on the process of mapping assets rather than applying them to achieve a joint vision for health. The latter is well stated by McKnight as necessary to complete the process.[42]

Lastly, as Rippon and South remark the evidence base to demonstrate the added value of investing in a health asset approach is still in its infancy.[43] There have however been some attempts to synthesise what we know from evaluative initiatives,[44] but the evidence tends to sit at the case study end of evaluations or a case study approach. Our review included a few examples of individual asset-based evaluations.[45] This particular study was useful to illustrate qualitatively the processes involved in using an asset approach, however more research is needed to demonstrate the impact on health and related outcomes. In addition, asset-based research needs to be broadened to ensure findings can be replicated for different population groups and in different contexts. Roy *et al* provide a useful example of the types of research that are needed in their exploration of health assets, social position and health.[46]

Limitations of the reviewed studies

There are various limitations identified in relation to the reviewed studies. Missing or incomplete data were the most common identified limitation. Another important limitation was the small sample sizes and/or non-representativeness of the sample leading to limited generalisability of the study findings.

Furthermore, self-disclosure effect, recall bias and non-response bias have resulted in poor internal validity of some of the study findings. The cross-sectional nature of the majority of included studies hindered eliciting temporal association between the studied variables. Some of the included studies lacked robust data analysis and many of the studies did not include potential cost evaluations of the reported intervention programmes.

Limitations of this review

We fully acknowledge that a major limitation to this review is the exclusion of crucial literature that technically falls under the 'health asset' or 'asset-based approach to health' umbrella (such as 'salutogenesis', 'resilience', 'sense of coherence', 'health systems strengthening') because papers did not self-identify as 'health assets' and did not explicitly mentioned 'health' and 'assets' in either the title, abstract, keywords, executive summary or in some instances, in the article's content. There are a number of other limitations of this review. First, as our searches were developed iteratively and the search terms kept broad, there may be the possibility that some relevant research and grey literature was missed, either because of deficiencies in our searches or because of publication bias. For some of the search terms, the exact quoted phrases were

not identified in the electronic searches. Nonetheless, the yielded search results might have included literature that may be indirectly reared to the concept being evaluated in the review. This review may therefore be subject to a selection bias, including language bias. Most papers included in this review are considered to be of a modest level of evidence and therefore findings are subject to some constraint.

Implications of findings

There is a clear paucity of exploratory and intervention research and evaluation of actions that aim at strengthening health assets as a way of (co-)producing and sustaining healthy individuals, communities, organisations, policies and systems. In particular, there is a lack of purposeful large-scale, high-quality empirical research conducted in this area. Further research is also needed to assess potential causal relationships between assets and behaviours, each individual health asset and any moderating factors and the linkages and relationships between different assets towards providing a theory of change and/or logic model. Experimental and/or longitudinal studies would be required to determine the direction between developmental assets, health-promoting behaviours, sickness and rehabilitation.

There is also a potential and a need for applied realist research to understand the diverse range of health assets and to understand the interactions between the contexts, mechanisms and outcomes where an intervention has been implemented, in particular, those proximal and distal contextual factors, or other factors, which make programmes work and are not transferrable between contexts or populations.

CONCLUSION

This study identifies, describes and examines a range of health asset-related peer-reviewed and grey literature in order to understand the approaches and associated methodologies which have been developed and adopted in practice. We reviewed the literature around health assets (as development or practice), what research has been conducted, how it was done and where and their importance.

The present review provides some support for claims that the concept of health assets is becoming increasingly popular and it has been researched in a number of different settings and populations throughout the world. The global literature most often referred to general 'health assets' or 'assets', or some form of 'community asset' in relation to health, rather than focusing on specific health assets.

The review suggests that there is a substantial geographical variation in the study settings, with a plethora of research being conducted in high-income countries focusing on the general population in community settings.

While traditional public health models are important, they could and should be complemented by addressing assets, whose factors develop resilience and promote positive health and well-being within the community as well as contribute towards sustaining health. Overall, the authors believe that the health asset literature is underdeveloped and its sustained credibility depends on future research dealing with definitional, theoretical and evaluative issues in order to convince policy-makers and commissioners of services that it adds value to the more traditional deficit approach.

Thus, this review provides a useful starting framework to organise these assets and to identify key areas of future work.

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