



WELL-BEING AND HEALTH OF PEOPLE AND PLACES

A systematic review of co-designed community interventions to improve well-being and the assessment of the tools utilised

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Abstract: Both the interventions and the outcomes regarding overall health have shifted their focus to a holistic appreciation of well-being. This review aims to investigate the evidence of co-designed interventions found in the community for the improvement of well-being as an update to a recent systematic review. The tools used to evaluate well-being in such studies will also be assessed. An updated search strategy was performed and identified 1409 papers with 37 included in the review and 4 additional papers from the earlier review. The characteristics of the community interventions were reported. The measurement tools used across the studies were mapped and the properties of the quantitative tools were compared using a scoring system. The qualitative and quantitative approaches have their own sets of strengths, as do the individual quantitative tools.

Keywords: well-being, community, co-design



1 Introduction

1.1 Well-being as an outcome

Increasingly health is measured not purely by the number of years lived, but rather by the quality of life during those years, which is increasingly recognised by economic evaluations (Whitehead, 2010), the Global Burden of Disease project (Murray 2013), and beyond. To varying extents, an individual's well-being can be a proxy for life expectancy and more traditional outcomes (Phyo, 2020).

Well-being interventions in the form of social prescribing have gained popularity alongside measurements of well-being. Social prescribing refers to community activities or support for the improvement of health. Such a scheme was rolled out across England, which intended to “prescribe” to 900,000 individuals by 2023-24 (NHS England, 2022).

This project was among 3000 studies cited by the World Health Organisation's report on the role of arts in improving health (WHO, 2019). The report acknowledged the benefit of social prescribing and recommended projects were developed using participant collaboration. This concept is known as co-designed or co-produced depending on the stage at which it occurs. A participatory approach allows the community activities to be sensitive to context, shares power, and provides practical knowledge (Loewenson, 2014). The WHO's report represents a larger movement in medicine that recognises the role of social factors on health with the recent example of the National Institute for Health and Care Excellence's (NICE) guidance to prescribe exercise before antidepressants in mild to moderate depression (NICE, 2021). This opportunity to improve health and well-being at a “pre-primary care” level in communities could improve outcomes, create savings and identify efficiencies in the system (Le, 2021).

1.2 Relevant literature reviews

In 2015, a systematic review was published (Dronavalli, 2015) that compared community interventions to improve well-being and then compared the quantitative assessment tools using a scoring system. Then in 2021, a systematic review was



published (Thomas, 2021) that focused on the importance of a co-designed community intervention without scoring the properties of the measurement tools.

1.3 The new strain on well-being

There are concerns about how the COVID-19 pandemic has affected the population's well-being by eroding many of the fundamental principles of well-being; lockdowns intensified loneliness; new financial hardships arose; hopefulness was dulled by fresh anxiety. In the face of this, communities have addressed this need for well-being both since and prior to COVID-19. New evidence has accumulated since the most recent review requiring evaluation, especially since the context of the pandemic may intensify and change the needs of the community. Both the studies from this search and those found in the review of 2021, as well as their well-being measurement tools, need comparing and assessed. Such a scoring system will appreciate the use of co-design.

1.4 Aims

This review aims to investigate the evidence of co-designed interventions found in the community for the improvement of well-being as an update to the recent systematic review (Thomas, 2021), followed by an assessment of the tools used to evaluate well-being in the included community interventions.

2 Methods

The search strategy (see *Table 1*) was based on the strategy found in the 2021 review (Thomas, 2021), utilising the most relevant terms. The following databases were searched: Sociological Abstracts, PubMed, Cochrane, Web of Science and Google Scholar (August 2020 to March 2022). This protocol was not listed on the PROSPERO register because it is an update to an earlier version.



Term 1 (OR)	AND	Term 2 (OR)	AND	Term 3 (OR)	AND	Term 4 (OR)
Community		Social prescribing Intervention Program Art Music Nature Wilderness Language		Co-design Working together Engagement User-led User involvement Action research Participating research Collaboration		Well-being Quality of life Mental health

Table 1 – Breakdown of the search strategy according to the search terms.

Studies were selected through a three-stage process applying the inclusion and exclusion criteria. The inclusion criteria refer to activities with a social component, intended to improve well-being, original article/organisational report, intended to occur in person, results were reported, well-being specifically was measured, including adults (intergenerational papers accepted too), and the activity was codesigned. The exclusion criteria refer to digital platforms, individual tasks with no social component, participants were not involved in the design or only realist evaluation, only well-being-related measures used (for example sense of community), activity was delivered alongside medication/psychotherapy, and children only. The first researcher performed the initial search and selection. Two other independent researchers arbitrated on uncertain papers. The studies in the previous review (Thomas, 2021) which met the inclusion criteria were reported separately.

The measurement tools used across the studies were mapped. The properties of the quantitative tools were compared according to well-being measures, global assessment, subjective measures of well-being, clarity, language, cost, length, co-design, Cronbach’s alpha (internal consistency), validity and test-retest (reliability). When the property was fulfilled by the tool there would be an ‘X’ entered into the corresponding box. Whereas it remained empty if the measure failed to meet the criteria or there was a lack of information available.

The row for ‘Well-being measure’ refers to well-being consulted specifically rather than a tool that only has related concepts; global assessment refers to a variety of the underpinning domains covered (such as interpersonal relationships or environment);

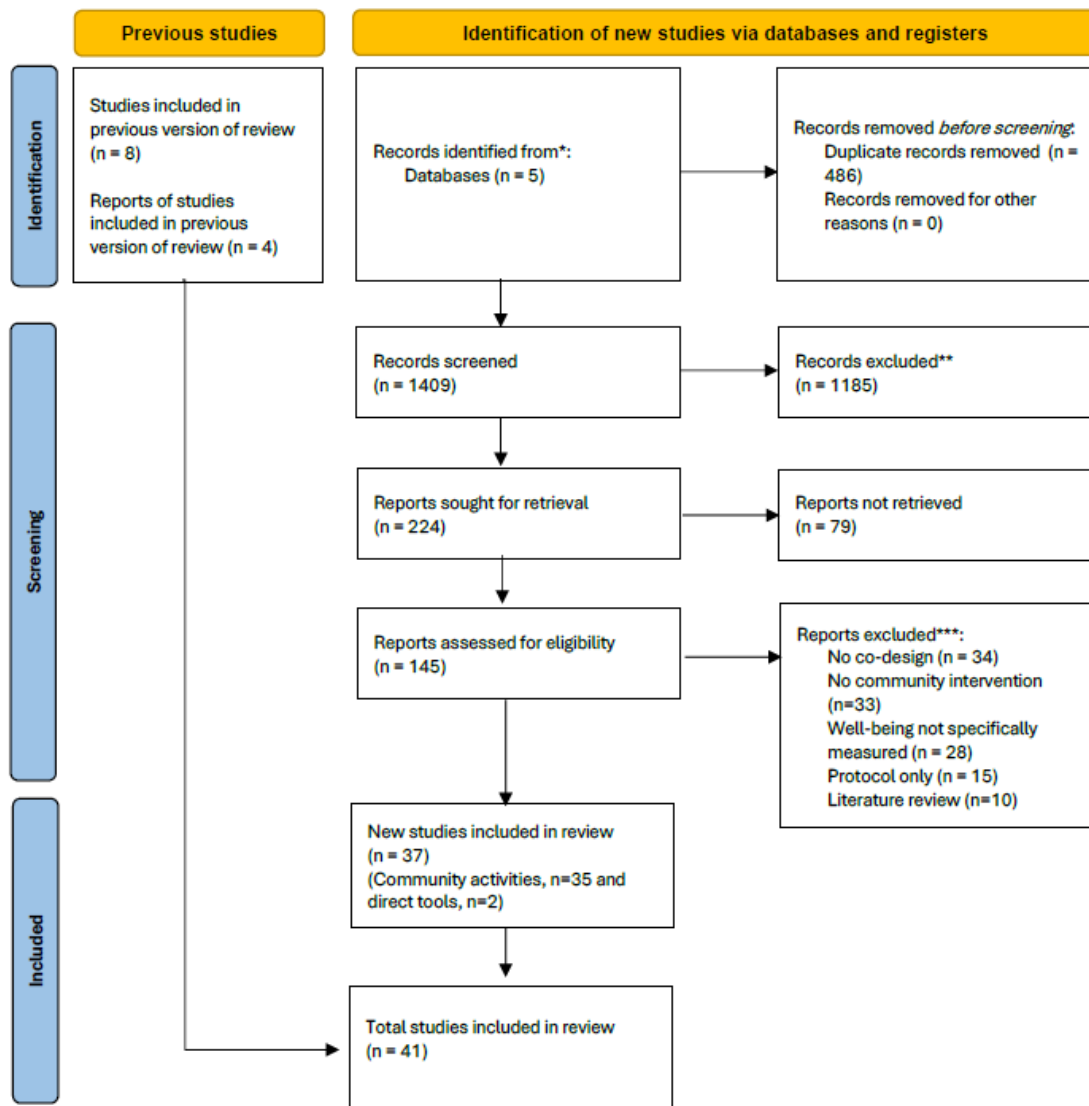


the subjective measure of well-being refers to the opportunity for the participants to define well-being themselves or chance to score well-being directly without the researchers' inference. Clarity refers to straightforward questions understood by low to average reading ages. Languages refer to at least one additional translation. The length refers to questionnaires of ≤ 20 items. Co-design was fulfilled if the participants were involved in the initial stages of development rather than consulted later. Cronbach's alpha provides information on the internal consistency and required a value of >0.7 . Cost refers to tools that are free online or by licence request. Validity was fulfilled if at least 2 factors to suggest sound validity were mentioned. Finally, test-retest provides information on reliability and required an Intraclass Coefficient (ICC)/correlations of >0.7 or $k > 0.6$.

3 Results

The search yielded a result of 1409 after duplicates were removed. 224 abstracts were reviewed followed by 145 full articles. 37 studies were included in this updated search (35 were community activities and two were papers that directly discussed the development of well-being measurement tools, see *Table 2*). A further four papers came from the 2021 systematic review (Thomas, 2021) that satisfied the criteria, see *Table 3*. A total of 39 community activities were compared and 41 papers were included overall, see *Figure 1*.

(continued overleaf)



*Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/registers).

**If automation tools were used, indicate how many records were excluded by a human and how many were excluded by automation tools.

***Some papers had multiple reasons for exclusion.

Figure 1 – Flowchart of studies selected for the updated review (community activities and measurement tools) (Page, 2020).

33 studies were case studies with six being sequential in nature. There were also four randomised control trials, one non-blinded non-randomised trial, and one cohort study.

The following activities were documented, often as a combination: creative arts (n=12), sport/leisure (n=12), gardening (n=10), nature engagement (n=4), volunteering (n=3), social support groups (n=3), singing (n=3), spiritual activities (n=2), making local



infrastructure/environment decisions (n=2), and other activities (n=15), see *Table 2* and *Table 3*.

The description of co-design varied among the studies, often with multiple strategies (see *Tables 2* and *3*). Eight studies were facilitated by non-researching staff in the field, with the examples of teachers and a labour union (Keisari, 2020 and Aceros, 2013). Six studies evaluated existent activities rather than new interventions. Advisory groups or individuals acted as a bridge between researchers and participants (n=10). Co-design also took the form of training peer supporters (n=4), data analysis (n=2), and other methods (n=12) or a less detailed description (n=12).

Of the 39 community interventions, 21 used qualitative analysis only, nine quantitative analysis only, and nine mixed methods. Across these styles of analysis, studies would use multiple well-being measurement tools (n=19).

Regarding qualitative analysis, 21 studies used interviews (see *Figure 2*) which were either analysed by thematic analysis, cited direct quotes, or micro-narrative analysis. Thirteen studies used a method closer to a focus group or open discussion (see *Figure 3*). There were also photovoice, open-ended questionnaires, and the use of diary manuscripts (see *Figure 4*).

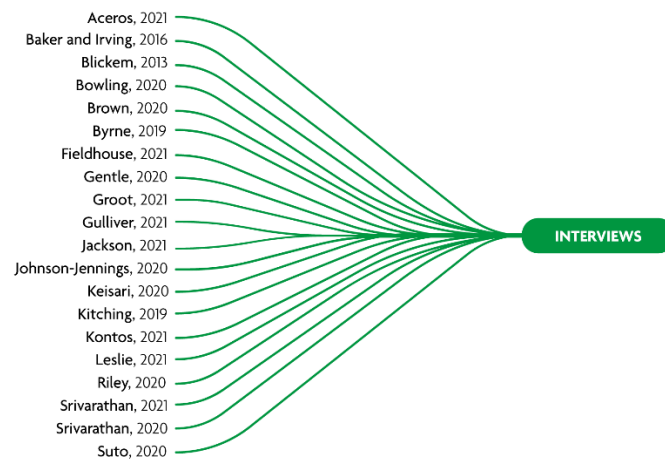


Figure 2 – Map of interviews used in studies. (Camlin, 2020 is not featured.)

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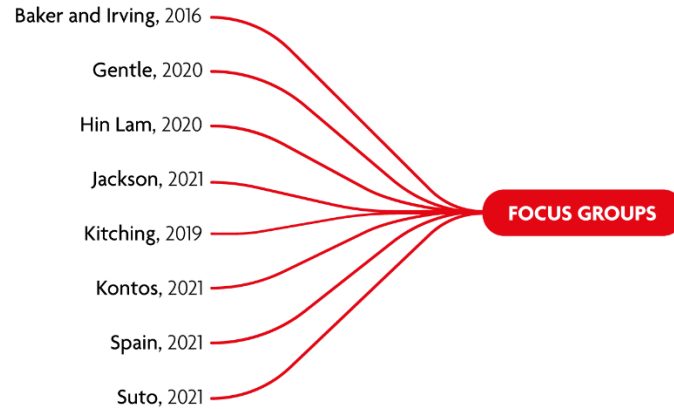


Figure 3 – Map of focus groups used in studies. (Camlin, 2020 is not featured.)

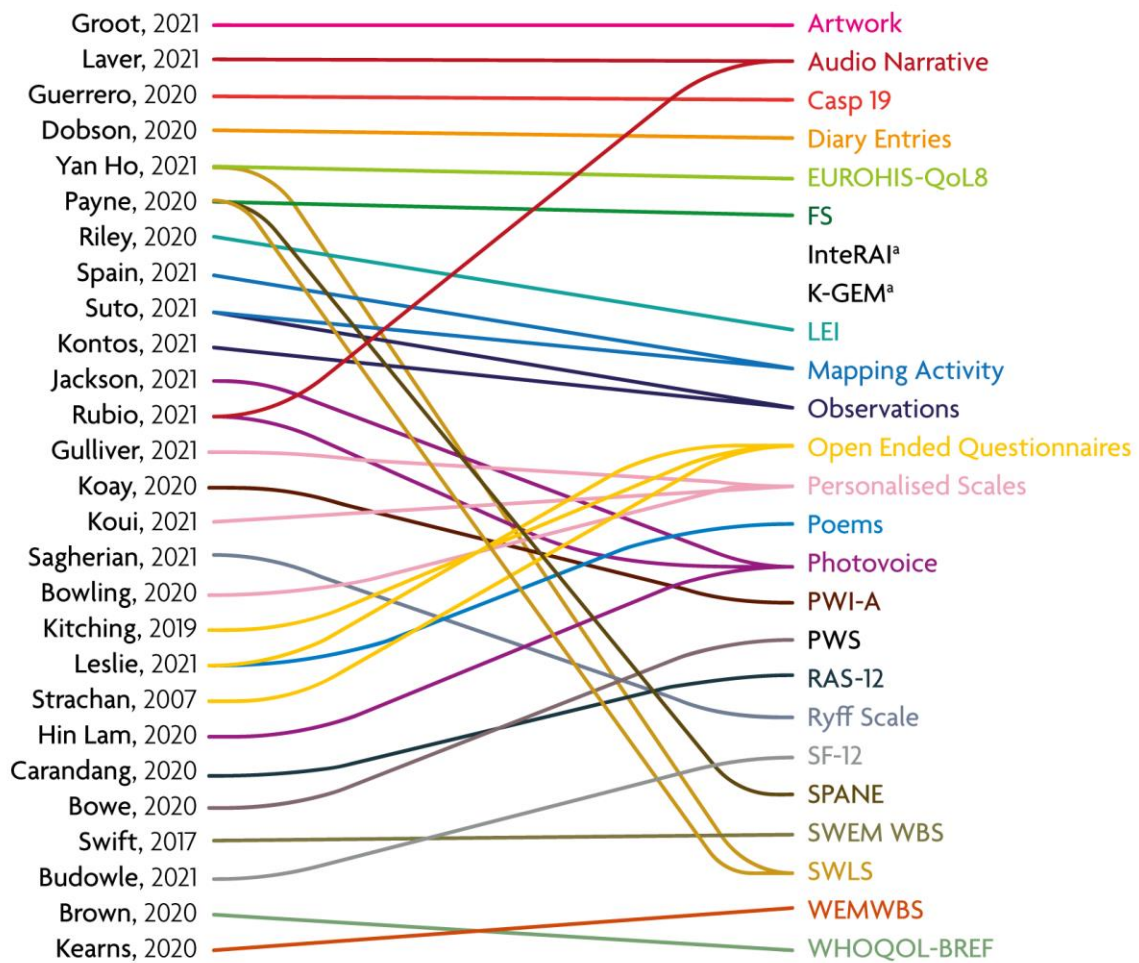


Figure 4 – Map of other tools used in studies. (InteRAI and K-GEM were not used in the studies but rather identified directly from the search strategy. Camlin, 2020 is not featured.)

Regarding quantitative analysis, the World Health Organization Quality of Life Questionnaire–BREF (WHOQOL-BREF, n=2) and the Satisfaction with Life Scale (SWLS, n=2) appeared more than once. The other tools found in the community interventions



were the needs satisfaction model called CASP, WHO Quality of Life Scale-8 (EUROHIS-QoL-8), Flourishing Scale (FS), Life Evaluation Index (LEI), Personal Wellbeing Index—Adult (PWI-A), Psychological Well-being Scale (PSW), Scale of Positive and Negative Experience (SPANE), Short Form (SF)-12, 12-item Resilience Appraisal Scale (RAS-12), the Ryff scale, the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) and the shortened version (SWEMBS). Other studies constructed their own questions and used a Likert or similar scale (n=2). The interRAI and the Kanien'kehá:ka-Growth and Empowerment (K-GEM) tools were directly identified from the search. See *Figure 4* and *Table 4*.

4 Discussion

4.1 Summary of the main findings

The increased sharing of results from co-designed community interventions has shown varied activity types and measurement tools.

15 quantitative measurement tools were identified. The highest scoring tool, with all 11 properties, was the PWI-A and EUROHILS-QoL-8. 3 other tools fulfilled 10 out of the 11 properties: SWLS, WEMWBS, and SWEMWBS with co-design unfulfilled. It is important to note that WEMWBS and SWEMWBS did consult laymen in the later stages of tool development. This could be considered closer to tokenism rather than a truly participatory approach to Arnstein's Ladder of Citizen Participation (Arnstein, 1969). This potentially is not a priority for future community groups and as such can be valued the same as EUROHIS-QoL-8 and PWI-A. Only 6 of the tools fulfilled the co-design property and only 8 achieved the test-retest required. Global assessment and clarity were the most commonly achieved properties (14/15).

For this same reason, some tools may have fulfilled fewer properties yet are useful tools in their own respects. Although the K-GEM tool is one of the longer questionnaires with the most complex sentences, in the context of English-speaking adults without any literacy limitations it could be an ideal option. Their unique approach of asking participants how they would react to scenarios gives a deep, personalised measurement of well-being.



Although the quantitative tools allowed a direct comparison of the different properties, it does not take away from the strengths of the qualitative tools. Semi-structured interviews were the most common form of measurement. They mimic a conversation allowing for the priorities of the participants to be highlighted. The use of photovoice does not require the same understanding and provides a visual representation of their experience. Outputs such as photovoice, artwork, and poetry then can be displayed in an exhibition if this is a goal for the community.

4.2 Clinical implications

Table 4 is intended to act as a summarised comparison of quantitative tools which is easy to engage with. The properties that were compared are only suggestions relying on previous literature (Dronavalli, 2015). In reality, readers can decide which properties align with the objectives of their project.

4.3 Strengths and weaknesses

The simplicity of *Table 4* allows for a wider background of readers to utilise it while equally at risk of overlooking important nuances of the measurement tools. The dichotomous nature of evaluating the properties with an *X* entry means tools with a correlation of 0.6 and 0.2 were treated the same. Specific questions that are suppressing the tool's correlation could be easily omitted. There is future scope for community interventions to utilise the most helpful questions from a combination of different measurement tools.

Multiple domains underpin well-being such as spirituality and relationships (Butler, 2019). These reflect on the changing influences on one's well-being and the review captured a large array of domains. A combination of these domains could act as a proxy measurement for well-being. However, it is unclear which domains or which combination would be a sufficient well-being measure. For this reason, the community interventions and their tools that did not specifically consider well-being were excluded. Difficult decisions were also made about what constitutes a community activity. Digital platforms were excluded as an intervention since their interpretation of community differs significantly however it is an opportunity for interesting electronic outputs.



It appears the review being updated by this search (Thomas, 2021), only included papers based in the United Kingdom. The methods and discussion did not specify or explain this approach. It means the international literature prior to 2020 remains unreported by this review.

4.4 Future implications

A proportion of the empty boxes in *Table 4* are the result of a lack of information rather than a proven failure of the tool. Further psychometric evaluation is required for a complete comparison. The next stage is to map which domains are covered by which tools with a psychometric evaluation of individual questions. This could provide a greater understanding of why some tools performed better than others. Future community projects could be developed with members selecting “the best” parts from different tools that they value and are sensitive to context.

5 Conclusion

The well-being community interventions that were identified since August 2020 have adopted a variety of activities and measurement tools. The qualitative and quantitative approaches have their own sets of strengths, as do the individual quantitative tools according to psychometric evaluation, capturing the concept of well-being and accessibility for different populations.



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Table 2 – Table of characteristics of community projects from current search (2022)

Author, year	Design and methods	Use of co-design	Community activity	Participants and context	Measurement of well-being
Aceros, 2021	Case study. Qualitative analysis using interviews.	Carried out with the Association of Domestic Workers of Seville (ADWS).	Activism activity.	Female migrant domestic workers. Southern Spain.	Thematic analysis and direct quotes from semi-structured interviews.
Bowe, 2020	Case study. Quantitative analysis using online surveys.	Those who answered the survey were self-determining 'to what extent they engaged in helping others.	Volunteering to help people during the COVID-19 pandemic.	Adults recruited through academic profiles and paid £3.75 to complete an online survey. Across England.	Four-item Personal Well-being Score.
Bowling, 2020	Case-study. Mixed methods.	The community partner's leadership (two individuals) reviewed the guide and survey and made edits.	Social support and community engagement of a transgender group.	Adults identifying as other than cisgender and were English speakers. Charlotte, USA.	Qualitative analysis used thematic analysis from semi-structured interviews. Quantitative analysis used Thinking about the last 6 months, how would you rate your MENTAL health?
Brown, 2020	Case study. Mixed methods.	The design and implementation project was done with Native American community members. The interviewers were also Native American.	Gardening.	Local resident adults who are knowledgeable about gardening. Northern Plains American Indian reservation. Montana, USA.	Qualitative analysis used thematic analysis and direct quotes from semi-structured interviews. Quantitative analysis used the World Health Organization Quality of Life Questionnaire–BREF (WHOQOL-BREF).
Budowle, 2021	Randomised control trial. Mixed methods with multiple sources.	Gardens were co-designed. The 'menu' option allowed that arm to decide. The interviews alongside the SF-12 allowed well-being needs to be identified.	Group 1: gardening Group 2: they had the 'menu' option where they could choose between cooking classes, farmers' market gift certificates, and home gardens.	Adults with at least 2 self-identified chronic conditions who have not kept a food garden of at least eight square feet before. Wyoming, USA.	Short Form (SF)-12 × 2 [®] of the SF-36.
Byrne, 2019	Cross-sectional serial surveys for a case study. Mixed methods.	Participants designed the suburban walking maps.	Active Launceston program – a variety of sports and physical activities.	Youth from deprived communities from a variety of languages and cultures who are at risk of chronic condition or disability and those recovering from illness or injury. Tasmania, Australia.	The qualitative analysis used semi-structured interviews, whereas quantitative analysis did not measure well-being.
Camlin, 2020	Case study. Qualitative analysis.	The activities were led by musicians and participants	Singing group outdoors.	Members of singing groups. Lake District, England.	Thematic and micronarrative analysis of:



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		were recruited from the existent 'Fellowship of Hill and Wind and Sunshine'.			<ul style="list-style-type: none"> - Sensemaker app (diary manuscripts, photo and video recording) - Interviews - Focus groups <p>They compared their experience to 6 principles of well-being.</p>
Carandang, 2020	Non-blinded non-randomised trial. Quantitative analysis.	Local volunteers trained as peer support (counselling) and leadership.	Social events: dancing, educational talk, group discussion/activity, interactive games, and karaoke.	Senior citizens. Muntinlupa, Philippines.	12-item Resilience Appraisal Scale (RAS-12).
Dobson, 2020	Case study. Qualitative analysis from gardening diaries.	Responsibility for how the allotment is kept and the associated activities.	Allotment gardening, sharing of food produce, knowledge exchange, awareness, and interaction with wildlife.	Allotment Gardner's. Across England and Wales.	Evaluation of unprompted comments from diaries.
Fieldhouse, 2021	Case study. Qualitative analysis from interviews.	The Forest garden is owned and managed by the community participants so controlled decision making.	Planting fruit trees and bushes. Used Welsh language among participants.	Users of the Community Forest Garden. Pembrokeshire, Wales.	Direct quotations from interviews.
Gentle, 2020	Case study. Qualitative analysis from multiple sources.	Activities were planned and reflected on by participants.	Arts project.	Used two art groups that already existed for people who are neurodivergent or had a brain injury. New South Wales, Australia.	A thematic analysis of the following combination: <ul style="list-style-type: none"> - 'Think aloud' groups - Researcher observations - Unstructured interviews
Groot, 2021	Case-study. Qualitative analysis from multiple sources.	a participatory design with narrative- and arts-based inquiry. Participatory members researched to design the project and interpretation of results.	Arts-based projects (dance, music, singing, theatre, visual arts, video, and spoken word).	Community-dwelling older adults. Locations across the Netherlands.	Micro-narrative analysis (SenseMaker software) from informal interviews and narrative sharing, alongside direct quotes, created a book per art project.
Guerrero, 2020	Randomised controlled trial. Quantitative analysis from surveys.	Leaders of the senior centres were trained to lead and evaluate.	Aspects of ageing: exercise, healthy relationships, and community engagement.	Members of senior centres. Los Angeles, USA.	CASP-19.
Gulliver, 2021	Pilot feasibility trial (also reported on outcomes). Mixed methods.	All participants are "co-facilitators". Residents requested songs. The evaluation was completed by staff, family, and community members.	Music Engagement Program (MEP).	People living with dementia in a residential aged-care nursing home. Canberra, Australia.	Qualitative analysis used interviews with staff, family, and community members. Quantitative analysis used: <ul style="list-style-type: none"> - Answer "how emotionally well are



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					<p>you feeling?" from a WONCA chart</p> <ul style="list-style-type: none"> - Staff observations with a Cornell Scale of depression in dementia
Hin Lam, 2020	Case study. Qualitative analysis.	Shared the power to decide research questions, decision-making, and use of data (Photovoice). One of the participants contributed to data analysis.	Photovoice project.	Autistic young adults in a post-school transition program. Hong Kong.	Thematic analysis from photovoice and weekly discussions.
Jackson, 2021	Case study. Qualitative analysis from multiple sources.	Participants made recommendations and engaged other participants in the program.	Photovoice.	English-speaking adults who lived in the local housing estate. Grange Park, England.	Thematic analysis and direct quotes from: <ul style="list-style-type: none"> - Photovoice and subsequent exhibition - Semi-structured interviews - Focus groups
Johnson-Jennings, 2020	Pilot feasibility trial (also reported on outcomes). Qualitative analysis using interviews.	Co-developed by the United Houma Nation. The lead researcher was a tribal citizen himself.	Cultural activities connected to the land such as walks, food habits, and yoga/reflections at sunrise.	Members of the United Houma Nation. Louisiana, USA.	Thematic analysis and direct quotes from interviews.
Kearns, 2020	Cohort study. Quantitative analysis.	Community Plannary Partnerships.	Housing regeneration and community empowerment separately (through Community Planning Partnerships).	Adult households in disadvantaged communities (15% most deprived nationally) all with a social housing share above the city rate. Glasgow, Scotland.	Mental wellbeing (WEMWBS)
Keisari, 2020	Case study. Qualitative analysis.	Participants controlled the creative process and were led by a drama teacher alongside researchers.	Drama improvisation.	Older community-dwelling adults. Urban neighborhoods, Israel.	Semi-structured interviews focused on important points in the creative process that felt could be influential on the participant's experience.
Kitching, 2019	Case studies – cross-case analysis. Qualitative analysis.	Activities led by the teacher. Support groups are composed of teachers, students, and parents. Participants decided what would make the program sustainable.	Activities led by the teacher.	Secondary school students from deprived backgrounds. Western Cape Province, South Africa.	Thematic analysis and direct quotes from: <ul style="list-style-type: none"> - Semi-structured interviews - Focus groups - Questionnaire (with open-ended questions)



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Koay, 2020	Cross-sectional study. Quantitative analysis from surveys.	Physical activities organized by the Community Clubs, Residents' Committees, and Neighbourhood Committees.	Gardening.	Members of gardening groups. Singapore.	Personal Wellbeing Index—Adult (PWI-A).
Kontos, 2021	Sequential case study. Qualitative analysis from multiple sources.	Participants created the narrative of the dances	Dance programmes.	Residents with dementia in residential long-term care homes and their family carers. Manitoba, Canada.	Thematic analysis from: <ul style="list-style-type: none"> - Participant observation - Video recordings - Focus groups - Interview
Kou, 2021	Case study. Quantitative analysis from online surveys.	Designing and implementing the “Seeding Plan”.	Gardening.	Community-dwelling residents. Shanghai, China.	The online survey asked participants about different aspects of quality of life and community. They answered from -4 to +4, with -4 indicating the severest negative change and +4 indicating the severest positive change.
Laver, 2021	Case study. Qualitative analysis with storytelling.	Participants develop the pieces for the art show on their own accord, with researchers attending for observation. Participants decided their own personal parameters of recovery.	Use of an art and music studio ending with a showcase to display their work.	Referrals from adult and child mental health services. London, England.	Storytelling of their own experiences.
Leslie, 2021	Case study. Qualitative analysis from multiple sources.	Activities designed by St Nick’s environment centre.	Ecotherapy – engaging in nature, walking, gardening, and creative writing. During times of lockdown activities including ‘well-being’ calls happened via telephone and online.	Users of the St Nick’s environment centre. North Yorkshire, England.	Interviews, open-ended questionnaires, and poems.
Payne, 2020	Randomised controlled trial. Quantitative analysis from multiple sources.	A collaborative project between researchers and organisations that link volunteers to those needing assistance.	Volunteering.	Adults with traumatic brain injury. USA.	<ul style="list-style-type: none"> - Satisfaction With Life Scale (SWLS) - Flourishing Scale (FS) - Scale of Positive and Negative Experience (SPANE)
Riley, 2020	Sequential cross-sectional study. Mixed methods.	Blue Zone Projects are launched and led by the community itself.	Blue Zone Project – community members	Adult residents of beach cities. Hermosa, Manhattan and Redondo Beach, USA.	<ul style="list-style-type: none"> - Life Evaluation Index (LEI)



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			motivate one another to live healthier lives.		- Supplemented with interviews
Rubio, 2021	Case study with sequential explanatory design. Mixed methods.	'Our voice' process of advocacy of community members influencing uptake and impact.	Physical activity classes.	Adults using the Recreovi 'a physical activity classes. Santa Isabel Park and San Andres park. Colombia.	Mobile data-gathering application to document experiences with: <ul style="list-style-type: none"> - Photographs - Audio narratives - Walking routes.
Sagherian, 2021	Longitudinal study of the existent program. Quantitative analysis.	These were activities they were already doing by their initiative without intervention from researchers.	Volunteer work, unpaid care, social participation, online networking, and physical activity.	Medicare beneficiaries aged ≥65. Across the USA.	Psychological Well-Being Scale.
Sommerfeld, 2021	Case study. Qualitative analysis using interviews.	Programme came from a community member. The interviews of community members were structured around his experience.	Traditional outdoor activities with spiritual components.	Indigenous members with a history of trauma and substance abuse, Northern Ontario	Interviews with thematic analysis.
Southwell, 2021	Case study. Qualitative analysis from interviews.	The pizza oven at the centre of the project was designed and built by the community group.	Gardening, feeding animals, and cooking with the produce – "Family Feast Pizza Oven".	Residents from deprived communities with any of the following: physical disability, domestic abuse, sexual violence, substance abuse, or long-term mental health problems. Bath and North East Somerset, England.	Direct quotations from interviews.
Spain, 2021	Case study. Qualitative analysis from multiple sources.	Participants led the activities. They then created a visual map to evaluate the impact and interviewed one another.	"Wheel of Well-being" framework of activities provided by trained trainers such as yoga and gardening.	Participants who had completed any of the three levels of WoW training delivered it. Logan and Southern Moreton Bay Islands, Australia.	Thematic analysis from: <ul style="list-style-type: none"> - Focus groups - Whiteboards for mind-mapping
Srivarathan, 2020	Case study. Qualitative analysis from interviews.	Community figures recruited more participants. Community interventions are designed with community members (8 representatives). Also evaluated the program.	Community seminar and outings (zoological garden, bus trip, castle, and museum).	Adults living in socially deprived social housing areas. Copenhagen, Denmark.	Thematic analysis and direct quotes from semi-structured interviews.
Suto, 2021	Case study. Mixed methods from multiple sources.	Project decisions made with Project Advisory Group that included 6 of the participants.	Gardening.	19 years old or older adults with mental health issues. British Columbia, Canada.	The qualitative analysis used thematic analysis and an iterative process with words treated as codes, using: <ul style="list-style-type: none"> - Semi-structured interviews



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					<ul style="list-style-type: none"> - Participants observations - Focus group - Mapping activity <p>The quantitative analysis used :</p> <ul style="list-style-type: none"> - WHO Quality of Life Scale-BREF (WHOQOL-BREF)
Yan Ho, 2021	Randomised control trial. Mixed method from multiple sources.	Participatory Action Research (PAR) approach.	Art and storytelling.	Residents of all ages to create elder-youth pairs. Singapore.	<p>The qualitative analysis used focus groups.</p> <p>The quantitative analysed used:</p> <ul style="list-style-type: none"> - Quality of life was measured by the 8-item WHO Quality of Life Scale-8 (EUROHIS-QoL-8) (Rocha et al., 2012) - Satisfaction with Life Scale (SWLS) (Cheung and Lucas, 2014).



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Table 3 – Table of characteristics of community projects from previous search (Thomas, 2021)

Author, year	Study design and methods	Use of co-design	Community activity (intervention)	Participants and context	Wellbeing measure
Baker and Irving, 2016	Case study. Qualitative analysis from multiple sources.	Developed between a Primary Care Trust and Community Arts Organisation.	Art groups.	People living with early-onset dementia at risk of depression and their family members linked to the organization. North West England.	Thematic analysis from: <ul style="list-style-type: none"> - Semi-structured interviews - Focus groups - Observations of Steering Group meetings
Blickem, 2013	Case study. Qualitative analysis from multiple sources.	Service users developed pilot and evaluation.	Created communities and networks as a source of support as well as health education.	Individuals living with long term conditions attending health and well-being support groups. Greater Manchester, England.	Thematic analysis and direct quotes from 'think aloud' interviews.
Strachan, 2007	Case study. Qualitative analysis (the paper itself was mixed methods but only qualitative analysis used for well-being measurement).	Qualitative analysis was used for the measurement of well-being with open-ended questions.	Tailor Made Leisure Package.	Applicants over 16 years of age, specifically encouraged among disadvantaged groups. Across, Scotland.	Qualitative analysis used open-ended questions in the survey.
Swift, 2017	Case study, Quantitative analysis (the paper itself was mixed methods but only quantitative analysis used for wellbeing measurement).	Local well-being enterprises collaborated with GP surgeries to develop the social prescribing. A community wellbeing officer worked in the surgeries.	Singing, dancing and knitting clubs alongside education about personal coping strategies.	Patients registered to the included GP practices. Halton, England.	Quantitative analysis used subjective well-being scores (SWEMWBS).



Table 4 – Comparison of quantitative measurement tools for wellbeing

	WHO Quality of Life Scale-8 (EUROHIS-QoL-8)	Personal Wellbeing Index—Adult (PWI-A)	Life Evaluation Index (LEI)	Subjective wellbeing (SWEMWBS)	Mental wellbeing (WEMWBS)	Satisfaction With Life Scale (SWLS)	WHO on Quality of Life (WHOQOL-BREF)	Flourishing Scale (FS)	Short Form (SF)-12 × 2 [®] of the SF-36	CASP-19	Scale of Positive and Negative Experience (SPANE)	Ryff scale	InterRAI	Personal Wellbeing Scale (PWS)	Growth and Empowerment (K-GEM)	12-item Resilience Appraisal Scale (RAS-12)
Well-being measure	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Global assessment	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
Subjective measure	X	X	X	X	X	X	X	X	X				X	X	X	
Clarity	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
Language	X	X	X	X	X	X	X	X	X	X	X		X			X
Cost	X	X	X	X	X	X	X	X		X	X	X		X	X	X
Length	X	X	X	X	X	X			X	X	X	X		X		X
Co-design	X	X	X				X					X	X	X	X	
Cronbach's alpha	X	X	X	X	X	X		X		X	X	X	X	X	X	
Validity	X	X	X	X	X	X	X	X	X							
Test-retest	X	X		X	X	X	X	X	X							

Well-being measure refers to well-being as a concept being specifically covered.
 Global assessment refers to multiple domains of well-being covered (for example sense of community, relationships, ...)
 Subjective measurement refers to the opportunity for the participants to define well-being themselves or the chance to score a direct well-being question without relying on researchers to infer.
 Clarity refers to sentences not being clunky in nature or using complex terms.
 Languages refer to at least one additional translation.
 Cost refers to a tool that is either free to download or there is a free licence request for research.
 The length refers to a size of ≤20 items.
 Co-design refers to tools in which the participants were involved in the initial stages of development rather than consulted later on.
 Cronbach's α refers to the internal consistency of a tool, i.e., how much does each question relate to one another (>0.7).
 Validity refers to a combination of how well the tools manage to detect issues of well-being when they are present and distinguish issues of well-being from other issues (i.e., specificity and sensitivity).
 Test-retest provides information on the reliability of the tool (ICC/correlation>0.7 or k>0.6).
 Each grey box represents the criteria that was not met or the information was not provided.