

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/280120091>

Social capital and common mental disorder: A systematic review

Article in *Journal of epidemiology and community health* · July 2015

DOI: 10.1136/jech-2015-205868 · Source: PubMed

CITATIONS

116

READS

999

2 authors:



Annahita Ehsan

University of Lausanne

8 PUBLICATIONS 132 CITATIONS

[SEE PROFILE](#)



Mary De Silva

Wellcome

89 PUBLICATIONS 5,406 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



Community-based Rehabilitation Intervention for people with Schizophrenia in Ethiopia (RISE) [View project](#)



The Swiss National Centre of Competence in Research LIVES – Overcoming vulnerability: Life course perspectives (NCCR LIVES), Individual project (IP) 212 – Relationships in later life [View project](#)

Social capital and common mental disorder: a systematic review

Annahita M Ehsan,^{1,2,3} Mary J De Silva²

► Additional material is published online only. To view please visit the journal online (<http://dx.doi.org/10.1136/jech-2015-205868>).

¹School of Physical & Occupational Therapy, McGill University, Montreal, Quebec, Canada

²Centre for Global Mental Health, London School of Hygiene and Tropical Medicine, London, UK

³Institute of Psychiatry, Psychology, and Neuroscience, King's College London, London, UK

Correspondence to

Annahita M Ehsan, MAB-Mackay Rehabilitation Center, Room 433, Décarie Blvd, Montreal, Quebec, Canada H4A 3J5; annahita.ehsan@mail.mcgill.ca

Received 6 April 2015

Revised 11 June 2015

Accepted 15 June 2015

ABSTRACT

Objective This study aims to systematically review all published quantitative studies examining the direct association between social capital and common mental disorders (CMD). Social capital has potential value for the promotion and prevention of CMD. The association between different types of social capital (individual cognitive and structural, and ecological cognitive and structural) and CMD must be explored to obtain conclusive evidence regarding the association, and to ascertain a direction of causality.

Design 10 electronic databases were searched to find studies examining the association between social capital and CMD published before July 2014. The effect estimates and sample sizes for each type of social capital were separately analysed for cross-sectional and cohort studies. From 1857 studies retrieved, 39 were selected for inclusion: 31 cross-sectional and 8 cohort studies. 39 effect estimates were found for individual level cognitive, 31 for individual level structural, 9 for ecological level cognitive and 11 for ecological level structural social capital.

Main results This review provides evidence that individual cognitive social capital is protective against developing CMD. Ecological cognitive social capital is also associated with reduced risk of CMD, though the included studies were cross-sectional. For structural social capital there was overall no association at either the individual or ecological levels. Two cross-sectional studies found that in low-income settings, a mother's participation in civic activities is associated with an increased risk of CMD.

Conclusions There is now sufficient evidence to design and evaluate individual and ecological cognitive social capital interventions to promote mental well-being and prevent CMD.

BACKGROUND

Common mental disorders (CMDs) comprising depressive and anxiety disorders cause significant disability globally and can be extremely costly to the individual, their families and the countries in which they live.¹ Poor mental health is associated with poverty,² and can lead to a loss of productivity and decreased human capital, impeding sustainable development.^{3–5} Social capital, which measures the quality and quantity of social relationships in a community, may be a protective factor⁶ which could both prevent CMD developing and promote wider economic development.

Definition of social capital

The nature of social environments has been hypothesised to explain why some populations have worse mental health outcomes than others.⁷

Social capital is a way of conceptualising and measuring the social environment. The definition of social capital is controversial,⁸ but the sixth edition of the Dictionary of Epidemiology describes social capital as: “The resources—for example, trust, norms, and the exercise of sanctions—available to members of social groups...social capital is conceptualized as a group attribute” and (2) “The resources—for example, social support, information channels, social credentials—that are embedded within an individuals' social networks...social capital is conceptualized as an individual attribute as well as a property of the collective.”⁸

The features of social capital can be grouped into the quantity of social interactions, termed as structural social capital, and the quality of social interactions, termed cognitive social capital.⁹ Structural (participatory) social capital refers to relationships, networks, membership, organisations, associations and institutions that may link groups or individuals together. Cognitive (perceived) social capital refers to values, norms, attitudes, beliefs, civic responsibility, altruism and reciprocity within a community.^{9 10} These concepts are distinct from social networks and networking, social hierarchies, relationships between family and friends, and other social determinants such as neighbourhood deprivation, which fall outside the definition of social capital and are, therefore, not included in this review.

Social capital states that individuals and groups may benefit from participation and mutual cooperation within an array of social networks at both the individual and ecological level.^{9 11 12} Individual social capital (ISC) is measured by asking an individual series of questions about their participation in community groups and activities, and their perception of the quality of these relationships, such as whether they are reciprocal or based on trust. Ecological social capital (ESC) is most commonly measured by asking a representative sample of the community the ISC questions and then aggregating these to the community level to produce, for example, average levels of civic engagement or trust in a community.⁹ ESC can also be measured contextually, such as by voting rates. Table 1 outlines the different ways in which social capital is measured.

Causal pathway between social capital and CMD

The aetiology of mental illness is important to consider when looking at how social capital may affect CMD. The association between social determinants, such as low socioeconomic status, lack of education, unemployment and exposure to negative life events is well established.¹³ The concept of

To cite: Ehsan AM, De Silva MJ. *J Epidemiol Community Health* Published Online First: [please include Day Month Year] doi:10.1136/jech-2015-205868

Table 1 Measures of social capital

| Type of social capital | Measurement of social capital (adapted from De Silva ¹²) |
|--|---|
| Individual level Cognitive Social Capital | <ul style="list-style-type: none"> ► <i>Trust</i>: General trust in others, trusting others for specific tasks, and/or trust in institutions ► <i>Social cohesion</i>: Getting along with neighbours, how well community members know one another, and/or the degree of awareness and supportiveness between neighbours ► <i>Social support</i>: The perceived support in the neighbourhood, an example being whether neighbours are willing to help in theoretical situations ► <i>Sense of community</i>: Feeling at home in community, neighbourhood attachment, and/or community integration |
| Ecological level Cognitive Social Capital | <ul style="list-style-type: none"> ► <i>Trust</i>: The average level of general trust in the environment, and/or the average level of trust in politicians |
| Individual level Structural Social Capital | <ul style="list-style-type: none"> ► <i>Group membership</i>: The level of participation in local or voluntary organisations ► <i>Engagement in public affairs</i>: The level of involvement in local civic action, and/or informal social control, or the willingness to intervene in neighbourhood threatening situations ► <i>Social support</i>: The extent of the actual support or help received from neighbours ► <i>Community networks</i>: Contact with family and friends, the informal social ties within neighbours, and/or the bridging social ties with others from different social groups |
| Ecological level Structural Social Capital | <ul style="list-style-type: none"> ► <i>Group membership</i>: The per capita membership of voluntary organisations, and/or the per capita number of public spaces ► <i>Engagement in public affairs</i>: The voting rates within the community |

social capital extends these social determinants to also include the quantity and quality of social relationships.

Social capital can affect CMD on the individual and ecological level. For individuals, living in a trusting neighbourhood that alleviates daily stressors and promotes good health behaviours can be protective against CMD.^{14 15} Those with high social capital have more opportunity for social support, influence, engagement and access to resources that impact health.¹⁶ Low social capital in the individual as well as the community could cause hostile environments and reduce buffers against CMD.^{15 17}

ESC affects community productivity,¹⁵ social efficacy, political marginalisation and government performance.⁹ These factors influence social services, infrastructure and investment in human capital, which in turn influence the social environment, resources available to individuals and community buffers. These factors can contribute to the incidence and prevalence of CMD.^{9 15} Communities with low tolerance of mental illness may also exclude affected members, leading to worse health outcomes.⁹

The association between social capital and CMD

A recent systematic review of 56 studies on social capital and socioeconomic inequalities in health found that social capital has a positive effect on health.¹⁸ A previous systematic review published in this journal on social capital and all mental illnesses, conducted in 2005 by De Silva *et al.*,⁶ found that individual level cognitive social capital (ICSC) was associated with better mental health, no evidence of an association with individual structural social capital, and inconclusive evidence of an association between any measure of ESC and mental illness as

the included studies were so diverse. However, all 21 included studies were cross-sectional, and it is plausible that the findings are due to reverse causality whereby people with mental health problems report lower levels of trust and reciprocity, rather than the low cognitive social capital causing mental health problems.⁶ The De Silva *et al.* review included all mental illness, although most studies looked at CMD. Since 2005, many new studies on the association between social capital and CMD, including longitudinal studies capable of establishing the causal relationship between social capital and CMD, have been published, justifying this updated and more focused review.

This review aims to systematically review all published quantitative cross-sectional and longitudinal studies exploring the association between individual and ecological cognitive and structural social capital, and CMD.

METHODS

Search strategy

This review was written in accordance with the PRISMA guidelines.¹⁹ The search strategy was designed to **retrieve quantitative studies looking at the association between social capital and CMD**. With the help of an information technologist, a search strategy was developed to search journals focused on epidemiology, public health, psychiatry and sociology in 10 databases up to July 2014. As different terms are sometimes used to describe social capital, we chose a wide range of terms such as 'social cohesion', 'community participation' and 'social organisation' to ensure that all relevant articles would be included. Owing to the large amount of studies retrieved, only peer-reviewed studies were included, and references of articles were not searched. Only English publications were included for logistic reasons. Online supplementary appendix A specifies the search terms and databases that were used to retrieve articles.

Study selection

The **titles and abstracts of all retrieved articles were assessed** by the first author against predetermined inclusion criteria. The second author was consulted when there was uncertainty. The criteria were predetermined based on the objectives of the review, and then iteratively revised by piloting these on a subset of the search results. **Observational quantitative studies** (cross-sectional and cohort) were included, excluding study designs without the ability to determine the relationship between social capital and CMD in an individual (such as ecological or qualitative studies). The separate disorders that comprise CMD were included (depression, anxiety, PTSD, etc), as were general scales that measure CMD holistically. Studies that did not use a validated tool to measure CMD were excluded, as were studies on other mental disorders such as psychosis, drug and alcohol use, and suicide. There were few studies on these mental disorders, and limiting the scope to CMD provided for a more homogeneous synthesis of the studies. All studies that had appropriate definitions of social capital matching the definition in the Dictionary of Epidemiology⁸ and reflected in the measures listed in **table 1** were included, whether or not they self-defined as measuring social capital. Studies defining their population as adults of both sexes from any setting were included. Studies on children were excluded, as the social capital definitions for children are often based on relations with family and peers. The quality of all studies meeting the inclusion criteria was evaluated using the Effective Public Health Practice Project (EPHPP) Quality Assessment Tool for Quantitative Studies,²⁰ and only studies of strong or moderate quality were included.

Data extraction

Data from included studies were manually extracted and summarised into tables. This included descriptive data about the setting, population and sample size, which aspect(s) of social capital were measured and the tools used to measure it, the validated mental health tool used to measure CMD, the type of analysis and the effect estimate for the association between each type of social capital and CMD.

The effect estimates were divided into ICSC, individual level structural (ISSC), ecological level cognitive (ECSC) and ecological level structural (ESSC) social capital. In order to create homogenous groups for synthesis, these divisions were made based on what the authors measured, and reflect the definitions from table 1 rather than the type of social capital defined by the authors. Multiple effect estimates were extracted from studies that measured more than one type of social capital (eg, ICSC and ISSC).

Data management and synthesis

The studies were too heterogeneous to enable a meta-analysis. Instead, a subgroup analysis based on the strategy developed by Ramirez *et al*²¹ was used. This comprised of adding up sample sizes of each study for each of the social capital subgroups (ICSC, ISSC, ECSC and ESSC) based on the effect that these had on CMD. The results were divided into whether higher social capital was significantly ($p < 0.05$) associated with lower CMD (a negative association labelled-), whether there was no association (labelled/), or whether higher social capital was significantly associated with higher CMD (a positive association labelled+), and presented separately for cross-sectional and cohort studies. When multiple models presenting different confounders were included, the model controlling for the most amount of confounders was selected. Emphasis is put on the results of the cohort studies, as only these are capable of determining the direction of causality between social capital and CMD.

RESULTS

Description of included studies

Figure 1 presents a flow chart of the selection process. In total, 1847 titles and abstracts were retrieved by the database search, of which 39 studies were included in the review: 31 cross-sectional and 8 cohort studies. These 39 studies yielded a total of 90 effect estimates—39 for ICSC, 31 for ISSC, 9 for ECSC and 11 for ESSC. The included studies were heavily biased towards high-income countries with 8 from North America, 7 from Scandinavia, 6 from Australia, 6 from Europe, 4 from East Asia, 5 from South America, 3 from Africa and 1 from South East Asia. Only 2 were from lower to middle income countries, 7 were from upper to middle income countries, and the remaining were from higher income countries.

All of the cohort studies measured social capital in adults without mental illness at baseline, and followed them up to see whether they developed CMD over time. The shortest follow-up was 6 months, and the longest was 7 years. Six cohort studies measured ISC, and two ESC. The results of the cohort studies are presented in tables 2 and 3, and the cross-sectional studies in online supplementary appendices B and C. Tables 4 and 5 present the synthesised results for each type of social capital by study design.

Individual social capital

Thirty-three studies measured ISC, 27 of which were cross-sectional studies and 5 cohorts. There is strong evidence that

high ICSC is associated with reduced risk of CMD. Results from the cohort studies provide good evidence that people with high ICSC have a lower risk of developing CMD. No study found that high ICSC was associated with worse CMD outcomes (table 4). Two of three cross-sectional studies found that high ICSC was associated with low CMD for visible minorities residing in high-income countries;^{29–31} 2/2 found high ISSC associated with low CMD.^{30 32}

The results for ISSC were more varied. The results from cross-sectional studies showed that the largest pooled sample sizes was from studies that showed no association between ISSC and CMD, at a ratio of nearly 5 to 1. Interestingly, there were three effect estimates from two studies that showed ISSC to be associated with a higher risk of CMD. The studies were from lower and middle income countries, namely Vietnam,^{15 32} Ethiopia and Peru.¹⁵ The six effect estimates from four cohort studies were inconclusive, with a roughly equal distribution of a positive association with CMD and no association.

Ecological social capital

A total of nine studies measured ESC, seven of which were cross-sectional and two cohorts. The cross-sectional studies provided strong evidence that higher ECSC is associated with lower risk of CMD (table 5). No cohort studies tested this relationship.

For ESSC, a similar pattern as for ISSC was observed, with the vast majority of the sample size showing no association, a smaller proportion a positive effect, and a minority a negative association. The negative association was found in Ethiopia, and showed that more support from individuals at the community level was associated with increased odds of CMD.¹⁵ The two included cohort studies used a one-dimensional measure of ESSC—voting rates. After controlling for confounders such as neighbourhood deprivation, neither study showed a significant effect on CMD.

DISCUSSION

Discussion of results

This review provides strong evidence that ICSC is associated with CMD in cross-sectional studies, backed up by clear evidence from cohort studies that this relationship is not due to reverse causality and high cognitive social capital is protective against developing CMD. This pattern is repeated for ECSC, though all the included studies were cross-sectional.

The picture for ISSC is more mixed, with overall no association at either the individual or ecological level, but an indication from cross-sectional studies that in some low resource settings an individual's participation in civic activities is associated with an increased risk of CMD. This was only true in lower income countries. The study by Thuy and Berry explored the association between social capital and CMD in mothers of children with disabilities,³² while De Silva *et al*¹⁵ looked at social capital and maternal CMD in poor mothers with infants. In both cases, the mothers had large family responsibilities, and the authors hypothesise that participating in a high number of structural social capital activities, such as community groups, may have placed an additional burden on already over-stretched mothers.¹⁵

Most studies in this review focused on ISC, reflecting the more standard conceptualisation of social capital as an individual rather than ecological phenomenon, and also the relative ease with which ISC is measured compared to ESC. Scholars have suggested that both ISC and ESC be measured,^{15 33} as the two are not mutually exclusive.^{12 34–36} In this review, only three

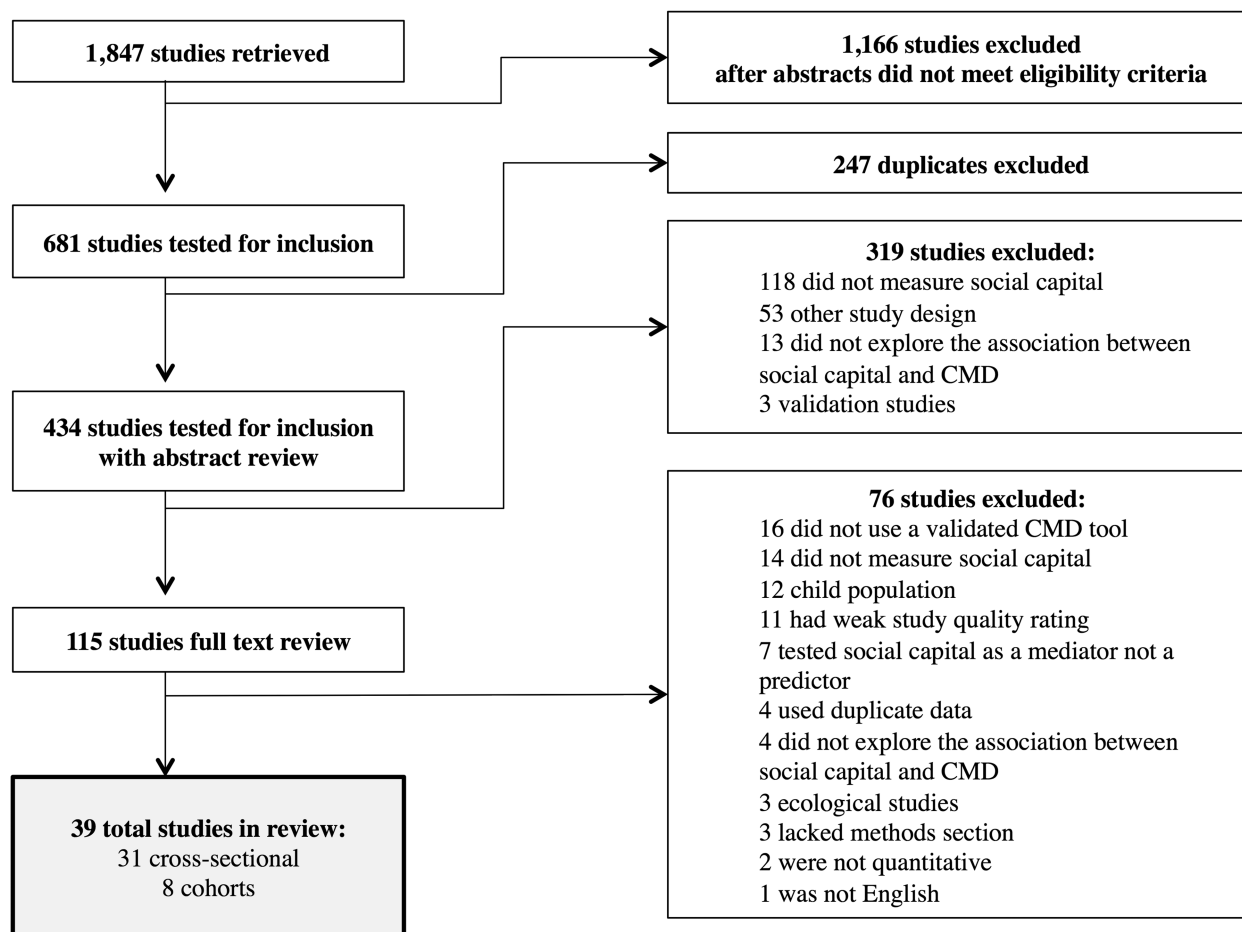


Figure 1 Flow chart of study selection (CMD, common mental disorder).

studies simultaneously controlled for both individual and ecological levels of social capital.^{15 29 37} Controlling for both ISC and ESC in the same model is important, as high levels of ESC might be more likely to benefit those who are trusting and socially active (those who have higher cognitive social capital) than those who are not.³³

Risk of bias within and across studies

Within each study, there were different study designs, participants, eligibility criteria, methods, follow-up periods and analysis techniques. Some studies had special populations, and there were diverse cultural differences between groups. Social capital is made up of multiple components, and can be measured differently to be appropriate for different settings. **All of these could lead to clinical, methodological and statistical heterogeneity in the findings of the review.**

In addition, **differences in the way social capital was measured** in the included studies may affect the results of the review. First, the measurement of ESC was extremely varied across studies, ranging from one-dimensional ecological measures, such as voting rates,^{27 28} to ISC scores aggregated to the community level severely restricting the comparability of findings across the ESC studies.¹⁵ Despite these measurement differences, there were no clear differences in results between the studies that used aggregate measures versus single ecological measures in this review.

Cultural differences between settings affect the aetiology of CMD, and also the importance of different aspects of both individual and ESC afforded by different societies. For example, the effect of social capital on CMD might change in individualist

and collectivist societies, as collectivist societies emphasise the interdependence between humans. Different types of social capital may also have varying importance in different cultures. Unfortunately the implications of diverse social and cultural settings could not be assessed due to a lack of information in the published papers, and also the difficulty of summarising complex cultural differences in a systematic review.

Strengths and Limitations of this review

This review is subject to limitations. First, these results are not generalisable to lower income countries as 30 of the 39 included studies were situated in high-income settings and within these, only 6 were in disadvantaged populations. Seven were from upper-middle income countries, and just two were situated in low-income countries. Second, the heterogeneity of the included studies meant that a meta-analysis to determine the pooled effect size of the cohorts was not possible. Although studies were pooled according to the direction of effect and weighted by sample size, the size of the protective effect of ICSC on CMD remains unknown. Lastly, there were potential sources of bias in the methodology of this review, including the possibility of publication bias as no grey literature was searched, and non-English language publications were excluded. In addition, authors were not contacted for information not contained in the published paper. Only one author reviewed the studies for inclusion, although the second author was consulted when the first was in doubt.

Despite these limitations, this review included a large number of studies, all of which were assessed as being of high quality by

Table 2 Description of individual level cohort studies

| Reference | Setting | Population (years) | Sample size | Follow-up time | Social capital | Mental health measure (CMD) | Statistical analysis | Results | Effect estimates |
|--|--------------------------|--------------------|-------------|----------------|--|------------------------------|----------------------------------|---|---|
| Borjorquez-Chapela et al ²² | Mexico | Seniors (60+) | 2661 | 11 months | <i>Cognitive</i> : groups and network trust/ solidarity; social cohesion and inclusion <i>Structural</i> : collective action and cooperation; information and communication; empowerment and political action | GDS (depression) | Multivariate logistic regression | Cognitive: (women –); (men /) Structural: (women –); (men /) | <i>Cognitive and Structural Combined for Women</i> OR: 0.73; 95% CI 0.56 to 0.95 (p<0.01) <i>Cognitive and Structural Combined for Men</i> : not significant |
| Fujiwara and Kawachi ¹⁴ | USA | Adults (25–74) | 724 | 2 years | <i>Cognitive</i> : political trust; sense of belonging and mutual aid <i>Structural</i> : volunteer work; community participation | CIDI-SF (depression) | Multivariate logistic regression | Cognitive: – Structural: / | <i>Cognitive</i> OR: 0.43; 95% CI 0.20 to 0.93 (p=0.036) <i>Structural</i> : not significant |
| Giordano and Lindstrom ²³ | UK | Adults (16+) | 7994 | 7 years | <i>Cognitive</i> : interpersonal trust; active social participation; frequency of talking with neighbours | GHQ-12 (CMD) | Multilevel logistic regression | Cognitive: – | <i>Cognitive</i> OR: 1.30; 95% CI 1.20 to 1.41 (p=0.001) |
| Krisotakis et al ²⁴ | Heraklion, Crete, Greece | Mother and child | 356 | 1 year | <i>Cognitive</i> : SCQ (trust, feelings of safety, neighbourhood cohesion, <i>Structural</i> : SCQ (volunteering, community participation, activeness in community) | EDPS (postpartum depression) | Multilevel regression | Cognitive: – Structural: / | <i>Cognitive</i> b=–3.95; 95% –7.75 to –0.14 (p<0.05) <i>Structural</i> : not significant |
| Murayama et al ²⁵ | Hatoyama, Saiana, Japan | Seniors (65+) | 681 | 2 years | <i>Cognitive</i> : perception of neighbourhood homogeneity; personal networks <i>Structural</i> : perception of participant's network heterogeneity | GDS (depression) | Multilevel logistic regression | Cognitive: – Structural: – | <i>Cognitive</i> OR: 0.58; 95% CI 0.34 to 0.99 (p not reported) <i>Structural</i> OR: 0.59; 95% CI 0.33 to 1.06 (p value not reported) |
| O'Connor et al ²⁶ | Australia | Adults (23–24) | 991 | 3–6 years | <i>Structural</i> : trust in authorities/organisations; community trust; diversity tolerance | SMFQ (depression) | Hierarchical | Structural: – | <i>Structural</i> b=–0.07; no CI reported (p<0.05) |

Code for results: – high social capital associated with low CMD; / no association; + high social capital associated with high CMD.

CIDI-SF, composite international diagnostic interview- short form; CMD, common mental disorder; EDPS, Edinburgh post-natal depression scale; GDS, geriatric depression scale; GHQ, general health questionnaire; SCQ, social capital questionnaire; SMFQ, short mood and feelings questionnaire.

Table 3 Description of ecological level cohort studies

| Reference | Setting | Population (years) | Sample size | Follow-up time | Social capital | Mental health measure (CMD) | Statistical analysis | Results | Effect estimates |
|------------------------------------|---------|--------------------|-------------|----------------|---|-------------------------------|----------------------------------|--------------|---|
| Lofors and Sundquist ²⁷ | Sweden | Adults (25–64) | 4 500 000 | 2 years | <i>Structural</i> : mean voting participation per neighbourhood unit | ICD-9 and ICD-10 (depression) | Multivariate logistic regression | Structural:– | <i>Structural</i> women OR: 1.52; 95% CI 1.44 to 1.60 (p value not reported); men OR: 1.47 95% CI 1.40 to 1.54 (p value not reported) |
| Sundquist et al ²⁸ | Sweden | Seniors (65+) | 1 517 336 | 8 years | <i>Structural</i> : number of people in neighbourhood who voted in local government elections divided by number of people in neighbourhood who could vote | ICD-10 (CMD) | Multivariate logistic regression | Structural:/ | <i>Structural</i> : not significant |

Code for results: – high social capital associated with low CMD; / no association; + high social capital associated with high CMD.

CMD, common mental disorder; ICD, International Classification for Diseases.

Table 4 Summary of effect estimates on the association between ISC and CMD

| | Total number of effect estimates | Number of effect estimates where high social capital is associated with less CMD (total sample size) | No association between social capital and CMD (total sample size) | Number of effect estimates where high social capital is associated more less CMD (total sample size) | Conclusion reached |
|-------------------|----------------------------------|--|---|--|--|
| Cognitive (ICSC) | | | | | |
| Cross-sectional | 33 | 27 (85 371) | 6 (10 157) | 0 (0) | High ICSC is associated with lower risk of CMD ICSC protective against CMD |
| Cohort | 6 | 5 (12 416) | 1 (2661) | 0 (0) | |
| Total | 39 | 29 (97 787) | 7 (12 818) | 0 (0) | |
| Structural (ISSC) | | | | | |
| Cross-sectional | 25 | 11 (5488) | 11 (26 390) | 3 (3483) | Overall no association, but high structural social capital may be associated with increased risk of CMD in low resource settings Inconclusive |
| Cohort | 6 | 3 (4333) | 3 (3741) | 0 (0) | |
| Total | 31 | 14 (9821) | 14 (30 131) | 3 (3483) | |

CMD, common mental disorder; ICSC, individual level cognitive social capital; ISC, individual social capital; ISSC, individual level structural social capital.

Table 5 Summary of effect estimates on the association between ESC and CMD

| | Total number of effect estimates | Number of effect estimates where high social capital is associated with less CMD (total sample size) | No association between social capital and CMD (total sample size) | Number of effect estimates where high social capital is associated more less CMD (total sample size) | Conclusion reached |
|-------------------|----------------------------------|--|---|--|--|
| Cognitive (ECSC) | | | | | |
| Cross-sectional | 9 | 7 (77 503) | 2 (6592) | 0 (0) | High ECSC associated with lower risk of CMD No evidence |
| Cohort | 0 | 0 (0) | 0 (0) | 0 (0) | |
| Total | 9 | 7 (77 503) | 2 (6592) | 0 (0) | |
| Structural (ESSC) | | | | | |
| Cross-sectional | 9 | 2 (39 581) | 6 (73 943) | 1 (1652) | No association between ESSC and CMD No association between ESSC and CMD |
| Cohort | 2 | 0 (0) | 2 (6 017 336) | 0 (0) | |
| Total | 11 | 2 (39 581) | 8 (6 091 279) | 1 (1652) | |

CMD, common mental disorder; ESC, ecological social capital; ECSC, ecological level cognitive social capital; ESSC, ecological level structural social capital.

the EPHPP tool, which displayed a clear pattern of association between ICSC, ECSC and CMD. This review found that ICSC is protective against CMD, enabling others to investigate the use of ICSC for the prevention and promotion of CMD. Another important finding is that structural social capital may be more culturally specific as it is more dependent on cultural norms of behaviour, while harnessing cognitive social capital may be universally beneficial for preventing CMD as it relies more on the perhaps universal human emotions of reciprocity, trust and sense of belonging.

Recommendations for research

Further research is needed on the association between all types of social capital and CMD in low and middle income countries. More cohort studies should be conducted to explore how all forms of social capital affect the risk of developing CMD. Much more research is needed on ESC and CMD. Researchers should also look at current ICSC and ECSC interventions taking place for economic development or health, and consider how these could be used to prevent CMD.

Future studies should aim to use standardised and validated tools to measure social capital. This will allow better comparability between studies, and will increase the reliability and validity of social capital measures. One tool that could be used is the *Adapted Social Capital Tool*, more commonly known as the A-SCAT.³⁸ A shortened version of this tool, the *Short Adapted Social Capital Assessment Tool* (SASCAT),³⁹ was used by two different papers in this review to measure social capital in Ethiopia, India, Vietnam and Peru,^{15 40} and appears to be a comprehensive tool that could be used across low and middle income settings. A systematic review on measurement tools for social capital in low and middle income countries⁴¹ recommends the A-SCAT, Elgar *et al*'s⁴² World Value Survey Social Capital Scale, and Hurtado *et al*'s⁴³ six-item tool.

Recommendations for practice and policy

Interventions to improve cognitive ISC and ESC with the aim of preventing CMD should be developed and tested, and existing social capital initiatives should measure the impact they may be having on mental illness. Many initiatives for social capital are already in place in higher income as well as low and middle income countries. Current antipoverty and development initiatives could be influencing mental health, but the effect is not measured. Adding a mental health component to existing programmes would not detract from these initiatives, but would dramatically increase the evidence base for the effect of social capital on mental health.

Many studies on social capital have found that trust is positively associated with economic growth, and that social divisiveness can result in reduced growth.^{3 4 40} Interventions aimed at improving social capital may be a cost-effective way of preventing CMD. Prevention and promotion initiatives focused on increasing ICSC can be protective against CMD in the long run.

What is already known on this subject

This is a comprehensive review and assessment of the evidence of the association between social capital and common mental disorder. This was needed, as no previous reviews have found conclusive evidence on the direction of the association between different types of social capital and common mental disorder.

What this study adds

This review shows that individual level cognitive social capital is protective against common mental disorder, and that ecological level cognitive social capital is associated with less risk of common mental disorder. This information is useful for future interventions aimed at preventing common mental disorder.

Twitter Follow Mary De Silva at @GMentalHealth

Contributors MJDS had the idea for the review. AME came up with the protocol, conducted the searches, extracted and compiled the data, completed the analyses, and wrote the discussion and conclusions. While AME wrote the bulk of the paper, MJDS offered her intellectual input and guidance through all stages, and had ideas on how to analyse the data, and also helped edit the final paper.

Funding MJDS was funded by an LSHTM/Wellcome Trust Fellowship. All data was available freely through King's College London, the London School of Hygiene & Tropical Medicine, and McGill University journal subscriptions.

Competing interests None declared.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

- Whiteford HA, Degengardt L, Rehm J, *et al*. Global Burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010. *Lancet* 2013;382:1575–86.
- Patel C, Kleinman A. Poverty and common mental disorders in developing countries. *Bull World Health Organ* 2003;81:609–15.
- Grootaert C, Van Bastelaer T. *Understanding and measuring social capital: a synthesis of findings and recommendations from the social capital initiative*. Social Capital Initiative Working Paper. 2001.
- Whiteford H, Cullen M, Baingana F. Social capital and mental health. In: Herrman H, Shekhar S, Moodie R, eds. *Promoting mental health: concepts, emerging evidence, practice*. Geneva: WHO, 2005. http://www.who.int/mental_health/evidence/MH_Promotion_Book.pdf (accessed 30 Mar 2015).
- Thornicroft G, Patel V. Including mental health among the new sustainable development goals. *BMJ* 2014;349:g5189.
- De Silva MJ, McKenzie K, Harpham T, *et al*. Social capital and mental illness: a systematic review. *J Epidemiol Community Health* 2005;59:619–27.
- Marmot M, Wilkinson R. *Social determinants of health*. Oxford: Oxford University Press, 2005.
- Porta M, Greenland S, Hernan M, *et al*. *A dictionary of epidemiology*. Oxford: Oxford University Press, 2015.
- McKenzie K, Harpham T. *Social capital and mental health*. London: Jessica Kingsley Publishers, 2006.
- Uphoff N. Understanding social capital: learning from the analysis and experience of participation. In: Dasgupta P, Serageldin I, eds. *Social capital: a multifaceted perspective*. Washington DC: The World Bank, 2000. http://isites.harvard.edu/fs/docs/icb.topic980025.files/Wk%206_Oct%207th/Uphoff_2000_Understanding_Soc_Capital.pdf (accessed 30 Mar 2015).
- Kawachi I, Kennedy BP, Glass R. Social capital and self-rated health: a contextual analysis. *Am J Public Health* 1999;89:1187–93.
- De Silva MJ. Systematic review of the methods used in studies of social capital and mental health. In: McKenzie K, Harpham T, eds. *Social capital and mental health*. London: Jessica Kingsley Publishers, 2006:39–67.
- Lund C, Stasfeld S, De Silva MJ. *Social determinants of mental health. Global mental health: principles and practice*. Oxford: Oxford University Press, 2013.
- Fujiwara T, Kawachi I. A prospective study of individual level social capital and major depression in the United States. *J Epidemiol Community Health* 2008;62:627–33.
- De Silva MJ, Huttly SR, Harpham T, *et al*. Social capital and mental health: a comparative analysis of four low income countries. *Soc Sci Med* 2007;64:5–20.
- Tseloni A, Zissi A, Skapinakis P. Psychiatric morbidity and social capital in rural communities of the Greek North Aegean Islands. *J Community Psychol* 2010;38:177–85.
- World Health Organization. *Promoting mental health: concepts, emerging evidence, practice: summary report* [Internet]. http://www.who.int/mental_health/evidence/en/promoting_mhh.pdf (accessed 1 Sep 2014).
- Uphoff EP, Pickett KE, Cabieses B, *et al*. A systematic review of the relationships between social capital and socioeconomic inequalities in health: a contribution to

- understanding the psychosocial pathway of health inequalities. *Int J Equity Health* 2013;12:54.
- 19 Moher D, Liberati A, Tetzlaff J, *et al.* Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Int J Surg* 2010;8:336–41.
 - 20 Effective Public Health Practice Project. Effective Public Health Practice Project: Quality Assessment Tool for Quantitative Studies [Internet]. <http://www.ehphp.ca/tools.html> (accessed 1 Sep 2014).
 - 21 Ramirez AJ, Westcombe AM, Burgess CC, *et al.* Factors predicting delayed presentation of symptomatic breast cancer: a systematic review. *Lancet* 1999;353:1127–31.
 - 22 Bojorquez-Chapela I, Manrique-Espinoza BS, Mejia-Arango S, *et al.* Effect of social capital and personal autonomy on the incidence of depressive symptoms in the elderly: evidence from a longitudinal study in Mexico. *Aging Ment Health* 2012;16:462–71.
 - 23 Giordano GN, Lindstrom M. Social capital and change in psychological health over time. *Soc Sci Med* 2011;72:1219–27.
 - 24 Krisotakis G, Vassilaki M, Melaki V, *et al.* Social capital in pregnancy and postpartum depressive symptoms: a prospective mother-child cohort study (the Rhea study). *Int J Nurs Stud* 2013;50:63–72.
 - 25 Murayama H, Nishi M, Matsuo E, *et al.* Do bonding and bridging social capital affect self-rated health, depressive mood and cognitive decline in older Japanese? A prospective cohort study. *Soc Sci Med* 2013;98:247–52.
 - 26 O'Connor M, Hawkins MT, Toumbourou JW, *et al.* The relationship between social capital and depression during the transition to adulthood. *Aust J Psychol* 2011;63:26–35.
 - 27 Lofors J, Sundquist K. Low-linking social capital as a predictor of mental disorders: a cohort study of 4.5 million Swedes. *Soc Sci Med* 2007;64:21–34.
 - 28 Sundquist K, Hamano T, Li X, *et al.* Linking social capital and mortality in the elderly: a Swedish national cohort study. *Exp Gerontol* 2014;55:29–36.
 - 29 Becares L, Nazroo J. Social capital, ethnic density and mental health among ethnic minority people in England: a mixed-methods study. *Ethn Health* 2013;18:544–62.
 - 30 Kim BJ, Auh E, Lee YJ, *et al.* The impact of social capital on depression among older Chinese and Korean immigrants: similarities and differences. *Aging Ment Health* 2013;17:844–52.
 - 31 Valencia-Garcia D, Simoni JM, Alegria M, *et al.* Social capital, acculturation, mental health, and perceived access to services among Mexican American woman. *J Lat Psychol* 2012;80:177–85.
 - 32 Thuy NT, Berry HL. Social Capital and mental health among mothers in Vietnam who have children with disabilities. *Glob Health Action* 2013;6. doi:10.3402/gha.v6i0.18886
 - 33 Phongsavan P, Chey T, Bauman A, *et al.* Social capital, socio-economic status and psychological distress among Australian adults. *Soc Sci Med* 2006;63:2546–61.
 - 34 Kawachi I, Kim D, Coutts A, *et al.* Commentary: reconciling the three accounts of social capital. *Int J Epidemiol* 2004;33:682–90.
 - 35 Subramanian S, Lochner KA, Kawachi I. Neighbourhood differences in social capital: a compositional artifact or a contextual construct? *Health Place* 2003;9:33–4.
 - 36 Harpham T, Grant E, Thomas E. Measuring social capital within health surveys: key issues. *Health Policy Plan* 2002;17:106–11.
 - 37 Han SH, Lee HS. *Social capital and mental health in Seoul, North Korea: a multilevel analysis of 4,734 people in 25 administrative areas* [Internet]. *J Community Psychol* 2013. [http://onlinelibrary.wiley.com/journal/10/1002/\(ISSN\)1520-6629](http://onlinelibrary.wiley.com/journal/10/1002/(ISSN)1520-6629). (accessed 1 Sep 2014).
 - 38 De Silva MJ, Harpham T, Tuan T, *et al.* Psychometric and cognitive validation of a social capital measurement tool in Peru and Vietnam. *Soc Sci Med* 2006;62:941–53.
 - 39 Flores EC, Camero AM, Bayer AM. Social capital and chronic post-traumatic stress disorder among survivors of the 2007 earthquake in Pisco, Peru. *Soc Sci Med* 2014;101:9–17.
 - 40 Wind TR, Fordham M, Komroe IH. Social capital and post-disaster mental health. [Internet]. *Glob Health Action* 2011;4. <http://www.globalhealthaction.net/index.php/gha/article/view/6351>. (accessed 1 Sep 2014).
 - 41 Agampodi TC, Agampodi SB, Glozier N, *et al.* Measurement of social capital in relation to health in low and middle income countries (LMIC): a systematic review. *Soc Sci Med* 2015;128:95–104.
 - 42 Elgar FJ, Davis CG, Wohl MJ, *et al.* Social capital, health and life satisfaction in 50 different countries. *Health Place* 2011;17:1044–53.
 - 43 Hurtado D, Kawachi I, Sudarsky K. Social capital and self-rated health in Columbia: the good, the bad, and the ugly. *Soc Sci Med* 2011;72:584–90.