National Institute for Health and Care Excellence

Final

Social work with adults experiencing complex needs

NICE guideline NG216

Methods

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Supplement 1: Methods

Final

Developed by the National Guideline Alliance

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Development of the guideline

Remit

The National Institute for Health and Care Excellence (NICE) commissioned the National Guideline Alliance (NGA) to develop a guideline about social work interventions for adults with complex needs.

To see “What this guideline covers” and “What this guideline does not cover” please see the final scope of the guideline on the NICE website.

Methods

This guideline was developed using the methods described in the Developing NICE guidelines: the manual.

Declarations of interest were recorded according to the NICE conflicts of interest policy.

Developing the review questions and outcomes

The review questions developed for this guideline were based on the key areas identified in the guideline scope. They were drafted by the NGA technical team, and refined and validated by the guideline committee.

The review questions were based on the following frameworks:

- population, intervention, comparator and outcome (PICO) for reviews of interventions
- qualitative reviews – using population, phenomenon of interest and context (PICo)

Full literature searches, critical appraisals and evidence reviews were completed for all review questions.

The review questions and evidence reviews corresponding to each question (or group of questions) are summarised below.

Table 1: Summary of review questions and index to evidence reviews

Evidence review	Review question	Type of review
[A] Needs assessment	[A1] What is the effectiveness of social work approaches to assessing and reviewing complex care and support needs (including strengths-based approaches)? [A2] Based on the views and experiences of everyone involved, what works well and what could be improved about social work assessments of complex care and support needs?	Mixed, intervention and qualitative
[B] Risk assessment	[B1] What is the effectiveness of social work approaches to assessing and reviewing risk with adults with complex needs? [B2] Based on the views and experiences of everyone involved, what works well and	Mixed, intervention and qualitative

Evidence review	Review question	Type of review
	what could be improved about risk assessment with adults with complex needs?	
[C] Supporting changing needs	[C1] What is the effectiveness of case management and care planning approaches in social work (in relation to changing needs, wishes and capabilities)? [C2] Based on the views and experiences of everyone involved, what works well and what can be improved about case management and care planning approaches in social work (in relation to changing needs, wishes and capabilities)?	Mixed, intervention and qualitative
[D] Support during an escalation of need	[D1] What is the effectiveness of case management and care planning when there is an unplanned escalation of need, or to provide urgent support if needs do escalate? [D2] Based on the views and experiences of everyone involved, what works well and what can be improved in case management and care planning when there is an unplanned escalation of need, or to provide urgent support if needs do escalate?	Mixed, intervention and qualitative
[E] Integrated working	[E1] What is the effectiveness of integrated working among registered social workers and other practitioners to support adults with complex needs? [E2] Based on the views and experiences of everyone involved, what are the facilitators and barriers to integrated working between registered social workers and other practitioners to support adults with complex needs?	Mixed, intervention and qualitative
[F] Individual or family casework	[F1] What is the effectiveness of social work approaches to	Mixed, intervention and qualitative

Evidence review	Review question	Type of review
	individual and family casework for adults with complex needs? [F2] Based on the views and experiences of everyone involved, what works well and what could be improved about social work approaches to individual and family casework for adults with complex needs?	
[G] Helping people connect with local communities	[G1] What is the effectiveness of social and community support approaches (including peer support) in promoting social inclusion of adults with complex needs? [G2] Based on the views and experiences of everyone involved, what works well and what could be improved about social and community support (including peer support) to promote social inclusion for adults with complex needs?	Mixed, intervention and qualitative

[1]*Original health economic analysis conducted*

The COMET database was searched for core outcome sets relevant to this guideline.

Additional information related to development of the guideline is contained in:

- Supplement 1 (Methods; this document)
- Supplement 2 (Economic searches)
- Supplement 3 (NGA staff list).

Searching for evidence

Scoping search

During the scoping phase, searches were conducted for previous guidelines, economic evaluations, health technology assessments, systematic reviews and randomised controlled trials.

Systematic literature search

Systematic literature searches were undertaken to identify published evidence relevant to each review question.

Databases were searched using subject headings, free-text terms and, where appropriate, study type filters. Where possible, searches were limited to retrieve studies published in English. All the searches were conducted in the following

databases: Medline, Medline-in-Process, Cochrane Central Register of Controlled Trials (CCTR), Cochrane Database of Systematic Reviews (CDSR), Database of Abstracts of Reviews of Effects (DARE), Health Technology Assessments (HTA) and Embase, Applied Social Sciences Index and Abstracts (ASSIA), International Bibliography of the Social Sciences (IBSS), Sociological Abstracts, Social Services Abstracts, Social Policy and Practice, Social Care Online. For the qualitative review questions, PsycInfo, EmCare and CINAHL were also searched.

Searches were run once for all reviews during development.

For the qualitative questions a single combined search, using the population search terms used in the evidence reviews combined with a qualitative studies filter, was conducted for all topics (A2, B2, C2, D2, E2, F2, G2).

For the quantitative questions individual searches were conducted for each of the topics (A1, B1, C1, D1, E1, F1, G1).

Searches for the following questions were updated in June, eight weeks in advance of the final committee meeting.

- [A1] What is the effectiveness of social work approaches to assessing and reviewing complex care and support needs (including strengths-based approaches)?
- [B1] What is the effectiveness of social work approaches to assessing and reviewing risk with adults with complex needs?
- [D1] What is the effectiveness of case management and care planning when there is an unplanned escalation of need, or to provide urgent support if needs do escalate?

Details of the search strategies, including the study-design filters used and databases searched, are provided in Appendix B of each evidence review.

Economic systematic literature search

Systematic literature searches were also undertaken to identify published economic evidence. Databases were searched using subject headings, free-text terms and, where appropriate, an economic evaluations search filter.

A single search, using the population search terms used in the evidence reviews combined with economic evaluations and health utility values search filters, was conducted in Medline, Medline in Process, Cochrane Central Register of Controlled Trials (CCTR), Embase, Applied Social Sciences Index & Abstracts (ASSIA), International Bibliography of the Social Sciences (IBSS), Sociological Abstracts, Social Services Abstracts, PsycInfo, Social Policy and Practice, Social Care Online,EmCare and CINAHL. Where possible, searches were limited to studies published in English.

As with the general literature searches, the economic literature searches were updated in June, eight weeks in advance of the final committee meeting before consultation on the draft guideline.

Details of the search strategies, including the study-design filter used and databases searched, are provided in Supplement 2 (Health economics).

Quality assurance

Search strategies were quality assured by cross-checking reference lists of relevant studies, analysing search strategies from published systematic reviews and asking members of the committee to highlight key studies. The principal search strategies for each search were also quality assured by a second information scientist using an adaptation of the PRESS 2015 Guideline Evidence-Based Checklist (McGowan 2016). In addition, all publications highlighted by stakeholders at the time of the consultation on the draft scope were considered for inclusion.

Reviewing research evidence

Systematic review process

The evidence was reviewed in accordance with the following approach.

- Potentially relevant articles were identified from the search results for each review question by screening titles and abstracts. Full-text copies of the articles were then obtained.
- Full-text articles were reviewed against pre-specified inclusion and exclusion criteria in the review protocol (see Appendix A of each evidence review).
- Key information was extracted from each article on study methods and results, in accordance with factors specified in the review protocol. The information was presented in a summary table in the corresponding evidence review and in a more detailed evidence table (see Appendix D of each evidence review).
- Included studies were critically appraised using an appropriate checklist as specified in Developing NICE guidelines: the manual. Further detail on appraisal of the evidence is provided below.
- Summaries of evidence by outcome and qualitative evidence by theme were presented in the corresponding evidence review and discussed by the committee.

Review questions were subject to dual screening and study selection through a 10% random sample of articles, as described in the review protocols. Any discrepancies were resolved by discussion between the first and second reviewers or by reference to a third (senior) reviewer.

Drafts of all evidence reviews were quality assured by a senior reviewer.

Type of studies and inclusion/exclusion criteria

Inclusion and exclusion of studies was based on criteria specified in the corresponding review protocol.

Systematic reviews with meta-analyses or meta-syntheses were considered to be the highest quality evidence that could be selected for inclusion.

For the intervention components of the reviews, randomised controlled trials (RCTs) were prioritised for inclusion because they are considered to be the most robust type of study design that could produce an unbiased estimate of intervention effects. Non-randomised controlled trials were also considered for inclusion. In the absence of experimental studies (randomised or non-randomised assignment) reporting critical

outcomes, observational studies (such as prospective cohort studies) were also considered, with studies using multivariate analyses prioritised over those using univariate methods of analysis.

For the qualitative components of the reviews, studies using focus groups, structured interviews or semi-structured interviews were considered for inclusion. Where qualitative evidence was sought, data from surveys or other types of questionnaire were considered for inclusion only if they provided data from open-ended questions, but not if they reported only quantitative data.

For both the quantitative and qualitative components of the reviews, studies conducted in the UK were prioritised as generating the most relevant evidence for the purposes of making recommendations. However in the absence of UK studies or where there were too few UK studies to support decision making, studies from high income countries from Europe plus Australia, New Zealand, Canada and South Africa were considered for inclusion.

The committee was consulted about any uncertainty regarding inclusion or exclusion of studies. A list of excluded studies for each review question, including reasons for exclusion is presented in Appendix J of the corresponding evidence review.

Narrative reviews, posters, letters, editorials, comment articles, unpublished studies and studies published in languages other than English were excluded. Conference abstracts were not considered for inclusion because conference abstracts typically do not have sufficient information to allow for full critical appraisal.

Methods of combining evidence

When planning reviews (through preparation of protocols), the following approaches for data synthesis were discussed and agreed with the committee.

Data synthesis for intervention studies

Pairwise meta-analysis

No meta-analysis was conducted for this guideline because either the interventions were not sufficiently similar or where interventions were similar, different outcomes were measured. Data from single studies were analysed where possible using Cochrane Review Manager (RevMan5) software.

For dichotomous outcomes, such as care contacts, the Mantel–Haenszel method with a fixed effect model was used to calculate risk ratios (RRs).

For continuous outcomes, measures of central tendency (mean) and variation (standard deviation; SD) are required for analysis. Data for continuous outcomes, such as quality of life, were analysed using an inverse-variance method for mean differences from final scores only between intervention groups, or mean change scores between groups. Where SDs were not reported for each intervention group, the standard error (SE) of the mean difference was calculated from other reported statistics (p values or 95% confidence intervals; CIs) and then analysis was conducted as described above.

If a study reported only the summary statistic and 95% CI the generic-inverse variance method was used to enter data into RevMan5. If the control event rate was

reported this was used to generate the absolute risk difference in GRADEpro. If multivariable analysis was used to derive the summary statistic but no adjusted control event rate was reported, no absolute risk difference was calculated.

When evidence was based on studies that reported descriptive data or medians with interquartile ranges or p values, this information was included in the corresponding GRADE tables (see below) without calculating relative or absolute effects. Consequently, certain aspects of quality assessment such as imprecision of the effect estimate could not be assessed as per standard methods for this type of evidence and ratings based on sample size cut-offs were considered instead.

Data synthesis for qualitative reviews

In the qualitative components of the reviews, where possible, a meta-synthesis was conducted to combine evidence from more than one study into a theme or sub-theme. Whenever studies identified a qualitative theme relevant to the protocol, this was extracted and the main characteristics were summarised. When all themes had been extracted from studies, common concepts were categorised and tabulated. This included information on how many studies had contributed to each theme identified by the NGA technical team.

The technical team were guided in their data extraction, synthesis and formulation of review findings, or themes, by a framework of phenomena of interest developed by the guideline committee. This framework consisted of the themes that the committee anticipated would be covered by the included studies and these were set out a priori in the corresponding review protocol. As well as guiding the data extraction and synthesis, the framework also underpinned the approach referred to in the protocol as thematic saturation. Essentially, data or themes from included studies would not be extracted if they contributed to review findings which were judged to be ‘adequate’ and ‘coherent’ following assessment using the GRADE-CERQual approach; that is, they were not downgraded for either domain. Themes identified from the included studies, which were not set out in the protocol but which were considered relevant to answering the review question, were also extracted and the same approach to ‘thematic saturation’ would have been applied. Thematic saturation was not reached for any themes in any of the qualitative components of the reviews in this guideline. Therefore, all relevant data from all included qualitative studies were extracted and analysed.

Themes from individual studies were integrated into a wider context and, when possible, overarching categories of themes with sub-themes were identified. Themes were derived from data presented in individual studies. When themes were extracted from 1 primary study only, theme names used in the guideline mirrored those in the source study. However, when themes were based on evidence from multiple studies, the theme names were assigned by the NGA technical team. The names of overarching categories of themes were also assigned by the NGA technical team.

Emerging themes were placed into a thematic map representing the relationship between themes and overarching categories. The purpose of such a map is to show relationships between overarching categories and associated themes.

Data synthesis for mixed methods reviews

All the reviews were mixed methods reviews, reporting effectiveness as well as qualitative data relating to the same specific area. The NGA technical team conducted the data analysis, critical appraisal and GRADE/GRADE-CERQual profiles (described in the next section) separately and in parallel for the quantitative and qualitative data. The review team then completed a further layer of interpretation of the findings to help committees understand how the qualitative evidence could help to explain or contextualise the quantitative findings. This is presented in a table in each evidence report, which displays qualitative themes or sub themes, matched to relevant quantitative findings as well as an explanation about how the qualitative evidence might explain the quantitative results. The committee then discussed the synthesis of these data through their discussions of the evidence. Their interpretation of the relationship between the quantitative and qualitative data is described in the committee's discussion of the evidence section of all the mixed methods reviews.

Appraising the quality of evidence

Intervention studies

Pairwise meta-analysis

GRADE methodology for intervention reviews

For intervention reviews, the evidence for outcomes from included RCTs and comparative non-randomised studies was evaluated and presented using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) methodology developed by the international GRADE working group.

When GRADE was applied, software developed by the GRADE working group (GRADEpro) was used to assess the quality of each outcome, taking account of individual study quality factors and any meta-analysis results. Results were presented in GRADE profiles (GRADE tables).

The selection of outcomes for each review question was agreed during development of the associated review protocol in discussion with the committee. The evidence for each outcome was examined separately for the quality elements summarised in Table 2. Criteria considered in the rating of these elements are discussed below. Each element was graded using the quality ratings summarised in Table 3. Footnotes to GRADE tables were used to record reasons for grading a particular quality element as having a 'serious' or 'very serious' quality issue. The ratings for each component were combined to obtain an overall assessment of quality for each outcome as described in Table 4.

The initial quality rating was based on the study design: RCTs start as 'high' quality evidence as do NRS assessed by ROBINS-I and, other non-randomised studies start as 'low' quality evidence. The rating was then modified according to the assessment of each quality element (Table 2). Each quality element considered to have a 'serious' or 'very serious' quality issue was downgraded by 1 or 2 levels respectively (for example, evidence starting as 'high' quality was downgraded to 'moderate' or 'low' quality). In addition, there was a possibility to upgrade evidence from non-randomised studies (provided the evidence for that outcome had not previously been

downgraded) if there was a large magnitude of effect, a dose–response gradient, or if all plausible confounding would reduce a demonstrated effect or suggest a spurious effect when results showed no effect.

Table 2: Summary of quality elements in GRADE for intervention reviews

Quality element	Description
Risk of bias ('Study limitations')	This refers to limitations in study design or implementation that reduce the internal validity of the evidence
Inconsistency	This refers to unexplained heterogeneity in the results
Indirectness	This refers to differences in study populations, interventions, comparators or outcomes between the available evidence and inclusion criteria specified in the review protocol
Imprecision	This occurs when a study has few participants or few events of interest, resulting in wide confidence intervals that cross minimally important thresholds
Publication bias	This refers to systematic under- or over-estimation of the underlying benefit or harm resulting from selective publication of study results

Table 3: GRADE quality ratings (by quality element)

Quality issues	Description
None or not serious	No serious issues with the evidence for the quality element under consideration
Serious	Issues with the evidence sufficient to downgrade by 1 level for the quality element under consideration
Very serious	Issues with the evidence sufficient to downgrade by 2 levels for the quality element under consideration

Table 4: Overall quality of the evidence in GRADE (by outcome)

Overall quality grading	Description
High	Further research is very unlikely to change the level of confidence in the estimate of effect
Moderate	Further research is likely to have an important impact on the level of confidence in the estimate of effect and may change the estimate
Low	Further research is very likely to have an important impact on the level of confidence in the estimate of effect and is likely to change the estimate
Very low	The estimate of effect is very uncertain

Assessing risk of bias in intervention reviews

Bias is a systematic error, or consistent deviation from the truth in results obtained. When a risk of bias is present the true effect can be either under- or over-estimated.

Risk of bias in RCTs was assessed using the Cochrane risk of bias tool (2.0) (see Appendix H in Developing NICE guidelines: the manual).

The Cochrane risk of bias tool (2.0) assesses the following possible sources of bias:

- the randomisation process
- deviations from intended interventions
- missing outcome data
- measurement of the outcomes
- selection of the reported result.

A study with a poor methodological design does not automatically imply high risk of bias; the bias is considered individually for each outcome and it is assessed whether the chosen design and methodology will impact on the estimation of the intervention effect.

More details about the Cochrane risk of bias tool (2.0) can be found in Section 8 of the Cochrane Handbook for Systematic Reviews of Interventions (Higgins 2011).

For non-randomised studies the ROBINS-I checklist was used (see Appendix H in Developing NICE guidelines: the manual).

Assessing inconsistency in intervention reviews

Inconsistency refers to unexplained heterogeneity in results of meta-analysis. When estimates of treatment effect vary widely across studies (that is, there is heterogeneity or variability in results), this suggests true differences in underlying effects. Inconsistency is, thus, only truly applicable when statistical meta-analysis is conducted (that is, results from different studies are pooled). When outcomes were derived from a single study the rating 'no serious inconsistency' was used when assessing this domain, as per GRADE methodology (Santesso 2016).

For this guideline there were no pooled data in any of the quantitative components of the evidence reviews and therefore no heterogeneity to explore, for example through subgroup analysis. All outcomes were judged to have 'no serious inconsistency' and were not downgraded for this GRADE domain.

Assessing indirectness in intervention reviews

Directness refers to the extent to which populations, interventions, comparisons and outcomes reported in the evidence are similar to those defined in the inclusion criteria for the review and was assessed by comparing the PICO elements in the studies to the PICO defined in the review protocol. Indirectness is important when such differences are expected to contribute to a difference in effect size, or may affect the balance of benefits and harms considered for an intervention.

Assessing imprecision and importance in intervention reviews

Imprecision in GRADE methodology refers to uncertainty around the effect estimate and whether or not there is an important difference between interventions (that is, whether the evidence clearly supports a particular recommendation or appears to be consistent with several candidate recommendations). Therefore, imprecision differs from other aspects of evidence quality because it is not concerned with whether the point estimate is accurate or correct (has internal or external validity). Instead, it is concerned with uncertainty about what the point estimate actually represents. This uncertainty is reflected in the width of the CI.

The 95% CI is defined as the range of values within which the population value will fall on 95% of repeated samples, were the procedure to be repeated. The larger the study, the smaller the 95% CI will be and the more certain the effect estimate.

Imprecision was assessed in the guideline evidence reviews by considering whether the width of the 95% CI of the effect estimate was relevant to decision making, considering each outcome independently. This is illustrated in Figure 1, which considers a positive outcome for the comparison of two treatments. Three decision-making zones can be differentiated, bounded by the thresholds for minimal importance (minimally important differences; MIDs) for benefit and harm.

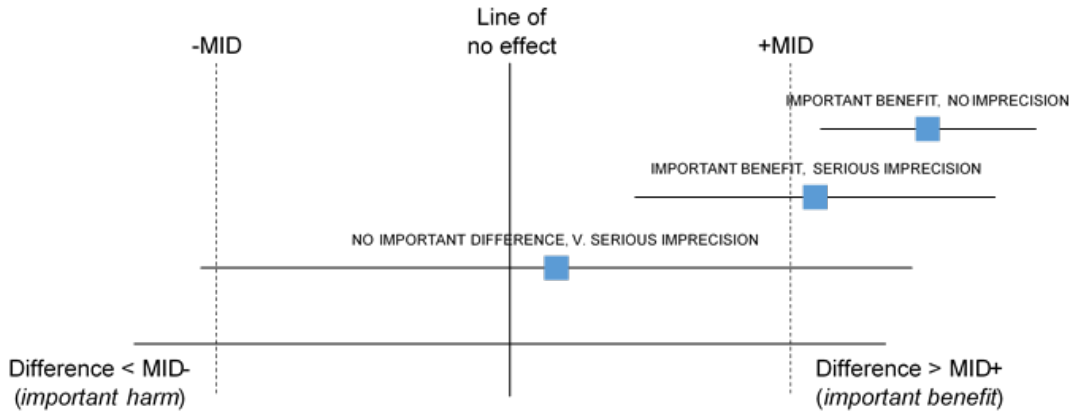
When the CI of the effect estimate is wholly contained in 1 of the 3 zones there is no uncertainty about the size and direction of effect, therefore, the effect estimate is considered precise; that is, there is no imprecision.

When the CI crosses 2 zones, it is uncertain in which zone the true value of the effect estimate lies and therefore there is uncertainty over which decision to make. The CI is consistent with 2 possible decisions, therefore, the effect estimate is considered to be imprecise in the GRADE analysis and the evidence is downgraded by 1 level ('serious imprecision').

When the CI crosses all 3 zones, the effect estimate is considered to be very imprecise because the CI is consistent with 3 possible decisions and there is therefore a considerable lack of confidence in the results. The evidence is therefore downgraded by 2 levels in the GRADE analysis ('very serious imprecision').

Implicitly, assessing whether a CI is in, or partially in, an important zone, requires the guideline committee to estimate an MID or to say whether they would make different decisions for the 2 confidence limits.

Figure 1: Assessment of imprecision and importance in intervention reviews using GRADE



MID, minimally important difference

Defining minimally important differences for intervention reviews

The committee was not aware of any recognised or acceptable MIDs in the published literature and community relevant to the review questions under consideration. They therefore agreed to use the GRADE default MIDs to assess imprecision.

For dichotomous outcomes minimally important thresholds for a RR of 0.8 and 1.25 respectively were used as default MIDs in the guideline. The committee also chose to use 0.8 and 1.25 as the MIDs for ORs & HRs in the absence of published or accepted MIDs. There were no instances of low event rates for any outcomes so Peto OR were not used. There were also no instances of zero events in either arm. However in the quantitative component of review C, for some data, only p-values were reported and since there are no default MIDs for p-values, imprecision was assessed based on sample size using 200 and 400 as cut-offs for very serious and serious imprecision respectively. The committee used these numbers based on commonly used optimal information size thresholds.

The same thresholds were used as default MIDs in the guideline for all dichotomous outcomes considered in the intervention components of the evidence reviews. For continuous outcomes default MIDs are equal to half the median SD of the control groups at baseline (or at follow-up if the SD is not available a baseline).

Assessing publication bias in intervention reviews

None of the data were pooled so the committee subjectively assessed the likelihood of publication bias based on factors such as whether studies were funded by industry and the propensity for publication bias in the topic area.

Qualitative studies

GRADE-CERQual methodology for qualitative reviews

For the qualitative components of the reviews an adapted GRADE Confidence in the Evidence from Reviews of Qualitative research (GRADE-CERQual) approach (Lewin 2015) was used. In this approach the quality of evidence is considered according to themes in the evidence. The themes may have been identified in the primary studies or they may have been identified by considering the reports of a number of studies. Quality elements assessed using GRADE-CERQual are listed and defined in Table 5. Each element was graded using the levels of concern summarised in Table 6.

The ratings for each component were combined (as with other types of evidence) to obtain an overall assessment of quality for each theme as described in Table 7. ‘Confidence’ in this context refers to the extent to which the review finding is a reasonable representation of the phenomenon of interest set out in the protocol. Similar to other types of evidence all review findings start off with ‘high confidence’ and are rated down by one or more levels if there are concerns about any of the individual CERQual components. In line with advice from the CERQual developers, the overall assessment does not involve numerical scoring for each component but in order to ensure consistency across and between guidelines, the NGA established some guiding principles for overall ratings. For example, a review finding would not be downgraded (and therefore would be assessed with ‘high’ confidence) if all 4 components had ‘no or very minor’ concerns or 3 ‘no or very minor’ and 1 ‘minor’. At the other extreme, a review finding would be downgraded 3 times (to ‘very low’) if at least 2 components had serious concerns or at least 3 had moderate concerns. A basic principle was that if any components had serious concerns then overall confidence in the review finding would be downgraded at least once (potentially more depending on the other ratings). Transparency about overall judgements is provided in the CERQual tables, including a brief reference to components for which there were concerns in the ‘overall confidence’ cell.

Table 5: Adaptation of GRADE quality elements for qualitative reviews

Quality element	Description
Methodological limitations	Limitations in study design and implementation may bias interpretation of qualitative themes identified. High risk of bias for the majority of the evidence reduces our confidence that the review findings reflect the phenomena of interest.. Qualitative studies are not usually randomised and therefore would not be downgraded for study design from the outset (they start as high quality)
Relevance (or applicability) of evidence	This refers to the extent to which the context of the studies supporting the review findings is applicable to the context specified in the review question
Coherence of findings	This refers to the extent to which review findings are well grounded in data from the contributing primary studies and provide a credible explanation for patterns identified in the evidence. If the data from the underlying studies are ambiguous or contradict the review finding this would reduce our confidence in the finding
Adequacy of data (theme saturation or sufficiency)	This corresponds to a similar concept in primary qualitative research, that is, whether a theoretical point of theme saturation was achieved, at which point no further citations or observations would provide more insight or suggest a different interpretation of the particular theme. Judgements are not based on the number of studies but do take account of the quantity and also richness of data underpinning a finding. The more complex the finding, the more detail the supporting data need to be. For simple findings, relatively superficial data would be considered adequate to explain and explore the phenomenon being described.

Table 6: CERQual levels of concern (by quality element)

Level of concern	Definition
None or very minor concerns	Unlikely to reduce confidence in the review finding
Minor concerns	May reduce confidence in the review finding
Moderate concerns	Will probably reduce confidence in the review finding
Serious concerns	Very likely to reduce confidence in the review finding

Table 7: Overall confidence in the evidence in CERQual (by review finding)

Overall confidence level	Definition
High	It is highly likely that the review finding is a reasonable representation of the phenomenon of interest
Moderate	It is likely that the review finding is a reasonable representation of the phenomenon of interest
Low	It is possible that the review finding is a reasonable representation of the phenomenon of interest
Very low	It is unclear whether the review finding is a reasonable representation of the phenomenon of interest

Assessing methodological limitations in qualitative reviews

Methodological limitations in qualitative studies were assessed using the Critical Appraisal Skills Programme (CASP) checklist for qualitative studies (see appendix H in Developing NICE guidelines: the manual). Overall methodological limitations were derived by assessing the methodological limitations across the 6 domains summarised in Table 8.

Table 8: Methodological limitations in qualitative studies

Aim and appropriateness of qualitative evidence	This domain assesses whether the aims and relevance of the study were described clearly and whether qualitative research methods were appropriate for investigating the research question
Rigour in study design or validity of theoretical approach	This domain assesses whether the study approach was documented clearly and whether it was based on a theoretical framework (such as ethnography or grounded theory). This does not necessarily mean that the framework has to be stated explicitly, but a detailed description ensuring transparency and reproducibility should be provided
Sample selection	This domain assesses the background, the procedure and reasons for the method of selecting participants. The assessment should include consideration of any relationship between the researcher and the participants, and how this might have influenced the findings
Data collection	This domain assesses the documentation of the method of data collection (in-depth interviews, semi-structured interviews, focus groups or observations). It also assesses who conducted any interviews, how long they lasted and where they took place
Data analysis	This domain assesses whether sufficient detail was documented for the analytical process and whether it was in accordance with the theoretical approach. For example, if a thematic analysis was used, the assessment would focus on the description of the approach used to generate themes. Consideration of data saturation would also form part of this assessment (it could be reported directly or it might be inferred from the citations documented that more themes could be found)
Results	This domain assesses any reasoning accompanying reporting of results (for example, whether a theoretical proposal or framework is provided)

Assessing relevance of evidence in qualitative reviews

Relevance (applicability) of findings in qualitative research is the equivalent of indirectness for quantitative outcomes, and refers to how closely the aims and context of studies contributing to a theme reflect the objectives outlined in the guideline review protocol.

Assessing coherence of findings in qualitative reviews

For qualitative research, a similar concept to inconsistency is coherence, which refers to the way findings within themes are described and whether they make sense. This concept was used in the quality assessment across studies for individual themes. This does not mean that contradictory evidence was automatically downgraded, but that it was highlighted and presented, and that reasoning was provided. Provided the themes, or components of themes, from individual studies fit into a theoretical framework, they do not necessarily have to reflect the same perspective. It should, however, be possible to explain these by differences in context (for example, the views of healthcare professionals might not be the same as those of family members, but they could contribute to the same overarching themes).

Assessing adequacy of data in qualitative reviews

Adequacy of data (theme saturation or sufficiency) corresponds to a similar concept in primary qualitative research in which consideration is made of whether a theoretical point of theme saturation was achieved, meaning that no further citations or observations would provide more insight or suggest a different interpretation of the theme concerned. As noted above, it is not equivalent to the number of studies contributing to a theme, but it does take account of the quantity of data supporting a review finding (for instance whether sufficient quotations or observations were provided to underpin the findings) and in particular the degree of 'richness' of supporting data. Concerns about richness arise when insufficient details are provided by the data to enable an understanding of the phenomenon being described. Generally, if a review finding is simple then relatively superficial data will be needed to understand it. Data underpinning a more complex finding would need to offer greater detail, allowing for interpretation and exploration of the phenomenon being described. Therefore, in assessing adequacy our downgrading involved weighing up the complexity of the review finding against the explanatory contribution of the supporting data. .

Reviewing economic evidence

Titles and abstracts of articles identified through the economic literature searches were independently assessed for inclusion using the predefined eligibility criteria listed in Table 9.

Table 9: Inclusion and exclusion criteria for systematic reviews of economic evaluations

Inclusion criteria
Intervention or comparators in accordance with the guideline scope.
Study population in accordance with the guideline scope.
Full economic evaluations (cost-utility, cost effectiveness, cost-benefit or cost-consequence analyses) assessing both costs and outcomes associated with interventions of interest.

Inclusion criteria
Cost analyses were also considered for inclusion due to the anticipated lack of economic evidence. Only costing studies after 2010 and from a UK perspective were included.
Exclusion criteria
Abstracts containing insufficient methodological details.
Cost-of-illness type studies.

Once the screening of titles and abstracts was completed, full-text copies of potentially relevant articles were requested for detailed assessment. Inclusion and exclusion criteria were applied to articles obtained as full-text copies.

Details of economic evidence study selection, lists of excluded studies, economic evidence tables, the results of quality assessment of economic evidence (see below) and economic modelling are presented in Supplement 2 (Economics).

Appraising the quality of economic evidence

The quality of economic evidence was assessed using the economic evaluations checklist specified in Developing NICE guidelines: the manual.

Economic modelling

The aims of the economic input to the guideline were to inform the guideline committee of potential economic issues to ensure that recommendations represented a cost effective use of healthcare resources. Economic evaluations aim to integrate data on healthcare benefits (ideally in terms of quality-adjusted life-years; QALYs) with the costs of different options. In addition, the economic input aimed to identify areas of high resource impact; these are recommendations which (while cost effective) might have a large impact on Clinical Commissioning Group, Local Authority or Trust finances and so need special attention.

The guideline committee prioritised the following review questions for economic modelling where it was thought that economic considerations would be particularly important in formulating recommendations.

- Topic G: What is the effectiveness of social and community support approaches (including peer support) in promoting social inclusion of adults with complex needs?
- A number of costing analyses were also undertaken for potential recommendations which could have a resource impact.

The methods and results of the de novo economic analyses and costing analyses are reported in Supplement 2 (Economics). When new economic analysis was not prioritised, the committee made a qualitative judgement regarding cost effectiveness by considering expected differences in resource and cost use between options, alongside effectiveness evidence identified from the evidence review.

Cost effectiveness criteria

NICE's report Social value judgements: principles for the development of NICE guidance sets out the principles that committees should consider when judging

whether an intervention offers good value for money. In general, an intervention was considered to be cost effective if any of the following criteria applied (provided that the estimate was considered plausible):

- the intervention dominated other relevant strategies (that is, it was both less costly in terms of resource use and more effective compared with all the other relevant alternative strategies)
- the intervention cost less than £20,000 per QALY gained compared with the next best strategy
- the intervention provided important benefits at an acceptable additional cost when compared with the next best strategy.

The committee's considerations of cost effectiveness are discussed explicitly under the heading 'Consideration of economic benefits and harms' in the relevant evidence reviews.

Details of the cost effectiveness analyses undertaken for the guideline are presented in Supplement 2 (Economics).

Developing recommendations

Guideline recommendations

Recommendations were drafted on the basis of the committee's interpretation of the available evidence, taking account of the balance of benefits, harms and costs between different courses of action. When effectiveness, qualitative and economic evidence was of poor quality, conflicting or absent, the committee drafted recommendations based on their expert opinion. The considerations for making consensus-based recommendations include the balance between potential benefits and harms, the economic costs or implications compared with the economic benefits, current practices, recommendations made in other relevant guidelines, person's preferences and equality issues.

The main considerations specific to each recommendation are outlined under the heading 'The committee's discussion of the evidence' within each evidence review.

For further details refer to Developing NICE guidelines: the manual.

Research recommendations

When areas were identified for which evidence was lacking, the committee considered making recommendations for future research. For further details refer to Developing NICE guidelines: the manual and NICE's Research recommendations process and methods guide.

Validation process

This guideline was subject to a 6-week public consultation and feedback process. All comments received from registered stakeholders were responded to in writing and posted on the NICE website at publication. For further details refer to Developing NICE guidelines: the manual.

Updating the guideline

Following publication, NICE will undertake a surveillance review to determine whether the evidence base has progressed sufficiently to consider altering the guideline recommendations and warrant an update. For further details refer to Developing NICE guidelines: the manual.

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