Identifying standards for care coordination in adult social care: a multinational perspective

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Abstract

Introduction Standards for care coordination in adult social care can support the delivery of high quality services.

Methods A content analysis of twenty guidance documents produced over the last 30 years was undertaken to consider their utility for current practice. A mix of convenience and purposive sampling was used. Data were extracted on document design and substance and analysed in relation to a conceptual framework that articulated standards as principles of practice situated within elements of care coordination, such as assessment.

Results Twenty four standards were repeatedly found across the documents. The most frequently cited were user participation, a network approach and person-centred practice. Most documents contained 'standards' as identified by the framework above. Variation was found regarding how standards were operationalised in relation to elements of care coordination. Principles were most frequently linked to assessment and care/support planning and least often to referrals and case closures. User participation was the most cited principle, operationalised in relation to all elements of practice in seven documents. Sixteen standards related to individual practice and eight to agency level responsibilities.

Discussion The findings indicate a set of core standards that have demonstrated utility over a 30 year period and to gaps in relation to both the operationalisation of certain principles and particular elements of care coordination. The application of the definition of a standard developed by this study could support the delivery of comprehensive high quality services across the care coordination pathway. Further research is needed to validate its use in different settings.

Key words: Standards, care coordination, content analysis, social care, adults.

Standards for care coordination in adult social care: a multinational perspective

Introduction

Care coordination encompasses a range of elements including case finding, assessment, support planning, monitoring and review.¹ It involves the arrangement of an individual's support through interaction between two or more people, including the service user, to facilitate appropriate service delivery.² The process is considered judicious where people have ongoing and complex needs and where provision might be required from a range of fragmented services.³ The role of care coordinator has traditionally been undertaken by either health or social care professionals, including social workers, nurses and occupational therapists. It has evolved to encompass a single worker undertaking the coordination of health, social care, and other services such as housing and leisure,⁴ with the aim of reducing duplication of effort and improving efficiency and service user satisfaction.⁵ The need to regulate care coordination through the production and use of standards both for practitioners and their employing agencies has long been recognised internationally⁶ and documents of this nature have been produced by a variety of organisations and professional associations over many years. Some have been developed for use within particular services or by specific professions whilst others have had geographic boundaries. Their remit has tended towards the identification of good practice, describing both required processes and how these should be undertaken.

The production and use of standards is central to effective accomplishment of quality performance and measurement. A number of tools exist which seek to support organisations in the development and implementation of such guidelines (e.g. ^{7, 8}). This study sought to identify a workable definition of a standard for care coordination and locate those most frequently cited, through the appraisal of existing documents which purport to contain them, to inform the development of standards in the future. It was undertaken as part of a larger study to map the development of non-statutory sector care coordination services in England serving older people, and to provide guidance for commissioners, managers, and practitioners working within them. Recent policy changes have resulted in a shift towards a larger role for the non-statutory sector in the delivery of care coordination services⁹ making it closer to several other industrially advanced nations whose adult social care systems operate across both statutory and non-statutory sectors. ¹⁰ The issue of how to ensure the quality of these services is consequently of particular interest in England currently. However the widespread practice of care coordination in many countries across public, private (for-profit) and non-statutory (known variously as: 'not-for-profit', 'voluntary' or 'third' according to the country of origin) sectors make the findings internationally relevant. ¹¹

The aim was to identify both enduring features and variation in existing guidance documents relating to their:

- Design – how were standards expressed and operationalised?
- Substance – what were the most frequently cited standards?
- Utility – what can be gleaned from them to support future practice?

Methods

This element of the study comprises of a content analysis, using both qualitative and quantitative methods, of selected practice documents incorporating both conventional and directed approaches.¹² In the first of these codes were defined during analysis, emerging from data whereas in the second they were defined before and during analysis, derived from theory or related research evidence. The term 'review' is used throughout the article. However, this is not a systematic literature review.

Data collection

The twenty documents included in this review were chosen from a self-selected convenience sample of material held by a member of the research team (DC), collected over many years of scholarship in the field of care coordination, augmented by a purposive sampling strategy ¹³ to obtain a sample that contained the key criterion of importance: standards for care coordination. These were located through web searches of relevant organisations (e.g. national Care Management Societies). The aim was to include material from the five English speaking countries with common features in relation to policy and practice developments in adult social care services (UK, Australia, New Zealand, Canada and the USA) spanning the period of the development of care coordination globally.

Searches stopped when the sample reached saturation: where sufficient data to account for all aspects of the phenomenon had been obtained and where replication

of categories verified and ensured '*comprehension and completeness*' (p. 18).¹⁴ Saturation, a concept taken from grounded theory¹⁵, is operationalised through the process of constant comparison¹⁶. In the current context this meant a decision to close the sample was made when the same standards and principles were repeatedly found to be present with no substantively different additional ones being added with each new document searched. In other words, new data matched existing categories with no new themes identified¹⁷. This was also validated by a carers group of 35 people from a non-statutory agency who were asked to select their priorities from the 24 identified standards and to reflect on whether they thought any important concepts were missing. None were identified. The potential for bias within this process was dealt with through discussion within the research team, through repeatedly referring back to the original documents rather than relying on the extracted data alone¹⁸, and by having a clear remit: the search for documents that referred to standards for care/case management/coordination in the field of adult social care from the mid 1980's onwards.

Data extraction and analysis

The appraisal method incorporated the principles of content analysis, proportionate to the task, the review of twenty documents of varying length as well as time constraints contingent on research funding. This method is an effective means of data reduction and benefits from being systematic and replicable, condensing large amounts of text into '*fewer content categories based on explicit rules of coding*' (p. 1).¹⁹ It requires categories to be clearly defined, mutually exclusive and exhaustive. This process involved a number of stages moving from emergent coding (conventional content analysis) to the development of explicit coding and recording

instructions (directed content analysis) to support a systematic approach, as noted above.

Firstly, an initial reading of the documents by one researcher (MA), noting key elements (care coordination tasks) and principles (approaches used when undertaking tasks), was undertaken and findings used to develop a list of categories (“a group of words with similar meaning or connotations” ²⁰ (p37). Consultation with a second researcher familiar with a proportion of the documents (JH) provided validity for this emergent coding process. Evidence from internationally published literature was then sought to compare against the identified standards and ensure their grounding in a wider understanding of good practice in care coordination. ^{23, 44-65} Literature was selected through expert knowledge within the research team supplemented by internet searches using google scholar with inclusion criteria ensuing these were published within peer reviewed journals or other respected texts. These procedures resulted in the specification of standards as incorporating both statements of intent and measureable processes ²¹ and as practices based on principles undertaken within one or more element of care coordination. These terms are explained in Table 1 below.

This was followed by a second reading of the documents using the list of agreed categories to identify the nature and extent of content within the agreed elements and principles, whether they were referred to as statements of purpose or general guidance only or whether they were also operationalized via procedures and/or case study examples, and within which elements of practice were individual principles outlined. Standards were separated into individual practitioner and agency level responsibilities.

The sampling unit was the individual document. A data extraction tool and recording instructions were developed to ensure that the same data type was extracted from each document. Rules for searching document content included checking for evidence of coverage within the sections of the documents describing elements of practice, principles or ethics of practice, and introductory sections or chapters. Key content areas of each document were covered by this analysis. Measures of interest also included whether standards were overtly linked to research literature, whether there was evidence of user or practitioner involvement in their production, and whether performance indicators were included. Standards were separated into individual practitioner and agency level responsibilities. A decision was taken to report fully only those elements and principles that appeared in 40 per cent or more of the documents. This work was primarily undertaken by MA with active involvement in data extraction and analysis from JH. Other members of the research team (DC, RJ, CS) were involved in periodic discussions which were used to both reinforce and challenge interpretation. Regular re-checking of earlier decisions was used to test intra-rater reliability whilst inter-rater reliability was achieved via discussion between the two authors involved in this aspect of the study (MA and JH). All analysis was handled manually using summary charts created in 'Microsoft Word' documents.

<Table 1 about here>

Results

The findings are reported in four sections: an overview of the documents; an outline of the presence of standards within them as defined in Table 1 (elements and

principles); a description of individual level; and of agency level standards. The standards are not exhaustive but represent those most frequently noted. Throughout the article (unless different terms are used in quotations) 'care coordination' and 'care coordinator' are used as generic terms incorporating both care and case management approaches in recognition of the overlap between these concepts and practices whilst also acknowledging their differences.²³

Document overview

As seen in Table 2, half of the 20 documents included in this review were produced in the 1980s and 1990s and half from 2000 onwards. The pre 2000 documents were dominated by a group (n=5) from the Antipodes whilst the post 2000 ones came largely from North America (n=7). More recent documents were more frequently produced by professional bodies with earlier ones tending to be the products of national or local governments. Two documents, both from Australia, were produced by the non-statutory organisations for use by their own services.

<Table 2 about here>

In addition to the content noted in Table 2 variation was found on a range of other characteristics. Four documents were specifically targeted at older people's services, three of which were produced pre-2000.^{24, 25, 31, 39} Two of these and two others stated that they related to those providing services for people with intensive, complex and/or on-going needs.^{24, 25, 33, 35} The focus of eight documents was 'all adults' of which seven were produced after 2000.^{26, 34-38, 40, 42} Seven stated that their standards were mandatory,^{24, 26, 28, 32, 37, 39, 41} four that they were baseline^{28, 37, 39, 41}

whilst three were said to be optimal.^{29, 31, 38} One noted that its intention was to promote uniform quality across the sector.³³ All of the documents were designed for practitioners and/or managers in the field whilst thirteen stated that they were to be used to support service development. Three also contained a training component,^{34, 35, 42} and a fourth was described as an education and training resource for new and existing staff.²⁷ Managers and/or practitioners were involved in the production, either as members of steering groups or in consultation exercises, of thirteen documents.^{22, 25-31, 35, 36, 38, 40, 41} Four also included representatives of user groups in such exercises.^{22, 28-30} Eleven referred to published material,^{22, 25-27, 29-31, 35, 37, 40, 42} one using this directly as supporting evidence for the standards.²² No strong pre/post 2000 patterns were indicated in relation to any of these characteristics.

Twenty four standards were identified overall within the documents although no document contained all of these. Seven contained between 18 and 22, nine between 12 and 17 and four between five and 11. Eight standards were cited in more than 70 per cent of the documents. (Data on which these figures are based can be found in the online Appendix Table 1). Most (n=17) contained both individual and agency level standards, although three only included the former, all produced after 2000. Two of these were professional Case Management Society standards aimed at the individual practitioner.

Elements and principles

Sixteen documents met the criteria for a standard as defined here, that is, that principles operationalised within one or more elements of practice. Of the four that did not, one described elements only⁴¹ and three made no distinction between

elements and principles, merging them into a single list.^{25, 29, 31} All but one of the documents listed at least some elements of care coordination as well as some principles of practice but varied as to how these were described. The most common structure was to outline elements of practice and place principles within these. Four also included additional statements of principles. One focused on principles and incorporated elements into these.³⁶ These findings are summarised in Table 3 which also provides a summary of how each document supported the operationalisation of its standards. The majority provided practical procedures although a minority contained only statements of purpose. Eleven included performance indicators, defined as target values by which to measure the operational performance of an individual practitioner or organisation,⁴³ including Likert scales of attainment and criteria and activities necessary to attain them; implementation guides or timetables; and checklists. Case studies were used to illustrate good practice in six documents of which one was designed entirely around a series of such examples.

Although not all the documents met the rigorous definition of a standard used in this article, all 20 documents are referred to in the subsequent analysis thereby reflecting the broad aim of the study and its focus on the design, substance and utility of documentation.

<Table 3 about here>

Individual level standards

Content analysis identified sixteen individual level standards, summarised in Table 4, with examples from the documents. A more detailed table where standards are also

contextualised via definitions drawn from the relevant published literature can be found in the online Appendix Table 2 where, for example, the promotion of active user and carer participation is linked to the provision of sufficient information to facilitate valid, informed consent.⁴⁵ The most frequently cited related to the use of comprehensive (100%) and person-centred approaches (95%) and to the promotion of user participation (95%). This was followed by the use of a network approach and a goal focus (90% each); and relational and culturally sensitive perspectives (80% and 75% respectively).

Table 5 describes the coverage given to these 16 standards in more detail and distinguishes between those which were operationalised within individual elements of care coordination and those presented as separate principles. Some standards were more frequently operationalised than others whilst others were cited in relation to specific but not all elements. Other standards appeared more frequently as separate principles, suggesting that these might be more difficult to put into practice. For example, almost all those referring to cultural sensitivity or competence did so as a separate principle (n=14). Overall standards were most frequently operationalised in relation to assessment and care planning and least in relation to referrals and case closure, with the other elements falling between these extremes.

The principle most frequently cited overall, operationalised in relation to all elements of practice in seven documents, was user participation. It was operationalised most commonly in relation to care planning (n=16), assessment (n=12), and documentation (n=10). A network approach was most frequently cited in relation to the implementation process (n=11). Taking a comprehensive approach was largely cited in relation to assessment practice. Some standards were clearly more closely

related to particular elements. For example, having a goal focus was largely referred to in relation to care planning (n=14).

<Table 4 and 5 about here>

Agency level standards

Eight agency standards, also summarised in Table 4, were found within 17 documents. Overall, they appeared less frequently than did individual level standards with only four noted in more than half the sample. Agency level standards fell into three areas referring to: quality assurance and contractual arrangements; the treatment of staff (and potentially volunteers); and issues of access. Two agency standards (eligibility criteria and access arrangements) were operationalised, although only within a minority of documents. These aside, agency level standards tended to focus on the service as a whole rather than on particular elements of practice and were largely described as separate principles.

Quality assurance, in the form of evaluation and review, was the most frequently noted agency level standard, being found in 12 documents.^{24-26, 29, 31-34, 36, 37, 39, 41} Evaluation was mainly described in relation to internal procedures although one also noted the importance of external review.³⁹ Several documents outlined the purpose of evaluation, described as a means of promoting best practice via the identification of service gaps,^{25, 31} ensuring cost effectiveness,²⁵ promoting accountability and listening to service users.²⁹ There was a degree of overlap between agency and individual standards in relation to this issue with recognition that quality assurance

was relevant at both individual staff and service manager levels. The quotation from the UK Care Management and Assessment Manager's Guide summarises this well:

*Judging provision against explicit quality standards known to all is an essential feature of care management and assessment. Consequently, quality has to be a major concern of all staff at both practitioner and managerial level (p. 113).*²⁶

Twelve documents overall included standards relating to staff characteristics and support. These referred by and large to the skills and competencies required of care coordinators,^{25, 27, 34, 37, 39, 41} their training,^{24-27, 29-31, 33, 34, 39, 41} and support via management supervision and appraisal.^{25, 31, 33, 34, 37, 39, 41} Multidisciplinary training was noted to be important to the development of shared understanding between professions. Qualifications and competencies expected of employees were outlined by six documents.^{22, 24, 27, 28, 37, 40} As with quality assurance, some blurring of agency and individual level standards and responsibilities are found here with competencies reflecting the individual level standards outlined above. They were defined as being at the agency level however where they referred to the latter's responsibilities regarding hiring and training staff to attain individual level competencies.

Just under half of the documents (n=9) provided data on eligibility and access issues respectively. In relation to eligibility, these were primarily related to the responsibilities of services to ensure their criteria were transparent and justifiable.^{24-27, 29, 31, 33, 38, 41} Access was promoted through publicity and the use of case finding and targeting practices and via access and referral systems which were expected to be straightforward, equitable and non-judgemental.^{22, 26, 28, 31-34, 38, 41} Some also referred to the need for systems to prioritise cases and manage waiting lists and for

publicity to include information about complaints procedures. Where operationalised, these standards related to the referral process with five documents citing access arrangements within this element of care coordination^{22, 31-33, 34} and two referring to this in relation to eligibility criteria.^{22, 37}

Discussion

This article is based on a systematic content analysis of 20 practice documents designed to improve care coordination practice. The process produced a core set of standards, delineated in relation to individual practice and agency level responsibilities and employed a conceptual framework to distinguish between principles and elements of practice to produce a workable definition of a standard (Table 1). Areas of consistency and differentiation were presented in relation to both design (including authorship and the use of existing evidence in development) and substance (principles and elements and how combined). Although the analysis sought to distinguish between standards, a degree of overlap and linkage between them was evident, indicative of an overarching model of practice. The discussion below considers the quality and contribution of the study as well as a series of issues related to its findings, concluding with a consideration of future areas of research.

Content analysis of documentary data is a common method and one with both strengths and limitations. Strengths include its ability to provide rich and detailed data along with the notion of this being 'non-reactive' or unbiased by the data collection process. A potential limitation however is that data is removed from its context which can lead to inadvertent bias during data analysis through the researcher extracting that which best fits their hypothesis^{66, 67}. The possibility for

bias in a review such as this is present at any stage: searches can be incomplete, data incorrectly extracted or interpreted, and analysis inaccurate ⁶⁸. Potential biases were minimised by the use of an audit trail ¹²: explicit, systematic and transparent methods of data extraction and analysis; constant comparison to reach theme saturation; regular return to the original texts rather than reliance on the extracted data alone, as noted in the method; corroboration by a carers group; and discussion between the authors to ensure the process had both internal and external validity. Further validation for the 24 standards identified by this content analysis can be found in “The Care Coordination Measures Atlas” ⁸ which outlined key domains of measurement within nine principles. Six of the latter overlap with those highlighted by the current review in relation to the importance of communication, assessment of needs and goals, creation of proactive plans of care, responding to change, supporting self-management goals and linkage to community resources (the others being the establishment of accountability, facilitation of transitions and alignment of resources with population needs).

Two other limitations of this study must also be acknowledged. Firstly, some of the included documents might prove difficult to access, being grey literature, printed in the 1980s, making the opportunity for others to test our results potentially problematic. Secondly, the sampling methods employed, being non-systematic and restricted to five English speaking countries with similar social care arrangements, limit the generalisability of the findings. However, the fact that the included documents spanned three continents and were produced by and for a range of organisations including professional associations, government departments and non-statutory sector agencies, makes it likely that they will be relevant to other parts of

the world where care coordination is practiced within adult social care services (e.g. Japan, The Netherlands).

A number of published papers and tools exist focusing on the measurement of the quality of care coordination (e.g. ^{8, 66, 69, 70, 71}) or more generally on clinical guidelines⁷. Some overlap between these and the current study can be found. For example, Burgers and colleagues ⁷ included six domains for assessing the quality of practice which are similar to those used here in relation to the analysis of the design of the included documents: scope and purpose, stakeholder involvement in production, rigour of development, clarity of presentation, applicability and editorial independence. The unique contribution of the current study however, is the development of a framework by which standards of care coordination are defined as principles within practices, underscored by evidence and public validation with the capacity to support the delivery of good quality services. The remainder of the discussion explores a number of issues related to the findings and their implications for future research.

Developing and implementing standards

Two themes emerged from this study in relation to the development of standards: stakeholder input and the use of existing evidence. Workplace commitment is also considered below in relation to their implementation. There was evidence within the reviewed documents of some level of participation in their design and content by managers or practitioners in thirteen and by user representatives in four. Such participation or co-production is recognised within the literature⁴⁶ as an important

part of the design of relevant and effective standards, resulting in a sense of ownership, shown to influence adoption.⁷² This corresponds with the ‘bottom up’ theory within the management of change literature which argues that the involvement of those affected by change is more likely to result in support for and commitment to it than if presented as a fait accompli.⁷³ The literature also notes that standards are more likely to focus on areas of importance to service users if they are involved in their design^{72, 74} whilst Bovaird⁷⁵ suggested that the involvement of service users and their communities (bringing together a wide range of stakeholders) can ‘*raise the effectiveness of public policy*’ (p. 858).

Eleven of the documents in this review included some awareness of research evidence by the inclusion of a reference list and in one case the use of rating criteria which used some of Moxley’s⁵² five dimensions of quality assessment: availability, adequacy, appropriateness, acceptability and accessibility. Such referencing of published research literature acknowledges the importance of evidence to standard setting, something also stressed in the literature with Geron, for example, noting that an ideal system would ‘*be consistent with literature*’ (p. 170).⁷⁴

Standards need to be embedded throughout an organisation from the top down, demonstrating a cultural commitment to them, if they are not to flounder.⁷⁶ Such dedication needs to be evidenced through how staff are treated. Supporting and developing staff ensures that they build the skills and attributes to undertake their work to a high standard thus improving the chances of a positive experience for the service user at “*the moment of truth*” when they and the care coordinator “*meet in a face-to-face interaction*” (p. 144).⁷⁶ Three of the eight agency level standards identified related to staffing issues in the form of competencies, training and support.

These standards are also grounded in the literature with Geron, ⁷⁴ for example, noting the importance of agencies investing in training and development of assessment staff.

Standards within the care coordination process

The literature concerning the nature of standards in care coordination and more generally in health care tends to lean towards the need for them to be specific and precisely defined rather than generic and aggregate in order to provide practitioners and managers with the tools needed to support their delivery.^{74, 77} An exception to this is Ovretveit ²¹ who suggested they should incorporate statements of different levels of abstraction and warned against being too prescriptive about 'intangibles', stating that standards should be about outcomes rather than behaviour.

The extent of variation regarding these issues in the current review, as noted above, is acknowledgement of the complexity of this undertaking which found that standards were not comprehensively spread across care coordination practice. Most were clustered around assessment and care planning and least were evident within the tasks of referral and closure. This is significant when one considers the importance of first and last impressions. Geron noted the importance of establishing a '*positive connection from the outset*' (p. 70).⁷⁸ Additionally, timely closure enables effective targeting to take place and ensures that individuals do not become '*unnecessarily dependent*' on the care coordination service (p.15) ⁴⁷.

Analysis also suggested that some principles were more difficult to operationalise than others. Cultural sensitivity, for example, was identified as a separate principle in

14 documents but operationalised within an element of practice in relatively few, the most frequent (n=5) in relation to assessment. Demonstrating dignity and respect was also more frequently referred to as a separate principle. However, creating deliverable standards must include harnessing intangible or 'soft' aspects of service values to matters of importance to service users. This was achieved in some documents where it was linked to practice that respected privacy and confidentiality in gathering and documenting information.

Core standards

Analysis identified 24 standards within the 20 documents of which eight appeared in over 70 per cent and five in 90 per cent or more. It might be suggested that these five (comprehensive and person-centred approaches, user participation, operating within a network of support, and a goal focus) should be at the heart of any new guidance, having demonstrated their utility and relevance over a 30 year period. These standards can also be tracked within the literature to some of the early texts on care coordination and to more recent publications, adding weight to their value. Moxley,⁵² for example, stated that assessment should be needs-based, holistic, comprehensive, interdisciplinary and participatory whilst support planning should be both participatory and goal oriented. More recently it was noted that assessment should be holistic, tailored to the individual, involve support systems, work collaboratively with the individual and other staff, and enable the individual to retain maximum independence and dignity.⁷⁸ These principles also fall squarely within the personalisation agenda prevalent in government policy in the UK and elsewhere⁷⁹,

⁸⁰.

The majority of the standards identified by this review were at the individual practitioner level, indicating how a care coordinator should behave and the knowledge and skills they should bring to their role. Others have noted that the concept of delivering good quality care is most meaningfully applied at this level.⁷⁷ Some, however, require agency management. The standard relating to access, for example, although experienced at an individual level, is related to eligibility criteria, the design of which is the responsibility of the agency.

Quality assurance

Standards are one stage in a quality assurance cycle which seeks to recognise and codify good practice attributes (standards), produce and utilise tools to measure their use, analyse the collected data to identify possible areas needing improvement and put these into practice.⁴⁶ Ellis and Whittington⁸¹ suggested that *'all quality assurance begins with standard setting, progresses to appraisal of the achievement of those standards and concludes with identification and implementation of action for improvement'* (p. 66) – before the cycle starts again. Others have suggested that standards are a vital part of a quality cycle, applicable at all times.²¹ The presence of a quality assurance system was identified in the reviewed documents as a standard in its own right. However, tools to measure how standards were being implemented were only found in just over half of them. The collection of data and its use to measure the nature and extent of compliance to standards requires a multifaceted approach including the participation of service users and a means of understanding outcome data within the context of community level data.

Although measuring quality from a range of perspectives including those of service users is regarded as one means of improving practice ^{8, 82}, the means by which this is achieved has been found to be flawed. User satisfaction questionnaires, for example, are often based on ad hoc measures, not tested for validity or reliability, and represent a provider perspective.⁸³ It has also been suggested that an added complexity to defining and measuring quality via service user experience is that service users are not always aware of whether care is being properly delivered and indeed might not always like 'proper care'.⁸² One approach has been the use of the concept of acceptability (one of Moxley's five dimensions of assessment ⁵²) as part of an outcome measure influencing future use of the service.⁷⁷

The importance of measuring the quality of a service through its structures, processes and outcomes is generally recognised. ⁵⁸ McDonald and colleagues ⁶⁹ described the need to focus on the measurement of structures and processes to provide evidence of the "exact mechanisms that produce better outcomes" (p1). Others have focussed on the lack of outcome measurement suggesting that this has been partly due to the difficulty of measuring so-called 'soft' attributes ⁷⁶ and to the lack of direct association between outcomes and service inputs due to the influence of external factors and effects.⁷⁴ To alleviate this it is suggested that individual outcomes be aggregated to understand whether there are problems with the service ⁷⁴ and outcomes measured against expected results, for example, taking health status into consideration.⁸⁴

Future research questions

The findings point to the need for future research in a number of areas. Firstly, the framework was developed theoretically, based on an analysis of practice documents. Further research is required to assess whether it translates into practice, what if any barriers and facilitators there are to this, including the views of care coordinators on its value. Secondly, given the multidisciplinary nature of care coordination it would be useful to explore the transferability of the framework beyond the locus of adult social care. Care coordination, for example, has for some time been practiced within acute health settings as well as within the support of people living with long-term conditions requiring support from a wide range of services ^{85, 86}. Testing the framework's applicability in these settings would enhance the understanding of whether it was of specific or more general use. Thirdly, although the content of the current standards was validated by a carers group, they were generated from existing standards prepared with only limited input from the public. Future research might usefully work with users and carers to find out whether they suggest different standards when given free reign rather than the option of choosing their priorities from a pre-existing list.

Conclusion

This review of documents designed to support the delivery of good practice in care coordination in adult social care has provided additional evidence to that already in circulation by the production of both a comprehensive set of principles pertaining to good practice and the development of a framework which expresses a standard as one or more of these principles operationalised within a range of care coordination practice elements. It is recommended that the framework be used in the design of care coordination standards in the future to ensure that principles of good practice

are both actionable and able to be assessed within all elements of the care coordination pathway. Further research is also recommended to validate the use of the framework in a range of environments.

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Conflict of interest

None declared.

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(NB. References 44, 45, 48-51, and 53-65 relate to online Appendix Table 2 only)

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Table 1. Conceptual framework

Terminology	Description with example
Elements of practice	One or more care coordination activity, e.g. <i>assessment, care planning, implementation, monitoring and reviewing, closure, and documentation</i>
Principles of practice	Views contained in mission statements, ethical guidelines, overarching principles not tied to a specific activity, e.g. the service is “ <i>comprehensive and has the capacity to provide seamless and coordinated [support]... in accordance with individual need</i> ” (p13) ²²
Standard	A principle that is <i>operationalised</i> within one or more element of practice, e.g. a ‘ <i>comprehensive, individualised service plan must be developed mutually by the case manager and the consumer and reflect the stated goals and needs of the consumer</i> ’ (p. 20) ²²

Table 2. List of documents*

Ref.	Country of origin	Date of publication	Publication type**	Standard level present	
				Individual	Agency
24	US	1986	2	√	√
25	US	1988	4	√	√
26	UK	1991	1	√	√
27	Canada	1992	2	√	√
28	New Zealand	1994	1	√	√
29	Australia	1995	2	√	√
30	England	1995	1	√	√
31	Australia	1996	3	√	√
32	Australia	1997a	1	√	√
33	Australia	1997b	3	√	√
22	Canada	2005	2	√	√
34	Scotland	2006	1	√	√
35	Australia	2007	2	√	X
36	US	2007	4	√	√
37	UK	2009	4	√	√
38	Canada	2009	4	√	√
39	US	2009	2	√	√
40	US	2010	4	√	X
41	US	2011	2	√	√
42	US	2013	4	√	X

*Full references are listed at the end of the article. ** 1 = National government; 2 = regional government; 3 = non-statutory sector organisation; 4 – professional body.

Table 3. Structure, operationalisation and measurement

ID	Standards*	Structure	Operationalisation	PI**	Case studies
24	√	Elements incorporating principles	Statements of purpose, procedures and guidelines		
25	x	Elements and principles described as standards (no distinction)	Statements of purpose only		
26	√	Elements incorporating principles	Statement of purpose and detailed procedures	√	√
27	√	Elements incorporating principles	Statements of purpose with criteria & training objectives		√
28	√	Elements incorporating principles (assessment only)	Statements of purpose and procedures	√	
29	x	Elements and principles described as standards (no distinction)	Statement of purpose only	√	√
30	√	Elements incorporating principles	Statements of purpose only	√	
31	x	Elements and principles described as standards (no distinction)	Components of service quality listed (e.g. 'client rights and responsibilities')	√	√
32	√	Elements incorporating principles	Procedural guidance	√	
33	√	Elements incorporating principles plus separate statements	Statements of purpose, objectives and procedure for each standard (n=4) (plus other service components, e.g. staffing)		
22	√	Elements incorporating principles	Statements of purpose covering elements (n=7) comprising 8 domains	√	
34	√	Elements incorporating principles	Statements of purpose and procedures to achieve them		√
35	√	Elements incorporating principles	Narrative based around case studies of good and poor practice	√	√
36	√	Principles incorporating elements	Statements of purpose only		
37	√	Elements incorporating principles	Statements of purpose and requirements to achieve standards	√	
38	√	Elements incorporating principles	Statements of purpose, interpretation and guidelines. 5 guiding principles also set out separately		
39	√	Elements incorporating principles plus separate statements	Statements of purpose only		
40	√	Elements incorporating principles plus separate statements	Statements of purpose only	√	
41	x	Elements only	Statements of purpose, procedures	√	
42	√	Elements incorporating principles plus separate statements	Statements of purpose with detailed interpretations of how these can be put into practice		

* As defined in Table 1. **Performance indicators

Table 4. Content: Individual and agency level standards - examples and coverage (n=20)

Standard	Examples from documents	Presence	
		N	%
<i>Individual level</i>			
A comprehensive and holistic approach	A comprehensive and accurate assessment will be produced of the person’s abilities, resources, goals and needs ²⁸	20	100
The promotion of active user and care participation	Ensure that informed consent is continued so that the person remains an informed decision making participant ³⁸	19	95
Person centred practice – providing choice and flexibility	The assessment should identify the person’s care needs beyond the presenting problem in the areas of physical, cognitive, social, and emotional functioning as well as financial and environmental needs. It should also include a detailed review of the person’s current support from family, friends, and formal service providers ²⁵	19	95
Awareness of and operation within a network of support	Case manager will be knowledgeable about services that are accessible and relevant to consumer interests in order to provide up to date information ²²	18	90
An outcome focus	Intervention should be based on goals and objectives that have been identified and negotiated with the service user ³⁷	18	90
A relational approach	The interaction and relationship between the case manager and the service-user is an important therapeutic tool ensuring effectiveness and continuity of care. The case manager is counsellor, mentor and advocate on behalf of the service-user ²⁹	16	80
Cultural sensitivity	Each program will establish a holistic, culturally appropriate assessment process ³¹	15	75
Risk management	Right to live with ‘acceptable’ risk ³⁹	14	70
Structured, systematic, and transparent practice	The case manager conducts and documents an individualised assessment using a structured process ³⁸	14	70
Foster independence and self-determination	Aim to achieve stated objectives with minimum intervention necessary – minimise service providers involved ²⁶	13	65
Encode dignity and respect	Communicates with respect for privacy and confidentiality. Communicates in a manner appropriate to the stated preference, level of education and comprehension of the other party ³⁶	13	65
Timeliness	Ability of people to obtain services at the right place and time based on need ²²	13	65
Budget management	The case manager monitors the implementation of the care plan so that service provision is effective and financially accountable ³⁵	12	60
Conflict management	Acknowledge potential for conflict between goals of care management. There should be an established process for dealing with goal conflicts ²⁵	12	60
A strengths based approach	Emphasise client strengths and personal resources. Use client’s informal and formal care-giving systems ²⁷	10	50
Evidenced based practice	Commits to continuous learning and strives to improve competence in all areas of practice. Advances knowledge of the profession through research and application of best practice ³⁶	8	40

Agency level				
Quality assurance procedures in place	Adding a quality assurance perspective to evaluation ensures that, if any aspect of the service is found wanting, through evaluation, corrective action is implemented ²⁹	12	60	
Staff to be employed who have agreed qualifications and competencies	A wide range of skills, underpinned by knowledge and experience, are needed to carry out the tasks involved in care management (p59) ³⁴	6	30	
Staff to be supported to maintain and develop through training	Wherever possible training should be multidisciplinary and multi-agency. Members of the team should train together to ensure that potential key workers from different professional backgrounds develop a shared approach to the key worker role ³⁰	11	55	
Staff to be supported through regular supervision, appraisal, and workload management	Case managers should be supported in their practice and development through regular supervision within an agreed structure or model [and] participate in an appraisal cycle where appropriate (p41) ³⁷	7	35	
Eligibility to be clear and fair	With the purpose of equitably appropriating care for eligible individuals ⁴¹	9	45	
Access to be equitable and easy	To make public the needs for which assistance is offered and the arrangements and resources available for meeting those needs... take account of a number of different audiences ³⁴	9	45	
Conditions of employment (staff protected from harm)	Health and safety policy objective to ensure that the working environment is safe and does not pose any threat to the health and wellbeing of workers ³³	6	30	
Operation of clear contract and funding arrangements with other agencies	Complete a service agreement with each service provider detailing all contractual requirements and obligations including: service reliability and continuity; fee levels; regular feedback to program regarding client; matching of staff with clients; appropriate staff training; insurance liabilities ³¹	6	30	

Table 5. Coverage of components of care coordination in individual level standards (n=20)

Elements of care coordination	Individual level standards															
	Comprehensive	User participation	Person-centred	Network approach	Goal focus	Relational approach	Culturally sensitive	Risk management	Standardised	Independence	Dignity and respect	Timely	Budget management	Conflict management	Strengths based	Evidence based
Referral	1	7	2	4	0	1	2	3	3	1	1	5	0	0	0	0
Assessment	17	12	8	8	9	6	5	6	9	4	7	6	1	3	8	1
Planning	10	16	12	8	14	0	1	4	3	6	1	5	5	2	6	2
Implementation	1	8	4	11	3	5	0	1	1	4	1	5	3	1	1	1
Monitor and review	5	8	5	7	7	6	1	3	5	0	0	6	5	3	0	0
Closure	0	7	1	3	2	2	0	0	1	2	0	2	0	1	1	0
Documentation	6	10	3	6	5	0	3	1	7	0	11	3	0	1	0	0
Separate principle	5	15	11	14	6	8	14	6	2	12	12	3	6	9	4	5

Numbers refer to N of documents out of a total of 20

Online Appendix Table 1. Presence of standards in documents

Document reference	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	Total N	%
Individual level																					
Awareness of and operation within a network of support	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	18	90
The promotion of active user and care participation	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	19	95
A comprehensive and holistic approach	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	20	100
A strengths based approach		√	√	√	√	√			√	√		√							√	10	50
Foster independence and self-determination	√	√	√	√	√	√		√	√	√	√				√			√		13	65
Person-centred practice – providing choice and flexibility	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	19	95
Encode dignity and respect	√	√			√	√	√	√	√	√		√			√	√			√	13	65
Cultural sensitivity	√		√		√	√	√	√	√	√	√			√	√	√	√		√	15	75
An outcome focus	√	√	√	√	√	√		√	√	√	√	√	√		√	√	√	√	√	18	90
Risk management	√	√	√	√	√		√	√	√	√	√			√	√			√		14	70
Conflict management	√	√	√	√	√	√				√	√	√			√	√	√			12	60
A relational approach	√	√	√	√	√	√	√		√	√	√	√	√	√	√			√	√	16	80
Evidenced based practice	√			√	√	√					√		√				√			8	40
Budget management		√	√	√		√	√	√		√		√	√				√	√		12	60
Structured, systematic, and transparent practice	√	√		√	√	√	√	√			√	√	√		√		√	√		14	70
Timeliness	√	√	√	√	√	√			√	√	√	√			√			√	√	13	65
SUB TOTAL	14	14	13	14	15	15	10	11	12	14	13	15	7	4	10	12	8	11	10	12	
Agency level																					
Quality assurance procedures in place	√	√	√			√		√	√	√		√		√	√		√		√	12	72
Staff to be employed who have agreed qualifications and competencies		√		√								√			√		√		√	6	35
Staff to be supported to maintain and develop through training	√	√	√	√		√	√	√		√		√				√		√		11	66
Staff to be supported through regular supervision, appraisal, and workload management		√						√		√		√		√		√		√		7	41
Eligibility to be clear and fair	√	√	√	√		√		√		√					√			√		9	53
Access to be equitable and easy			√		√			√	√	√	√	√			√			√		9	53
Conditions of employment (staff protected from harm)	√							√		√		√			√		√			6	35
Operation of clear contract and funding arrangements with other agencies	√		√					√		√		√			√					6	35
TOTAL	19	19	18	17	16	18	11	18	14	21	14	22	7	5	15	12	12	11	16	12	

Online Appendix Table 2. Content: Individual and agency level standards – definitions, examples and extent of coverage (n=20)

Standard name	Definition	Examples from documents	Presence	
			N	%
<i>Individual level</i>				
A comprehensive and holistic approach	Addressing ‘several health-related needs of older persons, such as care for several chronic conditions, for several aspects of one condition, or for persons receiving care from several healthcare providers’ (p.2329) ⁴⁴	A comprehensive and accurate assessment will be produced of the person's abilities, resources, goals and needs ²⁸	20	100
The promotion of active user and carer participation	Provision of sufficient information to facilitate valid, informed consent. Three prerequisites: competence; information; and voluntariness ⁴⁵	Ensure that informed consent is continued so that the person remains an informed decision making participant ³⁸	19	95
Person centred practice – providing choice and flexibility	<i>‘Each of the component activities of case management supports the goal of assuring that prescribed services are tailored to meet an individual client’s needs’</i> (p. 6-7) ⁴⁶	The assessment should identify the person's care needs beyond the presenting problem in the areas of physical, cognitive, social, and emotional functioning as well as financial and environmental needs. It should also include a detailed review of the person's current support from family, friends, and formal service providers ²⁵	19	95
Awareness of and operation within a network of support	Service must be embedded in a network of partner organisations to function effectively. Staff must have a wide knowledge of health and social care services ⁴⁷	Case manager will be knowledgeable about services that are accessible and relevant to consumer interests in order to provide up to date information ²²	18	90
An outcome focus	Interventions must <i>‘relate directly to the individual's problems and to mutually negotiated goals if they are to succeed’</i> (p. 42) ⁴⁸	Intervention should be based on goals and objectives that have been identified and negotiated with the service user ³⁷	18	90
A relational approach	<i>‘The continuous relationship with the case manager is the main means of effecting change or maintaining [an] individual’s quality of life in the community’</i> (p. 369) ²³	The interaction and relationship between the case manager and the service-user is an important therapeutic tool ensuring effectiveness and continuity of care. The case manager is counsellor, mentor and advocate on behalf of the service-user ²⁹	16	80
Cultural sensitivity	Continuously striving to <i>‘achieve the ability to effectively work within the cultural context of the client’ and the recognition that cultural competence is an essential component of delivering effective and ‘culturally responsive’ services</i> (p. 181) ⁴⁹	Each program will establish a holistic, culturally appropriate assessment process ³¹	15	75
Risk management	The reduction of risk must be balanced with the rights of users to make choices regarding the level of risk they wish to live with in order to maintain their independence ⁵⁰	Right to live with ‘acceptable’ risk ³⁹	14	70

Structured, systematic, and transparent practice	Structured tools can ‘codify and organise the process of professional judgement’; assist in the collection of reliable information that can contribute to individual care planning and wider service development (p. 155) ⁵¹	The case manager conducts and documents an individualised assessment using a structured process ³⁸	14	70
Foster independence and self-determination	Promote ‘client autonomy, functioning, and self-direction’ (p. 143) ⁵²	Aim to achieve stated objectives with minimum intervention necessary – minimise service providers involved ²⁶	13	65
Encode dignity and respect	Bestowing ‘personhood’, on an individual includes treating them with respect and trust ⁵³	Communicates with respect for privacy and confidentiality. Communicates in a manner appropriate to the stated preference, level of education and comprehension of the other party ³⁶	13	65
Timeliness	‘The degree to which health care is provided within the most beneficial or the necessary time window’ reflecting the degree of responsiveness of health care delivery (p. 9) ⁵⁴	Ability of people to obtain services at the right place and time based on need ²²	13	65
Budget management	Control over resources ‘can enable care managers to respond more effectively to the varied individual needs of elderly people’ (p. 313) ¹	The case manager monitors the implementation of the care plan so that service provision is effective and financially accountable ³⁵	12	60
Conflict management	‘Power differentials between users and professionals and differences in perceptions of satisfactory outcomes mean that conflict is to be expected . . . The management and resolution of conflict is an on-going function of change management’ (p. 12) ⁵⁵	Acknowledge potential for conflict between goals of care management. There should be an established process for dealing with goal conflicts ²⁵	12	60
A strengths based approach	‘A focus on determining strengths and helping older adults maintain agency over their lives’ (p. 168) ⁵⁶	Emphasise client strengths and personal resources. Use client’s informal and formal care-giving systems ²⁷	10	50
Evidenced based practice	“The integration of best research evidence with clinical expertise and patient values” (p. 1) ⁵⁷	Commits to continuous learning and strives to improve competence in all areas of practice. Advances knowledge of the profession through research and application of best practice ³⁶	8	40
Agency level				
Quality assurance procedures in place	To ‘obtain information about the level of quality produced by the care system and, based on an interpretation of that information, take the actions needed to protect and improve quality’ (p. xxvi) ⁵⁸	Adding a quality assurance perspective to evaluation ensures that, if any aspect of the service is found wanting, through evaluation, corrective action is implemented ²⁹	12	72
Staff to be employed who have agreed qualifications and competencies	Three types of education required: knowledge-based; attitude-based and competency based, the latter focusing on outcomes rather than process ⁵⁹	A wide range of skills, underpinned by knowledge and experience, are needed to carry out the tasks involved in care management (p59) ³⁴	6	35

Staff to be supported to maintain and develop through training	Inter-professional education is stressed ' <i>enabling knowledge and skills necessary for collaborative working to be learnt</i> ' (p. 735) ⁶⁰	Wherever possible training should be multidisciplinary and multi-agency. Members of the team should train together to ensure that potential key workers from different professional backgrounds develop a shared approach to the key worker role ³⁰	11	66
Staff to be supported through regular supervision, appraisal, and workload management	Supervision recognised as the major factor in determining the ' <i>quality of service to clients, the level of professional development ... and ... job satisfaction</i> ' (p. 40) ⁶¹	Case managers should be supported in their practice and development through regular supervision within an agreed structure or model [and] participate in an appraisal cycle where appropriate (p41) ³⁷	7	41
Eligibility to be clear and fair	Eligibility criteria should provide ' <i>an equitable and transparent means of deciding who should receive...services</i> ' in order to enable ' <i>consistent judgements [to] ... be made about the relative needs of individuals or groups</i> ' (p. 23) ⁶²	With the purpose of equitably appropriating care for eligible individuals ⁴¹	9	53
Access to be equitable and easy	Three dimensions of equitable access: • '<i>having equal access via appropriate information;</i> • '<i>having access to services that are relevant, timely, and sensitive to the person's needs;</i> • '<i>being able to use the health service with ease, and having confidence that you will be treated with respect</i>' (p. 142)⁶³	To make public the needs for which assistance is offered and the arrangements and resources available for meeting those needs... take account of a number of different audiences ³⁴	9	53
Conditions of employment (staff protected from harm)	Employing organisations have a duty to protect their workforce from undue stress including a legal obligation in many countries ⁶⁴	Health and safety policy objective to ensure that the working environment is safe and does not pose any threat to the health and wellbeing of workers ³³	6	35
Operation of clear contract and funding arrangements with other agencies	Transactional contracting arrangements, based on explicit and predetermined specifications and performance criteria, have evolved into more collaborative approaches where partners work together and expect to ' <i>reap benefits from helping to make the joint working more successful</i> ' (p. 83) ⁶⁵	Complete a service agreement with each service provider detailing all contractual requirements and obligations including: service reliability and continuity; fee levels; regular feedback to program regarding client; matching of staff with clients; appropriate staff training; insurance liabilities ³¹	6	35

NB. Superscript numbers refer to references in the main document.