

Quick Mixed-Methods Review of The Effects of Coordinated Health Care for Fragile Older Individuals on Waiting Lists and Treatment Delays

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Abstract

The emergency department in trauma care needs nurses who are of high competence level where skills such as critical thinking, swift decisions, and technical competence as well as emotional stability are necessary. The conceptual mapping focuses on what trauma nursing competency is, what it entails, what may cause it and what results may be because of it within the background of emergency care. The analysis applying an integrative framework indicates that such essential foundations of competence include: clinical expertise, communication, teamwork and patient-centered care. This research also identifies such antecedents of competency development as organizational support, continuing education, and simulation-based training; their key outcomes include better patient outcomes and fewer medical errors as well as physician confidence and its growth. Clarifying this theory can form a basis of standardized competency structures, specific training and future study to enhance the care of trauma in high acuity emergencies setting.

Keywords: *Integrated care, frailty, older adults, waiting lists, waiting times, coordinated services, rapid review, health systems, multidisciplinary care, patient-centred care.*

1.Introduction

The growing number of older adult individuals especially those living with frailty poses one of the most critical challenges to develop among the contemporary health systems. Frailty is a multidimensional syndrome of impaired physiological reserves, heightened vulnerability to stressors, and an increased risk of unfavourable consequences (hospitalisation, dependency, mortality) has become a popular target of attention of researchers, policymakers, and practitioners. In a climate where health systems in both high-income and low- and middle-income countries (LMIC) are increasingly struggling with the twin challenges of intensifying demand and limited resources, the concept of integrated care models has become a potential tool to introduce changes(1). The further development of person-centred coordinated and efficient pathways of support, which address the complex needs of older people and reduce duplication, lack of coordination, and delays in service delivery, is the main aim of integrated care performing in several forms.

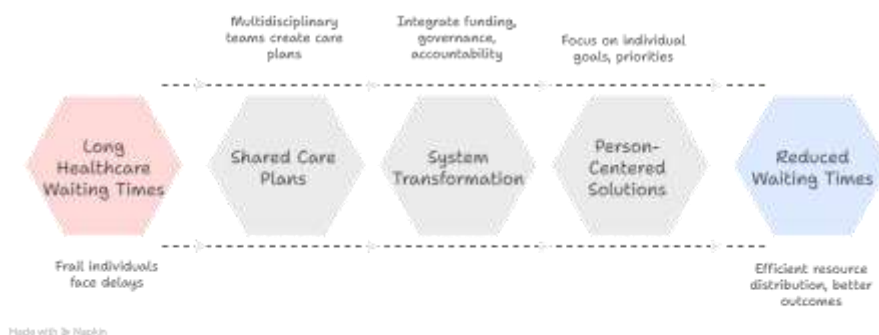


FIGURE 1 Integrated Care Reduces Healthcare Waiting Times

Frailty is an increasingly critical problem, which adds more intensity to these efforts. It has been estimated that around 10-15 percent of people of over 65 are living with frailty with prevalence drastically increasing after the age of 80. This group of demographics is over-represented on the hospital admission rate, long term care rates, and individuals who have poor health-related quality of life. These tendencies put significant pressure on already overheated healthcare systems in which long queues and extensive delays in treatment are the norm. Clogged up

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waiting times It is common to wait too long before accessing a diagnosis, treatment, or specialized care, which is usually worsened by the lack of system coordination and cohesion between the primary, secondary, and the community-based services. In individuals who experience frailty, these delays may prove to be especially dire, resulting in further frailty, unnecessary hospitalisation, and excess caregiver strain(2).

It is in this light where integrated care models have been touted as a potentially effective solution to combating inefficiencies, and enhancing patient outcomes. Generally, integrated care is defined as the efforts made to bumper the organisational borders, professional boundaries, the boundaries between levels of service delivery to establish a unitary pathway of care. There are a variety of strategies that can include shared care plans and multidisciplinary team meetings, through to large-scale system transformation that integrates funding, governance and accountability frameworks. The models have at their centre holistic and person-centred solutions which put a premium on the goals and priorities of individuals instead of focusing on particular disease pathways. Older adults with frailty which are highly prone to needs in multiple dimensions medical, psychological, and social, integrated care presents a possibility of the prevention of the progressive deterioration and the preservation of independence by being more responsive and simultaneously cooperative.

The possible advantages of integrated care reach out to the health systems as well. There is also evidence that disjointed systems have led to inefficiencies that cannot be avoided, such as duplicated assessments, referrals that are inappropriate and repeated admissions of patients to hospitals. With the help of promoting cooperation among professionals and providing communication in time, integrated care may help decrease the level of inefficiencies, thereby alleviating the pressure on the waiting lists and enabling more effective resource distribution. Moreover, integrated care is increasingly defined at the policy level as both a quality and efficiency agenda: a tool through which health systems can reconcile the two competing demands of rising demand and maintaining costs.

In spite of the promise, however, integrated care has become a vexed and confusing idea. The definitions diverge widely, with some being quite specific in nature (e.g., discharge planning or case management) to some, being quite sweeping, in short, whole-system transformations. The evidence base also is conflicted: although a proportion of evaluations report best outcomes in patient improvement and system efficiency, other evaluations have either modest or no effects. The challenges are organisational inertia, professionals silos, a shortage of resources, and scaling issues of pilots to mainstream practice. Additionally, improvement in waiting time and lists caused by integrated care is methodologically challenging because the waiting time may be brought about by many contextual factors that one cannot control by a particular intervention.

Another level of complexity adds to older people self-experience. Although structural and organisational changes are needed, research indicates that the success of integrated care ultimately lies on how it feels at the point of delivery-both patients and caregivers have to feel that it joined-up and that professionals are able to communicate effectively across the boundaries. In frail individuals, these subjective experiences are of more importance especially because they are often clients to several providers and services concurrently. A mishandling of communication or a hitch anywhere along the line can cause loss of faith, increase anxiety, and lead to worse results. It can therefore be seen that in an assessment of integrated care, factors like system-level output through waiting times cannot be considered without patient-related experiences and outcomes(3).

There is also a contextual relationship between integrated care and waiting lists that is influenced by national policy environments and the way health care is financed as well as workforce capacities. To offer an example, nations that have universal health cover are likely to be exposed to varying pressures as compared to nations that are dependent on private insurance or mixed systems. Equally, rural and urban location can be characterised by different accessibility issues and distribution of the workforce. These contextual differences are important in helping to interpret results as well as to make judgments regarding the transferability of evidence across settings. This is in recognition of the fact that due to these complexities, there is a quick need to look at what evidence exists, and then make broad and fast conclusions whilst also indicating key insights. Both quantitative research of outcomes and qualitative descriptions of what it is like may contribute to a fuller understanding than either could alone, and a mixed-methods approach is useful in this context. Quantitative findings can help to clarify the quantifiable effects of integrated care to the waiting times and utilisation, and qualitative findings may bring to the fore the viewpoints of both patients, caregivers, and professionals operating within these systems in the real world. Synthesizing different strands in this way, can be considered as mixed-methods synthesis, which may provide more nuanced information on whether integrated care is effective, how and why its effects should be subject to variation across settings.

This review will therefore strive to answer the following central question: What is the impact of integrated care to older individuals, especially those with the frailty condition, on healthcare waiting time and waiting lists? To address this question, the review will entail synthesis of results on various study designs and contexts with a focus on both system-wide outcomes and patient experience. By so doing, it attempts to guide current debates in policy and practice, and provide evidence-based input to health system leaders, practitioners and researchers who aspire to create and adopt effective models of care. Finally, the objective is not only to review existing evidence but to gap according to gaps, problems, and priorities of the future research work.

2.Methods

2.1 Development of Research Question and the Conceptual Framework

The methodological design of this rapid review was tied to a dual-framework conceptualization that focused on effectiveness and experiential aspects of integrated care among older adults. The research staff used PICO (Population, Intervention, Comparison, Outcome) frame to address questions on effectiveness and PICO (Population, Phenomena of Interest, Context) frame to use qualitative experience-focused questions. This two-pronged perspective noted that the waiting time is both a quantifiable clinical outcome and a subjective patient event that needs diverse analytical tools(4).

The definition of the population included adults more than 65 years and any individuals with frailty of any age who live near vulnerability to care fragmentation as age alone is not an appropriate indicator of vulnerability. Frailty was framed according to the definition of the Welsh Government as a condition of impaired biological, physical, and mental stamina that means a lower threshold to overcome minor stress. The inclusive definition acknowledged that integrated care needs are not limited to and are not defined by traditional age-based categories and that other needs are functional and clinical complexity.

Conceptualization of Intervention The conceptualization of Intervention relied on well-established taxonomies of integrated care but was nonetheless cautious of emergent models, and local adaptations. The team also followed a multidisciplinary team paradigm as proposed by Baxter and others which included multidisciplinary teams, pathways of care, coordination mechanisms, co-location, and a unified governance. This expansive conceptualization nonexperimentally narrowed the base of evidence, retained adequate specificity to allow meaningful synthesis.

The outcome of all waiting times was operationalized across multiple care settings and stages as delay occurs across care pathways and not at any single point of choice. The framework differentiated emergency waiting times, inpatient delays, routine care access, and diagnostic delays as well as social care waiting periods. This systemized model was able to grasp every area of temporal mediators older adults faced in the healthcare systems.

The undertaken temporal scope (2015-2025) was chosen to reflect important developments in the area of integrated care as well as modern timeliness. The Well-being of Future Generations Act in Wales in 2015 was a convenient place to begin an analysis of policy-driven integration efforts, and the period ending the review represents the most current evidence available at the time of the review.

2.2 Database Selection, and Information Retrieval Strategy

The search plan was based on a multi-means search strategy where the combination of systematic database search and targeted exploration of grey literature, as well as reference networks, was raised. The five large bibliographic databases chosen on the basis of comprehensive coverage of the healthcare research, policy analysis and social care literature were Medline, Embase, CINAHL, Cochrane CENTRAL, and Scopus. The combination provided broad coverage in terms of both medical, nursing, health services research and social science points of view.

Search strategies were specific to database source, and were tested and refined through repeated testing, commencing with exploratory searches in Medline and Embase to establish key indexing practices and terminology. Index terms and title and abstract wording of retrieved articles were examined to create extensive vocabularies reflecting divergent terminologies used by different scholars in their discussions of integrated care and waiting time measurement(5).

To balance comprehensiveness and feasibility, the search strategy intentionally used a mixture of broad integration-oriented terms mixed with a narrower set of vocabulary relating to waiting time. The concepts of integration were informed by jargon words such as integrated care and multidisciplinary teams as well as more informal words such as joint working and care coordination. The terminology in the waiting time domain included

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a list format such as waiting lists and temporal terminological formulations such as time take treatment and delays of diagnosis.

A geographic restriction was made to retrieve the study in OECD countries, which was in line with the objectives of the review to focus on healthcare systems, which have a similar organization structure, and resource levels. This was a way of tackling the issue of external validity with the realism that the integration strategies created in fundamentally different settings may have limited generalisability.

Clinical trial registers were also systematically searched to identify any trials that could have been completed but are not yet published, and as an indication of any publication bias. The search team used modified versions of the primary search strategies to search ClinicalTrials.gov and the WHO International Clinical Trials Registry Platform to cover trials with dates indicating they may report results.

Examples of grey literature search were healthcare policy organisations, quality improvement agencies, and professional organisations that may publish implementation reports or evaluation studies. The search strategy identified that many care coordination projects represent the result of quality improvement efforts but not traditional research projects, and that grey literature may well reflect the subject of the review(6).

2.3 The method of selection and screening of the studies is carried out

The collection of studies went through a two-stage selection process; the process was aimed at balancing the necessary review speed and the accuracy with the review timeline limitations. All imported citations were in EndNote and copies removed them before the transfer to Rayyan where they were screened collaboratively. A two-screen selection of a subset of the retrieved citations (20 percent) was used to achieve inter-rater reliability.

Title and abstract screening with a broad inclination was used to eliminate early exclusion of potentially relevant studies. Reviewers were asked to take into account any citation that reported both older adult populations and integrated care approaches, even though they may not report the outcome data. Such a laissez-faire treatment acknowledged the possibility of waiting time results being reported as auxiliary information in trials with other primary outcomes.

Full-text screening used more exclusionary criteria based on explicit waiting time results reporting and reporting on adequate intervention description. There was a need to offer adequate information on the process of integration in the studies when reporting quantitative data: related to waiting time or qualitative experiences of care timing and access.

The selection criteria discerned between those studies which explore integration across all the areas of care and those studies which explore integration within a specific organizational scenario. Both of them can be good sources of evidence, but the review chose to give more priority to cross-sector integration since it reflects more up to date policy orientations and patient needs(7).

When conflicting during screening, disagreements were settled by discussion between the reviewers, and, in some cases, with participation of the third reviewer. The team also kept detailed records of exclusion reasons as a means of transparent reporting and of ability to detect possible systematic biases in the study selection.

Study language restrictions were applied by searching only English-language publications due to the recognition that this could be a source of bias but due to practical limits of translation resources available within the timeframe of urgently needed rapid reviews.

2.4 Data Extraction and Quality Assessment Protocol

Data extraction used standardised datasheets made specifically to be used in this review, which recorded the characteristics of an intervention, study design features, participant demographics, outcome measures and key findings. The extraction framework was tested on an early sample of included studies and updated in light of reviewer input and emergent patterns of data.

The characterization of interventions was of specific concern to account to heterogeneity of integrated care interventions across studies. In addition to describing implementation details, professional roles, organizational arrangements, and coordination mechanisms that could affect effectiveness, extractors applied the integration taxonomy of Baxter and colleagues as a framework.

Extraction of outcome measures was in the form of quantitative data and qualitative themes of waiting time and access to care. In quantitative studies outcome definition, measurement, statistical analysis and effect size was recorded by extractors when available. Analysis was qualitative in assessment of themes associated with timing, access, coordination and patient flow, and connected to the actual words of the participants by taking direct quotes. The terms of quality assessment used different tools that suited different schools of study designs, but identified the same evaluation criteria. The quantitative research was evaluated based on the Critical Appraisal Tool (CAT)

being provided by the Public Health Agency of Canada, which has a unified approach to assess different types of research (randomized trials, cohort studies, before-and-after designs, and other observational studies).

The CAT tool assesses in terms of methodology quality various aspects which include the selection of participants, the comparability of the baseline, outcome measures, statistical methods and confounder control. Ratings of overall quality were obtained by predetermined criteria that took account of individual item ratings and the overall threats to internal validity.

Qualitative work was assessed with Joanna Briggs Institute critical appraisal checklist that reviews methodological rigor, software used to analyze data, reflexivity of researcher and validity of conclusions. This evaluation acknowledged the fact that qualitative research should have different standards of quality but standards should be adopted in terms of methodological transparency and depth of analysis.

The results of quality assessment contributed to data synthesis methods and confidence ratings, and they did not cause the automatic exclusion of the lower quality studies. The team understood that it is indeed, that implementation research takes place within the practice setting whereby its ideal methodology is not viable and thus quality assessment is a form of interpretation and not exclusionary.

3.Results

3.1 Study Identification and Inclusion Patterns

The extensive search plan resulted in 12,085 records in five bibliographic databases, five clinical trial registers, and grey literature sources. After screening, 61 studies were identified as meeting the inclusion criteria of this rapid review after duplicate removal. The geographical dispersity indicated that most studies were conducted in the high-income countries with a percentage of United States developing the highest number of research studies (17 studies), followed by several European nations and other OECD countries. Such pattern of distribution indicates the distinctiveness of research capacity and healthcare system factors and could restrain the generalizability of research results to other organizational settings.

The temporal scope of studies revealed a gradual assembly of interest on integrated care and waiting time across the review years with the publication of study findings favored the latter years of the decade. This tendency coincides with the policies focusing on care integration and increasing awareness of the fragmentation impact on older people on the healthcare system. Nevertheless, its comparison can be considered to be rather young, and, therefore, there is a lack of evidence regarding long-term results and sustainability.

The heterogeneity of the study designs was enormous as they include randomized controlled trials, cohorts, before and after examination, and qualitative studies. Few of them followed randomized controlled design whereas most of them used observational design that may lead to a number of confounding factors. This methodological shortcoming is attributable to the complexities of conducting scientific high-quality intervention research in the health delivery environments and undermines attributions of causation.

The characterization of populations in studies differed greatly, but the vast majority concerned adults aged 65 years and above with mostly acute medical conditions that needed emergency care. The evidence included studies dominated by hip fracture patients, which constituted almost two-thirds of the studies included. This focus is in line with the clinical importance of timely surgical care following hip fracture and the relative ease of measuring surgical timing outcomes but may not be representative of the overall range of integrated care needs of older adults. The difference between cross-sector integration and within-hospital coordination became an important analytical category. Thirty of the papers have examined integration among multiply sectors of care and 31 papers have explored coordination within hospitals. The division allowed us a more sophisticated discussion of the complexity of integration and the acknowledgment that organizational boundary changes that rest on different choices and assumptions can affect waiting time and coordination of care differently.

3.2 Features of Interventions and integration Mechanisms

The diversity in terms of scope, the approach of implementation, and organizational intricacy of the integrated care interventions was truly impressive. The most widely used integration mechanism was the multidisciplinary team formation, which was almost common in all studies no matter in which care setting they took place and what target population they addressed. The composition, mechanism of coordination and decision-making team structures were however different thus implying that multidisciplinary is a general term that applies to very varied structures of collaboration.

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Another common component in interventions that integrated into care pathway development is present in about 75 percent of the interventions. Such pathways generally outlined roles, responsibility, time-frames, and decision points of key care processes. The most advanced pathways combined clinical procedures with organizational routines, to form detailed instructions on how patients must navigate around multifaceted care systems. Study-to-study variability in pathway complexity and implementation fidelity was also very large.

In about half of the interventions, care coordination roles were present, usually specified as being a specialized nurse or a social worker. These practitioners tended to act as facilitators of the communication process and monitors of progress as well as a specialist in resolving barriers. Their participation was associated with better care timing, but only a few studies isolated the effects of care coordination among other components of their participation.

A more intensive policy of integration used in the form of co-location arrangements where previously distinct services were located in common physical settings was also applied in some of the interventions. These structures had the potential to facilitate facilitated communication and coordination, albeit at a higher cost to organizations in the way of commitment and resources.

Shared electronic records and communication platforms (information system integration) were less represented in the evidence base, even though they may be of significant use to the care coordination effort. This relative deficiency could be related to implementation issues, technological conditions at the time of the study or underreporting of information system components.

The extent of geography covered by integration ranged across single-hospital programs to surrounding area-wide coordination. Cross-sector interventions were most often two- or four-service types, followed by hospital and social care integration and then primary care integration. Few interventions were integrated fully to all the relevant sectors and this should point to the implementation issues or the strategic decisions to target certain sectors only. Many integration efforts were accompanied by professional role changes, including increased scopes of practice, new coordination roles and responsibilities, and new communication demands. These transformations usually came along with training, credentialing, and continuous assistance that can impact the success of implementation and sustainability(8).

3.3 Evidence Synthesis on origins of quantitative effectiveness

The quantitative body of evidence consisted of 23 studies on different outcomes of various waiting times in various care settings and in diverse patient populations. Methodological quality was largely heterogeneous with the two highest-quality studies being rated using standardized assessment criteria. The near absence of control or comparative group designs, and before-and-after comparisons had fewer assurances that observed changes were a result of the integration interventions as opposed to other co-occurring factors.

Most studies measure time to surgery (14) with most of the studies focusing on hip fracture care. These data implied that models of integrated orthogeriatric care could help to minimize surgical delays, with the results being highly inconsistent. Seven of the studies had statistically significant improvements in time to surgery, as much as multiple days. However, three studies did not produce significant changes irrespective of the comprehensive interventions of integration.

The evidence regarding improvement in the HCAHPS scores on the waiting times in the emergency departments was more consistent with the correlation of improvement with integration initiatives. Two top of the line randomized control trials revealed that the stay length in the emergency department was far less in older people after multidisciplinary assessment than during standard treatment. The reported reductions in these studies were median reductions of several hours which is clinically significant benefit to patients and an operationally significant improvement to emergency department flow(9).

Waiting time evidence on routine care was also limited being characterized by four studies only. This gap is a major weakness considering that the number of patients facing delays in routine care treatment is higher as compared to those facing such delays in the context of emergency. Available evidence indicated that there were potential positive mental health appointment access and primary care visit timing, but the limited studies preclude concretely attributing them.

Integration interventions were positively associated with quality of care measures, such as clinical professional perceptions of timeliness of care, and integration of care. These subjective measures however need to be interpreted with caution because of inherent bias, and minimal correspondence between professional estimations and objective timing estimates.

Subgroup analyses indicated that the effectiveness of the intervention could be sensitive to the complexity of patients, organizational preparedness and to the characteristics of the healthcare system. Elderly patients with many comorbidities or complex social situations appeared to reap bigger benefits with integration, but these same factors tend to make implementation and outcome monitoring challenging.

The strength of the evidence was quite mixed across intervention types and classes of outcome. Integration in emergency department had the most evidence base showing it was evidenced-based and had randomized trials and a consistent showing. The evidence base of orthogeriatric care was more extensive but more heterogenous and had more methodological issues. Evidence on routine care was still limited to draw conclusive results.

The heterogeneity in statistics did not allow meta-analysis synthesis and synthesis through narrative forms were considered to pay attention to the detail contexts and limitations of specific studies. This analysis maintained the essence of various pieces of evidence without attempting to offer hard conclusions about the different pieces of evidence.

4. Conclusion

Quality of Evidence and Methodological weaknesses

The body of evidence when it comes to the benefits of integrated care on the waiting time of an older adult shows that it has limitations with methodological diversity and quality that is limiting to draw conclusions about the effectiveness of the interventions. There is strong potential to confound effects with secular trends, policy changes, and organizational developments that may be taking place alongside integration intervention because of the dominant observational study design, especially before-and-after comparisons made without concurrent controls. Few randomized controlled trials were found, and only two of them were included; they investigated emergency department interventions, and there is little evidence on most other care settings.

Quality assessment of the studies showed that less than ten percent of quantitative studies received high ratings in terms of methodology and the sources of most studies indicated that they were heavily flawed in participant selection, baseline comparability, control of confounding factors, and power. These constraints represent the challenges of conducting controlled research in the potentially complex healthcare delivery context, but significantly reduce confidence in assigning the cause of observed changes in waiting times to integration interventions as opposed to other possible causes.

The short term focus of the evidence publishing over the past few years implies that the information available on the long-term sustainability and efficacy has started to emerge at a very limited scale. Most of the studies have reported short term results within months of implementation and thus may not capture the benefits that come after a system has matured and the erosion of effect that may come without continual organizational support. This time restriction is especially important to those integration efforts that involve culture change, and relationship building to reach maximum potential.

The limitations of population representation are of concern where hip fracture patients represented almost two-thirds of the evidence base, and other prevalent condition treatments followed receive little attention. This concentration represents measurement convenience, rather than clinical importance, which may result in an evidence base that is inadequate to reflect the real-world difficulty of managing care of older adults with multiple chronic conditions, with cognitive impairment, or complex social situations.

Lack of sufficient patient perspective information is also an important gap on current knowledge on the effectiveness of integration in the care recipient perspective. The qualitative evidence is dominated by accounts of healthcare professionals but the views of the professional population that there is improvement in coordination may not be reflected as patient-experienced benefits. The currently weak evidence base regarding integration interventions lacks data regarding patient perspective, whether interventions address priorities that are of most concern to older adults themselves.

Variability in the reported measures preempted statistical synthesis and the reporting of meta-analytic estimates of effect sizes, necessitating an exclusive reliance on narrative methods that lost the benefit of providing estimates of overall effects or identifying potential moderating factors. This limitation of analysis acknowledges the differences in the integration strategies, outcome measure and the coverage of the evidence.

Intervention Effectiveness in the Different Care Settings

ED integration evidence is the strongest area that is likely to reduce waiting times and has been shown as the high strength of quality randomized trials where an older adult who receives multidisciplinary assessment benefits.

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These interventions yielded median decreases in length of stay in the emergency department of several hours, or life-improving benefit to patients and operationally important benefits to the healthcare systems. Due to the consistency of findings among various emergency department settings, it can be confidently stated that it satisfies such criteria and provides possible application to other emergency department settings.

Orthogeriatric care intervention has limited evidence of surgical timeliness gains, with some trials recording significant decreases in time to surgery and others showing no significant changes despite complete implementation of integration. Such discrepancy could be attributed to either dissimilarities in the baseline performance of systems, or quality of implementation, organization, or techniques of measurement. The fact is that integration may be more effective in terms of surgery time in some situations and not in all situations.

Waiting times In routine care, waiting times have not been adequately researched yet they are occupying a greater patient base than in the case of emergency. Four studies focused on routine-care access, leaving a sizeable evidence gap on the care settings in which most older adults obtain ongoing management of chronic conditions. There is also a small body of evidence on potential advantages in mental health appointment acquirement and primary care visit time, but there is no way to recommend any of these based on such a small number of studies.

Little evidence is available regarding the effect of integrating primary care, though it is promising in the reduction of appointments wait to be fulfilled and yields a better care coordination. Community paramedic projects and telepsychiatry programs showed reduced access length, yet these are specialist programs, and may not be generalizable to general primary care integration projects. Further studies that can analyze primary care integration effects on access and waiting are needed.

The concept of social care integration is found rarely in the evidence base even though it is crucially significant to the care transition of older individuals and their discharge planning. The limited evidence on the topic of social care integration indicates its possible positive effects in terms of minimizing processing times and enhancing transitional care, yet this topic needs a significant amount of research that could allow policy and practice inferences to be drawn.

Both cross-sector integration and within-hospital coordination exhibit distinct patterns of effectiveness with cross-sector interventions possibly providing higher overall effects, at the expense of a more complex organization of implementation and commitment. In-hospital integration can be implemented and maintained more easily and at a lower cost but provides less comprehensive scope of benefit to older adult comprehensive care needs.

Factors of Implementation and Strategies Needed at Organizational Level

A successful integration implementation seems to demand a long-term commitment of the organisation way beyond the pre-design and implementation phases of interventions. The evidence indicates that beneficial results of integration can be realized slowly when professional relationships are developed, when communication systems can be established and organizational processes can be optimized to collaborative strategies. This time trend has significant consequences in terms of evaluation timing, as well as expectations in the organization regarding the benefits of integration.

The consensus among the studies seems to be that leadership support and sponsorship are important considerations and that there should be championship of integration at more than a clinical level. Administrative leaders should give support in resources and policy consistency whereas the clinical leaders should demonstrate collaborative practice and remedying professional opposition to role transference as well as work pattern adaptations.

Organizational culture transformation is one of the preconditions and end results of successful integration implementation. Resistance to change can also be explained by the experiences that professionals are faced with during initial resistance due to clarity of role, communication demands, and expected workloads which over time diminish as professionals enjoy the benefits of coordination. Other interventions are not so successful in introducing culture change leading to pseudo compliance or superficial compliance without real collaborative efforts.

The integration of information systems seems to be underrepresented in the evidence base even though it may be crucial to establishing sustainable coordination. The lack of health information technology components in most interventions could be as a result of the limitations of the implementation period, the technological requirements, or failure of complete reporting. Advanced information systems and support may become crucial to future integration efforts that are seeking to attain more comprehensive integration of coordination.

The allocation of resources in integration processes is not given due emphasis in most studies and most studies do not pay the attention it deserves concerning the investments that will be required to provide tracks in personnel, training and infrastructure needed to complete integration processes successfully. Such gap in reporting is

restrictive because it makes it difficult to determine the feasibility and sustainability of interventions in various organizational settings.

The roles of care coordinator have shown systematic improvements in many studies, indicating that demonstrating success in achieving the benefits of integration may require the integration of care coordinators. The most appropriate training, organizational placement and responsibility of scope of care coordinators is not very clear using the available evidence.

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Conflicts of interest

The authors have no conflicts of interest to declare

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