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Family Medicine and Community Health

Global evidence on the effectiveness of task-shifting and task-sharing strategies for managing individuals with multimorbidity: systematic review and meta-analysis

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ABSTRACT

Introduction Task-shifting and task-sharing strategies show promise for managing chronic diseases especially in low-income and middle-income countries (LMICs), though their effectiveness in multimorbidity management remains unclear. This study synthesised evidence on task-shifting and task-sharing strategies globally and assessed the impact on core health outcomes in multimorbidity management.

Methods We conducted a systematic review and meta-analysis of global studies evaluating task-shifting and sharing interventions for individuals with multimorbidity. Six databases, including PubMed, Embase, Web of Science, Ovid (Medline), CINAHL and Cochrane Library, were searched for studies reporting the core outcomes of multimorbidity management in quality of life, mortality, hospitalisation, emergency department visits and symptoms of depression and anxiety. Random-effects models were used to calculate pooled effect sizes with heterogeneity assessed through subgroup and meta-regression analyses.

Results From 8471 records, 36 studies from 14 countries were included, with only 5 conducted in LMICs. Twenty-one studies, encompassing 20 989 participants, were eligible for meta-analysis. More than half of the studies involved nurses as delegates, with some sharing the tasks with health professionals and about 10% of studies involved non-health professionals, including community healthcare workers as delegates to share the responsibility in caring for individuals with multimorbidity. Most studies were multicomponent, with 16.7% addressing all guideline-recommended aspects of multimorbidity management. By pooling the findings, task-shifting and task-sharing interventions were associated with a 27% reduction in mortality (OR: 0.73, 95% CI: 0.55 to 0.97, I^2=0%), a modest improvement in quality of life (standardised mean difference (SMD): 0.1, 95% CI: 0.03 to 0.17, I^2=47%) and reduced symptoms of depression (SMD: 0.27, 95% CI: −0.52 to −0.02, I^2=90%), but showed no significant effect on hospitalisation, emergency visits or anxiety-related symptoms.

Conclusions Some evidence, although limited in existing research, indicates the great potential of task-shifting and task-sharing strategies in supporting management of multimorbidity. Further research is needed to optimise and adopt these interventions, particularly in LMICs where evidence remains scarce.

PROSPERO registration number CRD42024526845.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Task-shifting and task-sharing strategies have been shown as promising for managing single chronic diseases; however, the effectiveness of these strategies in multimorbidity management remains unclear.

WHAT THIS STUDY ADDS

⇒ Our systematic review identified 36 studies from 14 countries that implement task-shifting and sharing strategies as multicomponent intervention strategies for multimorbidity management, while these studies bear high heterogeneity in intervention design, cadre of care and multimorbidity management activities.

⇒ By pooling 21 studies in meta-analysis, there is some evidence showing the great potential of task-shifting and task-sharing interventions in reducing risk in mortality, improving quality of life and mitigating depressive symptoms, while high quality research evidence is still warranted.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This study offers the evidence base for future research to further examine task-shifting and sharing strategies aimed at improving multimorbidity management.

⇒ Efforts are needed to better allocate resources and support healthcare task forces to improve multimorbidity management by linking community-based services with hospital-based care.

INTRODUCTION

Multimorbidity, defined as the coexistence of two or more chronic conditions in an individual, poses significant challenges to healthcare systems globally.[1] Multimorbidity is associated with increased mortality risk, poorer health-related quality of life (HRQoL) and higher healthcare costs.[2] Health services in most countries tend to be single-disease oriented and thus are often ill equipped to meet the demands of managing multiple conditions, particularly for the management of multiple non-communicable diseases (NCDs). As the burden of multimorbidity rises, innovative approaches are urgently needed to enhance healthcare delivery and optimise outcomes.

Task-shifting and task-sharing strategies have emerged as promising solutions for improving the management of chronic conditions by alleviating the burden on over-extended healthcare systems and improving access to a continuum of care for NCDs. Task-shifting refers to the redistribution of tasks and clinical responsibilities from highly qualified health professionals and specialists to lower-level health workers, thereby maximising the efficient use of the health workforce and resources.[3 4] Task-sharing, on the other hand, entails the collaborative division of responsibilities among a multidisciplinary team, ensuring that the skill sets of various healthcare providers are effectively used.[5 6] There is robust evidence for the effectiveness of these strategies in managing single NCDs,[3] such as hypertension[5 7] and diabetes,[6] including in resource-limited low-income and middle-income countries (LMICs) settings. Although these strategies could be relevant to managing multimorbidity in scenarios requiring long-term and complex care and in settings with a shortage of healthcare professionals, the evidence on the effectiveness of task-shifting and task-sharing strategies in managing multimorbidity remains limited.

Given the global rise in multimorbidity[8] and the strain it places on healthcare systems, a comprehensive review on potential solutions for addressing multimorbidity is of importance. Some previous reviews have tried to map the existing evidence on certain strategies.[9–11] For instance, a few reviews synthesised patient-facing, provider-facing and system-based interventions that have been tested for multimorbidity management,[10] and existing reviews also focused on integrated care models used for managing multimorbidity.[11] However, there is limited evidence regarding how task-shifting and task-sharing strategies have been applied for multimorbidity management in studies, what level of providers have been involved and the general effectiveness of these strategies. Thus, there is a need to investigate the effectiveness of this novel intervention strategy on broader outcomes at a global scale.

To fill in such a gap, this study aims to systematically review studies that used task-shifting and task-sharing strategies for multimorbidity management and explore their effectiveness on major outcomes including mortality, quality of life, healthcare utilisation and psychological symptoms. By synthesising the available evidence, this study seeks to provide actionable insights for researchers, policy-makers and healthcare providers striving to enhance the care delivery approach and quality of care for individuals with multimorbidity.

METHODS

Search strategy and selection criteria

We conducted a systematic review and meta-analysis in accordance with Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines.[12] The review was registered in PROSPERO with registration number CRD42024526845. We searched for literature in PubMed, Embase, Web of Science, Ovid (Medline), CINAHL and the Cochrane library; the search included studies published from the inception of each database until 20 February 2024. The search terms were tailored to the functionality of each database by following some of the previous relevant reviews as key references,[5 9] but the same search strategy and key terms of "multimorbidity" AND ("task shifting" OR "task sharing") were used in each database. In addition, the reference lists of relevant review articles were identified during the initial search and were hand searched for relevant citations. Grey literature was not considered in hand searches to only include high-quality experimental studies. Full details of the search strategy are provided in online supplemental table 1.

The inclusion criteria were designed based on the PICOs. Randomised controlled trials, cluster randomised controlled trials, quasi-experimental studies and pre–post studies that examined interventions using task-shifting and task-sharing strategies for managing multiple chronic conditions among individuals with multimorbidity were included in the review. Following previous definitions and relevant reviews,[4 13] task-shifting interventions were identified as the intervention focused on redistribution of tasks and responsibilities across different tiers of healthcare professionals and workers and task-sharing strategies emphasised collaborative division of responsibilities. All kinds of healthcare professionals involved physicians, nurses, allied healthcare workers, administrative staff and healthcare volunteers were all considered. Guided by the core outcome set for multimorbidity,[14] we specified to consider quality of life, mortality and symptoms of depression and anxiety reflecting the effectiveness on general health status. We also considered effectiveness from the healthcare resource utilisation perspective by considering the effectiveness of the intervention on hospitalisation and emergency department (ED) visits. We excluded studies that only focused on peer-led interventions, alternative therapies, self-management and education for informal caregivers. We also excluded studies that did not report the effectiveness outcomes, lacked sufficient description of study design, or were not published in English.

Data extraction and quality assessment

The screening process was conducted using Covidence software (Veritas Health Innovation). Pilot tests were

carried out before each step of the review process to ensure concordance on criteria across reviewers. Following the pilot tests, four reviewers (YLo, WYMH, JW and SN) independently conducted title and abstract screening, full-text screening, data extraction and risk of bias assessment. Any discrepancies between pairs of two reviewers were discussed and resolved by a senior researcher (EG). Data from eligible studies were extracted and recorded in preformatted spreadsheets for analysis. Data on basic information of the article (title, author, publication year), participant population (sample size, age group), study settings (region, country and specific setting), study design, type of study, role of the health providers, intervention components, the scope of care provided and key parameters of outcomes were extracted.

To examine the interventions in detail, we mapped the intervention components by considering the types of stakeholders involved, the level of task complexity for each stakeholder, the settings and decentralisation of the task-sharing strategies and the specific healthcare services delivered for multimorbidity management. Task complexity was categorised into three levels by adapting a previously developed task sharing complexity framework for multimorbidity.[7] The framework defines three progressive complex task levels, with level 1 focusing on profile management and administrative tasks only, level 2 includes basic clinical tasks on lifestyle counselling and disease monitoring, and level 3 encompasses advanced clinical tasks related to disease diagnosis and treatment. Studies were also classified by the major setting of service delivery, including (1) full decentralisation if all intervention activities were implemented in primary healthcare settings, (2) partial decentralisation if referrals existed between primary healthcare settings and tertiary hospitals and (3) no decentralisation if all activities occurred at tertiary hospitals.[13]

Based on the recommended guidelines for multimorbidity management, we also mapped the content of the interventions based on the five major aspects that are recommended by the existing guidelines, including (1) targeted population identification, (2) assessment of interacting conditions and treatments, (3) patient preference, prioritisation and goal setting and (4) individualised management and (5) monitoring and follow-up.[15]

We assessed the quality and risk of bias of the included studies independently by pairs of two reviewers using the Cochrane risk of bias tools,[16] which contains seven questions that evaluate selection bias, performance bias, detection bias, attrition bias and reporting bias. For pre–post studies and cluster randomised controlled trials, the tool was found to be feasible for all items, but the assessments still reflect the quality of the study.

Data synthesis and analysis

For all included articles, we performed descriptive analysis and reports with numbers and proportions by study characteristics. When interventions were sufficiently similar across studies with comparable outcomes, meta-analysis was performed. The overall effect size was pooled and summarised with 95% CIs using an inverse variance weighted random-effects model with calculated weights for each study. Effect size, illustrated as forest plots, was calculated using meta-analytic methods stratified by population type and characteristics of interventions. We computed risk ratios with 95% CI for dichotomous outcomes and calculated mean difference (MD) or standardised MD (SMD) with 95% CI for continuous outcomes. For studies with three arms, the two intervention arms were analysed separately. Subgroup analyses were performed based on study design (sample size) and characteristics of intervention (intervention duration, settings of service delivery) if there were enough studies in the specific groups. These subgroup analyses were decided based on their relevance to task-shifting for multimorbidity management, allowing for more nuanced understanding of how intervention effects varied across studies.

Heterogeneity across studies was assessed using the I^2 statistic, with values over 50% indicating moderate to high heterogeneity. Meta-regression was performed to explore the potential sources of heterogeneity. Publication bias was assessed by using funnel plots and Egger's regression tests. For outcomes where publication bias was detected ($p<0.05$), we applied the trim-and-fill method for correction.[17] We trimmed the small sample studies causing asymmetry in the funnel plot, then estimated the centre value of the funnel plot, and subsequently filled in the symmetrical positions with the trimmed and corresponding estimated missing studies. Analyses were performed by using Review Manager V.5.4 and STATA (V.15.0).

Patient and public involvement

As this is a review of published literatures, no patients or members of the public were involved in the design, conduct, reporting or dissemination plans of this research.

RESULTS

The characteristics and quality of included studies

The search yielded 8471 records and 88 additional records were identified through reference list checks, which ended up with 5790 titles and abstracts for review after removing duplicates (figure 1). A total of 171 full-text articles were further screened, of which 36 studies met the inclusion criteria and 21 studies that reported the outcomes of interest were included in the meta-analysis.

The characteristics of the studies are summarised in table 1 and online supplemental table 2. Of the 36 studies, 86.1% (n=31) studies were from high-income countries (HICs), while only 5 were from LMICs, including China, South Africa and India. The majority (83.3%) of included studies were randomised controlled trials or cluster randomised controlled trials, followed by quasi-experiments (n=5) and pre–post study without control arm (n=1). The sample sizes varied and ranged from 34 to 3698 participants with 38.9% of included studies

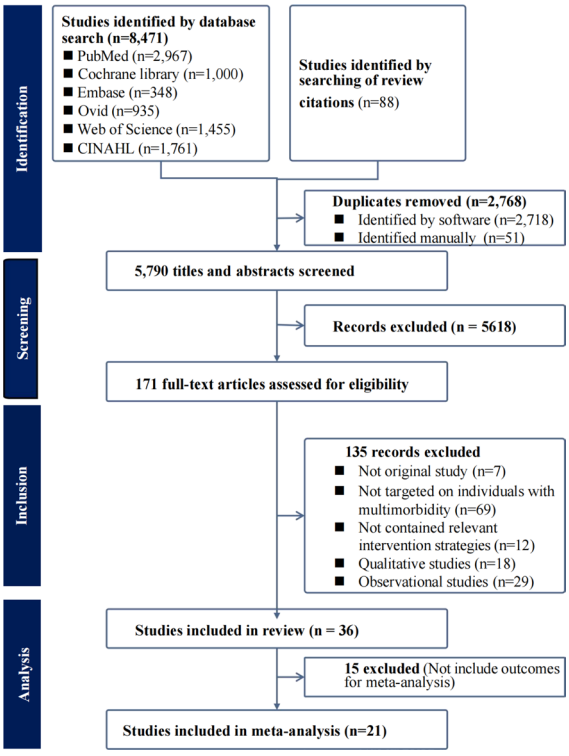

Figure 1 PRISMA profile. PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analyses.

having fewer than 200 participants and only 11.1% (n=4) having more than 1000 participants. Around 50% of studies targeted older population aged 65 years old and above. 12 studies recruited participants with any 2 chronic conditions, while 8 studies focused on the coexistence of physical and mental health issues, and 16 studies focused on people with hypertension and diabetes as the index condition.

Figure 2 presents the quality of studies included in the review. As shown in figure 2 and online supplemental figure 1, the major biases were reporting bias (13 studies with potential high risk), followed by attrition bias (12 studies with potential high risk) and selection bias (11 studies with potential high risk). The details of the quality assessment for each study are reported in online supplemental figure 1.

Characteristics of the interventions

The characteristics of the intervention reported in the reviewed studies are summarised in online supplemental tables 2 and 3. Among the 36 studies included, tasks were shared with nurses (n=21, 58.3%), followed by physicians (n=6, 16.7%), pharmacists (n=5, 13.9%), community healthcare providers (n=5, 13.9%), allied healthcare workers (n=6, 16.7%), social workers (n=3, 8.3%), and community healthcare volunteers (n=2, 5.6%). As shown in online supplemental table 3, the activities for different cadres of healthcare workers varied, with physicians, nurses, pharmacists and allied healthcare workers being involved in tasks related to basic clinical tasks on lifestyle counselling and disease monitoring. About 10%

Table 1 The characteristics of included studies

Characteristics	Number of studies (%)
Characteristics of study design	
Country of studies	
High-income	31 (86.11)
Upper middle-income	3 (8.33)
Lower middle-income	2 (5.56)
Type of healthcare settings	
Hospital-based	11 (30.56)
Primary care facility and community based	25 (69.44)
Type of study design	
Randomised controlled trial	25 (69.44)
Cluster randomised controlled trial	5 (13.89)
Quasi-experiment	5 (13.89)
Pre–post study	1 (2.78)
Sample size of participants	
0–200	14 (38.89)
200–500	13 (36.11)
500–1000	5 (13.89)
>1000	4 (11.11)
Mean age group of participants in recruitment	
Adults (18+)	12 (33.33)
Middle-age and older population (40+)	6 (16.67)
Older adults (65+)	18 (50.00)
Type of multimorbidity	
Individuals with any of two diseases or more	12 (33.33)
Physical condition and mental health disorder	8 (22.22)
Specific type of chronic conditions	16 (44.44)
Characteristics of interventions	
Task cadres	
Physicians or specialists	6 (11.76)
Nurses	23 (45.09)
Pharmacists	5 (9.80)
Community healthcare providers or GPs	5 (9.80)
Allied healthcare workers (dietitians, etc)	6 (11.76)
Social workers	3 (5.88)
Community healthcare volunteers	3 (5.88)
Intervention duration (months)	
0–3	9 (25.00)
3–6	15 (41.67)
6–12	9 (25.00)
12–24	3 (8.33)
Outcome of interests	
Quality of life	12 (33.33)

Continued

Table 1 Continued

Characteristics	Number of studies (%)
Mortality	4 (11.11)
Hospitalisation	10 (27.78)
Emergency department visits	7 (19.44)
Symptoms of depression	14 (38.89)
Symptoms of anxiety	5 (13.89)

GP, general practitioner.

of studies involved non-health workers including social workers and community-based volunteers, and case managers and administrative tasks were shifted to these non-health workers to support appointment making and case management.

As shown in online supplemental table 2, most of the interventions are multicomponent with large variety in contents. About 90% of the studies (n=27) targeted monitoring and follow-up, 83.3% (n=25) also involved assessing interacting conditions, and 80% (n=24) focused on individualised management for patients. Some studies also included provider-facing elements in capacity building, supportive supervision for healthcare professionals and the use of electronic decision support systems and algorithms.[18–21]

The effectiveness of task-shifting and task-sharing on major outcomes

Twenty-one studies were included in the meta-analysis. This resulted in a total of 20 989 participants included in the meta-analysis. The major findings are presented in figure 3. Of the eight studies that reported the impact on HRQoL, two studies showed statistically significant improvement in favour of the intervention[22 23] with the pooled effect size indicating task-shifting and task-sharing interventions were associated with modest improvement in HRQoL (SMD): 0.10 (95% CI: 0.03 to 0.17), I^2=47%) (figure 3A). Of the four studies that considered mortality as an outcome, all studies reported a lower risk in mortality in tendency, while one study found a statistically significant difference in favour of the intervention arm.[11] The pooled meta-analysis revealed a 27% reduction in mortality risk (OR: 0.73, 95% CI: 0.55 to 0.97, I^2=0%) in the intervention arm, indicating a favourable effect of task-shifting and sharing interventions compared with usual care (figure 3B).

For outcomes related to the utilisation of healthcare resources, nine studies involving 2341 participants examined hospitalisation as an outcome. Of these, the findings were mixed, with only one study demonstrating a statistically significant reduction in hospitalisation rates favoured the intervention.[22] The meta-analysis revealed no significant differences between the intervention and control groups in hospitalisation (OR: 0.84, 95% CI: (0.64 to 1.10), I^2=41%) (figure 3C). Besides, seven studies assessed ED visits and five studies reported positive impact, while only one study focused on the task-sharing with community healthcare workers in the community settings in the USA reported statistically significant reduction in favour of the intervention.[24] The meta-analysis found no statistically significant differences (OR: 0.83, 95% CI: (0.58 to 1.20), I^2=37%) between the intervention and control arm (figure 3D).

For psychological outcomes, depression was assessed in 11 studies with 5 studies reporting statistically significant reductions in symptoms of depression. The meta-analysis showed a small but statistically significant effect size in favour of the intervention for reducing the symptoms of depression (SMD: 0.27, 95% CI: −0.52 to −0.02) (figure 3E). However, high heterogeneity existed across these 11 studies (I^2=90%, p=0.01). Outcomes related to anxiety were reported in five studies, but none of the studies reported favourable findings (figure 3F).

Subgroup analyses and assessment of publication bias

Variation in subgroups was observed for HRQoL, hospitalisation and ED visits (online supplemental table 4). For HRQoL outcomes, interventions in older adults showed greater improvement (SMD: 0.19, 95% CI (0.05 to 0.32)), but the effect was not for hospitalisation and ED visits as high heterogeneity exists. Besides, interventions that lasted within 6 months showed more pronounced effect

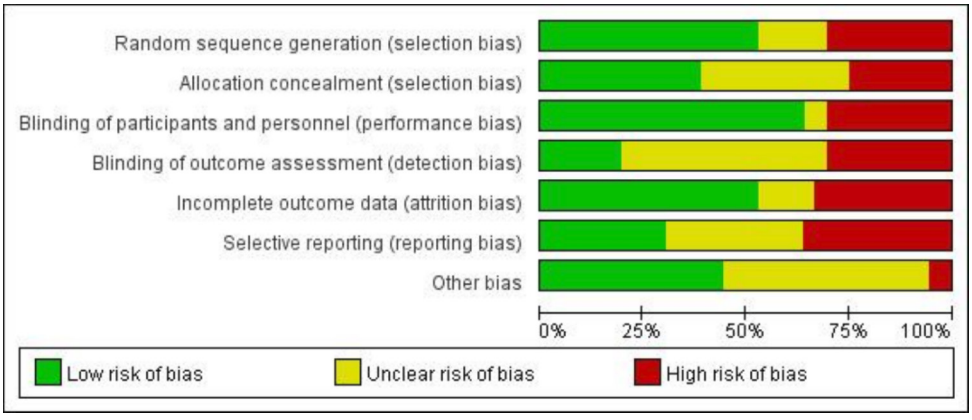

Figure 2 Risk of bias for included studies.

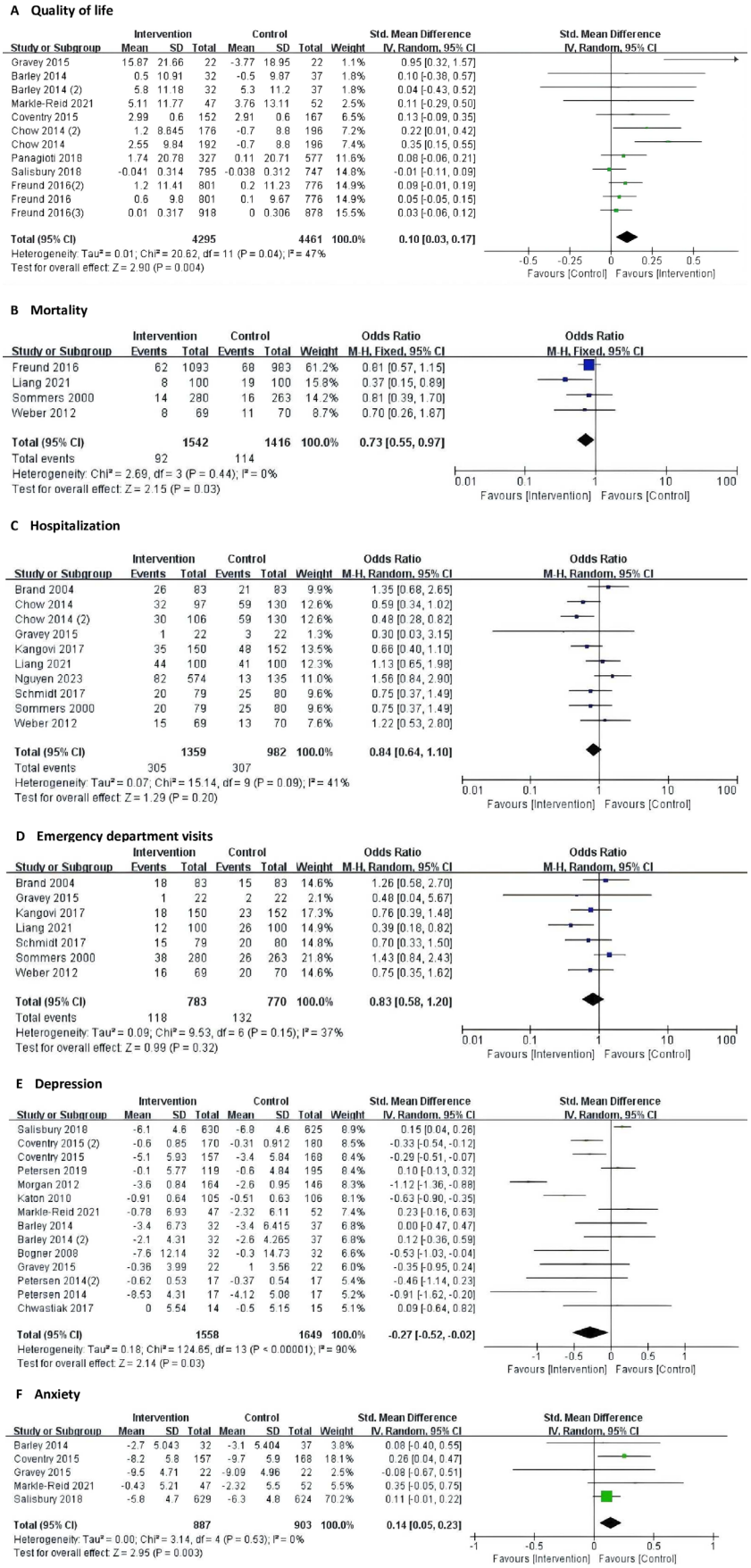

Figure 3 The effectiveness of task-shifting and task-sharing strategies on major outcomes in (A) quality of life, (B) mortality, (C) hospitalisation, (D) emergency department visits, (E) symptoms of depression, (F) symptoms of anxiety. IV, inverse variance; M-H, Mantel-Haenszel.

on ED visits. For outcomes that showed high heterogeneity, meta-regression results are reported in online supplemental table 5; these indicate that heterogeneity was mainly a feature of study settings.

We assessed publication bias using funnel plots and Egger's tests for outcomes with more than 10 studies, that is, studies reporting on quality of life, hospitalisation and depression outcomes (online supplemental figure 2). Publication bias was identified in Egger's test for quality-of-life outcomes (p=0.034). We applied the trim-and-fill method to adjust for this bias, and the results are reported in online supplemental table 6 and figure 3.

DISCUSSION

This systematic review analysed 36 studies from 14 countries, exploring the effectiveness of task-shifting and sharing strategies in multimorbidity management. Most of these interventions were multilevel with involvement of nurses, pharmacists and community healthcare providers as major cadres for task shifting and sharing. Moreover, most of the interventions were multicomponents though less than half covered all major aspects that are recommended by the current recommendations for multimorbidity management, indicating the space for further optimisation. Our findings point to some evidence, although very limited in existing research, that task shifting and sharing interventions can improve key health outcomes like mortality, depression and HRQoL among with multimorbidity.

Multimorbidity is an increasing global health challenge that affects both HICs and LMICs.[1 8] Previous reviews have estimated that about 37.2% of individuals worldwide live with multimorbidity.[8] In response, several HICs, such as the UK, the US and certain European countries have called for actions and developed strategies and clinical guidelines to address this growing issue.[25 26] However, initiatives to tackle multimorbidity in LMICs have been few, despite the relatively high burden.[27] A previous review reported that the pooled prevalence of multimorbidity in LMICs was around 32.1%, only slightly lower than that in middle-income (38.7%) and HICs (38.6%).[8] Despite this substantial burden, our study only identified five trials conducted in LMICs, highlighting the limited evidence base available to address multimorbidity in LMICs.

This systematic review and meta-analysis reveal potential benefits of task-shifting and sharing strategies in improving quality of life, and alleviating risk of mortality and symptoms of depression among individuals with multimorbidity. Although this observed statistical difference should be interpreted with caution as it may not be equal to clinical importance, existing literature showed that a change of 0.01 in quality of life could be a minimally important difference for HRQoL.[28] We believe that such findings could be meaningful at large scale with public health implications. In line with a previous review, we also found that the evidence base is still weak and the impact of the task-shifting and sharing strategies on healthcare utilisation is less conclusive.[11] These mixed findings may be attributed to differences in intervention design, study context and methodology.

Besides, our review also highlighted the potential quality issues of existing studies, including the major concern of reporting, attrition and selection bias. Many of the included studies were conducted at single sites, with small sample sizes and short durations, without clearly defined blindness assessment. Besides, only five studies were conducted in LMIC, further emphasised the potential limitation in generalisation of the findings. Therefore, high-quality studies are greatly needed in this field to further strengthen the evidence base.

Despite the inconclusiveness in effectiveness, our study still offers valuable insights into the existing intervention strategies for improving multimorbidity management. The analysis on task allocation and task complexity highlights the importance of allocating appropriate tasks across different cadres of health professionals based on their qualification and capacity. On the one hand, task-sharing between healthcare professionals, including physicians, nurses and primary care professionals, has the potential to ensure continuity of care and facilitate referrals. On the other hand, the task-shifting to non-health professionals, including social workers, community healthcare volunteers and case managers, may address the less complex and administrative tasks to improve the efficiency in services.

Additionally, task-shifting and sharing strategies are often implemented alongside broader efforts in health system strengthening and restructuring. As shown in our review, many of the task-shifting and sharing interventions were delivered along with capacity building and the use of electronic decision support systems.[18–21] Such findings, consistent with previous reviews, emphasised role of enabling environment, workforce development, leadership and governance in addressing the current challenges in the healthcare system and in optimising multimorbidity management.[29 30] Our meta-regression analysis indicated that the degree of decentralisation could be a factor for the heterogeneity of effectiveness in quality of life and depression outcomes. These findings are consistent with a previous review of task-shifting strategies on hepatitis C virus care and treatment,[13] which suggests the potential critical role of primary care and community-based services for multimorbidity management, as strong primary care and community-based care may enhance accessibility of care for patients and allow for the care plans to be integrated with patients' routine life.

Our study has several key strengths. We conducted a comprehensive and systematic search of six major databases covering global research in this field. We also thoroughly analysed the intervention packages by mapping its components according to task cadres and type of tasks, level of decentralisation and care content following clinical guidelines and investigating the effect by considering a broad range of outcomes of multimorbidity.

This review also has several limitations that should be considered when interpreting the findings. First, most of the interventions were multicomponent, and task-shifting and sharing were one of the elements of the intervention strategy. The use of multiple combinations of different strategies and outcomes precluded a formal quantitative analysis of their independent contributions, and we are unable to attribute an outcome to a particular element of the intervention. Second, high heterogeneity existed across studies. Although all included studies recruited individuals with multimorbidity, the definition of multimorbidity, targeted population and methodologies in outcome assessment varied. However, in arriving at our conclusion, we have systematically accounted for this. Third, the quality of included studies varied—this limits the inferences we can draw from the evidence reviewed. Studies with larger sample sizes and robust designs are needed. Fourth, our search was limited to published peer-reviewed articles and did not include grey literature, which may have introduced a risk of publication bias. However, we have generated a funnel plot and performed Egger's test to assess the potential of publication bias for major outcomes. For outcomes in mortality that only have four studies, potential publication bias cannot be assessed due to limited sample size and the interpretation of these findings should be cautious.

Our findings have significant implications for health policy, particularly in countries grappling with the growing burden of multimorbidity. The review suggests that while the evidence base on task-shifting and sharing strategies to tackle the dual challenge of increasing multimorbidity and constrained healthcare resources is weak and limited, this is perhaps more a case of 'absence of evidence, rather than evidence of absence'. Thus, more research is needed to evaluate the effectiveness and real-world application of these strategies, especially in LMICs. Furthermore, policy-makers should consider the adoption of task-shifting and task-sharing strategies to best allocate available resources and consider appropriate complexity in tasks for different cadres of care providers to ensure a continuum of care for multimorbidity management.

CONCLUSIONS

In conclusion, task-sharing and shifting interventions have some potential to improve quality of life and reduce symptoms of depression among individuals with multimorbidity, while the effect on hospitalisation and ED visits, and on mortality remains inconclusive. Further research is urgently needed to assess the effectiveness and implementation of these strategies, particularly in diverse LMIC settings where the evidence remains scarce. It is also needed to assess the effectiveness of task-sharing and shifting interventions in LMICs in diverse settings. In parallel, in-depth qualitative research is also needed to better understand the drivers in the effectiveness and implementation of task-sharing and shifting interventions in different contexts.

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Contributors EG, XT and YLo conceived and designed the study. YLo performed the search, YLi, WYMH, JW and SN conducted the study screening, data extraction. YLi performed meta-analysis, ZW and YW verified data analyses. EG and YLo wrote the first draft of the manuscript. All authors contributed to the critical revision of the manuscript and approved the final version. LLY, RS, SK, YW and ZW contributed to the critical revision of the manuscript and approved the final version. EG is responsible for the overall content as guarantor.

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Patient consent for publication Not applicable.

Ethics approval Ethical approval is waived and not applicable because this is a review study of published articles and no human participant was involved.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement The data that support the findings of this study are all from secondary analysis of published articles. The data are available from the corresponding author on reasonable request.

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