

INTRODUCTION

Life expectancy has increased significantly in recent decades, contributing to an ageing world population and increase in social care.

- 17,600 care homes in the UK
- Accommodation and care support for around 490,000 people.

Visual impairment is common in older people.

- Prevalence of visual impairment in care home residents is up to 13-15 times higher compared to non-institutionalised individuals.
- Care home residents often have multiple comorbidities with complex care needs. This results in practical challenges in delivering eye care.
- Access to eye care services and treatment can be variable for this vulnerable population.

OBJECTIVES

The key review questions are:

1. What is the existing evidence for eye care interventions or services (including service configuration) for care home residents?
2. Does the provision of these interventions or services improve outcomes?

METHODS

EMBASE and MEDLINE databases were searched for publication from 1995 to present using the search terms in Table 1. Two reviewers independently reviewed for eligibility (Table 2). Figure 1 demonstrates the selection process. We used narrative synthesis to analyse the results.

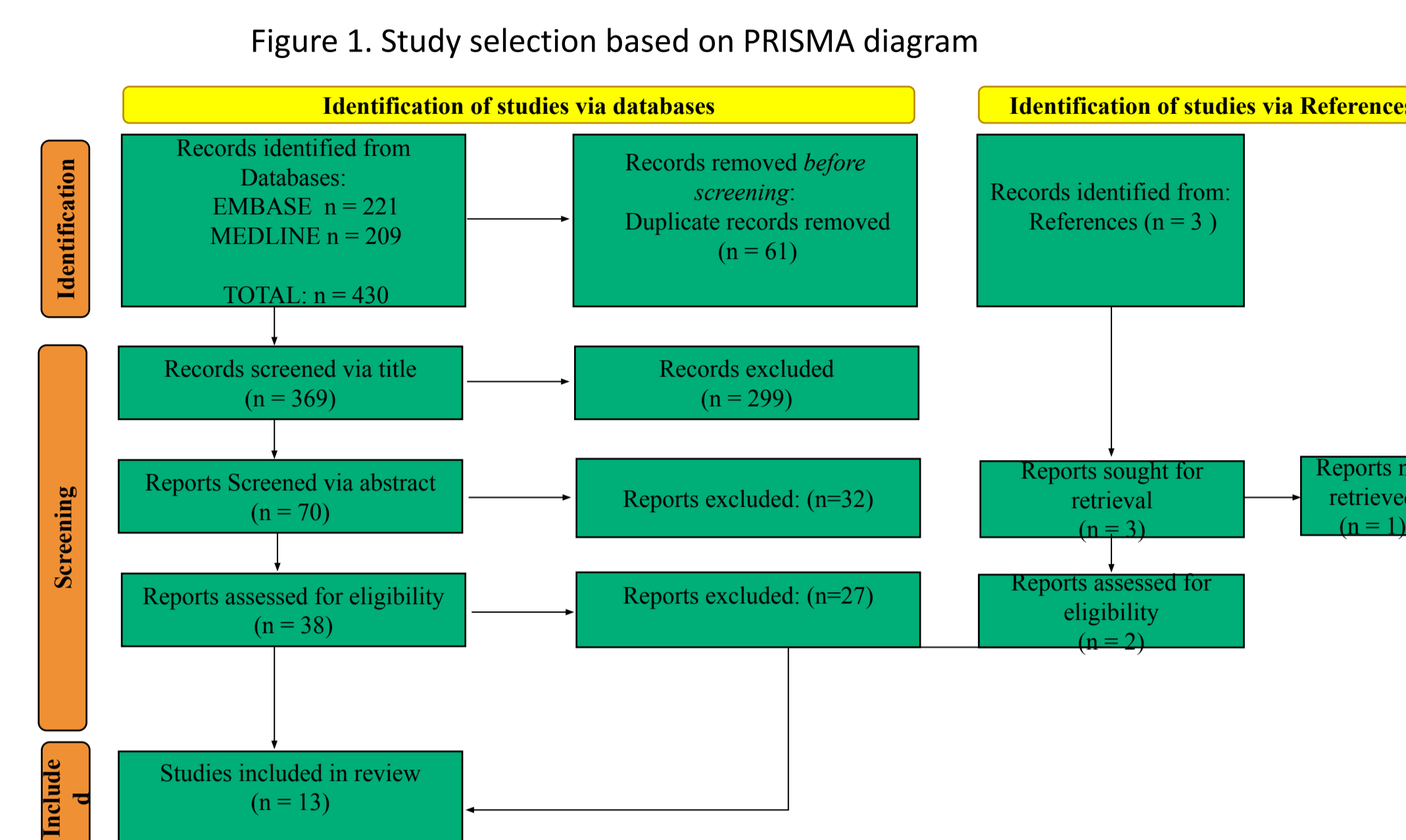
Table 1. Search terms

Population (OR)	AND	Eye condition (OR)
Care home		Cataract
Residential home		Age related Macular Degeneration
Nursing home		Glaucoma
Home for the Aged		Diabetic eye disease
		Diabetic retinopathy/maculopathy
		Vision Loss
		Refractive errors

Table 2. Eligibility and Exclusion Criteria

Eligibility Criteria	Exclusion Criteria
Full original research	Dual/multi-sensory impairment
Publication after 1995	Published prior to 1995
Age 55+	Not in English language
Care home eye care service provision described/evaluated or eye care intervention evaluated.	

METHODS



RESULTS

430 articles were identified, of these **13** papers fit the criteria (Figure 1).

Provision of eye care services in care home:

2 studies assessed the provision of eye care services in care home settings.

- Kergoat et al. performed a web survey of long-term care facilities in Canada.
 - > 72% of the care homes did not have formal vision screening for residents.
 - > 85.9% had access to external optometrist/ophthalmologist.
- Marmamula et al. assessed the provision of eye care in care homes in South India.
 - > Overall the system was felt to lack continuity of care due to the external set up of services.

Eye care interventions, evaluation and outcomes:

Evaluation of optometrist-led eye care services:

2 studies (Labreche et al. and Goetzinger et al.) specifically assessed and demonstrated the value of optometrist-led eye care .

- Labreche et al. evaluated an optometrist-led program demonstrating:
 - > 28.6% referral rate to ophthalmologist.
 - > Increased referrals to other programmes.
- Goetzinger et al. also demonstrated the benefits of on-site optometrist care:
 - > 53% residents received direct optometric intervention.
 - > 18.9% received referral for further specialists services.
 - > Total 65% residents received immediate benefit from service.

RESULTS

Comprehensive eye service implementation:

2 multi-centred randomised control trials, the SEEING study and Man et al., implemented comprehensive eye care services for care homes assessing different aspects of the intervention and outcomes including: cataract surgery, low vision rehabilitation and low vision aids.

The studies demonstrated:

- Improvements in visual acuity for the residents.
- Cataract surgery improved visual acuity and possibly mood, however, it's effect on cognition, physical function and mobility was more variable.
- Vision-related quality of life was improved but not necessarily health-related quality of life.

Table 4 compares the outcomes after cataract surgery.

	Visual Acuity	Vision-related Quality of Life	Health-related Quality of life	Cognition	Depression	Function and Mobility	Falls
Man 2019 Australia	↑	↑	↔	N/A*	↔	↔	↔
Owsley 2007 US	↑	↑	↑	↔	↔	↔	N/A
Marx 1995 US	↑	N/A	N/A	↔	↑	↔	N/A
Elliott 2009 US	↑	N/A	N/A	↑	N/A	↔	↔
Owsley 2007 US	↑	↑	↔	N/A	↑	↔	N/A

Table 4. Comparison of outcomes post eye care intervention.

*Not assessed

Refractive error correction and outcomes:

Wearing glasses improved vision-related quality of life and improved depression scores but did not improve health-related quality of life, including cognitive function and physical components.

Conclusions

- Prevalence of visual impairment in care home residents is high yet eye services are poorly evaluated.
- Interventions improving access to on-site optometrist, cataract surgery, low vision rehabilitation and refractive error correction appears to improve visual acuity, vision-related quality of life and possibly mood.
- More studies are needed to evaluate how access can be improved.

Contacts

Dr Nan Ma, Geriatrics Registrar (Nan.ma@gstt.nhs.uk). Mrs Sancy Low, Consultant Ophthalmologist (Sancy.low@gstt.nhs.uk). Dr Tania Kalsi, Consultant Geriatrician (Tania.kalsi@gstt.nhs.uk). Guy's and St Thomas' NHS Foundation Trust, Westminster Bridge Road, London, SE1 7EH, UK. Mrs Shreena Patel (Shreena.patel9@nhs.net) Visioncall.