

Hearing and vision care provided to older people residing in care homes: a cross-sectional survey of care home staff

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Abstract

Background: Hearing and vision loss in older people has proven to affect physical and mental health and increase the speed of cognitive decline. Studies have proven certain practices and aspects of staff knowledge increase the effective care of residents' ears and eyes, yet it is not known which of these are being implemented in care homes. This study aims to identify the gaps in staff knowledge and underused practices evident in long term care homes when identifying and managing hearing and vision difficulties in older residents. Methods: This study used a cross-sectional survey design. Survey questions were informed by the existing literature and were focused on practices, staff knowledge, and other aspects that have shown to affect residents' hearing and vision care. The survey was sent to care homes across England between November 2018 and February 2019 both via Email and in paper format for care home staff to complete. Descriptive statistics and Chi-Square analysis was used to assess the factors particularly influencing the current care being provided to care home residents. Results: A total of 400 care home staff responded from 74 care homes. The results revealed that screening tools are rarely used by staff to identify hearing and vision impairments, care homes have limited access to other assistive devices, and audiology services do not regularly assess care home residents. A majority of staff were also not entirely confident in their knowledge of ear and eye care. Responses were also affected by the respondents' job role, length of time working in care homes and also the care home type and care home capacity revealing a lack of standardised practice and shared communication. Conclusion: This study identifies which practices known to facilitate ear and eye care are currently under used in care homes across England and what particularly staff are not knowledgeable on when it comes to ear and eye care. This can now inform future research of the areas requiring improvement to as effectively address to acknowledged slow identification and poor management of hearing and vision loss in older people residing in care homes.

1. Introduction

Hearing and vision loss in older adults can also affect other health related outcomes, including an increased rate of cognitive decline, increased risk of falls and reduced quality of life (1–3). If care homes are to improve such outcomes then effective hearing and vision care should be provided to older residents. However, it has been found that there are many barriers to providing effective ear and eye care in care homes (4). To overcome these requires understanding of the current best practice, the prevalence of these barriers, and suggestions by staff as to how the notable barriers can be feasibly and effectively addressed.

2. Background

In England there are around 400,000 older people residing in care homes (5), with 75% of these individuals estimated to be living with some degree of hearing loss (6) and around 50% with some degree of vision loss (7). However, these sensory impairments often go undetected or are poorly managed, resulting in residents living with limited hearing and vision capabilities (8). The consequences can

significantly negatively affect residents' quality of life; this includes their physical health, mental health, and socialising opportunities (3, 9, 10). Despite these acknowledged impacts there is still a lack of focus on sensory impairment identification and management in older people in care homes. Evidence suggests that this can be due to the common perception by care home staff and residents that hearing and vision loss are normal aspects associated with ageing (8); This can then consequently lead to hearing and vision loss becoming hidden health issues within this population.

A recent review has found that there are other barriers in care homes that contribute to the poor identification and management of hearing and vision loss in residents (4). These include a lack of care home staff knowledge, poor management of assistive aids (e.g. hearing aids and glasses), limited access to specialist services such as audiologists and optometrists, under-use of screening tools, an unsuitable care home environment, and residents' reduced cognitive capabilities (4). Evidence also reveals a reluctance of residents to use their prescribed assistive aids and reduced ability to manage their own aids without assistance (11). Whilst the emphasis is mainly on staff and professionals providing the required treatment, care and support, family members can also assist with management of ear and eye care (12, 13). Hearing and vision charitable organisations have produced guidelines in effort to overcome some of these barriers. However the existing evidence to support these guidelines is not adequate enough to ensure these practices are both feasible and effective (6, 14).

Whilst it is important to have a range of practices available to effectively support residents with sensory impairments, it is also important to ensure care home staff are readily aware of best practice and what might be practically implemented where they work (15); they must also be sufficiently knowledgeable to effectively conduct interventions (16). Improved care home staff knowledge of different hearing and vision conditions might assist with identifying what each resident specifically struggles with in everyday life, and thus what practices would be most beneficial. In addition, staff should know how to correctly clean and maintain hearing aids and glasses to ensure they are functioning correctly and therefore the sensory impairment is effectively managed.

It is important for staff to understand how to effectively and efficiently improve current practice in care homes. However, the commonly conducted practices used in care homes day to day to identify and manage hearing and vision impairments are unknown. The aim of the study described in this paper was to identify the practices care homes in England currently use and the level of knowledge staff have when caring for residents' ears and eyes. By highlighting the practices most and least used and the gaps in staff knowledge, professionals and the public can begin understanding the steps that need to be taken to improve ear and eye care in care homes.

3. The Study

Aim

1. To identify which practices are currently being used in care homes across England to care for older residents' hearing and vision difficulties

2. To assess care home staff knowledge of hearing and vision care in older residents
3. To identify any characteristics of staff and care homes that influence the reporting of practices available and level of staff knowledge

Design

A cross-sectional survey methodology was used to address the study aims. Care homes to be surveyed included both nursing homes and residential homes. Survey questions were informed by the existing literature and were focused on practices, staff knowledge, and other aspects that have shown to affect residents' sensory care such as residents' willingness to use aids and their ability to care for their aids themselves. The survey (appendix 1) was designed in three sections: the first section requested details of the respondent and the care home they work in, the second section queried hearing practices used in the care home and staff knowledge on hearing care, and the third section queried vision practices used and staff knowledge on vision care.

Participants

The survey was designed for completion by all staff either directly responsible for and/or in regular contact with residents such as health care assistants, trained nurses, care home managers and activity coordinators. A convenience sample of care home staff members who had regular contact with older care home residents was recruited. To be included in the study, care home staff had to be working in a care home for adults over 65 years old and have regular contact with the care of older residents. They also had to be able to read and write in English.

Validity, reliability and rigour

The draft survey was reviewed and refined following consultation with a study advisory group consisting of five care home staff from one care setting. A meeting was convened with the group who were asked to complete the survey in situ. They were also asked to consider the wording of the cover letter and questions, the appropriateness of the multiple choices given for each question and the proposed modes of survey distribution. Input of the advisory group led to changes to the wording of some questions and changes to the cover letter so that all care staff in regular contact with residents might readily understand it. Additional response options were included for certain questions (e.g. question 19 and 36 added the option of 'only when residents bring their own'); the need for the survey to be made available in both paper and electronic versions was emphasised.

Data Collection

The study gained UK NIHR portfolio status, which allowed the survey to be nationally distributed to care homes via the Enabling Research in Care Homes (ENRICH) network and the Clinical Research Network thus reaching a wider population. The survey was firstly piloted in two nursing homes in the North of England which were identified by the ENRICH team who have access to research ready care homes. The

care homes received the survey firstly via Email and then were also sent a paper version so that both presentations were piloted. The pilot revealed no problems with the survey design, methods of distribution and data collection with the successful return of four paper and four electronic survey copies.

It was distributed between November 2018 and February 2019 to care homes across England known to the ENRICH network and the national Clinical Research Network. In addition, social media and conferences were used to advertise the survey to other care homes.

Both electronic and paper methods were used for the distribution of the survey (Appendix 1). The survey was first distributed to care home managers across the country via Email, with a link to the online survey. The option for paper copies was also offered in the same Email. Paper copies were printed and sent to care homes who requested them with a pre-paid return envelope. Information for respondents about the overall study, ethics and data management was included in the first page of the survey. A question was included at the end of this page for the participant to confirm that they had read the information and agreed to voluntarily take part in the survey. There were 400 survey questionnaires returned from staff working in 74 care homes across England.

Ethical considerations

University ethical approval was obtained for this study. The final survey design was produced using Jisc online surveys website (17). This site is UK based and adheres to all General Data Protection Guidelines enforced in the UK, ensuring participants' data is effectively and appropriately managed.

Data analysis

The survey responses were inputted onto statistical analysis software SPSS version 25. Descriptive statistics were firstly produced to give percentage responses to each of the questions. Chi-Square analyses were then conducted to identify any relationships between the sociodemographic profiles of respondents and care home practices. As many tests were to be performed, the Bonferroni adjustment was used and a significance value of $P < 0.01$ applied to reduce the likelihood of false findings of significance (18).

4. Results

A descriptive analysis was conducted on the 400 returned survey questionnaires as reported below.

Characteristics of care home and respondents

The Care Quality Commission (CQC) in England rates the quality of care provided by the specific care homes. These ratings were found for 66 out of 74 care homes; 15 required improvement (22.7%), 44 were reported as good (66.6%), and seven were outstanding (10.6%). The responses of staff from each home were collated to determine the number of respondents from each care home, this ranged from one person to 36 people, with 26 care homes having over five respondents.

The type of care home where the respondent worked was requested from each respondent and they were able to select more than one type. Analysis found however that many respondents from the same care home reported different care home types for their home. Due to these disparities, all care home classifications were checked against the care home manager's response and standardised across all respondents from that home; for those where no manager participated, the care home website was reviewed to provide a more accurate and standardised record of what type of care home it was. Those responding were most commonly from nursing homes (45%) followed by residential care homes (36%)

There was a significant correlation found between job role and length of time that respondents worked in care homes ($P = 0.000$), with care home managers reporting the longest length of service and health care assistants working the least. A significant relationship was also found between care home type and job role ($P = 0.000$), with a greater proportion of respondents from nursing homes being qualified nurses, and a greater proportion of those classifying themselves as 'other' being from residential homes.

Descriptive analysis

Table 1 shows the percentage of responses given to the existence of certain practices for assessment and treatment of hearing loss and vision loss. Of the 400 responders, the vast majority reported that both hearing and vision impairments are recorded in residents' care plans (91.3%; 93.5%), and that hearing aids and glasses are checked/cleaned regularly by staff (84%; 91.8%). In addition, a majority report that their care home has suitable environment adaptations such as quiet places for residents (79.5%), that the care home they work in is well lit (88.3%), and that specific adaptations to the environment (such as contrasting colours for signs) exist (67.8%). In addition, the majority said that annual vision check-ups by optometrists are conducted in the home (85.3%).

However, Table 1 also shows that some practices were less commonly used. A total of 46% of participants mentioned not using screening tools for hearing assessment; and 43.8% not using vision screening tools. Hearing assistive devices were only reported by 16%; and only 23.8% of care homes provided other vision assistive devices. Less than half responded that annual hearing check-ups are conducted by audiologists (46.8%), and that all residents' glasses are labelled (48.8%).

Table 1
Hearing and vision practices implemented in care homes

Practices (%)	Yes	No	Not sure	Sometimes	When residents bring their own
Hearing					
Hearing Screening Tools	16	46	38		
Care plan (Hearing)	91.3	0.3	2	6.5	
Quiet places	79.5	14.2	25		
Hearing Aids checked regularly	84	20	44		
Access to other hearing devices	15	29.8	18.8		36.5
Annual hearing check-ups	46.8	25	28.2		
Vision					
Vision Screening Tools	23.8	43.8	32.5		
Care plan (Vision)	93.5	0.5	2.5	3.5	
Well-lit rooms	88.3	5.3	6.5		
Adaptations to environment (Vision)	67.8	21.8	10.5		
Glasses cleaned regularly	91.8	4.5	3.8		
Access to other vision devices	45	8.3	13.5		33.3
Annual vision check-ups	85.3	2.8	12		
Glasses labelled with owner's name	48.8	7.2	4	40	

In addition, 103 out of the 400 respondents reported that all of their residents are willing to use their hearing aids (25.8%), and only 83 stated that their residents are able to take care of their own aids (20.8%). Furthermore, the majority of all respondents reported that some assistance in caring for residents' hearing problems are provided by family members (96%). In addition, when these questions were assessed for vision, only 118 out of the 400 respondents reported that all residents are willing to use their glasses (29.5%), with 359 having reported that family members provide assistance (89.8%).

A free text question asked about other practices that the care home used to assist with the identification and management of hearing and vision difficulties. The hearing practices suggested included signing professionals, nurses carrying out ear syringing, links with relevant charities, communications devices such as iPads, and staff training. Examples given of vision practices not listed included: contacts with

relevant charities, input from a variety of outside professionals, volunteers, one on one care, Specsavers visits and staff assistance and training.

Table 2 further highlights the percentage of respondents who considered themselves to be confident in their knowledge of different aspects of hearing and vision care. For all questions, over 50% reported being confident to some extent in their knowledge of that particular aspect of hearing and vision care. In addition, the majority of respondents strongly agreed that they were confident in cleaning glasses (57.5%) and communicating with the hearing or visually impaired residents (63.5%; 70.5%). However, less than 25% strongly agreed that they were confident in recognising various hearing and vision conditions (17.5%; 8.3%), assessing whether a resident has a hearing or vision impairment (24.8%; 14%), assessing hearing or vision impairment in the cognitively impaired (21.5%; 14.5%) and cleaning hearing aids (23.8%).

Table 2
Staff knowledge of hearing and vision care

Knowledge (%)	Strongly Agree	Agree	Disagree	Strongly Disagree
Hearing				
Knowing the difference between hearing conditions	17.5	56	24.5	2
Assessing whether a resident has a hearing impairment	24.8	60	13.3	2
Assessing hearing impairment in the cognitively impaired	21.5	55	21.3	2.3
Cleaning hearing aids	23.8	54	18.5	3.8
Communicating with the hearing impaired	63.5	30	5.5	1
Vision				
Knowing the difference between vision conditions	8.3	43	42	6.8
Assessing whether a resident has a vision impairment	14	59.3	25	1.8
Assessing vision impairment in the cognitively impaired	14.5	51.7	30.8	3
Cleaning glasses	57.5	39.5	2.3	0.8
Communicating with the vision impaired	70.5	25.8	3.5	0.3

When asked whether the respondent would like more information on how to effectively identify and manage hearing and vision loss, 89.5% agreed that they would like more information on hearing loss, and 85.3% agreed they would for vision loss.

For all homes with more than five staff who responded (n = 26), a range of responses were provided about the practices the care home was implementing. Whilst some working in the same home agreed that certain practices took place in their care home, others from that same care home disagreed; This highlights uncertainty amongst staff of the practices the care homes they worked in were actually implementing.

The relationship between demographics and participant responses

Survey responses were also compared to respondents' job role, their length of time working in care homes, the care home type to which they worked in and also the size of the home by applying Chi Square correlations. Table 3 shows which of these care home/staff factors were significantly related to participants' response to questions about hearing and vision practices.

Table 3
Relationships between variables

Relationships between variables	Job Role	Length of work	Care Home Type	Size of Care Home
Hearing				
Use of screening tools	0.000	0.000	0.005	0.099
Annual professional assessment	0.000	0.000	0.002	0.014
Access to quiet rooms	0.138	0.000	0.387	0.058
Aids checked regularly	0.338	0.000	0.000	0.829
Access to other aids	0.000	0.002	0.003	0.308
Knowledge of cleaning hearing aids	0.008	0.014	0.480	0.736
Knowledge of how to communicate	0.114	0.067	0.000	0.542
Want for more information	0.078	0.071	0.003	0.244
Residents willing to use aid	0.003	0.07	0.000	0.004
Can residents take care of own aid	0.000	0.1	0.000	0.554
Family members assist	0.094	0.937	0.577	0.003
Vision				
Use of screening tools	0.000	0.000	0.153	0.311
Annual professional assessment	0.000	0.000	0.133	0.073
Environment well lit	0.265	0.010	0.652	0.002
Aids checked regularly	0.1	0.010	0.269	0.825
Glasses labelled	0.003	0.000	0.000	0.063
Access to other aids	0.000	0.000	0.014	0.04
Knowledge of cleaning glasses	0.003	0.013	0.005	0.194
Knowledge of different vision problems	0.000	0.232	0.264	0.311
Residents willing to use glasses	0.291	0.694	0.000	0.106

Job roles

As shown in Table 3, of the 33 questions about hearing and vision practices and staff knowledge, six hearing questions and six vision questions were significantly associated with job role. A significant relationship between job role and whether screening tools were used in the home for both hearing and vision were found ($P = 0.000$). Also, whether residents had access to other assistive devices ($P = 0.000$); and whether visiting professionals conduct annual assessments ($P = 0.000$). Health care assistants and those classifying themselves as 'other' reported greater uncertainty regarding whether the care home adopts these practices in comparison to care home managers and nurses. Activities coordinators reported a level of uncertainty similar to that of health care assistants for questions about hearing practices. However, the certainties reported by this group of staff regarding practices for vision loss were similar to that of care home managers and nurses.

Job role was also found to be significantly associated with reported knowledge of cleaning hearing aids ($P = 0.008$). A greater proportion of health care assistants, activities coordinators and those classifying themselves as 'other' reported that they were not confident in cleaning hearing aids in comparison to care home managers and nurses. This group were also more likely to report that all residents were willing to use their hearing aids in comparison to care home managers and nurses ($P = 0.003$). In addition, care home managers seemed to report stronger disagreement in residents being able to take care of their own aid in comparison to all other job roles ($P = 0.000$).

There was also a significant association found between staff knowledge of the different vision problems and job role ($P = 0.000$). Care home managers and nurses reported having better knowledge than health care assistants, activities coordinators and those classified as 'other'. In addition, care home managers were reportedly more confident in their knowledge of cleaning glasses than all other job roles ($P = 0.003$). Care home managers and nurses were also more certain of whether glasses were labelled with residents' names in comparison to those from all other job roles ($P = 0.003$).

Length of time working in care homes

There were five significant associations found between questions about hearing practices and the length of time the care home staff members had worked in care homes, and six significant associations between the questions about vision practices and length of time working. For both hearing and vision there were again significant associations found between length of work and the reporting of screening tools ($P = 0.000$), professional assessments ($P = 0.000$) and also whether residents have access to other additional assistive devices ($P = 0.002$ - hearing) ($P = 0.000$ - vision). This effect again seems to be associated with the amount of uncertainty among staff. There is a linear trend in all three questions' responses with those reporting having worked at the care home less than two years being most likely to be uncertain about whether these practices were implemented in their care home, whereas those working in the care home for over 10 years were the most certain of which practices are used.

Significant associations were also found in the reporting of whether hearing aids are checked regularly ($P = 0.000$) and whether the care home has quiet rooms available to residents with hearing difficulties ($P = 0.000$), with greater uncertainty reported by those who have worked in the care home for less than two

years in comparison to all other groups. The heightened level of uncertainty among this group can also be seen in the reporting of whether residents' glasses are labelled ($P = 0.000$), whether residents' glasses are checked regularly by staff ($P = 0.010$), and whether the care home is well lit to aid those with vision difficulties ($P = 0.010$).

Type of care home

Whilst in all categories the majority of staff agreed they wanted more information, those in dementia only care homes reported a higher percentage of staff disagreeing in comparison to all other care home types ($P = 0.003$). Residents in dementia only homes were reported as being less likely to be willing to use their prescribed aids ($P = 0.000$), and the least likely to be able to take care of their own prescribed aids ($P = 0.000$). However, as can be seen in Table 3, type of care home also affected the accessibility to other assistive devices and dementia only care homes were reported as being the least likely to have access ($P = 0.003$). Residents in a dementia only home and those classed as other were also reported as less likely to have professional assessments than those reported as being in nursing or residential homes ($P = 0.002$). Those identifying as a nursing home or nursing and residential together were also more likely to report using screening tools than all other types of home ($P = 0.005$).

Dementia only homes and those classed as other were more certain on the whether their staff checked hearing aids regularly in comparison to the other types of care home ($P = 0.000$), however the percentage of those reporting that they did check hearing aids was similar for those in dementia only homes as reported in all other homes. Furthermore, whilst the majority of staff working in care homes reported confidence in communicating with residents with hearing difficulties (93.5%), those identifying as other were less likely to be confident in this ability ($P = 0.000$).

Types of care home again had an effect on numerous responses. Dementia homes reported residents as least likely to be willing to use their prescribed aids ($P = 0.000$), and respondents from dementia only homes were also the most likely to report that residents' glasses were labelled ($P = 0.000$). In addition, dementia only homes and those classed as other were the most likely to strongly agree in their confidence to clean residents' glasses effectively in comparison to the other homes ($P = 0.005$).

Size of the care home

A linear trend can be seen whereby those with a capacity of 30 or less residents were more likely to report that all their residents were willing to use hearing aids, with the lowest proportion of respondents noting this willingness coming from care homes with a capacity of over 60 ($P = 0.004$). Furthermore, if respondents reported to be working in a care home with 30 or less residents, they were also more likely to report having assistance from family members than those in care homes with more than 30 residents ($P = 0.003$).

For the questions about vision practices, the size of the care home was only significantly associated with whether the care home was well lit to cater for those with vision impairments ($P = 0.002$); with those care

homes with less than 30 residents reporting more 'no' and 'not sure' responses than those with 30 + residents.

5. Discussion

The results from this survey show that there are certain practices that care homes are more likely to adopt and adhere to that support both residents' hearing and vision care. These practices include; recording sensory loss in residents' care plans, regularly checking hearing aids and regularly checking glasses. The majority also reported having quiet areas and well-lit rooms in their care home. However, there are certain practices known to assist with residents' ear and eye care that were reportedly rarely used and staff knowledge appeared lacking. The results found that there is more support available to identify and manage residents' vision than hearing. However, both are not effectively cared for as much as is possible.

Firstly, the majority of staff are not confident in identifying and managing both hearing and vision impairments in their residents. In addition, audiology services were commonly reported as not being readily available to residents suggesting a reason behind the poor identification of residents hearing impairments. The reported unwillingness of residents to use their prescribed aids and limited access to other assistive devices to compensate for hearing or sight loss also suggests that many residents are not using devices that can improve their sensory impairment. This can be a significant cause behind poorly treated/managed sensory impairments in care homes currently not being addressed.

Hearing aids and glasses are reportedly checked regularly by staff but the majority are not entirely confident in how these aids should be cleaned and maintained. So, whilst checked, these aids may not be working as they should be, resulting in residents still being impaired in their hearing and vision. This highlights that staff might need enhanced training to provide a sufficiently skilled service. The vast majority of respondents also state they would like more information on how to identify and manage both hearing and vision loss, highlighting a need amongst all staff for further training in more than just aid management.

The high level of uncertainty amongst health care assistants, activities coordinators and those identifying as 'other' regarding the service and assistance care homes offer for their residents also highlights a lack of shared knowledge. These particular individuals are first point of contact for residents, suggesting that whilst care homes might provide certain practices, they are not being regularly provided to residents who would benefit from them. The very limited use of screening tools reported which would identify hearing and vision loss also inevitably leads to poor identification and management of hearing and vision difficulties.

Dementia only homes in comparison to general nursing or residential homes reported reduced accessibility to other assistive devices to compensate for hearing and vision loss. They also reported the lowest willingness of their residents to use and also care for their prescribed aids. Respondents from dementia only homes also report a lesser likelihood of audiologists providing annual assessments and use of screening tools in comparison to general residential or nursing homes. This suggests that

dementia only care homes have the higher probability of hearing difficulties going undetected and poorly managed in this specific population. As cognitive impairment can be a further barrier to effective identification and management, these results seem to suggest that care home type does not necessarily affect practices and knowledge of the home and staff, but these are rather affected by the residents' cognitive capabilities, with those living with dementia receiving poorer hearing and vision care.

The results from this survey suggest that to improve practice we need to focus on improving certain aspects in particular. These include; having a range of assistive devices available in care homes, having screening tools that all staff can use in their daily practice to identify those at risk, building stronger links between care homes and external professionals, and training care staff to increase their knowledge on how to both identify and manage hearing and vision impairments effectively. With vast differences in responses to adopted practices and staff knowledge, it further highlights a lack of standardised procedure and shared knowledge between staff. Therefore, better communication and procedures need to be implemented to ensure effective hearing and vision care is provided by all staff and care homes, possibly requiring a change in policy and guidelines to inform homes of the best procedures.

Limitations

The survey technique limits the participants' capacity to present the depth of their understanding with respect to managing hearing and vision issues. In addition, the number of people who chose to respond to the survey may be different from those who chose not to respond, thus creating bias. Furthermore, certain postcodes were not completed correctly by some respondents and led to the respondent not being linked to a specific care home as it could not be identified. This meant that their care homes CQC rating could not be obtained and discrepancies of care home type unable to be rectified by internet searching for these few respondents.

Nevertheless, this study obtained national data from a variety of care homes, which provides a good scope of the variety of barriers experienced by the various types of care homes and from the different staff roles within these care homes. By using questions that attained to barriers existing in care homes obtained from a recent scoping review of the literature, it was highly relevant to the known issues. In addition, as an advisory group was used in the co-design of the questionnaire it was designed to be suitable to care homes and relevant to the staff and known practices.

6. Conclusion

The results clearly indicate that whilst some services are available in most care homes across England, there are certain services that are not as frequently implemented or that staff are unsure of whether it is available or not. This highlights the underuse of certain services and a lack of staffs' implementation of these practices which could significantly benefit residents hearing and vision capabilities and improve mental and physical health and even reduce the speed of cognitive decline. Consequently, this infers that best practice for ear and eye care in care home residents can be improved, and this evidence identifies specifically which practices should be targeted. In addition, staffs' knowledge shows room for

improvement, with the majority of staff wanting more information on how to care for both hearing and vision in their residents. This in particular reveals current poor provision of effective training and information available to staff, highlighting that hearing and vision care is not well managed.

This survey reflects a need for further research to explore how to overcome these barriers and address staffs' need for more information on how to care for residents' hearing and vision. With these specific issues now identified, an intervention can be developed that aims to overcome these acknowledged barriers to successful ear and eye care in care homes across England.

Declarations

Ethical approval and consent to participate

Ethics approval was obtained from the University of Bradford and all participants consent was obtained using implied consent on full completion of the survey.

Consent for publication

Not applicable

Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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Author Contributions

WA contributed to data collection, data analysis, study design, survey design and authored the paper. AB contributed to the study design and provided feedback throughout and co-authored the paper. GM contributed to the study design and provided feedback throughout and co-authored the paper

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Figures

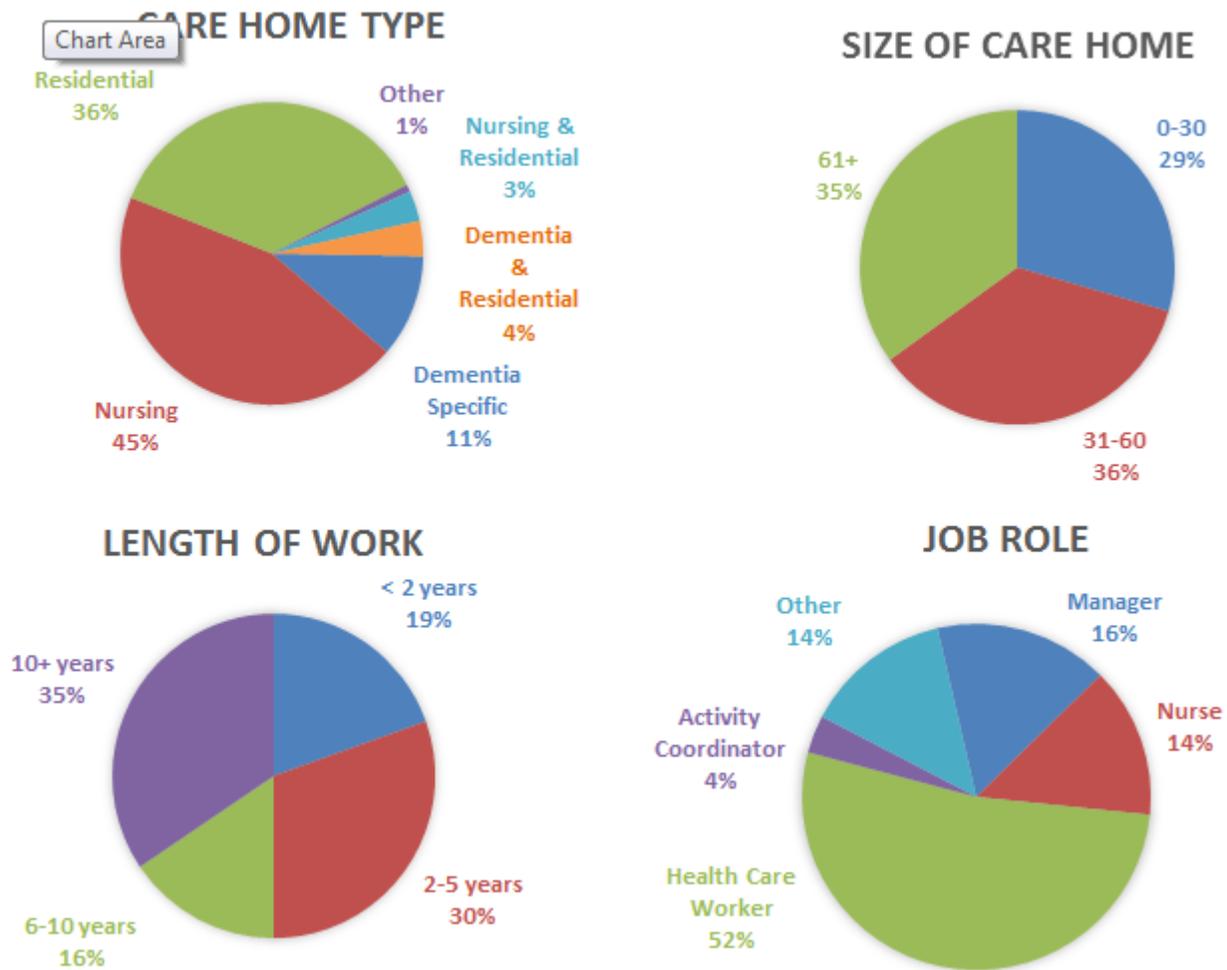


Figure 1

Care home and respondents demographics