1	Using public engagement and consultation to inform the development of ageing- and
2	dementia-friendly pharmacies - Innovative Practice
3	Abstract
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5	This study explored public perceptions about the importance of, and how to create, ageing-
6	and dementia-friendly pharmacists and pharmacies. In September 2016, four focus groups
7	(45 minutes each) were conducted with sixteen participants who represented organisations,
8	groups or forums working with and/or for older people and people with dementia in
9	Greater London. Discussions were recorded via hand-written notes and thematically
10	analysed. Participants confirmed the importance of pharmacists and pharmacies being
11	ageing- and dementia-friendly and described variability in whether this is currently the case.
12	Suggested strategies for improvement included targeting communication, pharmacist
13	leadership and shop layout.
14	
15	Word count
16	1,765
17	Key words
18	Ageing, dementia, geriatric medicine, medication, pharmacy
19	Running title
20	Ageing- and dementia-friendly pharmacy services
21	Introduction
22	
23	Consumers, policy makers and researchers world-wide have become increasingly interested
24	in the concept and development of dementia-friendly communities (Alzheimer's Disease

International). A dementia-friendly community is defined by the Alzheimer's Society as *'supportive and inclusive of people affected by dementia'* (Alzheimer's Society) and by
Alzheimer's Australia as *'a place where people living with dementia are supported to live a high quality of life with meaning, purpose and value'* (Alzheimer's Australia, 2017). A priority
area in creating dementia-friendly communities is access to appropriate healthcare services,
to support people with dementia to live at home for as long as possible (Alzheimer's
Australia, 2017).

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Pharmacies are important places that people with dementia visit (Brorsson, Ohman, 33 Lundberg, & Nygard, 2011). People with dementia are prescribed multiple medications 34 35 (Schubert et al., 2006) and they consider pharmacists as crucial to their medication management team (While, Duane, Beanland, & Koch, 2012). As a result, pharmacies should 36 37 be ageing- and dementia-friendly (Bennett, 2015). The Alzheimer's Society (Alzheimer's 38 Society, 2015) and Alzheimer's Australia (Alzheimer's Australia, 2017) have developed 39 toolkits to support businesses in the pursuit of becoming dementia-friendly, with 40 suggestions including: pharmacists should identify specific medication needs of local people with dementia and their carers, to ensure tailored, person-centred pharmacy services; staff 41 42 should be trained in dementia-appropriate communication; and the pharmacy workplace environment should be assessed for adequate signage, lighting, colour contrast, labelling 43 and quiet areas (Alzheimer's Australia, 2017; Alzheimer's Society, 2015; Stafford, 2015). 44

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This study aimed to explore the perceptions of individuals who represent organisations that work with and/or for older people and people with dementia, regarding the importance of ageing- and dementia-friendly pharmacists and pharmacies, and how they can be created.

## 50 Methods

52	In September 2016, JG-T presented a public seminar at the Age UK London's offices
53	concerning her Australian ageing- and dementia-related research. All individuals on the Age
54	UK London's offices electronic mailing list were invited to attend. These individuals
55	represented at least 500 organisations, ranging from small, local clubs to large forums with
56	over 1000 members, working with and/or for older people and people with dementia in
57	Greater London. The first 20 interested individuals were registered to attend. Immediately
58	after the public seminar, JG-T invited all attendees to participate in a focus group. A study
59	explanatory statement was provided and a signed consent form was required. Seminar
60	attendees were invited to participate in this study as their work roles increased the
61	likelihood that they could knowledgeably contribute to the study.
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02	
63	It was anticipated that all 20 public seminar attendees would participate in the study,
	It was anticipated that all 20 public seminar attendees would participate in the study, leading to a total of four focus groups with five participants each. The total number and size
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63 64 65	leading to a total of four focus groups with five participants each. The total number and size of focus groups was chosen to ensure all relevant issues would be identified without new
63 64 65 66	leading to a total of four focus groups with five participants each. The total number and size of focus groups was chosen to ensure all relevant issues would be identified without new ideas emerging (Smith, 2002) and that all participants could contribute to discussions
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63 64 65 66 67 68	leading to a total of four focus groups with five participants each. The total number and size of focus groups was chosen to ensure all relevant issues would be identified without new ideas emerging (Smith, 2002) and that all participants could contribute to discussions (Krueger, 1994; Smith, 2002). Each focus group was moderated by one of four facilitators (including JG-T). This allowed multiple focus groups to be conducted simultaneously, after
63 64 65 66 67 68 69	leading to a total of four focus groups with five participants each. The total number and size of focus groups was chosen to ensure all relevant issues would be identified without new ideas emerging (Smith, 2002) and that all participants could contribute to discussions (Krueger, 1994; Smith, 2002). Each focus group was moderated by one of four facilitators (including JG-T). This allowed multiple focus groups to be conducted simultaneously, after the public seminar had concluded, at the Age UK London's offices. All facilitators had

74	To maintain anonymity, and as per the study ethical approval, participant names were not
75	used during discussions, audio-recording was not possible and identifying information could
76	not be recorded. Each facilitator used hand-written notes to record the main focus group
77	discussion points and participants had the opportunity to assist the facilitator in ensuring
78	that their contributions were accurately recorded. This methodology has been
79	recommended in circumstances where audio-recording is not possible (Kitzinger, 1995). This
80	study followed similar, successful methodology where public engagement has informed
81	priorities in health and social care research and practice (Alsaeed et al., 2016; Poland et al.,
82	2014).
83	
84	An open-ended, semi-structured question guide (McNeill & Chapman, 2005) was developed
85	by JG-T (Table 1) to allow participants to raise new ideas or issues that they believed were
86	important, which focus group facilitators could further explore by asking additional
87	questions (Smith, 2002). Communicative validity was assessed in this study by comparing
88	study findings with existing dementia-friendly community guidelines (Alzheimer's Australia,
89	2017; Alzheimer's Society, 2015; Smith, 2002).

# 91 Table 1. Semi-structured question guide

Number	Question
1	What makes a health care environment/health care professional ageing- or
	dementia-friendly?
2	How important is it that pharmacies/pharmacists are ageing- and dementia-

	friendly?
3	Do you perceive that pharmacies/pharmacists are ageing- and dementia-friendly
	currently (and describe how they are or are not)?
4	What are your recommendations to make pharmacies/pharmacists more ageing-
	and dementia-friendly?
5	How should we be educating our pharmacy students/health care professional
	students to be more ageing- and dementia-friendly?

93	Fthical	approval	
55	Luncui	uppiovui	

94

95 As JG-T was based at Monash University (Australia), ethical approval was obtained from the

96 Monash University Human Research Ethics Committee (Project Number: 0742). This ethical

97 approval allowed JG-T to conduct the study in the UK.

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99 Data analysis

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101 Data were analysed using a thematic approach, which involved familiarisation with the raw

data, identification of key themes as they emerged, defining and naming themes, formation

103 of an initial coding frame, and indexation of the data to that coding frame (Pope, Ziebland,

104 & Mays, 2000). The coding frame was discussed among all four focus group facilitators to

105 ensure the validity and credibility of data analysis and to clarify discrepancies.

- 107 Results
- 108

109	Four focus groups, of approximately 45 minute duration, were conducted with a total of 16
110	participants (only 16 of the 20 public seminar registrants actually attended the public
111	seminar). The seven male and nine female participants were representatives of
112	organisations, groups or forums working with and/or for older people and people with
113	dementia in Greater London. Participant work roles ranged from positions of leadership to
114	lay members and volunteers. Many participants were aged older than 55 years and used
115	their and their members' personal experiences to inform discussions. According to the
116	ethical approval of the study, specific participant characteristics were not recorded.
117	Identified themes are presented below in italics.
118	
119	The importance of ageing- and dementia-friendly pharmacists and pharmacies.
120	
121	Participants explained that as the population is ageing and the number of people with
121 122	Participants explained that as the population is ageing and the number of people with dementia is increasing, there is an increase in healthcare being provided in the community
122	dementia is increasing, there is an increase in healthcare being provided in the community
122 123	dementia is increasing, there is an increase in healthcare being provided in the community setting, and pharmacies are community-based healthcare destinations that are accessible to
122 123 124	dementia is increasing, there is an increase in healthcare being provided in the community setting, and pharmacies are community-based healthcare destinations that are accessible to older people and people with dementia. However, they explained that there does not
122 123 124 125	dementia is increasing, there is an increase in healthcare being provided in the community setting, and pharmacies are community-based healthcare destinations that are accessible to older people and people with dementia. However, they explained that there does not appear to be a satisfactory ageing- and dementia-friendly standard being adhered to by
122 123 124 125 126	dementia is increasing, there is an increase in healthcare being provided in the community setting, and pharmacies are community-based healthcare destinations that are accessible to older people and people with dementia. However, they explained that there does not appear to be a satisfactory ageing- and dementia-friendly standard being adhered to by pharmacists and pharmacies. Participants mentioned that it could be more difficult for
122 123 124 125 126 127	dementia is increasing, there is an increase in healthcare being provided in the community setting, and pharmacies are community-based healthcare destinations that are accessible to older people and people with dementia. However, they explained that there does not appear to be a satisfactory ageing- and dementia-friendly standard being adhered to by pharmacists and pharmacies. Participants mentioned that it could be more difficult for pharmacies to be ageing- and dementia-friendly if they were part of large organisations,
122 123 124 125 126 127 128	dementia is increasing, there is an increase in healthcare being provided in the community setting, and pharmacies are community-based healthcare destinations that are accessible to older people and people with dementia. However, they explained that there does not appear to be a satisfactory ageing- and dementia-friendly standard being adhered to by pharmacists and pharmacies. Participants mentioned that it could be more difficult for pharmacies to be ageing- and dementia-friendly if they were part of large organisations, compared to smaller, independent pharmacies, where staff could be more familiar with the

133 Participants suggested that when communicating, pharmacists should: allow people with 134 dementia adequate time to communicate without feeling rushed; use eye contact; be calm, 135 patient and respectful; physically approach patients from behind pharmacy barriers; and consider writing important information down for the patient where necessary. Participants 136 suggested that pharmacists could ask general practitioners to help them identify patients 137 with dementia, so that a dementia register could be developed and more individualised 138 services provided. However, pharmacists would need to be aware of the risk of stereotyping 139 140 or labelling people with dementia. It was suggested that pharmacists could also adopt a leadership role in providing ageing- and dementia-friendly services and encourage other 141 142 pharmacists to also take on this role. When referring to healthcare professionals in general, participants suggested that they should adopt a positive ageing- and dementia-friendly 143 attitude and that dementia-friendly terminology should be used when communicating 144 145 about dementia (e.g. 'living', compared to 'suffering' from dementia).

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147 Strategies to improve how ageing- and dementia-friendly pharmacies are.

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Participants recommended that: pharmacies are easily identifiable and accessible if they are 149 150 located within large shops; signage should be clear and limited in number; there should be 151 seating, a private consultation room and a hearing loop system; door mats should not be black; and a clear and concise list of what pharmacies do or do not do should be present, as 152 well as information regarding where older people can access healthcare services. It was 153 recommended that pharmacies adopt ageing- and dementia-friendly standards, which are 154 developed in conjunction with people with dementia and their carers. Additionally, 155 156 pharmacies should be regularly assessed for dementia-friendliness (e.g. using mystery

shoppers) and provided with a dementia-friendly rating or clear signage that identifies themas dementia-friendly.

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Strategies to improve how ageing- and dementia-friendly healthcare professional students
are.

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Participants recommended that students should undertake work experience in different 163 164 settings (care homes, hospitals, pharmacies, dementia cafes, memory clinics, day care centres) where they may encounter older people and people with dementia. Additionally, 165 students could be asked to explore the experiences they've had with their grandparents or 166 167 become friends with older people. Participants explained that the ageing- and dementiafriendly theme should be incorporated throughout all years of the educational program, it 168 169 should be compulsory for students to attend ageing- and dementia-related topics, and 170 relevant topics could be taught by older people and people with dementia. Participants felt that students should understand that older people and people with dementia differ in terms 171 of their characteristics and needs and that ageing does not always lead to cognitive 172 impairment or dementia. 173 174

### 175 Conclusion

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This study has provided important insight into public perception of the importance of
developing community pharmacies as dementia-friendly environments. Participant
suggestions of how to develop dementia-friendly pharmacies were similar to those in
Alzheimer's Society and Alzheimer's Australia guidelines (Alzheimer's Australia, 2017;

181 Alzheimer's Society, 2015) including, clear signage, considering the input of people with dementia when designing dementia-friendly environments, and using dementia appropriate 182 language (Swaffer, 2014). With regards to the suggestion of a dementia register, increasing 183 pharmacist awareness of patients with dementia may instead be addressed by the current 184 National Health Service (NHS) initiative to allow community pharmacists to view Summary 185 Care Records (SCR) (NHS Digital, 2017a, 2017b). These patient-specific electronic records are 186 187 created from general practitioner medical records, must contain certain patient information 188 (e.g. current medications), and may contain other information if the patient wishes (e.g. chronic medical conditions, such as dementia) (NHS Digital, 2017a, 2017b). Pharmacists can 189 view SCR if they are involved in the patient's care and have their consent (NHS Digital, 190 2017a, 2017b). Pharmacist-accessible SCR could address potential issues associated with 191 developing a pharmacy-based dementia register, such as not having a regular pharmacist to 192 193 whom details of the person with dementia could be sent, the need for a general practitioner 194 to obtain consent before disclosing medical details about a specific patient, and the 195 difficulties associated with establishing comprehensive data protection policies and 196 practices. In terms of policy, practice and research implications: the Alzheimer's Society and Alzheimer's Australia should collaborate with pharmacy organisations like the Royal 197 Pharmaceutical Society of Great Britain and Pharmaceutical Society of Australia, to 198 determine how best to support the implementation of available guidelines (Alzheimer's 199 Australia, 2017; Alzheimer's Society, 2015); pharmacists should explore local logistical, 200 201 organisational, financial and personal barriers and facilitators to guideline implementation; and future research should comprehensively explore whether ageing- and dementia-friendly 202 203 strategies are currently being implemented into pharmacies.

204

#### 205 Declaration of Conflicting Interests

- 206 None Declared
- 207 Supplementary Materials
- 208 Data available upon request
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