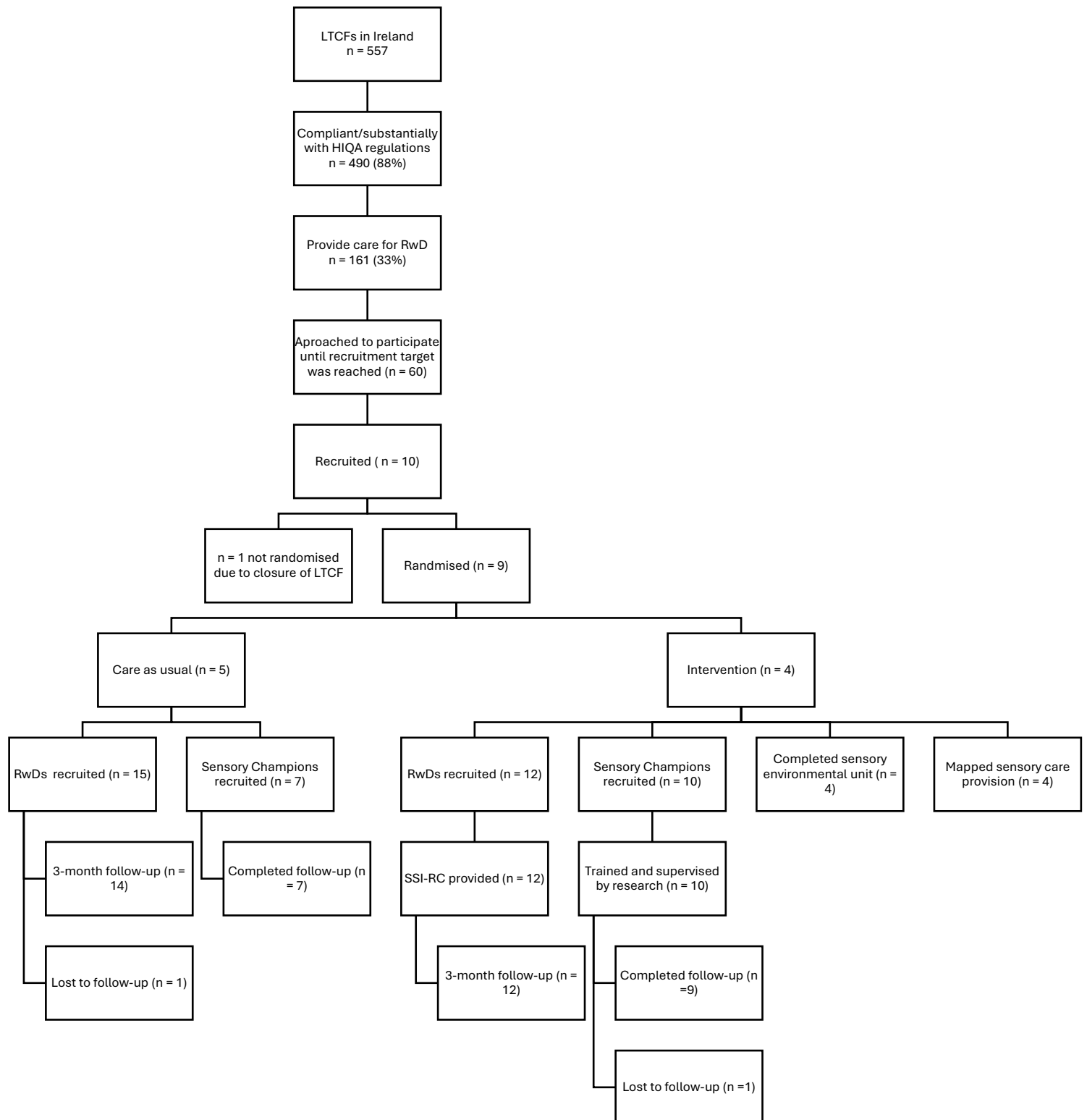


Participant Flow



Baseline characteristics

	Control (15)	Intervention (12)
Sex		
female	10 (66.7%)	7 (58.3%)
male	5 (33.3%)	5 (41.7%)
Age of the participant, mean (SD)	85.69 (7.44)	87.39 (5.86)
Length of memory problem in month, mean(SD)	18.12 (22.85)	38.75 (25.45)
Dementia diagnosis		
No	3 (20.0%)	2 (16.7%)
Yes	11 (73.3%)	10 (83.3%)
no response	1 (6.7%)	0 (0.0%)
Time since dementia diagnosis		
Never	1 (6.7%)	0 (0.0%)
No response	4 (26.7%)	4 (33.3%)
in the last year	0 (0.0%)	1 (8.3%)
1-2years	4 (26.7%)	2 (16.7%)
3-4 years	4 (26.7%)	2 (16.7%)
5-6 years	1 (6.7%)	2 (16.7%)
6-8 years	1 (6.7%)	0 (0.0%)
8-10years	0 (0.0%)	1 (8.3%)
Dementia type		
No response	1 (6.7%)	1 (8.3%)
Not specified	7 (46.7%)	5 (41.7%)
Mixed AD+VD	2 (13.3%)	1 (8.3%)
Alzheimer's	2 (13.3%)	1 (8.3%)
Vascular	2 (13.3%)	3 (25%)
MCI	0 (0%)	1 (8.3%)
FTD	1 (6.7%)	0 (0.0%)
Depression		
No	10 (66.7%)	11 (91.7%)
Yes	5 (33.3%)	1 (8.3%)
Vision problem		
No	4 (26.7%)	3 (25.0%)
Yes	11 (73.3%)	9 (75.0%)
Hearing problem		
No	11 (73.3%)	10 (83.3%)
Yes	4 (26.7%)	2 (16.7%)
Spectacle Use		

No	4 (26.7%)	2 (16.7%)
Yes	11 (73.3%)	10 (83.3%)
Time with Spectacles		
1 years	0 (0.0%)	2 (16.7%)
2 years	2 (13.3%)	2 (16.7%)
3 years	0 (0.0%)	1 (8.3%)
5 years	0 (0.0%)	1 (8.3%)
20 years	0 (0.0%)	1 (8.3%)
Since 2021	1 (6.7%)	0 (0.0%)
N/A	2 (13.3%)	2 (16.7%)
No response	9 (60.0%)	3 (25.0%)
Since admission	1 (6.7%)	0 (0.0%)
Full vision evaluation		
1-2 years	7 (46.7%)	1 (8.3%)
3-4 years	0 (0.0%)	1 (8.3%)
In the last year	7 (46.7%)	5 (41.7%)
Never	0 (0.0%)	3 (25.0%)
No Response	1 (6.7%)	2 (16.7%)
Hearing aid use		
No	14 (93.3%)	11 (91.7%)
Yes	1 (6.7%)	1 (8.3%)
Time with hearing aid		
1-2 years	1 (6.7%)	0 (0.0%)
Roughly 30 years since first hearing aids	0 (0.0%)	1 (8.3%)
N/A	14 (93.3%)	11 (91.7%)
Full Hearing Evaluation		
1-2 years	2 (13.3%)	3 (25.0%)
Never	11 (73.3%)	8 (66.7%)
No response	2 (13.3%)	1 (8.3%)
Hearing impairment only	1 (6.7%)	1 (8.4%)
Vision impairment only	7 (46.67%)	7 (58.3%)
Combined hearing and vision impairment	3 (20%)	2 (16.7%)
Level of hearing impairment identified by audiologist		n =3 unable to carry our hearing test n = 1 did not have hearing loss n = 8 had hearing loss n =9 detected the same number of tones in both ears out of 9 (0

		<p>tones = 4, 2 tones=1, 4 tones=3, 7 tones =2, 9 tones=2)</p> <p>n=9 responded similarly in left and right ear</p>
Level of visual impairment identified by optician		<p>n=8 had mild impairment (+ 0.2 to 0.5 LogMAR)</p> <p>n=4 had moderate impairment (+0.6 to 0.9 LogMAR) (ICD10 classification)</p>
<p>Vision impairments identified by optician</p> <p style="text-align: right;">Glaucoma</p> <p style="text-align: right;">Cataract</p>		<p style="text-align: right;">1 (8.3%)</p> <p style="text-align: right;">9 (75%)</p>

Outcome measures

Outcome domain	Baseline		3-month follow-up		Mean difference (CI 95%)	Change in outcome by arm and overall		
	Care as Usual <i>M (SD)</i>	SSI-RC <i>M (SD)</i>	Care as Usual <i>M (SD)</i>	SSI-RC <i>M (SD)</i>		Care as usual	Intervention	Between mean difference
Quality of Life for Adults with Dementia (QoL-AD)	35 (5.7)	34 (5.2)	32 (4.1)	33 (7.4)	4.12 (-1.49 to 9.73), p=0.14	-3.8(5.4)	0.33(7.6)	-2.2 (6.5)
6 CIT	20 (7.2)	23 (3.7)	21 (8.3)	25 (2.5)	1.3 (-1.87 to 4.47), p=0.41	0.79(3.3)	2.1(4.5)	1.4 (3.9),
Clinical Frailty Scale	5.9 (1.5)	5.3 (1.6)	5.1 (1.9)	5.6 (1.2)	0.98 (-0.35 to 2.3), p=0.14	-0.64(2.1)	0.33(0.89)	-0.19 (1.7)
The Modified Cumulative Illness Rating Scale (CIRS)	9.2 (4.5)	13 (10)	7.3 (4.9)	11 (5.1)	-0.23 (-6.03 to 5.57), p=0.94	-1.9(6.2)	-2.1(8.1)	-2 (7)
DEM-QOL-Feelings	31 (3.9)	26 (5)	30 (1.8)	30 (4.1)	7.75 (1.36 to 14.15), p=0.02	-2.6(7.3)	5.2(8.1)	0.84 (8.5)
DEM-QOL-Memory	29 (6.4)	25 (7.8)	28 (7.6)	31 (5.1)	7.58 (1.33 to 13.82), p=0.02	-2.2(7.8)	5.4(7.1)	1.1 (8.3)
DEM-QOL-Everyday	38 (8.3)	37 (4.6)	38 (7.5)	41 (3)	6 (1.63 to 10.37), p=0.01	-1.5(4.3)	4.5(6)	1 (5.8)
DEM-QOL-Total	98 (15)	88 (14)	96 (13)	101 (8.1)	16.42 (5.39 to 27.44), p=0.01	-4.1(11)	12(16)	3.1 (15)

Neuropsychiatric Inventory – Nursing Home version (NPI-NH)	14.0(13.1)	6.8(7.4)	18.1(17.3)	14.5(12.9)	-6.2(-13.0 to 0.7), p= 0.07	-7.7(13.6)	-4.1(20.3)	-6.1(16.6)
Hearing Handicap Inventory for the Elderly – Proxy version (HHIE-P)	14.9(29.2)	4.0(11.4)	1.2(1.9)	11.1(13.9)	10.48 (-0.98 to 21.93), p=0.07	-3.4(11)	7.1(16)	1.4 (14)
Veteran’s Affairs Low Vision Visual Functioning Questionnaire – Proxy version (VA-LV-VFQ - P)	1.56(0.76)	1.55(0.63)	1.53(0.59)	1.7(0.44)	-0.01 (-0.68 to 0.67), p=0.98	0.16(0.82)	0.16(0.81)	0.16 (0.8)
Perceived Health EQ-5D-5L with bolt ons - proxy	0.581 (0.323)	0.578 (0.333)	0.548 (0.297)	0.517 (0.396)				
Global Deterioration Scale (GDS)	4.1 (1.8)	5.1 (1.3)	4.9 (1.7)	4.5 (1.6)	-1.29 (-3.00 to 0.406), p=0.13	0.71 (2.2)	-0.58 (2)	0.12 (2.2)
Engagement and Independence in Dementia Questionnaire (EID-Q)	65.5(16.4)	60.75(13.87)	62.3(19.1)	49.5(31.26)	-6.04 (-26.96 to 14.89), p=0.56	-5.2(21)	-11(31)	-8 (25)
