1. Participant Flow
1A. Feasibility study

Letters sent to residents & families for consent to review medical records:
30

Not responded: 8
Not interested: 7

Letters sent to staff for consent to participate in the study:
15

Consent for reviewing medical records:
15

Not eligible: 2

Not eligible: 7

Consent from staff to participate in the study:
13

Eligible & consent residents (& families) to participate in the study (target):
8

Exclude to match the number of eligible residents: 5

Missed sessions: 1

Staff included in the study:
8

Residents & families completed the study:
7

Exclude to match number of residents: 1

Staff included in & completed the study:
7

1B. Pilot study

Letters sent to residents & families for consent to review medical records: 20

Not responded: 2
Not interested: 3

Consent received for reviewing medical records: 15

Not eligible: 5

Eligible & consent residents (& families) to participate in the study (target): 10

Missed sessions: 1
Lost follow-up: 1

Residents & families completed the study: 8

Letters sent to staff for consent to participate in the study: 15

Not eligible: 2

Consent from staff to participate in the study: 13

Exclude to match the number of eligible residents: 3

Staff included in the study: 10

Exclude to match number of residents: 2

Staff included in & completed the study: 8

2. Baseline Characteristics (pilot study)

Characteristic	Resident (n=8)	Family (n=8)
Age	Mean: 90.5 years (from 78 to 100)	
Gender	5 females & 3 males	
Length of time in facility (in months)	Mean: 19 months (from 6 to 38)	
Marital status		
Education	8th grade or less to 'some college'	
Relation with resident		3 daughters 2 sons 1 grandson 1 husband 1 friend (power of attorney)
Cognitive status	87.5% moderately impaired (CPS #3)	

3. Primary Outcome Measures (i.e., Affect, QoL)

Table 1 – Residents' affect before, during, after, and later of the iM intervention

| Observation item		Mean			
		Before (SD) n=69	**During (SD)** n=64	**After (SD)** n=63	**Later (SD)** n=60
Positive	Pleasure	1.39 (0.75)	2.72 (1.34)	1.84 (1.07)	1.53 (0.93)
	Interest	2.30 (1.63)	4.05 (1.37)	2.67 (1.80)	2.63 (1.84)
	Contentment	4.06 (1.55)	4.20 (1.45)	4.08 (1.61)	3.72 (1.61)
Negative	Sadness	2.10 (1.88)	2.27 (1.90)	1.71 (1.61)	1.50 (1.32)
	Anxiety	1.67 (1.18)	1.69 (1.30)	1.62 (1.32)	1.52 (1.07)
	Anger	1.09 (0.28)	1.06 (0.24)	1.00 (0.00)	1.05 (0.29)
5-point duration scale: 1= never, 2= < 16 seconds, 3= 17-59 seconds, 4= 1-3 min, 5= > 3 min, 6= cannot tell.					

Table 2 – Affect level differences among before, during, after, and later the intervention
(paired t-test)

| Affection	Mean (SD)	Correlation (p-value)	95% CI		Paired t-test	p-value
			Lower	Upper		
Before & During						
Pleasure	-1.313 (1.246)	.405 (.001)	-1.624	-1.001	-8.429	.000
Interest	-1.750 (2.039)	.092 (.468)	-2.259	-1.241	-6.865	.000
Contentment	-.219 (1.442)	.553 (.000)	-.579	.141	-1.214	.229
Sadness	-.222 (2.661)	-.008 (.948)	-.892	.448	-.663	.510
Anxiety	.031 (1.083)	.629 (.000)	-.239	.302	.231	.818
Anger	.015 (.330)	.166 (.185)	-066	.097	.375	.709
During & After						
Pleasure	.889 (1.345)	.397 (.001)	.550	1.228	5.244	.000
Interest	1.365 (1.978)	.245 (.053)	.867	1.863	5.477	.000
Contentment	.143 (1.293)	.648 (.000)	-.183	.469	.877	.384
Sadness	.571 (2.333)	.127 (.321)	-.016	1.159	1.944	.056
Anxiety	.048 (.906)	.721 (.000)	-.180	.276	.417	.678
Anger	.048 (.215)	0.00	-.006	.102	1.761	.083
After & Later						
Pleasure	.254 (1.240)	.181 (.170)	-.069	.577	1.575	.121
Interest	-.034 (2.274)	.219 (.095)	-.627	.559	-.115	.909
Contentment	.339 (2.106)	.136 (.304)	-.210	.888	1.236	.221
Sadness	.153 (1.864)	.176 (.183)	-.333	.638	.628	.532
Anxiety	.119 (1.353)	.402 (.002)	-.234	.471	.674	.503
Anger	-.051 (.289)	0.00	-.126	.024	-1.351	.182
Before & After						
Pleasure	-.429 (1.043)	.393 (.001)	-.691	-.166	-3.262	.002
Interest	-.365 (1.726)	.502 (.000)	-.800	.069	-1.679	.098
Contentment	-.111 (1.637)	.478 (.000)	-.523	.301	-.539	.592
Sadness	.258 (2.150)	.203 (.113)	-.288	.804	.945	.348
Anxiety	.095 (1.292)	.489 (.000)	-.230	.421	.585	.560
Anger	.079 (.272)	0.00	.011	.148	2.312	.024

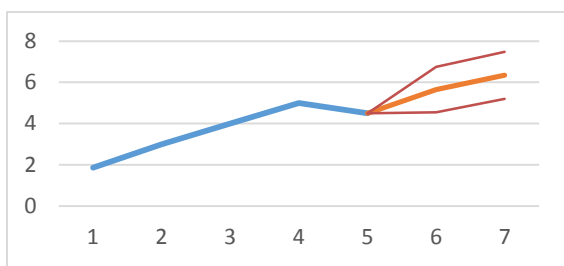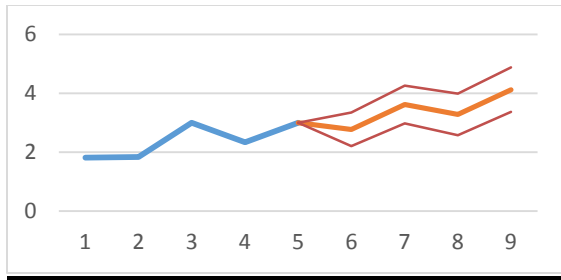**Figure 2 –** Forecast analysis of affect
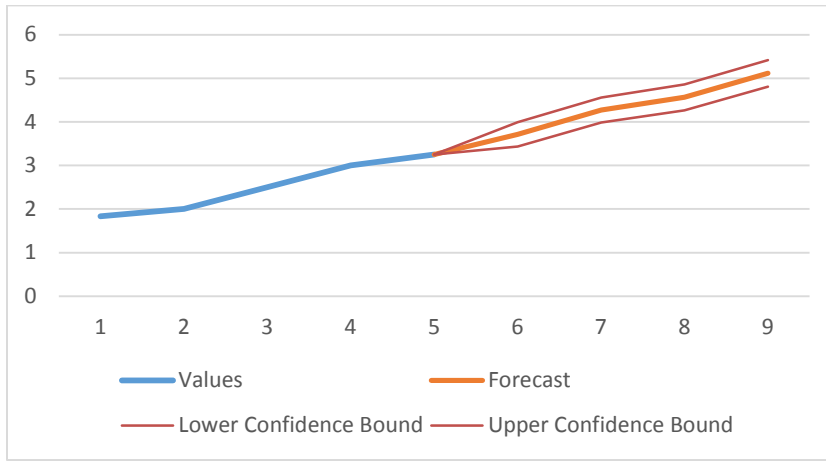
Participant #1
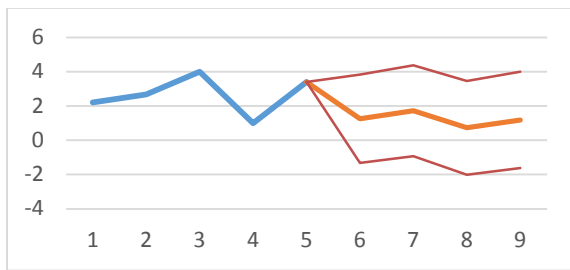
Participant #2
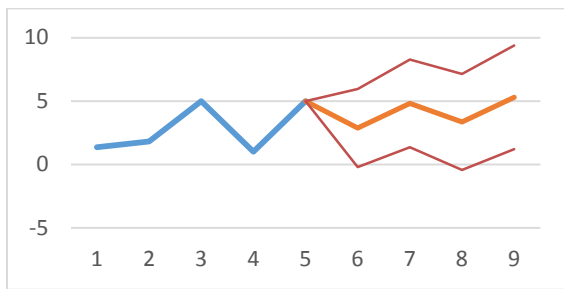
Participant #4

Participant #5

Participant #8

Table 3 – Quality of Life (QoL) at baseline and follow-up

a/a	QoL-AD items	n	Mean Pre (SD)	Post (SD)	p
1	Physical health	20	2.15 (.87)	2.10 (1.02)	.834
2	Energy	20	2.05 (1.15)	2.25 (.91)	.385
3	Mood	20	2.60 (.94)	2.70 (.73)	.681
4	Living situation	20	2.90 (1.07)	2.65 (1.18)	.204
5	Memory	20	2.05 (1.05)	2.10 (1.12)	.853
6	Family	20	2.75 (1.41)	2.65 (1.39)	.725
7	Marriage	20	.95 (1.61)	1.10 (1.74)	.625
8	Friends	20	2.00 (1.52)	2.15 (1.57)	.505
9	Self as a whole	20	2.15 (.99)	2.45 (.99)	.285
10	Ability to do chores around the house	20	1.00 (.73)	1.20 (1.15)	.408
11	Ability to do things for fun	20	2.20 (.83)	1.85 (1.04)	.201
12	Money	20	1.20 (1.44)	1.30 (1.30)	.755
13	Life as a whole	20	2.30 (.73)	2.50 (.83)	.163

4-point scale: 0= cannot tell, 1= poor, 2= fair, 3= good, 4= excellent.

Table 4 (a, b, c) – Perceptions of QoL by Resident, Family, and Staff respectively
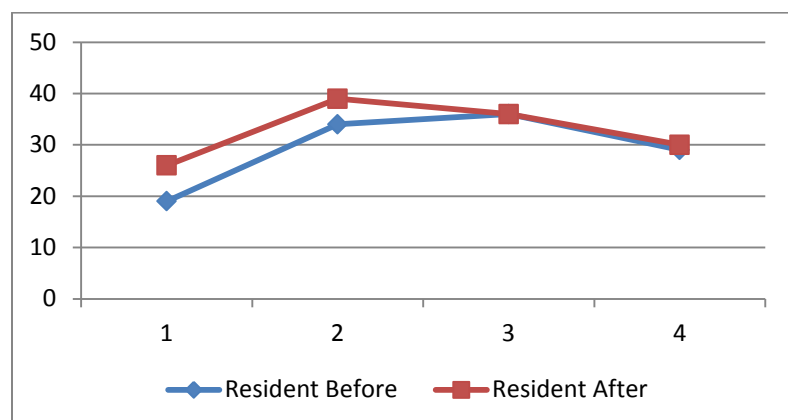

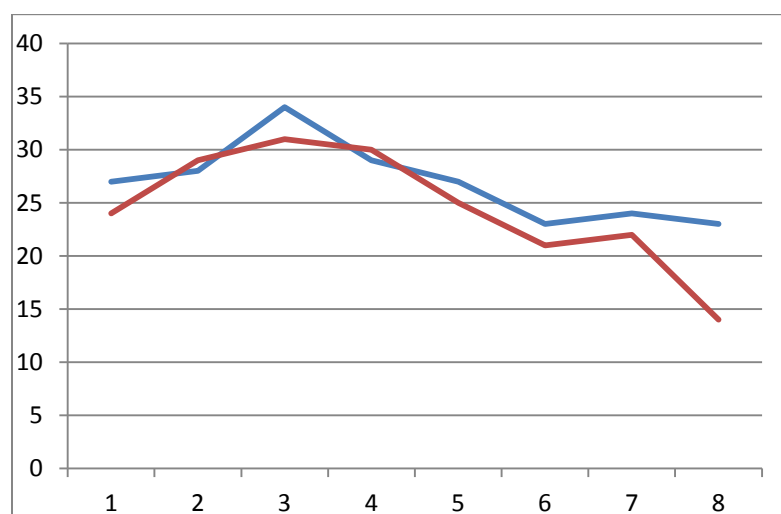Table 4a – Resident perceptions on their own QoL

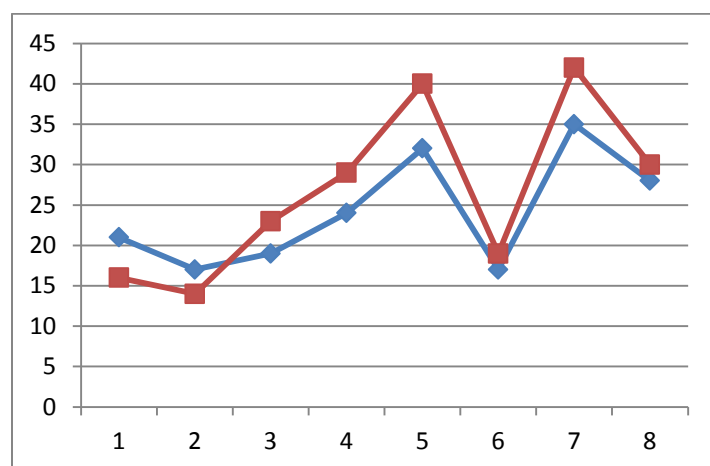Table 4b – Family perceptions on resident QoL (before & after)

Table 4c – Staff perceptions on resident QoL (before & after)

4. Adverse Events

There were no adverse events associated with this trial.