

The impact of a virtual reality training programme on health professionals' knowledge, understanding and empathy



#### Research Team

Florence Sharkey

Dr Kevin Moore

Dr Paul Slater

Dr Felicity Hasson

Commissioned by: Western Health and Social Care Trust Northern Ireland in collaboration with Institute of Health and Nursing Research, Ulster University



#### Background

Hospital admission has a significant impact on People with Dementia with:

Greater distress
Longer stay in hospital
Higher 1 year morality rates
Greater likelihood for institutionalisation



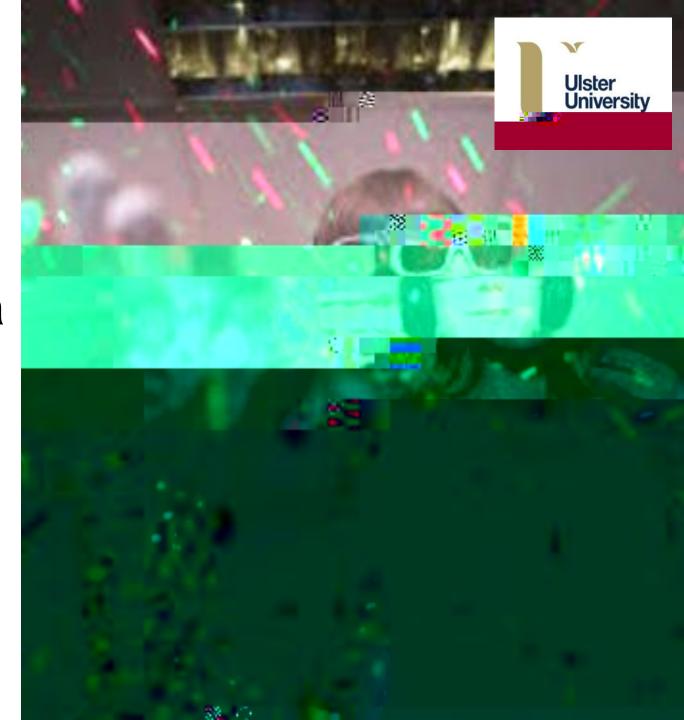
#### Background

Staff Views
Staff feel unprepared to deal with dementia

Need for new and innovative ways of training

VDT Experience

Replicates Stage 4 Dementia



## VDT Experience





Research Design - Quasi-Experimental Repeated Methods Design

Stage One - Quantitative repeated measures design

Stage Two - Qualitative Focus groups

Stage Three - Qualitative measure design

Ethical Approval - University & Trust Governance



#### Stage One – Instrument Development

Based on Fields 5-stage process of Instrument development
Focus Groups Purposive sample (n=8),
multiple Health Professionals
Data Analysis Mayring 4-stage process of inductive analysis

#### Outcomes



Pool of 56 items generated measuring broad areas: Reviewed by expert panel (n=5) comprising experts in:

Instrument development

Dementia care

Mental health care

Palliative care

# Stage Two – Repeated Measures



Quasi-experimental repeated measures design (no control group)

Purposive sample invited to participate (n=223, 92.92%) completed pre and post intervention questionnaires

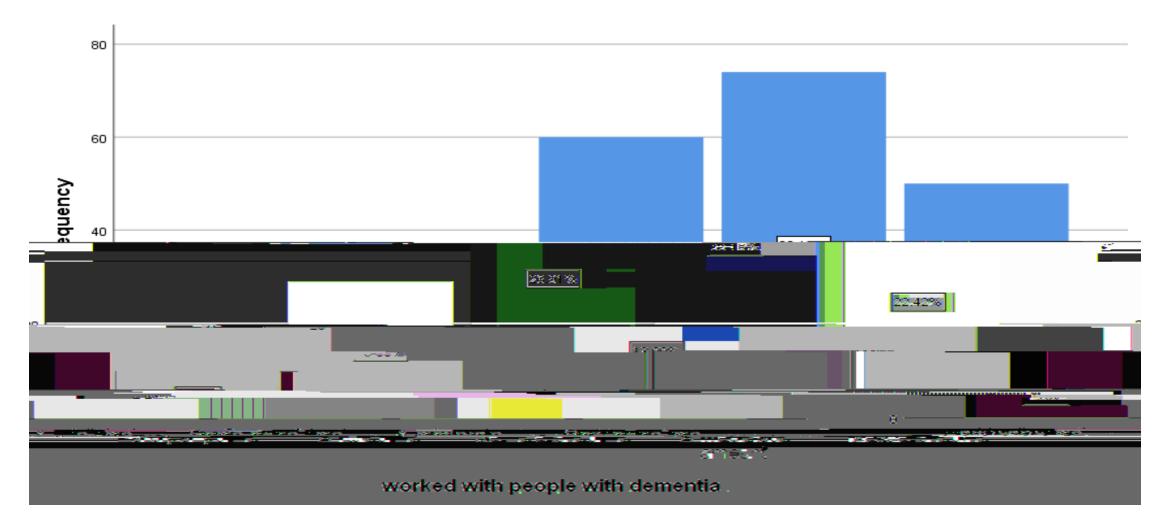
Post intervention assessment 30 minutes before and after training (immediacy) Focus Groups (n227, 94.58%)

#### Demographic Spread

YEARS		GENDER		EDUCATION	
18-24	8.4%(n19)	Female	91.5% (n205)	Degree	42.5%(n88)
25 - 34	20.0% (n45)	Male	5.1%(n7)	Postgraduate Diploma	25.6% (n53)
35 - 44	21.8%(n49)	SETTING		Masters/PhD	26.1%(n54)
45 - 54	27.6% (n62)	Hospital	25.0% (n53)	Training	31.0%(n70)
55 64	17.8% (n40)	Community	70.3% (n149)	No Training	69.0%(n156)
65+	4.4%(n10)	Voluntary	4.7% (n10)		

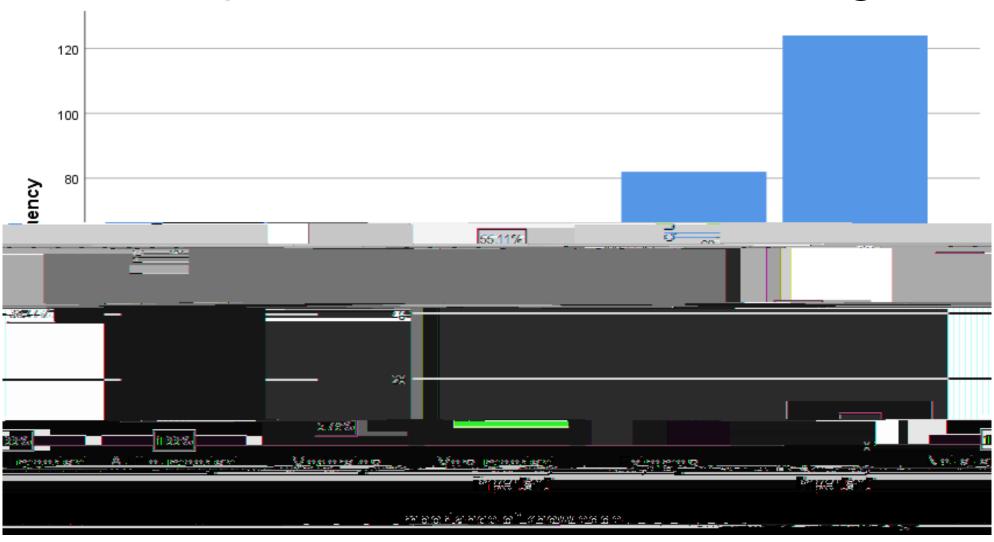


## Working with People Living with Dementia



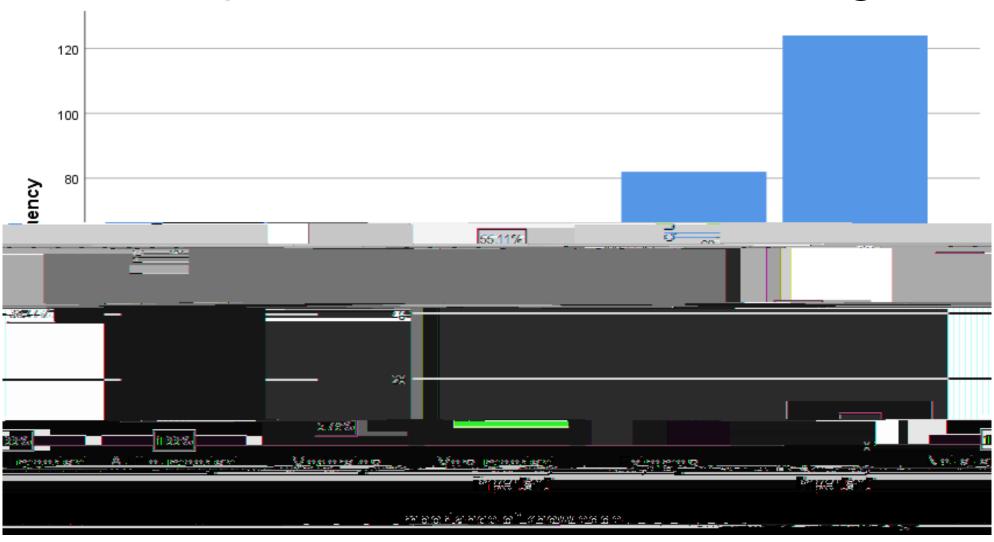


# Importance of Knowledge





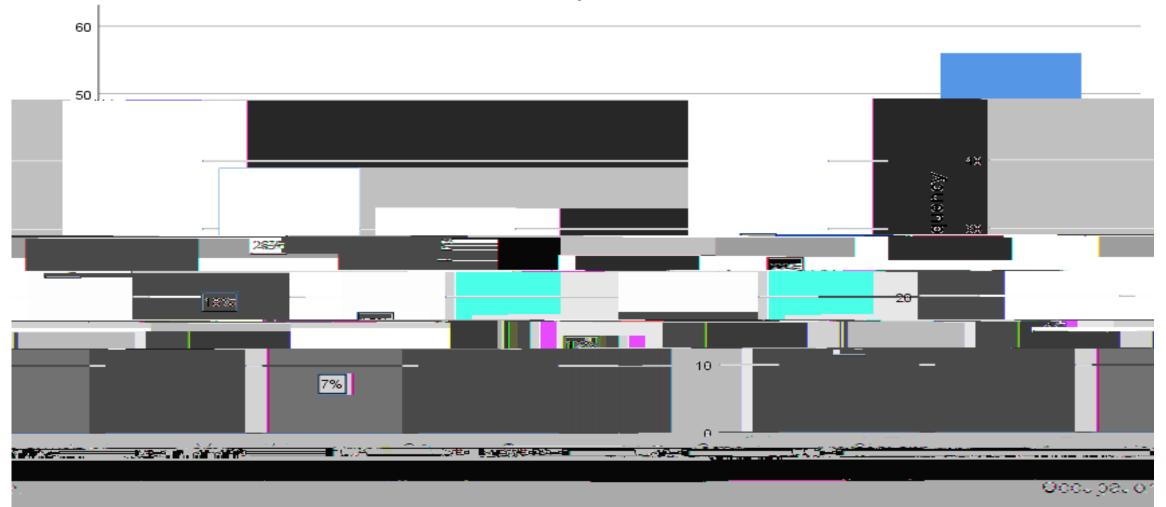
# Importance of Knowledge



#### Professional Background of Participants







## Psychometric Investigation



Exploratory factor analysis

Factor loading >0.4

3 factor model deemed best:

Factor 1 Empathetic understanding of the impact of Dementia

Factor 2 Understanding of Behavioural impact of Dementia

Factor 3 Provision of Person-centred Care

### Psychometric Investigation



CONSTRUCTS	Pre-Intervention	Post Intervention
Empathetic understanding of the impact of Dementia	2.9	4.21
Understanding of Behavioural impact of Dementia	3.6	4.54
Provision of Person-centred Care	4.23	4.68



## Differences Between Groups

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No significance differences between key
 demographic details at baseline:
 gender
 age
 occupation
 setting
 education
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## Impact of VDT Experience

3-month follow-up - Quantitative Measure Questionnaire Purposive sample of participants (n227) Analysis of the Focus Groups (n227) Data Analysis Mayring 4-stage process of inductive analysis

#### Measures of Distribution Across 4 Constructs

Constructs	Pre-Intervention	Post-Intervention	Follow Up
Empathetic Understanding of the	2.9 (58.0%)	4.21 (85.4%)	4.29 (85.8%)
impact of Dementia			
Understanding of Behavioural impact of	3.58 (71.60%)	4.54 (90%)	4.74 (94.8%)
Dementia			
Provision of Person- centred Care	4.23 (84.6%)	4.68 (93.6%)	4.78 (95.6%)
Training in Dementia Care	3.47 (69.4%)=none		Impact on attitude 4.86 (97.3%) Approach to practice 4.9 (98.7%)

### Findings



VDT strengthened and reinforced the learning experience by allowing the immersion, interaction and engagement with an imaged world of dementia

The VDT experience enabled participants to reflect upon the human side of caring for someone with dementia to be re-engaged and improved.

It really raised awareness of what

### Findings



VDT experience has the potential to enhance empathy and improve holistic person-centered care of people with dementia.

that condition you never know what they go

#### Conclusion

The tool provided to be effective measure of empathy and empathy in action among health professionals in relation to care for people with dementia

It proved an effective measure of empathy and its change over time as a result of an intervention.



## Thank you

#### For further information

florence.sharkey@westerntrust.hscni.net pf.slater@ulster.ac.uk kd.moore@ulster.ac.uk f.hasson@ulster.ac.uk