RITA Self-Reported Outcome Measures of The Implementation of Reminiscence Interactive Therapy Activities In Community Care Settings.

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Abstract

This paper summarises the self-reported findings of 153 community settings that have implemented the use of RITA with their client group. In accordance with previous findings from the same external review, RITA was reported to have significantly improved clients' mental health and there was also reported improvements in a significant proportion of settings with regard to falls management, admissions avoidance and nutrition and hydration. The paper supports what systems would be expected to gain from widespread adoption of RITA in the primary care settings given what is already known about the vulnerability of this client group to falls, hospital admissions and deteriorating mental health.

Background

The population of people with dementia in the UK was estimated as 690 000 people in 2019 of whom 565000 receive care in the community by paid or unpaid carers or live in a care home (Wittenberg et al, 2019). Worldwide cost of dementia in 2010 were estimated as $6054 billion, about 70% of which was attributable to North America and Western Europe (Wimoa et al, 2013). The total cost to the UK was estimated at £24.2 billion in 2015, of which 42% (£10.1 billion) was attributable to unpaid care. Social care costs are three times larger than healthcare costs for people with dementia and increase depending on the severity of the dementia. For mild, moderate and severe dementia, the estimated costs are £3.2 billion, £6.9 billion and £14.1 billion respectively. Average costs of mild, moderate, and severe dementia are £24 400, £27 450, and £46 050, respectively, per person per year.

In hospital settings, Briggs et al (2016) found that despite only 2% of inpatient episodes in their study were diagnosed with dementia, they constituted 10% of the bed days, with length of stay being 31 days in comparison with 14.1 days for someone without a diagnosis of dementia. Average hospital care cost was 3 times more in the group diagnosed with dementia as opposed to the control group. This underlines the importance of avoiding hospital admissions if at all possible. Draper et al (2011) found in their Australian study that people with dementia were more likely to be admitted for fractured femurs, lower respiratory tract infections, urinary tract infections and head injuries than people without dementia. The mean length of stay for admissions for people with dementia was 16.4 days and 8.9 days for those without dementia, over 7.5 days more. People with dementia were more likely than those without to be re-admitted within three months for another multi-day stay. Mortality rates and transfers to nursing home care were higher for people with dementia than for people without dementia. Connolly and O'Shea (2013) estimated that in 2013 in one year 246,908 additional hospital days per annum in Irish hospitals were due to dementia at an associated additional annual cost of over E199 million.

It is well known that the presentation of the later stages of dementia often comes with distressing symptoms such as agitation and aggression that originate from the disorientation caused by the progression of the dementia that the patient experiences. As the Alzheimer's Society (2016) highlighted, dementia symptoms such as memory loss, difficulties communicating, low mood, agitation, cognitive issues and frailty can make a person's care needs more complex. However, as they pointed out from their assessment of hospital care for this vulnerable group this does not justify the findings that people with dementia tend to stay in hospital more than twice as long as other people over the age of 65.

Far too often however the response to these distressing elements of the presentation of dementia is pharmacological and this has many consequences. Nguyen et al (2017) found that 78% of patients over 65 years old presenting to the hospital setting had a delirium which lasted for an average of 13 days. Nearly three quarters (74%) were prescribed antipsychotics to manage their behaviour. The prescription of antipsychotics in patients with dementia was a fifth higher (55%) versus 46% for patients with delirium but didn't have the dementia element. Walsh et al's (2016) study of patients admitted to Irish hospitals showed a significant burden of polypharmacy for over 70s with 458 pit pf

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583 patients with 5 or more medications. Nearly two thirds of those with dementia (99 out of 147) were prescribed antipsychotics, as opposed to less than half of those without dementia (182 out of 436). Concerningly, higher antipsychotic prescribing is co related with higher comorbidity generally even controlled for stage of dementia (Chiesa et al, 2017). Amidst safety warnings on the use of antipsychotics, antipsychotic use has reduced, (Gallinia et al, 2013), although it appears not as a direct result of the warnings themselves.

Once started however, antipsychotics which are commonly used have an effect in controlling these behaviours and their withdrawal is often counterproductive; so much so that Pan et al (2014) found that stopping antipsychotics once started had a negative effect on the ongoing distressing behavioural and psychological symptoms of dementia. The use of antipsychotics however come with risks. Rochon et al (2008) studied over 40000 individuals both with and without dementia in the community, looking for a relationship between whether they experienced a serious event resulting in hospital admission or death after antipsychotic prescription. The odds of someone experiencing one of these events was 3.2 times higher if prescribed atypical antipsychotics and 3.8 times higher with conventional antipsychotics. This shocking statistic demonstrates the very concrete risk of employing an antipsychotic beyond just trying to control a particular set of symptoms.

The ability to handle the symptoms of dementia when someone is discharged is also of importance simply because being able to accept someone with more complex needs can have an impact on secondary care settings length of stay as well. Toh et al (2017) found that for patients with a length of stay over 21 days the ability to place them in a setting that could handle their needs was a significant risk factor.

Falls are a common comorbidity with dementia and their prevention or reduction is a key marker of the quality of care (Alzheimer's Society, 2016). Nearly a third (32.3%) of incidents reported on the NHS database for patient safety incidents are related to falls (Healey et al, 2008), the largest proportion of which were in mental health units (44.5%) followed by community hospitals (37%) and then lastly acute hospitals. In hospital settings, being in multibedded bays reduced the risk of recurrent falls in comparison with patients in single rooms (Knight and Singh, 2016). In residential settings where almost all settings have single room accommodation for residents or clients, this increases the risk of recurrent falls. Falls in older people are costly – in 2003, national figures for falls showed that there were 647 721 attendances to Accident and Emergency and 204 424 admissions for fall related injuries for those aged 60 years or over (Scuffham et al, 2003). Those aged over 75 were three times more likely to present with a fall related injury than those aged 60 to 64, and 10 times more likely to be admitted for the same. Cost was estimated nationally as £981 million of which over half (59.2%) was attributable to care needed in the NHS. The major driver of these costs was admissions. Scuffham et al concluded that unintentional falls imposed a substantial cost burden to health and social services.

RITA

RITA is an interactive technology which has multiple activities available in a single electronic solution, either for use on an individual basis or for use in group activities. RITA has been used in both primary and secondary care settings since 2008. Individual areas implementing RITA has provided feedback on implementation and previous work has summarised how such implementation may well have a systemic impact, based on extrapolation of locally collected data and applying it to known health economics about health and social care (Smith, 2020).

The previous paper highlighted the following findings:

- In North Tyneside, 100% of the homes reported improvements in engagement of clients, and improvement of mood. 100% reported reductions in anxiety and agitation, and 86% reported reductions in wandering. 95% of care facilities reported improved communications between

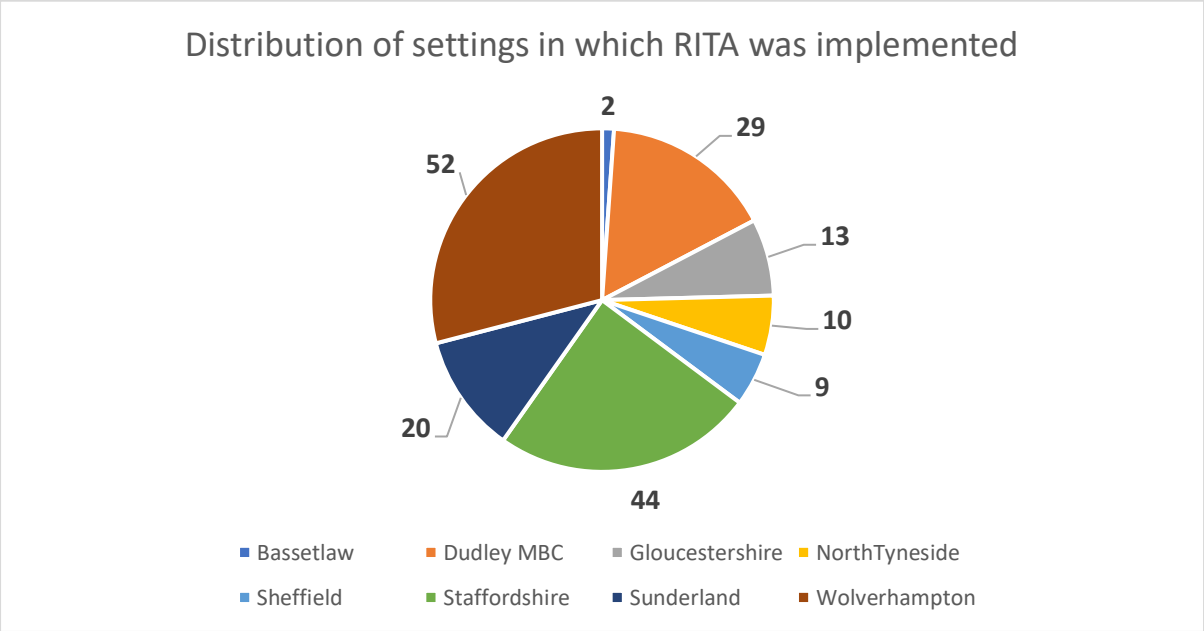
carers, relatives and clients. 77% reported improved integration of clients into groups and improved confidence and empowerment of clients.

- Across Dudley and North Tyneside in homes recording falls in their client groups, falls reductions of between 13% and 45% post the introduction of RITA.
- 83% reported a perceived reduction in the number of 1 to 1 observation required.
- Individual homes also reported reductions in antipsychotic medication and improvements in nutrition and hydration.

The previous paper showed that the implementation of RITA had been shown to improve falls rates and management, and the mental health of users in a variety of settings amongst its main benefits. The previous paper which centred on the experience of Dudley and North Tyneside summarised the work in a variety of residential settings which had RITA available to the residents in those settings.

Methodology of review

Since then, RITA has had further expansion into primary care settings across the UK. Fundamental to this implementation is demonstrating that the investment of resource in these units provide the return that commissioning authorities are expecting. Hence one of the commitments of the My Improvement Network has had throughout implementation of this technology is to seek honest and authentic feedback from implementing areas to ensure that the technology is living up to expectations, and that those who have provided the resources for this technology are supplied with information supporting their outlay.



To this end, when RITA has been implemented, the clinical management team, as well as providing training for the use of RITA, have also provided access to electronic survey mechanisms to collect data from the areas into which RITA has been deployed. Using previous observational evidence from the implementation of RITA in other settings, the clinical team managed to provide a series of questions which reflect the most commonly reported benefits of implementing the RITA device in their clinical settings.

Data was collected for the following subjects:

- How often RITA was used
- Whether RITA was perceived to reduce falls incidence and improve post falls management.
- Whether RITA helped the service to accept residents they might previously have declined.
- Whether RITA reduced the number of hospital admissions or prevented readmission.
- Whether RITA improved mental health and stimulation.

- Whether RITA has reduced challenging behaviours.
- Whether RITA reduced the requirement for 1 to 1 observation.
- Whether RITA improved engagement in group work activity.
- Whether food and fluid intake has improved since the introduction of RITA.
- Whether the use of medication has reduced since RITA's introduction.
- Whether RITA created a calmer environment and improved wellbeing.
- Whether RITA improved residents' engagement with family and friends

Data Collection

Data was collected post implementation of RITA via the electronic survey system. Settings had an individual log in and were each presented with same set of questions. Each setting provided responses to the questions without external support from the clinical management team. Data has been collated to summarise the perceived improvements experienced by teams which have implemented RITA In their clinical services. Data from 153 responses from 179 sites (85% response rate) forms the basis of the body of this paper.

The respondents self-identified as one of the following roles:

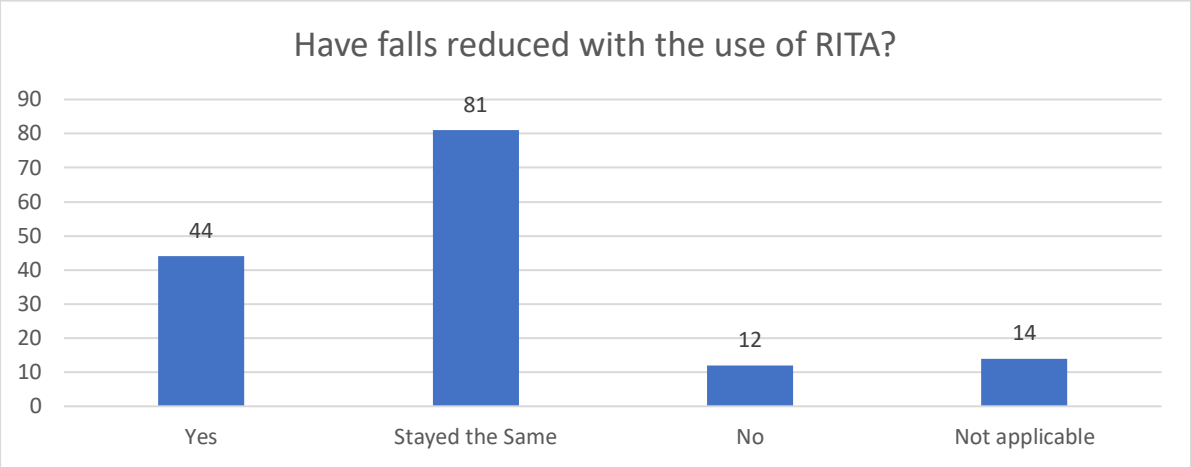
Activities coordinator	12
Admin assistant	1
Care coordinator	1
Carer	1
Director	1
Manager	115
Operational Lead	1
Owner	1
Support Worker	1
Team Leader	16
Wellbeing Coordinator	3

RITA use

The training for RITA encourages the users to engage with RITA as much as is reasonably practicable as the more it is used the more likely the settings themselves are likely to gain from RITA's introduction. The majority of settings (100/152) used RITA 'every day' or 'all day every day', 30 reported using RITA every other day whilst a small proportion of respondents reported use once a week (5), rarely (4), or when the activity coordinator was in (13).

Falls

Given what is already known about falls with people with dementia and cognitive issues, being able to demonstrate that RITA is able to help reduce or manage falls is an important finding. 32% (44/137 responses) of settings reported reductions in the rates of falls since the introduction of RITA. 81 settings reported no improvement, but it appears from the accompanying free text that these areas were not experiencing a significant issue with falls in the first place so improvement was difficult or unlikely to be achieved. This is lower than reported in the initial paper which suggested that nearly two thirds of settings (63%) experienced a reduction in falls. However, the ancillary information suggests that many settings could not improve on mainly low numbers of falls. No quantitative data was supplied to support these reported improvements. Previous data collected suggested that settings can experience up to 45% reduction in falls where falls are an issue with that particular client group.



Excluding 37 settings which reported that falls management was not relevant to them, 56% (63/112 responses) of settings reported improved falls management as a result of the introduction of RITA.

Admissions and Increased Dependency

24 settings reported improvement in being able to take residents that they had previously declined. Dudley and North Tyneside both reported previously and in this review that anecdotally this has improved the ability of settings to cope with clients with higher dependencies. Further work is needed to quantify how much of a benefit these settings experience.

23 settings reported improvement in the rate of hospital admissions and 27 reported improvements in the rate of avoidable hospital admissions. Of those who reported no improvement, it would be fair to say that they reported that this rate had not worsened as their rate of admissions was already low or non-existent. There was no evidence to support that RITA worsened this variable. 3 settings in North Tyneside in the previous report provided corroborative qualitative data that they too had experienced this improvement.

Mental Health and Wellbeing

In response to the question of whether RITA Improved mental health and stimulation after residents returned from hospital or had had medical treatment, 60% reported this as extremely effective or very effective, and a further 25% reported this as somewhat effective.

Extremely Effective	31	22%
Very Effective	54	38%
Somewhat Effective	35	25%
Not Effective	13	9%
Not at all	9	6%

The mental health outcomes reported via the reporting system corroborated previous findings which showed significant improvement in mental health as a result of the use of RITA. 62% (n=89, 143 responses) of homes reported reductions in the amount of challenging behaviours since the introduction of RITA, 91% (n=129, 142 responses) of homes reported improvement in mental health and wellbeing, and 43% (n=61, 142 responses) of homes reported improvements in the requirement for 1 to 1 supportive observations. 62% of settings (n=85, 144 responses) reported that RITA was extremely effective or very effective in engaging residents in group work. If one counted responses that reported that RITA was somewhat effective, this percentage rose to 90% (n=129). 83% of settings (n=118, 142 responses) reported that RITA had created a calmer environment and improved wellbeing.

19% of settings (n=27, 143 responses) reported that PRN medication were reduced as a result of using RITA. Previous reporting provided anecdotal support that RITA had an impact on this issue but this showed a significant number of settings had experienced an improvement in this area. 23% of settings (n=33, 141 responses) reported that engagement with family and friends improved since using RITA.

Nutrition and Hydration

Similarly, only anecdotal data had been available as to the number of settings in Dudley and North Tyneside who had experienced improvements in the nutrition and hydration of residents when using RITA. In this review, 30% of settings (n= 42, 141 responses) reported that they perceived that RITA Improved nutrition and hydration with their residents.

Discussion

RITA has consistently shown promise with regard to falls reduction, improvement in mental health of users and positively influencing the demands upon care settings of the complex and wide-ranging needs of someone with dementia or cognitive issues. The current paper summarising the findings of 153 settings which have implemented RITA, support in many respects the findings of the previous paper.

There are however some limitations that need to be borne in mind when interpreting the data reported. The adoption of RITA was not to resolve specific issues in each location but was implemented to improve the overall experience of residents living with dementia and cognitive issues in those settings. The fact that this appears to have correlated with not an insignificant proportion of settings reporting concomitant improvements in falls management and reduction in falls overall, the need for additional supportive 1 to 1 observation and the reduction in the need for antipsychotics in some settings supports the implementation of RITA across a healthcare system. The fact that for instance only 32% of settings reported reduction in falls occurrence should not be taken to suggest that it has failed in this purpose in other settings. It is rather to draw attention to the multiple benefits that can be derived from the implementation of RITA if correctly and diligently employed and integrated into the care provided in a particular setting. One cannot expect a problem to be solved if it does not exist in that setting.

Utilising a similar model to NNT (numbers needed to treat) the information from the current reporting can be summarised thus. For the purposes of calculating return on investment, a CCG or integrated care system implementing RITA across 100 hundred homes could expect to reasonably observe the following improvements

- Approximately 1 in 3 (32%) are likely to experience reductions in falls occurring in their settings.
- Over half (56%) are likely to experience improvement in overall falls management in their setting.
- Nearly two thirds (62%) are likely to experience improvement in challenging behaviours.
- Just over 8 out of 9 of homes (91%) (n=129, 142 responses) of homes reported improvement in mental health and wellbeing.
- Just over four in ten (43%) of homes are likely to experience improvements in the requirement for 1 to 1 supportive observation.
- Nearly two thirds (62%) of settings are likely to experience effective or extremely effective engagement in group work using RITA. Nine out of ten (90%) are likely to experience some improvement in engagement in comparison with involvement prior to introducing RITA.
- Nearly a third (30%) are likely to experience improved nutrition and hydration with their residents when using RITA

- Nearly one in 5 (19%) are likely to experience reductions in PRN medication use as a result of using RITA.
- Over four out of five settings (83%) are likely to experience a calmer environment and improved wellbeing after the introduction of RITA.
- Nearly a quarter (23%) of settings are likely to experience improved engagement with family and friends using RITA.

Conclusions and recommendations

This paper set out to summarise the findings of a widespread implementation of RITA across a variety of community settings in which residents with dementia or cognitive issues were being cared for. 153 responses were received representing 153 individual residential settings and their experience of implementing RITA. Positive findings regarding falls prevention and improved falls management. Improved nutrition and hydration, improved interaction with friends and relatives and reduced admissions were reported amongst some settings, although these were not consistently reported across all settings. The biggest improvements were those related to the mental health of users particularly in relation to engagement in activities, improvement in mental health and reduction in the negative behaviours and manifestations of dementia.

RITA has consistently been shown to improve the mental health of users and their overall life experience in previous case studies and clinical reports. This paper is no exception and extends what is known about how RITA, summarising the findings from the self-reported outcomes across over 150 sites and their experience of implementing RITA. Whilst other findings such as falls reduction, reduction in medication use and improved nutrition and hydration were not consistently replicated across all settings, the incidence of these findings being reported is significant and should be considered to be indicative of the possibilities that can be elicited from the use of RITA in the appropriate setting where these specific issues are a recurrent and defining issue amongst that client group. The sample was by definition self-selecting as they had been given RITA to use, and RITA was not specifically adopted to solve a particular problem but was rather given to improve the mental health of users and it was pleasing to see that other ancillary benefits were also reported with more than minor representation across the sample used.

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