

## Project Title

Animal Assisted Therapy (AAT), Dog Therapy

## Organisation(s) Involved

Ang Mo Kio Thye Hua Kwan Community Hospital

## Project Period

Start date: Jan 2017

Completed date: On-going

## Aims

Each session is conducted by a team that comprises an OT, a Therapist Assistant (TA), Volunteer and therapy dog. It is a one-to-one session designed and implemented by the OT to meet the patient's individual therapy goals. For example, to improve patients' standing balance and tolerance, the patients will be engaged in fetching activity with the therapy dog. To improve functional mobility skills, the patients would take the therapy dog for a walk in the garden area. To add on, for patients with reduced fine motor skills, they would be required to portion the treats into smaller pieces and feed them to the dog accordingly. These are only some examples of the treatments that the OT prescribes during the session. During the session, the OT would observe the patient's interaction and therapeutic engagement. The observations are then recorded via standard documentation methods and also using outcome measures such as the Menorah Park Engagement Scale (MPES) and Modified Barthel Index (MBI). Should the need arise, the OT will modify the treatment techniques accordingly to ensure the therapy goals for each patient are met with a just-right challenge.

## Background

This is a program aimed at catering to patients' holistic well-being (cognitive, psychosocial and physical components) to improve their volition to engage in more therapy sessions be it AAT or conventional Occupational Therapy (OT) sessions. Overall, the goal is to improve attendance and engagement for patients (especially patients who do not engage well during conventional OT sessions) and to increase the overall Modified Barthel Index (MBI) Score from admission for at least 20% of the patients. This increased score would imply an improvement in patients' functional performance in their areas of daily living. Generally,

staying in a hospital for a prolonged period can often affect patients' mood and self-esteem. As such, there are challenges faced in getting patients, especially those with cognitive impairment and Dementia, to engage in programs and conventional Occupational Therapy sessions.

## Methods

### For AAT:

#### (a) Menorah Park Engagement Scale (MPES)

This scale is used for patients who attend AAT to track their attendance and engagement. The MPES would be filled up for each patient who attended the session by the OT who ran the session based on her observation of the patient.

Engagement here is divided into four categories: Constructive Engagement (CE), Passive Engagement (PE), Self-engagement (SE), and Non-engagement (NE).

CE involves direct interaction between the person with dementia and the target activity. PE involves watching the activity but not directly participating in it. Both CE and PE are positive forms of engagement. SE refers to the engagement with oneself rather than the target activity. NE is defined as sleeping or staring into space for 10 seconds or longer.

The engagement categories are scored as "1 – never observed," "2 – observed up to half of the time," and "3 – observed more than half the time." for \_\_\_\_\_ questions.  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3600589/>

#### (b) Modified Barthel Index (MBI) Score

This refers to the functional performance score that a patient is given for their activities of daily living and mobility based on the assessment done by Occupational Therapists (OT) and Physiotherapists (PT). The maximum score is 100.

There is an admission and discharge MBI score that refers to the patient's functional performance during the initial and pre-discharge assessments respectively. Both scores are then compared by the OTs in the AAT program to track the overall progress made by each patient.

#### (c) Feedback

Ad-hoc feedback is collected occasionally from both patients and volunteers to ensure maximized effectiveness of the AAT program for patients and fulfilment for the volunteers and their dogs involved.

## Results

### Positive potential impacts on

#### (a) Patient

##### (i) Positive Indicators of Well-Being:

- Enhanced communication of choices
- Making use of remaining abilities (assets)
- Appropriate response to people/ situations (improved social well-being)
- Enhanced enjoyment in daily life
- Relaxed posture
- Displaying sense of purpose and signs of self-respect Improved mood

##### (ii) Negative Indicators of Well-Being:

- Reduction in pain
- Reduction in display of agitation
- Decreased depression symptoms

##### (iii) MBI Score:

- Noted general increasing trend between admission and discharge MBI score
- Within a one-year period (June 2018 to June 2019)
  - 49 patients participated in the sessions
  - 47 patients demonstrated an increase in their discharge MBI scores
  - This translates to 95.9% patients who participated in the AAT program in addition to conventional therapy sessions displaying an increase in their discharge MBI scores

#### (b) Organization/department

##### (i) Increased duration of interventions

With repeated sessions of AAT, patients were observed to display improvements in their mood and behaviour. This therefore, resulted in better participation in conventional OT sessions with their respective OT IC. Overtime, patients spent more time engaging in therapy due to attending both conventional OT sessions along with AAT sessions.

##### (ii) Decrease in long stayers

AAT sessions enabled patients to participate in more therapy sessions during their stay at the hospital. This translated into patients achieving their treatment goals within a shorter timeframe, therefore resulting in efficient discharge planning.

## Lessons Learnt

Participation in AAT can have a potentially positive impact on patients' well-being, enhanced participation in conventional OT sessions and result in a decrease in long stayers.

## Additional Information

Nominated for SHQSA Best Team Award 2020

## Project Category

Care Redesign, Clinical Improvement

## Keywords

Care Redesign, Clinical Improvement, Community Hospital, Community Care, Allied Health, Occupational Therapy, Patient Well-Being, Patient Engagement, Rehabilitation Therapy, Dementia, , Ang Mo Kio Thye Hua Kwan Hospital, Animal Assisted Therapy, Menorah Park Engagement Scale, Modified Barthel Index Score, Functional Mobility Skills, Fine Motor Skills, Therapy Assistant, Therapy Dog, Volunteer, Holistic Well-Being, Functional Performance, Increase Intervention Duration, Shorter Length of Stay, Feedback

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太和观 THK

ANG MO KIO  
THYE HUA KWAN HOSPITAL  
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## Animal Therapy at a Community Hospital

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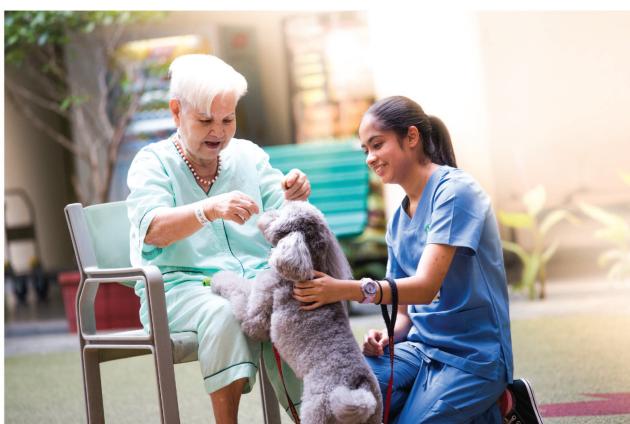
### Introduction

Many of the patients in the Community Hospital often become passive, agitated, withdrawn, depressed, and inactive because of the lack of regular visitors or the acute episode. Staying in a hospital for a prolonged period of time can often affect patients' mood and self-esteem. Patients become un-cooperative and decline to play an active role in their recovery. To better engage the patients, Staff and Volunteers came up with an innovative idea to introduce animals in therapeutic activities.

Animal therapy was a result of that effort. Animal therapy draws on the bond between animals and humans in order to help improve and maintain an individual's function and is being used to assist in the process of enhancing the individual's quality of life. Animal therapy is well known to assist the healing process of patients in some countries.

Volunteer Management (VM) Team introduced Animal Assisted Activities (AAA) in 2013 using cats. Upon observing better outcomes and the popularity of the sessions, the team introduced AAA sessions with dogs. In January 2017, the VM team team up with the Occupational Therapy team to start their first Animal Assisted Therapy (AAT) session with dogs.

AAA provided opportunities for motivational, educational, recreational, and therapeutic benefits to enhance quality of life. AAT was introduced based on the needs and condition of the patient. For elderly dementia patients, hands on interactions with the animal were the most important aspect. AAT provided patients with opportunities to have close physical contact with the animals warm bodies, feeling heartbeats, caress soft skins and coats, notice breathing, communication and giving hugs etc.



### Goal / Objective (Plan)

#### AAA Objectives

To provide physical, social, cognitive and emotional benefits to the patients

- Using animals as a source of comfort and focus of attention
- To boost patients' mood and enhance their social interaction

#### AAT Objectives

Enhanced motivation of patients to participate in Occupational Therapist (OT) to achieve their rehabilitation goals

- Increase the duration of time spent in Occupational Therapy exercises

### Problem Analysis (Plan)

At AMKH, we faced difficulty getting patients, especially those with dementia or cognitive impairment, to participate in rehab activities. Patients lay in bed most of the day resulting in deterioration in their physical and mental health. Patients would also occasionally display agitated or aggressive behaviours leading to premature cessation of their therapy session or participation in programs.

Research findings show that introduction of a therapy animal into a hospital setting, increased social interaction observed through smiling, laughter, verbalisations and touching the animal. Research also shows that there is a marked reduction in agitated and aggressive behaviours especially when the animals were introduced during the difficult "sundown" time for dementia patients. A qualitative study done by OTs in the long term care setting showed that animal therapy improved patient's motivation. Patients who would usually refuse therapy came to therapy sessions when they knew animals were going to be there and they also did therapy activities for a longer duration.

For AAA, AMKH carried out our very first cat therapy session in May 2013 in collaboration with Cat Welfare Society (CWS). In the late 2013, Cat-Assisted Therapy Singapore (CATS) came into the picture and conduct cat therapy for the hospital. AMKH collaborated with Save Our Street Dogs to carry out AAT dog therapy in April 2015. Both programmes have been running successfully at AMKH on a monthly basis..

For AAT, a pilot dog therapy program was conducted in 2015 in collaboration with Pawsibility Pte Ltd, a professional animal therapy service provider. Through the pilot program, we found improvements in wellbeing and participation of patients in OT sessions. A volunteer based program was then developed using the PDCA approach to ensure sustainability.

### Follow-up (Act)

For the sustainability of the project, the support of committed and dedicated volunteers for AAT sessions is crucial. A stable pool of committed volunteers attended and helped out during the sessions consistently. The program has a strong support from animal therapy organisation like SOSD and CATS.

Regular training is carried out by the VM staff and the OT in charge of the AAT for junior OTs and new volunteers so that the program runs smoothly and efficiently.

### Implementation

For AAA sessions we collaborated with Save Our Street Dog (SOSD) and Cat-Assisted Therapy Singapore (CATS). They provided the AAA services for our patients. And for AAT, volunteers with therapy dogs were recruited.

#### AAA session

During the cat therapy session, the patients gather around the cats and the volunteers would introduce the cats to them. The volunteers ensure that the patients are taught how to handle the cats. The patients were engaged in grooming, petting, stroking, playing teasers and even carrying the cat. The patients were rotated with another set of cats after about 20 to 30 minutes.

For the dog therapy session, the patients were divided into 2 groups. First group would usually be involved in 'Catch-fetch-back' where the patients would throw a ball and the dog will assist to fetch it back. This allows the patients to stretch their hands fully while throwing the ball. The stroke patients will also attempt to do it. The other group of patient were involved in petting and playing with the other sets of dogs. After about 20 to 30 minutes, the 2 groups would swap the places and continue the session.

#### AAT session

In January 2017, we recruited a total of 4 volunteers with 5 therapy dogs. 18 patients who met the inclusion criteria attended at minimum 4, thirty minutes session. The session was conducted by a team of OT, therapy assistant, volunteer and therapy dog. It's a one-to-one session designed by the OT to meet the patient's individual therapy goals. For example, to improve patients standing balance and tolerance, patients were engaged in fetching activity with the therapy dog. And to improve functional mobility skills, the patients would take the therapy dog for a walk in the garden area. To add on, for patients with reduced fine motor skills, we get them to portion the treats into smaller pieces and feed to the dog accordingly. These are some examples of the treatments that the OT prescribes during the session. During the session, the OT would observe the patient's interaction and therapeutic engagement. The observations were recorded using standardized outcome measures. OTs modified the treatment techniques to ensure the therapy goals are met.

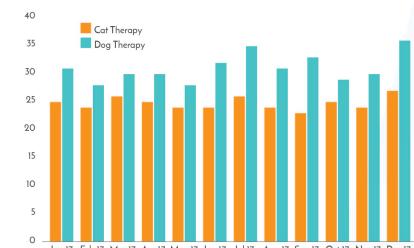


### Benefits / Results (Study)

#### AAA

The presence of animals helped uplift the atmosphere and most patients. To meet the increasing demand, AMKH is holding the AAA sessions twice a month with different animals for each session. Stronger bond between family members and patients were observed during AAA sessions.

For cat therapy, the target is around 24 patients per session and it has been hugely successful since its inception. Patients with dementia are engages in upper body movements by grooming the cats. For the dog therapy session, as we do it at an open space with a target of minimum 30 patients. Please refer below for the breakdown of the attendance for the cat and dog therapy activities sessions.



#### AAT

Increase in positive indicators and decrease in negative indicators of wellbeing were observed for all patients.

Positive Indicators of wellbeing		Negative indicators of wellbeing	
Enhanced communication of choices		Reduce pain	
Utilised remaining abilities		Reduce agitation	
Responded appropriately to people/ situations		Decreased depression symptoms	
Enhanced enjoyment in daily life			
Sense of purpose and showed signs of self-respect			
Relaxed posture			

An increase in Modified Barthel Index score was observed for all patients who attended AAT sessions. This is reflected in the chart below. Orange (admission scores) blue (discharge scores).

