Allied Health Professional case studies: Support Worker

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Physical activity engagement with 'easy to ignore' communities

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Description

We are a close team of nurses, physiotherapists, occupational therapists and rehabilitation assistants. We see patients who are over 60 years of age from the central Manchester area (or who have a central Manchester GP) with a history of falls or at risk of falling. Our referrals come from a wide range of medical and social central Manchester services and also from patients self-referring.

A full multi-disciplinary falls assessment is completed on referral which includes looking at the home environment, checking blood pressure, requesting medication reviews etc. One of the biggest focuses is a patient's ability and willingness to take part in a home exercise programme.

These measures are in line with the National Institute for Health and Care Excellence (NICE) guidelines.

"Strength and balance training is recommended. Those most likely to benefit are older people living in the community with a history of recurrent falls and/or balance and gait deficit. A muscle-strengthening and balance programme should be offered." (NICE guidelines, 2013)

Context

One of the main responsibilities for the rehabilitation assistant (R/A) is the delivery of Otago, a 6-month, evidence based tailored home exercise programme. The way this is delivered can vary depending on the patients' physical and cognitive abilities. The R/A will take into consideration previous experience of exercise, level of activity, sedentary behaviour etc. These factors can make some patients quite 'easy to ignore'.

It is discussed at the initial assessment what the patient goals are; What is it they want to achieve, what have they stopped doing, what are the barriers?

A set of outcome measures are taken at the initial assessment and recorded on the Falls Team outcome database. The same measures will be taken again on completion of the programme and similarly recorded.

Patients are taught Otago over a 6-month period that suits their capabilities. In this period the R/A will make approximately 6 home visits. An Otago exercise booklet is provided for the patient to use 3 times per week in between visits.

The recommended 'prescription' for the modification of risk factors and potential reduction of falls and injuries is to aim for a programme of 3 times a week of specific types, sites and intensities of exercise that is tailored to individual health and motivational needs. (OTAGO, Campbell 1998)

The R/A gives further instruction and feedback at each visit. The patient is asked to demonstrate the exercises from the previous visit. The R/A will always make sure the patient can read, understand and can follow the instruction from the booklet. These patients may well need a more supportive approach.

Method

For 'easy to ignore' patients the following methods may be used:

For patients whose first language isn't English, interpreter services can be used. The R/A may ask the interpreter to write notes on the booklet in the patients' first language.

For patients whose cognition and/or motivation may be a barrier, the R/A may ask a family member or friend for support with the programme. Having that support can be the difference to making any improvements.

If problems with sight are a barrier, an audio version of the Otago (issued by the publisher) can be used. With consent, I often record myself whilst instructing the patient during the session. I will do this on the patients' own smart device for them to use in between visits.

Sometimes an A4 booklet with limited text and large print may be used.

Pain is a huge barrier for some patients and this can make them afraid of engaging in the programme for fear of increased pain.

In such cases the patient can score and record their pain in a pain diary. The R/A may eliminate certain exercises during the programme. These can be re-introduced as and when confidence and tolerance improves.

Also an exercise diary can be used for patients to record their programme to help with motivation. This approach is taken for patients who may find adhering to the programme 3-times per week difficult

Outcomes

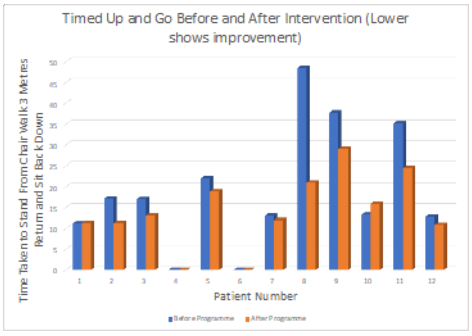
Some of the Outcome Measures used are:

Timed up and go (TUAG): Assesses mobility, balance, walking ability and falls risk in older adults.

Equipment used: A standard arm chair, a tape measure to measure a 3m distance from the chair and a stopwatch.

Method: Instruct patient to stand from chair, walk to the end of the marked 3m line, turn around and walk back to chair and sit down. Time will start when patient stands from chair and stops when patient sits back down.

Data Collected: A total of 8 from 10 patient results showed improvement over the duration of the programme. This can be seen on the accompanying graph.

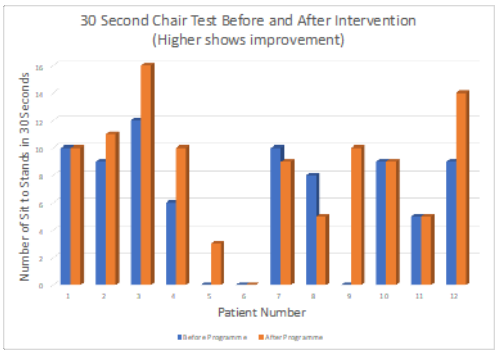


30 Second chair test: Tests leg strength and endurance.

Equipment used: Armless chair and a stop watch.

Method: Stand up and down from the chair without using their arms continuously for 30 seconds. Record the number of rises.

Data Collected: A total of 6 from 11 patient results showed improvement over the duration of the programme. 2 patients regressed and 3 maintained. This can be seen on the accompanying graph.

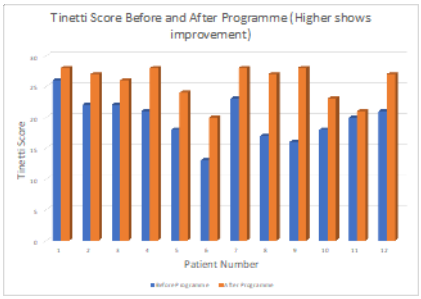


Tinetti: To assess gait and balance**.**

Equipment needed: Armless chair, stopwatch and a clear walk way of 15 feet.

Method: 16 various measures are used to score the patients' balance ability. Attempts to rise, step length & height, step symmetry plus others.

Data Collected: All 12 patient results show improvement over the duration of the programme. This can be seen on the accompanying graph.

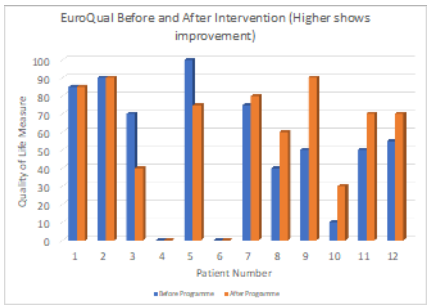


EuroQual: A quality of life measure.

Equipment needed: n/a

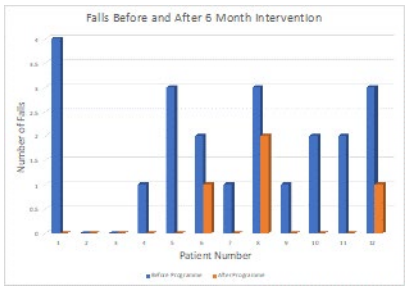
Method: A patient questionnaire with 5 health questions is provided. Also a scale of 0 to 100 is asked of the patient to assess their health on that particular day.

Data Collected: A total of 6 from 10 patient results showed improvement over the duration of the programme. 2 patients regressed and 2 maintained. This can be seen on the accompanying graph.



Falls before and after 6-month intervention measure:

As can be seen on the accompanying graph, all 10 of the patients showed a reduction in falls over the duration of the programme.



Key learning points

My own enthusiasm for health and wellbeing has helped motivate patients who want to make a difference to their current situation. I feel the R/A should give the patient confidence to make behavioural changes and to believe that these changes are achievable. Also to give appropriate support if and when a patient regresses which is quite normal in older patients. If regression does happen, new and smaller goals can be set with a view to working back up to the bigger goals, celebrating those little steps.

It is important for the R/A to recognise that for some of our patients with chronic pain, who have not been active for many years, the smallest of exercise can cause pain and the patient may want to

stop. Tools such as the pain and exercise diaries have helped many patients but equally as important is demonstrating the confidence, assertiveness and being supportive with hard-to-reach patients.

Once the 6-month programme is completed, it is important for the patient to continue with their programme. One way to encourage this is to signpost a patient to other community (FaME / OTAGO) exercise programmes. Some patients work so hard to reach their goals and if exercise isn't continued, they can quickly lose confidence, strength and balance. This can result in them being referred back into the service to start all over again. If you don't use it, you will lose it.

Community-dwelling older adults who joined an exercise intervention (FaME) aimed at increasing MVPA did not fall more during the intervention period, fell less and had fewer injurious falls in the 12 months after cessation of the intervention. However, 24 months after cessation of exercise, the beneficial effects of FaME on falls reduction ceased, except in those who maintained higher levels of MVPA. (S Gawler, DA Skelton et al: 2016)

Patients often say "I'm 80, why would I want to exercise at my age?"

I'll say .. "do you want to stay independent and be able to get on and off the toilet… get in and out of the shower… get up and down from the chair… get on and off the bus" and so on.

On a final note, one of the best ways, I have found to change patients' attitude towards Otago, is to look at the programme in a different light. Not viewed as solely an exercise programme but as a tool to maintain independence, improve mobility and keep dignity.

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Addressing health inequalities in a Specialist Burns Unit

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Description

The purpose of this case study is to demonstrate collaborative working within a multi discipline role in a specialist acute area. This case study will highlight the role of a Senior Therapy Assistant, who works with a diverse patient population in the multi-cultural city of Birmingham at the Regional Burns Centre.

Aims and Objectives

- To raise awareness of a multi-disciplinary role within a specialist area and how this impacts on the patient's in-patient journey during the acute stage of their rehab.

Context

The purpose of this case study was to focus on the experience of a patient who sustained a significant burn injury. This individual faced a number of challenges related to his ethnic background such as communication and lack of comprehension, limited support network and socioeconomic status. This patient required an MDT approach to treatment in resuscitation and rehabilitation following the burn injury, to ultimately save and enhance their quality of life. *Approximately 250,000 people experience burn injuries in the UK each year, varying from small burns requiring minimal treatment to major burns which require intensive and prolonged hospital care*.

A 31-year-old man was admitted into hospital following a gas explosion. The individual sustained 90% TBSA mixed thickness burn (deep dermal to full thickness) with some areas of superficial skin damage. The patient was transferred to ITU following the injury and was intubated and required vasopressor support. The patient was not for surgical intervention and required conservative management.

As part of a multidisciplinary team, four Allied Health Professionals (AHP) were involved with the rehabilitation process: Physiotherapists, Occupational Therapists, Dietitian and Speech and Language Therapists. A Senior Therapy Assistant (STA) who works across all four disciplines worked closely with this individual for continuity. *The Burn Therapist plays a vital role throughout the recovery from burn injury and the emphasis will change throughout the rehabilitation process*.

The initial assessment was led by a Registered AHP, prior to delegation to the STA who continued to deliver the detailed treatment plan. The STA's involvement began in ITU and continued when the patient was transferred to the high dependency unit (HDU). Initial treatment included obtaining a detailed social history and lifestyle questionnaire from the patients NOK; which was vital for goal setting and treatment planning.

Treatments completed by the STA included reviewing splints, daily orientation for delirium management post ITU, and progression of mobility and strengthening, support with swallow rehabilitation and communication post tracheostomy decannulation. Regular range of movement and positioning charts for oedema management. Passive and active range of movement, skin hydration and scar management which included massage and education.

Proper and early positioning is integral to the successful rehabilitation of a patient with a burn. The position of comfort after burn injury is typically the position that promotes deformity and therefore should be avoided. Therapeutic positioning is designed to reduce oedema by elevation of extremities and to preserve function by proper body alignment and the use of anti-contracture positions.

Outcome measures such as Kapandji, Goniometry and Manchester Mobility Scale were used.

Specific Considerations for Range of Movement, Cardiovascular Fitness and Strength

ADULTS	CHILDREN
Considerations / Risk Factors Joint Involvement Facial Involvement Age Long Term Disabilities / Limitations Past medical history History of burn mechanism Grafting Surgical Management Exposed Structures Critical Illness Polyneuropathy Pain and Anxiety	**Considerations / Risk Factors** Joint Involvement Facial Involvement Age – Developmental Level Long Term Disabilities / Limitations Past medical history History of burn mechanism Grafting Surgical Management Exposed Structures Critical Illness Polyneuropathy Pain and anxiety
Pre-Injury considerations Mobility (aids)	**Pre-Injury considerations** Developmental Level Mobility (not yet mobile, crawling, walking)
Management Positioning Splinting Mobility Active Exercise Passive Exercise Strengthening Optimisation of Cardiovascular Fitness Education to patients and their family. Exercise program Resistive exercise Functional exercise Proprioceptive neuromuscular facilitation	**Management** Positioning Splinting Mobility Play Active Exercise Passive Exercise Education to patients and their family. Exercise program Resistive exercise Functional Exercise
Outcome Measures ROM (goniometry) Dynamometry Oxford muscle scale Borg Dyspnoea scale Endurance tests	**Outcome Measures** ROM (goniometry) Dynamometry

Method

Due to the language barrier experienced by the service user, it was important for the STA and Therapy team to develop a strong rapport with the patient to gain an understanding of their needs. The patient felt comfortable with the therapist and was able to express concerns, such as experiencing flash backs, which is very common for individuals who have experienced a traumatic event. *Burn survivors who have a history of traumatic events and past PTSD are also at risk for developing PTSD from the current burn injury. In fact, a current burn injury can trigger nightmares and flashbacks from a past traumatic event*.

Psychosocial support was offered to the patient, the STA completed well-being sessions with the service user which included leaving the ward as part of social reintegration and addressing body image(instead of due to their length of stay). The patient enjoyed some time away from the Burns unit which included visiting Costa coffee and going outside in the snow, which he had not seen in a long time. During this time, the patient had shared his in-patient experience with the STA and stated “I would like to work in health care one day to help other Burns Survivors”.

Outcomes

This individual was an inpatient for three months following a major burn injury. The case study demonstrates the impact that Burn Therapists have with patients in the acute setting. Working as a Senior Therapy Assistant within a multi-disciplinary role, it is evident that the patient was able to gain access to regular rehabilitation to address their needs holistically by considering physical and psychosocial needs. Following their hospital discharge, the patient was transferred to an enhanced assessment bed whilst waiting to be rehoused and will be reviewed by the therapy team as an outpatient for ongoing scar management.

Key learning points

Reviewing the patient frequently to measure and record their outcomes played a significant part to this service user's rehabilitation. It is essential that documentation detailing techniques and outcomes are recorded within 24 hours to ensure accuracy to appropriate continuation of the treatment plan.
Having a STA based on the Burns Unit enables non-registered therapists to work collaboratively across all four disciplines in order to deliver a person – centred approach to patient care. The STA was able to develop their skills and knowledge, particularly on hand therapy following a burns injury.

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Maximizing the sight of young children to achieve their academic potential

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Description

Provide orthoptist support testing vision for children from 2.5 yrs upwards. Once a child is diagnosed with a problem requiring patch treatment, the orthoptic assistant provides follow up care.

As an Orthoptic Assistant, I support vision testing for children from 2.5 years upwards within the Orthoptic Departments across the 3 hospitals in the Hampshire Hospitals trust. If a child is diagnosed with a binocular vision condition requiring occlusion therapy, I can start them on this course of treatment and provide follow-up care, with guidance and supervision from the Orthoptists. I have also completed a training course to allow me to carry out specific tests with children and young people who have problems with reading, tracking and visual processing difficulties.

The child that this case study is focused on is 5 years old, and has been under the care of our department since the age of 1. They are seen approximately 3 times every year by the Orthoptics department and once a year by the Ophthalmology team

Context

Children from all walks of background with different abilities and varying social, economic and environmental factors.

- The aim of amblyopia therapy, is to allow the affected eye to achieve it's maximum potential. (Reference 1)
- From this child's first visit with us when they were 1 year old, it was suspected that they would have a binocular vision problem, however at that young age, it is difficult to prove with certainty, due to lack of compliance with testing. It was during subsequent visits, as the child got older and testing got more reliable, that glasses were prescribed when the child was aged 2. However, compliance with glasses wear was not good and attendance to appointments was very sporadic for the next 12 month period. During an appointment with the Orthoptist when the child was age 3, Mum informed the Orthoptist that a stressful family situation had had a negative impact on the child's behavior and compliance with their glasses. Mum also told the

clinician that the child had been given the diagnosis of ASD. During an Orthoptist appointment when the child was age 4, a “formal” visual acuity was gained for the first time. This means that a reliable, monocular visual acuity test has been carried out, and it demonstrated that the vision in the child’s left eye was significantly reduced, compared to the right eye. It was at this visit that atropine occlusion was started. At the follow-up visit 6 weeks later, the visual acuity in the left eye unfortunately had not improved as would be hoped, but it was revealed that compliance with the atropine treatment had not been good. Instructions for the treatment were reinforced and a follow-up appointment booked for 6 weeks time. Unfortunately after this, the patient was not brought to a number of appointments and they were then not seen for 10 months.

Method

- When the patient next attended their appointment, atropine treatment had not been carried out as they had run out of drops, and unfortunately the vision in their left eye had deteriorated further. It was at this appointment that I met the patient. Our Orthoptist had instructed to start the patient on patching therapy for 6 hours every day, rather than atropine occlusion, due to the level of their vision now and poor compliance with atropine drops previously.
- I explained to the patient and Mum how to apply the patch, which eye to put the patch over, that the patch and their glasses need to be worn at the same time, I ensured that the patient understood why we were asking them to patch, in words and language that they understood (they were now 5 years old by this stage). I explained to Mum the importance of this patching therapy being carried out consistently everyday, for the 6 hours specified and explained about the visual system development. I supplied Mum and the patient with 2 boxes of Ortopad sticky patches and a motivational poster to stick the used patches on each day, once the patching has been completed. I arranged an appointment for them to come back and see me in 8 weeks time

Outcomes

- At this follow-up appointment, there was an excellent improvement in the left visual acuity. The patient came rushing in to see me, they were so proud of what they had achieved and couldn’t wait to show me their completed poster full of used patches. Mum said she had seen a great improvement in the child’s reading at home and that school said their concentration levels in class had gone up. The patient still needs to continue patching therapy; there is still a way to go, but it shows the importance of compliance for treatment and how successful it will be. Mum also said that the child was so excited to come in and see me, and show me the poster, and she felt that that really made a difference for her child, so it’s about being aware of what motivational tools could work for different children.
- Relating to cost-effectiveness, when I see a patient for an appointment as a Band 4 clinician, I am ultimately saving the Trust money, because otherwise the patient would be booked in with a Band 6/7/8 Orthoptist/Clinician.

Key learning points

- I think for me, my key learning from this particular patient is not to unconsciously judge the parents/family/child based on their past behaviours. Looking at this case and their poor attendance to appointments, poor compliance with glasses wear and poor compliance with atropine therapy, I would not have expected such brilliant results we are seeing now with glasses wear and patching therapy.
- Atropine therapy did not work well for this patient/family and patching therapy has. For some patients/families it is the other way round. So it is important to have a discussion with each family to determine which method would work best for them and their child.

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Using technology to passively reduce surface virus and bacteria levels

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Description & Context

Understanding oncology patients are often immunosuppressed, I wanted to utilise technology in a cost-effective manner to reduce virus and bacterial levels passively for both staff and patients. Identifying that surface areas are a prevalent method of transmission for microbes, often without utilising any technology to reduce microbial levels. After research I deemed silver Ion technology to be a cost effective solution, and something that had a long effective life. Other options such as copper technology were ruled out due to higher costs. I found one particular company who offered such technology, which covered push plates and different surface areas. I observed them in practice, then obtained scientific evidence and presented to and gained department permission to trial.

AIM

- Reduce virus and bacteria levels passively levels for both staff and patients.
- Expand project beyond Radiotherapy department, and monitor impact within my Radiotherapy department.
- Prove innovation with technology can greatly influence our future for the better.
- Use scientific evidence to highlight project effectiveness

Method

Researching relevant articles regarding surface antimicrobial technology. Visiting a local department store to observe the product in practice. Making initial contact with supplier, then the head of Radiotherapy to present project idea and findings. Next contacting supplier to obtain in-depth scientific evidence, then identifying and measuring surface points within my Radiotherapy Department for the product to be installed. Calculating cost with supplier, later identify only high traffic usage areas to implemented product to make project more cost effective (around 75% cost reduction). Contacting Infection Control lead for Charing Cross Hospital (CHX) for approval (approved for all CHX sites). Obtaining estates and facilities approval for project to be used in my Radiotherapy department, and for all CHX sites. Meeting with head of Radiotherapy for final approval, assisting in the product instalment.

Later assisting the supplier to conduct comparison analysis swabs, comparing surfaces treated with the produce to those that were not treated. Testing 9 touch points post 8 months instalment. Results showing an average of a 92% reduction in microorganism levels on treated areas. The tests were comparing RLU levels (converted from ATP). Such evidence was used to support the case for project expansion to chemotherapy wards in CHX. The supplier offered free instalment and testing of the product in chemotherapy wards in CHX, also offering to write a scientific paper regarding their effectiveness. I attended the chemotherapy ward proposal meeting with the supplier and oncology staff from CHX. I have further assisted the supplier in conducting scientific laboratory swab tests assessing project effectiveness in our department, the laboratory results are currently being processed.

Outcomes

Successfully implemented project on the ground and first floor of the Radiotherapy department in CHX. Eight month post instalment testing has shown a significant reduction in both virus and bacteria levels on surfaces with the product installed. Project currently being expanded to cover chemotherapy wards in CHX, with scientific paper being wrote by CHX staff and the supplier.

CLINICAL OUTCOMES/ BEHAVIOUR CHANGE

- Proven reduction in surface microbial levels,
- Potential reduction in both staff and infections, it is hoped that evidence will become more apparent post project expansion.

Key learning points

- Technology has great potential to make a difference in infection control.
- Importance of pushing for innovation and change in my working environment.
- Perseverance to make a difference and commitment to completing a project.
- Using time effectively - all the time available when I am not busy.

NEXT STEPS

- Supporting expansion of the project to oncology wards and wider departments/hospitals
- Continue searching for innovation potential and application in healthcare
- Continue to make improvements in my working environment & wider healthcare

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