Laughter therapy in dialysis: exercise, activity and wellness

Dr. Paul Bennett
Director, Medical Clinical Affairs, Satellite Healthcare, USA
Honorary Professor, Deakin University, Melbourne, Australia
Thanks to our speaker!

Dr. Paul Bennett

- Dr. Paul Bennett is an Honorary Professor at Deakin University, Melbourne, Australia
- Director of Medical & Clinical Affairs at Satellite Healthcare
- Paul’s recent research has focused on laughter therapy, resistance and aerobic exercise, home dialysis, e-learning, communication techniques, imagery, and workforce models.
POLL 1: ABOUT YOU

What best describes you (you can choose more than one)?

• I have kidney disease but not on dialysis yet
• I am on dialysis or have had a transplant
• I have a friend/loved one with kidney disease
• I am a nephrology health professional
• I am a non-nephrology health professional

Write in the chat box if you are none of the above!
POLL 2: YOUR HAPPINESS

- How happy are you right now?
- Please choose a number that represents how happy you are right now.
- 1 is unhappiest and 5 is happiest.
(UN)HAPPINESS IN DIALYSIS

• Hemodialysis patients report lower happiness compared to the general population

WHAT WE ARE GOING TO TALK ABOUT

• The (un)happiness of dialysis
• The inactivity of people on dialysis
• Laughter therapy in health care
• Laughter in dialysis
• Laugh Out Loud Hemodialysis (LOL-HD)
PHYSICAL (IN)ACTIVITY IN DIALYSIS

- Dialysis patient activity declines at a high rate as people age

EFFECT OF CHRONIC DISEASES ON PHYSICAL COMPOSITE SCORE

- People with End Stage Renal Disease (ESRD) report lower physical capacity than all other chronic conditions.

Sanjeev K. Mittal, Lori Ahern, Edith Flaster, John K. Maesaka, Steven Fishbane; Self-assessed physical and mental function of haemodialysis patients. Nephrol Dial Transplant 2001;16 (7): 1387-1394
DIALYSIS PHYSICAL DETERIORATION (Getting worse physically)

Kidney disease and co-morbidities (other related diseases) + Sitting for 12 hours per week + Decreased physical social outings
30 Second Sit to Stand

- Over 24 weeks (6 months) patients deteriorate by 20% in how many sit to stands they can do (from 10 to 8 sit to stand repetitions)

Sutcliffe, B., Bennett, PN, Fraser, S., Mohebbi, M. The deterioration in physical function of people with end-stage kidney disease on hemodialysis. In Press HDI-17-0033
POLL 3: EXERCISE

How often do you do 30 minutes (or more) of exercise?

- Every day
- Greater than 3 times per week
- 1 to 3 days per week
- Never
WHAT EXERCISE?

ANAEROBIC
(RESISTANCE)

AEROBIC
(CARDIOVASCULAR)
UNITED KINGDOM
AUSTRALIA
DIALYSIS RESISTANCE MACHINE
RESISTANCE EXERCISE - BANDS
30 SECOND SIT TO STAND

- 15 Melbourne (Australia) Dialysis Clinics (n=216)

- Band Exercises with Physical Therapists 1 to 2 days per week

- Primary Outcome
  - 30 second sit to stand test

Bennett et al. BMC Nephrology 2012; 13:294
http://www.biomedcentral.com/1471-2369/13/294

STUDY PROTOCOL
Open Access

The impact of an exercise physiologist coordinated resistance exercise program on the physical function of people receiving hemodialysis: a stepped wedge randomised control study

Paul N Bennett1, Robin M Daly2, Steve F Fraser3, Tony Haines3, Robert Barnard3, Cherene Ockerby1 and Brigitte Kent1.
Physical function improved when each dialysis patient group started exercise.
WHO WOULD HAVE THOUGHT

I don’t need this as much anymore!
EXERCISE DURING DIALYSIS RESOURCES

- 2 x Therabands
- DVD
- 10 Brochures for Professionals
- 10 Brochures for Patients
- 20 page Instruction Booklet
- Website “Exercise in Dialysis” resource page - kidney.org.au
- All resources (except therabands) free online
Dialysis Exercise Prompt Card

Below are pictures of the resistance exercises you can undertake whilst completing dialysis using the Resistance Bands provided. These are detailed further in the "Dialysis Exercise Description Booklet". It is intended that you gradually increase the amount of exercise you undertake - working up to completing 6-10 repetitions of each exercise, 3 times per session to maintain and increase strength, muscle mass and function.

Chest press
Shoulder press
Tricep extension
Straight arm shoulder flexion
Shoulder horizontal abduction
Neutral seated row
Supine grip seated row
Prone grip seated row

Bicep curl
Calf press
Bent knee calf press
Leg curl
Log press
Hip abductions
Straight leg raise
Abdominal leg extensions
ABC drawing with toes

Be careful not to be too eager with your movement, though, as rocking through your pelvis can dislodge your dialysis needles.
WHAT ABOUT LAUGHTER AS A FORM OF EXERCISE? VIDEO 6
Poll 4: Your Happiness - AGAIN

- Now you have seen some happy videos...
- Please choose a number that represents how happy you are right now.
- 1 is unhappiest and 5 is happiest.
5 TYPES OF LAUGHTER

1. Spontaneous – (joke)
2. Induced (laughing gas)
3. Pathological (very rare)
4. Stimulated (tickling)
5. Intentional (on purpose)
   – (laughter therapy, laughter yoga)
LAUGHTER THERAPY

• Consists of controlled breathing, relaxation techniques, clapping, deep breathing exercises, gentle neck and shoulder stretches, limb exercises, facilitated laugh and smile exercises

Intentional Laughter  +  Yogic Breathing  +  Exercises
LAUGHTER BREATHING WARM UP EXERCISE

1. Put your hand on your stomach
2. Take a big breath, hold for 3 seconds, and then breathe out
3. Put your hand flat on your chest
4. Say Ha, Ha, Ha (similar to laughing)
5. Place your index finger and thumb around your windpipe (trachea) at the front of your neck
6. Say hee, hee, hee
7. COULD YOU FEEL THE AIR FLOWING?
LAUGHTER BENEFITS

• Improved heart and blood vessel health
• Improved breathing and lung function
• Improved immune system
• Decreased pain
• Improved mental health
  – Stress, anxiety, depression, mood
LAUGHTER EXERCISE (N=27) IMPROVED GLYCOSYLATED HEMOGLOBIN (HBA1C) IN DIABETICS

<table>
<thead>
<tr>
<th></th>
<th>Baseline Mean ± SD</th>
<th>3 months Mean ± SD</th>
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<tbody>
<tr>
<td><strong>HbA1c (%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immediate treatment</td>
<td>5.26 ± 0.57</td>
<td>5.14 ± 0.60</td>
</tr>
<tr>
<td>Delayed treatment</td>
<td>5.00 ± 0.32</td>
<td>5.07 ± 0.37</td>
</tr>
<tr>
<td><strong>Glucose (mg/dL)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immediate treatment</td>
<td>131.9 ± 32.3</td>
<td>121.1 ± 61.1</td>
</tr>
<tr>
<td>Delayed treatment</td>
<td>120.0 ± 36.3</td>
<td>112.9 ± 22.1</td>
</tr>
</tbody>
</table>

• Average HbA1c decreased from 5.26 to 5.14 in Laughter Group

LAUGHTER THERAPY IN DIALYSIS

- Increased happiness (General life satisfaction)
- Decreased anxiety
- Decreased stress
UNEXPECTED RESULTS

- Decrease in episodes of low blood pressure during dialysis
- No changes in blood pressure after dialysis
- No change in lung function
- No increased cramps or needle issues
- Laughter therapy had a positive impact on patients’ and the dialysis staff
BUT THAT IS AUSTRALIA... THIS IS THE USA
WORLDWIDE LAUGHTER COMMUNITIES

HOUSTON LAUGHTER YOGA

LAUGHTER YOGA CLUB OF EL PASO

5 PM – 1:45 PM
Redd Rd, El Paso, TX 79912

Joyful Healing Laughter
Celebrating 10 years in Cincinnati!
SATELLITE LAUGHTER THERAPY  VIDEO 11
USA – PATIENT EXPERIENCE

Laughter had a positive impact on my mood
I would recommend LT to other patients
I would like to have more info about LT
I had concerns about the safety of LT during dialysis

Agree*  Neutral  Disagree**
“…so he doesn’t have any family, yet he was able to laugh and actually you saw huge changes in him. The biggest smile on him and even the patients around him commented about the changes. They said have you seen him, look at his smile, I mean this as a gentleman who would come in and just do his dialysis and basically sleep the whole treatment”
Laughter therapy improves your overall health & wellness. Give it a try!

- Breathing: Opens up the lungs
- Movement: Increases physical activity
- Social Interaction: Brings people together
- Mindfulness: Helps to relax

People on dialysis often experience... 

Less Pain 
Less Stress 
Less Sadness 

More Energy 
More Movement 
More Community
COULD LAUGHTER OR EXERCISE WORK FOR YOU OR YOUR CENTER?

• Could exercise or laughter work for you, your colleagues or in your center? Or just want to know more?
• Bennettp@satellitehealth.com
The Origin of GNH

GNH = Gross National Happiness

“if the government cannot create happiness (social harmony) for its people, there is no purpose for the Government to exist.”

The 1729 legal code, Bhutan
The Origin of GNH

GNH = Gross National Happiness

“if one cannot create (social harmony) for its people, there is no purpose for it to exist.”

The 1729 legal code, Bhutan
SUMMARY: WHAT WE TALKED ABOUT

• The (un)happiness of people on dialysis
• The inactivity of people on dialysis
• Laughter therapy in health care
• 5 forms of laughter
• Laughter in dialysis
• Laugh Out Loud Hemodialysis (LOL-HD)
QUESTIONS?
Join us for next month’s webinar!
August 2017

Stepping up to the plate: the value of living donation

Patient advocates Steve and Heather Winfree will join us to share about:

- Their journey as a couple as Steve has battled kidney disease
- Heather’s decision to donate her kidney to her husband Steve, and the process of becoming a donor
- The importance of living donation

Visit www.KidneyFund.org/webinars to learn more and register!

Steve and Heather Winfree
AKF advocates