

Goal Achievement Scaling (GAS) method in general inpatient rehabilitation: the association between individual goal's difficulty, importance and degree of achievement

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Background

- Rehabilitation is a functional goal oriented medical speciality
- Various methods of measuring clinically relevant outcomes
- Length of stay
- Change in function (validated scales)
 - 6 minutes walk test
 - Functional Independence Measure (FIM)/ Barthel score
- Achievement of personalised goals
 - Goals set, achievement documented (Y/N)
 - Goal Achievement Scaling (GAS)

Background

- Goal Achievement Scaling (GAS) - method of scoring the extent to which a patient's personalised goals are achieved
- Personalised goals using GAS
 - Not investigated in general inpatient rehabilitation population
 - There is a lack of understanding of the relationship between difficulty, importance, and degree of achievement of individual goals in the general inpatient rehabilitation population

Objectives

- To investigate the feasibility of GAS method in a general inpatient rehabilitation population
- To investigate the association between individual goals' degree of achievement, difficulty and importance

Methods

- Prospective cohort
- General rehabilitation unit at St Vincent's Hospital Melbourne, tertiary referral metropolitan hospital in Victoria, Australia.
- Cognitively intact patients enrolled regardless of their diagnostic stream
- Focus on physical and functional goals set by PT and OT
- Semi-structured interviews conducted with therapists to investigate qualitative aspects of the use of GAS method in routine clinical practice
- Associations investigated using random effect ordinal logistic regression modelling (patients as random effects) and estimated with common Odds Ratio (cOR) of achieving higher value of outcome with corresponding 95% confidence intervals

Methods - GAS goal setting

- Goals are identified to suit the patient, and levels are individually set around the patient's current and expected levels of performance
- Structure:
 - +2 much better than expected level of function on a given goal
 - +1 somewhat better than expected level of function on a given goal
 - 0 expected level of function on a given goal
 - 1 somewhat worse than expected level of function on a given goal
 - 2 much worse than expected level of function

Methods – GAS goal setting

- Admission goal setting process
 - patients identified the goals and degree of importance (0-3)
 - therapists formulated expected levels, determined baseline function (0-1) and ranked goals' difficulty (0-3)
 - difficulty of goals not communicated to the patients
- Discharge goal setting process
 - Therapists determined level of achievement (-2 - +2)
- Converted into number
- 'Expected level' =50

DEGREE OF ACHIEVEMENT LEVEL	SMART GOAL
+2 (well above expectation)	Walk 100m with a stick
+1 (above expectation)	Walk 50m with a stick
0 (expected level)	Walk 50m with 4 wheel frame
-1 (below expectation)	Walk 50m with pick up frame
-2 (well below expectation)	Walk 50m with pick up frame and supervision

'I WOULD LIKE TO WALK WITHOUT HELP'

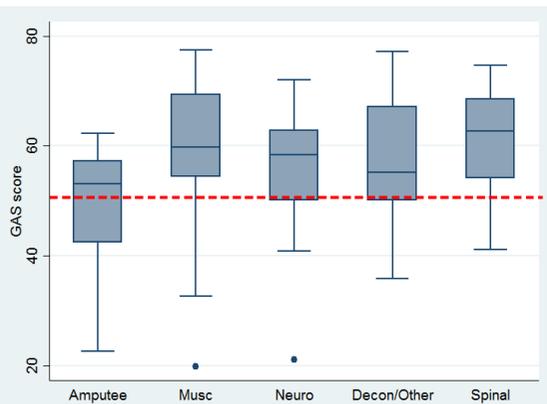
Results

- 100 patients, median age 63 (IQR 54-72), 53% male
 - 359 individual goals set : physical 205 (57.1%), functional 122 (34.0%), combined 23 (6.4%)

Results - feasibility

- 100 patients, median age 63 (IQR 54-72), 53% male
 - 359 individual goals set : physical 205 (57.1%), functional 122 (34.0%), combined 23 (6.4%)
- Feasibility
 - minor increase in AH workload after initial training
 - senior PT/OT supervision required
 - more involved interaction with patients deemed of benefit

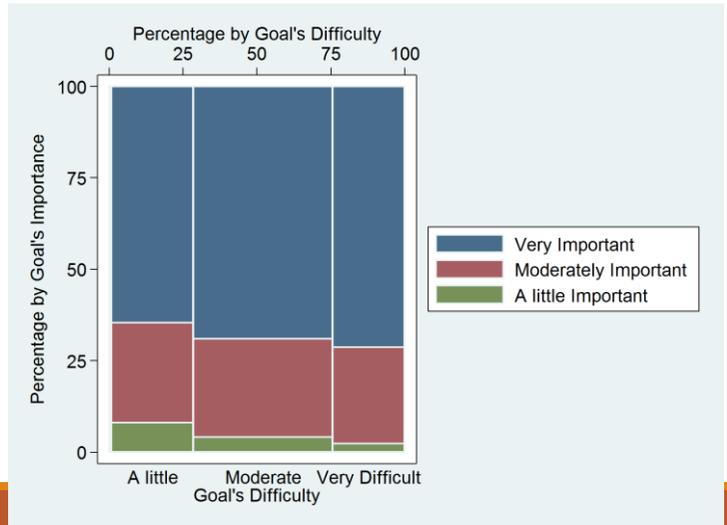
Results – diagnostic streams (Poster 95)



Diagnostic stream	Number of patients (%)	Age (median, IQR)	Male gender (%)
Amputee	16 (16)	60.5 (53.5-71.5)	13 (81)
Musculoskeletal	27 (27)	67 (55-74)	12 (44)
Neurological	20 (20)	57 (50-70.5)	10 (50)
Deconditioning/ other	23 (23)	62 (57-70)	14 (61)
Spinal	14 (14)	70.5 (57-76)	8 (57)

Results – individual goals

- 'Very important' 68%
- 'Moderately difficult' 47%
- Adjusting for other factors:
 - difficulty of goals increases with their importance ($p=0.04$)
 - more important goals have higher odds of being better achieved ($p=0.03$)



Discussion

- The first study of GAS goal setting in the general rehabilitation population
- Patients nominated about two thirds of the set goals as very important for them
- Goals considered to be more important also tended to be both more difficult and better achieved
- While it is well recognised that (SMART) rehabilitation goals should be set in consultation with patient, sometimes not the case in clinical practice
- ??? Does ensuring that the majority of the set goals are important to the patient facilitate better goal achievement ???

Limitations of goal setting process

- Inherently subjective, accuracy depends on clinician's judgement
- No standardized scale
- Difficulty and predicted levels of achievement determined by clinicians, based on previous experience
- More labour intensive for Allied Health staff

Conclusions

- Patients' involvement in GAS goal setting is feasible in general inpatient rehabilitation
- It ensures articulation of goals' importance to the patient
- Goals that patients consider to be more important tend to be both more difficult and better achieved
- Further investigation is needed to evaluate whether routine discussion with the patient about the importance of set goals is associated with a higher degree of goal achievement

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Methods – GAS goal setting

Activity: behaviour of deposed Prime Minister on the back bench

- +2 Vote for sitting PM in the next leadership spill
- +1 Support the sitting PM convincingly
- 0 **Support the sitting PM**
- -1 Criticize the sitting PM
- -2 Initiate the next leadership spill

