ISOQOL 2021: minimum number of goals in GAS

Guidelines

Deadline: April 16, 2021

Notification: June 7, 2021 -> confirm by June 14

Registration deadline: August 2, 2021

Posters due: October 4, 2021

Conference: October 13-16

Presenter restrictions: a maximum of two abstracts may be selected by any one presenting authors. Only one oral presentation per presenting author.

Abstract categories:

- **Theoretical work**
    - Abstracts in this category use theory to advance the understanding of HRQL phenomena. Such work might include novel efforts to explain known associations or relationships observed in the literature; modifications or extensions to theories that are routinely or historically used in HRQL research and applications; or applications of an established theory from another field to HRQL phenomena. Abstracts in this category should not be presenting new data (including qualitative or formative work) or meta-analyses, but may reference published data in support of a theory.
- Methodological
    - Work in this category reports on qualitative or quantitative methods for developing and evaluating patient-reported health status, as well as methods for analyzing and interpreting scores from such measures of health assessments. While the work might feature a particular disease area or measure, the primary aim of the work is to present a method rather than present findings about a particular measure or population.

- Application: Clinical Research
    - Abstracts in this category use patient-centered measures to better understand the nature, prevention, treatment and management of different health conditions. Approaches used in this category could include qualitative or quantitative, randomized or non-randomized, cross-sectional or longitudinal, and meta-analyses.
- Application: Clinical Care Applications
    - Abstracts in this category include reports of efforts to integrate the patient's voice more effectively into clinical encounters. Examples include descriptions of experiences implementing a standardized PRO collection system in a single clinic, reports of the development of a streamlined questionnaire battery for patients to complete prior to visits, and efforts to develop better reports for clinicians of patients' PRO data over time. It is expected that abstracts in this category are more descriptive in nature with limited sample sizes. Larger and/or randomized studies should be categorized as Clinical Research.
- Application: Policy
    - Abstracts in this category focus on issues relevant to the requirement, development and large-scale (e.g., Health System, Government) application of patient-reported outcomes in health care practice, regulatory, and population/surveillance settings. Abstracts may include program evaluation, case studies and economic analyses.

Abstract submissions should have the following sections: Aims, Methods, Results Conclusions for a **combined word count of 350 or fewer**. Optional: up to three supporting files (JPG preferred)

Abstract title should be 10-250 characters in sentence case.

Health condition (must select 1 or 2)

- Cancer
- Cardiology
- Endocrinology/Diabetes/Obesity
- Mental Health

- Musculoskeletal/Rheumatic
- Nephrology/Urology
- Neurological
- Rehabilitation
- Respiratory
- **Other Health Condition**

Population (must select 1 or 2):

- Children and Adolescents

- Older People
- Caregivers and Relatives
- Cultural and Ethnic Minorities
- Vulnerable Populations
- **General Populations**
- Other Populations

Abstract

Title: Minimum number of goals per subject in goal attainment scaling trials: a simulation study.

Authors: Taylor, Justin, Kari, Sanja, Susan, Ken

Aims

Goal attainment scaling (GAS) is a patient-centric outcome measure that captures meaningful change through personally identified goals of treatment. Traditionally, it is recommended to set a minimum of three goals per subject in a clinical trial. Depending on the subject population and time constraints, however, it may not be feasible to reach this minimum number. Our aim was to investigate the effect of

number of goals per subject on statistical power using data simulation techniques.

Methods

We employed a probabilistic model introduced by Urach et al. (2019) for generating randomized parallel group GAS endpoint data. This model allows for adjustment of many study parameters, but for this analysis we varied only the total number of subjects (from 20 to 100), treatment effect size (from 0.4 to 0.8), and the parameter of interest: number of goals per subject (from 1 to 7). For each set of parameters, 1000 parallel group trials were simulated and a two-sided -test was performed on standardized T-scores. Power was computed as the percentage of simulations detecting a statistically significant treatment effect at = 0.05.

Results

The gain in statistical power ranged from 8-20% for 2 goals per subject, compared to 1 goal per subject. The difference between 3 and 2 goals per subject was less pronounced, with power increases ranging from 2-11%. This pattern of diminishing returns continued for more than 3 goals, e.g. 0-8% gains from 4 vs 3 goals per subject. With 3 goals per subject, the minimum sample size required to reach 80% was found to be >100, 60 ,and 40 subjects for effect sizes = 0.4, 0.6, and 0.8 respectively.

Conclusions

The power to detect a treatment effect increased with increasing number of goals per subject. The gains in power had diminishing returns, however, with the most substantial increase from 1 to 2 goals per subject. For the moderate-large effect sizes considered here, the traditional 3 goal minimum reached 80% power with sample sizes ranging from 40 to 100+ subjects.