Benchmarking Report
MyOutcomes

The purpose of this Benchmarking Report is to discuss the behavioural algorithms used in MyOutcomes® Version 18, and review the resulting changes in the PCOMS international benchmarks used to inform quality improvements in behavioural healthcare and human service organizations. Professor Doug Stanley provides an independent analysis and review of the predictive model available in MyOutcomes® Version 18, and Cindy Hansen, MyOutcomes® Clinical Director, previews upcoming changes and outcome benchmarks.

Review of the New Predictive Model
by Professor Doug Stanley

Moving to a Predictive System

On a whole, a predictive modeling system where predictive outcomes are made at the individual level, versus feedback delivered in the form of an Average ETR, is more appropriate for assessing the clinical outcome of an individual patient. In short, the former is tailor-made for the task at hand; whereas the latter is forcing an overall profile that is likely not appropriate for some of the individual patients being analyzed.

Outcome Rating Scale

In fact, beyond being a "commonsense" notion on how outcomes should be evaluated, the idea of disentangling an individual's effect from the overall average of a given data set is a well worn issue in the statistical literature. Specifically, it can often be the case that the overall summary statistics are not reflective of any given individual. Furthermore, it is possible for an average not to be reflective of any observed data (see Kohn, Steinley, and Brusco, 2010; Steinley, in press, for highlighted examples when looking for groups within data). As such, the recognition of an overall data set being comprised of several different individual data points is welcome and will lead to more precise predictions and better overall outcomes.

Comparison with Previous Algorithm

Incorporating Time - When compared to the previous algorithm, from a statistical point of view, there are numerous additional strengths to the newer algorithm. While both rely on a regression-like machinery, the newer algorithm now incorporates duration (e.g., days) which is advantageous from both a clinical and statistical point of view. As the clinical point of view has been discussed elsewhere, it is beneficial statistically for two primary reasons: **(I)** the model now better reflects the underlying process of therapy being a continuous process that has a natural course, providing a level of "face validity" between the model and the data that was previously absent and **(ii)** often, time itself can be an important predictor to differentiate individual trajectories in many settings (Steinley et. al., 2015).

Similarity of Predictions - Another potential concern is how similar are the predictions from the two different approaches. Overall, there is a high degree of similarity between the two; however, differences are realized on the "ends" of the score distribution. Namely, for lower scores, the previous algorithm provided higher predicted values; whereas, for higher scores, the new algorithm provides higher scores. This results in two important characteristics that point to improvements with the newer algorithm: **(i)** the newer algorithm is more conservative on the low end of the scale, indicating that it is less likely to indicate that a client is to be on track prematurely – this can be seen as a protective factor not becoming complacent in treatment, and **(ii)** given the lower estimates on the low end and the higher estimates on the high end, the newer algorithm introduces more variability. This introduction of variability can be beneficial for several reasons. The first is that the new algorithm is covering more of the entirety of the "score space", indicating a model that is sensitive to ranges of the entire data set. Secondly, maintaining the greater degree of variability in the data space will likely lead to more accurate prediction. This seems counterintuitive at first; however, if there is less variability in the predicted responses, it can indicate that there is lack in sensitivity of the model to changes in the data space. Furthermore, one might expect that associated measures of fit, such as variance accounted for, may be lower.

Final Comments

While the models may provide similar predicted values, the newly proposed model is an advance in the sense that it incorporates time and increases the variability of the predicted space. This is partially achieved through a more empirical, data driven approach to utilize prior information. This helps tie clinical practice back to empirically observed data, resulting in better client outcomes.

It can be noted that empirically, data driven science is on the forefront of mental health treatment. As a major example, the Research Domain Criteria (RDoc) program being spearheaded by the National Institute of Mental Health is integrating empirical findings from behavioral science, genetics, and neuroscience to address the spectrum of mental health disorders.

MyOutcomes® *Improve Outcomes, Reduce Cost*

Upcoming Changes and PCOMS International Benchmarks

By Cindy Hansen, MyOutcomes® Clinical Director

MyOutcomes® is a full-service quality improvement platform that transforms ORS/SRS results into the empirical evidence needed to develop noticeable improvements.

Upcoming Changes to MyOutcomes® v18 include:

↗ **Two Big Advances in Dashboard Reporting-** First, Printable Dashboard Reports- Once the Dashboard Report Parameters are selected just scroll down to the bottom of the page and click on the new Printable Report View. Second, for even more granular analysis of Dashboard Reports, all reports can now be exported to Excel. Go to the Dashboard tab, for each of the 4 report tabs on the Dashboard page, you can generate a report with data. On the bottom of the page, you can click on the Export to Excel link. You will then get an excel file that contains raw results.

↗ **More Export Stats Fields**- Quality Assurance Managers and Researchers will appreciate the new Export Stats data that can now be export as raw scores: Client ID creation Date, Last ORS score & Last ORS Date.

↗ **Read-Only Access is here!**- The Read-Only Access for Administrators & Supervisors is available on both the Administrator Home Page and Supervisor Home Page. If the read-only access is enabled- when the read-only Administrators or Supervisors login, they can create clients, couples, feedback sources, supervisors, providers, and client groups. The read-only administrators and supervisors will be unable to update or delete clients, couples, feedback sources, supervisors or client groups. In addition, they will be unable to perform an ORS or SRS on any client, skip any session, or update past session scores.

↗ **Custom ORS Feedback**- You now have the option to hide the Feedback results page and create a custom message on the results page. It is an Owner level tool available under Options. When you enable Custom ORS Feedback, a text field box will appear. You can enter the message you would like to appear as the results page.

↗ **New Couple Functions**- We have made it possible to separate the couple and do individual counselling. These functions also allow you to deactivate and reactivate individual couple members.

↗ **Transferring clients to a GSRS group just got easier**- First create a Client Group and mark it as a GSRS group. Then, transfer a client whose survey type is set to Adult- to that new GSRS group. The client's survey type will be changed to Group automatically.

MyOutcomes Mobile

Select your MyOutcomes account:

Select your Country

User ID: User ID

Forgot User ID?

Password: Password

Forgot Password?

Sign-In

To login contact your therapist/counsellor for your User ID and Password.

Therapists/Clinicians without a MyOutcomes account can contact us to receive 2 months free access.

They can redeem offer here: Redeem offer

↗ **Hide "Remember Email" on Give Access**- To hide the Give Access option to remember clients email, a new Owner tool has been added to Options. Simply click to enable Hide Remember Email on Give Access.

↗ **Hide SRS**- Another new tool under Owner Options. You can chose to only administer the ORS. Just enable Hide SRS.

Latest Updates to MyOutcomes® Mobile include:

↗ **Forgot Password and User ID**- Now you and your clients will be able to access Forgot Password and User ID from the MyOutcomes Mobile login page.

↗ **Skip Function is Here!** The Skip Function has been added to the Home Page. Click on the button below the Skip tab. It will direct you to a page on Skipping a Session. You can choose to Skip ORS, Skip Both ORS and SRS, or Delete Last Session. The Lock ORS/SRS function only applies to the 'Update Past Session" area of the site. It prevents providers from updating or skipping past sessions. It does not lock delete past session or login information.

↗ **Seven Languages**- MyOutcomes Mobile now supports English, Spanish, French, Norwegian, Swedish, Danish, Chinese, and Italian languages.

MyOutcomes

Improve Outcomes, Reduce Cost

What's New in MyOutcomes Web Services Version 18

For more comprehensive data retrieval from MyOutcomes® to other systems, we have expanded our existing data pull functions:

Get Client Session Data- This function takes the user id as input and returns all client session data including total ORS and SRS scores, any data projection points plus all 4 ORS subscales and all 4 SRS subscale scores available under a given user id. **Get Client Session Data By Date**-This function takes the start date, end date and user id as inputs and returns all client session data including total ORS and SRS scores, data projection points plus ORS/SRS subscale scores, available under that user id. **Get All Client Data**- Like the existing GetClientData function – this new function will allow you to retrieve all ORS/SRS session data for a single client without having to supply a session number.

MyOutcomes®, a full-service quality improvement platform, established in 2007, offers 30-minute consultations and one-month evaluation accounts. MyOutcomes® includes implementation support and state of the art training in Feedback-Informed Treatment® (FIT) with Scott D. Miller, Ph.D.

MyOutcomes® was launched as the first Web-based version of the Partners for Change Outcome Management System (PCOMS). Each of the five primary instruments that comprise the basic PCOMS measurement set, the Outcome Rating Scale (ORS), Session Rating Scale (SRS), Child Outcome Rating Scale (CORS), Child Session Rating Scale (SRS), and Group Session Rating Scale GSRS) are visual analogue scales consisting of four 10 cm lines. Session notes can be added to capture any additional feedback.

Average Intake SRS – This is recorded at the end of the first therapeutic session and provides the therapist, or their FIT supervisor, with an indicator of whether they are able to elicit the feedback needed to improve engagement. Ideally, Average Intake SRS is 34, below the clinical cut off of 36, with the SRS value trending upward in subsequent sessions, as the therapeutic bond and flow of therapy strengthens. These values reflect active cases only.

Average ORS Intake Score - This is the average ORS score for clients at first session. The average intake ORS for Adults is 22, Adolescence is 25 and Children is 28. These averages are drawn from raw aggregate data and reflect inactive cases only.

Average Last ORS Score - The average last Outcome Rating Scale score provides a quick comparision to average Intake ORS, to estimate the effect therapy is having across cases. These values reflect inactive cases only.

Relative Effect Size – Measures the effectiveness of treatment relative to the grand mean (mean of the mean) of treatment effectiveness for all other clients, in MyOutcomes' extensive database, who have identical intake ORS scores. A positive relative effect size means above average effectiveness; a negative relative effect size indicates an effect that's below average. A relative effect size of 0 means the effect is average compared to the norm. Both active and inactive cases are reported. Active cases are expected to report an effect size below the mean.

% of Clients Reaching Service Target - This simple, but powerful predictor, reports the percentage of clients scoring in the green zone (successful outcome) as of the last ORS measurement. Both active and inactive cases are reported and provide a snapshot of treatment effectiveness.

PCOMS International Benchmarks

MyOutcomes® simplifies the use of ROM in clinical settings with advanced behavioral algorithms that go beyond measuring average change, resulting in more accurate client outcome reports.

The following is raw aggregate data, a snapshot of the main Key Performance Indicators developed and popularized by the Partners for Change Outcome Management System (PCOMS) to interpret outcomes.

The Table includes a breakdown of clients by age cohort, active vs. inactive cases and regional database, i.e. US is the combined data for US and International clients & Canada is the combined data for Canadian and MyOutcomes UK clients.

Instance	Type	SRS Intake	ORS Intake	Last ORS	Relative Effect Size A Service	Relative Effect Size I	% Reaching Target A%	Reaching Target Inactive	Active Clients
USA	Child	35.5	27.8	33.1	0.11	0.12	78.01	77.27	20824
USA	Teen	34.7	24.8	30.8	-0.02	0.08	68.34	71.79	23512
USA	Adult	35.4	21.2	27.5	-0.17	-0.03	65.27	67.4	121353
USA	All	35.3	22.3	28.5	-0.11	-0.01	66.24	68.5	174977
Canada	Child	35.6	27.9	33.2	0.09	0.19	73.91	79.31	3780
Canada	Teen	35	23.4	29.6	-0.07	0.06	61.07	68.98	6506
Canada	Adult	35.5	20.6	27.8	-0.09	0.04	66.21	70.56	37062
Canada	All	35.5	21.5	28.4	-0.07	0.05	65	70.41	49491