Clinical Supervision: predicting best outcomes

Dr Edward White
PhD, FACMHN, FACN, MICR, FIBMS, CSci

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## Faculty disclosure:

<table>
<thead>
<tr>
<th>Faculty names:</th>
<th>School of Psychiatry, University of New South Wales, Sydney, Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Personal Social Services Research Unit, The University of Manchester, England</td>
</tr>
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<td>Conflicts of interest:</td>
<td>None</td>
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<td>Employer:</td>
<td>Osman Consulting Pty Ltd</td>
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Goal and objectives:

- **Session goal:**
  Report a new methodological approach for the measurement of Clinical Supervision outcomes

- **Session objectives:**
  (1) Encourage evidence based practice
  (2) Recommend continuous evaluation of innovation in contemporary nursing
Acknowledgement:

Dr Julie Winstanley
Director, Osman Consulting Pty Ltd
In practical terms, CS usually means:

- Small groups \((n=\sim 6)\) of Supervisees meet regularly and frequently with trained Clinical Supervisor (or in dyads)

- Facilitated, reflective discussion, in confidence, around matters of professional relevance and importance

- CS is \textit{not} Personal Performance Review, nor Case Review, nor Therapy

- CS increasingly (wrongly) used as synonym for mentorship, preceptorship, clinical teaching, buddying, debriefing……

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Before 2000, very few rigorous large scale quantitative CS evaluations

Clinical Supervision Evaluation Project*; 586 respondents in 23 centres in England and Scotland, United Kingdom

Established the essential contours of Clinical Supervision in UK# and provided an informed view of existing assessment tools to measure the impact of CS


# Voted into 'Nursing Research's Top 50' *most influential piece of nursing research over the past 50 years* (Royal College of Nursing of the United Kingdom, 2009)

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• The Manchester Clinical Supervision Scale© (MCSS©) is a CS-specific, 36-item questionnaire, scored on 1-5 Likert scale (range=36-180)

• ~125 MCSS© licensed CS evaluations, in 14 countries worldwide; authorised translations into 8 languages other than English (Arabic, Danish, Finnish, French, Norwegian, Portuguese, Spanish, Swedish)

• 7 MCSS© subscales tapped into 3 domains of one of the most influential frameworks of Clinical Supervision
Proctor Model*

- **Normative domain** (promotion of standards and clinical audit issues)
- **Restorative domain** (attention to personal wellbeing of the Supervisee)
- **Formative domain** (development of knowledge and skills)

* Proctor (1986)
• Largest study to use MCSS© was Australian randomised controlled trial of CS*

• Funded by Queensland Treasury (A$248,000)

• Joint CIs (EW & JW); Project Research Officer, CS trainer and 3 Area Coordinators

• RCT sited in 17 adult mental health facilities, in 9 participating locations across Queensland; inpatient and community, public and private, regional and rural settings (furthest locations were 1800kms apart; ~equivalent distance from Las Vegas, Nevada to Dallas, Texas)

* White and Winstanley (2009)
Main results: (from analysis of quantitative data, only)

- No statistically significant differences were found in the demographics (age, sex, grades...) between MHNs allocated to the Intervention and Control Arm locations.

- For MHNs in the Control Arm, no statistically significant differences were found on any of the research instruments, over time, during the 12 months of the RCT.
Supervisors:

• MCSS© Total scores at the end of the CS course (Intervention) were significantly higher compared with their perception of CS at baseline

• The significant difference was maintained after 12 months supervisory experience

• Two subscales revealed particularly significant differences; Trust and Rapport and Importance/Value
Supervisees:

• High MCSS© scores were found significantly associated with low MBI emotional exhaustion scores:
  › The better the CS, the less burnt out staff reportedly felt

• High MCSS© scores also significantly correlated with low GHQ scores:
  › Empirical evidence to show CS has the potential to ‘inoculate’ against staff stress
Efficacious Clinical Supervision

• Overall median MCSS© Total score in the RCT was 136
• Same was found in secondary analyses of merged international MCSS© data sets
• ~70% maximum MCSS© score possible
• MCSS© Total score of 136, is hypothesised as threshold for demonstrable efficacy of Clinical Supervision*

* White and Winstanley (2010)
Rigour of CS measurement instruments:

• All practice development initiatives should be evaluated, modified (when necessary), implemented and re-evaluated

• Rise of CS Checklists (no psychometric properties; aviation analogy)

• Like most psychological measurements, the MCSS© uses an ordinal scale to describe the order of scores (horse race analogy)
• Difference between scores of 1 and 2, may not be the same as between 2 and 3, and should not be assumed to be so

• Many *ordinal* scales are wrongly used as if they provide *interval* level measurement (difference 1 → 2, *is* same as the difference 2 → 3....)

• When this is so, the use of using an *ordinal* scale, means and standard deviations, may not have validity*

• Rasch Analysis* was developed to test any scale against a mathematical measurement model

• Assesses how well each question behaves in accordance with the rest of the questions in that scale

• Provides a range of fit statistics to check whether adding together the scores of the research instrument is justified, or not


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• Using real data, amalgamated from several international CS evaluations (N=385; n=225 nurses, n=160 Allied Health staff) and RUMM 2030 software, the original factor structure and response format of the MCSS© was tested for goodness of fit to the Rasch Model
• Findings re-confirmed the validity of the response format of the 36-item MCSS©
• Also indicated that original version could be reduced to 26 items with increased structural integrity and result in improved fit statistics for 6 subscales (rather than the original 7)*

• Justification for a new re-modelled version; MCSS-26© (enquiries@osmanconsulting.com.au)

* Winstanley and White (2011)
• MCSS-26© is scored on 0-4 Likert scale (range=0-104)

• High correlation between MCSS© scores and MCSS-26© scores allow longitudinal benchmarking by current licence holders

• MCSS© Total score of 136 (threshold for efficacious CS provision) re-calibrated on MCSS-26© to an equivalent score of 73
Correlation $R_s = 0.975$ between the original MCSS© and MCSS-26©
• Current MCSS-26© R & D includes best use of information technology, the Internet and software, to develop more effective ways to collect data and to establish feedback loops with service providers and practitioners
New software application for MCSS© data:

- Classification and Regression Tree analysis (CART)* uses a mathematical model and SPSS software to take account of particular local circumstances
- CART automatically searches for important patterns and relationships, to uncover hidden structures, even in large and highly complex data sets

* Breiman, Friedman, Olshen & Stone (1984)
Pekelis (2013)
• CART employs a series of algorithms to find the factor which provides the greatest separation between groups# (triage analogy; the application of rules to classify patients into various risk categories → appropriate clinical decisions)

# CART output yields a tree-like structure (hence, aka Decision Tree)
Preliminary CART analyses of MCSS© data from 1272 Supervisees* drawn from several international studies revealed two factors which, when found in combination, resulted in an optimisation of the MCSS© Total score.

Factors were the **frequency** and the **length** of Clinical Supervision sessions (at least monthly, for at least 60 minutes)#

* Nurses (general and mental health) and Allied Health staff, in palliative care, forensic mental health, in hospital and community settings

# Winstanley and White (2014)
Summary:

• RCT has made incremental headway towards establishing the evidence base for the claims made about Clinical Supervision

• MCSS-26© has strengthened the design capabilities of future Clinical Supervision research studies

• Software applications of mathematical models can assist strategic decision making at local level, to maximise CS efficacy
Recommendations (Implementation):

- Agree an explicit, unified and positive position on CS, that can be owned by all levels of management and staff.
- Select a single clinical location.
- Carefully identify and educationally prepare key staff as Clinical Supervisors, to the standard achieved in this pragmatic RCT.
• Recruit *all* staff in the clinical location to participate in CS, according to standard protocols (size, frequency, length, ground rules...)

• Ensure Supervisors receive their own regular efficacious Clinical Supervision (MCSS-26© ≥73)
Recommendations (Evaluation):

- Use a measure designed to evaluate the process/outcome of CS, which has established psychometric properties (eg, MCSS-26©)
- Accompany with other internationally validated measures, which tap into domains of interest (eg, MBI for staff burnout; GHQ for well-being and distress; SAQ for patient-reported outcomes)
- ‘CART-test’ CS evaluation outcome data, for likelihood of most effective operational arrangement

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References:


Royal College of Nursing of the United Kingdom (2009) Accessed from: http://www.rcn.org.uk/development/research_and_innovation/build_knowledge/nursing_research_top_50


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CONTACT:

Dr Edward White  PhD, FACMHN, FACN, MICR, FIBMS, CSci

- Director, Osman Consulting Pty Ltd, Sydney
- Conjoint Professor, School of Psychiatry, University of New South Wales, Australia
- Honorary Reader, Personal Social Services Research Unit, The University of Manchester, England

- Email:  edwardwhite@osmanconsulting.com.au
- Web:  www.osmanconsulting.com

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