

QRSTU

Quality Reliability Safety & Teamwork Unit



- **Research Unit set up in Nuffield Department of Surgery, 2004**

EBSC

- Methodology
- Surgical Trials Unit
- MSc in EBS
- KM/Decision Support

Surgical Systems analysis

- Risk Adjustment
- Continuous Performance Monitoring
- Organisational Systems Analysis

Safer Surgery

- **Theatre Teamwork**
- Lean QI on wards
- Handover studies

- **2005: major intervention project:**

Reducing error and harm in operating theatres by teamwork training.

Oxford NOTECHS: Principles and Development

- Based on aviation NOTECHS
- Tool for evaluation of non-technical skills performance of entire theatre team
- Allows separate analysis of sub-teams
- Allows contemporaneous collection of technical data by a single trained observer

Aviation
NOTECHS

Individual evaluation
Validity in surgery?



Surgical
NOTECHS

Whole team evaluation
Evidence for validity



Oxford
NOTECHS

Team & sub-team
Improved evidence for
reliability & validity

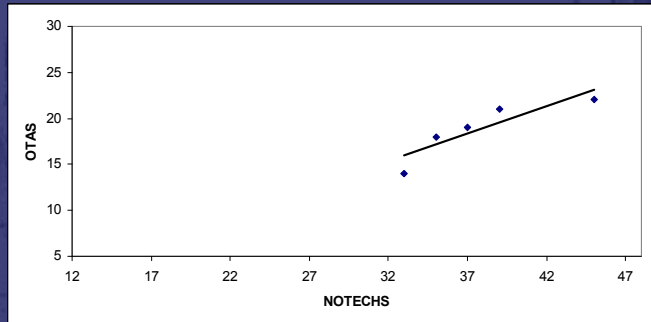
Validation + Reliability Studies

- Face and content validity

- OTAS

$r=0.886$

$P=0.046$



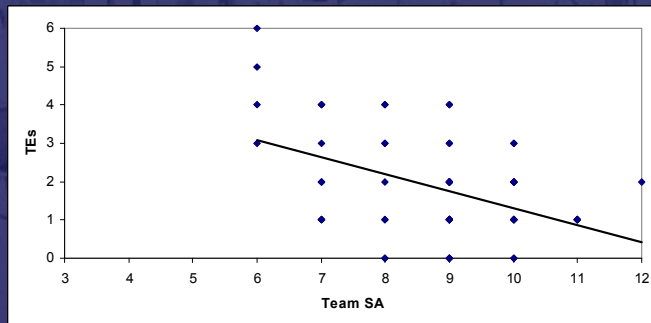
- TE

$r= - 0.215$

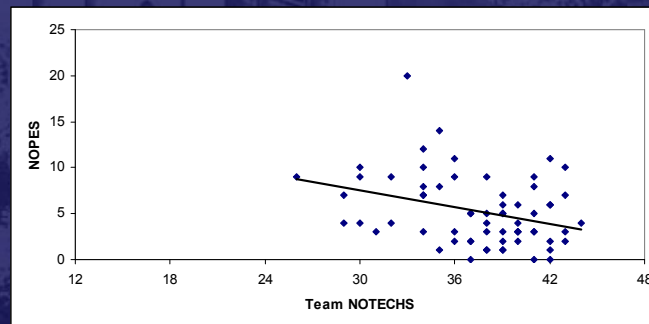
$p= 0.024$

$r(SSA) = -0.436$

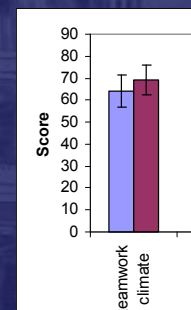
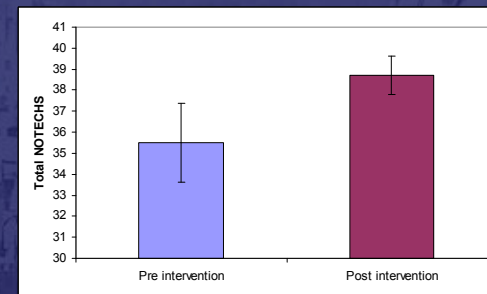
$p<0.0001$



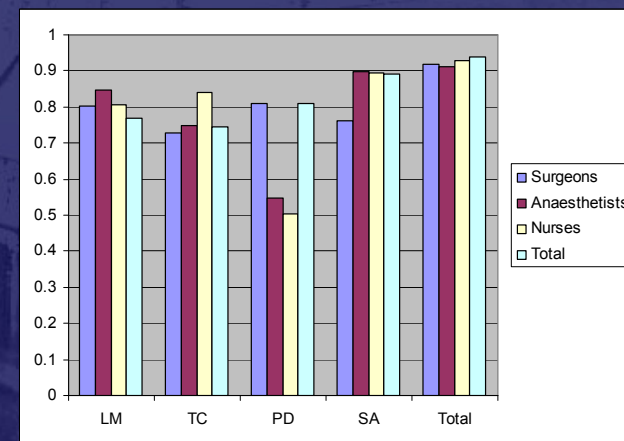
- NOPES



- Improved with Teamwork climate after training



- IOR very good



Strengths + Weaknesses

- Allows informative analysis of subgroup and subscale data
- Allows analysis of NTS performance by whole team (as part of global assessment)
- High reliability and good evidence of validity
- Allows single observer data collection
- Requires significant training
- Scalability weak – requires refinement