

FDI-IADR Seminar
Baltimore, MD
March 9, 2005



Prosthodontics Research

J. Robert Kelly, DDS, MS, DMedSc
Professor, Prosthodontics and Biomaterials
Director, Dental Clinical Research Center
University of Connecticut Health Center
Farmington, CT



Major new emphases - today

Of clinical interest - today

Upcoming - but on programs today

Concerns for tomorrow

- calling for research emphasis

Major new emphases - today

Meta Analyses of Clinical Trials

"Data is not the plural of anecdote"

Dr. Daniel Laskin



Major new emphases - today

Evidence-based criteria for:

implant supported prostheses

(John Zarb, Thomas Taylor)

direct placement resin-based composites

(Karl Leinfelder)

all-ceramic restorations

(Urs Brodbeck)

veneers

inlays/onlays

single crowns

fixed prosthodontics

(Steve Aquilino)

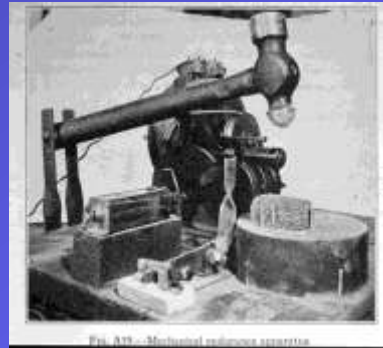
resin bonding

(Nico Creugers)

Major new emphases - today

Clinical complications in fixed prosthodontics
(Charles Goodacre)

Quality of life assessments - clinical outcomes
implant supported CD (Jocelyn Feine)
RPDs (Alan Carr)



Of clinical interest - today

CAD/CAM

Automating fabrication

(Jeorg Strub)

Enabling use of new materials (zirconia)

(Robert Kelly)

Implants

Case selection/surgical management
for esthetic soft tissue response

(Joseph Kan)

Immediate placement and loading

(Edwin McGlumphy)

Surface treatments for enhanced bone response

(Clark Stanford)

Of clinical interest - today

Automated shade taking and prescription (and closing the loop with actual prostheses)

(Jane Brewer)

Classification (chance of complications)

Complete edentulism

Partial edentulism

(Thomas McGarry)

Demographics-based assessment of future needs for treatment of complete and partial edentulism

(Chester Douglas)

Upcoming - but on programs today

Fatigue study of multi-layer structures

Damage accumulation

Lifetimes

(Van Thompson, Jason Griggs)

Disconnect between laboratory tests

and clinical behavior.

(Ken Anusavice)

Technique sensitivity and the "dentist" role in
longevity of restorations

(Karl Söderholm, Ivar Mjör)

Tissue engineering for craniofacial
repair and regeneration

(Ishiro Nishimura)

Nano technology

(Takahiro Ogawa)

Concerns for tomorrow - calling for research emphasis

Resin-dentin bond - limited duration due to action of matrix metalloproteases in degradation of collagen (in hybridized layer)

Tougher and wear resistant denture teeth for implant-supported prostheses

