

An appraisal of the papers in The International Journal of Prosthodontics.

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All slides available on: <http://www.odont.uio.no/protetik/appraisal/>

Background and aim

Evidence about effectiveness of patient treatment depends on study design¹.

The aim of the present review was to appraise the papers published in an influential refereed journal in prosthetic dentistry, i.e. *The International Journal of Prosthodontics*.

¹ Sackett DL, Richardson WS, Rosenberg W, Haynes RB. *Evidence-based Medicine*. Churchill Livingstone, 1997.

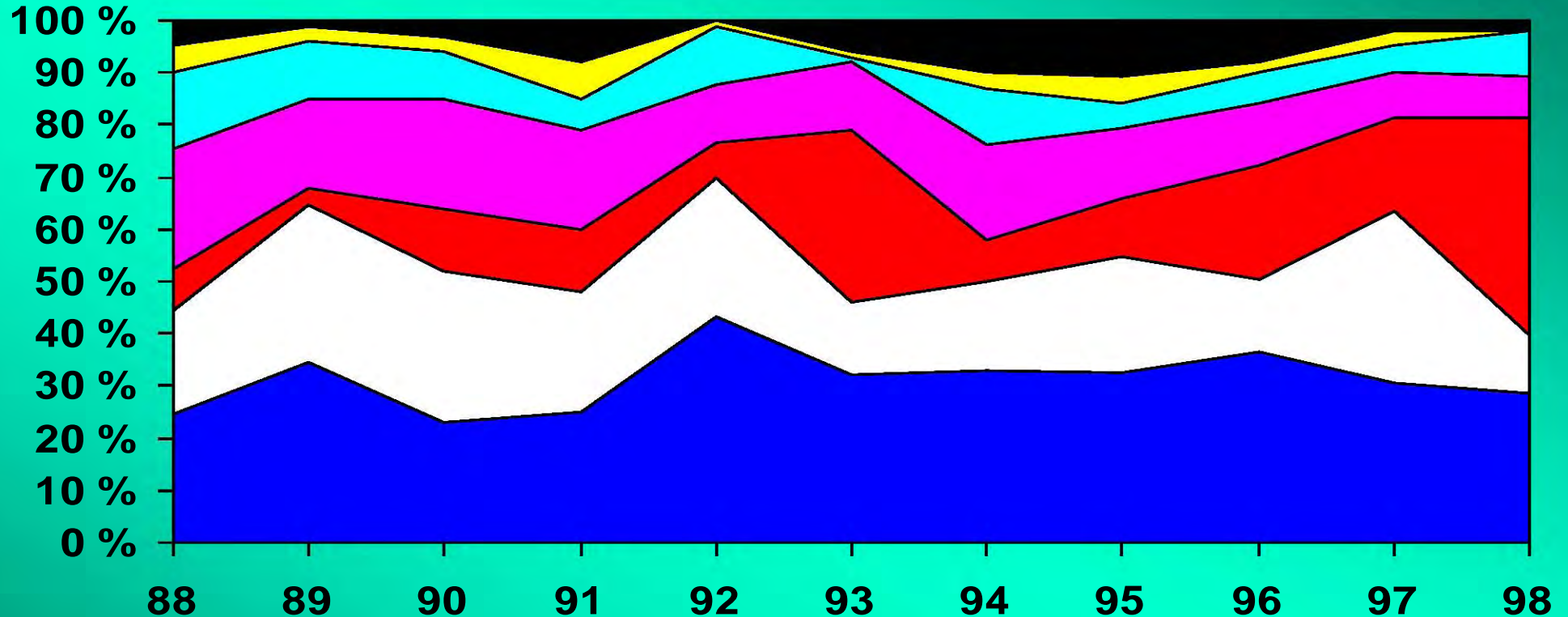
Method

All papers published in Int J Prosthodont in the period 1988-98 were categorised by:

- prosthodontic subtopic
- principal authors' address
- study aim and design
- the sample size and observation period when appropriate

The variables were crosstabulated to elucidate possible relationships.

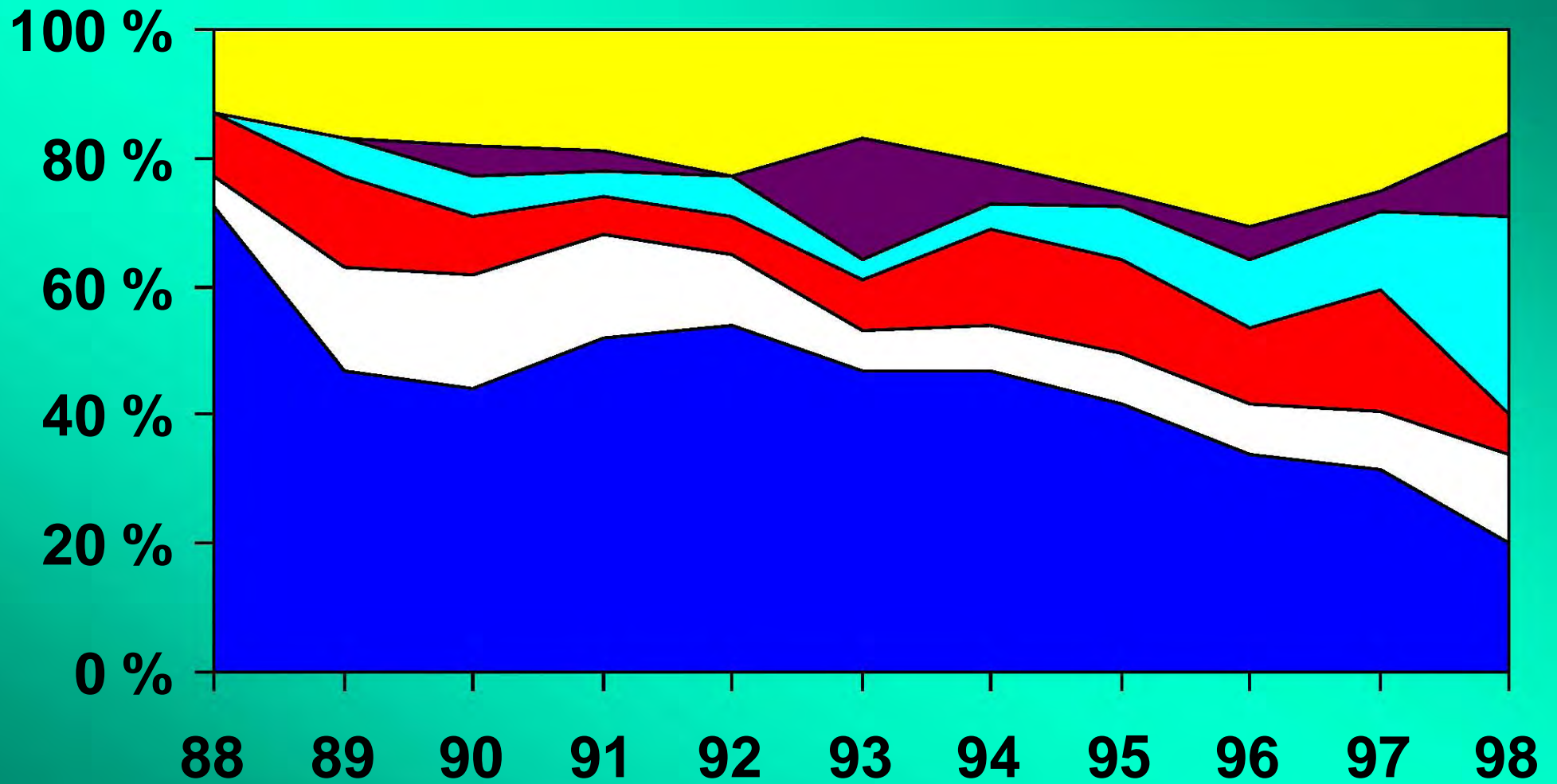
Prosthetic subtopics



■ Fixed p. (n=230)
■ Implant p. (n=116)
■ Function (n=57)
■ Non-prosthetics (n=36)

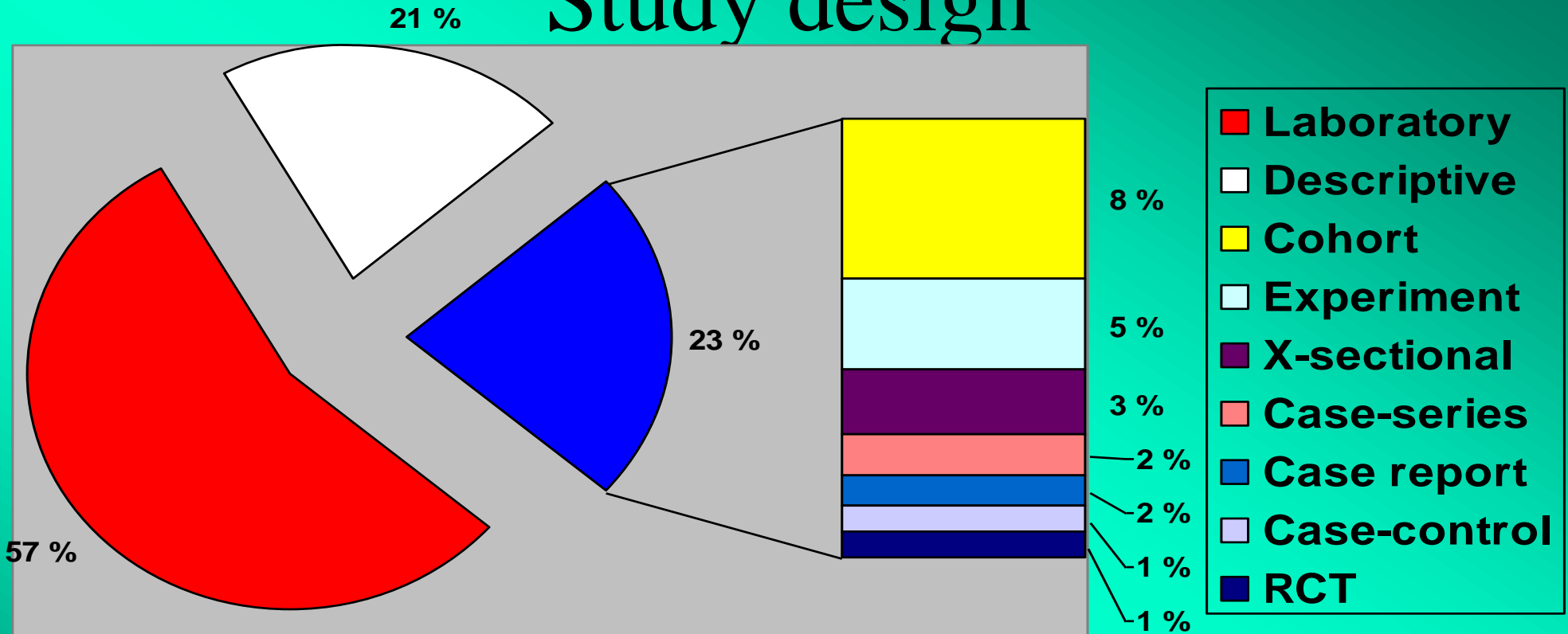
□ Removable p. (n=158)
■ Prosthetics-general (n=107)
■ Maxillofacial p. (n=21)

Contributors

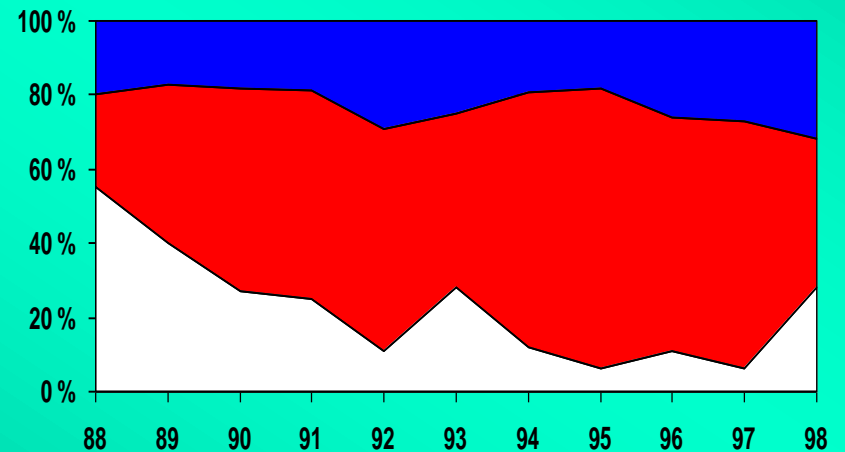


USA UK Japan Scandinavia Canada Other

Study design



Only 23% of all papers described in vivo study findings.



Clinical studies - design characteristics

	<i>Number of cohorts</i>			<i>Observation period</i>		<i>Size</i>	
	1	2	>2	span	average	span	average
Prospective (n=44)	39	2	3	48 days - 23 years	4.7 years	4 -300	56
Retrospective (n=17)	13	1	3	2 - 20 years	7.2 years	24 - 273	95
Case series (n=15)	15	-	-	3 mths - 13 years	4.4 years	8- 344	88
RCT (n=10)	-	7	3	14 days - 4 years	< 1 year	14-85	43

	<i>Size</i>	
	span	average
Cross-sectional (n=25)	13- 879	202
Experimental (n=34)	1 -79	22
Case-controll (n=10)	8- 250	95

Study aims

I. Educational (2%)

11 **Self improvement**, teaching, skill improvement, critical appraisal

II. Clinical problems (39%)

12 **Therapy** (treatment selection; efforts versus cost)

88(12%) Main focus on therapy process

47(7%) Main focus on therapy outcome

3 Main focus on esthetic appearance

2 Main focus on economic analysis

71(10%) **Prognosis**; likely course over time and complications

29 **Diagnosis**; differential; strength testing/validation, treatment need

22 **Clinical findings**; patient history gathering, examination, treatment plans

4 **Etiology**; identification of causes for disease

7 **Prevention**; screening, identification of risk factors

III. Basic sciences (59%)

228(31%) Chemistry; physics; physical-chemical properties

85(12%) Biomechanics; fit accuracy; wear; stress

29 Physiology, immunology

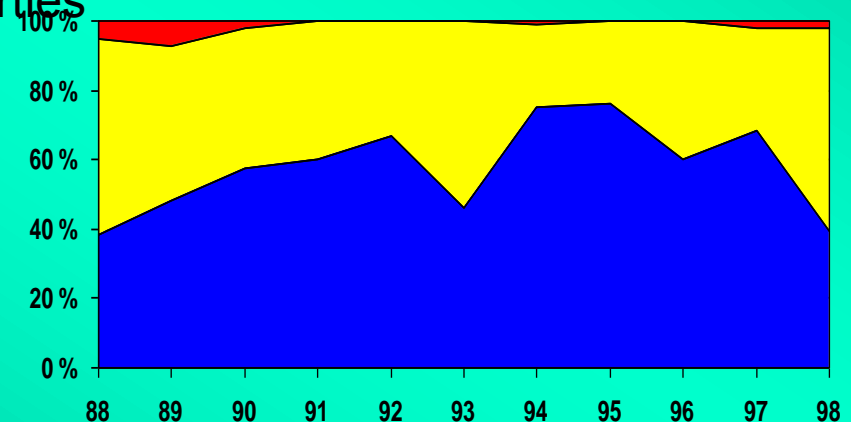
22 Optics; color

20 Hygiene; microbiology

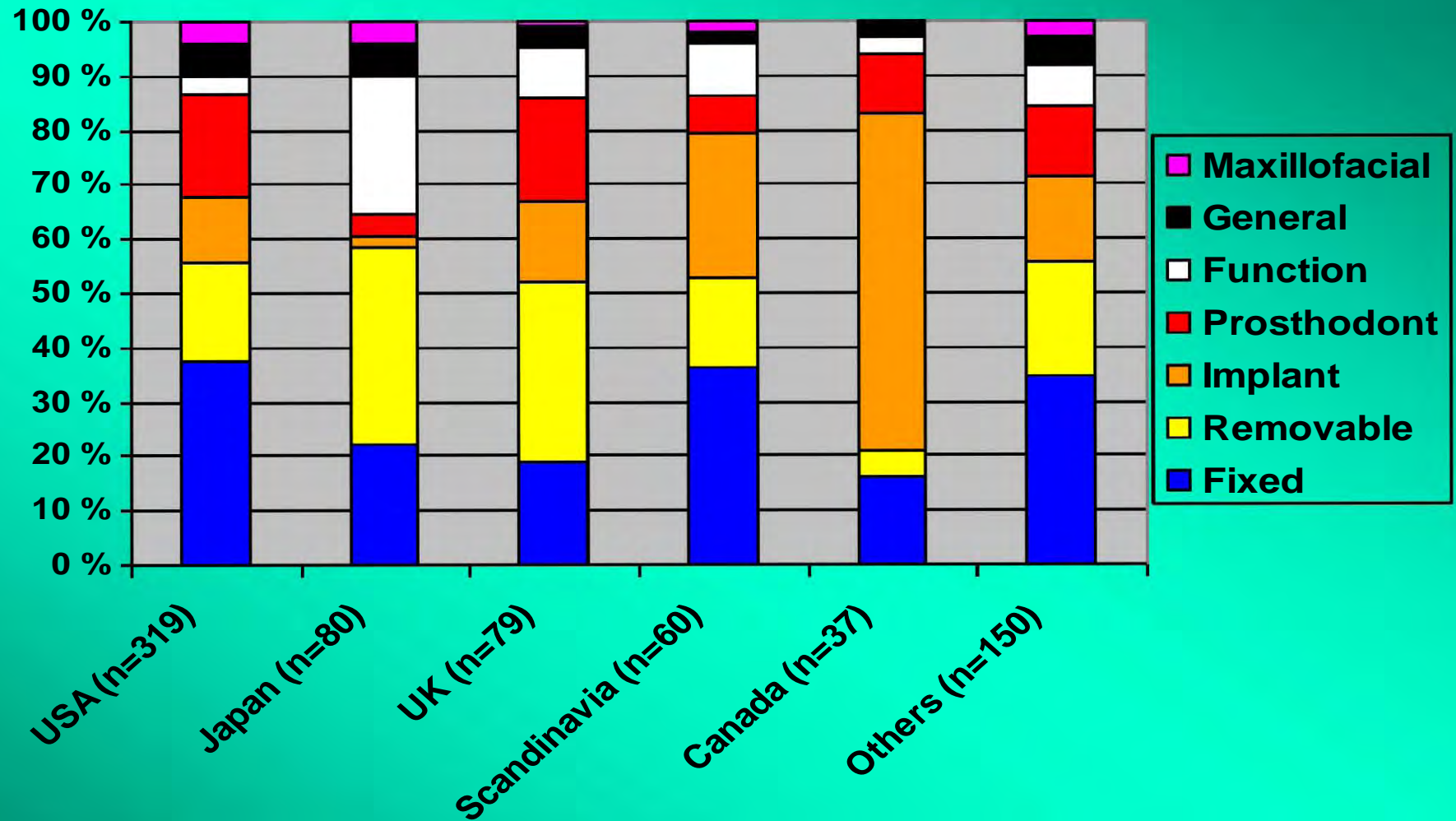
19 Biocompatibility

17 Anatomy; histology

8 Standardization; testing methods



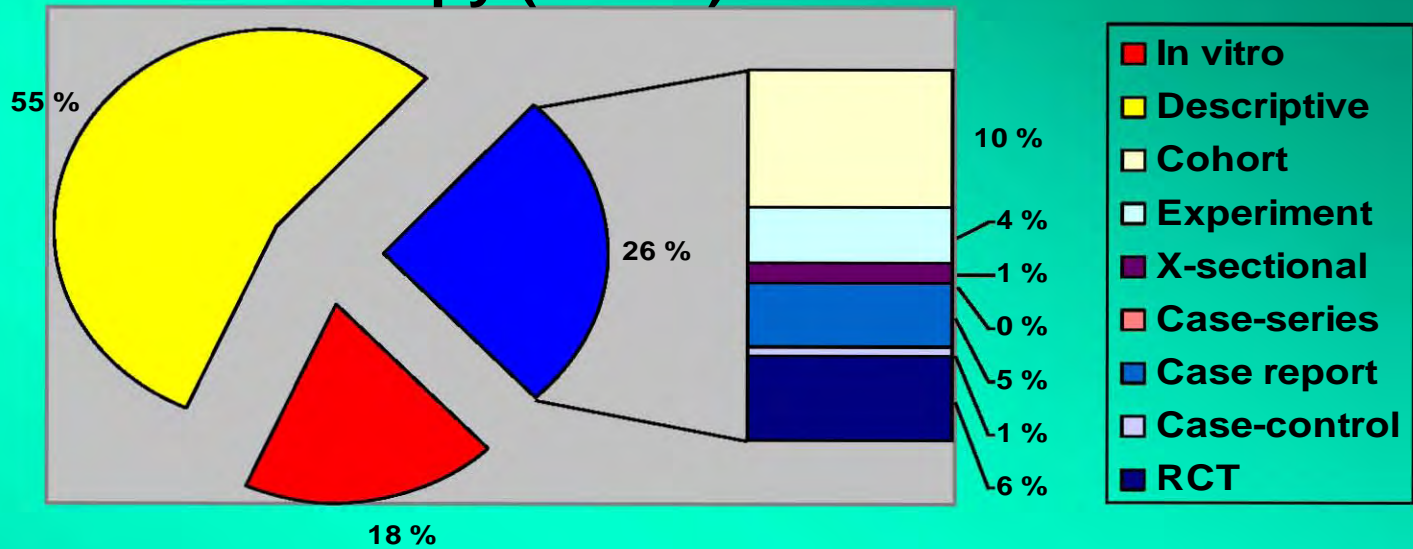
Prosthetic subtopics vs. country



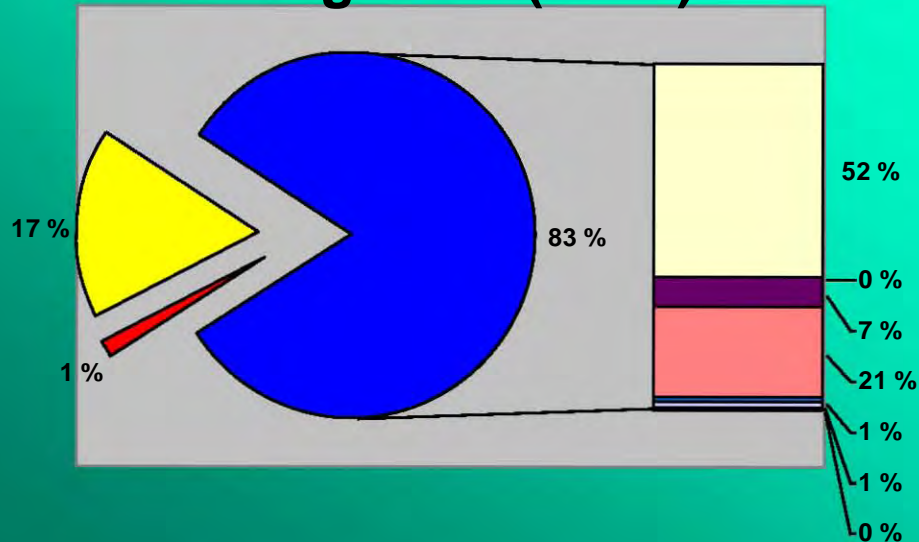
The distribution of papers within the different subtopics varied among the contributors.

Clinical problem vs. study design

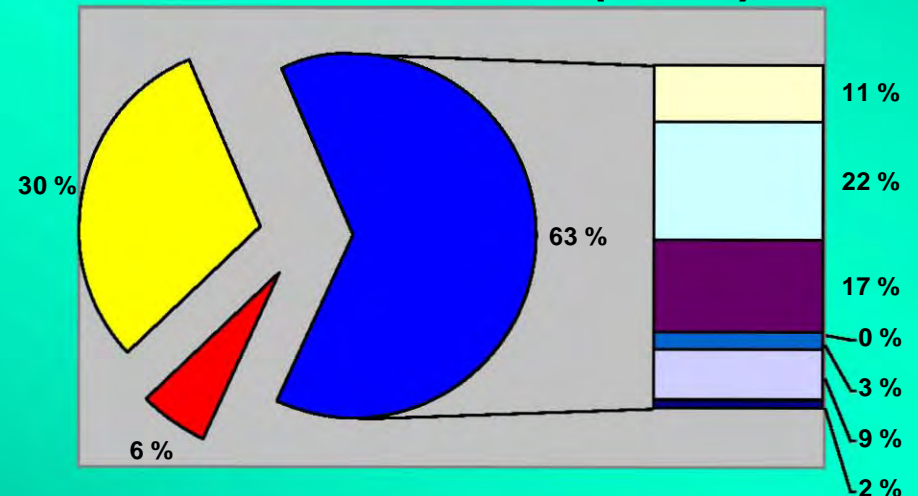
Therapy (n=152)



Prognosis (n=71)



Other clinical (n=65)



Conclusions

- Many papers describe:
 - **basic research problems**
 - **clinical studies with poor evidence of therapeutic benefits of prosthodontic treatment**
- Few papers focus on:
 - **comparative clinical studies**
 - **longitudinal clinical studies that validate treatment outcomes**
- Future appraisal of papers in other journals will show if this situation reflects the state of science of prosthodontic research.

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Thank you
for
kind attention

