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A Path Analysis of Contract and Fee-for-service Care

Veronica Johansson, Björn Axtelius, Björn Söderfeldt
Department of Oral Public Health, Malmö University, Sweden

Background

Since 1999, there are two patient financial systems in the Public Dental Health Service (PDHS) in the county of Värmland, Sweden. The traditional system is fee-for-service care (FFS), paying afterwards for provided services. The alternative system is contract care (CC), where a fixed fee is paid in advance for a fixed period of time, during which care is received without additional costs.
Previously, an association between oral health-related quality of life (OHRQoL) and financial system was found: CC enrolees had better OHRQoL than had FFS enrolees, controlling for other variables.

Aim

This study investigated if there were differences between CC and FFS in direct and indirect effects on OHRQoL, with focus on the relationships between economic factors and perception of caregiver's patient-centeredness.

Method

In 2003, a questionnaire was sent to 2,400 randomly selected patients, 1,200 in each system. Response was 57%, of which 79% had provided complete information.

OHRQoL was studied with OHIP-14. Lower scores indicated better OHRQoL.
Economic factors were studied with questions on what the enrolees were prepared to pay for dental care, and what they had paid the previous year.
Perceived patient-centeredness was studied with the Humanism Scale, assessing if the caregiver is perceived to have a holistic focus on the patient, as opposed to being focused only on the mouth and disease.
Control variables, f.ex., education, gender and health, were also included in the analysis. Here, only an excerpt from the full model is presented.

The material was analysed with multiple group path analysis, using AMOS 16.0. Due to nonnormality, bootstrap was used with Maximum Likelihood estimates. Model fit was found adequate.

Results

For FFS enrolees the perceived patient-centeredness of the caregiver was significant for increased OHRQoL, while it was non-significant for CC enrolees. On the other hand, how much the CC enrolees were prepared to pay was significant for increased scores on how patient-centered they perceived the caregiver. What the enrolee had paid for dental care the previous year significantly decreased OHRQoL in both systems, but was twice as strong in FFS.

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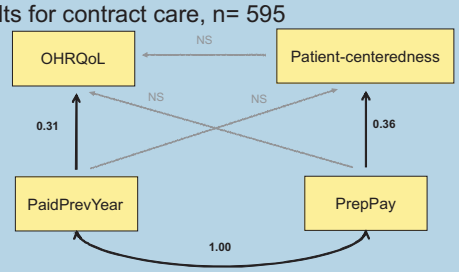
Conclusion

There were differences between the systems regarding the four variables, which seem to indicate that there were different mechanisms underlying the previously found association between OHRQoL and financial system.

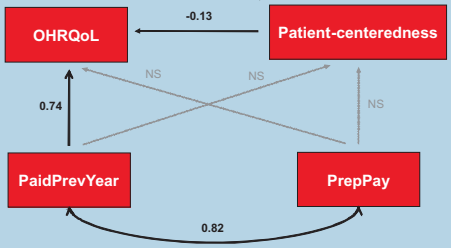
Model fit indices				
Chi²/df:	p:	GFI:	AGFI:	PGFI:
2.63	<0.001	0.954	0.915	0.517
NFI:	CFI:	RMSEA (CI):	PCLOSE:	
0.839	0.889	0.039 (0.035-0.044)	1.000	

For simplicity, control variables are not presented. Results are presented separately for contract and fee-for-service care

Results for contract care, n= 595



Results for fee-for-service care, n= 449



Short information on path analysis:
An extension of regression modeling. Path analysis does not test only direct relationships, it also considers indirect effects.

Example: X → Y → Z

X causes Y, which in turn causes Z. Y has a dual role as both dependent and independent variable, i.e., Y is a mediator. The mediator transmit some of the impact of X onto Z, i.e., even though X does not directly affect Z it has an indirect influence.

Causality is specified a priori, based on theoretical and/or empirical considerations.

In multiple group analysis, one model is simultaneously tested for two or more groups.

Contact: veronica.johansson@mah.se