

Are relational and technical quality of care related to one another?



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Docteur Sadok Besrour
en médecine familiale

A new vision for family medicine

Une nouvelle vision
de la médecine familiale



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Background



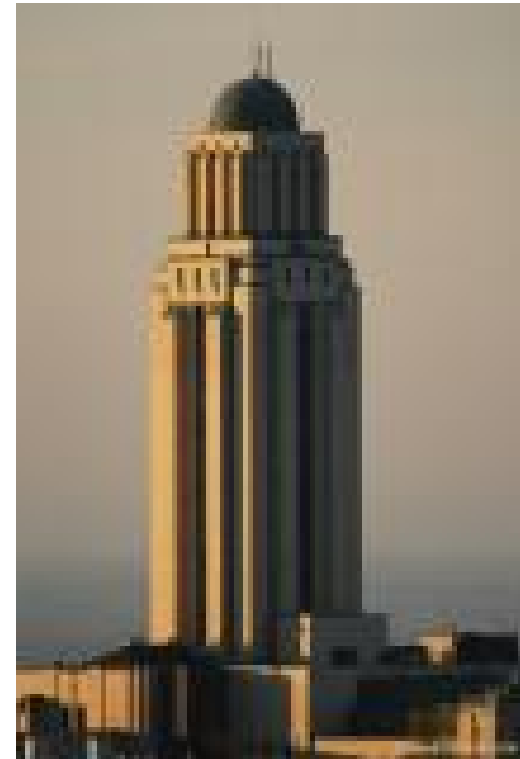
- Few studies take into account simultaneously the relational and technical aspects of quality of care

Objectives of the study

- A pilot study to explore the determinants of quality of care in patients followed for either HBP, Type II Diabetes and/or COPD in family medicine training settings

Methods

- Setting: Nine family medicine teaching units affiliated to Université de Montréal
- Participants: a convenience sample of patients followed for the past two years for one of the target conditions (50 patients per clinic)



Main Variables

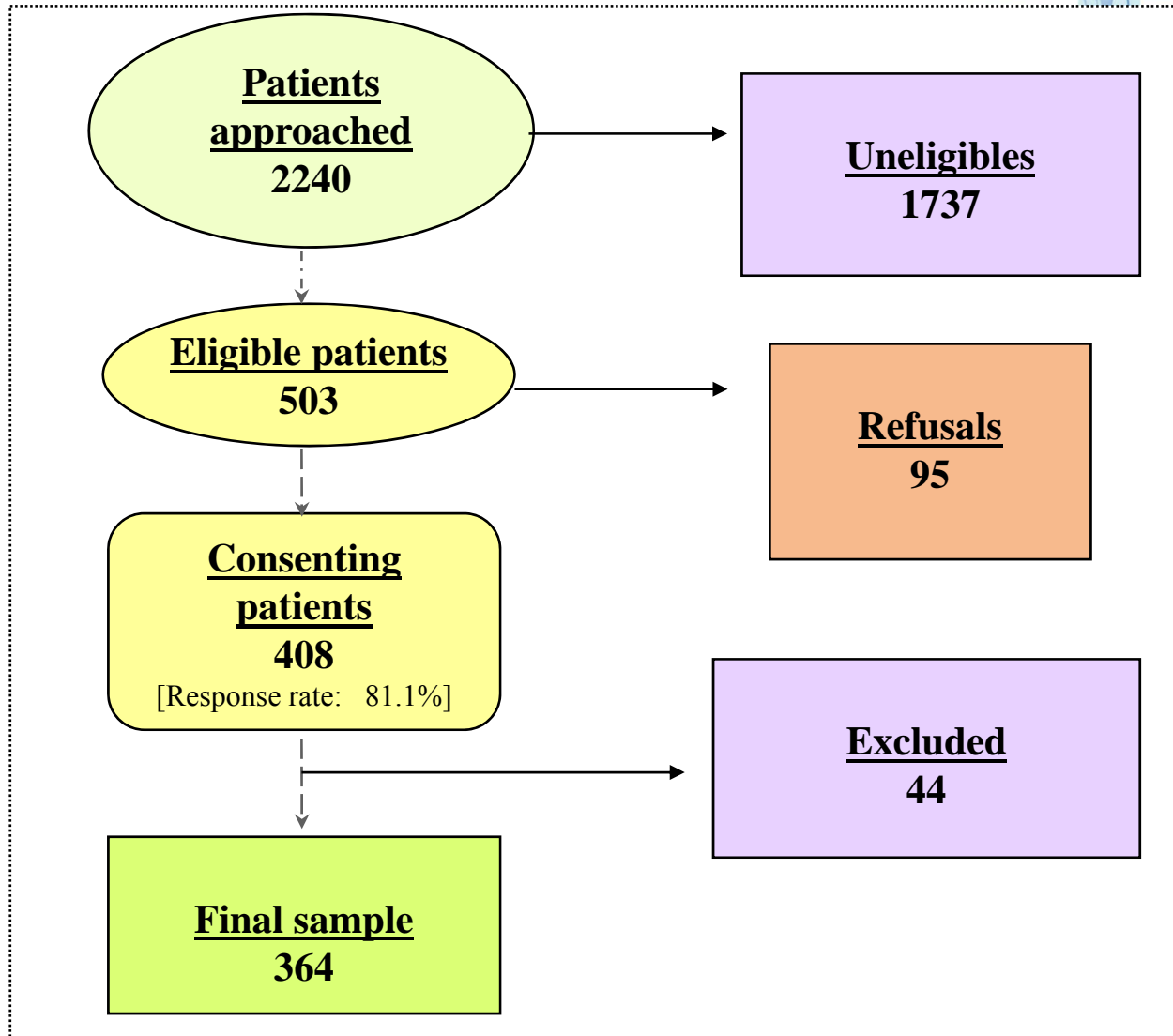
- Relational aspects of quality of care
 - PCAS' s *Accumulated Knowledge, Interpersonal Treatment, Interpersonal Communication.*
- Processes of care
 - Technical quality of care
 - Indicators based on CPGs for each condition abstracted by two trained chart abstractors (intra-class coefficient: 0.84, $p < 0,0001$)
 - Enhancement of self-care
 - Patient Assessment of Chronic Illness Care (PACIC)
- Outcomes:
 - $HBAC1 \leq 0,07$; $BP \leq 130/80$ (DB) or 140/90

Control & Independant Variables



- Patients' variables:
 - socio-demographic variables
 - SF-12
 - Psychiatric co-morbidity (chart)
 - Global burden of illnesses (from the PCAS)
- Exposure to interdisciplinary care within the clinic according to the chart
- Whether the primary care provider was a resident or a staff physician

Recruitment



Participants' characteristics



	<i>N or Mean</i>	<i>% or Range</i>
Women	219	60
Age	65	11,8
Ψ co-morbidity	145	40
Global burden of illnesses	4,7	2,7
# Diabetes	171	47
# HBP	300	82
# COPD	90	25
Physical functional capacity	41,4	12
Mental functional capacity	46,8	11
Principal PC provider a resident (n=335)	138	41,2

Patients' Experience of Care



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<i>Source: questionnaire</i>	<i>Score/ %</i>
Relational Continuity	
Accumulated knowledge	7.8/10
PTs with a majority of visit with Usual PC provider	86,5 %
Communication	
Interpersonal Communication	9.0/10
Interpersonal Treatment	9.2/10
PACIC	2,8 / 5

Processes and Outcome Indicators



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Technical Quality of Care

– <i>Diabetes</i>	66,8 %
– <i>HBP</i>	65,9 %
– <i>COPD</i>	63,3 %
– Global score	66,6 %

Outcomes of care

Diabetes

– Last HbAC1 ≤ 0.07	57,5 %
– Mean HbAC1 in the last year ≤ 0.07	57,5 %

HBP

– Last TA $\leq 140/90$ (or 130/80 if Db)	51,3 %
– Mean of the BP in the last year $\leq 140/90$ (ou 130/80 if Db)	51,3 %

Correlations between relational indicators and process indicators



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	Technical Quality (global score)	PACIC
Accumulated Knowledge	0,05	0,31 ***
Interpersonal communication and treatment	0,03	0,29 ***

*** $p < 0,001$, Pearson' coefficient

Correlations between relational indicators and outcomes



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	HBAC1 ≤ 0.07	TA $\leq 140/90$ (or 130/80 if Db)
Accumulated Knowledge	8,07 vs 7,80	7,83 vs 7,77
Interpersonal communication and treatment	9,16 vs 9,06	9,22 vs 9,01

Student's T test, $p > 0,05$

Multivariate analysis (linear regressions)



- Predictors of technical quality of care
 - Exposure to interdisciplinarity (+)
 - A resident as PC provider (+)
 - Outcomes within the targets (-)

$$R^2 = 0,20$$

Multivariate analysis (linear regressions)



- Predictors of the PACIC global score
 - Interpersonal communication and treatment (+)
 - Accumulated knowledge (+)
 - Patient gender (M > F)
 - Global burden of disease (+)
 - Education level (elementary school < others)

$$R^2 = 0,19$$

Limitations of the study

- Transversal design
- Teaching setting with high levels of perceived interpersonal communication and treatment and accumulated knowledge
- Convenience sample
- Small proportion of the variance explained

Implications of the observations



- Relational and technical quality of care may be related but they represent different aspects of quality
- The PACIC is correlated to relational aspects of quality
- The inverse association observed between outcome and technical quality measures suggests that physicians may be more reactive than proactive when they manage chronic care patients.