ASIA PACIFIC Family Medicine

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Asia Pacific Journal of Family Medicine Volume 5 Issue 3

ORIGINAL ARTICLE

Does doctor–patient stability affect the provision of good medical care?

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Accepted for publication September 19, 2006.

Abstract

Aim: To find out whether greater doctor–patient stability is associated with better provision of good medical care.

Methods: Retrospective in-depth analysis of a random sample of patient records attending a typical four-doctor group practice in New South Wales, Australia.

Results: Recording of smoking status and alcohol consumption, blood pressure measurement, influenza vaccination, diet assessment, and discussion of chronic and psychosocial health problems were more likely to occur in those with a stable doctor–patient relationship, but tetanus vaccination in adults was less likely.

Conclusions: This study adds that doctor–patient stability per se creates an environment that positively influences the doctor–patient relationship as is evidenced by the greater likelihood of performing activities that contribute to good medical care.

Key words: consultation process, continuity of care, doctor-patient stability, quality of care

Introduction

Continuity of care is considered to be a defining characteristic of family practice and implies a longitudinal relationship between patients and those who care for them. This relationship is regarded as a therapeutic one that ideally transcends multiple illness episodes and includes responsibility for preventive care and care

coordination.[1,2] These descriptions of continuity of care involve two different but related concepts – one being longitudinal stability of the doctor–patient relationship, the other being the resulting care process, which by implication is believed to result in better health outcomes.

This paper examines the relationship between these two notions and it is hypothesized that a stable doctor–patient relationship improves the care process – as documented in patient records, a proxy indicator for better health outcomes.

Method

The study was conducted in a four-doctor suburban practice on the New South Wales Central Coast, Australia. The practice is long-established (> 50 years) and the current doctors have been working there for between 5 and 22 years. The estimated practice size was 4000, with the doctors providing about 22 000 consultations per year. Power calculation determined that a sample size of 200 patients would have a reasonable chance of detecting differences in the consultation process at the 0.05 level between those with and without doctor–patient stability. Four hundred patient records were randomly selected on the assumption that only one-half of all patients would satisfy the inclusion criteria of having had at least four consultations, that is, had a minimal opportunity to engage with a preferred provider, during the study period July 1995 to June 1997. The final study population was representative of the practice population and closely matched Australian population characteristics and their utilization pattern.[3,4]

Doctor–patient stability was measured using three established indices: usual provider continuity (UPC – the most commonly seen doctor); sequential provider continuity (SECON – seeing the same provider on consecutive visits); and modified continuity index (MCI – describes the density of visits with the most commonly seen provider) as it has been argued that the type of continuity measure may influence correlations.[1] The footnote to Table 1 describes how each measure is calculated. Patients who had an arbitrarily chosen value of = 0.66 (i.e., 2/3 of all visits to the same/most commonly seen provider) on either scale were defined as having a stable doctor–patient relationship.

All consultation records were analyzed for evidence of a set of history, consultation activity and management items that had been identified during an academic panel discussion as indicators of good medical care. A test-retest approach of a random 10% sample of records analyzed demonstrated intra rater reliability of the data extraction process.

Data were analyzed using log-likelihood tests to compare the relationship of doctor–patient stability with the probability of the various consultation activities being conducted. The study was approved by the Ethics Committee of Monash University, Melbourne, Australia.

Results

The final sample comprised 254 patients (131 males, 123 females) and was larger than anticipated, representing about 6.4% of the total practice population. The mean age of the study population was 42.7 years (95% CI: 39.6–45.8; range: 0–95), a total of 3107 consultations were analyzed, and the mean consultation rate for males was 10.7 (95% CI: 9.6–11.8) and for females 13.2 (95% CI: 11.7–14.6) over the 2-year study period.

Overall a greater likelihood of specific “consultation benefits” was found for those with a stable doctor–patient relationship regardless of the stability measure used (Table 1). On all three measures, a stable relationship correlated with increased likelihood of measurements of smoking status, alcohol consumption and blood pressure being recorded, and of chronic and psychosocial health problems being discussed. Increased likelihood of diet advice being given and influenza vaccination being performed were found with two of the

stability measures. No differences were seen in relation to the recording of family histories and allergies, and the discussion of preventive health activities. Tetanus vaccination in adults was the only activity less likely to be performed for those with a stable doctor–patient relationship.

Discussion

An ongoing doctor–patient relationship is a prerequisite, but not the essence of continuity of care. Previous studies have provided indirect evidence about the benefits of an ongoing doctor–patient relationship in the general practice setting.[5–9] This in-depth analysis of consultations – as evidenced in the patient record – was conducted in retrospect without doctors' or patients' behavior having been influenced by the study. It adds that the consultation process differs subtly depending on patients' degree of doctor–patient stability. A stable doctor–patient relationship not only leads to the accumulation of knowledge, and probable understanding about the patient,[6] but also appears to change the sense of responsibility toward the patient[10] as expressed by a more complete approach to patient care.

Personal provider continuity leads to tangible benefits for patient care, especially for those with chronic and psychosocial health problems, and these benefits are present regardless of the type of continuity measure used.[1]

The findings arise from a representative analysis of patient records in a single practice population, thus they do not allow generalization. However, the strength of this study lies in its in-depth analysis of the recorded consulting behavior of all consultations over a 2-year period with patients with and without a stable doctor–patient relationship.

Conclusion

This study adds that doctor–patient stability per se creates an environment that positively influences the doctor–patient relationship as is evidenced by the greater likelihood of performing activities that contribute to good medical care.

Acknowledgments

The statistical advice given by John Hinchy, statistician, is greatly acknowledged.

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Table 1 - Contingency table: Likelihood ratios (95% CIs) of having a particular consultation activity recorded for those with a stable doctor–patient relationship

Consultation activities	Attributes of good medical care	% who had item recorded	Likelihood ratios (95%CI) UPD	SECON	MCI
History					
	family history	74.4	1.08 (0.93–1.26)	1.00 (0.86–1.15)	1.04 (0.90–1.20)
	allergies	86.6	0.99 (0.90–1.10)	1.04 (0.95–1.14)	1.06 (0.96–1.17)
Specific consultation activities					
	weight	22.8	1.49 (0.92–2.35)	1.43 (0.91–2.25)	1.78 (1.09–2.91)*
	diet	11.0	3.35 (1.32–8.53)*	1.93 (0.94–3.95)	2.60 (1.15–5.90)*
	exercise	10.6	1.73 (0.79–3.80)	1.56 (0.76–3.20)	1.48 (0.70–3.10)
	smoking	85.0	1.19 (1.06–1.34)*	1.18 (1.07–1.30)*	1.22 (1.09–1.36)*
	alcohol	77.2	1.23 (1.06–1.42)*	1.25 (1.10–1.42)*	1.26 (1.09–1.45)*
	BP	61.8	1.65 (1.31–2.08)*	1.63 (1.34–1.99)*	1.86(1.48–2.33)*
	lipid profile†	61.4	1.39 (1.00–1.95)	1.41 (1.05–1.91)*	1.37 (0.99–1.89)
	ADT‡	48.2	0.67 (0.53–0.87)*	0.61 (0.47–0.81)*	0.69 (0.53–0.88)*
	Flu-vaccination†	81.1	1.92 (0.95–3.89)	1.98 (1.16–3.37)*	2.02 (1.04–3.91)*
Management of problems					
	chronic problem	53.9	1.50 (1.26–2.15)*	1.70 (1.35–2.14)*	2.10 (1.60–2.77)*
	prevention	39.0	1.17 (0.85–1.61)	1.17 (0.86–1.60)	1.18 (0.86–1.61)
	psychosocial	25.6	2.06 (1.25–3.37)*	1.87 (1.22–2.88)*	3.16 (1.85–5.41)*

†where appropriate; ‡adult diphtheria/tetanus; *$p < 0.01$; UPC = visits to provider j/total number of visits; SECON = sum of sequential pair of visits/(number of all visits – 1); MCI = 1 – (number of different providers/[number of all visits + 0.1])

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