

Consultation Content not Consultation Length Improves Patient Satisfaction

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ABSTRACT

The suggestion that increased consultation length leads to improved patient satisfaction has some evidence, albeit uncertain. Importantly there are other determinants within the doctor-patient consultation that themselves may be responsible for this improved satisfaction and it is these we investigate in this paper. A systematic review of PubMed and associated papers was carried out using search terms 'family practice consultation length', 'general practice consultation length', 'local health authority consultation length' and 'primary care consultation length'. 590 papers were originally selected using these search terms, post scoring this number became 9. The results obtained support the idea that consultation length does not directly improve consultation outcome, but rather there are variables integrated within the consultation affecting this. Increased time purely allows a physician to implement management, particularly relating to psychosocial aspects.

Keywords: Communication, consultation, patients, time

Introduction

One of the central debates in General Practice relates to the length of the doctor-patient consultation.^[1] Some proponents believe a longer consultation to have a positive and direct influence on patient satisfaction. This is supported to some extent by recent studies, which have demonstrated that although patients are satisfied overall with care from general practice, short consultations are often cited as a concern.^[2]

Unfortunately, despite the existence of a great many studies that have looked at potential determinants,^[3,4] there is a significant difference in study methodology making their comparison difficult. Furthermore, these studies took place in a variety of countries; again this makes comparison difficult as highlighted variables in one country are not easily linked to or generalized against those in other countries.

In this paper, we hypothesize that patient satisfaction is not directly linked to consultation length, but rather consultation length is directly linked to a doctor's ability to augment their patient's perception of their own empowerment, and that it is this empowerment that leads to improved patient satisfaction; it is therefore more the consultation content than the consultation length that is important.

Achieving patient empowerment requires a doctor to address several variables - explored in this paper. Those relating to empowerment are typically offered to the patient at the opening and closing of consultations (citation) and hence easily left unaddressed in shorter consultations.

Aims

The aims of this paper are two-fold:

- Evaluate whether consultation length is directly linked to improved patient perception of care
- Evaluate variables within a consultation affecting patient perception of satisfaction.

Access this article online

Quick Response Code:



Website:
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DOI:
10.4103/2249-4863.148102

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Materials and Methods

Strategy

The authors carried out a systematic review of international papers. The search terms ‘family practice consultation length,’ ‘general practice consultation length,’ ‘local health authority consultation length’ and ‘primary care consultation length’ were used in the abstracting database PubMed. Methodological filters were used to restrict the search to systematic reviews, randomized controlled trials, controlled clinical trials, and controlled before and after studies.

Selection

Inclusion criteria were chosen to select studies investigating the patient-general practitioner (GP) consultation in which the ‘intervention’ was consultation length and comparison was of the known lengths of consultations and any consultation variables that were investigated by the paper.

Furthermore, papers were only included if one of the measured outcomes was patient satisfaction and all studies had to include one or more objectively measured process or outcome measure. Where insufficient information was present in the electronic record to make this judgment, a copy of the whole article was used. One study from the National Health Service was included to allow further comparison of current average UK consultation length.

Finally, the bibliographies of selected papers were scrutinized for potential appropriate records and if found these were included in the review. When reviewing a subject such as this, the authors appreciate the abundance of important but non-indexed results. This remains a methodological conundrum, with important findings remaining difficult to formally publish.

Extraction

Data were extracted using a standard form (available on request). Where possible, authors were approached for unpublished or missing data. Studies were included irrespective of their methodological quality, although this was assessed independently, using standard EPOC criteria. Given the heterogeneity of included studies, meta-analysis was not attempted, and results are presented narratively.

Results

Included studies

The PubMed search retrieved 590 records; 6 were selected for inclusion in the review. Two further studies also met our inclusion criteria but, following closer examination, were both excluded as they described secondary analysis of previously published work. Three further references were selected for inclusion in the review from examination of the bibliographies of selected records. Overall, a total of 9 studies were reviewed. All but 2 of these 9 studies were carried out throughout Europe; the remaining studies were carried out in Australia.

Limitations to our methodology include the oversight of papers not indexed on PubMed but that may have met scoring criteria for review. This is of particular note in the area we are investigating, with relevant papers being produced and published by Local Health Authorities worldwide, but not suitably indexed.

Current consultation lengths

Wilson and Childs discuss in their Nottingham study that within the UK, there had been a general increase in consultation length over the prevailing 20 years.^[2] Despite this, however, consultation length is still short by international standards; Deveugele *et al.* determined the international mean consultation length to be 10.7 minutes, considerably longer than the UK average of 9.4 minutes (range, 7.6-15.6 min) [See Graph 1 below].^[5]

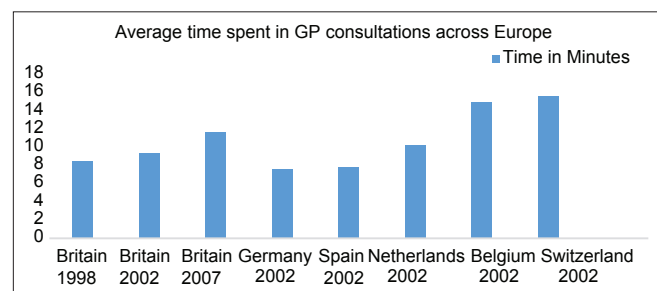
By comparing the GP work service data of 2007, the Deveugele *et al.*^[5] and the Carr-Hill *et al.*^[4] study, we can see there has been an increase in the length of the UK consultation; Carr-Hill *et al.* reported a consultation length range of 5.7 to 8.5 minutes - not even encompassing the average 9.4 minutes more recently suggested by Deveugele *et al.* nor the 2007 average of 11.7 minutes.^[4,5]

Psychological/Emotional

Ogden *et al.* investigated the rates of patient satisfaction in longer and shorter consultations across 8 UK GP practices.^[3] Patients with time constraints were understandably more satisfied with shorter consultations, however, those patients who would have preferred a longer consultation were largely dissatisfied with the emotional support they felt they had received.

Deveugele *et al.* studied ‘social talk’ within six consultations and proposed that patient satisfaction was linked to longer consultation lengths as these allowed more time for ‘social talk’ to occur. Social talk allowed more exploration of a patient’s current and previous emotional background.^[7]

Anderrson *et al.* discuss the psychosocial aspects of the patient-GP consultation and suggest they are correlated to age – in particular that older patients are more likely to require assistance in these aspects.^[1]



Graph 1: Adapted from Carr Hill, Deveugele, and NHS.^[4-6] This graph portrays the increasing GP consultation length in the UK, whilst also providing a comparison to European Union partners in 2002. The line demonstrates the average consultation length in 2002 as defined by Deveugele *et al.*^[5]

An international systematic review by Hutton and Gunn looked at 29 papers and concluded that consultations were longer when psychological problems were recorded. The authors also found some evidence of more accurate diagnosis of these psychological problems with longer consultations.^[8]

The environment in which the patient is placed during the visit to the GP can also have an effect upon patient satisfaction with doctor-patient communication.^[9]

Patient age and sex

While Deveugele *et al.* found that a longer consultation length was linked to females and older age,^[5] such a correlation was not reported in their 2003 study.^[7] They do highlight that GPs included in the 2003 study were not a random sample, but rather GPs with a specific interest in communication and not subject to a standard workload.^[7] This is a potential contributor to discrepancy among their findings in the two studies.

Ster *et al.*^[10] as well as the previously cited study by Hutton and Gunn^[8] support Deveugele *et al.*'s finding that female sex and older age demonstrated a correlation with longer consultation times.

Andersson *et al.* compliment the findings of Deveugele *et al.* as they too found that older patients were more likely to have long consultations regarding both psychological and physical health concerns in comparison to their younger counterparts who were more likely to have shorter consultations regarding physical concerns only. Additionally, they also found that women between the ages of 55 and 64 received the longest consultations and children the shortest. Individual GP consultations ranged from 4.4 to 11 minutes.^[1]

Poot *et al.*^[11] discovered that satisfaction in older patients (those over 75 years old) was actually linked to their number of co-morbidities with higher numbers resulting in more dissatisfaction. It was unclear whether this was due to underlying characteristics of the patient or whether it was due to the sheer medical complexity resulting from numerous conditions.

These findings have future implications for our aging population; indeed, Britt *et al.* concluded that they are likely to result in increase in GP times.^[12] Furthermore, rising incidences of multiple co-morbidities may have a detrimental effect on patient satisfaction.

GP age and sex

Britt *et al.*'s study involved Australian GPs and found that older and female GPs were likely to give longer consultations.^[12] This further supports the notion that the dynamics of a GP's characteristics, such as their age and sex, are relevant to consultation length.

Gp characteristics

Andersson *et al.* investigated the importance of a GP's handling of their own stress, their ability to balance contradictory concerns,

their overall productivity and the actual quality of the service they provide as variables. They found that consultation length is linked to the patient list size, doctor and patient characteristics, and the presenting health complaint.^[1]

Carr-Hill *et al.* looked at 51 GPs over 10 practices and analyzed 836 consultations. Their study highlighted substantial variation in average consultation length between practices, as this varied from 5.7 to 8.5 minutes. They also found that new partners averaged about 1 minute less than GPs who had worked at the practice longer.^[3]

Deveugele *et al.*'s 2002 paper demonstrated that GPs shorten their consultation time as the number of waiting patients increases, thus suggesting that GPs do have control over their consultation length.^[5]

Health complaints

Consultation length is affected by the number of topics discussed with the patient; there is an average increase of 1 minute for each additional topic. Due to issues such as this, Carr-Hill *et al.* suggest that a large proportion of consultation length variability can be attributed to GP, patient and practice characteristics.^[3]

Martin *et al.* performed conversation analysis of 106 consultations. Their analysis highlighted that patients with multiple chronic conditions required longer consultation lengths. One may therefore deduce that with such patients, GPs take longer to review their current (and likely complex) management plan and that they need more time to allow the patient to discuss issues, concerns and personal management methods.^[13]

Mercer *et al.*^[14] demonstrate in their Scottish study that an increase in patient satisfaction is achieved when consultation length is increased for complex consultations. This study was carried out in the most deprived area of Scotland making results difficult to extrapolate – particularly as it is known that socioeconomically deprived patients typically receive shorter consultation times.^[8] The authors also found that GP stress reduced as a result of the longer consultation; this factor could therefore be the cause of the increased patient satisfaction rather than the altered consultation length.

Voo in her Singapore-based study describes consultation length as simply being dependent on the case mix, and that this in turn determines the number of tasks; hence, the consultation length varies accordingly.^[15]

Health promotion

Wilson and Childs investigated whether health promotion would be improved in general practice if consultation lengths were increased from 7.5 minutes to under 10 minutes.^[2] This was carried out in a controlled trial over 10 practices in which they found that experimental sessions had a mean consultation time of 8.25 minutes compared to the control

times of 7.04 and 7.16 minutes. In the longer, experimental consultations blood pressure measurement, alcohol tobacco and immunization advice were more frequent.^[2] Furthermore, patients were more likely to discuss their smoking and alcohol consumption as well as previous health problems in the longer sessions. Review of the medical notes showed an increase in over 6% in discussion of the before mentioned topics of health education. In this particular study, Wilson and Childs argue that shortage of time in consultations means GPs don't fully realize their potential for health promotion and as such, they argue consultation lengths should be allowed to run for 10 minutes if necessary and without any added stress to the GP.

Speed of consultation

Howie *et al.* investigated GP consultations, one day in every 15, for one year. This involved 85 GPs and totaled 21,707 consultations. They describe GP consultation styles in 3 parameters; faster, intermediate and slower. Faster was defined as 5 minutes or less, intermediate 6-9 minutes, and slower 10 minutes or more. They found slower consultations to be associated with GPs whose style addressed more psychosocial problems relevant to the patient's care as well as longer-term health problems that were not part of the presenting complaint. These GPs also carried out more health education. Howie *et al.* also found that patients reported a higher satisfaction with these longer consultations. When doctors were pressured by heavily booked surgeries the fast: Slow ratio fell greatly.^[16]

Howie *et al.* further discuss the issue of less attention being given to psychosocial issues in consultations. Importantly they also highlight a decrease in antibiotic prescription with an increase in attention to psychosocial problems.^[16] It is important to discuss such financial and professional incentives as these could lead to doctors allocating shorter periods of time to patients in order to reach targets set.

Variables overview

Table 1: An overview of the potential variables that affect time in GP consultations

Discussion

We hypothesized consultation length would not be directly linked to patient satisfaction, but rather a myriad complex interwoven variables. The papers reviewed demonstrate many interesting results regarding determinants of the length of GP consultations, the variables within them and the effect these variables have on a patient's satisfaction of the encounter.

An increase in consultation length within the UK has been illustrated by comparing Carr-Hill *et al.*'s 1998 paper and the GP workload results of 2007.^[3] This is still behind the anecdotal length of other European countries, although reliable data suitable for inclusion within this review is lacking.

Attention to psychosocial aspects appears to be one of the variables capable of determining a link between patient

Table 1: An overview of the potential variables that affect time in GP consultations

Variable	Example	Time dependant (yes/possible/no)
Doctors characteristics	Currently stressed	Poss
	Years of qualification	N
	General attitude	Poss
Practice characteristics	Overbooked appointments	Y
	Poor administration	Poss
	Poor facilities	N
Presenting complaint	Ideas, concerns and expectations addressed	Y
	Patient physically examined	Y
	Patient given medication and advice	Y
Other health condition	Has doctor enquired about other health conditions	Y
	Has doctor reviewed other health conditions at time of consultation	Y
Age of patient	Older patients require longer	Y
Sex of patient	Women require longer consultations to be satisfied	Y
Psychosocial factors	Have these been addressed fully and completely	Y
	Has shared decision making been actively undertaken	Y

GP: General practitioner; Y: Yes; N: No; Poss: Possible

satisfaction and consultation length. However, these psychosocial aspects appear inherently linked to the patient factors of age and sex, with females and older patients requiring more psychosocial support and reporting reduced satisfaction with shorter consultation lengths. The opposite is true for younger patients.

Voo suggests someone with multiple health concerns requiring review will require a considerably longer consultation, and this has to be allowed for.^[15] This suggests that although a consultation may be increased in length due to the number or severity of the patient's presenting complaints, the length increase has no discernible effect on patient satisfaction, although increased consultation length due to further addressing psychosocial factors does improve patient satisfaction; the effect is indirect and only presents with such discussions.

GP characteristics are important in both consultation length and patient satisfaction, and often similar to those of patient characteristics; older female GPs have longer average consultation lengths. Newer health partners take less time in consultations, and GPs faced with stress or busy waiting rooms are able to reduce their consultation length, indicating that GPs are able to control consultation length to some extent. As Andersson *et al.* explains,^[1] doctor-specific factors explain 22.5% of the consultation length in comparison to 2.9% of the patient's age and 11.6% regarding the presenting complaint.

In response to our first aim, we conclude that a patient's satisfaction remains dependent on several variables, of which time is the all-encompassing variable on which most other variables are dependent. This can be understood visually by our devised model (Lemon-Smith model) [Figure 1]. This defines

factors involved in a consultation into 3 key areas. The first key area is patient factors - situated at the center of a GP consultation as age and sex are unchangeable and central.^[2-5]

Consultation factors then have a part to play in the length of the consultation, a brief follow-up for example is unlikely to take as long as a new case of a patient with multiple health concerns [Figure 2]. As a practitioner gets toward the outer levels of our diagram, they are reaching maximum patient satisfaction, with thorough exploration of a patient's psychosocial requirements – although this itself is solely based on parameters found near the center of the circle. Administrative and facility factors are often a final stage for a thoroughly satisfied patient. We propose Figure 1 (Lemon-Smith model for consultations) is used for further research analysis, looking at specific time frames for each ring to be accomplished and the levels of satisfaction applied to each level.

In response to our second aim, we argue that consultation length is not linked to consultation quality but is rather linked to a prolonged exposure to an underlying mechanism of patient enablement and empowerment. Drawing on Howie *et al.*'s finding, one may propose a simple measure of quality of care being the faster: Slower ratio and that this may be a parameter that can be used for monitoring general practice improvement.^[16]

We can also conclude that, drawing from average consultation lengths and perceived satisfaction, a crude amount of an 80 additional seconds will improve outcomes through allowing the practitioner to incorporate further health education, examination and importantly psychosocial discussion.^[2-5]

Limitations to this review include the difficulty in identifying a common definition of some search terms. Central to health care is the need for quality; indeed this is a common parameter used for studies. Until recently, it has had no universally accepted definition in relation to research protocol or outcome. This historic literature comparison of consultation length to consultation quality is dependent on the author's definition of quality – and thus subjective. Recently, the Institute of Medicine has begun to define 'improvement' (but importantly not 'quality') into six domains. While this can be broadly linked to quality, quality is an immediate perception of health standards whereas improvement is the process that must be achieved to reach an expected quality; that is, the Institute of Medicine has given six domain protocols to improve health quality. These domains are six improvement aims for the health care system: Care that is safe, effective, patient-centered, timely, efficient and equitable.

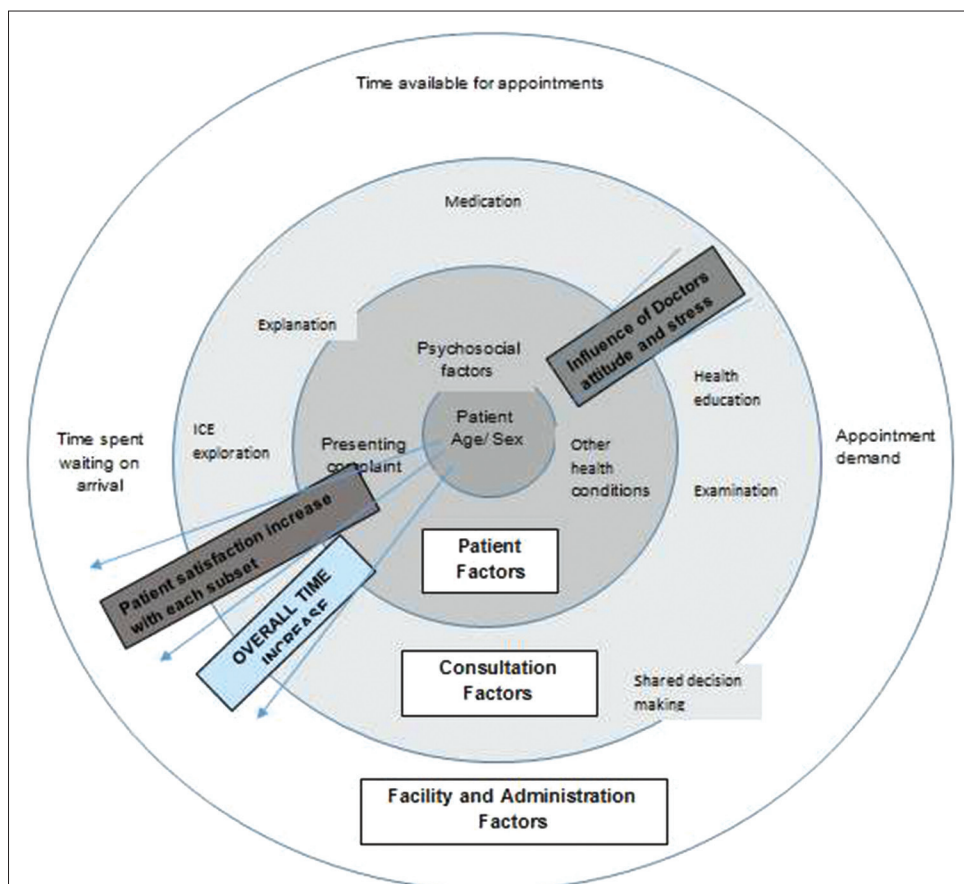


Figure 1: A model (Lemon-Smith model) demonstrating variables and how they may effect time and patient satisfaction. As the consultation progresses the doctor is able to move through the circles, and with each circle engaged patient satisfaction occurs. Administration and facilities are peripheral factors that are beyond the direct control of the physician, as are the patient factors. Thus it is the consultation factors that are the most important for a physician to engage in to ensure patient satisfaction

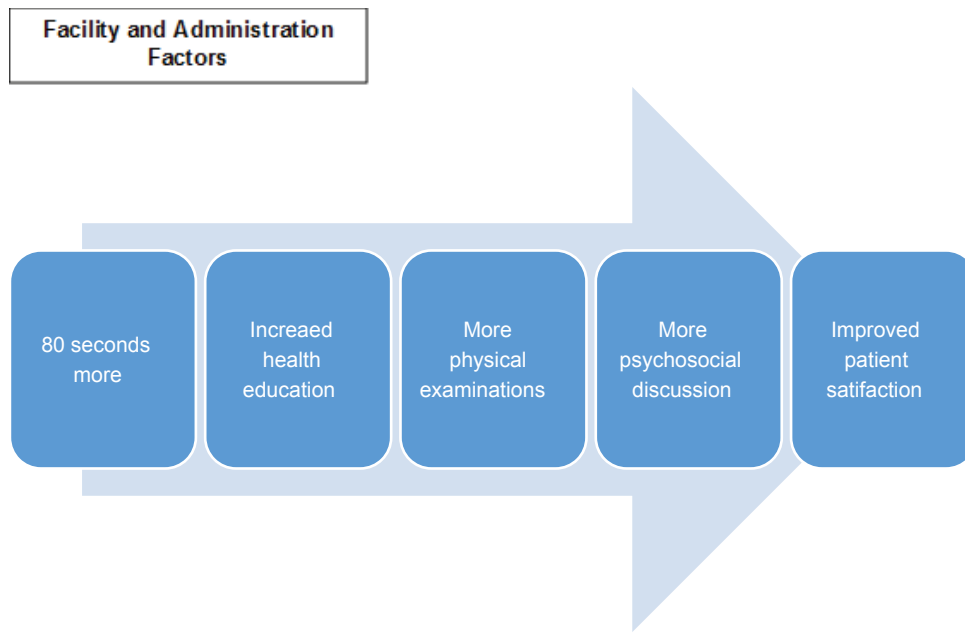


Figure 2 : A hypothetical model drawing on the studies reviewed showing how patient satisfaction is currently increased, in which we suggest an 80 second increase in consultation length would enable use of three parameters that are proven to improve patient outcomes

Patient satisfaction also has subjective limitations, as each patient has different needs and demands. Indeed extra time can sometimes not be a positive and hence skew comparative study results. It is sometimes presumed by authors that patients want longer consultations and this is what is linked to improved satisfaction, despite anecdotal evidence arguing against this in the majority of younger patient cases.

Conclusion

There is a belief that increased consultation length to a terminal point improves patient satisfaction. We have comprehensively argued that it is in fact not the length of time that is the variable responsible for improving patient satisfaction, but the exploration of a patient's psychosocial factors. This exploration acts as a mechanism for patient empowerment, and thus results in improved patient satisfaction. The effect of increased time is simply that the physician is more likely to explore such factors. We therefore propose that thorough exploration of all patients' psychosocial needs is carried out within all consultations to ensure best practice.

Further work would be of benefit, in particular a study that investigates newly presenting patients with a specific symptom in a specific age range and measuring the consultation length and patient satisfaction using the same protocol parameters, while using GPs trained at the same institution and with similar characteristics.

We acknowledge and greatly appreciate the inputs of Professor Adrian Edwards, Cardiff University for his considerable contribution and advice in the early stages of this review.

**Authors have equal standing.*

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How to cite this article: Lemon TI, Smith RH. Consultation content not consultation length improves patient satisfaction. *J Fam Med Primary Care* 2014;3:333-9.

Source of Support: Nil. **Conflict of Interest:** None declared.