

# Do the attitudes and beliefs of young teenagers towards general practice influence actual consultation behaviour?

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## SUMMARY

**Background.** Teenagers are believed to have health concerns that are not adequately addressed in primary care because of perceived barriers that inhibit them from consulting a general practitioner (GP). We report the results of a study examining links between potential attitudinal barriers and actual help-seeking behaviour.

**Aim.** To determine whether the attitudes of teenagers towards general practice are associated with differences in consultation patterns.

**Method.** Results of a postal questionnaire survey of attitudes to general practice, performed among teenage patients aged 13 to 15 years registered with five general practices in the East Midlands, were analysed in relation to consultation data from retrospective casenote analysis for the preceding 12 months.

**Results.** Matched questionnaire and consultation data were available for 678 teenagers. We found few significant differences in overall consultation rates between teenagers expressing differing attitudes about aspects of general practice. Differences did exist in relation to perceived difficulty in getting an appointment, feeling able to confide in a GP, and perception of adequate time being given in the consultation. Fear of embarrassment was associated with lower consultation rates for gynaecological problems and contraception.

**Conclusions.** Negative perceptions of general practice by teenagers may have less of an influence on actual consultation behaviour than previously believed. However, there are some aspects of care that merit further attention if teenagers are to feel able to consult their GP more easily.

**Keywords:** adolescent health; adolescent attitudes; consultations.

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## Introduction

Teenagers are recognised as having health concerns that are not adequately addressed by healthcare professionals.<sup>1-4</sup> There has therefore been growing interest in understanding perceived barriers to accessing services so that alternative models of health care can be provided. Potential barriers include the attitudes and beliefs of the teenagers themselves, the characteristics of the services provided, and the attitudes and behaviour of health professionals involved. Aspects of care that have been shown to be important to teenagers in previous surveys include the perceived attitudes of reception staff, privacy of the reception area, difficulty getting an appointment, waiting times before being seen, duration of the consultation, attitudes of the doctor, concerns about confidentiality, and fear of embarrassment.<sup>5-7</sup>

Previous research into teenagers and general practice has been conducted in one of two ways: cross-sectional surveys or interviews with teenagers providing evidence of the opinions that they hold and insight into their concerns;<sup>1,5-8</sup> or analysis of consultation patterns, offering insight into actual general practice utilisation.<sup>9,10</sup> The aim of the current study was to combine both strategies in an attempt to gain a greater understanding of the impact of teenagers' attitudes on consultation behaviour. Specifically, we wanted to know whether teenagers expressing opposite attitudes differed significantly in their overall consultation patterns.

## Method

### Study design

A cross-sectional postal questionnaire survey was performed among 13- to 15-year-old teenagers registered with general practices in the East Midlands. Consultation data for these teenagers for the previous 12 months were obtained from medical records. The study received local research ethical committee approval.

### Practices and patients

The study was carried out in five group practices in the East Midlands that were selected opportunistically on the basis of personal contact and willingness to participate. None of the practices had current health promotion initiatives aimed specifically at young people and all were located in different settings: two in inner-city areas, one in a rural setting, and the other two in semi-urban settings. All registered patients aged between 13 and 15 years, inclusive, at the sampling date were included, with the exception of patients known to have significant learning difficulties or special needs.

### Postal questionnaire survey

The postal questionnaire incorporated a range of questions about health attitudes, behaviours, and concerns. Attitudinal questions consisted of statements to which responses of 'agree', 'disagree', and 'not sure' were invited. Some statements were adapted from the Surgery Satisfaction Questionnaire.<sup>11</sup> The questionnaire was piloted among 13- to 14-year-old pupils in a mixed comprehensive school, with minor modifications incorporated into the final

version as a result. Prior to the survey, parents or guardians were sent a letter explaining the purpose of the study and allowing them to request further information or 'opt out' if desired. A £4 gift voucher was offered for all returned completed questionnaires.

### Consultation rates

Details of all recorded face-to-face contacts between the teenager and a primary health care professional working in the general practice setting over the previous 12 months were extracted from manual and computerised records. Specified reasons for consultation were coded into broad categories. In order to account for multiple consultations for the same problem, and for multiple problem categories in the same consultation, analysis of consultations according to category was performed on an 'ever' or 'never' basis.

### Data entry and analysis

Data were numerically coded and double entered onto an EpiInfo database, with cross-file verification. Analyses were performed using SPSS for Windows (Release 6.1.3) and Stata (Version 5.0).

Principal analyses consisted of comparison of overall consultation rates against sex, practice, and attitudinal responses. All statistical tests were two-sided and carried out at the 5% significance level. Ninety-five per cent confidence intervals were calculated where appropriate. A chi-squared test was used to compare categorical data. Poisson regression analysis was used to calculate incidence rate ratios (IRR) comparing annual consultation rates of groups of teenagers giving different attitudinal responses, adjusting for sex and practice as potential confounding variables. An IRR greater than 1 demonstrates that a particular group had a higher annual consultation rate than the comparison group and vice versa. Logistic regression analysis was used to compare groups in relation to whether or not they had ever attended for specific conditions during the index year, with results presented as odds ratios (ORs).

## Results

### Postal questionnaire response rate

Eight hundred and eighty-six teenagers were sent questionnaires and 713 (80.5%) responded. Of the remainder, seven were returned because the patient was no longer at the registered address. Three parents declined permission for their child to participate. The response rate from girls was 85% compared with 76.1% from boys (difference = 8.9%, 95% CI = 3.7%–14.1%). Response rates from different practices ranged from 70.4% to 85.1% ( $\chi^2 = 17.6$ ,  $df = 4$ ,  $P = 0.001$ ).

### Consultation data

The medical records of 836 (94.4%) teenagers were examined, with the remainder being unavailable or incomplete for the relevant 12-month period. Matched consultation and questionnaire data were available for 678 teenagers (76.5%). There were no significant differences in overall consultation rates between questionnaire responders and non-responders.

Table 1 shows the distribution of annual consultation rates among those teenagers whose medical records were examined: the median consultation rate was 1; 27.8% of teenagers had no recorded consultations; and 20.3% had four or more consultations over the 12-month period, with a maximum of 18. Girls had significantly higher annual consultation rates than boys. Table 2 shows recorded reasons for consultation with respiratory and dermatological problems being the most common. Among 'uro-genital conditions', 23 (5.2%) girls had consulted for contraceptive purposes.

**Table 1.** Annual consultation frequency in relation to gender.

Number of consultations	Boys n (%)	Girls n (%)	All n (%)
0	132 (30.8)	100 (24.5)	232 (27.8)
1	121 (28.3)	90 (22.1)	211 (25.2)
2	62 (14.5)	74 (18.1)	136 (16.3)
3	50 (11.7)	37 (9.1)	87 (10.4)
>4	63 (14.7)	107 (26.2)	170 (20.3)
Total	428	408	836

Difference between males and females:  $\chi^2 = 22.9$ ,  $df = 4$ ,  $P < 0.001$ .

### Attitudes to the practice and medical care

Responses to attitudinal questions about the practice and medical care provision are shown in Table 3. The most negative attitudes concerned privacy of the reception area and the ability to confide in the general practitioner (GP) about very personal things. Girls expressed more negative attitudes to their practice than boys. They were significantly less likely to agree that:

- they were satisfied with the care provided (difference = 9%, 95% CI = 2.4%–15.8%);
- they could talk to the doctor about very personal things (difference = 10.5%, 95% CI = 4.1%–16.9%); or
- the doctor took them seriously (difference = 15.3%, 95% CI = 8.8%–21.7%).

They were more likely to report that getting to the doctor could be difficult for them (difference = 6%, 95% CI = 1.3%–10.7%).

Table 3 also shows the overall consultation rates of teenagers in relation to their expressed attitudes. The association between uncertainty ('not sure') and lower consultation rates for a number of factors reflects lack of experience on which to base perceptions and is to be expected. Statistically significant differences in consultation rates between teenagers expressing opposing views ('agree' versus 'disagree') were found in relation to difficulty getting an appointment, feeling able to talk to the doctor about personal things, and perceived adequacy of time in the consultation.

We performed separate analyses of self-reported attitudes against consultation for potentially sensitive problems. Girls who consulted for contraception were more likely to agree that it was difficult to get an appointment (OR = 3.03, 95% CI = 1.06–8.33,  $P = 0.037$ ) and were also less likely to report being satisfied with care (OR = 0.32, 95% CI = 0.12–0.83,  $P = 0.029$ ) than those who did not. There were no other statistically significant associations.

### Attitudes to confidentiality and embarrassment

Teenagers were asked to indicate their agreement or otherwise with a series of statements about confidentiality. Confidentiality was explained as follows: 'What you tell your doctor should not be discussed with other people without you knowing.' Six hundred and forty-nine (91.8%) responders agreed with the statement that doctors should keep everything they are told confidential. However, only about two-thirds believed that their GP did actually keep everything they are told confidential, with most of the remainder being uncertain. Responses to the remaining questions are shown in Table 4.

The only significant difference between sexes was in relation to the question about embarrassment: 206 (46.9%) girls agreed that they might not be able to talk to a doctor about problems because of embarrassment compared with 176 (39.3%) boys (difference = 7.8%, 95% CI = 0.5%–15.0%).

Table 4 also shows overall consultation rates in relation to question responses. There were no significant associations

**Table 2.** Reasons for consultation: teenagers consulting at least once for particular conditions (n = 836).<sup>a</sup>

Consultation category	n (%)
Respiratory conditions (including asthma and upper/lower respiratory tract infections)	293 (35.1)
Dermatological conditions (including acne and eczema)	242 (28.9)
Musculoskeletal conditions (including trauma, sports injuries, and joint problems)	185 (22.1)
Otorhinological conditions (including rhinitis, otalgia, and ear infections)	147 (17.6)
Urogenital conditions (including menstrual disorders, urinary disorders, and contraception)	82 (9.8)
Gastrointestinal conditions (including abdominal pain, diarrhoea, and vomiting)	70 (8.4)
Psychological conditions (including emotional, behavioural, and sleep problems)	38 (4.5)
Ophthalmic conditions (including conjunctivitis and visual problems)	35 (4.2)
Miscellaneous conditions (any not covered elsewhere)	118 (14.1)

<sup>a</sup>Based on all teenagers for whom consultation data were available.

**Table 3.** Associations between attitudinal responses to statements about general practice and mean annual consultation rates controlling for sex and practice.<sup>a</sup>

Statement (n)	Response	Percentage	ACR <sup>b</sup>		IRR <sup>c</sup>	95% CI	P-value
			Mean	Median			
My doctor's surgery is modern and up-to-date (675)	Agree	76.6	2.2	1	1	-	-
	Disagree	4.3	2.6	2	1.17	0.92-1.48	0.194
	Not sure	19.1	2	1	0.91	0.79-1.05	0.186
The receptionists at the surgery are always friendly and helpful (675)	Agree	67.6	2.3	1	1	-	-
	Disagree	12.6	2.4	2	1.06	0.92-1.24	0.403
	Not sure	19.8	1.7	1	0.75	0.65-0.87	<0.001
The surgery is private enough to talk to the receptionist (674)	Agree	16.5	2.3	1	1	-	-
	Disagree	60.7	2.1	1	0.93	0.8-1.07	0.307
	Not sure	22.8	2.2	1	0.95	0.8-1.12	0.514
If I go to the surgery I will always have to wait a long time (673)	Agree	38.3	2.2	1	1	-	-
	Disagree	38.3	2.2	1	0.96	0.85-1.08	0.475
	Not sure	23.3	2.1	1	0.88	0.76-1.01	0.061
It can be difficult to get through to the surgery by telephone (673)	Agree	17.2	2.5	1.5	1	-	-
	Disagree	51.6	2.2	2	0.96	0.83-1.1	0.555
	Not sure	31.2	1.9	1	0.83	0.71-0.96	0.016
I am always satisfied with the care I get at my doctor's surgery (672)	Agree	69.7	2.1	1	1	-	-
	Disagree	14.9	2.5	2	1.15	1-1.33	0.051
	Not sure	15.5	2.1	1	0.94	0.81-1.08	0.377
It can be hard to get an appointment to see the doctor (671)	Agree	31.2	2.6	2	1	-	-
	Disagree	43.9	2.1	1	0.84	0.75-0.94	0.004
	Not sure	24.9	1.7	1	0.68	0.59-0.78	<0.001
Getting to my doctor's surgery can be a problem for me (674)	Agree	11.6	2	1	1	-	-
	Disagree	83.4	2.2	1	1.14	0.97-1.35	0.115
	Not sure	5	1.7	1	0.83	0.62-1.13	0.239
I feel able to talk to the doctor about very personal things (674)	Agree	26	2.5	2	1	-	-
	Disagree	40.9	2.1	1	0.82	0.72-0.93	0.002
	Not sure	33.1	2	1	0.8	0.7-0.91	0.001
I feel the doctor takes me seriously (674)	Agree	71.1	2.2	1	1	-	-
	Disagree	6.2	2.6	2	1.12	0.92-1.37	0.266
	Not sure	22.1	2	1	0.87	0.76-0.99	0.032
When I see the doctor I am given enough time to talk about everything I want (673)	Agree	63.3	2.3	1	1	-	-
	Disagree	16	1.9	1	0.8	0.68-0.93	0.003
	Not sure	20.7	1.9	1	0.8	0.7-0.92	0.002

<sup>a</sup>Poisson regression analysis; <sup>b</sup>annual consultation rate; <sup>c</sup>incidence rate ratio, adjusted for sex and practice.

between positive or negative attitudes and overall consultation rates. Further analysis was performed to determine whether such attitudes influenced consultation for potentially sensitive problems, as above. Teenagers who consulted for psychological problems were more likely to agree that they 'might not be willing to tell their GP about some health problems because they were afraid of other people finding out' (OR = 2.5, 95% CI = 1.15-5.26). A similar, but non-significant, trend was observed in

relation to discussion of emotional problems. Girls who expressed concern about embarrassment were less likely to have consulted for any gynaecological problem (including contraception) (OR = 0.49, 95% CI = 0.25-0.97, *P* = 0.040) with a similar trend in relation to consultations specifically for contraception. There were no other statistically significant associations between consultations for sensitive problems and attitudes towards confidentiality and embarrassment.

**Table 4.** Associations between attitudinal responses to statements about confidentiality and embarrassment and mean annual consultation rates controlling for sex and practice.<sup>a</sup>

Statement (n)	Response	Percentage	ACR <sup>b</sup>		IRR <sup>c</sup>	95% CI	P-value
			Mean	Median			
I might not tell my GP about some health problems because I would worry about other people finding out (673)	Agree	22.3	2.1	1	1	-	-
	Disagree	60.8	2.1	1	0.97	0.85-1.11	0.656
	Not sure	16.9	5.5	2	1.12	0.95-1.31	0.167
I might not want to tell my GP about emotional problems because I would worry about other people finding out (670)	Agree	21.3	2	1	1	-	-
	Disagree	54.9	2.2	1	1.11	0.98-1.28	0.1
	Not sure	23.7	2.2	1	1.08	0.92-1.26	0.340
I might be too embarrassed to talk to my GP about my problems (673)	Agree	43.1	2.2	1	1	-	-
	Disagree	33	2.1	1	0.96	0.85-1.08	0.465
	Not sure	23.9	2.2	1	0.96	0.84-1.09	0.499
I might not go see my doctor about all my health problems because I do not trust him/her (650)	Agree	6.1	1.7	1	1	-	-
	Disagree	82.9	2.2	1	1.2	0.93-1.53	0.154
	Not sure	11	2.5	2	1.3	0.98-1.72	0.073

<sup>a</sup>Poisson regression analysis; <sup>b</sup>annual consultation rate; <sup>c</sup>incidence rate ratio, adjusted for sex and practice.

## Discussion

To our knowledge, this is the first published study to attempt to evaluate the influence of the attitudes of teenagers with respect to general practice on actual consultation behaviour. The purpose was to try to determine the extent to which particular attitudes or beliefs act as barriers to primary health care. Our findings suggest that they may be less of an actual barrier than previously believed among this population.

The study was conducted among teenagers aged 13 to 15 years, since people in this age group are believed to have significant health concerns that are not addressed. They are also developing in terms of personal autonomy, while not yet being fully autonomous with respect to the law.<sup>12</sup>

We acknowledge that there are a number of potential limitations to the study design. First, among the age group studied parental influence may be an overriding factor that could not be directly taken into account. However, we performed an analysis based on the 143 (20%) responders who reported that they had gone into the consultation alone on the most recent occasion and there were no significant differences in attitudes or consultation patterns between this subgroup and the whole sample.

The practices in the study were selected opportunistically. Although they were not undertaking specific teenage interventions over the period studied, a prior interest in teenage health was evidenced by their willingness to participate. Thus, the views expressed by their teenage patients may be unrepresentative of the whole teenage population: these practices could be providing better teenage care than average practices with consequent satisfaction higher and the effect of any potential 'barriers' diminished. However, the fact that a wide range of attitudes were expressed by the teenagers, and many had only limited contact with the practices over the period of the study, might suggest that such an effect would be minimal.

To undertake the study it was necessary to use general practice registered lists as the sampling frame and carry out a postal questionnaire survey. This approach has potential disadvantages in terms of problems of differential response bias and lack of control over the setting in which the questionnaire is completed. To reduce the former problem an inducement in the form of a gift voucher was used to maximise response rates. The potential effect of such an inducement on individual responses to questions must be acknowledged, particularly as it may have encouraged more positive attitudinal responses than otherwise.

However, the results obtained in our survey (for example, with respect to self-reported smoking rates) were similar to those from surveys performed in other settings, suggesting that such an effect was minimal. We also examined consultation patterns of questionnaire responders and non-responders and found no significant differences between the groups. In addition, we examined questionnaire responses of those who reported having received help in completing it with those who did not and found no significant differences in reported attitudes between the groups.

Finally, the retrospective nature of the study means that the associations found cannot necessarily be interpreted as demonstrating causality between attitudes and behaviours. However, we have attempted to interpret our findings in this context. Further research could be performed to determine the stability of teenagers' attitudes over time and the influence of experience on them.

Our findings confirm the concerns that teenagers have expressed in previous research. The most prevalent negative views about general practice in this study concerned privacy of the surgery reception area and waiting times to be seen for appointments. However, the fact that there was no association between the expression of these concerns and actual consultation behaviour suggests that they are only a minimal or theoretical barrier to health care.

The association between perceived difficulty getting an appointment and consultation rates does not reflect a barrier to health care since the association is in the opposite direction to that which would be expected. Instead it is consistent with the probability that teenagers who attend more frequently are more likely to have had difficulty obtaining an appointment in the past and their belief is therefore based on experience. Perceived difficulty getting an appointment may act as a barrier to health care for specific problems and our findings suggest that this might be true in relation to contraception, where the need for emergency contraception requires accessible health care.

In contrast, the finding that teenagers who disagreed that they were given enough time within a consultation had lower consultation rates than others could be consistent with this belief acting as a barrier overall. It is also consistent with previous evidence that teenagers are actually given less time in general practice consultations than adults.<sup>13</sup> Alternative explanations also exist; for example, teenagers who consult more frequently may develop a better relationship with their GP

resulting in improved satisfaction with the consultation and the perception that more time is given. A similar argument can be applied to the association between willingness to confide in a GP and higher consultation rates. The importance of developing a good doctor-patient relationship with teenagers has been emphasised in other studies reporting that many teenagers believe their GP to be unsympathetic<sup>1,5</sup> or that they feel uncomfortable in the consultation.<sup>8</sup>

While teenagers' concerns about confidentiality are frequently cited as barriers to consultation,<sup>1</sup> such concerns were not associated with differences either in overall consultation rates or consultation for sensitive issues. 'Embarrassment' was a more widespread concern, especially among girls, and such concerns were shown to be associated with reduced consultation for sensitive problems such as gynaecological and contraceptive reasons. The importance of 'embarrassment' as a potential barrier has been emphasised in previous surveys.<sup>5</sup> This may have implications for the gender mix of health care professionals accessible for teenagers in primary care, although this issue was not specifically addressed in the current study.

Previous authors have suggested that teenagers might need specific health care interventions to address their concerns and make primary health care more accessible and acceptable.<sup>1,14-16</sup> Our findings suggest that the expressed attitudes of teenagers may be less of a barrier to routine general practice care than previously believed, which accords with results from another recent survey that suggested that most teenagers are generally satisfied with the care that they receive.<sup>17</sup> Specific concerns might better be addressed within the context of routine care rather than providing separate special services for this age group. However, where special services are being proposed it will be important to carry out proper evaluation for evidence of added benefit to justify significant diversion of resources.

## Conclusion

Previously reported negative attitudes of teenagers towards general practice appear to have limited inhibitory effect on their use of services. However, our study confirms the need for GPs to try to develop trusting relationships with their teenage patients so that they are more likely to confide, and be less embarrassed to do so, when they do have health concerns.

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