A qualitative study of patients' perceptions of acute infective conjunctivitis

Hazel Everitt, Satinder Kumar and Paul Little

SUMMARY

Background: Acute infective conjunctivitis is a self-limiting condition that commonly presents to primary care. Patients' understanding of conjunctivitis, their reasons for attendance, and their responses to different management strategies, are unknown.

Aim: To explore patients' understanding of conjunctivitis and its management.

Design of study: Qualitative study using semi-structured one-to-one interviews.

Setting: Three general practices in Hampshire and Wiltshire.

Method: Twenty-five patients presenting with conjunctivitis at their general practices were interviewed. Main outcome measures were patients' perceptions of conjunctivitis, their experience and knowledge of the disease, beliefs regarding treatment, and their responses to different management strategies and a patient information leaflet.

Results: Patients regarded conjunctivitis as a minor illness, although some considered it might become more serious if not treated. Nearly all were confident at recognising conjunctivitis. They stated a preference for not taking medication, but believed that conjunctivitis would not clear up without treatment. However, they were open to alternative management approaches; for example, the delayed prescription approach, because they trusted their general practitioners' (GPs') judgement. Once they were aware of the self-limiting nature of conjunctivitis, patients felt they would prefer to wait a few days to see if the condition improved before seeking medical advice, even if this resulted in a few more days of symptoms.

Conclusion: Patients who attend their general practices with conjunctivitis present for treatment because they are not aware of its self-limiting nature. Providing patients with this information may enable patients, enhance self-management, and reduce the use of topical antibiotics and the demand for urgent general practice appointments.

Keywords: acute infective conjunctivitis; patients' perceptions; self-care; patient education; interviews.

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Introduction

ACUTE infective conjunctivitis is a common, self-limiting condition. On average, general practitioners (GPs) see a case every week^{2,3} and prescribe topical antibiotics for nearly all cases. Topical antibiotics may shorten symptom duration by one to two days in bacterial infection. However, most cases would resolve without treatment within one week, and it is likely that at least half of acute infective conjunctivitis cases in general practice are viral.

Evidence on other common, self-limiting minor illnesses suggests that continued antibiotic prescription may medicalise,⁵ increase National Health Service costs,⁶ and contribute to antimicrobial resistance.⁷ However, evidence is limited on how to best manage conjunctivitis.¹ Gaining an understanding of patients' ideas, concerns, and beliefs about conjunctivitis, and why they attend, will help health professionals develop effective management strategies.

Method

Grounded theory-guided sampling, data collection, and analysis were used. 8.9 One of the authors (SK), an experienced qualitative researcher, closely supervised the research to ensure a rigorous study. Twenty-five patients presenting with acute infective conjunctivitis were recruited from three general practices in Hampshire and Wiltshire; one was semi-rural, one was urban, and one was a cathedral city practice. A variety sample was constructed to include patients from a range of socioeconomic groups and ages, and from both sexes, to capture a wide range of views. Twelve patients had seen a GP and 13 had seen a practice nurse for conjunctivitis (Table 1).

Face-to-face semi-structured qualitative interviews were undertaken in participants' homes between October 1999 and May 2001. The author who carried out the interviews (HE) introduced herself as 'a researcher from the university' and not as a doctor, in an attempt to minimise bias. Interviews were 30 minutes to one hour in length, and were audiotaped and transcribed verbatim. Participants were encouraged to talk freely and describe their experiences of conjunctivitis. Topics covered included understanding of conjunctivitis and its management, experiences and knowledge of the condition, beliefs regarding treatment, responses to different management strategies, and attitude to future episodes of conjunctivitis.

In addition, ideas regarding a patient information leaflet for conjunctivitis were explored. This was carried out at the end of the interview to minimise any potential bias. These responses, together with information from a literature review, informed the development of a patient information leaflet, 10 which was shown to later participants to gain their views.

Constant comparison analysis was used to interpret the

HOW THIS FITS IN

What do we know?

Currently, GPs prescribe topical antibiotics for most cases of acute

infective conjunctivitis, a common, minor, self-limiting condition. Patients' understanding of conjunctivitis, their reasons for attendance, and their response to different management strategies, is unknown.

What does this paper add?

Patients present with conjunctivitis because they are not aware of its self-limiting nature. Once aware of its self-limiting nature, patients stated a preference to wait for a few days before seeking medical advice, which could reduce topical antibiotic prescription and the demand for urgent general practice appointments.

data.^{8,9,11} To facilitate theoretical sensitivity,¹² an analytical framework was developed. Each interview was deconstructed, sentence by sentence, by identifying key categories. These were compared across scripts and with established concepts in the literature.^{5,13-15} Data collection and analysis were iterative, with new data used to assess the integrity of the analytical framework. The concepts identified were reintegrated into themes.

Results

Six themes are presented: perceptions of acute infective conjunctivitis; perceptions of medicines; consultation for conjunctivitis; responses to different management strategies for conjunctivitis; information wants and needs; and different responses to conjunctivitis for the patients themselves and for their children.

Each theme comprises a number of categories supported by extracts from interview data and an analysis of the underlying concepts. Not all the data from each theme can be presented here.

Study group (Table 1)

All participants were Caucasian, and most were female, reflecting the preponderance of women attending and of mothers attending with their children. All social class groups were represented.

Theme 1: perceptions of acute infective conjunctivitis

Making a lay diagnosis. Participants were confident at making a lay diagnosis of an eye infection, using a range of signs and symptoms; for example, red eye, eye discharge, eye irritation. Responders drew on past experiences, both their own and of others, to make this diagnosis.

'...because I've had conjunctivitis in the past and because I'd seen cases of it I realised that this was the onset of it.' (Patient 2.)

'I thought this could probably be conjunctivitis, so I wasn't surprised when he [the doctor] said that's what it was

Table 1. Key characteristics of participants (age range = 13 to 90 years).

	Male	Female	Total
Adults	3	10	13
Parents of child patients	0	11	11
Adolescents	0	1	1
Recruited by a GP			12
Recruited by a practice nurse			13

... well I thought to myself this is conjunctivitis, I mean I've known of it for years and I've known people who've had it and what it looks like, so I just guessed it was.' (Patient 12.)

Importantly, patients recognised that visual problems and pain in the eye were different from the usual symptoms of an eye infection, and could indicate a more serious condition.

- '...if it got worse, if he were getting problems with his sight I would go back straight away, no question of that.' (Patient 17.)
- "...if they [her eyes] got worse, maybe puffy, or if she complained that her eyesight was a bit, you know, that she wasn't seeing properly." (Patient 8.)

This suggests patients would continue to consult for serious red eye conditions if they self-care for conjunctivitis.

Conjunctivitis: a minor illness that requires treatment. Most patients perceived conjunctivitis as a minor condition — a nuisance or an inconvenience. It was not seen as sight-threatening, distressing, or disabling.

'Minor. I don't view it as a problem illness, I just view it as a niggly one that needs to be dealt with.' (Patient 5.)

- '... it's very minor, because I think it doesn't affect sight or anything, it's just that he looks horrible and it can be a bit irritating.' (Patient 14.)
- "... it's just sort of inconvenient more than anything." (Patient 3.)

However, there was a strong belief in the need for treatment to clear it up. Most patients had not considered the consequences of leaving it untreated, but some expressed the idea that it might become more serious if left.

'I didn't really think about leaving it, it was conjunctivitis, it needed treating, get on and get it done, the sooner you treat it the sooner it will clear up.' (Patient 24.)

'I suppose if it's caught early ... not very serious really from my experience, 'cause it's always cleared up quickly ... but saying that I don't know if it's left then perhaps it could be quite serious I don't know.' (Patient 9.)

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Few patients had any notion that conjunctivitis might be self-limiting. Most felt that it should be treated quickly and they sought an urgent appointment. This contrasted with their approach to a 'cold', which could be allowed to run its course without seeking medical advice.

When challenged, patients acknowledged the paradox of believing conjunctivitis to be a minor condition, but also feeling that it required urgent medical attention. The basis for the paradox was their lack of awareness of its self-limiting nature. Therefore, although symptoms were mild, they still felt it required treatment. Patients found it difficult to explain the urgency for seeking medical help, but for most it appeared to be a learned help-seeking behaviour:

'I suppose, probably from when I was a child myself, I mean you get any eye problems treated, particularly if it looks like it's going to be conjunctivitis because it doesn't just clear up after a day or two, it can sort of go all through the family if you're not careful, so get it treated quickly.' (Patient 24.)

Theme 2: perceptions of medicines

Difference between beliefs and behaviour. Participants were careful and wary about taking medication and generally tried to avoid it because they believed it was 'better to fight off illnesses yourself'. They emphasised self-care and not seeking medical help for other minor illnesses. Many felt that immunity to illness was improved if medicines, particularly antibiotics, were avoided.

'I'd rather wait and see if they're [her children] going to get better first, without having antibiotics for your own healths' sake ... I suppose if you're taking them [antibiotics] constantly, or a lot then your own body never builds up resistance itself so I would rather they try and get over the problem on their own.' (Patient 5.)

"... well, I know that there's been a lot of publicity in recent years about the overuse of antibiotics, so I certainly agree that they shouldn't be given for things like may clear up on their own." (Patient 4.)

'... you want to take as little medication as possible really ... I don't want to have to take a drug unless I really have to.' (Patient 11.)

However, in the context of conjunctivitis these patients had sought medical attention, and had been prescribed and used topical antibiotics.

An explanation for this difference between stated beliefs and actual behaviour is patients' lack of awareness of the self-limiting nature of conjunctivitis. Most patients believed it must be treated, and they were unaware of other potential options for managing the condition; for example, self-care. They felt their general desire to avoid medication could not be realised for conjunctivitis. The issue of a prescription by a trusted health professional confirmed and reinforced the belief that treatment was necessary.

"... the doctor wouldn't give them to you [antibiotics] ...

if he didn't think it was necessary.' (Patient 7.)

Topical versus tablet preparations. A possibility was that topical preparations could be perceived as a less concerning treatment than tablets and that this may explain participants' acceptance of it.

One patient did uphold this view:

"... it doesn't seem so drastic somehow [laughs]. Yes I'm unsure as to why I feel that, now if he was taking antibiotics orally I'd be "oh god you know he's taking antibiotics I'd rather you didn't", whereas this just in the ointment, I was fine about that, I don't know why that is ... I guess it [antibiotic ointment] must get into the body to work, some reason I just don't seem to class it the same category for some reason and obviously it is, is just the same isn't it? Um.' (Patient 17.)

However, most patients perceived no fundamental difference between the preparations.

'I can't really see that there could be much difference if that antibiotic is in a drop for your eyes um I can't see that there's any difference than it being in a, in a tablet form for you to take.' (Patient 12.)

Theme 3: the consultation for conjunctivitis

Most participants sought an urgent appointment for conjunctivitis because they perceived that this was the only way to access effective treatment.

Many participants had sought lay advice first; for example, from family members, medical books, or a pharmacist, as seen in studies of lay decision making. ¹⁶ For almost all of the responders, the advice received was to seek an urgent medical opinion. Few had used over-the-counter treatments.

Patients were satisfied with their consultations for conjunctivitis, which they described as short, with minimal information exchange. They asked few questions during the consultations. Participants gave several reasons for this: they received the expected treatment; conjunctivitis was a minor condition, so they did not need more information; and because of trust in the health professional.

'I tend to sort of be led by the doctor and what they suggest ... then I'll just go along with it really because you know I can be led by them.' (Patient 9.)

In addition, GPs' time was pressured, and asking questions would 'waste' more time.

'I'm always conscious of the pressure on the doctor when you go to see them, I didn't engage in any chitchat other than putting the facts before him which he recognised at once the condition and wrote the prescription and I went.' (Patient 16.)

The result was acceptance of the treatment without question. Some were unaware that the treatment contained an antibiotic.

All the participants stated they would have accepted see-

ing 'a properly qualified nurse', and those who had seen a practice nurse were happy with their consultation.

'As long as I reckoned the person I was talking with got enough experience or knowledge to give me the right opinion ... I would trust a nurse as well.' (Patient 6.)

'I'd be fine with a nurse-run clinic ... because I don't think they would give the advice if they didn't have the back-up from the doctor and they knew what they were doing.' (Patient 8.)

Theme 4: patients' responses to different management strategies

In general, participants were willing to accept advice during the consultation, even if it varied from their expectations; for example, to 'wait and see', or to be given a delayed prescription rather than immediate antibiotics, because they recognised health professionals' greater knowledge of conjunctivitis.

'I would have been happy with that, I'd have been quite, well if they'd said, well, go back home and bathe it, we'll try another couple of days just with the boiled water and then if that doesn't clear up come back for some ointment, I would have gone with that.' (Patient 10.)

"... if the doctor had said to me, "yes I think the best form of treatment for this is to use an antibiotic cream for a few days", then fine I'm happy with that. Um, if he thinks that is truly the best way of treating it, if however he had said "look let's give it two or three days, washing it and cleaning up and if there's not an improvement come back", I'd have been happy to do that equally yes.' (Patient 11.)

Participants favoured the delayed prescription strategy because it might enable them to avoid medication and because of the perceived inconvenience of arranging a further appointment if the condition failed to resolve. Bathing the eye; for example, with cooled boiled water, was seen as 'doing something' and was more acceptable than just a 'wait and see' approach. Patients felt confident that they could decide when to start a delayed prescription and when and if to seek further medical advice.

Theme 5: information wants and needs

Knowledge about conjunctivitis. Patients did not feel knowledgeable about conjunctivitis.

'I don't really know much at all, just think I know what it looks like and how to get it treated. I would never leave it.' (Patient 17.)

However, they felt that they knew enough to manage the condition, i.e. to recognise conjunctivitis and to attend to receive treatment, and so did not seek or particularly want more information.

Despite not seeking more information, all participants would have accepted and read a patient information leaflet on conjunctivitis.

Response to a patient information leaflet on conjunctivitis. Participants responded positively to the leaflet. They identified the information about the self-limiting nature of conjunctivitis as being the most useful information in the leaflet. Most participants found this surprising and said it altered their thoughts about conjunctivitis and how they would deal with it in the future. After reading the leaflet, most stated a preference to try and self-care for the condition and 'wait and see' if it would clear up in a few days before seeking medical help.

'... that's good to see that it actually, it doesn't damage the eyes in any way, is the first thing that's good to see, um the other thing is, well it's obvious now I that I read this that I shouldn't have panicked really and taken him down to the doctors I should have seen if it cleared up within two to three days, um so you know that's quite nice to know. I don't know where I got this "get it down the doctor's and get it treated straight away" from.' (Patient 17.)

In addition, most felt that they would prefer not to use topical antibiotics even if the symptoms may last a few more days.

Theme 6: different responses to conjunctivitis for patients themselves and for their children

Eleven participants were parents who consulted for a child with conjunctivitis. They perceived a difference in their responses when it was their child rather than themselves who was affected.

- '... being a mum ... for children's illnesses I think you need to know more because it does worry you more, just having a little bit of information can put your mind at ease ... you don't tend to worry about your own health but you do for children because they don't sort of see themselves as being ill, they know they're ill but they don't know what to do about it so it's up to you to sort of look after them and know what's best for them.' (Patient 8.)
- "... the only reason that I went so soon really was because it was him ... I just wanted to make sure that I was doing the right thing." (Patient 10.)

In general, they said they would consult more quickly and ask more questions for their child because they felt parental responsibility and perceived that children are still developing (and thus may be more affected by conjunctivitis).

The possibility that concern about contagion and school or nursery attendance influenced parents' views was also explored. Parents perceived conjunctivitis to be contagious and implemented simple hygiene measures; for example, hand washing and the use of separate towels. They said that some schools excluded children with sticky eyes and advised parents to seek a medical opinion, whereas others did not. The current Public Health Laboratory Service guidance for schools and nurseries is that no exclusion is required.¹⁷

However, for most parents, contagion and school atten-

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dance were not seen as major influences in seeking treatment. More important was the belief that conjunctivitis would not clear up without treatment.

Parents were unhappy about giving their children medicines unless it was really necessary (see section on 'perceptions of medicines'). Once they were aware of the self-limiting nature of conjunctivitis, their response was the same as the adult patients. Most stated a preference to 'wait and see' and to try bathing the eye before seeking treatment in the future, even if this resulted in a few more days of symptoms and time off school or nursery. Parents did not feel that potential child care difficulties would influence this preference.

'I couldn't go back to work for some days because my childminder couldn't accept him because she couldn't let it pass on to other children, so I ended up staying at home.' [Interviewer: "is that a problem, staying off work?"] 'No, they are really good, I mean, if I phone up and say I can't come in ... that's fine ... I just book it in as a carer's leave day ...' (Patient 21.)

One parent made a distinction between her children with regard to conjunctivitis, and felt that it was important that her 10-year-old son avoided missing school, and that she would seek an urgent appointment for him, whereas she would prefer to 'wait and see' for her five-year-old.

'That [how quickly to seek medical advice] would depend on which child it is because my eldest son is due to start senior school and I think that is quite important, so I would prefer to get him checked out quicker ... I mean at the moment he is doing lots of SATs practice and stuff.' (Patient 14.)

Discussion

This study contributes to the evidence on the management of minor illness and patients' information needs.^{5,13,14,18-20} It highlights the importance of information sharing in the consultation, problems of medicalisation, and the usefulness of delayed prescription strategies.

These are the main findings: patients are confident at recognising conjunctivitis, and present for treatment because they are unaware of its self-limiting nature; they prefer not to take medication, and when informed that conjunctivitis is self-limiting, most would choose to wait a few days to see if it improved before seeking medical advice, even if this resulted in a few more days of symptoms; patients welcomed a delayed prescription strategy, and this could prove a useful management strategy for conjunctivitis.

Limitations of the study

Grounded theory methods were used to maximise the validity and reliability of this study. Recruitment was by health professionals, and no information is available for non-recruits, thus the study population could be biased to the patients who health providers felt would be willing participants. In addition, all were attenders at the general practice for conjunctivitis. Some individuals probably care for themselves and do not seek medical help. However, interviewing

attenders accesses the views of those using the health service for conjunctivitis. In addition, all interviews occurred after the consultation, which could have influenced participants' views; for example, it could have made participants more confident about their initial assessment of symptoms.

Relation of this work to the existing literature

Information needs. Inadequate information sharing between GPs and patients has been highlighted as central to patients' problems in coping with minor illnesses. 13,14,20 The difficulties include limited time for information sharing during urgent appointments, and the lack of incentive for GPs to share information if patients appear contented with the treatment offered. This study highlights that, although patients did not seek or express a want for more information on conjunctivitis, in fact they had a need for information. They were unaware of the self-limiting nature of conjunctivitis, and thus of the potential for self-care. Therefore, despite their wishes not to take medication if possible, they were seeking and receiving medication.

Providing patients with information — most importantly regarding the self-limiting nature of conjunctivitis — altered the way they thought they would manage conjunctivitis in the future. It reduced their desire for urgent appointments and topical antibiotics, and it increased their desire to self-care for conjunctivitis, even if this resulted in a few more days of symptoms. This suggests that providing information may increase self-management and reduce consultation and prescription rates for conjunctivitis, as shown in studies of other minor illnesses. ^{5,10,22} In addition, it would enable patients to behave in a way that is consistent with their stated desires of avoiding the use of medication.

Patients also found it acceptable to see a practice nurse — a strategy identified as effective for other minor illnesses. 23

A patient information leaflet is a potential way of offering this information. ¹⁰ Information leaflets regarding minor illness have had variable success in past trials. Some studies have shown that leaflets reduce reconsultation rates, ²⁴ but others showed no effect. ^{18,25} In general, it seems that leaflets are most helpful if given in the context of a consultation for a particular complaint. ²² The feedback from the leaflet used in the study was positive and patients stated that it changed their 'attitudes'. However, further research is needed to see if it alters consulting behaviour.

A delayed prescription strategy for conjuctivitis. Patients perceived a delayed prescription to be a good way of managing conjunctivitis. It may allow them to avoid medication, and it avoids the inconvenience of arranging another appointment if symptoms are not resolving. They were happy to make the decision as to whether or not to start the medication. We propose that this approach, which has been used successfully for sore throat,⁵ should be considered when seeing patients with conjunctivitis.

Implications for future research or clinical practice

This study suggests that providing information on the selflimiting nature of conjunctivitis may enable patients, enhance self-management, and reduce the use of topical antibiotics and the demand for urgent general practice appointments. Further quantitative research, such as a randomised controlled trial of different management strategies and a patient information leaflet, would help to clarify the most appropriate way to manage conjunctivitis.

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