'The mean mummy way' – Experiences of parents instilling eye drops to their young children as described in online forums and blogs

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Abstract

Background: Adults often have difficulty instilling eye drops in their own eyes, but little is known about the difficulties experienced by parents when administering eye drops to their young children. The challenges of administering eye drops to children are accentuated by their poor cooperation, but little has been documented about the difficulties experienced by parents when administering eye drops to their young children. This qualitative study explores parents’ experiences of administering eye drops to their children in online forum discussions and blog posts. Methods: The written exchanges between parents participating in online forum discussions and blog posts relating to the administration of eye drops to young children were thematically analysed. Results: We found 64 forum discussion threads and 4 blog posts, representing 464 unique contributors expressing their experiences of eye drop administration to young children. Three major themes were identified - administration difficulties, administration techniques and role of health care professionals. Besides describing their children’s distress, parents discussed their own discomfort as the administrator of eye drops; alluding to feeling ‘horrible’ and ‘cruel’. Parents used a variety of techniques to facilitate adherence with medication, including restraining the child, role-play, reassurance, distraction or reward. The recommended strategies for eye drop administration occasionally included reiteration of professional advice, but were dominated by parents’ own ideas/suggestions; interestingly health care professionals were considered diagnosticians and prescribers, but not sources of practical advice on administration. Conclusion: Parental narratives shared on the internet have highlighted significant young child and parental distress associated with eye drop administration. The analysis of digital social networks has the potential to identify patient problems that health professionals may not have previously recognised nor appreciated the magnitude. The current study reveals that parents’ experiences dominated the online discourse with
their own advice and suggestions regarding administrating eye drops to young children but little did they recall on the advice from healthcare professionals, highlighting the need for clinicians in improving their explanations to parents about eye drop administration.

Background

Adults frequently have difficulty instilling eye drops in their own eyes (1), and this can be observed even in patients who report no difficulties in self-administration of drops (2). Examples of poor techniques include touching of the eye or ocular adnexa with the bottle, poor handling or squeezing of the eye drop container, difficulty aiming at the eyes, dispensing multiple drops and needing multiple attempts before successful instillation (3, 4). The challenges of administering eye drops to children is further exacerbated by their poorer understanding and cooperation, but little is known about the difficulties experienced by parents when administering eye drops to their young children.

As an exploratory study, we decided to analyse parents’ experiences using online forum discussions and blog posts written about administering eye drops. Online forums are an alternative to face-to-face interviews or focus groups as sources of qualitative data. Online forums provide a comfortable way to discuss personal health issues and are effective in providing emotional and informational support for participants (5). The asynchronous mode of discussion is convenient, accessible and safe. Another rich source of data on people’s experiences are weblogs, or blogs as they are commonly referred to. These blogs, consist of a series of updated, chronologically ordered posts, usually written by a single author. Blogs are publicly available and provide substantial amounts of data which can be collected at a low-cost (6). Using a novel method, this study screened and analysed online forum discussions and blog entries where parents exchanged their experiences in administering eye drops to their young children.
Methods

**Data collection** We identified 25 websites where parents discussed the care of their children, and searched the online discussion threads and blogs using keywords ‘how to eye drops toddler’, ‘tips eye drops toddler’, ‘tricks eye drops toddler’, ‘child refusing eye drops’, ‘advice eye drops toddler’, ‘help eye drops toddler’, ‘best way eye drops toddler’. In addition to using the term toddler, we also used the keywords baby, son, daughter, dd (dear daughter), ds (dear son) and child to reflect commonly used words and internet abbreviations. These were downloaded and extracted between 7-12.1.15. (See Data Extraction Summary at Appendix 1). The time and date of postings were recorded where possible.

**Data analysis** The extracted transcripts were imported into NVivo and thematically analysed. (7) After first level coding 25 key topics were identified and the quotes relating to these topics were compared for similarities and differences and the subsequent generation of themes and subthemes.

**Ethical considerations** As recommended by British Psychological Society guidelines on internet mediated research (8), we used only public web blogs and online forum discussions that could be accessed without signing in. To ensure anonymity and confidentiality, website addresses have not been presented. All quotes used to illustrate themes were returned to search engines to ensure their origin was not apparent, and if it was they were paraphrased to ensure anonymity.

Results

Sixty-four online fora discussion threads and four blog posts, representing 464 unique sender names, were identified (Appendix 1). Most postings were from mothers, many using pseudonyms, the earliest posting was 2004. The three major themes identified;
administration difficulties, administration techniques and role of health care professionals (Table 1) are discussed in detail below.

**Administration Experience**

**Child’s resistance to administration.** Most young children resisted eye drop administration with age appropriate psychological and behavioural responses. They expressed distress and fear, fought, screamed and cried, shutting their eyes tight to resist eye drops instillation.

‘Every time it's her screaming and crying murder! I bet someone walking by would think we are beating her!!! For eye drops!!!!’ (F2, C)

‘It is such a nightmare to get her to take them she fights us and scrunches her eye so tight there is no way the drops go in.’ (F8, A)

Parents often reported how the immediate discomfort of the eye drops contributed to the child’s reluctance.

‘The drops burn and hurt, so he will instinctively fight those drops. Plus they take a while to work which means a prolonged battle.’ (F14, AZ)

**Parents’ reluctance to administer.** Many parents also discussed their own discomfort as the administrator of eye drops; they alluded to feeling ‘horrible’ and ‘cruel’, and were reluctant to perform this task. One parent said,

‘I'm having to employ the pin-her-down and use ‘prise eyes open’ tactic now. It's horrible, I hate having to do it!’ (F3, M)

Parents similarly expressed fear that they might hurt their child, for example:

‘We feel terrible about that and worry that she might get hurt thrashing about as she does. It is just horrible and we still have some more days to go.’ (F15, E)

**Administration Methods**

**Using force and restraint.** Parents described utilising force to administer eye drops. The
methods of restraint employed were numerous; they described techniques that enabled administration when single-handed or when assisted by another adult. For unaccompanied administration the ‘leg-over-child’s arms’ method was frequently used:

‘I put him on the floor (I was alone most of the time) and kneel over him, with his legs through mine and my knees pinning his arms to his side. I then had both free hands to use - one to hold eye open and one to put the drops in! … I felt like a real bully!’ (F8, MK)

‘With great bloody difficulty I sit on the floor …., lay him back with my legs over his shoulders, holding his eye open with one hand and doing the drops with the other. Walah! Worst experience ever. *Bows*. I have tried every other way and it’s not as effective, so I’m stuck with the mean mummy way.’ (F5, LS)

There were other, more sophisticated, methods of restraint described, including the ‘burrito method’ to swaddle the child so that their arms are trapped. One parent said, ‘I started wrapping him up in a bath towel like a giant baby burrito. Then, I lean over him, slide my arm under his head, and put the drops in the corner of his eye.’ (F15, AZ)

**Show and tell.** Some parents suggested gentler approaches to facilitate eye drop administration, such as demonstrating on toys and getting the child to role-play giving medication.

‘So far the demonstration has fascinated him but doesn't stop his panicking when we put the drops in him. He even "gives" Daddy, Mommy, and Elmo the drops. Oh well, even if not all of the medicine gets in there it seems to be working.’ (F7, AY)

For a child at the age of understanding parents might try to explain why the eye drops were needed. One parent wrote,

‘I'm finding more and more that [Child] understands what I'm saying even if she can't communicate back very well and if I explain exactly what is going to happen in advance ... then she usually has no problem at all.’ (F3, FY)
Other parents recommended praise or reward when the child cooperated.

‘Try giving him a lollypop as a reward and to distract him from the pain and taste. ... Or let him pick a treat after he does the drops.’ (F3, JM)

**Minimize child’s distress and awareness.** Parents used distraction of many sorts (entertainment, games and play) to minimize the child’s immediate reactions to eye drop administration. Some encouraged the child to watch TV so they would not see the eye drop bottle approaching. Others achieved compliance by putting the drops on closed eyes, as described here:

‘Did you try letting him lie down with his eyes closed? Incline his chin back a bit and put the eyedrops in the corners of his eyes...then tell him to open his eyes ... It helped that they couldn't see the drop coming!’ (F14, JH)

Alternatively, parents waited until their child was asleep then lifted the eyelids and inserted the drops.

**Other management strategies.** Some parents ‘gave up’ (their own words) on instilling the eye drops to their child because of the inherent difficulties as well as believing their child’s eye problem would ‘clear up on its own’ within a few days.

‘We gave up. [Child] had pink eye with his last ear infection and the urgent care doc prescribed eye drops that we were supposed to give every 4 hours. I called my regular doctor and asked if it was really necessary. And pink eye with drops will, on average, clear up in 3.4 days and without will clear up in 4.5 days.’ (F2, SK)

Other parents adopted alternative treatments, for example cleaning with ‘breast milk’, or bathing the child’s eyes with ‘salt water’, ‘warm water’, or ‘cold tea’. Others recommended asking for ointment rather than drops, or keeping the eye drops warm to reduce stinging.

‘I expressed breastmilk into a clean bowl, dipped in cotton wool and then wiped over each
eye several times a day. Cleared up in around 3 days if I remember rightly.’ (F4, FT)

‘It did help to use warm drops. I kept the bottle in my pocket or bra so it was body temperature.’ (F15, BT)

**Role of healthcare professionals**

Parents rarely reiterated any professional advice they had received on eye drop administration, instead they shared their own experiences and the solutions they had devised unaided.

**Diagnosticians and prescribers.** Parents mentioned health care professionals mostly in the context of diagnosis or prescribing treatment.

‘[Child] has mild conjunctivitis in his eyes. The doctor gave him some eye drops to use 2 times a day for 5 days.’ (F8, FF)

‘Go back to the doctor say it is impossible and ask for Fucithalmic it is more of a cream than an eye drop, so easier to apply but also only needs to be applied a few times a day.’ (F16, A)

**Guidance on eye medication administration methods.** Rarely were health care professionals cited as a source of advice on eye drop administration. When professional advice was shared it emanated from a range of professionals; doctors (general practitioners and specialists (ophthalmologist, paediatricians), nurses, paramedics and pharmacists.

‘A recent advice from an eye specialist for giving eye drops to my toddler - if you put enough drops onto the eyelashes of a close eye, when the eye is opened, the drops will wash in …’ (F16, NE)

Unlike accounts of advice from other health professionals, the advice form nurses combined advice on administration with tips on restraint, perhaps reflecting their greater professional involvement in giving treatments.
‘The nurses in the NICU showed us how to do it. You have to kind of pin the baby's head so they can't move, hold the eye drops in one hand ready to use them, use your thumb and index finger of the other hand to open their eye lid and hold it open while you squeeze the eye drops into the inside corner of their eye.’ (F2, TJ)

**Discussion**

**Summary**

In these online discussions parents shared in detail their own unfortunate or unsuccessful experiences of administering eye drops to their young children and requested help. The parental accounts identified were very powerful, engaging, and alerted us to previously unrecognised challenges. It is apparent that young children’s dislike and resistance to the instillation of eye drops can cause significant parental distress, and reduces their willingness to continue treatment. Parents described a variety of techniques to facilitate eye drop administration that they had developed by ‘trial and error’, these sometimes involved restraint and force. Their own experiences dominated the discourse, advice from healthcare professionals was rarely recalled, suggesting a need for health care professionals to improve their explanations to parents about eye drop administration. If parents are forewarned of the difficulties and given coping strategies to be employed when the child objects or resists, this would decrease both child and parental distress. Interestingly, these parents perceived the doctor’s role to be focused on diagnosing and prescribing, rarely was the doctor considered a source of advice on medication administration.

**Comparison with existing literature**

This lack of preparedness and apparent difficulties with eye drop administration is not confined to parents who need to instil drops into the eyes of their young children; adult patients also have difficulty administering their own topical ophthalmic medications (2, 9)
and providers rarely instruct them on how to instil their eye drops (4). Additionally it has been noted that not all of the adult patients who report successful instillation of drops actually achieve this in reality, there is an apparent mismatch between subjective perceptions of performance and observation of successful technique (1).

**Implications for research and/or practice**

Having highlighted the difficulties experienced by some parents we need to consider possible solutions. The use of eye drop instillation aids may improve parental dexterity when administering eye drops to their children (10) and replacing liquid drops with ointment may also help. There is an obvious need for clinicians to describe and demonstrate eye drop administration techniques at the time of prescribing and pharmacists to reinforce these messages when dispensing the drops or ointment.

Guidelines and information to help healthcare professionals to educate caregivers to instil eye drops to babies and young children are available (11, 12) but need greater publicity. We recognise that education and training in correct techniques will reduce, but never eradicate, the challenges of eye drop installation because other factors play a part, some physical, such as poor hand-eye coordination, and others psychological, such as fear (13).

**Strengths and limitations**

The use of online discussion sites as a data source for research is an emerging technique (14). Using data generated by a group that was not been convened for research purposes, sometimes referred to as ‘naturally occurring’ (15) or ‘non-reactive’ (8), has advantages and disadvantages. It can be argued that as the researcher is not leading data collection and is ‘invisible’ to the participants this may reduce response bias. The discourse is spontaneous and natural, eliminating the potential for the researcher to influence the discussion and reducing the risk of participants feeling their responses have to be socially desirable. Text presentation was sometimes informal, with errors of literacy and spelling,
but the messages were always clear. The major limitations of using on-line discussions as a data source are that the demographics of contributors are unknown and researchers have no opportunity to probe or to ask follow-up questions. On-line discussion, by definition excludes those people without internet access and this may differentially exclude poorer families. In contrast, the use of the internet may enable the voices of some commonly excluded people (for example, those with disabling conditions, parents of young families, or those living in rural settings) to participate in research. Unlike verbal interactions, online forums enable people to respond at their convenience instead of waiting their turn, providing an opportunity for more reserved participants to contribute (16). Nonetheless, even with such weakness these on-line discussions have generated unique data that will in turn impact on clinical practice.

This study highlights vividly how some parents struggle to deliver eye drops to their toddlers and seek advice on how to administer eye drops, not from the prescribers, but from non-health care professionals. In some instances the amount of distress experienced by the child and their parent is significant, and much greater than those of us who are clinicians had anticipated. Being aware of these difficult scenarios is a powerful reminder to clinicians that procedures which are very simple and routine to us may represent unchartered territory for the patient and carer. Prescribing advice for the carers of toddlers needs to extend beyond the administration of the eye drop, but also advice on managing the child’s reluctance to stay still. A brief review of eye drop products in our locality suggested that the packaging and patient information leaflets provided with eye products varied in detail; some were so brief to be almost uninformative, others quite detailed on administration into the eye, but none that addressed the issue of administering to an uncooperative third party. In conclusion, people’s narratives shared on the internet can have an important role in understanding health-related issues.
Interaction through digital social networks can lead to the identification of patient problems that health professionals may not have encountered or realised the enormity of.

Declarations

Ethics approval and consent to participate: Institutional ethics board review and informed consent were not applicable because of the use of open data without personal and demographic details.

Consent for publication: Not applicable.

Availability of data and material: The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests: The authors declare that they have no competing interests.

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Authors' contributions: GL analyzed and interpreted the data, and was a major contributor in writing the manuscript. AB collected the data and analysed the data. CJ participated in revising the manuscript. HS conceived of the study and participated in revising the manuscript. All authors read and approved the final manuscript.

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Tables

Table 1: Orders of themes and descriptions of eye drop administration

| Themes                          | Subthemes                                | Descriptions                                                                 |
|---------------------------------|------------------------------------------|------------------------------------------------------------------------------|
| 1. Administration Experience   | Child’s resistance to administration     | Fight, scream & cry                                                          |
|                                 |                                          | Shut their eyes tight                                                        |
|                                 |                                          | Distress and fear                                                            |
|                                 |                                          | Drops sting eyes and taste bad                                               |
|                                 | Parents’ reluctance to administer        | Horrible and cruel                                                           |
|                                 |                                          | Upset child                                                                  |
| 2. Administration Methods       | Using force and restraint                | One person pin & drop                                                        |
|                                 |                                          | Two persons pin & drop                                                       |
|                                 |                                          | ‘Leg-over-child’s arms’ method                                               |
|                                 |                                          | Burrito-method                                                               |
|                                 | “Show and tell”                          | Demonstration & Role-play                                                    |
|                                 |                                          | Talk child through                                                           |
|                                 |                                          | Praise & reward                                                              |
|                                 | Minimize child’s distress & awareness    | Distraction – Game or play                                                   |
|                                 |                                          | While sleeping                                                                |
|                                 | Other management strategies              | Give up eye drop administration                                             |
|                                 |                                          | Alternative ways to treatment                                                |
| 3. Role of healthcare           | Diagnosticians & prescribers             |                                                                              |
| professionals                   |                                          |                                                                              |
|                                 | Guidance on eye medication               |                                                                              |
|                                 | administration methods                   |                                                                              |

Supplementary Files

This is a list of supplementary files associated with the primary manuscript. Click to download.

Appendix 1.docx