Patient Perceptions of Barriers to Primary Adherence with Acne Medications: the Role of the Physician

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Structured abstract:

Purpose: Primary nonadherence with acne medications is high, but commonly underreported to prescribing physicians. The objective of this study was to describe patient experiences with primary nonadherence to medications for acne and to identify physician level factors that may improve adherence in this population.

Scope: A qualitative analysis was conducted from structured interviews with patients reporting nonadherence with acne medications.

Methods: A qualitative analysis was conducted from structured interviews with patients reporting nonadherence with acne medications. 385 patients were screened from four dermatology practices in the Philadelphia area for primary nonadherence with a newly prescribed acne medication, of whom 26 participated in structured interviews conducted between November 2016 and January 2017.

Results: Participants reported cost as the major barrier to initiating therapy. Despite anticipating this barrier, they rarely brought up costs with physicians during the initial visit, and generally did not expect their physician to be knowledgeable in this area. Although patients suffered inconvenience and frustration when unable to fill their prescription, this experience did not appear to negatively affect their satisfaction with the prescribing physician. Nevertheless, receiving a warning that the preferred medication may be expensive, having a plan of action to take if unable to fill the prescription, and securing the patient's commitment to the plan were described as actions that the physicians could take to improve primary adherence. Physician-level interventions to improve primary adherence to medications for acne may impact adherence with costly

medications, though they may not affect patient satisfaction with the prescribing physician.

Key Words: Primary adherence, acne, primary nonadherence, qualitative research

Purpose:

Primary nonadherence (failure to initiate a prescribed medication) for acne is high. A 2015 study found 27% of medications recommended for acne were not initiated within 3 months.[1] Moreover, patients are reluctant to admit nonadherence. A study comparing patient-reported adherence against pharmacy records found only 6% of patients reported primary nonadherence, while 34% of prescriptions went unfilled by 3 months per pharmacy records.[2] Although primary nonadherence is common, little is known about modifiable factors associated with primary nonadherence to acne medications.[3-5] However, there is evidence of variation across physicians in patient adherence to non-acne medications that could not be explained by patient characteristics alone.[6]

Scope:

We sought to understand modifiable physician level factors to enable physicians to screen for, detect, and reduce primary nonadherence. Our objectives were to: (1) describe patient perceptions of barriers to primary adherence to acne medications, (2) understand patient perceptions of physicians' role in alleviating or exacerbating those barriers, and (3) identify modifiable factors to improve primary adherence.

Methods:

Approach

Structured interviews were conducted with patients who were prescribed acne medications by a dermatologist but did not initiate treatment. This included patients who did not submit the prescription to pharmacies, did not pick up the medication, or picked up the medication but did not use it. Nonadherence was ascertained through patient self-report during recruitment. The interview guide (Appendix) was constructed to broadly cover steps in seeking treatment, including interaction(s) with physician, pharmacy, office staff. Interviews were structured to take 30 minutes. Prior to implementation, the script was tested with physician and non-physician volunteers and two patients with acne.

Study Participants

We used electronic medical records from four dermatology practices in the Philadelphia area affiliated with the University of Pennsylvania Health System to identify all patients prescribed acne medication (Appendix Table) between July and November 2016. We excluded patients with previous acne medication prescriptions, who did not speak English, or could not be reached by telephone after two attempts. Of 385 patients approached, 347 were ineligible for participation (81% initiated prescribed treatment, 10% previously used the medication, or both (7%)), and 12 (3%) declined participation.

All interviews were conducted by telephone between November 2016 and January 2017 until saturation when no new themes were emerging from analysis.

Analysis

Interviews were recorded and transcribed into NVivo Qualitative Data Analysis Software Version 11 (QSR International, Melbourne, Australia). Four authors (KR, EG, BL, JL) reviewed two transcripts independently to develop the initial codebook, followed by iterative revisions to narrow components until consensus. Two analysts then recoded the two transcripts and inter-rater correlation coefficient was measured (.89). The remaining transcripts were coded in parallel. Next, thematic content analysis was performed to detect themes about patient perceptions of barriers to primary adherence to acne medications. Both recurrent and divergent themes were identified and reviewed iteratively by all authors until consensus was reached.

Results:

Overall primary nonadherence reported by patients was 12% (38/323). Twenty-six interviews were conducted (Table I), with five major themes identified (Table II). These patients were prescribed topical medications (25/26, 96%) and an oral antibiotic (1/26, 4%). Interviews were conducted with 26 patients (19 [73%] female, 6 [23%] aged <26 years, 15 [58%] aged 26-4- years, and 5 [19%] aged > 40 years) (Table 1), with 5 major themes identified (Table 2). The interrater correlation coefficient for the first 2 coded

transcripts was 0.89. These patients were prescribed topical medications (25 of 26 patients [96%]) and an oral antibiotic (1 of 26 patients [4%]).

Medication Costs

Most participants reported intention to fill prescriptions, but were unable due to cost or coverage-related barriers (17/26, 65%). Common concerns included high out-of-pocket cost (11/26, 42%) and lack of insurance coverage (10/26, 38%). Most patients (14/26, 54%) described surprise at high medication cost when visiting pharmacies.

Poor Understanding of Prior Authorization Process

Participants reported receiving confusing and inconsistent instructions from different sources about prior authorization (i.e., requirement for prescribing clinician to obtain pre-approval from the patient's health insurer prior to prescribing certain medications), fragmented interactions between the physician, pharmacy staff, and physician's office staff related to prior authorization, and confusion about their own role in the prior authorization process (5/26, 19%).

Physician-Patient Communication

Although participants expressed general familiarity and concern with issues related to medication costs, they did not share these concerns with physicians nor expected

physicians to know medication cost or insurance coverage. Unlike discussions of cost, participants reported extensive conversations with physicians about the prescribed medication's possible side effects and instructions for use. Overall, participants regarded visits as beneficial, particularly so if they perceived physicians listened to them and that they learned new information about acne treatment.

Solutions Offered by Physicians

Participants reported diverse approaches by physicians to address problems getting medication. Those included asking patients to call back (2/26, 7%), suggesting patients shop around for medicine (2/26, 7%), suggesting alternatives if the first line medication were not covered (2/26, 7%), and offering coupons to subsidize medication cost (1/26, 4%). In general, participants felt positively about physicians when they offered backup plans if the preferred medication was unavailable (6/26, 23%) and appreciated a frank discussion around cost (5/26, 19%). Some suggestions used by physicians were not well received, including being asked to call the office after the visit or to shop around at different pharmacies.

Reservations Regarding Plan of Treatment

While most participants attempted to fill medications but did not due to cost, some reported treatment plan reservations (10/26, 38%) including concerns about adverse effects (4/26, 15%), unwillingness to start a medication considered "strong" (2/26, 8%),

desire to try a homeopathic treatment (1/26, 3%), and belief that their acne was not serious enough to require medication (3/26, 12%).

Discussion

Recent trends in insurance coverage and medication prices may have led to higher out-of-pocket costs, especially in dermatology.[7,8] Notably, 46% of commonly used generic medications in dermatology had price increases of over 100% between 2011 and 2012,[9] and brand-name acne medications' prices increased by 195% between 2009 and 2015.[10] We observed that patients are concerned about out-of-pocket costs of prescribed acne medications but do not discuss costs with physicians. Our findings also highlight the burden prior authorization places on patients in their efforts to obtain medications.

A 2014 Cochrane review of interventions to improve medication adherence[11] identified only one study that aimed to improve adherence with acne medications, specifically for topical medications using daily text messages, but did not improve adherence.[12] Our findings suggest physician-level interventions to improve primary nonadherence should incorporate discussion of medication costs and provide specific alternative plans in case the patient is unable to fill the prescription, rather than asking patients to call back.

This study had limitations. Although we enrolled patients from four different practices who were diverse in age and were covered by both commercial and public health insurance plans, all were part of a large academic health system in the Philadelphia area,

which may limit generalizability. This was a qualitative study and our findings are exploratory. Future studies should evaluate the prevalence of these barriers to primary medication adherence for acne.

In sum, among patients who did not initiate recommended acne treatments, medication costs were by far the major cause of their nonadherence. Despite anticipating insufficient insurance coverage, patients were reluctant to address concerns with physicians, and generally did not expect their physician to be knowledgeable in this area. While this experience did not appear to negatively affect satisfaction with the physicians, physicians who discuss medication costs and provide a concrete alternative plan may be able to improve primary adherence among their patients.

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Tables

Table I. Demographics (N=26)

Characteristic	N	%
Age (years)		
<26	6	23
26-40	15	58
>40	5	19
Gender		
Male	7	27
Female	19	73
Insurance Coverage Type		
Medicaid	10	38
Commercial	14	54
Other (e.g. Medicare, unknown)	2	8
Months with Acne		
<3	6	23
3-12	5	19
13-36	7	27
>36	8	31
Prescription Transmittal Type		
Electronic	11	42
Paper	5	19
Faxed	5	19
Called in	4	15

Table II. Main Themes and Representative Quotes

Theme	Quote Example
Medication Costs	*"I walked to the pharmacy and I stood in line. And there's a long line of people behind me. And I went up to the counter and I think that the attendant looked up my name and was like, oh, this can't be right. This is so expensive. And then they double-checked to verify my insurance. And they were like, oh, no this actually is how much it costs."*
Poor Understanding of Prior Authorization Process	*"I don't really understand the prior authorization… I would think a script is a prior authorization, personally. If you get something from the doctor saying you need something,…I'm not sure if that's on the insurance end or the doctor's end that they didn't follow through. I'm not sure what happened there."*
Physician-Patient Communication about Costs	*"I really can't hold it against her for not knowing the cost. It depends on factors that she can't control and I don't really know either. So I can't really hold that against her"*
Solutions Offered by Physicians: Back-up Plan	*"It's good because it gives me the expectations before I go that there's a possibility of it not being covered so I'm not shocked by hey, look, this isn't covered, what's going to be the cost. I think I go there knowing that in advance. And then if there's a plan in place or if there's an option that they can fill something different and it's good and then, if not, if it's my only option, then I have the understanding that look, this is my only option and I have to make a decision of either I get the medicine or if I don't get the medicine, then I have to live with the symptoms that I'm currently having."*
Reservations Regarding Plan of Treatment	*"I'm still hesitant to use Retin-A again because it is a very harsh topical medication, and I know from [what other people] have experienced and vaguely what I had experienced… in the distant past there are a lot of harsh reactions…. there're other problems that kind of come from it. So it's solving one problem, but then you're dealing with these other things as well."*