

THE BURDEN OF TREATMENT IN PAEDIATRIC ATOPIC DERMATITIS: A MIXED METHODS STUDY



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BACKGROUND

Burden of treatment (BOT) is defined as the workload of healthcare experienced by patients with chronic conditions and consequences on well-being. ¹While multiple studies have assessed burden of disease and quality of life in atopic dermatitis (AD), ² no studies have examined BOT in AD.

METHODS

This study used 'mixed methods' to assess the BOT of AD on children with AD and their caregivers, with quantitative and qualitative components. The quantitative component involved (i) the validated Treatment Burden Questionnaire and (ii) a questionnaire examining opinions on relative frequencies of treatment. ³ The qualitative component involved one-on-one semi-structured telephone interviews with parents of children with moderate to severe AD.

QUANTITATIVE RESULTS

The questionnaire was completed by 111 parents of children with AD; of whom 13.5% had mild AD, 51.4% had moderate AD, and 35.2% had severe AD. Average burden scores were low in mild AD (1.0/10) and were proportionally higher in moderate (3.9/10) and severe (5.8/10) AD (Table 1). In terms of relative frequencies of treatment, injection therapy was associated with the highest perceived burden, while emollient application was associated with the lowest perceived burden (Table 2).

	Mild	Moderate	Severe	Overall
	(n=15)	(n=57)	(n=39)	(n=111)
Emollient	1.0	4.7	5.7	3.8
Topical steroid	3.8	6.5	7.5	5.9
Baths	0.2	4.8	5.7	3.6
Tablets	N/A	4.4	4.5	4.35
Injection (*n=2)	N/A	N/A	10*	10*
Scheduling	0.3	4.9	6.2	3.8
Follow up	1.2	3.2	5.0	3.1
Admin/finance	0.7	2.9	5.3	3.0

Table 1. Results of Treatment Burden Questionnaire, with scores on Likert scale from **o-10** (o=not a problem, 10=big problem).

Emollient	Four times daily	3.2
	Twice daily	1.9
	Once daily	0.9
Topical steroid	Once daily	2.6
	Twice weekly	1.5
Bath with additives	Once daily	3.5
	Twice weekly	1.6
Tablets	Twice daily	3.6
	Once daily	2.9
	Once weekly	1.9
Injections	Once weekly	5.3
	Once fortnightly	4.5

Table 2. Results of relative frequency questionnaire, with scores on Likert scale from **o-6** (o=would not dislike at all, 6=would dislike very much).

QUALITATIVE RESULTS

Semi-structured interviews were conducted by telephone with 18 parents of children with moderate to severe AD. Thematic analysis grouped experiences into healthcare burden, treatment burden, and financial burden. This word cloud is a visual representation of the frequency of key words from the interviews (Figure 1).

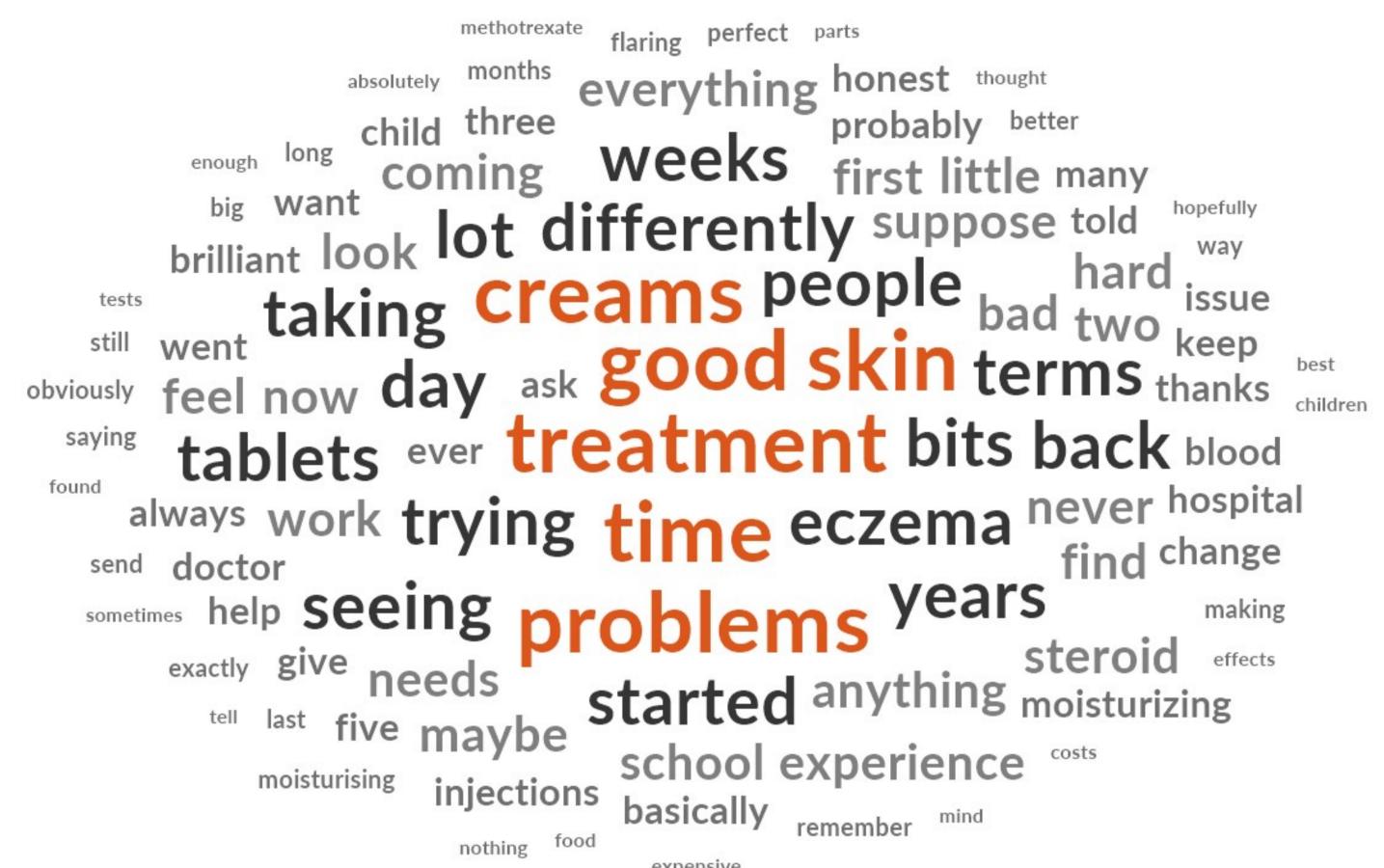


Figure 1. Word cloud from interview transcripts (n=18)

Insights that emerged from healthcare burden analysis included 'mixed messages', 'treatment futility', and 'expectant resolution'.

"There were so many mixed messages. The GP finally prescribed some steroid cream, and when I went to the pharmacy they told me I could only use it up to the tip of my baby finger. And then I was eventually seen in dermatology and told to use it liberally". Participant fourteen.

"My GP said 'it's eczema, there's nothing you can do about it, so just get used to living with it". Participant one.

Insights from treatment burden included treatment routine, schooling impact, and 'topical-sparing' with systemic treatment.

"It was hard for him going to school with his clothes sticking to him with the greasy moisturisers... He missed a lot of school for the phototherapy but when he got clear he didn't miss any more". Participant three.

"Methotrexate hasn't made it totally go away, but it has helped so much with needing less creams". Participant one.

Factors of financial burden included topical treatments, clothing, and healthcare visits.

"I don't think dermatologists have any idea how much we spend on pyjamas because the creams ruin them. Lockdown has been a nightmare not being able to go to Penneys". Participant eight.

CONCLUSION

This study showed low levels of BOT in mild AD but high or very high levels of BOT in moderate and severe AD, proportional to severity of disease. The study highlights the need for access to superior treatments for children with moderate to severe AD.

REFERENCES

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