Positive Psychology Themes in Interviews of Children With Atopic Dermatitis: Qualitative Study

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Abstract

Background: Atopic dermatitis is a pruritic chronic condition associated with significant sleep disturbance, inattention, and sometimes behavioral problems. Enhancing resiliency in children with atopic dermatitis may promote coping strategies to improve quality of life. Positive psychology is one strategy that can be used to strengthen resiliency.

Objective: Our objective was to identify positive psychology concepts mentioned by children with atopic dermatitis and their parent to inform strategies to strengthen resiliency in children with atopic dermatitis.

Methods: A total of 20 patient-parent dyads were interviewed to share their experience with atopic dermatitis to help develop a novel psychological intervention for atopic dermatitis. Patients were 8 to 17 years old and diagnosed with atopic dermatitis. Trained coders analyzed transcripts using a coding dictionary developed based on Seligman’s PERMA (positive emotion, engagement, relationships, meaning, and accomplishment) model of positive psychology. The frequency of unprompted mentions of PERMA themes and relevant quotations was captured. Transcripts were also separately coded for resiliency, which is the ultimate goal of PERMA.

Results: Positive psychology concepts were mentioned by 100% (20/20) of children and 95% (19/20) of parents. Engagement and relationships, both negative and positive aspects, were the most commonly unprompted PERMA themes mentioned by children (14/20, 70%) and parents (13/20, 65%). Emotion elicited the most negative comments from children (19/20, 95%) and parents (17/20, 85%). When analyzed for resiliency, 8 participants were identified with at least one resiliency code. On average, participants with a resiliency code mentioned PERMA concepts 9.1 (SD 4.7) times compared to those who mentioned none (mean 5.9, SD 4.6) (P= .14). When participants were stratified by disease severity, on average, more positive psychology concepts were mentioned by patients with mild atopic dermatitis (mean 13, SD 4.7) than those with moderate symptoms (mean 5.9, SD 4.6) (P=.14). When participants were stratified by disease severity, on average, more positive psychology concepts were mentioned by patients with mild atopic dermatitis (mean 13, SD 3.0) than those with moderate symptoms (mean 6.2, SD 4.9) or severe symptoms (mean 6.1, SD 4.0) (P=.03).

Conclusions: Among PERMA themes, engagement and relationships are the two most commonly mentioned categories for children with atopic dermatitis. Strategies targeting PERMA such as affirmations and positive reframing may improve psychosocial well-being and resiliency in pediatric atopic dermatitis. Future directions will look at incorporating “positive medicine” into atopic dermatitis treatment to not only relieve symptoms but also strengthen positive aspects of life.
positive psychology; PERMA; positive emotion, engagement, relationships, meaning, and accomplishment; atopic dermatitis; pediatric; dermatology; children

Introduction

Background

Atopic dermatitis, also known as eczema, is a common pediatric chronic disease characterized by severe itch that is prevalent in the pediatric population. About 10% to 20% of children in the United States have atopic dermatitis, which can cause significant sleep disturbance, inattention, and sometimes behavioral problems [1,2]. Patients with atopic dermatitis are generally not severely ill and rarely require hospitalization. However, they experience significant psychologic stress and poor quality of life. Some examples include difficulty participating in sports due to sweat-induced itch, stigma with potentially disfiguring visible lesions, and psychologic repercussions of chronic sleep disturbance, such as depression and anxiety [3]. Enhancing resiliency in children with atopic dermatitis may promote coping strategies to improve itch, attention, and behavioral problems [4]. One study that included adult patients with atopic dermatitis looked at the consistent use of an internet-based positive psychology intervention and demonstrated improved well-being [5].

One strategy for strengthening resiliency in children is via positive psychology. This emerging field of study is in contrast to traditional problem-based psychology, which focuses on the deficits in one’s life, such as how mental health diagnoses negatively impact one’s well-being. Positive psychology looks at what makes the individual feel well and considers ways to enhance their well-being. High levels of feasibility and acceptability of positive psychology interventions make this a relevant approach for atopic dermatitis, specifically to translate positive psychology interventions to enhance well-being and health outcomes [6]. The field of positive psychology presents unique opportunities to enhance the well-being of children with chronic disease. This is particularly important as the prevalence of pediatric chronic disease has increased in the past decades [7].

Goal of This Study

Our objective was to analyze interview transcripts from child-parent dyads about atopic dermatitis using the PERMA (positive emotion, engagement, relationships, meaning, and accomplishment) model to determine which positive psychology themes were mentioned and whether there were areas of improvement for the well-being of children with atopic dermatitis using a positive psychology approach.

Methods

Recruitment

Patient-parent dyads of children aged 8 to 17 years old with atopic dermatitis were identified as a convenience sample recruited from the dermatology or allergy clinic at the Ann & Robert Lurie Children’s Hospital of Chicago. Inclusion criteria included children with physician-diagnosed atopic dermatitis currently receiving treatment in clinic. Disease severity was assessed by an allergist or dermatologist. Exclusion criteria included non–English-speaking parent-child dyads, history of intellectual disability or psychosis, and uncontrolled atopic dermatitis. A total of 49 dyads were screened for recruitment, 24 pairs were eligible for the study, 23 patients were enrolled, and 3 dropped out, with 20 patient-parent dyads ultimately completing the study. Participants were interviewed to share their personal experiences with atopic dermatitis to develop a psychologic intervention. Positive psychology themes emerged during the analysis, which were further explored in this study.

Trained coders analyzed the qualitative data using a coding dictionary developed based on Seligman’s PERMA model of positive psychology (Multimedia Appendix 1). The PERMA model breaks down positive psychology into 5 categories that may be targeted to improve well-being: positive emotion, engagement, relationships, meaning, and accomplishment. Two coders independently reviewed all interview transcripts, coding for mentions of PERMA themes or the lack thereof. Coders then had a discussion to reconcile differences in codes. Any persistent discrepancies were resolved by a third party. Transcripts were also analyzed by a separate pair of coders using a constant comparative approach. The emergent themes included resiliency, which was investigated for this study.

Ethics Approval

Approval was granted by the Institutional Review Board of Ann & Robert Lurie Children’s Hospital of Chicago (#IRB 2019-2560).

Results

Among the 20 child participants, the average age was 12 (SD 1.9) years. Of the participants, 9 (45%) were male, 11 (55%) were female, 7 (35%) identified as White, 7 (35%) as Black/African American, 3 (15%) as Latino or Latina, and 3 (15%) as Asian. Disease severity was assessed by a clinician global assessment or the exam-based Eczema Area and Severity Index: mild (n=3, 15%), moderate (n=9, 45%), and severe (n=8, 40%). At the time of the interview, all patients were on topical prescription therapies, and 7 (35%) participants were on oral or subcutaneous systemic therapy for atopic dermatitis. In terms of other chronic allergic diseases, 11 (55%) participants had asthma, 6 (30%) had allergic rhinitis, and 6 (30%) had food allergies.

Unprompted mentions of engagement and relationships were the most common PERMA themes raised by children (n=14, 70%) and parents (n=13, 65%) (Table 1). Interestingly, children and parents equally brought up negative and positive aspects of engagement and relationships due to eczema. Emotion elicited
the most negative comments from children (n=19, 95%) and parents (n=17, 85%).

We also stratified participants by disease severity to analyze the frequency of positive psychology concepts mentioned. Positive psychology concepts were mentioned more frequently by patients with mild atopic dermatitis (concepts: mean 13, SD 3; patients: n=3, 15%) versus those with moderate atopic dermatitis (concepts: mean 6.2, SD 4.9; patients: n=9, 45%) and those with severe atopic dermatitis (concepts: mean 6.1, SD 4; patients: n=8, 40%) (P=.03).

Transcripts were also analyzed for resiliency codes. Eight participants had at least one resiliency code. A sample of resiliency quotes is summarized in Textbox 1. Participants with a resiliency code mentioned 9.1 (SD 4.7) positive psychology concepts on average throughout their interview, whereas participants without a resiliency code mentioned 5.9 (SD 4.6) positive psychology concepts on average (P=.14).

Table 1. Positive psychology examples of PERMA (positive emotion, engagement, relationships, meaning, and accomplishment) themes and counterexamples mentioned unprompted in interviews.

| PERMA category       | Participants who mentioned the concept, n (%) | Example                                                                 |
|----------------------|----------------------------------------------|------------------------------------------------------------------------|
|                      | Parent | Child |                                                                 |
| Positive emotion     | 3 (15) | 9 (45) | “So it’s actually comforting…to be at home.” [Child]               |
| Negative emotion     | 17 (85)| 19 (95)| “[The itching] is frustrating for him that he can’t stop.” [Parent] |
| Engagement           | 10 (50)| 18 (90)| “I don’t want to let [the itch] keep me from the stuff so I keep doing the things.” [Child] |
| Lack of engagement   | 9 (45) | 17 (85)| “If I’m trying to do something and I feel itchy, it’s hard to do that thing ‘cause it’s distracting.” [Child] |
| Unhindered relationships |      |        |                                                                 |
| Adults               | 9 (45) | 12 (60)| Interviewer: “How do you talk about [your eczema] with adults?” Participant [child]: “As if I’m talking to my friends, it’s not that big of a deal.” |
| Peers                | 5 (25) | 13 (65)| “If somebody new that doesn’t know her would ask her about her eczema ‘what is that?’… her friends will say something ‘it’s eczema.’ So she’s got a good support group.” [Parent] |
| Other                | 2 (10) | 11 (55)| “Most people aren’t going to say anything [about your eczema] but if they do, just ignore them. It doesn’t matter what they say.” [Child] |
| Hindered relationships |      |        |                                                                 |
| Adults               | 5 (25) | 8 (40) | Interviewer: “Do you ever avoid meeting new adults because of your itching?” Participant [child]: “If they ask too many questions, then yeah.” |
| Peers                | 5 (25) | 10 (50)| “She’s gotten made fun of [because of her eczema].” [Parent]         |
| Other                | 3 (15) | 7 (35) | “I just try to avoid the subject [of my eczema].…I don’t think they understand.” [Child] |
| Meaning              | 4 (20) | 6 (30) | “I’m not really scared of having to itch…it doesn’t matter whether it’s here or not.” [Child] |
| Lack of meaning      | 4 (20) | 2 (10) | “She’ll scream and say why do I have to be born this way, I hate my skin.” [Parent] |
| Accomplishment       | 8 (40) | 7 (35) | “he handles [the itch] all by himself. I actually didn’t realize it gave him a lot of trouble…[he takes] care of it himself.” [Parent] |
| Lack of accomplishment| 4 (20) | 5 (25) | “I can’t really do anything about [my frustration due to eczema].” [Child] |
Textbox 1. Sample of resiliency quotes from parent and child transcripts.

Parent
- “They’re not self-conscious about [their eczema]…I believe that’s because there are other children in the school system that have eczema.”
- “She’s becoming independent, which is good, she likes to do [her eczema care regimen] herself…she does a great job”
- “I try to tell her…”[child], I think that overall life is gonna be somewhat easier for you because you’ve had to learn how to deal with this, so I think some things are gonna come a lot easier to you”
- “No one made fun of me [for my eczema]. So, I’m thinking maybe people just understand and other people have their own issues too…he hasn’t complained about it”

Child
- “If someone’s making fun of your skin just don’t be friends with them.”
- “[I] think about like long-term effects, just thinking about like oh, right now it would be best if I just don’t itch. Like it’s great if my skin looks clean now just focus on it right now, don’t like worry about how it’ll look like a month from now.”
- “Especially the kids who I talk to, they get it because they, everybody has a problem, nobody is perfect so when I talk about it I just say…I have eczema blah blah blah and then they don’t care that much afterwards”
- “We do all this stuff to help [my eczema], I know it’s not going to stay bad forever”
- “I know [the itch] it’s gonna to come back but it doesn’t worry me too much”
- “I’ve had eczema severely my whole life so like just if you do it in front of people nobody really cares that much because eczema is the thing that tons of people have so…I just tell them that it’s a normal thing”
- “I would tell [people who ask about my itching] that it gets better as life goes on if you just find the right thing”
- “I feel like I don’t like want to let [my eczema] keep me from the stuff so I keep doing the things”

Discussion

Principal Findings
Our small but diverse sample of children with atopic dermatitis frequently mentioned positive psychology concepts in qualitative interviews about their personal experience with atopic dermatitis. Children with severe disease were less likely to mention positive psychology concepts. Across all patients, the concepts of relationships and engagement were most frequently mentioned. Previous work in pediatric chronic disease shows similar findings that the concepts of relationships and engagement are consistently impacted.

With regard to relationships, children with chronic disease report difficulty maintaining relationships with family and friends [8,9]. They must also deal with concerns including how to share their diagnosis with others [10] and how to cope with unwanted attention [11]. Atopic dermatitis itself can become a source of conflict, especially given the stigma around having a visible skin condition. Children with chronic conditions need a supportive community to cope with the stress of their disease and management [12]. As several patients and parents mentioned, a supportive home environment and group of friends helped boost relationship building for them. Encouraging positive relationships, even by simple questions in clinic about close friends or family members, should be considered by providers treating atopic dermatitis.

With regard to engagement, children with chronic disease report worse school experiences and less participation in extracurricular activities compared to their healthy counterparts [8,13,14]. For many, their disease causes significant limitation of normal functions [15]. As an example, children with atopic dermatitis might limit physical activity, as they frequently report sweat-related itch and skin pain when sports equipment rubs against their skin. These children may benefit from additional support to help them engage with activities despite these physical limitations or pivot to activities with less physical discomfort to increase levels of engagement. Providers should consider querying about enjoyable activities.

While all PERMA categories are valuable to cultivate in patients with atopic dermatitis, our study identified positive emotion as the most needed area to cultivate. This is not surprising as previous work in atopic dermatitis demonstrated a correlation with negative emotion, poor quality of life, and disease severity [16]. Children with chronic conditions often experience significant negative emotions related to their disease, including but not limited to functional impairment, treatment burden, and acute as well as long-term stress [17]. Positive psychology alone cannot eliminate these negative emotions, but positive psychology interventions can enhance positive emotions, with favorable outcomes including enhanced resiliency and coping [18]. Positive emotion interventions include exercising gratitude and affirmations, which can be elicited by the parent or provider and also via several apps [19]. Cultivating gratitude through apps or physically writing letters of gratitude is easy to learn and can be frequently practiced to help strengthen positive emotion.

There is potential utility in adopting positive psychology interventions for children with atopic dermatitis, particularly in populations with severe disease to inspire them to build resilience and improve psychosocial health that could lead to improved health outcomes through, for example, less rumination and medication adherence.
Limitations and Conclusion

Limitations to our study include the small sample size, the exclusion of non–English-speaking patients, and interview questions that were not specific to positive psychology. Interview questions tended to focus on how atopic dermatitis has negatively impacted patients’ lives, without specifically soliciting more information on how positive psychology concepts could or are improving participant well-being (Multimedia Appendix 2). We hope to encourage further research on the application of positive psychology in pediatric atopic dermatitis and other pediatric chronic diseases.

Conflicts of Interest

WSB has served as an advisory board member for Incyte and Pfizer and has received honoraria. She has also received grants from Pfizer as an investigator. The other authors have no relevant conflicts of interest to disclose.

Multimedia Appendix 1

Coding dictionary, developed based on Seligman’s PERMA (positive emotion, engagement, relationships, meaning, and accomplishment) model of positive psychology.

[DOCX File, 18 KB-Multimedia Appendix 1]

Multimedia Appendix 2

Interview questions.

[DOCX File, 18 KB-Multimedia Appendix 2]

References

1. L Kruse L, Cices A, Fishbein AB, Paller AS. Neurocognitive function in moderate-severe pediatric atopic dermatitis: A case-control study. Pediatr Dermatol 2019 Jan 02;36(1):110-114. [doi: 10.1111/pde.13710] [Medline: 30506922]
2. Zhou NY, Nili A, Blackwell CK, Ogbeue N, Cummings P, Lai J, et al. Parent report of sleep health and attention regulation in a cross-sectional study of infants and preschool-aged children with atopic dermatitis. Pediatr Dermatol 2022 Jan 21:39(1):61-68 [FREE Full text] [doi: 10.1111/pde.14889] [Medline: 34935180]
3. Fishbein AB, Silverberg JJ, Wilson EJ, Ong PY. Update on Atopic Dermatitis: Diagnosis, Severity Assessment, and Treatment Selection. J Allergy Clin Immunol Pract 2020 Jan;8(1):91-101 [FREE Full text] [doi: 10.1016/j.jaip.2019.06.044] [Medline: 31474543]
4. Kim DH, Im YJ. Resilience as a protective factor for the behavioral problems in school-aged children with atopic dermatitis. J Child Health Care 2014 Mar 21;18(1):47-56. [doi: 10.1177/1367493512468360] [Medline: 23435165]
5. Parks AC, Williams AL, Kackloudis GM, Stafford JL, Boucher EM, Honomichl RD. The effects of a digital well-being intervention on patients with chronic conditions: observational study. J Med Internet Res 2020 Jan 10:22(1):e16211 [FREE Full text] [doi: 10.2196/16211] [Medline: 31922491]
6. Lianov LS, Fredrickson BL, Barron C, Krishnaswami J, Wallace A. Positive psychology in lifestyle medicine and health care: strategies for implementation. Am J Lifestyle Med 2019 Apr 18;13(5):480-486 [FREE Full text] [doi: 10.1177/1559827619838892] [Medline: 31523213]
7. Perrin JM, Bloom SR, Gortmaker SL. The increase of childhood chronic conditions in the United States. JAMA 2007 Jun 27;297(24):2755-2759. [doi: 10.1001/jama.297.24.2755] [Medline: 17595277]
8. Denny S, de Silva M, Fleming T, Clark T, Merry S, Ameratunga S, et al. The prevalence of chronic health conditions impacting on daily functioning and the association with emotional well-being among a national sample of high school students. J Adolesc Health 2014 Apr;54(4):410-415. [doi: 10.1016/j.jadohealth.2013.09.010] [Medline: 24210897]
9. Christin A, Akre C, Berchtold A, Suris JC. Parent-adolescent relationship in youths with a chronic condition. Child Care Health Dev 2016 Jan 03;42(1):36-41. [doi: 10.1111/cch.12266] [Medline: 26140665]
10. Dickinson JK, O'Reilly MM. The lived experience of adolescent females with type 1 diabetes. Diabetes Educ 2004 Sep 03;30(3):99-107. [doi: 10.1177/01457221040300017] [Medline: 14999898]
11. Birks Y, Sloper P, Lewin R, Parsons J. Exploring health-related experiences of children and young people with congenital heart disease. Health Expect 2007 Mar;10(1):16-29 [FREE Full text] [doi: 10.10111/j.1369-7625.2006.00412.x] [Medline: 17324192]
12. Shorey S, Ng ED. The lived experiences of children and adolescents with non-communicable disease: a systematic review of qualitative studies. J Pediatr Nurs 2020 Mar;51:75-84. [doi: 10.1016/j.pedn.2019.12.013] [Medline: 31926405]
13. Lum A, Wakefield CE, Donnan B, Burns MA, Fardell JE, Marshall GM. Understanding the school experiences of children and adolescents with serious chronic illness: a systematic meta-review. Child Care Health Dev 2017 Sep 23;43(5):645-662. [doi: 10.1111/cch.12476] [Medline: 28543609]
14. Betz CL, Redcay G. An exploratory study of future plans and extracurricular activities of transition-age youth and young adults. Issues Compr Pediatr Nurs 2005 Jul 10;28(1):33-61. [doi: 10.1080/01460860590916753] [Medline: 15824028]
Abbreviations

PERMA: positive emotion, engagement, relationships, meaning, and accomplishment