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REVIEW ARTICLE

Social and psychosocial effects on atopic eczema symptom severity – a scoping review of observational studies published from 1989 to 2019

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Abstract

Social and psychosocial factors are thought to have an effect on the course of atopic eczema. The aim of this scoping review was to search for and summarize observational studies that investigated the effects of (psycho-)social factors on symptoms in atopic eczema and to identify research gaps. We searched PubMed and PsycINFO for literature published between 1 January 1989 and 31 December 2019 using a systematic search strategy. We included observational studies that analysed the effect of (psycho-)social factors on symptom severity in atopic eczema patients. Reviews and non-observational studies, articles with research on animals, and articles with languages other than English or German were excluded. We identified 17 observational studies that met the inclusion criteria. Several studies found significant results for an exacerbating effect of stress on atopic eczema severity. Although coping and social support does not seem to moderate the effect of stress, coping strategies might mediate the impact that stress has on symptoms. Depression is associated with atopic eczema severity. The effect of depression as a consequence of atopic eczema severity is stronger than the effect as an exacerbating factor. Illness identity, anger, frustration and psychosomatic states have been found to affect atopic eczema symptoms. For attachment security, anxiety and social status, contradictory results were found. Statistically non-significant results were reported for personality, being in a partnership, satisfaction with the partnership, childhood experiences and body consciousness. Only the association between psychosocial stress and atopic eczema symptom severity seems robust. To date, other (psycho-)social factors, especially protective and health-promoting factors, were analysed only in a few studies, mostly with low sample sizes and cross-sectional design. Biopsychosocial interactions between stress, protective factors and the course of atopic eczema as well as the psycho-neuroimmunological mechanisms underlying those interactions are considered fields for future research contributions.

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Conflicts of interest

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Background

Atopic eczema is a chronic skin disease with increasing prevalence in most parts of the world.[1] The main symptoms of which are pruritus (itch) and dry skin.[2] Additionally, patients with atopic eczema often suffer from sleeplessness and stigmatization.[3,4] Therefore, they generally have a lower quality of life and worse mental health than healthy individuals.[4] There is no cure to date for the disease, but there are multiple options to treat and alleviate the symptoms. Those treatment options are often connected to financial strain since there is no guaranteed coverage of costs of basic therapy by insurance companies. Therefore, patients do not only suffer from symptoms and their

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consequences, but also from investment of money and time into the treatment.[5,6]

Referring to a biopsychosocial model of the disease, not only biological factors like irritants and allergens can impact symptom severity, but also psychosocial factors like stress.[7] We know that several allergens (such as food, house dust mite and pollen), seasonality, bacterial infections with *Staphylococcus aureus*, textiles, detergents, UV-light and stress can cause the symptoms or increase symptom severity.[8] On the other hand, we do not know what kind of factors – besides medical treatment and interventions – can decrease symptom severity or even lead to remission of atopic eczema.

Focusing on a vulnerability-stress model of atopic eczema, not only risk factors but also protective and health-promoting factors are relevant factors within the interplay of biopsychosocial environment and individual symptom severity.[9] Psychosocial factors, in general, are psychological factors which interact with the social environment. The social environment includes factors on macrolevel (e.g., socioeconomic factors), mesolevel (e.g., working conditions) and microlevel (e.g., social support). (Psycho-)social factors can affect atopic eczema symptom severity via psycho-neuroimmunological mechanisms or behavioural pathways.[10,11]

For children with atopic eczema, it is shown that psychological and educational interventions can improve symptoms.[12] Educational interventions have been found to improve atopic eczema management in adults.[13] Especially in adults, it is assumed that complex psycho-neuroimmunological mechanisms play an important role for the onset and the course of the disease.[14] However, well-conducted studies on self-management interventions are lacking.[15]

This scoping review on the associations between (psycho-)social factors and atopic eczema symptom severity in observational studies aims to identify research gaps and show where future research contributions in this field are needed.

Table 1 Search strategy used in Pubmed and PsychInfo (title and abstract)

Terms searched for in Pubmed and PsycInfo (title and abstract), from 01 January 1989 – 31 December 2019	
Atopic eczema	Atopic Dermatitides or Atopic Dermatitis or Dermatitides, Atopic or Neurodermatitis, Atopic or Atopic Neurodermatitides or Atopic Neurodermatitis or Neurodermatitides, Atopic or Neurodermatitis, Disseminated or Disseminated Neurodermatitides or Disseminated Neurodermatitis or Neurodermatitides, Disseminated or Eczema, Atopic or Atopic eczema or Eczema, Infantile or Infantile Eczema or neurodermatitis or neurodermitis
AND	
Symptom severity	skin condition or symptom severity or severity or symptom or symptoms or POEM or SCORAD or EASI or NESS or ADAM or ADASI or BCSS or IGADA or Leicester index or OSAAD or RL score or SA-EASI or SASSAD or SCORAD or SSS or TISS or BCSS or FSSS or SIS or TBSA or WAZ-S or itch or flare or exacerbation or relapse or recurrence or remission
AND	
Psychosocial factors	psychosocial or psychological or social or behavioural or behavioural or educational or mental or emotion or stress or job or traumatic or life event or anxiety or depression or depressive or ADHD or ADD or attention deficit or attachment or self-esteem or locus of control or self-efficacy or coping

Methods

A scoping review was performed for the literature published in the last 30 years, i.e., between 01 January 1989 and 31 December 2019 on PubMed and PsycINFO, including EPUB first articles (last research performed on January 27, 2020). Literature published prior to 1989 had been previously reviewed by Martin (1996) and Schubert (1989).[16,17] A scoping review is a quite new method for synthesizing evidence, to identify how research is done on a certain topic or if there are existing knowledge gaps.[18]

The systematic search strategy consisted of three parts. First, we identified 'atopic eczema' in titles or abstracts using MesH terms and expanded the query to also include 'neurodermitis' and 'neurodermatitis'. Second, we looked for 'symptom severity' by using synonyms for symptoms (e.g., 'skin condition' or 'flare') and measures of eczema symptoms, based on the systematic review on atopic eczema outcome measures of Schmitt *et al.*[19] Third, we looked for 'psychosocial factors', using umbrella terms like 'psychosocial', 'social' or 'psychological', but also psychologic disorders (e.g., 'depression'), specific stressors (e.g., 'life event') and protective or health-promoting factors (e.g., 'coping'). Terms such as 'sense of coherence' or 'resilience' did not lead to more search results and were therefore left out of the search strategy. The three parts were connected with the Boolean operator 'AND' and were limited to the search in titles and abstracts. An overview of the full search strategy is provided in Table 1.

All studies identified with this search strategy were included in the first step of the review.

After screening titles, abstracts and full texts, the resulting studies were then determined to be included or excluded from the next step of analysis, based on a set of exclusion criteria. Studies were excluded if (i) atopic eczema symptom severity was not defined as outcome, (ii) social or psychosocial factors were not defined as exposure, (iii) the study population was non-human, (iv) the study was non-observational (i.e., reviews, guidelines, interventional studies, case studies and studies with $n < 10$), and (v) the study was written in other languages than German or English. We documented the first reason for exclusion that we noticed while reading titles, abstracts and full texts, although some studies met more than one exclusion criteria.

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Table 2 Summary of scoping review results

References	Design	Number of atopic eczema patients (age, % female, Country)	Psychosocial factor (measurement)	Outcome (measurement)	Significant effect of psychosocial factor
King & Wilson (1991)[20]	Longitudinal	50 (30.6 ± 10.7 years, 64% female, Australia)	Interpersonal stress, anger felt, anger expressed, suppressed anger, frustration, anxiety/ tension, depression/ isolation (measured according to Robbins *et al.*, 1974)	Skin condition/flare-up (little, moderate or severe)	Yes (longitudinal analysis revealed: stress affects symptoms, depression is a consequence of symptoms)
Gupta *et al.* (1994)[30]	Cross-sectional	143 (19–89 years, 61.5% female, Canada)†	Depression (CRSD)	Itch severity ('How much is your rash itching at the present time?', 10 point scale from 'not at all' to 'very severe')	Yes
Martin (1996)[16] ‡	Cross-sectional	50 (11–22 years, 70% female, USA)	Stress (APES), social support (based on Network of Relationship Inventory), coping (CRI-Y)	Atopic eczema severity (Atopic eczema Symptom Self-Report Form)	Yes (stress, coping), no (social support); moderation analysis revealed: social support and coping are no moderating factors in the association of stress and symptoms
Hashiro *et al.* (1997)[26]	Cross-sectional	45 (16–56 years, 57.8% female, Japan)	Anxiety (MAS), depression (SDS), neurotic and psychosomatic states (CMI)	Percentage of affected area (<20% mild, 20% to <50% moderate, 50 and more severe)	Yes (depression, psychosomatic states), no (anxiety)
Kodama *et al.* (1999)[21]	Cross-sectional	1457 (only age groups reported: 28.9% <10 years, 26.6% 10–20 years, 36.8% >20 years, 51.8% female, Japan)§	Subjective emotional distress in response to the earthquake (yes/no)	Degree of itching and eczematous reaction (self-reported: exacerbation, unchanged, improved), physician validated (in 125 patients)	Yes
Ben-Gashir *et al.* (2004)[31]	Longitudinal	137 (5–10 years, 53% female, United Kingdom)	Social class (father's job/mother's job for single mothers of unemployed fathers, Registrat General classification)	Atopic eczema severity (SCORAD, SCORAD-D), parent-rated severity (0–10)	No
Rabung *et al.* (2004)[34]	Cross-sectional	124 (28.6 ± 9.4 years, 68.5% female, Germany)	Attachment style (RSQ)	Atopic eczema severity (NSI), in parts dermatological rating (NSI/SCORAD)	No
Arima *et al.* (2005)[27]	Cross-sectional	51 (12–36 years, 74.5% female, Japan)	Depression (BDI), anxiety (SAS), personality (TCI). Childhood experiences (PBI)	Atopic eczema severity (severity classification by Yoshiike + grading of itching: 'mild', 'moderate', 'severe')	Yes (depression), no (anxiety, personality, childhood experience)
Hashizume *et al.* (2005)[28]	Cross-sectional	85 (12–52 years, 61.2% female, Japan)	Anxiety (STAI)	Atopic eczema severity (SCORAD) and itch (VAS)	No
Langan *et al.* (2006)[22]	Longitudinal	25 (2 months–12 years, 44% female, Ireland)	Stress (exposure to stress)	Itch (scratch score)	Yes
Oh *et al.* (2010)[29]	Cross-sectional	28 (13–41 years, 38.24% female, Korea)	Depression (BDI), anxiety (STAI), interaction anxiousness (IAS), private body consciousness (subscale of the body consciousness questionnaire)	Atopic eczema severity (EASI), itch (VAS)	Yes (anxiety and itch), no (all other psychosocial factors and itch, all psychosocial factors and EASI)
Dieris-Hirche *et al.* (2012)[35]	Cross-sectional	62 (21–59 years, 62.9% female, Germany)	Attachment security (AAS), partnership (yes/no), partnership satisfaction (PFB)	Atopic eczema severity (PO-SCORAD)	Yes (attachment security), no (partnership, partnership satisfaction)
Chrostowska-Plak *et al.* (2013)[23]	Cross-sectional	89 (18–60 years, 66.3% female, Poland)	Stress (SRRS, stress self-assessment verbal rating scale), depression (BDI)	Atopic eczema severity (SCORAD), itch (4-item itch questionnaire, VAS)	Yes

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Table 2 *Continued*

References	Design	Number of atopic eczema patients (age, % female, Country)	Psychosocial factor (measurement)	Outcome (measurement)	Significant effect of psychosocial factor
Schut *et al.* (2014)[25]	Cross-sectional	109 (18–62 years, 68.8% female, Germany)	Illness perceptions (IPQ), coping styles (EBS)	atopic eczema severity (SCORAD)	Yes (illness identity), no (all coping styles and all other illness perceptions than illness identity)
Schut *et al.* (2015)[24]	Cross-sectional	28 (23.0 ± 2.3 years, 71.4% female, Germany)¶	Perceived stress (REST-Q), disease-specific coping (MSQ)	Itch intensity (VAS)	Yes (all variables correlated with itch, multiple mediation analysis revealed: itch-related coping is a mediator in the association of stress and itch)
Fotopoulou *et al.* (2018)[32]	Cross-sectional	100 (1–105 months, 53% female, Greece)	Social status (father's occupation; upper class: professionals, directors, business managers; middle class: 'White collar' workers; lower class: 'Blue collar' workers, farmers and labourers)	Atopic eczema severity (SCORAD), atopic eczema severity dichotomized (dichotomized: SCORAD < 37 vs. SCORAD > 36)	Yes (social status and SCORAD dichotomized), no (social status and SCORAD)
Tackett 2020 (Epub 2019)[33]	Cross-sectional	201 (0–18 years, 51.8% female, USA)	Structural racism (race, family income, education of caregiver, living environment, residential segregation)	AD severity (mild = no class one topical steroid or systemic therapy required, moderate = BSA > 10% + class one topical steroid treatment required, severe = BSA > 10% + immunosuppressant therapy required)	Yes

Abbreviations: AAS, Adult Attachment Scale; APES, Adolescent Perceived Events Scale; BDI, Beck Depression Inventory; CMI, Cornell Medical Index; CRI-Y, Coping Responses Inventory – Youth Form; CRSD, Carroll Rating Scale for Depression; EASI, Eczema Area and Severity Index; EBS, Ehrenfelder Inventory of Coping; IAS, Interaction Anxiousness Scale; IPQ, Illness Perception Questionnaire; MAS, Manifest Anxiety Scale; MSQ, Marburger Skin Questionnaire; NSI, Neurodermitis-Schweregrad-Index; PBI, Parental Bonding Instrument; PFB, Hahlweg's Partnership Questionnaire; REST-Q, Recovery-Stress Questionnaire; RSQ, Relationship Scales Questionnaire; SAS, Self-rating Anxiety Scale; SCORAD, Severity Scoring of Atopic Dermatitis; SDS, Self-rating Depression Scale; SRRS, Social Readjustment Rating Scale; STAI, State-Trate Anxiety Inventory; TCI, Temperament and Character Inventory; VAS, Visual Analogue Scale.

†Age and sex were reported for all patients that were included in the study (n = 252), not for atopic eczema patients only

‡The study of Martin 1996 was published as a dissertation, all other studies were published as articles

§Sex was reported only for patients included in the regression analysis

¶Data on age was received from the publication on the superordinate research project on the effects of stress management in atopic eczema[50]

Finally, the remaining full texts which met the inclusion criteria were reviewed and summarized in Table 2. In addition, the results were narrated and depicted in a schematic summary (Fig. 2). Meta-analysis was not meaningful as the measures for psychosocial factors and symptom severity were quite heterogenous and only a few studies per psychosocial factor exist. Moreover, the aim of this scoping review was to provide an overview of observational studies and to identify research gaps instead of quantifying the effect of psychosocial factors on atopic eczema severity.

Results

We identified 772 studies via Pubmed and 128 studies via PsychInfo. After removing the duplicates, 832 studies remained. First, the titles and abstracts were screened. In this step, we excluded 795 studies. The most common reason for exclusion was an inadequate outcome or exposure. Other articles were excluded on the basis of their non-observational design, language barrier or animal study population.

The second step was to screen the remaining 37 studies by full-text analysis. We excluded another 17 studies due to inadequate outcome or exposure, and 3 studies because they were non-observational.

Ultimately, 17 studies were included in the final review (see Fig. 1, Table 2). The characteristics of the reviewed studies are shown in Table 2.

Psychosocial stress and coping

Stress was the most analysed factor in the included studies. For the measurement of stress, each study used a different method.[16,20–24] Nevertheless, all cross-sectional and longitudinal studies found a significant effect of stress on symptom severity

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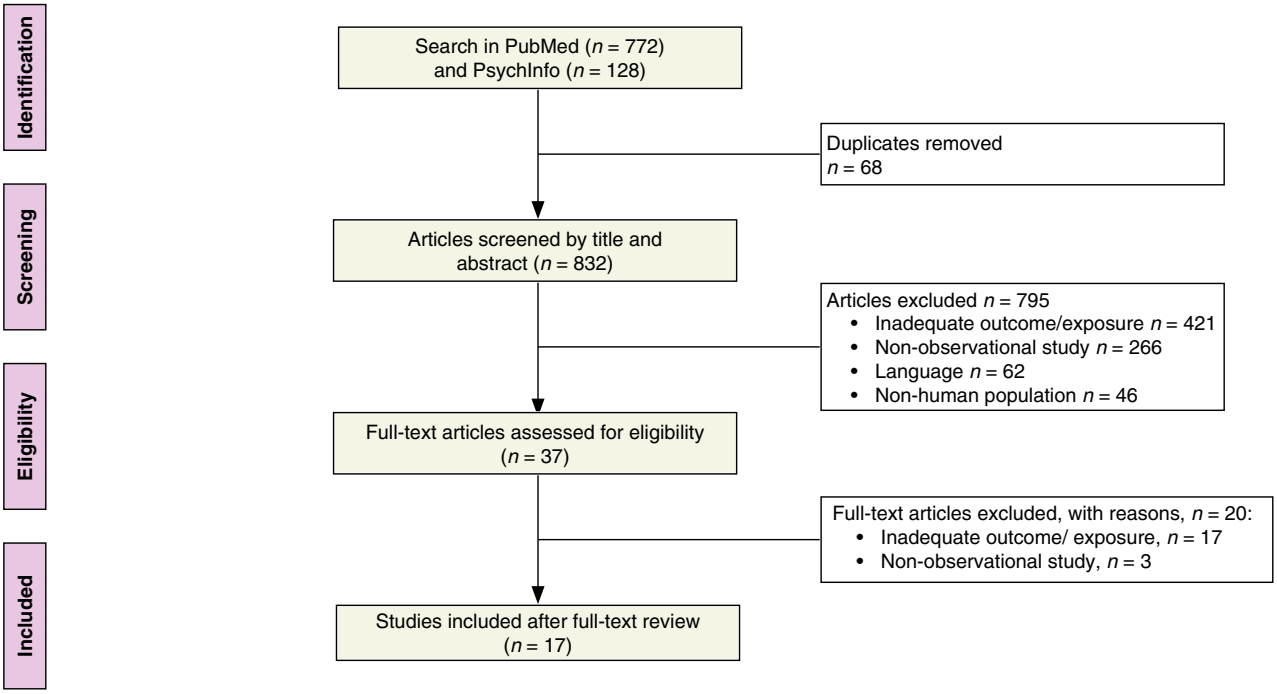

Figure 1 Flow Chart of the review process.

with correlation coefficients between $r = 0.2$ and $r = 0.5$. Some studies adjusted for co-factors such as sex, age, age of atopic eczema onset, coping, social support, environmental factors and medication.[16,21,24]

Contradictory findings were reported for the effect of coping on eczema symptoms.[16,24,25] Disease-specific coping was identified as a mediating factor in the association of stress and itch,[24] but coping was no moderating factor in the association of stress and eczema symptoms.[16]

Emotions

King and Wilson analysed the correlation of anger felt, anger expressed, anger suppressed and frustration, with skin condition in atopic eczema patients.[20] They found significant correlations for all emotions with correlation coefficients between $r = 0.09$ and $r = 0.19$.

Mental health

Mental health was another aspect that was often analysed. For anxiety, contradictory results were found.[20,26–29] Interestingly, two studies even used the same measure for anxiety, but did not come to the same results.[28,29] Hashizume *et al.*[28] did not find any association between anxiety and atopic eczema severity, measured with the State-Trait Anxiety Inventory (STAI) and a visual analogue scale (VAS) for itch, respectively. However, Oh *et al.* found an association between anxiety (STAI) and itch (VAS).[29] At the same time, neither Oh *et al.* nor Hashizume *et al.* could find an association between anxiety and eczema severity measured with EASI or SCORAD.[28,29]

Although one study did not find an association between depression and atopic eczema symptoms,[29] all other studies that examined this relationship found associations between depression and atopic eczema symptom severity.[20,26,27,30] Correlation coefficients ranged from 0.21 to 0.51. A longitudinal study points out that depression might be a consequence, rather than an influencing factor, of atopic eczema symptoms.[20]

Patients with moderate atopic eczema were more prone to psychosomatic symptoms than controls.[26]

Social status

Three studies investigated social status in association to atopic eczema severity.[31–33] All of the studies were conducted on children. One of them could not find any association between social status, as measured by occupations of the parents, and atopic eczema symptoms. However, a statistically significant association was found in the second study, where social status was also measured by occupations of the parents and children with SCORAD >36 were compared to children with a lower SCORAD.[32] The third study measured social status according to family income and education of the caregivers.[33] An association with both social class indicators was found. Moreover, this study also investigated other aspects in the context of structural racism,

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such as race, living environment or residential segregation. All of those aspects were associated with atopic eczema severity, especially in black children.[33]

Relationship with others –attachment, partnership and social support

Contradictory results for the association between attachment security and atopic eczema severity were found.[34,35]

No statistically significant results were reported for the association of being in a partnership, partnership satisfaction or social support, with atopic eczema symptoms.[35] No moderating effect of social support in the association of stress and symptoms was shown.[16]

Other: Illness perception, childhood experiences, personality and body consciousness

Illness identity was significantly correlated with symptom severity, while other illness perceptions were not (i.e., belief that psychological factors cause the disease, belief that chance causes the disease, perceptions about the timeline of the disease and belief in having control over the disease).[25]

Additionally, no significant results were reported for associations of childhood experiences, personality or private body consciousness with atopic eczema symptoms.[27,29]

In Fig. 2 a schematic summary of the review results on the associations between (psycho-)social factors and atopic eczema symptom severity is given.

Discussion

Within this scoping review, we investigated what kind of social and psychosocial factors were associated with atopic eczema symptom severity in observational studies. We found several studies that assumed an exacerbating effect of psychosocial stress on symptom severity. Coping strategies might mediate the association between stress and symptoms, while coping and social support does not seem to moderate the association. One study also observed effects of illness identity, anger, frustration and psychosomatic states on atopic eczema symptoms. Depression was correlated with atopic eczema symptoms, but the effect of eczema symptoms on depression seems stronger than the effect of depression on eczema symptoms. Contradictory results were observed for anxiety, attachment security and social status. Statistically non-significant associations were found for childhood experiences, body consciousness, living in a partnership and satisfaction with the partnership. In general, only the association between stress and symptom severity seems robust. For all other factors, only a few studies with mostly low sample size and cross-sectional design exist.

Psychosocial stress – Association or causation?

Psychosocial stress was associated with the symptom severity of atopic eczema patients in all studies that analysed the effect of stress. Even longitudinal studies showed that psychosocial stress might have an effect on symptom severity. While in most cases, mental stress seems to exacerbate symptoms, it may also be able to reduce symptom severity.[21] According to the criteria of causality defined by Hill,[36] the existing studies point to a possibly causal inference: the correlation coefficients found in studies analysing the association between stress and atopic eczema severity indicate that the association's strength is mild to moderate. Moreover, the finding of the effect of stress on symptoms was consistent across observations of a diverse variety of people, places, circumstances and times. Regarding specificity, we cannot say that the association is very specific. On the one hand, psychosocial stress can cause many different kinds of diseases and symptoms, yet on the other hand, atopic eczema symptoms can be amplified by a variety of factors. Nevertheless, Hill states that if specificity is not apparent, that is not necessarily a reason

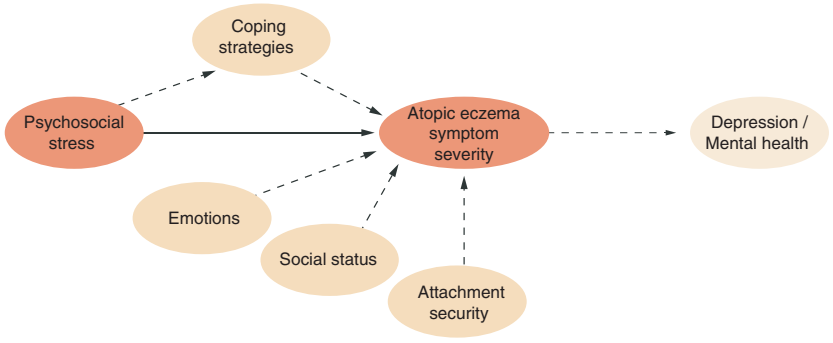

Figure 2 Schematic Summary of the review results. The solid line between psychosocial stress and atopic eczema symptom severity shows that this association seems robust, while the other associations (dotted lines) need to be approved or disproved by further research. The figure shows only factors that were associated with atopic eczema symptoms in the reviewed studies. Factors that were not analysed yet (e.g., resilience) or factors that did not have an effect in the reviewed studies (e.g., social support) are not shown in this figure, although they could play an important role in the context of atopic eczema.

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for a non-causal inference.[36] Another criterion which seems to be met is the temporality of the association, since a few longitudinal studies show that stress can be measured before increased symptom severity shows up. Although eczema can also cause psychosocial stress, e.g., because of financially straining and time-consuming therapies, stress also seems to exacerbate symptoms. This might in turn lead to some kind of vicious cycle. Regarding the biological gradient or the dose-dependency, we cannot make any conclusion at the moment. It is hard to measure the dose of stress, because the stress appraisal is very individual. 'Checklists' like the social readjustment rating scale of Holmes and Rahe, try to quantify the amount of stress.[37] However, according to the transactional stress model by Lazarus, the amount of stressors do not necessarily correlate with the stress response, because of the individual stress appraisal.[38] Lazarus *et al.*[38] also define stress as an emotion; analogously emotions such as frustration and anger might affect symptoms in a similar way as stress does. Biological plausibility is given to how stress could cause symptoms in atopic eczema, based on theories of psycho-neuroimmunological mechanisms.[11] The association between stress and symptoms is coherent, not only with existing research, but also with the experiences of the patients. Moreover, experimental evidence points to relaxation techniques which appear to reduce symptom severity in atopic eczema.[39]

Mental health issues – A consequence of atopic eczema?

An association between depression and symptom severity was found in most studies. Depression can be interpreted as a stressor and can therefore increase symptom severity, yet one study pointed out that depression might rather be a consequence than an impacting factor on atopic eczema symptoms.[20] In this review, we looked for studies which defined psychosocial factors as exposure. Many other studies, that defined depression or anxiety as an outcome, were not included in this review. A recently published review summarizes the literature on the psychosocial comorbidity of atopic eczema.[40] Depression can also be a result of stigmatization.[41] Many atopic eczema patients feel stigmatized because of the visibility of the disease or the assumed failure of management. Especially women with atopic eczema are more vulnerable to feelings of stigmatization and therefore also to depression,[42] possibly because social norms of beauty and health are rather associated with the female than with the male gender.[43]

For anxiety, contradictory results were found in cross-sectional studies. One reason for contradictory results might be the different measurement of anxiety and eczema symptoms. Also, small sample sizes and low statistical power can lead to statistically non-significant results. Sampling bias in terms of different age groups or different proportions of male and female patients can be another reason for different findings. More studies are needed to approve or disprove the association between anxiety and atopic eczema symptoms.

Social status – Social gradient in eczema symptoms?

Although one study did not find any association between social status and eczema symptoms, two other studies found associations pointing towards a social gradient of atopic eczema symptom severity. While the lack of socioeconomic resources seems to worsen atopic eczema symptoms, having high socioeconomic resources could be a protective factor in atopic eczema. This is in contrast to the prevalence, which seems to be higher in high socioeconomic status groups (reversed social gradient).[44] However, the reversed social gradient in atopic eczema prevalence might be a consequence of underreporting in low socioeconomic status groups.[44] Future studies should continue to investigate the social gradient of atopic eczema severity. They should not only concentrate on children, but also on adults, and measure the social status in a multidimensional way. Since education programs seem to be an effective tool for the improvement of eczema management, education and health literacy might be health-promoting factors in atopic eczema.[13] Also, income could be a protective factor for atopic eczema patients, as the costs for eczema treatment are quite extensive.[6] Since it is shown that the symptom severity is worse in black children, the intertwined risk of environment, race and social status in the context of structural racism should also be kept in mind as a potential risk factor.[33]

Relationship with others – a protective factor?

Few studies hypothesized that insecure attachment might increase symptom severity in eczema, but contradictory results were found. More studies are needed to investigate this relationship, as a secure attachment could possibly be a protective factor, and therefore a new dimension for an interventional or preventive approach.

Social support and partnership did not have an effect on symptom severity, but the studies analysing the association between social support and symptoms had a small sample size and therefore a low statistical power. Social support might be a protective or health-promoting factor as well, because it is able to buffer the negative effect of stress.[45] Another study with bigger sample size and higher power should have a look on the moderating effect of social support in the association between stress and atopic eczema severity.

Other psychosocial factors – only few studies looking at health-promoting factors

Looking at factors other than psychosocial stress, mental health, social status or relationship with others, only one study reported an association between illness representations and eczema symptom severity. One additional study investigated personality and private body consciousness in association with eczema symptoms, but did not find a significant result.

In general, other social and psychosocial factors are not well researched, especially factors that might improve the symptoms.

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From a salutogenetic perspective not only risk factors, but also health-promoting and protective factors should be research objectives.[46] The focus is rather on disease prevention than on health promotion. In atopic eczema, health promotion could mean promoting the remission of symptoms, i.e., increasing the number and the duration of symptom-free phases. For example, a proactive topical therapy can help to increase the duration of symptom-free phases in atopic eczema.[47] It has not yet been investigated if (psycho-)social factors could support the effect of proactive topical therapy, help atopic eczema patients to become healthy, and live with less, or even without, flares.

Finally, the responsibility for good health does not only lie in individuals, i.e., in physicians and patients. Changes on a structural level, e.g., working conditions or attitudes towards psychosocial factors, are also necessary to reduce stressors and make (psycho-)social health-promoting factors available for everyone.

Strengths and limitations

The strengths of this scoping review are the inclusion of various psychosocial factors in the systematic search strategy and the search in different databases. It gives an overview of the current state of the research on psychosocial factors and atopic eczema symptoms. This review also has some limitations. No protocol was published before the review started and only one reviewer screened all articles. The research was performed in titles and abstracts only and we included observational studies only. This leads to incomplete results. On the other hand, reviews for interventional studies already exist.[12,15,48] The review was limited to a specific period. Various outcome measures were included in the review, which makes objective result comparison challenging. In general, conclusions have to be drawn with caution since only a handful of studies for each psychosocial factor were published.

Conclusion

This scoping review supports the hypothesis that the effect of psychosocial stress increases symptom severity. Nevertheless, more well-conducted studies are needed with regard to psychosocial factors other than stress as possible in register studies.[49] Especially factors that might buffer the effect of stress, i.e., protective and health-promoting factors, could be the objective of future research. Better knowledge of biopsychosocial interactions between stressors and protective factors might help to better understand the course of atopic eczema. In the long term, this might help to improve and personalize interventions and create structures to stay or become healthy in times of omnipresent psychosocial strain. Especially for adults with atopic eczema, where psycho-neuroimmunological mechanisms seem to play an important role, this might be helpful, but also for other stress-induced complaints.

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