

Psychosomatic Burden and Childhood Trauma in Chronic Pruritus without Primary Dermatoses or Systemic Disease: A Case-control Study

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Chronic pruritus without a primary dermatosis or systemic disease is a clinically challenging condition in which psychological factors may be relevant and substantial psychosomatic burden may be present. This case-control study examined childhood trauma, psychological symptoms and psychosomatic characteristics in this patient population. A total of 75 patients and 75 healthy controls aged 18–65 years were included. Childhood trauma, dissociation, depressive and anxiety symptoms, somatic symptom burden, alexithymia, health anxiety, somatosensory amplification and itch burden were assessed using validated self-report instruments. Group differences were analysed using multivariate analysis of covariance and follow-up ANCOVAs adjusted for age, sex and education. Patients showed higher somatic symptom burden, alexithymia, health anxiety, somatosensory amplification, anxiety and depressive symptoms than controls, whereas dissociative symptoms did not differ. Among childhood trauma dimensions, emotional abuse and physical abuse were higher in patients, while other trauma domains were not significantly different. Itch severity was correlated with depressive symptoms, anxiety symptoms and somatic symptom burden; in exploratory regression analyses, depressive symptoms emerged as the only independent predictor of itch severity. These findings suggest that patients with chronic pruritus without a primary dermatosis or systemic disease may have a broad psychosomatic burden extending beyond affective symptoms alone.

Key words: Chronic pruritus; Psychodermatology; Health anxiety; Somatosensory amplification; Alexithymia; Childhood trauma.

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Pruritus is one of the most common symptoms encountered in dermatological practice and represents a distressing sensation that provokes the

SIGNIFICANCE

Chronic pruritus without a primary dermatosis or identifiable systemic disease represents a clinically challenging condition. In these patients, psychological factors may be relevant, although their relationship with chronic itch is often complex and difficult to establish. The present study shows that this clinical group has a broad psychosomatic burden, including depressive and anxiety symptoms, somatic symptom burden, health anxiety, somatosensory amplification and alexithymic features. Childhood trauma findings were selective, mainly involving emotional and physical abuse. Depressive symptoms showed the most consistent relationship with itch severity. These findings support brief psychosocial assessment and dermatology–psychiatry collaboration in this clinical group.

desire to scratch (1). When persisting for 6 weeks or longer, it is defined as chronic pruritus (2). The aetiology of chronic pruritus is often multifactorial and requires the consideration of dermatological, systemic, neurological and psychiatric causes (3). Therefore, chronic itch should not be regarded merely as a symptom confined to the skin, but rather as a multidimensional symptom experience involving biological, psychological and clinical components.

In a subset of patients with chronic pruritus, no primary dermatosis or systemic disease sufficiently explains the symptom (4). In these patients, psychological factors may be relevant, although the relationship between psychological factors and chronic itch is often complex and difficult to establish (4). Consequently, increasing attention has been directed toward the psychological and psychosomatic dimensions of chronic itch.

The relationship between chronic pruritus and psychological distress is bidirectional. Anxiety, depression, stress and emotional tension may influence the perception, intensity and persistence of itch; conversely, persistent itch is associated with sleep disturbance, impaired quality of life, reduced social functioning and increased psychological burden (1, 5). This reciprocal relationship highlights the clinical relevance of a more detailed psychosomatic assessment,

particularly in patients whose itch cannot be sufficiently explained by organic causes.

Previous studies have reported increased rates of depression, anxiety, obsessive-compulsive disorders, psychotic disorders and substance use disorders in patients with chronic itch in whom no sufficient organic explanation is identified (6–8). Nevertheless, this clinical presentation is unlikely to be adequately explained solely by co-occurring psychiatric disorders. Instead, psychological processes beyond categorical psychiatric diagnoses may also be important. The way bodily sensations are perceived, emotions are processed, and psychological distress is expressed through the body may also be clinically relevant. Alexithymic and dissociative features have been implicated in chronic itch and related psychodermatological conditions, but systematic evidence remains limited (9–11).

Childhood trauma may provide a developmental background for psychosomatic vulnerability (12). Early adverse experiences have been associated with adult somatic symptom reporting, emotion regulation difficulties, alexithymic traits and dissociative symptoms (13, 14). These mechanisms may also be relevant in chronic itch without an identifiable organic cause, where subjective symptom perception, emotional distress and bodily awareness are closely intertwined (15).

Somatosensory amplification and health anxiety may also be important in persistent physical symptoms and chronic itch (16, 17). Because itch is readily influenced by attention, expectation and interpretation, these constructs may contribute to symptom burden. However, studies evaluating these variables together with childhood trauma, alexithymia, dissociation, and general psychological burden in this patient population remain scarce.

The present study aimed to compare patients with chronic itch without a primary dermatosis or systemic disease and healthy controls in terms of childhood trauma dimensions and a broad set of psychological and psychosomatic characteristics, including dissociation, depressive and anxiety symptoms, somatic symptom burden, alexithymia, health anxiety and somatosensory amplification. We also examined the associations of these variables with itch severity. This approach was intended to clarify whether this clinical presentation is better characterized by isolated affective symptoms or by a broader psychosomatic burden relevant to dermatological practice.

MATERIALS AND METHODS

Study design and participants

This case-control study was conducted in the dermatology and psychiatry outpatient clinics. Patients presenting with chronic itch without a primary dermatosis or an identifiable systemic cause after

dermatological evaluation were considered eligible for the case group. Eligible patients were informed about the study, invited to participate, and completed the self-report questionnaires after providing written informed consent. The control group consisted of healthy volunteers without chronic itch, a primary dermatosis or any clinically relevant medical condition associated with pruritus and was selected to achieve a similar age and sex distribution to the patient group. In both groups, self-reported medical conditions were verified using electronic health records. A total of 150 adults aged 18–65 years were included, comprising 75 patients and 75 healthy controls.

A priori power analysis

An a priori power analysis was conducted using G*Power. Because data directly informing the CTQ-related variables were limited, the effect size for this domain was estimated conservatively at a moderate level based on the psychosomatic literature reviewed for the study. Across the psychosomatic variables, the studies considered suggested standardized effects in the approximate range of 0.67 to 0.93; to avoid overestimation, we adopted a more conservative effect size of $d=0.45$ for the primary calculation (11, 18, 19). For a 2-tailed comparison of 2 independent groups with an alpha level of 0.05 and power of 0.80, this yielded a required sample of 79 participants per group ($N=158$).

Inclusion and exclusion criteria

For the case group, inclusion criteria were as follows: age between 18 and 65 years, chronic itch without a primary dermatosis or an identifiable systemic cause, symptom duration of at least 3 months, and no dermatological treatment for pruritus within the previous month. For the control group, the absence of chronic itch, a primary dermatosis and any clinically relevant medical condition associated with pruritus was required.

Exclusion criteria for all participants were illiteracy, cognitive impairment severe enough to interfere with comprehension of the study procedures, pregnancy, and the presence of any medical comorbidity potentially associated with pruritus.

Measures

Childhood trauma was assessed using the Childhood Trauma Questionnaire (CTQ) (20), dissociative symptoms using the Dissociative Experiences Scale-28 (DES-28) (21), depressive symptoms using the Beck Depression Inventory (BDI) (22), anxiety symptoms using the Beck Anxiety Inventory (BAI) (23), somatic symptom burden using the Bradford Somatic Inventory-44 (BSI-44) (24), alexithymia using

the Toronto Alexithymia Scale-20 (TAS-20) (25), somatosensory amplification using the Somatosensory Amplification Scale (SSAS) (26), and health anxiety using the Whiteley Index-7 (WI-7) (27). All instruments were administered using their validated and reliable Turkish versions. Higher scores indicated greater severity of the corresponding psychological characteristic or symptom burden. In addition, itch severity and itch-related burden were assessed using the 5-D Itch Scale (28) and a visual analogue scale.

Statistical analysis

All analyses were conducted in R (v4.4.2). Group differences were examined in a 2-stage framework. First, multivariate analysis of covariance (MANCOVA) was used to test whether the outcome sets differed between the patient and healthy control groups after adjustment for prespecified covariates. Pillai's trace was selected as the primary multivariate statistic because of its relative robustness to assumption violations.

Before model fitting, missingness, descriptive statistics, univariate distributions, correlations among dependent variables, multivariate outliers, homogeneity of covariance matrices, homogeneity of variances, and homogeneity of regression slopes were evaluated. Multivariate outliers were identified using Mahalanobis distance with a conservative threshold ($p < 0.001$), and a sensitivity analysis was performed after excluding outliers from the childhood trauma. Box's M and Levene's tests were used to assess key multivariate and univariate assumptions. Associations among continuous variables were examined with Pearson correlations.

When a multivariate effect was significant, follow-up ANCOVAs were conducted for each dependent variable. Because some variables showed heteroscedasticity, non-normality, or sensitivity to influential observations, HC3-based heteroscedasticity-consistent ANCOVA estimates were used for the follow-up models. Exploratory regression analyses were conducted for itch severity. A complementary elastic net penalized logistic regression analysis was performed to examine multivariable case-control discrimination, with details provided in Appendix S1.

RESULTS

Participants

The case and control groups did not differ significantly in age (49.07 ± 14.20 vs. 48.27 ± 14.23 years, $t(148) = 0.35$, $p = 0.731$) or sex distribution (76.0% vs. 69.3 % female, $\chi^2(1) = 0.84$, $p = 0.360$). The case group had fewer years of education than controls ($p = 0.002$), and additional differences were observed for employment status ($p = 0.002$), additional medical illness ($p = 0.007$), additional medication use ($p = 0.003$), and

current psychiatric diagnosis ($p < 0.001$). The remaining baseline sociodemographic and clinical characteristics are presented in **Table I**.

Group comparisons for individual outcomes

Following the MANCOVA, follow-up ANCOVAs were conducted to identify the individual outcomes contributing to significant multivariate effects. Group effects were modest but significant in the CTQ model

Table I. Baseline participants' characteristics

Variable	Category	Case n (%)	Control n (%)	Test statistic
Age	Mean $\pm$ SD	49.07 $\pm$ 14.20	48.27 $\pm$ 14.23	$t(148) = 0.345$, $p = 0.731$
Sex	Female	57 (76.0)	52 (69.3)	$\chi^2(1) = 0.84$, $p = 0.360$
Marital status	Male	18 (24.0)	23 (30.7)	$\chi^2(3) = 3.71$, $p = 0.295$
	Single	9 (12.0)	13 (17.3)	
	Married/ cohabiting	57 (76.0)	57 (76.0)	
	Widow	2 (2.7)	3 (4.0)	
Education level	Divorced	7 (9.3)	2 (2.7)	$\chi^2(4) = 10.88$, $p = 0.028$
	Primary	40 (53.3)	21 (28.0)	
	Secondary	7 (9.3)	11 (14.7)	
	High school	18 (24.0)	23 (30.7)	
Education (years)	Bachelor's	9 (12.0)	17 (22.7)	$t(148) = -3.187$, $p = 0.002$
	Post-graduate	1 (1.3)	3 (4.0)	
	Mean $\pm$ SD	7.96 $\pm$ 4.51	10.49 $\pm$ 5.21	
Employment status	Full time	19 (25.3)	30 (40.0)	$\chi^2(4) = 16.82$, $p = 0.002$
	Part time	4 (5.3)	2 (2.7)	
	Homemaker/ Student	35 (46.7)	28 (37.3)	
	Retired	7 (9.3)	15 (20.0)	
Socioeconomic status	Not employed/ Unemployed	10 (13.3)	0 (0.0)	$\chi^2(3) = 6.20$, $p = 0.102$
	Low	20 (26.7)	17 (22.7)	
	Middle	33 (44.0)	27 (36.0)	
	Middle-to-High	20 (26.7)	21 (28.0)	
Additional medical illness	High	2 (2.7)	10 (13.3)	$\chi^2(1) = 7.20$, $p = 0.007$
	Yes	37 (49.3)	21 (28.0)	
	No	38 (50.7)	54 (72.0)	
Additional medication use	Yes	38 (50.7)	20 (26.7)	$\chi^2(1) = 9.11$, $p = 0.003$
	No	37 (49.3)	55 (73.3)	
	Yes	24 (32.0)	2 (2.7)	
Current psychiatric diagnosis	No	51 (68.0)	73 (97.3)	Fisher's exact $p < 0.001$
	Yes	16 (21.3)	7 (9.3)	
	No	59 (78.7)	68 (90.7)	
Family history of psychiatric illness	Yes	29 (38.7)	0 (0.0)	Fisher's exact $p = 0.068$
	No	46 (61.3)	75 (100.0)	
	Yes	48 (64.0)	2 (2.7)	
Past psychiatric diagnosis	No	27 (36.0)	73 (97.3)	Fisher's exact $p < 0.001$
	Yes	39 (52.0)	0 (0.0)	
	No	36 (48.0)	75 (100.0)	
Current psychiatric medication use	Yes	21 (28.0)	10 (13.3)	Fisher's exact $p = 0.043$
	No	54 (72.0)	65 (86.7)	
	No			

(Pillai trace=0.104, $F(5, 141)=3.27$, $p=0.008$) and remained significant in the sensitivity analysis (Pillai's trace=0.089, $F(5, 136)=2.66$, $p=0.025$). Group effects were more pronounced in the psychosomatic model (Pillai trace=0.349, $F(7, 139)=10.65$, $p<0.001$). In this model, sex and education year also showed significant multivariate effects, whereas age did not. Detailed model statistics are presented in Table SII.

CTQ subscales

Among CTQ subscales, only emotional abuse and physical abuse remained significantly higher in patients after adjustment for age, sex, and education and FDR correction. Emotional neglect, physical neglect, and sexual abuse did not differ between groups (Table II).

Psychosomatic outcomes adjusted for age, sex and education

For psychosomatic outcomes, patients scored significantly higher than healthy controls on BSI-44, TAS-Total, WI-7, SSAS, BAI, and BDI after adjustment for age, sex, and education. DES-28 did not differ between groups. Detailed test statistics, effect sizes, and multiple-comparison-adjusted results are presented in Table III.

Correlational analyses

Pearson correlation analyses showed that D5 Total was positively correlated with DES-28 ($r=0.277$, $p=0.016$), BDI ($r=0.394$, $p<0.001$), BAI ($r=0.297$, $p=0.010$), BSI-44 ($r=0.353$, $p=0.002$), TAS-DDF ($r=0.244$, $p=0.035$), and SSAS ($r=0.254$, $p=0.028$). Itching severity was positively correlated with BDI ($r=0.448$, $p<0.001$), BAI ($r=0.297$, $p=0.010$), and

BSI-44 ($r=0.359$, $p=0.002$). No significant correlations were found between either pruritus measure and childhood trauma variables, CTQ total, TAS total, or WI-7 (all $ps>0.05$). The remaining non-significant and lower-magnitude correlations are presented in Table IV.

Exploratory and sensitivity regression analyses of itching severity

Candidate variables identified through correlation screening were entered into alternative regression models adjusted for age, sex, and education Table SV. Because BSI-44 was strongly correlated with BAI ($r=0.81$) and BDI ($r=0.64$), sensitivity analyses were conducted across different model specifications. Overall model fit was generally modest; however, depressive symptoms emerged as the only significant independent predictor in the most informative model ($\beta=0.317$, $p=0.032$).

Nested Cross-Validated elastic net logistic regression

A complementary forced-covariate elastic net logistic regression model was fitted exploratorily to examine multivariable case-control discrimination while accounting for sex, age, and education. The model showed moderate discrimination and retained DES-28, BDI, BSI-44, TAS-Total, WI-7, and SSAS after shrinkage (Fig. S1), whereas CTQ-Total and BAI were not retained. Full details are provided in Appendix S1 and Tables SVI–SXI.

DISCUSSION

In this case-control study, patients with chronic itch without a primary dermatosis or an identifiable systemic cause showed a broader psychosomatic burden than healthy controls. After adjustment

Table II. Follow-up ANCOVAs of CTQ subscales with adjusted for multiple comparison

Outcome	Case		HC		F*	p	Partial η^2	FDR p
	adj. mean $\pm$ SE	[95% CI]	adj. mean $\pm$ SE	[95% CI]				
EmAb	8.140 $\pm$ 0.425	[7.300, 8.979]	6.698 $\pm$ 0.420	[5.868, 7.529]	6.36	.0127	0.0420	.0368
EmNeg	12.035 $\pm$ 0.672	[10.707, 13.363]	12.461 $\pm$ 0.665	[11.147, 13.774]	0.22	.639	0.0015	.639
PhysAb	6.558 $\pm$ 0.276	[6.011, 7.104]	5.640 $\pm$ 0.274	[5.099, 6.180]	6.09	.0147	0.0403	.0368
PhysNeg	7.047 $\pm$ 0.290	[6.474, 7.620]	7.604 $\pm$ 0.287	[7.038, 8.171]	2.04	.155	0.0139	.258
SexAb	5.674 $\pm$ 0.251	[5.177, 6.171]	5.257 $\pm$ 0.249	[4.765, 5.749]	1.52	.219	0.0104	.274

*Controlled for Age, Gender, Education year.

EmAb: emotional abuse; EmNeg: emotional neglect; PhysAb: physical abuse; PhysNeg: physical neglect; SexAb: sexual abuse.

Table III. Follow-up ANCOVAs of psychosomatic outcomes with adjusted for multiple comparison

Outcome	Case		HC		F*	p	Partial η^2	FDR p
	adj. mean $\pm$ SE	[95% CI]	adj. mean $\pm$ SE	[95% CI]				
DES-28	11.7 $\pm$ 1.52	8.72–14.70	12.5 $\pm$ 1.51	9.49–15.40	0.124	.726	.001	.775
BSI-44	23.5 $\pm$ 1.69	20.20–26.90	13.8 $\pm$ 1.67	10.50–17.10	19.10	<0.001	.112	<0.001
TAS20-Total	54.0 $\pm$ 1.28	51.40–56.50	49.5 $\pm$ 1.27	47.00–52.00	6.91	.010	.045	.018
WI-7	2.89 $\pm$ 0.24	2.41–3.36	1.55 $\pm$ 0.24	1.08–2.02	15.20	<0.001	.106	<0.001
SSAS	29.4 $\pm$ 0.87	27.70–31.10	24.2 $\pm$ 0.86	22.50–25.90	18.50	<0.001	.120	<0.001
BAI	14.9 $\pm$ 1.28	12.30–17.40	8.77 $\pm$ 1.26	6.27–11.30	12.10	<0.001	.080	.002
BDI	16.1 $\pm$ 1.10	13.90–18.30	8.84 $\pm$ 1.09	6.68–11.00	21.80	<0.001	.141	<0.001

*Controlled for Age, Gender, Education year.

BAI: Beck Anxiety Inventory; BDI: Beck Depression Inventory; BSI-44: Bradford Symptom Inventory-44; DES-28: Dissociative Experiences Scale-28; SSAS: Somatosensory Amplification Scale; TAS-Total: Toronto Alexithymia Scale total score; WI-7: Whiteley Index-7.

Table IV. Correlations of scales and itch severity

Variables	D5 total		Itching severity (0–10)	
	r	p	r	p
EmAb	0.021	0.860	0.073	0.532
EmNeg	–0.010	0.931	–0.005	0.965
PhysAb	0.024	0.837	0.202	0.082
PhysNeg	0.073	0.534	0.004	0.974
SexAb	0.089	0.448	0.031	0.789
CTQ-Total	0.038	0.748	0.071	0.543
DES-28	0.277	0.016	0.218	0.060
BDI	0.394	0.000	0.448	0.000
BAI	0.297	0.010	0.297	0.010
BSI-44	0.353	0.002	0.359	0.002
TAS20-DIF	0.211	0.069	0.164	0.159
TAS20-DDF	0.244	0.035	0.226	0.052
TAS20-EOT	–0.212	0.067	–0.195	0.094
TAS20-Total	0.142	0.225	0.113	0.336
WI-7	0.069	0.559	0.130	0.266
SSAS	0.254	0.028	0.223	0.055

BAI: Beck Anxiety Inventory; BDI: Beck Depression Inventory; BSI-44: Bradford Symptom Inventory-44; CTQ-Total: Childhood Trauma Questionnaire total score; DES-28: Dissociative Experiences Scale-28; 5D-Total: 5-D Itch Scale total score; EmAb: emotional abuse; EmNeg: emotional neglect; PhysAb: physical abuse; PhysNeg: physical neglect; SexAb: sexual abuse; SSAS: Somatosensory Amplification Scale; TAS20-DDF: difficulty describing feelings; TAS20-DIF: difficulty identifying feelings; TAS20-EOT: externally oriented thinking; TAS20-Total: Toronto Alexithymia Scale total score; WI-7: Whiteley Index-7.

for age, sex, and education, patients had higher levels of somatic symptom burden, alexithymic features, health anxiety, somatosensory amplification, anxiety, and depressive symptoms, whereas dissociative symptoms did not differ between groups. Childhood trauma findings showed a more selective pattern: emotional abuse and physical abuse were higher in patients, but total childhood trauma and the remaining trauma subdomains did not show consistent group differences. These findings suggest that the psychological burden in this patient group extends beyond affective symptoms and may be better understood from a broader psychodermatological perspective, encompassing somatic symptom burden, heightened bodily focus, health-related concerns, and difficulties in emotional processing.

The present findings are consistent with previous literature emphasizing the close relationship between chronic pruritus and psychological distress. Chronic itch has been associated with depression, anxiety, sleep disturbance, impaired quality of life, and increased emotional burden (1, 5, 6, 10). Our findings add to this literature by suggesting that, in this patient group, the psychosomatic burden extends beyond affective symptoms. Higher levels of somatic symptom burden, health anxiety, and somatosensory amplification suggest that the monitoring and interpretation of bodily sensations may represent clinically relevant aspects of this clinical presentation.

The elevated alexithymia scores in the patient group further support this interpretation. Previous psychodermatology literature has suggested that alexithymic features may be relevant in patients whose emotional distress is experienced or communicated

through bodily symptoms (11, 29, 30). In the present study, alexithymia remained higher in patients after adjustment for demographic variables, indicating that difficulties in emotional processing may represent an important component of the psychological profiles of this patient group.

By contrast, dissociative symptoms did not differ between patients and controls. This finding should be interpreted cautiously, because it does not fully align with the limited psychodermatology literature. For example, a previous study of patients with psychogenic pruritus reported higher levels of dissociative symptoms than in healthy controls (11). More broadly, dissociation has been regarded as a clinically relevant feature in several functional and psychosomatic disorders (31). It is also noteworthy that dissociative symptoms did not differ between groups despite significant differences in several psychological constructs considered to be closely related to dissociation, particularly alexithymia. Several explanations may account for this pattern. Functional and psychosomatic disorders are heterogeneous, and the role of dissociation is unlikely to be equivalent across different clinical presentations (32, 33). Methodological factors may also have contributed to this finding. The DES-28 primarily assesses psychoform dissociation and may not adequately capture somatoform or culturally shaped dissociative manifestations (34). Furthermore, although alexithymia and dissociation are closely related, they are distinct constructs that may contribute independently to similar clinical outcomes (35–37).

Likewise, the association between childhood emotional and physical abuse and later chronic itch without a primary dermatosis or an identifiable systemic cause should not be interpreted solely through dissociation. Early adversity may increase psychosomatic vulnerability through multiple pathways, including stress-response dysregulation, emotion-regulation difficulties, alexithymic traits, and dissociative experiences (38–40).

Taken together, the present findings on dissociation should not be interpreted as indicating that dissociation is clinically unimportant in this patient group. Rather, although dissociative symptoms did not distinguish patients from controls in the present study, their significant association with greater itch burden suggests that they may contribute to symptom severity in a subset of patients.

One clinically relevant finding was the relationship between depressive symptoms and itch severity. In correlation analyses, itch severity was associated with depressive symptoms, anxiety symptoms, and somatic symptom burden, while the broader 5-D itch score was additionally related to dissociation, difficulty describing feelings, and somatosensory amplification. However, in exploratory regression models adjusted for demographic

variables, depressive symptoms emerged as the only significant independent predictor of itch severity. This finding is in line with the proposed bidirectional relationship between itch and psychological distress (5, 10). Depressive symptoms may increase the perceived burden of itch through reduced coping capacity, sleep disruption, attentional narrowing, and lower tolerance of bodily discomfort. Conversely, persistent itch may worsen mood and reinforce depressive symptoms (1, 5, 10). Although causality cannot be inferred from this cross-sectional design, these results suggest that depressive symptoms should be systematically assessed in this patient group.

The childhood trauma findings should be interpreted cautiously. Patients reported higher emotional and physical abuse scores than controls, which is consistent with studies linking early adversity to adult somatic symptoms and psychosomatic vulnerability (13). However, total childhood trauma was not associated with itch severity, and not all trauma subdomains differed between groups. Taken together, these findings suggest a selective rather than uniform association between childhood trauma and this clinical presentation. A more balanced interpretation is that certain forms of early interpersonal adversity may contribute to vulnerability in some patients, possibly through later difficulties in affect regulation, stress responsivity, or bodily symptom perception (13, 14, 29).

The exploratory nested cross-validated elastic net analysis provided complementary support for this multidimensional interpretation. Because several psychological and psychosomatic variables were interrelated, the penalized framework was used to estimate their relative contribution to case-control discrimination while reducing instability due to multicollinearity. The model retained depressive symptoms, somatic symptom burden, alexithymia, health anxiety, somatosensory amplification and dissociation, whereas CTQ total and anxiety symptoms were not retained. These findings suggest that classification as patient or healthy control may be better captured by a combined psychosomatic pattern than by any single symptom domain. However, the retention of dissociation despite the absence of a group difference, and the non-retention of CTQ total despite selective emotional and physical abuse findings, indicate that these results should be interpreted as exploratory and supportive rather than diagnostic.

Limitations

Several limitations should be noted. The cross-sectional design precludes causal interpretation. Psychological variables were assessed using self-report instruments and may have been influenced by current mood or symptom perception. Patients and controls also differed

in education, medical illness, medication use, and psychiatric history; although key demographic variables were statistically controlled, residual confounding cannot be excluded. Finally, the single-centre design and modest sample size limit generalizability.

Future studies using concurrent assessment of both psychoform and somatoform dissociation are warranted, as these dimensions may provide complementary information regarding the role of dissociative processes in this clinical presentation. Prospective longitudinal studies may further clarify the temporal relationships among childhood trauma, psychosomatic characteristics, and the development and severity of itch in this patient group.

Conclusion

Chronic itch without a primary dermatosis or an identifiable systemic disease was associated with a distinct psychosomatic burden involving depressive and anxiety symptoms, somatic symptom burden, health anxiety, somatosensory amplification and alexithymic features. Depressive symptoms showed the most consistent relationship with itch severity. The nested penalized analysis further supported a multidimensional psychosomatic pattern, while emphasizing that no single psychological variable should be considered diagnostic. These findings support the value of brief psychosocial assessment in dermatological practice and suggest that collaboration between dermatology and psychiatry may improve the clinical evaluation and management of this patient group.

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Ethics committee: Marmara University School of Medicine Non-Interventional Research Ethics Committee; approval date: 04.12.2025; approval number: 09.2025.25-0912.

The authors have no conflicts of interest to declare.

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