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Anxiety, Somatic Symptoms, and Skin-Picking Behaviors in Gifted and Non-Gifted Youth

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Highlights

What are the main findings?

- Intellectually gifted participants showed higher anxiety ranks and skin-picking behavior scores than their non-gifted peers, while no differences were found in overall somatic symptoms.
- Anxiety, somatic symptoms, and skin-picking behaviors were positively but modestly associated, suggesting distinct yet interrelated dimensions of emotional and behavioral functioning.

What are the implications of the main findings?

- Intellectual giftedness should not be regarded as a general indicator of emotional vulnerability, as differences varied according to the psychological and behavioral dimension assessed.
- The findings support assessing emotional, somatic, and behavioral manifestations separately and highlight the need for further research using validated measures of body-focused repetitive behaviors.

Abstract

Background/Objectives: Studies on the emotional and behavioral functioning of intellectually gifted children and adolescents have reported mixed findings, and few have examined anxiety, somatic symptoms, and skin-picking behaviors together. This study compared these dimensions in gifted and non-gifted youth, examining their associations and exploring differences by sex and developmental stage. **Methods:** This cross-sectional study included 290 participants aged 6–17 years (47 gifted and 243 non-gifted). Intellectual giftedness was defined as a Full-Scale IQ ≥ 130 and creativity ≥ the 75th percentile. Anxiety was assessed using the Revised Children's Manifest Anxiety Scale (CMAS-R), somatic symptoms using the Children's Somatization Inventory (CSI-24), and skin-picking behaviors using three exploratory items. Group comparisons, factorial analyses, and correlations were conducted. **Results:** No significant group differences were found in somatic symptoms. Gifted participants showed higher skin-picking behavior scores, with a moderate effect size, and higher anxiety ranks, with a small effect size. Exploratory analyses identified interactions between giftedness and sex for anxiety and somatic symptoms, but no significant interactions between giftedness and developmental stage. Small positive associations were observed among the three variables. **Conclusions:** Differences

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associated with intellectual giftedness varied across the dimensions assessed and did not indicate generalized emotional vulnerability. The higher skin-picking scores should be interpreted cautiously given the exploratory, non-diagnostic nature of the measure and should not be considered evidence of excoriation disorder. These findings highlight the importance of assessing emotional, somatic, and behavioral manifestations separately and support further research using larger samples and validated instruments.

Keywords: intellectual giftedness; gifted children; gifted adolescents; anxiety; somatic symptoms; skin picking; body-focused repetitive behaviors; emotional functioning; child and adolescent mental health

1. Introduction

Intellectual giftedness has been defined in terms of exceptionally high cognitive ability, although broader models also include creativity, achievement, motivation, and developmental characteristics [1]. Classical accounts proposed that gifted children might experience particular social and emotional difficulties when their advanced cognitive development did not progress in parallel with other aspects of maturation [2–5]. In this context, developmental asynchrony and Dabrowski's theory of positive disintegration have been influential frameworks in the literature on giftedness [6–9]. However, current evidence does not support treating these children as a psychologically homogeneous group. Reviews describe mixed findings concerning anxiety, psychological adjustment, social functioning, and well-being, partly reflecting differences in definitions, identification procedures, samples, and assessment instruments [10,11].

Developmental asynchrony has frequently been proposed as a theoretical framework for understanding the emotional experiences of intellectually gifted children and adolescents. This perspective posits that cognitive development may progress at a different rate than emotional, social, or behavioral development, potentially generating discrepancies between advanced intellectual capacities and the resources available to regulate complex emotional experiences and social demands [5,9]. From this standpoint, an important question emerges: might developmental asynchrony be associated with heightened anxiety and greater somatic symptom expression in some gifted youth? When advanced cognitive awareness coexists with age-appropriate emotional regulation skills, children may become more sensitive to environmental demands, interpersonal difficulties, or existential concerns, potentially increasing their subjective experience of stress and psychological distress.

Nevertheless, developmental asynchrony should not be considered a defining or universal characteristic of giftedness, nor should it be interpreted as evidence of psychological maladjustment. Theoretical models of asynchronous development, emotional intensity, and overexcitability have often been invoked to explain possible socio-emotional differences among gifted individuals [6–9]. However, empirical evidence remains inconclusive. While some studies have reported increased emotional vulnerability and adjustment difficulties among gifted children and adolescents, others have found levels of psychological functioning comparable to those of their non-gifted peers [10–13]. These inconsistencies suggest that giftedness, in itself, does not necessarily confer greater psychological risk and that individual, contextual, and developmental factors likely play an important moderating role.

Importantly, developmental asynchrony was not directly assessed in the present study. Consequently, this construct is introduced solely as a theoretical lens through which the research questions may be contextualized rather than as a causal explanation

for the observed findings. Nevertheless, several authors have argued that asynchronous patterns of development may contribute to emotional vulnerability in a subset of gifted children, particularly when discrepancies between cognitive abilities and emotional or social maturation become salient in academically demanding or socially challenging environments [14].

Anxiety is among the most frequently studied aspects of socioemotional functioning in gifted individuals. Some earlier studies reported elevated anxiety or emotional difficulties in certain samples, whereas others found levels similar to or lower than those of non-gifted peers [12,15–17]. A recent meta-analysis of 27 studies found no significant overall differences in anxiety between gifted individuals and those with typical development; nevertheless, heterogeneity was substantial, and both age and assessment method moderated the findings [18]. Anxiety should therefore be examined as a distinct variable rather than assumed to be an inherent consequence of giftedness.

Several methodological factors may help explain these inconsistent findings. First, studies differ in how intellectual giftedness is identified, with some relying exclusively on intelligence quotient thresholds and others incorporating additional characteristics or educational identification procedures [10,11]. Second, recruitment from specialized educational settings, clinical services, or general school populations may produce samples with different characteristics. Third, variation in age distributions, comparison groups, and anxiety assessment instruments can influence the comparability of findings. These considerations support examining anxiety empirically within clearly defined samples rather than assuming that intellectual giftedness is inherently associated with greater emotional vulnerability.

Somatic symptoms are also relevant to understanding functioning in childhood and adolescence. Physical complaints such as headaches, abdominal pain, dizziness, nausea, fatigue, or musculoskeletal discomfort may accompany emotional distress, but they do not necessarily indicate a psychological origin or the presence of a clinical somatic disorder [19,20]. Somatic complaints are associated with anxiety and other emotional difficulties in pediatric samples [21–23]. However, relatively little research has examined whether the overall burden of somatic symptoms differs according to intellectual giftedness. Difficulties in identifying and expressing emotions have also been associated with increased somatic complaints in children and adolescents, suggesting that emotional processes may influence the way psychological distress is manifested physically [24].

Body-focused repetitive behaviors (BFRBs) have received little attention among gifted children and adolescents. Skin picking ranges from occasional behaviors to recurrent acts associated with skin lesions and functional impairment. The presence of such behaviors alone does not establish a diagnosis of excoriation disorder, which requires specific diagnostic criteria to be met [25]. Research in other populations has examined associations between skin-picking behaviors, anxiety, and certain emotional processes, emphasizing the need to distinguish occasional behaviors from clinically significant manifestations [26–29]. These findings, however, cannot be directly extrapolated to gifted children and adolescents. Moreover, brief behavioral measures cannot, by themselves, establish a diagnosis of excoriation disorder. Examining these behaviors alongside anxiety and somatic symptoms may help identify specific patterns of psychological and behavioral health in this population.

Emotion regulation may provide a useful theoretical framework for considering possible relationships among anxiety, somatic symptoms, and skin-picking behaviors. Emotional distress can be accompanied by physical complaints, while repetitive behaviors may occur in different emotional contexts. Recent evidence from clinical populations suggests that difficulties in emotion regulation are associated with skin-picking disorder. In a systematic review of 19 studies, Barber and Fitzgerald [30] reported greater emotion

regulation difficulties among individuals with skin-picking disorder than among healthy controls, although findings concerning symptom severity were mixed. Nevertheless, these findings cannot be directly generalized to intellectually gifted children or to the exploratory, non-diagnostic skin-picking behaviors assessed in the present study. Emotion regulation is therefore considered a potential explanatory mechanism requiring further investigation, rather than a variable directly examined in this research.

Few studies have addressed skin picking in gifted children and adolescents. An earlier study reported dermatological findings in a sample of gifted children [31], but questions remain about possible differences from non-gifted peers and the relationship of these behaviors with anxiety and somatic symptoms.

The simultaneous assessment of anxiety, somatic symptoms, and skin-picking behaviors offers an opportunity to examine whether psychological and behavioral differences associated with intellectual giftedness are specific to particular domains or occur across several dimensions. Although anxiety and somatic complaints have been associated in previous pediatric research [21–23], these variables should not be considered interchangeable. Similarly, skin-picking behaviors may be associated with emotional distress without necessarily reflecting a clinical disorder [26,28]. Evaluating the three outcomes within the same sample makes it possible to compare their patterns of group differences and examine their associations under a common study design. This approach may contribute to a more differentiated understanding of emotional, somatic, and behavioral functioning in gifted and non-gifted children and adolescents, while avoiding assumptions about generalized psychological vulnerability.

The aim of this study was to compare anxiety, somatic symptoms, and skin-picking behaviors in children and adolescents with and without intellectual giftedness. Giftedness was operationally defined as a full-scale intelligence quotient (FSIQ) of at least 130 and a creativity score at or above the 75th percentile. This was the definition adopted for the study and is not intended as a universal definition of intellectual giftedness.

We also examined associations among anxiety, somatic symptoms, and skin-picking behaviors in the full sample, as well as possible differences by sex and developmental stage. In keeping with the original study rationale, we expected higher anxiety and skin-picking scores in the gifted group and positive associations among the three variables. Analyses by sex and developmental stage were considered exploratory.

2. Materials and Methods

This study employed a cross-sectional, observational, comparative design to examine anxiety, somatic symptoms, and skin-picking behaviors in children and adolescents with and without intellectual giftedness.

2.1. Participants

The initial sample comprised 372 children and adolescents. After applying the selection criteria, 82 participants (22.0%) were excluded, including 49 participants with IQ scores between 120 and 129 (59.8% of excluded cases), 19 participants with diagnosed medical conditions that could interfere with the assessment of somatic symptoms (23.2%), and 14 participants with active dermatological conditions that could affect the evaluation of skin-picking behaviors (17.1%). The final sample consisted of 290 participants aged 6–17 years (M = 12.78, SD = 2.47; see Figure 1). No missing data were identified for any of the variables included in the study; consequently, all participants were retained in the analyses. A total of 134 were female (46.2%) and 156 were male (53.8%). By developmental stage, 80 participants were aged 6–11 years (27.6%) and 210 were aged 12–17 years (72.4%). Participants were recruited over a five-year period from schools and specialized centers in Spain using non-probability sampling.

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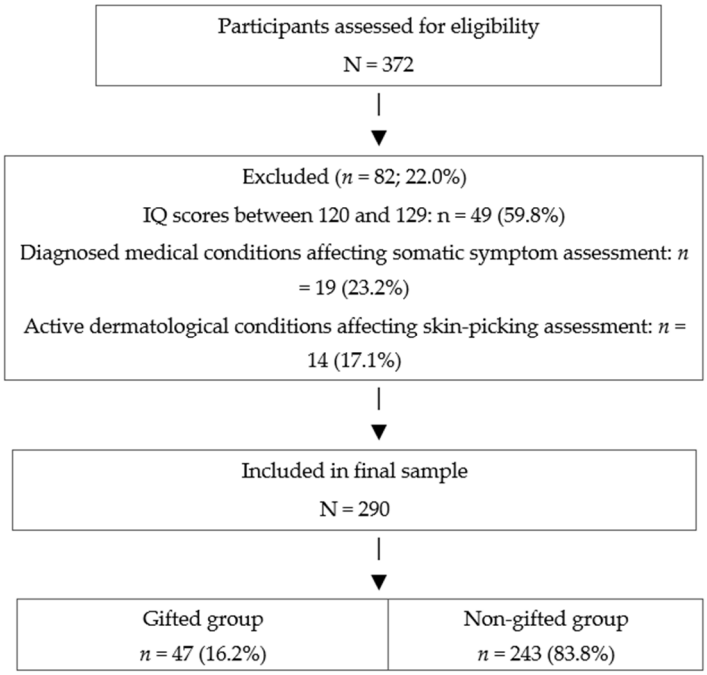


Figure 1. Flow Diagram of Participant Selection and Group Allocation.

The gifted group comprised 47 participants (16.2%) and the non-gifted group 243 (83.8%). The mean Full-Scale IQ (FSIQ) of the gifted group was 142.43 (SD = 9.06), whereas the comparison group had a mean FSIQ of 105.08 (SD = 8.10). Of the participants aged 6–11 years, 23 belonged to the gifted group and 57 to the comparison group. Among participants aged 12–17 years, 24 belonged to the gifted group and 186 to the comparison group.

Snowball sampling was also used to recruit part of the gifted group. Classification required meeting both criteria: a Full-Scale IQ (FSIQ) of at least 130 and a creativity score at or above the 75th percentile. This operational definition incorporated both intellectual ability and creativity, consistent with multidimensional approaches to giftedness identification [1,32,33]. The creativity threshold was a predefined inclusion criterion in the present study, informed by the multidimensional approach proposed by Castelló and de Batlle [34], which considers elevated performance across several intellectual aptitudes, including creativity. In this framework, the 75th percentile is used as a reference threshold for identifying high aptitude in specific domains. However, the criteria adopted in the present study did not reproduce the complete identification protocol proposed by Castelló and de Batlle [34] and should not be interpreted as universally established diagnostic thresholds. To increase the distinction between groups, participants with IQ scores of 120–129 were excluded from the comparison group. Participants with a diagnosed medical condition that might interfere with the assessment of somatic symptoms, or an active diagnosed dermatological condition that might affect the assessment of skin-picking behaviors, were also excluded.

The sample size was determined by the availability of participants who met the predefined inclusion criteria during the recruitment period. Given the relatively low prevalence of intellectual giftedness identified using conventional IQ-based criteria (IQ ≥ 130, approximately 2.2% of the population) [35], all eligible gifted participants identified during the study period were included.

Table 1 presents the sample characteristics.

Table 1. Sample characteristics.

Characteristic	*n*	%

Total sample	290	100.0
Sex		
Female	134	46.2
Male	156	53.8
Developmental stage		
Childhood (6–11 years)	80	27.6
Adolescence (12–17 years)	210	72.4
Intellectual giftedness		
Gifted	47	16.2
Non-gifted	243	83.8
Developmental stage by group		
Gifted: Childhood (6–11 years)	23	48.9 *
Gifted: Adolescence (12–17 years)	24	51.1 *
Non-gifted: Childhood (6–11 years)	57	23.5 *
Non-gifted: Adolescence (12–17 years)	186	76.5 *

Note. The mean age of the full sample was 12.78 years (SD = 2.47; range = 6–17 years). Giftedness was operationally defined as FSIQ ≥ 130 and creativity ≥ the 75th percentile. Percentages marked with an asterisk (*) are calculated within each group.

2.2. Procedure

Participation was voluntary and anonymous. No directly identifying personal information was collected, recorded, or stored. The procedure was explained to participants, and written informed consent was obtained from their parents or legal guardians before assessment. The measures were administered using the same instructions and in the same order. Younger children received assistance limited to understanding the instructions and items.

All participants had written informed consent from their parents or legal guardians, and the data were collected and handled anonymously. In 2026, the study documentation was reviewed by a Research Ethics Committee, which favorably assessed the methodological and ethical characteristics of the project, including data anonymization, the absence of invasive procedures, and the existence of informed consent.

2.3. Instruments

Intellectual ability was assessed using the Spanish adaptation of the Wechsler Intelligence Scale for Children, Fourth Edition (WISC-IV) [35]. FSIQ was used to classify participants. Creativity was assessed using the CREA creative intelligence test [36], which provides age-referenced percentiles based on questions generated in response to visual stimuli.

Anxiety was assessed using the Spanish version of the Revised Children's Manifest Anxiety Scale (CMAS-R) [37]. This instrument consists of 37 yes/no items: 28 assess anxiety and nine constitute the lie scale. The anxiety items yield a total score. The internal consistency coefficient (Cronbach's α) in the present sample was 0.79.

Somatic symptoms were assessed using the 24-item Children's Somatization Inventory (CSI-24) [38]. Items were scored from 0 (never) to 4 (all the time). Higher total scores indicated more frequent symptoms. Internal consistency in the study sample was high (Cronbach's $\alpha = 0.88$).

Skin-picking behaviors were assessed using three items from the Psychological Cutaneous Manifestations questionnaire (Manifestaciones Cutáneas Psicológicas, MC-P) [31]. The questionnaire was developed following a review of the psychodermatological literature and consultation with experts on cutaneous manifestations related to skin excoriation. The items assessed three behaviors: causing skin injuries with the fingernails,

scratching frequently, and picking or scratching pimples. Each item was scored from 0 (never) to 2 (very often), yielding a possible total score of 0–6. Internal consistency in the present study was high (Cronbach's $\alpha = 0.89$). This result is consistent with the reliability coefficient obtained during the initial development of the instrument (Cronbach's $\alpha = 0.91$) [31]. These coefficients were obtained in different samples and describe internal consistency; they should not be taken as evidence of comprehensive psychometric validation. The questionnaire also included a separate question on diagnosed dermatological conditions, which was used as an exclusion criterion and was not included in the behavioral score. As the three items do not constitute a standardized diagnostic scale, the findings should be interpreted as exploratory rather than as indicators of excoriation disorder. The MC-P was used as a brief measure of skin-picking behaviors rather than as a diagnostic instrument for excoriation disorder. Accordingly, the scores reflect the presence of the behaviors assessed by the questionnaire and should not be interpreted as indicating a clinical diagnosis.

2.4. Statistical Analysis

Analyses were conducted using IBM SPSS Statistics, version 20. Independent-samples t tests were used to compare groups on somatic symptoms and skin-picking behaviors, and the Mann–Whitney U test was used for anxiety. Exploratory 2 × 2 factorial analyses of variance (ANOVAs) were conducted to examine interactions between giftedness and sex and between giftedness and developmental stage (childhood: 6–11 years; adolescence: 12–17 years). Associations among anxiety, somatic symptoms, and skin-picking behaviors were examined using Pearson correlations. Between-group comparisons and correlations among the three outcomes were considered the primary analyses, whereas analyses involving sex and developmental stage were exploratory. All tests were two-sided, with $\alpha = 0.05$. No missing data were identified for any of the variables included in the study; therefore, all participants were retained in the analyses. No adjustment was made for multiple comparisons; therefore, the findings, particularly those from exploratory analyses, should be interpreted with caution because of the increased risk of Type I error.

3. Results

3.1. Main Between-Group Differences

Gifted and non-gifted participants did not differ significantly in somatic symptom scores, with a negligible observed effect. In contrast, gifted participants showed higher skin-picking behavior scores, with a moderate effect size, and higher anxiety ranks, with a small effect size. The confidence interval for the difference in somatic symptoms was consistent with considerable uncertainty around the negligible observed difference, whereas the confidence interval for skin-picking behaviors indicated higher scores in the gifted group. Anxiety was compared using the Mann–Whitney U test and was therefore interpreted in terms of ranks rather than mean differences.

Table 2 presents the comparisons between the two groups.

Table 2. Anxiety, somatic symptoms, and skin-picking behaviors by intellectual giftedness.

Variable	Gifted (*n* = 47)	Non-Gifted (*n* = 243)	Statistic	*p*	Effect Size	95% CI
Somatic symptoms. M (SD)	14.90 (11.03)	14.88 (13.30)	t(288) = 0.01	0.991	d = 0.00	[−4.05, 4.09]
Skin-picking behaviors. M (SD)	2.11 (1.72)	1.41 (1.53)	t(288) = 2.83	0.005	d = 0.46	[0.21, 1.19]
Anxiety. M (SD)	10. 71 (3.12)	9.98 (7.34)	U = 4619.00	0.037	rrb = 0.191	—

Note. Somatic symptoms were assessed using the CSI-24 and anxiety using the CMAS-R. Values are presented as M (SD), except for anxiety, which was analysed using the Mann–Whitney U test due to unequal variances between groups. Effect sizes are reported as Cohen's d for *t*-tests and rank-biserial correlation (rrb) for the Mann–Whitney U test. Confidence intervals refer to the estimated mean difference (gifted minus non-gifted) for outcomes analyzed using Student's *t*-test and were calculated from the reported rounded descriptive statistics. Anxiety was analyzed using the Mann–Whitney U test; therefore, a confidence interval for the mean difference is not applicable to the reported rank-based comparison.

3.2. Analyses by Sex and Developmental Stage

Exploratory two-way analyses of variance (ANOVAs) were conducted to examine the main and interaction effects of intellectual giftedness and sex, and of intellectual giftedness and developmental stage, on anxiety, somatic symptoms, and skin-picking behaviors. Main effects are reported before interaction effects following conventional ANOVA reporting guidelines.

Significant main effects of developmental stage were observed for somatic symptoms, $F(1, 286) = 4.26$, $p = 0.040$, and skin-picking behaviors, $F(1, 286) = 5.01$, $p = 0.025$, whereas the main effect on anxiety was not statistically significant, $F(1, 286) = 0.53$, $p = 0.466$.

Descriptively, children aged 6–11 years showed higher mean scores than adolescents aged 12–17 years for somatic symptoms (M = 16.73 vs. 14.19) and skin-picking behaviors (M = 2.11 vs. 1.30). These descriptive differences should be interpreted cautiously given the exploratory nature of the analyses and the unequal group sizes.

Giftedness and sex. Small but statistically significant giftedness × sex interactions were observed for anxiety and somatic symptoms, whereas the interaction for skin-picking behaviors was not statistically significant. Exploratory subgroup comparisons indicated a significant difference in anxiety between gifted and non-gifted female participants, but no significant differences in somatic symptoms or skin-picking behaviors. Among male participants, the gifted group showed higher skin-picking behavior scores than the non-gifted group, whereas no significant differences were found in somatic symptoms or anxiety. These subgroup comparisons should be interpreted cautiously.

Giftedness and developmental stage. No statistically significant giftedness × developmental-stage interactions were observed for anxiety, somatic symptoms, or skin-picking behaviors.

Given the exploratory nature of these analyses, the unequal group sizes, and the absence of adjustment for multiple comparisons, the findings should be interpreted cautiously.

Table 3 summarizes the interactions examined in the factorial analyses. Effect sizes are reported as partial eta-squared (η^2p).

Table 3. Interaction effects between intellectual giftedness and sex or developmental stage for anxiety, somatic symptoms, and skin-picking behaviors.

Interaction	Variable	F(1, 286)	*p*	η^2p
Giftedness × sex	Anxiety	6.12	0.014	0.021
	Somatic symptoms	4.20	0.041	0.015
	Skin-picking behaviors	0.95	0.330	0.003
Giftedness × developmental stage	Anxiety	0.05	0.830	<0.001
	Somatic symptoms	0.77	0.381	0.003
	Skin-picking behaviors	0.94	0.333	0.003

Note. Developmental stage was classified as childhood (6–11 years) or adolescence (12–17 years). Partial eta-squared (η^2p) values are reported as indicators of effect size.

3.3. Associations Among Variables

Pearson correlation analyses revealed small positive associations among somatic symptoms, skin-picking behaviors, and anxiety. The strongest association was observed between somatic symptoms and skin-picking behaviors, followed by somatic symptoms and anxiety, and then skin-picking behaviors and anxiety.

Table 4 presents the correlations among the variables.

Table 4. Correlations among somatic symptoms, skin-picking behaviors, and anxiety.

Variable	1	2	3
1. Somatic symptoms	—		
2. Skin-picking behaviors	0.294 ***	—	
3. Anxiety	0.213 ***	0.155 **	—

Note. Pearson correlation coefficients. ** $p < 0.01$; *** $p < 0.001$.

Overall, the results showed no significant differences between gifted and non-gifted participants in somatic symptoms, whereas gifted participants exhibited higher anxiety ranks and skin-picking behavior scores, with small and moderate effect sizes, respectively. Exploratory analyses identified small giftedness-by-sex interactions for anxiety and somatic symptoms, but no significant interactions between giftedness and developmental stage. Finally, all three variables were positively associated, although the correlations were small in magnitude. These findings indicate that group differences and associations varied across the emotional, somatic, and behavioral dimensions examined.

4. Discussion

This study examined differences in anxiety, somatic symptoms, and skin-picking behaviors between children and adolescents with and without intellectual giftedness, as well as associations among these variables. The findings showed a mixed pattern: there were no between-group differences in overall somatic symptom scores, whereas the gifted group had higher skin-picking scores and higher anxiety ranks. Interactions between giftedness and sex were found for anxiety and somatic symptoms, but not between giftedness and developmental stage. Associations among anxiety, somatic symptoms, and skin-picking behaviors were positive and small in magnitude. Taken together, these findings indicate that the observed differences depend on the dimension assessed and do not support a generalized account of psychological vulnerability associated with intellectual giftedness.

The difference found in anxiety should be interpreted cautiously in light of the mixed findings reported to date. Previous studies have also emphasized the heterogeneity of emotional adjustment among gifted children and adolescents, with findings ranging from

increased vulnerability to patterns of comparable or even better adjustment than non-gifted peers [14,39,40]. The meta-analysis by Duplenne and colleagues [18] found no significant overall differences in anxiety between gifted individuals and those with typical development, although it identified substantial heterogeneity across studies. Similarly, the review by Tourreix and colleagues [11] did not identify a uniform non-cognitive profile among gifted children and adolescents. Differences across studies may reflect, among other factors, identification criteria, sample composition, and the instruments used [10]. The present study adopted an operational definition combining high intellectual ability with an additional creativity criterion, which limits direct comparisons with studies based solely on IQ. Moreover, the anxiety difference was established using a rank-based test and should not be interpreted as a quantified difference in means or as evidence of a higher prevalence of anxiety disorders.

No between-group difference was found in overall somatic symptom scores either. Somatic complaints are associated with emotional distress in childhood and adolescence [21–23], and this study found a small positive association between somatic symptoms and anxiety. The association observed between anxiety and somatic symptoms is consistent with recent evidence indicating that functional somatic symptoms in childhood and adolescence are closely related to difficulties in emotion regulation and emotional awareness [40]. However, giftedness status did not distinguish the overall burden of somatic symptoms. Thus, the findings from this sample do not provide evidence of a greater overall burden of somatic symptoms among gifted participants. The absence of a statistically significant difference, however, does not demonstrate equivalence between groups or rule out differences in specific somatic symptoms. This interpretation is consistent with previous research suggesting that somatic complaints in childhood are influenced by multiple emotional and contextual factors and may not necessarily reflect a stable pattern of psychological vulnerability [24,41]. Indeed, exploratory analyses conducted within the broader research project suggested variability in some individual somatic complaints across groups. However, these findings were isolated and did not support a consistent pattern of increased somatization among gifted participants. Therefore, they should be interpreted cautiously and warrant further investigation in future studies.

One of the more noteworthy findings was the higher skin-picking score in the gifted group. Research on these and other body-focused repetitive behaviors has paid little attention to gifted populations, although associations with anxiety and certain emotional processes have been described in other groups [26,28]. Previous research has suggested that skin-picking behaviors may serve an emotion-regulation function and can be associated with anxiety and negative affect, although the mechanisms underlying these associations remain insufficiently understood [28]. Recent evidence has further highlighted the role of emotion-regulation processes in skin-picking behaviors, suggesting that difficulties in managing emotional experiences may contribute to the occurrence and maintenance of these behaviors [42]. Nevertheless, the characteristics of the instrument must be considered when interpreting this finding. The three-item measure captured scratching and skin-picking behaviors but did not specifically assess clinically significant distress, functional impairment, or other criteria required for a diagnosis of excoriation disorder. Accordingly, the observed differences cannot be interpreted as evidence of a higher prevalence of this disorder or directly compared with epidemiological estimates based on diagnostic criteria [43]. This distinction is important to avoid pathologizing behaviors that may occur across a continuum of frequency and severity and that do not necessarily indicate the presence of a clinical disorder. Likewise, the small positive correlations with anxiety and somatic symptoms indicate statistical associations but do not establish shared explanatory mechanisms or causal relationships.

Exploratory analyses identified statistically significant interactions between intellectual giftedness and sex for anxiety and somatic symptoms, although the observed effect sizes were small. Given the exploratory nature of these analyses and the limited size of some subgroups, these findings should be interpreted cautiously and considered preliminary until replicated in larger samples. No statistically significant interactions between giftedness and developmental stage were found for any of the three variables. Nevertheless, non-significance does not demonstrate that the associations are identical in childhood and adolescence. The cross-sectional design also precludes conclusions about developmental trajectories or within-person changes with age. These findings are consistent with recent systematic evidence emphasizing the heterogeneity of psychological functioning among gifted children and adolescents [13].

These findings should also be considered in relation to theoretical models of developmental asynchrony and emotional sensitivity in gifted individuals [6–9]. Although these perspectives are relevant to research, asynchrony, overexcitability, and emotion regulation were not directly assessed in this study. They therefore cannot be used as empirically tested explanations of the observed differences. The coexistence of significant and non-significant findings, together with sex-dependent results, reinforces the need to recognize the diversity of psychological and behavioral functioning among gifted children and adolescents. From a child-health perspective, the findings support examining specific emotional and behavioral dimensions rather than attributing vulnerability or resilience solely to intellectual ability. Future research should use validated instruments and directly assess potential underlying mechanisms.

The interpretation of these findings must also take into account several methodological limitations. The cross-sectional design does not allow causal relationships or developmental changes to be established. In addition, the gifted group was relatively small (n = 47) and substantially smaller than the comparison group (n = 243), limiting the precision of estimates, particularly in analyses stratified by sex and developmental stage. Non-probability recruitment from educational and specialized settings, including snowball sampling for part of the gifted group, also restricts sample representativeness and the generalizability of the findings.

Intellectual giftedness was defined using a specific combination of full-scale IQ ≥ 130 and creativity at or above the 75th percentile. This operational definition may limit comparability with studies using other identification criteria. Skin-picking behaviors were assessed using a brief, non-standardized three-item measure that did not adequately capture clinically significant distress, functional impairment, or diagnostic criteria for excoriation disorder. Findings concerning these behaviors should therefore be regarded as preliminary and interpreted as indicators of skin-picking behaviors rather than evidence of excoriation disorder. The study also relied mainly on self-report measures. In addition, several exploratory comparisons were performed without adjustment for multiplicity; significant findings, especially those from subgroup analyses, should consequently be interpreted cautiously.

Future studies would benefit from larger, more balanced samples, prospective recruitment procedures, and validated measures of body-focused repetitive behaviors. Multiple sources of information, including self-reports, family reports, and clinical assessment where appropriate, as well as longitudinal designs, would also be valuable. Finally, possible explanatory mechanisms, including emotion regulation, stress, perfectionism, and developmental asynchrony, should be examined directly rather than inferred from the associations observed.

5. Conclusions

The findings differed according to the variable examined. Gifted and non-gifted children and adolescents did not differ significantly in overall somatic symptom scores; however, the gifted group showed higher anxiety ranks and higher skin-picking behavior scores. In addition, small positive associations were observed among anxiety, somatic symptoms, and skin-picking behaviors. These findings suggest that the psychological and behavioral differences observed in this sample varied according to the dimension studied and do not support the attribution of a generalized profile of emotional vulnerability to gifted children and adolescents. In particular, the higher skin-picking scores should be interpreted with caution given the exploratory and non-standardized nature of the instrument used and do not constitute evidence of a higher prevalence of excoriation disorder. In the field of child and adolescent health, emotional, somatic, and behavioral manifestations should be examined as distinct dimensions, without assuming that intellectual giftedness in itself entails greater psychological difficulties. Finally, the exploratory analyses by sex and developmental stage should be interpreted cautiously and require replication in larger samples. Future research using larger samples and validated instruments is needed to confirm these findings, clarify their clinical relevance, and examine variables related to emotional regulation. These findings support the need for individualized psychological assessment in gifted children and adolescents, as emotional, somatic, and behavioral manifestations may not co-occur uniformly. The identification of intellectual giftedness should not lead to assumptions of either psychological vulnerability or immunity to emotional difficulties.

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Institutional Review Board Statement: The documentation and methodological characteristics of this study were reviewed in 2026 by the Research Ethics Committee of University. The committee noted that the study was based on anonymized data, involved no invasive procedures or interventions involving participants, and that informed consent had been obtained from parents or legal guardians.

Informed Consent Statement: Written informed consent was obtained from the parents or legal guardians of all participants before their participation in the study.

Data Availability Statement: The data supporting the findings of this study are available from the corresponding author upon reasonable request. As the study involved minors, access to the data is subject to applicable confidentiality, anonymization, and data protection requirements.

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