

# A worldwide study in 20 countries to assess the impact of acne on academic performance : The results of ALL study



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## RATIONAL

Acne vulgaris is a distressing condition prevalent among most adolescents, often leading to notable psychosocial distress. Due to its impact on psychological well-being, acne has the potential to disrupt university studies in various ways. However, there is insufficient data on how acne specifically influences academic performance in affected individuals. Therefore, this study aimed to examine the prevalence of the impact of acne on academic performance (IAAP) among acne patients and identify factors associated with IAAP.

## METHODOLOGY

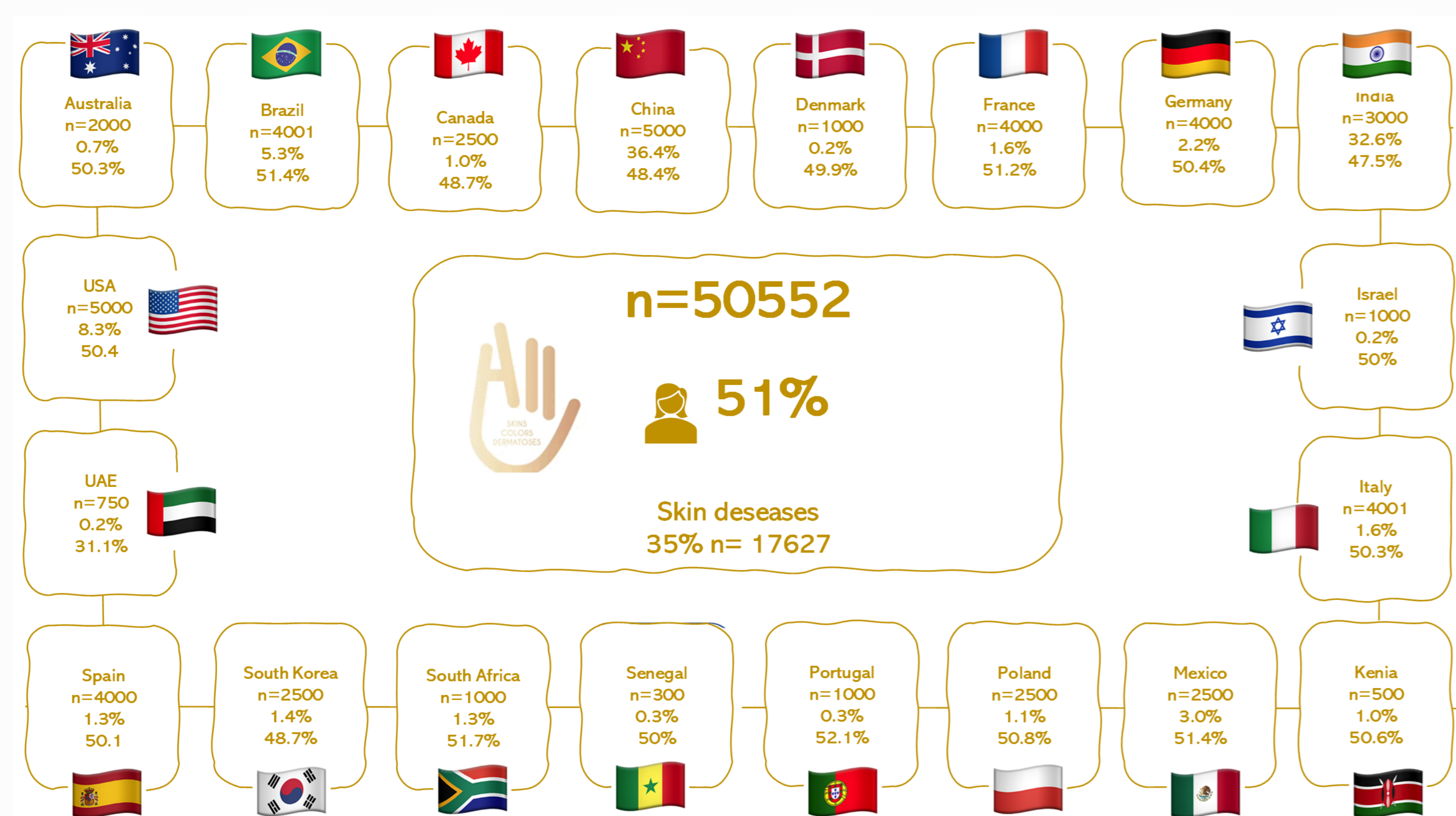
The ALL PROJECT is a large-scale study of individuals representative of the adult population in 20 countries on five continents :

Europe [France, Italy, Germany, Poland, Portugal, Spain, Denmark; n=17500], Latin America[LA] [Brazil, Mexico; n=6501], Asia [China, India, South Korea; n=10500], North America [NA] [Canada, USA; n= 7500 ]; Middle East [ME] [Israel, United Arab Emirates; n=2750], Australia [Australia; n=2000] and Africa [Kenya, South Africa, Senegal; n=1800].

In each of the 20 countries surveyed, representative and extrapolable samples of the general population aged 16 and over were interviewed.

The questionnaire focused on patient experience. It collected information on demographics, perceived stigma and burden of acne. The primary analysis of this study was the prevalence of IAAP. The secondary analysis was a comparison of people with and without impact of acne on academic performance to evaluate predictors: socio-demographics, burden and perceived stigma.

Descriptive analyses were performed using absolute and percentage frequencies. The significance test was two-tailed and set at 5% ( $p \leq 0.05$ ). Student's t-test and Pearson's chi-squared were used.



## RESULTS

A population of 726 acne patients was selected, including 308 (42.4%) males and 418 (57.6%) females (mean age 20.8+/-2.5 years). Minimum age 16-27 years.

Of the respondents, 266 (36.6%) reported that their acne had interfered with their studies. Because of their acne, 106 (14.6%) said they were less productive and had to take time off work, 39 (5.4%) only had to take time off work and 121 (16.7%) were less productive.

People whose studies were affected by their acne were more likely to report personal embarrassment (67.6% vs. 39%,  $p \leq 0.05$ ), sexual problems (33.5% vs. 10%,  $p \leq 0.05$ ) and sleep problems (51.1% vs. 22.6%,  $p \leq 0.05$ ).

The impact of acne on studies was significantly associated with the risk of feeling stigmatized (68.0% vs 35.0%,  $p \leq 0.05$ ).. People whose studies were affected by their acne were more likely to report feeling excluded or rejected by others because of their skin condition (40.9% vs 15%,  $p \leq 0.05$ ), feeling looked at with disgust (42.5% vs 12.8%,  $p \leq 0.05$ ), being avoided for touching (32.2% vs 11.7%,  $p \leq 0.05$ ) and being propositioned (39.8% vs 11.7%,  $p \leq 0.05$ ).

### GENDER & AGE

Variable	No IAAP N = 450	IAAP N = 276	p-Value
Man	191 (42.44%)	117 (42.39%)	>0.999
Woman	259 (57.56%)	159 (57.61%)	
AGE	20.76 ( $\pm$ 2.45) Range: (16.0 ; 27.0)	20.88 ( $\pm$ 2.49) Range: (16.0 ; 27.0)	0.562

### IMPACT OF THE DISEASE ON DAILY LIFE

	No IAAP N = 450	IAAP N = 276	p-Value
Psoriasis has an impact on their personal life	163 (36.22%)	187 (67.75%)	<0.001
Psoriasis has an impact on their professional life	2 (0.47%)	2 (0.75%)	<0.001

### IMPACT OF THE DISEASE ON DAILY LIFE STUDY

	No IAAP N = 450	IAAP N = 276	p-Value
Feel less productive in their activity (work/study)	0 (0.0%)	234 (85.71%)	<0.001
Have the feeling of being absent from your activity while being in it	52 (12.41%)	153 (56.67%)	<0.001

### IMPACT OF THE DISEASE ON DAILY LIFE

	No IAAP N = 450	IAAP N = 276	p-Value
Gave up holidays or leisure activities	41 (9.11%)	108 (39.13%)	<0.001
Had to change plans that were important to him/her felt discouraged	36 (8.0%)	126 (45.65%)	<0.001
Had to be more careful with their spending, dipping into their savings	130 (28.89%)	154 (55.8%)	<0.001
Difficulty getting to sleep	108 (24.0%)	164 (59.42%)	<0.001
Lacked time to look after him/herself	98 (21.78%)	142 (51.45%)	<0.001
Felt tired	101 (22.44%)	155 (56.16%)	<0.001
Takes this into account when buying clothes	142 (31.56%)	175 (63.41%)	<0.001
Has given up beauty treatments or an appointment with a hairdresser, for example, because of his/her skin condition	72 (16.0%)	129 (46.74%)	<0.001
Tends to check his/her appearance every time he/she 'crosses' a mirror	37 (8.22%)	98 (35.51%)	<0.001
	220 (48.89%)	195 (70.65%)	<0.001

### STIMATISATION AND BURDEN OF DISEASE

	No IAAP N = 450	IAAP N = 276	p-Value
He feels left out or rejected by others!	67 (14.89%)	135 (48.91%)	<0.001
He feels that people look at him with disgust!	55 (12.22%)	117 (42.39%)	<0.001
He has the impression that people avoid touching him!	49 (10.89%)	104 (37.68%)	<0.001

## DISCUSSION

This is the first study to evaluate the impact of acne on academic performance in a large population.

It found that 36.6% of students with acne reported an impact on academic performance.

This can be explained by the impact of acne on self-esteem, leading to reduced confidence in social interactions and academic performance.

In addition, the feeling of stigma associated with acne can make it difficult to concentrate during lectures or while studying