



FACULDADE DE MEDICINA  
UNIVERSIDADE DO PORTO

## MESTRADO INTEGRADO EM MEDICINA

2013/2014

Luís Manuel Ferreira Pinto  
Evaluating an anxiety scale and  
Personality traits in Atopic Dermatitis  
and its relation with severity markers

março, 2014

# FMUP



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**Mestrado Integrado em Medicina**

**Área: Imunologia**

**Trabalho efetuado sob a Orientação de:  
Doutora Maria Cristina Ramos Machado Lopes Abreu**

**Trabalho organizado de acordo com as normas da revista:  
Australasian Journal of Dermatology**

março, 2014

**FMUP**

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NÚMERO DE ESTUDANTE

DATA DE CONCLUSÃO

*200800849* *20 de Março de 2014*

DESIGNAÇÃO DA ÁREA DO PROJECTO

*Imunologia*

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*Evaluating an anxiety scale and Personality traits in Stopic Permalitis and its relation with severity markers*

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**A todos os que tornaram este sonho possível**

## **C22 – Personalidade, ansiedade, depressão e gravidade da dermatite atópica**

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## **C23 – Reações de hipersensibilidade retardada e próteses ortopédicas – Que relação?**

*Ana Moreira, Patricia Barreira, Arminda Guilherme, Isabel Rosmaninho, José Pedro Moreira da Silva*

*Serviço de Imunoalergologia, Centro Hospitalar de Vila Nova de Gaia / Espinho*

## **C24 – Papel da Imunoalergologia no apoio a outras especialidades médicas em contexto hospitalar**

*Rita Aguiar, Joana Soares, Leticia Pestana, Natália Fernandes, Joana Caiado, Ana Mendes, Ana Célia Costa, Manuel Branco Ferreira, Anabela Lopes, Manuel Pereira Barbosa*

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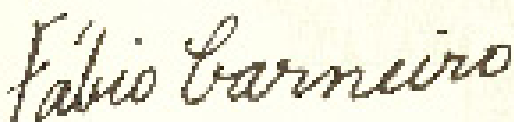


The organizing committee of the 8th YES Meeting hereby declares that

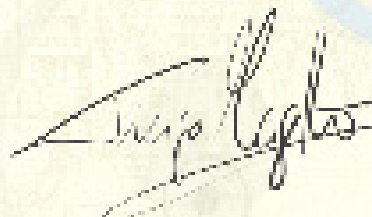
**LUIS MANUEL FERREIRA PINTO**  
FACULTY OF MEDICINE, UNIVERSITY OF PORTO

has participated in the Eighth YES - Young European Scientist - Meeting, from the 19th to the 22nd September 2013, held at CIM - Centro de Investigação Médica, FMUP - Faculdade de Medicina da Universidade do Porto, Portugal as a presenting student and presented the work:

**PERSONALITY, ANXIETY, DEPRESSION AND ATOPIC DERMATITIS SEVERITY: A CROSS SECTIONAL STUDY**



Fábio Carneiro  
Vice-President 8th YES Meeting



Tiago Magalhães  
President 8th YES Meeting

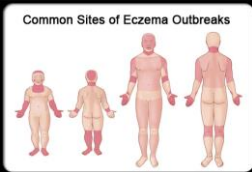


**CAPSULE  
 SUMMAR**

**We evaluated Atopic Dermatitis severity and its relation with personality traits, anxiety and depression. Interestingly anxiety presented no significant association while depression and several personality traits were closely related to SCORAD and DLQI**

**BACKGROUND**

AD is a multifactorial, chronic and relapsing skin disease. characterized by intense pruritus, and eczematous lesions

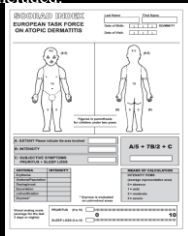


**AIM**

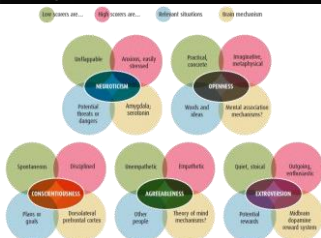
Evaluate the association between anxiety and depression levels, personality traits and disease severity in adult patients previously diagnosed with AD.

**METHODS**

A total of 31 patients (mean age of 29 yo), recruited from the community and allergy and dermatology outpatient settings were included.



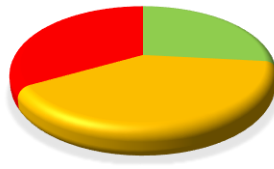
Severity of AD was assessed through SCORAD and patients' quality of life through DLQI. Anxiety and depression levels were evaluated through HADS – Hospital Anxiety and Depression Scale. Personality traits were evaluated through NEO Five-Factor-Inventory.



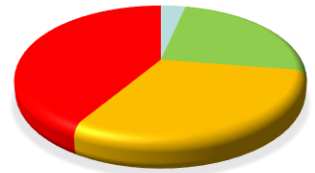
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**RESULTS**



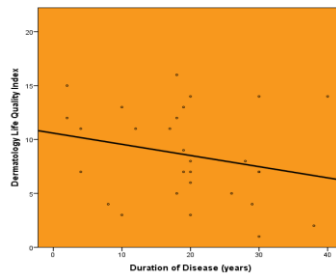
Graph 1: Atopic Dermatitis severity (through SCORAD)



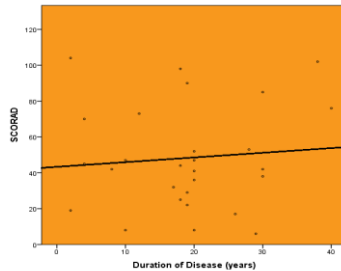
Graph 2: Quality of Life (through DLQI)

Mean Duration of Disease		19 years
Atopy	Undetermined	10%
	Yes	73%
Asthma	No	17%
	Yes	72%
	No	28%

Table 1: Sample summary descriptive statistics



Graph 3: Relation between duration of disease and DLQI



Graph 4: Relation between duration of disease and SCORAD

A linear regression model for Anxiety and Depression and its relation with SCORAD presented a  $p=0,34$  for depression while anxiety presented no statistical association.

In a linear model using personality traits, Extroversion and Agradability suggested na association with SCORAD ( $p=0,054$  and  $p=0,063$  respectively)

**CONCLUSION**

Previous studies clearly stated a relation between Psoriasis or other immune-mediated diseases and several psychological factors; our study corroborates these findings concerning AD.

While anxiety presented no association, depression showed an importante impact on severity of AD in our sample. Further studies are needed in order to establish a cause-effect relationship.

Both extroversion and agradability suggested a relationship with AD severity. We expect this to become statistical significant by the time all the patients are fully evaluated.





U. PORTO

Certifica-se que Luis Ferreira-Pinto esteve presente no *IJUP'14 - 7º Encontro de Jovens Investigadores da Universidade do Porto*, que decorreu nos dias 12, 13 e 14 de fevereiro de 2014, na Reitoria da Universidade do Porto, tendo apresentado a comunicação oral "Personality, anxiety, depression and Atopic Dermatitis severity: a cross sectional study".

Pela Comissão Organizadora

(O Vice-Reitor, Prof. Doutor Jorge Gonçalves)

We are submitting our manuscript entitled “*Evaluating an anxiety scale and Personality traits in Atopic Dermatitis and its relation with severity markers*” for consideration as an original research article. This is a cross-sectional study comparing anxiety and depression levels, as well as personality traits and their relation with Atopic Dermatitis severity. To our knowledge, this is the first study assessing psychological traits as possible determiners in Atopic Dermatitis severity.

All authors have approved the manuscript and agree with its submission to **Australasian Journal of Dermatology**, and we confirm that this manuscript has not been published elsewhere and is not under consideration by another journal. All authors declare no conflict of interests.

This work was supported within the scope of the Investigação Jovem na Universidade do Porto **PP\_IJUP2011\_91**.

# **Evaluating an anxiety scale and Personality traits in Atopic Dermatitis and its relation with severity markers**

## **Atopic dermatitis, Personality traits, Anxiety and Depression: a cross-sectional study**

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## **ABSTRACT**

### *Background/ Objectives*

Atopic Dermatitis (AD) is a multifactorial, immune mediated, chronic and relapsing skin disease, with significant emotional distress, sleep disturbance and Quality of Life (QoL) impairment of patients and their families. Personality traits have been assumed to play a pivotal role in AD, with a higher rate of psychological problems, mainly anxiety and depression. Our aim was to evaluate the association between anxiety and depression levels, personality traits and disease severity in adolescents and adult patients with long term AD.

### *Methods*

A total of 69 patients, over 16yo and previously diagnosed with AD were recruited; those presenting severe comorbidities or other immune mediated skin diseases were excluded. Anxiety and depression levels were evaluated through Hospital Anxiety and Depression Scale (HADS) and personality traits through NEO Five Factor Inventory. AD severity was evaluated through SCORAD severity score (0-103) and QoL (0-30) through Dermatology Life Quality Index (DLQI). T student test and linear regression model were used when appropriate.

### *Results*

A total of 44 patients were enrolled, mean age (SD) of 31 (13) yo, 39% males. SCORAD mean (SD) was 45 (28) and DLQI was 8 (5). 34% of patients presented anxiety, 14% depression. SCORAD did not present correlation with anxiety while a positive correlation was suggested with depression ( $R = 0.3$ ;  $p=0.068$ ), mean comparison with each trait of personality traits showed significant differences for Consciousness ( $p=0.039$ ). SCORAD was the strongest predictor of QoL.

### *Conclusions*

Depression was marginally associated with more severe AD. Conscientiousness was associated with less severe disease. Psychotherapeutic interventions may benefit AD patients

## INTRODUCTION

Atopic dermatitis (AD) is a chronic, relapsing inflammatory skin disease with a considerable social burden in both patients and their families <sup>1,2</sup>. It has an estimated prevalence of up to 20% in children and 2% in adults <sup>3,4</sup> and a complex pathophysiology involving skin barrier defects and immunological deregulation in genetically predisposed individuals <sup>5-7</sup>. Pruritus is a major symptom and an important cause of sleep disruption. Skin is the largest organ of the body and a healthy normal skin is very important for the individual's physical and mental well-being. Thus, skin scaling, oozing and redness can cause a significant impact on external appearance and social disability <sup>2</sup>.

Besides external insults, psychological factors can modulate AD symptoms and flares. Among all psychiatric disorders anxiety and depression are observed more commonly <sup>8</sup>. Psychological stress and its relation with allergic diseases have been, for long, a matter of concern <sup>9,10</sup>. Concerning AD, an association has been proposed between disease exacerbations, anxiety and stress<sup>9,10</sup> but few studies are published in patients with long term disease. Personality traits as neuroticism can predict health outcomes including anxiety, depression and tendency to somatization <sup>11</sup>. AD patients have already been described with lower self-competence and self-efficacy, when compared with healthy individuals, and some authors even suggested that neuroticism is associated to the atopic eczema patient profile <sup>12,13</sup>. However no consistent relations have been previously found between AD severity and a distinct personality profile <sup>14,15</sup>.

Our study aims at evaluating the relation between anxiety, depression levels, and the 5-main domains of personality assessed by questionnaire, with AD severity in a group of adolescents and adult patients.

## METHODS

### Participants and study design

**Subjects:** Adolescent (> 16 years old) and adult patients previously diagnosed with AD were invited to participate. Patient recruitment was performed through advertisement, in both television and local newspapers, through advertisement in scientific workshops and through peer-to-peer referral in local medical community, between November 2011 and June 2012. A total of 69 patients aged 16 to 85 years with a previous diagnosis of atopic dermatitis according to Anakin Rajka diagnostic criteria irrespective of severity or current treatment, were eligible <sup>16</sup>. Patients with other forms of dermatitis such as contact, seborrheic dermatitis, nummular eczema, occupational dermatitis, hand eczema, psoriasis or with any clinically relevant major systemic disease that could potentially complicate interpretation of study results, were excluded.

**Assessments:** AD patients were characterized according to disease duration, medication needed to control symptoms and asthma status (previous self-reported diagnosis). AD severity was assessed by an evaluating physician (Allergist or Dermatologist) through SCORAD (score of severity of Atopic Dermatitis) from 0-103: a composite score of disease extension, intensity as the sum of individual scores for erythema, oedema/papules, oozing/ crusts, excoriation, lichenification, and skin dryness, as well as subjective symptoms including pruritus and sleep-loss, assessed by the patient .

Disease severity was recoded through the score in SCORAD and classified into mild if SCORAD < 25; moderate if 25-50, and severe if > 50.

Anxiety and Depression were evaluated through the Portuguese version of the *Hospital Anxiety and Depression Scale* (HADS) <sup>17</sup>. This test has two separate scales: one for anxiety (HADS-A) and one for depression (HADS-D). Both sub-scales are graded from 0 (best) to 21



(worst) and then divided into Normal (if score  $\leq 7$ ), mild (if score from 8 to 10), moderate (11 to 14) and severe (if  $\geq 15$ ). This score has already been validated to the Portuguese population <sup>18</sup>.

Personality traits were assessed through the short version of the NEO Personality Inventory (NEO-PI-R) <sup>19</sup>. This 60-item multiple choice questionnaire evaluates the 5 main dimensions of personality: Neuroticism (as a measure for emotional stability or lability), Openness (as the predisposition to new experiences), Extraversion (as the main energy focus being held in- or outwards), Agreeableness (as the ability to deal with others) and Conscientiousness (as the sense of right and wrong towards own behaviour). NEO-FFI has already been validated to the Portuguese population <sup>20</sup>.

Quality of Life (QoL) was assessed by the *Dermatology Life Quality Index* <sup>21</sup>, validated in the Portuguese population; a 10-item questionnaire for patients above 16 years, aiming at evaluating the patients' perception of the impact of the skin diseases on several aspects of QoL, over the past week. Scores range from 0 (no effect) to 30 (severe impairment on QoL). Patients scoring 0 to 1 were categorised as having no impact on QoL, 2 to 5 as having a mild impact, 6 to 10 as a moderate impact, 11 to 20 as a severe impact and patients scoring 21 to 30 as having an extremely severe impact on QoL.

### **Statistical analysis**

Normality of variables was assessed through the Kolmogorov-Smirnov test. Personality traits were recoded into a 3-item category with patients scoring 'low' or 'very low' grouped into 'Low' and patients scoring 'high' or 'very high' grouped into 'High'. Comparison of categorical variables with continuous variables presenting a normal distribution, was performed using independent-samples t-test and one-way ANOVA test; when significant differences were found in one-way ANOVA test, a post-Hoc Bonferroni correction was performed. Correlation between continuous variables was achieved through the Pearson correlation coefficient. For computing a multiple linear regression model, DLQI, anxiety and depression scores were used as continuous

variables. Statistical analysis was performed using SPSS 21.0®. Significant differences were considered with p-values under 0.05.

The study was approved by the local ethics committee. All participants provided their oral informed consent and were free to withdraw from the study if desired.

## RESULTS

From the 69 invited patients, a total of 44 (64%) were included, mostly female (61%), mean age (SD) of 31 years (13), 7% were less than 18. The majority (73%) was atopic and slightly more than half (61%) had asthma. Most patients had moderate (41%) to severe (34%) AD, with 66% of them presenting the disease for more than 10 years. Most patients had a moderate (36%) or severe (32%) impact on QoL. (*Table 1*).

Anxiety was present in 34% of patients (n=15), mostly mild (n=9). Only 14% of patients (n=6) presented depression (five mild, one moderate). As for personality traits, most patients scored normal in all five dimensions. (*Table 2*). When comparing extraversion scores in patients scoring high or very high in neuroticism with those scoring low or very low, the first group presented lower extraversion scores (with only 43% of patients scoring high in extraversion vs 78% in the second group).

### *SCORAD evaluation*

No significant differences were found between SCORAD concerning patient's gender (p=0.275). Atopic status or asthma, (p=0.313 and p=0.9941 respectively) patients' age (p=0.163) and disease duration (p=0.885).

### *Anxiety, Depression and Personality traits*

Anxiety score presented no significant correlation with SCORAD (p = 0.331); however, a positive correlation between depression and SCORAD scores was suggested (p = 0.068, r = 0.28). Significant differences in SCORAD means were only found between groups with different scores in conscientiousness, with patients scoring 'Normal' presenting with a significantly higher value when comparing to patients scoring 'High' (post-Hoc Bonferroni correction; p=0.037). No significant differences were found between SCORAD means and neuroticism, extroversion,

openness or agreeableness scores. Patients scoring low in Extraversion presented a higher SCORAD mean when compared to those scoring normal or high ( $p=0.065$ ) (table 3).

*Multiple linear regression model for QoL*

Considering QoL, SCORAD was the main determinant for QoL ( $p = 0.002$ ) with an adjusted  $R^2$  of 0.185. Disease duration was also an important determiner of QoL ( $p = 0.098$ ) and, along with SCORAD, an adjusted  $R^2$  of 0.220 was achieved. Anxiety, depression and personality traits presented no significant association with QoL.

## DISCUSSION

We found that patients scoring higher in HADS-D apparently had a higher scores in SCORAD. No study, so far, has succeeded in presenting a relation between a more severe disease and higher levels of depression. While anxiety levels were clearly higher in AD patients when comparing to healthy controls in previous studies <sup>22</sup>, no study had yet proved any relation with AD severity. Similarly, our results suggested that anxiety levels may not differ concerning disease severity.

Our study presented a prevalence of anxiety and depression of 34% and 14% respectively. When comparing with previously published results of the Portuguese population's scores, AD patients presented higher mean scores in both anxiety and depression than healthy individuals <sup>18</sup>. In fact, when evaluating patients scoring moderate or severe in HADS-A and HADS-D, AD patients presented similar scores to epileptic patients (13% vs 14% for anxiety and 2% vs 7% for depression). When comparing our sample of Portuguese AD patients with AD patients from Germany <sup>23</sup> and United Kingdom <sup>24</sup> our sample scored lower in both anxiety and depression. Nevertheless those differences may had occurred due to different selection criteria (free-will vs paid participation) as well as cultural differences (baseline anxiety and depression values may vary according to different cultures).

When assessing possible variables that could be directly influencing the severity of AD, neither age, duration of the disease, patient's gender, asthma or atopic status presented a significant correlation with SCORAD. This may be explained by the fact that personal experience of disease may be independent from individuals' genetic features and most likely be influenced by psychological traits and life events.

Regarding personality traits, little is known about their influence in disease severity. No study has yet been published comparing the 5-main domains of personality assessed by NEO-FFI and their relation with AD severity. Our results suggest that Conscientiousness may be an important determiner in disease severity, exerting a protector effect. This can be explained by the

fact that the trait of conscientiousness describes an individual's tendency to adhere to socially prescribed rules and norms for impulse control, to being task and goal-directed. This personal abilities may gain significant importance when dealing with a chronic and relapsing disease such as AD. As well, patients scoring low in extraversion tended to have higher SCORAD mean values: these patients also presented higher scores in Neuroticism, a negative emotional personality trait determining a risk profile for anxiety and depression. However, future studies with more participants are required in order to fully evaluate personality and establishing a personality profile that can be either protective or deleterious to AD severity.

Since recruitment of participants was mainly held through advertisement in media, a selection bias may have occurred. In fact, in what personality traits are concerned, patients presenting higher levels of extroversion and openness to experience were more likely to be enrolled. Also, our sample included mainly patients with long-term disease; hereby, even though disease duration presented no correlation with SCORAD, it may have influenced anxiety and depression levels due to AD.

The psychological characterization of AD patients not only concerning psychological stress but also personality traits must be considered in AD management. Psychotherapeutic interventions may be considered an important therapeutic strategy to achieve disease control



Table 1 - Sample descriptive statistics (n = 44)

<b>Age (years) <sup>a</sup></b>	31 (13)
<b>Male <sup>b</sup></b>	17 (39)
<b>Female <sup>b</sup></b>	27 (61)
<b>Disease duration <sup>c</sup></b>	18 (2; 40)
<b>AD Severity <sup>b</sup></b>	
Mild	11 (25)
Moderate	18 (41)
Severe	15 (34)
<b>Atopic status <sup>b</sup></b>	
Atopic patients	32 (73)
Non-atopic patients	12 (27)
<b>Asthma status <sup>b</sup></b>	
Asthmatic patients	27 (61)
Non-asthmatic patients	17 (39)
<b>DLQI <sup>b</sup></b>	
No impact	2 (5)
Mild impact	11 (25)
Moderate impact	16 (36)
Severe impact	14 (32)
Extremely severe impact	1 (2)
<b>Anxiety <sup>b</sup></b>	
Normal	29 (66)
Mild	9 (21)
Moderate	5 (11)
Severe	1 (2)
<b>Depression <sup>c</sup></b>	
Normal	38 (86)
Mild	5 (11)
Moderate	1 (2)

<sup>a</sup>Mean (SD)

<sup>b</sup>N (%)

<sup>c</sup>Median (min, max)

DLQI – Dermatology Life Quality Index

*Table 2* - Distribution of scores in the 5-main personality domains of NEO-FFI (n = 44)

	<b>Very Low</b>	<b>Low</b>	<b>Normal</b>	<b>High</b>	<b>Very High</b>
<b>Neuroticism</b>	2 (5)	7 (16)	21 (48)	9 (21)	5 (11)
<b>Extroversion</b>	1 (2)	1 (2)	18 (41)	14 (32)	10 (23)
<b>Openness</b>	0 (0)	3 (7)	25 (57)	12 (27)	4 (9)
<b>Agreeableness</b>	4 (9)	9 (21)	24 (55)	6 (14)	1 (2)
<b>Conscientiousness</b>	1 (2)	11 (25)	20 (46)	11 (25)	1 (2)

Values shown are N (%)

*Table 3 - One-way ANOVA comparing mean SCORAD values in each category of the 5-main domains of personality traits*

		SCORAD mean	p-value
Neuroticism	Low	47	0.960
	Normal	45	
	High	44	
Extraversion	Low	83	0.065
	Normal	37	
	High	47	
Openness	Low	42	0.722
	Normal	48	
	High	41	
Agreeableness	Low	55	0.186
	Normal	38	
	High	48	
Conscientiousness	Low	41	<b>0.035</b>
	Normal	56	
	High	31	

p-value was obtained through a one-way ANOVA test  
 patients scoring very low and low or very high and high were grouped into low and high respectively

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ANEXOS

## HADS

(Traduzido e adaptado por Teresa McIntyre, Graça Pereira, Vera Soares, Luís Gouveia, Sofia Silva - 1999)

### INSTRUÇÕES

As emoções desempenham um papel importante na maior parte das doenças. Este questionário visa ajudar-nos a saber como se sente. Leia cada frase e sublinhe a resposta que mais se aproxima da forma como se tem sentido nos últimos tempos. Não passe muito tempo com cada resposta. Leia todas as frases num grupo antes de fazer a sua escolha.

**1. Sinto-me tenso(a)**

- A maior parte do tempo     Muitas vezes     De vez em quando     Nunca

**2. Ainda gosto das coisas como costumava gostar**

- Tanto quanto gostava     Não tanto quanto gostava     Só um pouco do que gostava     Quase nada do que gostava

**3. Tenho uma sensação de medo, como se algo terrível estivesse para acontecer**

- Sim, e muito forte     Sim, mas não muito forte     Um pouco, mas isso não me preocupa     Não, de maneira nenhuma

**4. Consigo rir-me e ver o lado divertido das coisas**

- A maior parte do tempo     Agora não tanto como costumava conseguir  
 Definitivamente não tanto como costumava conseguir     Não, de maneira nenhuma

**5. Tenho preocupações que me passam pela cabeça**

- A maior parte do tempo     Muitas vezes     De vez em quando, mas não muitas vezes     Apenas ocasionalmente

**6. Sinto-me alegre**

- Nunca     Poucas vezes     Às vezes     A maior parte do tempo

**7. Posso sentar-me à vontade e sentir-me relaxado(a)**

- Nunca     Poucas vezes     Às vezes     A maior parte do tempo

**8. Sinto-me mais lento(a) ou vagaroso(a)**

- Quase sempre     Muitas vezes     Às vezes     Nunca

**9. Sinto uma espécie de medo, como se tivesse um aperto no estômago**

- Quase sempre     Muitas vezes     Às vezes     Nunca

**10. Perdi o interesse pela minha aparência**

- Sim, definitivamente     Não me cuido tanto como devia     Talvez não me cuido tanto como antes     Cuido-me tanto como costumava

**11. Sinto-me inquieto(a), como se tivesse que estar sempre a andar de um lado para o outro**

- Sim, muito     Sim, bastante     Não muito     Não, de modo nenhum

**12. Antecipo as coisas com satisfação**

- Tanto como eu costumava fazer anteriormente     Um pouco menos do que anteriormente  
 Muito menos que anteriormente     Quase nunca

**13. Tenho sentimentos súbitos de ataques de pânico**

- Com muita frequência     Bastantes vezes     Não muitas vezes     Nunca

**14. Consigo apreciar um bom livro, um programa de televisão ou de rádio**

- Frequentemente     Às vezes     Poucas vezes     Muito raramente



NEO-FFI  
Lima & Simões (2000)

Leia cuidadosamente cada uma das afirmações que se seguem e assinale com uma cruz o que melhor representa a sua opinião. Responda a todas as questões.

--	--	--

(A codificar pelo Investigador)

Discordo Fortemente 0	Discordo 1	Neutro 2	Concordo 3	Concordo Fortemente 4
--------------------------	---------------	-------------	---------------	--------------------------

	0	1	2	3	4
1. Não sou uma pessoa preocupada	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Gosto de ter muita gente à minha volta	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Não gosto de perder tempo a sonhar acordado(a)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Tento ser delicado com todas as pessoas que encontro	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Mantenho as minhas coisas limpas e em ordem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Sinto-me muitas vezes inferior às outras pessoas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Rio facilmente	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Quando encontro uma maneira correcta de fazer qualquer coisa não mudo mais	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Frequentemente arranjo discussões com a minha família e colegas de trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Sou bastante capaz de organizar o meu tempo de maneira a fazer as coisas dentro do prazo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Quando estou numa grande tensão sinto-me, às vezes, como se me estivessem a fazer em pedaços	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Não me considero uma pessoa alegre	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Fico admirado(a) com os modelos que encontro na arte e na natureza	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Algumas pessoas pensam que sou invejoso(a) e egoísta	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Não sou uma pessoa muito metódica (ordenada)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Raramente me sinto só ou abatido(a)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Gosto muito de falar com as outras pessoas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Acredito que deixar os alunos ouvir pessoas, com ideias discutíveis, só os pode confundir e desorientar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Preferia colaborar com as outras pessoas do que competir com elas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Tento realizar, conscienciosamente, todas as minhas obrigações	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Muitas vezes sinto-me tenso(a) e enervado(a)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Gosto de estar onde está a acção	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. A poesia pouco ou nada me diz	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. Tendo a ser descrente ou a duvidar das boas intenções dos outros	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. Tenho objectivos claros e faço por atingi-los de uma forma ordenada	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. Às vezes sinto-me completamente inútil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. Normalmente prefiro fazer as coisas sozinho(a)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. Frequentemente experimento comidas novas e desconhecidas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. Penso que a maior parte das pessoas abusa de nós, se as deixarmos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. Perco muito tempo antes de me concentrar no trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Discordo Fortemente 0	Discordo 1	Neutro 2	Concordo 3	Concordo Fortemente 4
--------------------------	---------------	-------------	---------------	--------------------------

	0	1	2	3	4
31. Raramente me sinto amedrontado(a) ou ansioso(a)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. Muitas vezes, sinto-me a rebentar de energia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. Poucas vezes me dou conta da influência que diferentes ambientes produzem nas pessoas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. A maioria das pessoas que conheço gostam de mim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. Trabalho muito para conseguir o que quero	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. Muitas vezes aborrece-me a maneira como as pessoas me tratam	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. Sou uma pessoa alegre e bem disposta	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. Acredito que devemos ter em conta a autoridade religiosa quando se trata de tomar decisões respeitantes à moral	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39. Algumas pessoas consideram-me frio(a) e calculista	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. Quando assumo um compromisso podem sempre contar que eu o cumpra	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
41. Muitas vezes quando as coisas não me correm bem perco a coragem e tenho vontade de desistir	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
42. Não sou um(a) grande optimista	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
43. Às vezes ao ler poesia e ao olhar para uma obra de arte sinto um arrepio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
44. Sou inflexível e duro(a) nas minhas atitudes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
45. Às vezes não sou tão seguro(a) ou digno(a) de confiança	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
46. Raramente estou triste ou deprimido(a)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
47. A minha vida decorre a um ritmo rápido	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
48. Gosto pouco de me pronunciar sobre a natureza do universo e da condição humana	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
49. Geralmente procuro ser atencioso(a) e delicado(a)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
50. Sou uma pessoa aplicada, conseguindo sempre realizar o meu trabalho	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
51. Sinto-me, muitas vezes, desamparado(a), desejando que alguém resolva os meus problemas por mim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
52. Sou uma pessoa muito activa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
53. Tenho muita curiosidade intelectual	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
54. Quando não gosto das pessoas faço-lhe saber	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
55. Parece que nunca consigo ser organizado(a)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
56. Já houve alturas em que fiquei tão envergonhado(a) que desejava meter-me num buraco	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
57. Prefiro tratar da minha vida a ser chefe das outras pessoas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
58. Muitas vezes dá-me prazer brincar com teorias e ideias abstractas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
59. Se for necessário não hesito em manipular as pessoas para conseguir aquilo que quero	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
60. Esforço-me por ser excelente em tudo o que faço	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



# Australasian Journal of Dermatology

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Or

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#### Journal articles

List all authors when three or fewer; when four or more, list only first three and add et al.

Prescott SL, Björkstén B. Probiotics for the prevention or treatment of allergic diseases. *J. Allergy Clin. Immunol.* 2007; 120: 255–62.

#### Books and Monographs

Personal Author(s)

Jaffe ES *Surgical Pathology of the Lymph Nodes and Related Organs*. Philadelphia, PA: Saunders, 1995.

#### Corporate Author

South Australian Cancer Registry. *Epidemiology of Cancer in South Australia. Incidence, Mortality and Survival 1977 to 1996 Incidence and Mortality 1996. Analysed by Type and Geographical Location.*

Twenty Years of Data. Adelaide: Openbook Publishers; 1997.

#### Editor, Compiler, Chairman as Author

Dawber RPR (ed.). *Diseases of the Hair and Scalp*, 3rd edn. Oxford: Blackwell Science, 1997.

#### Chapter in Book

Wojnarowska F, Venning VA, Burge SM. Immunobullous diseases. In: Burns T, Breathnach S, Cox N, Griffiths C (eds). *Rook's Textbook of Dermatology*, Vol. 2, 7th edn. Oxford: Blackwell Science, 2004; 41.1–59.

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