



# Assessment tools for dermatological clinical studies

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**Abstract:** Dermatological clinical studies need to be reported in a uniform pattern utilizing various authenticated assessment tools. A lack of knowledge regarding availability of study instruments for the assessment of the various dermatological conditions results in poor quality study reports. Here is a list of dermatological study questionnaires which can aid the researchers to assess the disease condition and the efficacy of treatment appropriately.

**Keywords:** Dermatological clinical studies, assessment tools, homoeopathy, quality of life questionnaires.

**Abbreviations:** World Health Organization quality of life scale (WHO-QOL), Visual analog scale- itch (VAS), Short-form 36 health survey (SF-36), EuroQOL dimension (EQ-5D), Marburg skin questionnaire (MHF), Children's dermatology life quality index (CDLQI), Infant dermatology of life quality index (InToDermQoL), Quality of life index for atopic dermatitis (QoLIAD), Childhood atopic dermatitis impact scale (CADIS), Acne-specific quality of life questionnaire (Acne-QoL), Skin cancer index (SCI), Functional assessment of cancer therapy – melanoma (FACT-M), Chronic urticaria quality of life questionnaire (CU-2QoL), Body dysmorphic disorder questionnaire – dermatology version (BDDQDV), Dysmorphic concern questionnaire (DCQ), Body dysmorphic symptom scale (BDSS).

## Introduction

Clinical studies are the backbone of evidence based researches in medicine. These studies can range from a single case report to a large sample studies. A case report is the smallest publishable unit in the medical literature consisting of detailed presentation of the symptoms, signs, diagnosis, treatment, and follow-up of an individual patient. Whereas a case-series is an aggregation of several similar cases, consisting of minimum three cases.<sup>[1,2]</sup> Dermatological cases are very frequently reported as they are widespread throughout the world and have wide variety of presentation and treatment options available. Homoeopathy as an alternative method of treatment has extensive scope in the treatment of dermatological conditions due to availability of wide range of medicines for the treatment of various dermatological conditions and it also lacks side effects.

Most of the dermatological cases treated with different methods of treatment lack uniformity while reporting. For evidence based and quality reporting of the cases, certain standard quality assessment scales need to be used for the assessment of the case studies. Photographic evidence usually suffice for case reports but cannot be used in larger size case series and other clinical studies. This creates a need for various assessment scales for the quality and standard reporting of the studies.

In the present era of evidence based medicine, a wide range of assessment tools are available depending on the type of study. Lack of information regarding availability of assessment scales leads to poor quality reporting of clinical studies. Here, a range of assessment scales for the reporting of dermatological clinical studies is being presented.

There are 4 types of instruments available for evaluation of the dermatological disorders<sup>[3,4,5]</sup>

1. General quality of life questionnaires
2. Dermatology specific quality of life questionnaires
3. Disease-specific quality of life questionnaires
4. Psychiatric effects of dermatological diseases questionnaires

The quality of life scales assesses impact of disease on quality of life of patient and deals with personal problems and need of the patient. General, dermatology specific, disease specific quality of life questionnaires are given under table 1, 2 and 3 respectively. Tools for assessment of psychiatric effects of dermatological disorders are given in table 4.

*Table 1. General quality of life questionnaire's<sup>[3,4,5]</sup>*

Name of questionnaire	Authored by
1. World Health Organization quality of life scale (WHO-QOL)	World Health Organization
2. Visual Analog Scale- Itch (VAS)	Phan NQ et al. 2012, Verwey et al 2019
3. Short-form 36 health survey (SF-36)	Bullinger 1995
4. Nottingham health profile	Hunt et al 1985
5. EuroQOL dimension (EQ-5D)	EuroQoL group, 1990
6. UK sickness impact profile	Salek et al 1996
7. General health questionnaire	Goldberg 1972

*Table 2: Dermatology specific Quality of Life Scale<sup>[3,4,5]</sup>*

Name of the questionnaire	Authored by	Additional information
1. Dermatology life quality index <sup>[6]</sup>	Finlay and Khan 1994	Most frequently used. 110 translations have been done. In patients above 16 years of age. Consists of 10 questions.
2. Dermatology quality of life scales <sup>[7]</sup>	Morgan et al 1997	17 psychosocial items and 12 activities items were assigned five-point scales
3. Dermatology specific quality of life questionnaire <sup>[8]</sup>	Anderson 7 Rajgopalan 1997	--
4. Skindex-29 <sup>[9]</sup>	Chren et al 1996	Original had 62-item which cannot be used. Skindex-29 is a revised 29-items version of Skindex. Skindex-16 is a single-page version of Skindex.
5. Marburg Skin Questionnaire (MHF)	Stangier et al 1997	Marburger Hautfragebogen (MHF)
6. Children's Dermatology Life Quality Index (CDLQI)	Lewis-Jones and Finlay 1995	for children between 5 to 16 years of age
7. Infant Dermatology of Life Quality Index (InToDermQoL)	Lewis Jones et al 2001	from birth to 4 years of age
8. Adjustment of Chronic Skin Disorders	Stangier et al 2003	--
9. Skin Satisfaction Questionnaire	Grolle et al 2003	an instrument for recording attitudes towards the skin in healthy persons and patients
10. Questionnaire on Experience with Skin Complaints	Schmid – Ott et al 1996	especially for psoriasis and atopic dermatitis

*Table 3: Disease specific Quality of Scale<sup>[3,4,5]</sup>*

Name of the questionnaire	Authored by	Disease condition
1. Quality of life index for atopic dermatitis (QoLIAD) <sup>[10]</sup>	Whalley D et al 2004	Atopic dermatitis
2. Childhood atopic dermatitis impact scale (CADIS) <sup>[11]</sup>	Chamlin S et al 2007	Atopic dermatitis in children
3. Cardiff acne disability index	Salek et al 1997	Acne



4. Acne-specific quality of life questionnaire (Acne-QoL) <sup>[12]</sup>	Girman CJ et al 2003	Acne
5. Skin cancer index (SCI) <sup>[13]</sup>	Sanchez S et al 2019	Non melanoma skin cancer
6. Functional assessment of cancer therapy – melanoma (FACT-M) <sup>[14]</sup>	Cormier J et al 2005	Melanoma
7. Psoriasis disability index	Finlay & Kelly 1987	Psoriasis
8. Psoriasis life stress inventory	Gupta and Gupta 1995	Psoriasis
9. Psoriasis specific measure of quality of life	McKenna et al 2003	Psoriasis
10. Scalpdex <sup>[15]</sup>	Chen et al 2002	Scalp disorders like scalp dermatitis, psoriasis, seborrheic dermatitis
11. Chronic urticaria quality of life questionnaire (CU-2QoL) <sup>[16]</sup>	Baiardani I et al 2005	Chronic urticaria
12. Eczema disability index <sup>[17]</sup>	Salek M et al 1993	Eczema
13. Freiburg quality of life assessment <sup>[18]</sup>	Augustin M et al 2010	Wounds
14. Dermatitis family impact scale	Lawsen et al. 1998	Dermatitis
15. Acne disability index	Motley and Finlay 1989	Acne
16. Atopic dermatitis	Herd et al 1997	Atopic dermatitis
17. Itching questionnaire	Yosipovitch et al 2002	Itching
18. Leg ulcer questionnaire	Hyland 1994	Leg ulcer
19. Melasma quality of life scale	Balkrishnan et al 2003	Melasma
20. MIMIC questionnaire	Leu 1985	Multidimensional especially psoriasis
21. MM module for melanoma	Sigurdardotti et al 1993	Melanoma
22. Vespil allergy quality of life questionnaire	Oude Elbrinke et al 2002	For allergies to bee and wasp stings

*Table 4: Tools to assess psychiatric effects of dermatological disorders <sup>[5]</sup>*

Name of the questionnaire	Authored by
1. Body dysmorphic disorder questionnaire – dermatology version (BDDQDV)	Danesh M et al 2015
2. Dysmorphic concern questionnaire (DCQ)	Danesh M et al 2015
3. Body dysmorphic symptom scale (BDSS)	Danesh M et al 2015

DLQI is the most frequently used questionnaire in dermatological studies. Other scales are used as per the requirement and feasibility of the study. Many other dermatological study instruments are also available but are less frequently used. Choice of the questionnaire depends on the type of study, applicability and availability of scale, requirements of the study, language in which the scale is available and population to

be studied.

## Discussion and conclusion

A large number of questionnaires are available to the researchers and clinicians for different types of studies. There are disease specific scales available for different dermatological conditions. In conditions where specific scale for

disease condition is not available, a general questionnaire or dermatology specific scales can be used as per the requirement of the researcher and his study. As most of the dermatological disorders affect the appearance of the patient and hence have an effect on the psychology of the patient, in such cases specific scales for assessing psychological effects of the dermatological condition are also available.



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