Evaluation of quality of life related to melasma

Avaliação de qualidade de vida relacionada ao melasma

Evaluación de calidad de vida relacionada al melasma

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ABSTRACT

Objective: To synthesize the scientific production about quality of life related to melasma and to analyze the instruments used to evaluate the construct. Method: Integrative revision with search in Web of Science databases, Lilacs, PubMed, Scopus, Google Scholar and Embase. All articles published in the literature up to 2013 were included. Results: The sample consisted of 26 articles. Most of the research was realized in the United States of America (30.7%), followed by Brazil (38.4%) and South Korea (38.4%). The intervention studies were emphasized (57.5%), using Melasma Quality of Life Scale (MELASQol) as a specific instrument. Conclusion: This review allowed to identify that the assessment of quality of life related to melasma has been widely discussed in the literature. As for the instruments used to evaluate the construct, there is only one specific, translated and validated in several countries, but whose development did not follow the classic stages of psychometry.

DESCRIPTORS: Melanosis; Quality of life; Nursing.

HOW TO CITE

INTRODUCTION

Melasma is a recurrent chronic pigmented disorder, characterized by asymptomatic and symmetrical hyperpigmented macules in the skin due to the local increase of melanogenesis. It affects millions of people around the world.  

It mainly affects women of fertile age, and photoexposed areas are the most affected, preferably face. Hispanics and Asians have a higher incidence, in addition people that live in areas of intense solar radiation, such as India, Pakistan, the Middle East and the Mediterranean area. The prevalence of melasma in Latin American women varies from 1.5 to 33.3% and the estimate among pregnant Latin women is between 50 and 80%.  

The sunlight and genetic predisposition are the most important etiological factors of melasma, as well as racial characteristics, medications, cosmetics and endocrinopathies.  

Although in Brazil there are no population-based studies to evaluate the prevalence of the disease, in dermatological clinics, pigmented dermatoses represent the third cause of appointments (8.4%), varying among age groups, genders and the different regions of the country. In an investigation with public institution employees from the countryside of Brazil, melasma was identified in 22% of them.  

Melasma, although asymptomatic, maximizes its impact on body image and interpersonal relationships, interfering with the perception of quality of life. However, to evaluate the quality of life is admittedly a complex task, because it is an abstract concept, subjective and for which there is no consensual definition.  

In view of these considerations, there is interest in developing an integrative review of the scientific literature on quality of life related to melasma (QLRM). Such research is justified for knowledge and interpretation of the production on the theme with the purpose of contributing to the development of future researches.

OBJECTIVES

In view of this question, this study has the purposes to synthesize the scientific production on QLRM and to analyze the instruments used for the evaluation of the construct.

METHODS

An integrative review study was realized, operationalized in the following steps: identification of the hypothesis...
or guiding question, followed by the search for the descriptors or keywords; selection of sampling; categorization of studies; evaluation of studies; discussion and interpretation of results; presentation of the integrative review and synthesis of knowledge\textsuperscript{14}. The search was guided by the following question: What are the instruments available in the literature to perform QLRM evaluation?.

The Web of Science, Lilacs, Medline, Scopus, Google Scholar and Embase databases were used, using the descriptors Melasma, Melanosis and Chloasma, which were combined, using the “and” Boolean connector, with the descriptor Quality of life.

The inclusion criteria were: research articles indexed in the databases researched and published up to the year 2013. The data were categorized and discussed according to the objectives of the integrative review.

### RESULTS

A total of 1,416 articles about the theme were identified. Of these, 26 were included in this study. Almost all of them were presented in the English language and 17 papers (65.46%) were observed and indexed in more than one database.

In relation to the year of publication, a greater number of articles of 2011 were found, being five (19.2%), followed by those of 2012, 2009 and 2008, four in each year (46.1%), as can be seen in Table 1. Most of the QLRM surveys

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<td>2</td>
<td>Usefulness of melasma quality of life scale (MELASQOL) when evaluating the quality of life in Korean melasma patients</td>
<td>Kim HY, et al</td>
<td>Korean J Dermatol/2013</td>
<td>MELASQol / DLQI</td>
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<td>5</td>
<td>Preventing melasma recurrence: prescribing a maintenance regimen with an effective triple combination cream based on long-standing clinical severity</td>
<td>Arellano I, et al</td>
<td>J Eur Acad Dermatol Venereol/2012</td>
<td>MELASQol</td>
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<td>7</td>
<td>Photoprotection, melasma and quality of life in pregnant women</td>
<td>Purim KSM, et al</td>
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were performed in the United States (30.7%), followed by Brazil and South Korea, with five in each country (38.4%) and two (7.7%) in France, Pakistan, Germany, Thailand, the Philippines and Japan presented only one publication (23.0%). Intervention studies (57.5%) and cross-sectional studies (42.3%) were highlighted.

According to the articles included in the study, 14 (53.8%) used the Melasma Quality of Life Scale instrument (MELASQol); six (23.0%), the Dermatology Life Quality Index (DLQI); three (11.5%), Skindex-16; and one (3.8%), MELASQol and DLQI, simultaneously. Two articles (7.7%) did not mention the instrument used. With regard to these instruments, they were classified into two categories: a specific instrument to evaluate QLRM and specific instruments to evaluate quality of life in dermatology.

**Specific instrument to evaluate quality of life related to melasma**

In 2003, an Indian researcher and his collaborators developed and validated MELASQol, a specific instrument composed of ten items to evaluate the repercussion of melasma in the emotional state, social relations and daily activities. The English version of MELASQol showed high internal consistency, validity and discriminatory power when compared to the general questionnaires for evaluation of quality of life in dermatology, Skindex-16 and DLQI.

In this perspective, the results demonstrated that MELASQol is a valid and reliable instrument that can be used to monitor the effect that melasma has on patients’ quality of life. This instrument has been widely used and has been translated and validated for several countries.

**Specific instruments to evaluate quality of life in dermatology**

The DLQI is a generic instrument for dermatological diseases. It was validated for the purpose to allow a simple, compact and uniform evaluation of patients with dermatological diseases in general. It is an instrument composed of ten items, divided into six domains: symptoms and feelings, daily activities, leisure, work/school, personal relationships and treatment.

The Skindex was another generic instrument cited in the articles. This instrument consists of 61 items, divided into eight domains: cognitive, social, depression, fear, embarrassment, anger, physical discomfort and physical limitations. There is a simplified version, Skindex-29, which has 29 items, divided into three domains: symptoms, functionality and emotions. Skindex-16, used in the studies identified in this study, presents three domains and a reduced number of items.

**DISCUSSION**

Melasma is characterized by irregular melanic pigmentation that affects exposed areas, such as the face, especially women in fertile age, which maximizes its impact on body image and interpersonal relationships. The social-emotional discomfort caused by patches negatively affects the perception of quality of life due to the darkened appearance of the skin.

It is a recurrent disease and can be prevented, restricting excessive sun exposure with environmental education and the use of sun filters. In this research, the results showed that there was the concern in evaluate the quality of life in different sociocultural contexts in the last decades, but also that there is restriction to a single instrument available to evaluate the quality of life of patients with melasma (MELASQol).

The data analyzed showed that the United States of America, Brazil and South Korea were the publication leaders about the theme. The other articles are distributed between Europe and Asia. The studies included in this research were mostly developed in a single country, with the exception of only one, realized between Brazilian and Mexican institutions.

Regarding the type of methodology applied in the selected articles in this review, it was observed that 15 (57.7%) were intervention studies and, of these, seven (26.9%) were randomized controlled clinical testing. Regarding the studied population, it was observed that 14 studies (53.8%) did not mention the gender of the interviewees, ten (38.4%) were performed with only women participation, one (3.9%) was made only with men and one (3.9%) researched both genders.

The conduction of studies preferentially with women is linked to the pathophysiology of this condition, in
which the appearance of lesions occurs, especially after exposure to sexual steroids, such as oral contraceptives, pregnancy, hormone replacement therapy and during fertile period.  

However, a study realized with men with melasma showed that they are also affected, although in a lesser extent. Facial patches tend to cause embarrassing situations due to the unpleasant appearance, as well as the social stigma attached to the fact that it is a disease that affects pregnant women. Another population-based study showed that, unlike women, men did not use makeup to camouflage the patch, which worsened the quality of life compared to men without pigment disorders.  

A recent study, conducted with 515 public university employees from the state of São Paulo, Brazil, showed that melasma was more frequently associated with women (odds ratio [OR] = 8.0, p < 0.01). In this study, the occurrence of melasma was 34% in women and 6% in men.  

Regarding the instruments used to evaluate the QLRM, the only one identified in this research, MELASQol, did not follow the construction and validation steps established in the literature. First, the authors did not construct the questions, that is, they used seven questions from the Skindex-16 questionnaire, a generic instrument to evaluate the quality of life of patients with dermatological diseases in general, and three from another questionnaire to evaluate color changes skin and not referenced by the author.  

In addition, there were no analyzes of the test-retest of the instrument in its validation process, since this raises questions regarding the reliability of the instrument, although the original English version had high internal consistency, validity and discriminatory power, when compared to other questionnaires. Although melasma is a prevalent disease in women, men were not included in the validation process, which could have contributed to the universalization of the use of the questionnaire in clinical studies, besides exploring characteristics related to this genre.  

It should be noted that, despite the simplicity of the application of an instrument of only ten items, it does not contemplate a stratification of the impact of melasma on quality of life, which makes it difficult to dimension the phenomenon in clinical practice, as well as in clinical testing. In addition, MELASQol uses only three items to represent psychological aspects resulting from melasma, in comparison to the approach of social relations, leisure, profession and physical appearance of the disease.  

In spite of all limitations in the construction and validation process, the instrument was translated and validated for Brazilian Portuguese in 2006 (MELASQol-BP), from the English version. In this multicenter study, 300 participants from five Brazilian geographic regions were included in the survey. The analysis showed a significant impact of the disease on the appearance of the skin, with 65% of interviewees reported discomfort with the patches all the time or most of the time, 55% cited frustration and 57% mentioned embarrassment about the condition of their skin. 43% of patients did not feel attractive but dirty due to this condition. The results demonstrated that MELASQol-BP is a valid instrument and can be used to evaluate the quality of life in Brazilian patients with melasma.  

However, new QLRM specific questionnaires should be developed and validated in order to compare their properties with MELASQol and to characterize aspects related to the impact of melasma on patients.

CONCLUSION  

This review allowed us to identify that there is only one QLRM evaluation instrument, MELASQol, whose development and validation did not follow the classic stages of psychometry.  

In the face of gaps and inconsistencies presented in relation to MELASQol, the importance of conducting future research that has as a proposal the development of new instruments for the evaluation of QLRM was evidenced. In addition, it is expected that these will allow to measure the impact on the quality of life inflicted by melasma, making possible its use in assistance, teaching and research.

AUTHOR’S CONTRIBUTION  

Conceptualization, Pollo CF; Meneguin S and Miot HA; Methodology, Pollo CF; Meneguin S and Miot HA; Investigation, Pollo CF; Writing - First version, Pollo CF; Writing - Review & Editing, Meneguin S and Miot HA; Supervision, Meneguin S.
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