THE PSYCHOLOGICAL IMPACT OF MELASMA ON CHINESE WOMEN: A PRELIMINARY STUDY

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INTRODUCTION

Melasma is characterized by light to dark brown irregular macules mainly on the face, which are difficult to treat. Many middle-aged Chinese women suffers from Melasma. Up until now, studies on its psychological impact has been lacking. The present study aimed at understanding the psychological effect of facial melasma on Chinese women, and enhancing awareness of its impact.

METHODS AND MATERIAL

1 Subjects: 157 healthy Chinese women (age: 45.9 ± 9.4) in Beijing who has melasma were recruited between October 2011 to February 2012. All subjects signed an informed consent form prior to the study.
Inclusion criteria (meet all following items):
1) Age between 30 to 60 with Melasma Area and Severity Index (MASI) ≥ 2 on both cheeks.
2) Living in Beijing for at least five years.
3) Willing to comply with study protocol.
Exclusion criteria (meet one of the following items):
1) Having rosacea; seborrheic dermatitis; acne; riehl's melanosis; nevus pigmentosus; post-inflammatory pigmentation.
2) Having systemic diseases that affects her judgment, or unable to understand or answer questions correctly.

2 QOL instrument: All subjects completed a modified Chinese version of Melasma Quality of Life scale (MELASQOL). It contains 11 items with scale of 1 (not at all) to 7 (all the time), and one additional open question "why fair complexion is important for you? what fair complexion means to you?"

3 Statistic analysis: All the analysis was performed using statistics software of SAS 9.3.

RESULTS

1 *TABLE 1: EFFECT OF AGE ON MELASQOL (HIGHER SCORE = WORSE QOL)*

Items	Scores (Mean ± SD)			Total n=157
	30-40Y n=51	41-50Y n=49	50-60Y n=57	
Q 1. The affect of your facial skin appearance (pigmentation) on you	5.2 (1.4)	5.2 (1.3)	5.6 (1.4)	5.4 (1.4)
Q 2. Frustration due to facial skin pigmentation	4.4 (1.7)	4.5 (1.7)	4.5 (1.7)	4.5 (1.7)
Q 3. Feel embarrassed due to facial skin pigmentation	4.4 (1.8)	4.0 (1.7)	4.6 (1.6)	4.5 (1.7)
Q 4. Feel depressed due to facial skin pigmentation	4.5 (1.6)	4.4 (1.8)	4.5 (1.7)	4.5 (1.7)
Q 5. Affect your interactions with other people (e.g. family and friends etc) due to facial skin pigmentation	3.7 (1.8)	3.7 (1.8)	4.1 (1.6)	3.9 (1.8)
Q 6. Affect on your desire to be with people due to facial skin pigmentation	3.7 (1.9)	3.7 (1.8)	3.5 (1.5)	3.6 (1.7)
Q 7. Affect your relationship due to facial skin pigmentation	3.2 (1.7)	3.0 (1.7)	2.9 (1.6)	3.0 (1.7)
Q 8. Lost attractiveness due to facial skin pigmentation	4.4 (1.6)	4.4 (1.7)	4.3 (1.6)	4.4 (1.6)
Q 9. Some times feel less important or effect my work due to facial skin pigmentation	4.0 (1.8)	4.1 (1.8)	3.4 (1.3)	3.8 (1.6)
Q 10. Affect your sense of freedom (e.g. activities and talking with people) due to facial skin pigmentation	3.9 (1.7)	4.0 (1.7)	3.4 (1.4)	3.7 (1.6)
Q 11. Do you think fair facial complexion, no pigmentation or less pigmentation is important to you?	6.4 (1.0)	6.4 (0.8)	6.1 (1.4)	6.2 (1.1)
Total score	**47.7 (14.5)**	**47.9 (14.6)**	**46.9 (12.7)**	**47.5 (13.8)**

1. Three age groups revealed similar results.
2. In response to the open question, most subjects stated:
   1) "a fair facial complexion without or less pigmentation is important, it means beauty, young and healthy".
   2) "a fair facial complexion means more attractive, and admirable".
   3) "a fair facial complexion means confident, and elegant".
   4) "if I have a fair facial complexion, I would be more social".

2 *TABLE 2: EFFECT OF EDUCATION LEVEL ON THE MELASQOL*

QoL Item	Primary school n=20	Junior high n=34	Senior high n=38	Junior college n=22	College above n=40
Q 1	4.9	5.8	5.6	5.5	5.0
Q 2	4.3	5.3	5.2	4.3	3.4
Q 3	4.3	5.1	5.3	4.0	3.6
Q 4	4.4	5.2	5.3	4.1	3.3
Q 5	3.4	4.5	4.7	3.6	2.9
Q 6	3.4	4.5	4.3	3.2	2.7
Q 7	2.8	3.4	3.7	2.4	2.5
Q 8	4.4	5.3	4.6	4.1	3.5
Q 9	4.0	4.8	4.1	2.9	3.0
Q 10	4.1	4.3	4.3	3.1	2.9
Q 11	6.2	6.7	6.6	6.2	5.6
Total	**46.1**	**54.8**	**53.6**	**43.3**	**38.3**

College and above degree showed lower total score followed by Junior college compared with rest of the educational level groups.

3 *TABLE 3. SUBJECTS RANKED IMPACTING SEQUENCE (1-7)*

Characteristics of pigmentation / pigmentary lesions on the face	30-40Y	41-50Y	51-60Y	Total
A single size	4.8	5.7	5.1	5.2
Total area	3.5	3.6	4.0	**3.7**
Location	3.9	3.7	3.6	**3.7**
Quantity	4.1	3.9	3.9	4.0
Darkness	3.0	2.5	2.6	**2.7**
Duration	4.5	4.8	4.5	4.6
Uneven skin tone	4.2	3.8	4.3	4.1

The color / darkness was the most disturbing element of melasma lesions followed by location, and total affected area.

44Y   51Y

CONCLUSIONS

Melasma is one of the common skin pigmentary disorders that has an effect on Chinese women's QOL irrespective of age, or education level. The modified Chinese version of MELASQOL can be used for assessing the psychological impact of melasma on Chinese women.

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The authors declare no conflict of interest