

The Quality of Women's Skin after Childbirth

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Abstract

Aims: Pregnancy affects all organs of pregnant women, including the skin. Although changes in the skin of pregnancy rarely affect a person's physical health, its psychological aspects are likely to affect the quality of the skin. Therefore, this study assessed the quality of the skin of postpartum women.

Materials & Methods: The present study is a cross-sectional study on 145 women who were referred to health centers in Mashhad. Sampling was done by convenience method. Data collection tools included the demographic questionnaire, Skin Quality Index, and Fitzpatrick Classification. The demographic questionnaire and skin quality index were completed through interviews in the 6th week after delivery and Fitzpatrick Classification through observation. Data were analyzed by SPSS software version 16 with descriptive statistics and Mann-Whitney test.

Findings: Mean and standard deviation of skin quality index score were 58.24 ± 17.76 and its emotional dimension was 19.41 ± 6.20 , symptoms dimension was 15.0 ± 4.54 , and function dimension was 23.67 ± 7.46 . The mean and standard deviation of the skin quality index score was 62.20 ± 18.08 in primiparous women and 58.74 ± 11.20 in multiparous women.

Conclusion: The results of the present study showed that the quality of skin in postpartum women was poor. Also, the mean scores and standard deviation of skin quality and its dimensions in primiparous women were higher than multiparous women, which means poorer skin quality in primiparous women.

Keywords

Quality of Life [<https://www.ncbi.nlm.nih.gov/mesh/?term=Quality+of+Life>];

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Introduction

Pregnancy, childbirth, and adaptation to the newborn may be considered the most critical stage in a woman's life development [1]. At this time, a physiological, psychological, and emotional crisis occurs that causes confusion and changes in the identity of the person. The postpartum period, especially six weeks after, makes it a vulnerable and important period for physical and mental disorders [2-4]. Pregnancy affects all parts of the body of pregnant women, including the skin [3]. Skin changes during pregnancy include striae, chloasma, mild hirsutism, spider angiomas, palmar erythema, capillary hemangiomas of the head and neck, acne, nail changes. Kafaei *et al.* aimed to determine skin changes during pregnancy on 180 women after childbirth in Kashan. The results showed an increase in the severity of acne by 26.7%, melasma by 33.9%, striae by 82.3%, and facial hirsutism by 17.2%. Because most pregnant women do not know the exact nature of skin changes during pregnancy, they do not take adequate care of the possible side effects of these changes. These natural changes can in some cases be so serious that they may be considered insignificant. Sometimes the normal and harmless manifestations of this period can cause the mother to be overly anxious [3]. On the other hand, the postpartum period is a period of transition and potentially stress, during which a woman must accept her motherly role and physical changes. During this period, important anatomical, physiological and psychological changes occur in the mother [5] that are difficult to adapt to. One of the stressors after childbirth is worrying about physical changes [6]. Skin changes have negative effects on the mental image of the body [7]. Although pregnancy skin changes rarely affect a person's physical health, the psychological aspects of it affect general health and possibly the quality of the skin and its dimensions. However, healthy and fresh skin is very important for a person to feel good physically and mentally and is one of the important aspects of sexual attractiveness and self-confidence in people [8]. The quality of the skin includes different physical, mental, and functional dimensions of people. Many changes occur during pregnancy and postpartum in the dimensions of physical, mental, and social health. No event in human life, such as the birth of a baby and the arrival of a new person in the family, requires a rapid change in the method, role, and performance of the person [9, 10]. In the last two decades, the importance of quality of life in the outcome and clinical-therapeutic care has led to an increase in the measurement of skin quality [11]. Measuring quality of life is very important in skin problems because these problems, although do not have a direct effect on life, in different ways, such as causing symptoms (itching and pain), stress (lack of confidence and confusion), affecting social and family relationships and medical problems

(financial burden and waste of time) may affect life [12]. Yamaguchi *et al.* showed that part of the psychological problems of women during pregnancy and postpartum are related to the effects of striae in different parts of their body [13]. Panahi *et al.* showed that skin problems affect the quality of life of chemical warfare victims [14].

Considering that people's perception of quality of life from beliefs and culture is influenced by cultural and racial factors, and also given that no research has been reported in this field in Iran, the need for research in this field is highly felt. The researcher decided to study the quality of life of women's skin after childbirth.

Materials and Methods

The present study was a cross-sectional study that was performed on 145 primiparous and multiparous women who were referred to health centers in Mashhad. The sample size was calculated based on the study by Yamaguchi *et al.* [13] (95% confidence interval). The multi-stage random sampling method was done. From the five health centers of Khorasan Razavi province (Mashhad), one center (cluster) was randomly selected using a table of random numbers and in proportion to the number of patients to receive postpartum care, 10 covered centers were selected. In each of the covered centers, sampling was done by convenience method among women who had been referred to health centers in the 6th week after delivery to receive services.

Inclusion criteria included consent to participate in the study, Iranian citizenship, no medical disease (adrenal, lupus, connective tissue disorders, Cushing's disease), and no speech-auditory and mental problems. Data collection tools included demographic questionnaire, Skindex29 skin quality index, Fitzpatrick Classification. The validity of the data collection forms and questionnaires was confirmed by the content validity.

The Fitzpatrick Classification Questionnaire was used to assess the skin type. This questionnaire is based on the four-point Likert scale and the skin is classified into six types. The score between 0 and 6 indicates type one skin (pale white skin), score 7 to 13 indicates type two (white skin), score 14 to 20 indicates type three (light brown skin), score 21 to 27 indicates type four (moderate brown skin), score 28 to 34 indicates type five (dark brown skin), and the score more than 30 indicates type six (deeply pigmented dark brown to black skin) [15]. Its reliability was confirmed by the test-retest method (0.74).

To determine the quality of the skin, the skin quality index (skindex-29) was used that has 30 items and three dimensions of emotional dimension (10 questions), symptom dimension (7 questions), and function dimension (12 questions), and one question that is not calculated in scoring. Its scoring was

designed by the 5-point Likert method and was scored from one to five. The minimum score is 29 and the maximum is 145 [13]. A total score greater than 52, an emotional dimension score greater than 37, a symptom dimension greater than 44, and a performance dimension greater than 39 are considered poor skin quality [16]. Its reliability was confirmed by Cronbach's alpha as follows: emotional dimension: 0.84, symptom dimension: 0.80, and function dimension: 0.86. After the study was approved by the ethics committee of the university and after stating the objectives of the study and obtaining written consent from the mothers and considering the ethical codes, sampling was performed. The questionnaire of demographic characteristics and the skin quality index were completed through interviews by women referring to health centers in Mashhad, in the 6th week after delivery by the researcher and Fitzpatrick Classification was completed by observation by the researcher.

The data collected were analyzed by SPSS software version 11.5 using descriptive statistics and Mann-Whitney U test (first using the Kolmogorov-Smirnov test, the normality of quantitative variables was determined and then the data were analyzed). In all tests, 95% confidence interval and significance level of 0.05 were considered.

Findings

The mean age of the subjects was 26.3 ± 5.7 years, body mass index was 25.94 ± 5.69 kg/m², and overweight during pregnancy was 12.32 ± 4.91 kg/m². About 63 (43.4%) of the studied women were primiparous and about 82 (56.55%) were multiparous. The sex of the infant in 66.20% of cases was female. Most of them (0.40%) had white skin (type two of Fitzpatrick classification). The mean and standard deviation of the skin quality index score was 58.24 ± 17.76 (Table 1).

Table 1) Mean and standard deviation of skin quality index score and its dimensions in postpartum women

Dimensions	Mean±SD
Emotional	19.41±6.20
Symptoms	15.0±4.54
Function	23.67±7.46
Total	58.24±17.76

Table 2) Comparison of skin quality index mean score and its dimensions in primiparous and multiparous women

Dimensions	Primiparous	Multiparous	Mann-Whitney test results
Emotional	20.95±6.28	19.51±3.67	0.036
Symptoms	16.03±4.59	14.96±2.82	0.051
Function	25.34±7.40	24.25±5.18	0.258
Total	62.20±18.08	58.74±11.20	0.082

The results of the Mann-Whitney U test showed that there was a significant difference between the mean

and standard deviation of the emotional dimension score of skin quality index in primiparous and multiparous women (Table 2).

Discussion

The results of the present study showed that the quality of skin in postpartum women was poor.

The postpartum period is a transitional and potentially stressful period, during which a woman must accept her motherly role and physical changes. During this period, important anatomical, physiological and psychological changes occur in the mother [5] that are difficult to adapt to. One of the stressors after childbirth is worrying about physical changes [6]. Skin changes have negative effects on the mental image of the body [7]. Although these changes rarely affect the patient's physical health, the psychological aspects of it affect general health and the skin and significantly affect its quality and dimensions.

Balkrishnan *et al.* conducted a study to determine the quality of life of women with severe facial blemishes at the WFUSM Center in Northern California. The results showed that severe facial blemishes significantly reduced the quality of life, self-concept, and self-confidence of these women, but there was no relationship between the type of facial condition and the severity of skin involvement (blemish severity) and quality of life [17]. The presence of skin spots on the face clearly affects the appearance of the patient, the patient's mental perception of the appearance of the skin of the face is not good and this generally leads to a decrease in quality of life.

Entezari *et al.* conducted a study to determine the quality of life of patients with skin diseases in Iran. The results showed that the quality of life of these patients does not depend solely on the severity of their disease and non-fatal skin diseases may be more than others reduce the quality of life [8]. Anvar *et al.* showed that skin diseases, such as chronic dermatitis reduce the quality of life of the skin [18], which is consistent with the results of the present study.

Also, the mean scores and standard deviation of skin quality and its dimensions in primiparous women were higher than multiparous women, which means poorer skin quality of life in nulliparous women. Salari *et al.* conducted a study comparing postpartum stressors in primiparous and multiparous women in Mashhad (Iran). The results showed that the stress caused by striae and gestational chloasma in primiparous women was significantly higher than in multiparous women [19]. The results of Smith in Canada showed that irreversible changes in the body of women are stressful factors after childbirth [20]. Mental perception of the appearance of the skin is a determining factor in the quality of life [12]. Although most physiological skin changes during pregnancy do not pose a risk to maternal or fetal health, they can cause stress and anxiety in terms of beauty, low self-

esteem, and psychological problems for women [21,22] and cause concern about losing attractiveness for their husbands. Finally, it can affect the mental health of mothers after childbirth [23].

Conclusion

The results of the present study showed that the quality of skin in postpartum women was poor. Also, the mean scores and standard deviation of skin quality and its dimensions in primiparous women were higher than multiparous women, which means poorer skin quality in nulliparous women. Therefore, measuring the quality of the skin is very important in planning to promote maternal health.

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Ethical Permissions: This research received the code 118/1/1/920435, was approved by the Mashhad University of Medical Sciences by obtaining informed consent and keeping the information of individuals.

Conflicts of Interests: None to declare.

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