

RESEARCH ARTICLE

Cardiff acne disability index: cross-cultural translation in Korean and its relationship with clinical acne severity, pathological patterns, and general quality of life

Kyeong-Han Kim, Sang-Chul Lee, Young-Bae Park, Young-Jae Park

Kyeong-Han Kim, Department of Human Informatics of Korean Medicine, Interdisciplinary Programs, Kyung Hee University, Seoul 02447, Korea

Sang-Chul Lee, Department of Business Administration, Korea Christian University, Seoul 07661, Korea

Young-Bae Park, Department of Human Informatics of Korean Medicine, Interdisciplinary Programs, Kyung Hee University, Seoul 02447, Korea; Department of Biofunctional Medicine and Diagnostics, College of Korean Medicine, Kyung Hee University, Seoul 02447, Korea

Young-Jae Park, Department of Human Informatics of Korean Medicine, Interdisciplinary Programs, Kyung Hee University, Seoul 02447, Korea; Department of Biofunctional Medicine and Diagnostics, College of Korean Medicine, Kyung Hee University, Seoul 02447, Korea; Department of Diagnosis and Biofunctional Medicine, Kyung Hee University Hospital at Gangdong, Seoul 05278, Korea

Correspondence to: Prof. Young-Jae Park, Department of Human Informatics of Korean Medicine, Interdisciplinary Programs, Kyung Hee University, Seoul 02447, Korea; Department of Biofunctional Medicine and Diagnostics, College of Korean Medicine, Kyung Hee University, Seoul 02447, Korea; Department of Diagnosis and Biofunctional Medicine, Kyung Hee University Hospital at Gangdong, Seoul 05278, Korea. bmpomd@khu.ac.kr

Telephone: +82-2-440-7229

Accepted: August 8, 2016

Abstract

OBJECTIVE: To culturally translate the cardiff acne disability index (CADI) into Korean, and to examine its relationship with clinical acne severity, pathological patterns, and general quality of life (QoL).

METHODS: The CADI was culturally and lin-

guistically translated into Korean *via* translation, back-translation, and face validity test process. Two hundred and fifty-four Korean adolescents were asked to complete the Korean version of the CADI (K-CADI), the Phlegm Pattern, the Cold-Heat Pattern, and the Korean version of the General Health Questionnaires. A clinician estimated acne severity for the adolescents, using the Korean Acne Grading System. Finally, reliability and validity of the K-CADI was examined, and the relationships between acne severity, Phlegm, Cold, and Heat patterns, and QoL level were examined via pathway analysis.

RESULTS: The K-CADI had satisfactory internal consistency ($\alpha = 0.827$). The examination of construct validity indicated that the K-CADI had one factor (explaining 59.6% of the total variance). Pathway analysis showed satisfactory model fit (normal fit index = 0.960 and comparative fit index = 0.983), and acne-related QoL was determinant to Phlegm, Heat, and Cold patterns (0.13-0.27 of β), and Phlegm and Heat patterns lowered one's QoL level (0.17-0.34 of β).

CONCLUSION: The K-CADI is a valid and reliable instrument. Phlegm and Heat patterns should be managed when treating acne since they have a moderating effect on general QoL aggravation.

© 2017 JTCM. This is an open access article under the [CC BY-NC-ND license](https://creativecommons.org/licenses/by-nc-nd/4.0/).

Keywords: Acne vulgaris; Quality of life; Medicine, East Asian Traditional; Psychology, adolescent; Causality; Cardiff acne disability index

INTRODUCTION

Acne is a common disease and affects 85% of adolescents.¹ Since acne is not a fatal or systemic disease, the effects of acne on adolescents has been underestimated in the medical field. However, disfigurement of acne-affected regions (e.g., the face) can cause various psychological problems, including depression, anxiety, and eating disorders; moreover, adolescents with acne have difficulty forming relationships with peers.^{2,3} Quality of Life (QoL) is a broad-ranging concept; it comprises multiple domains including emotional well-being, social functioning, physical health, patient environment, and personal beliefs. QoL can be assessed with both generic and condition-specific instruments.⁴ The Cardiff acne disability index (CADI) is a measure of acne-related QoL; this measure is a 5-item QoL questionnaire and was designed by Motley *et al.*⁵ There have been versions developed in French, Chinese, Persian, Serbian, and Malaysian; these versions of the CADI have been cross-culturally translated and validated.⁶⁻¹⁰ However, the Korean version of the CADI (K-CADI) has yet to be culturally and linguistically translated. Therefore, the first purpose of this study was to conduct cross-cultural translation of the original version of the CADI into Korean, according to published guidelines.¹¹

From an East Asian medical point of view, acne can be classified into several pathological patterns, including Phlegm and Heat patterns.¹² In a review of the literature, it was reported that 87% of acne-related pathological patterns were Wind-Heat and Phlegm patterns,¹³ and it is possible that clinical acne severity affects acne-related pathological patterns. Furthermore, Motley *et al.*⁵ reported that the clinical severity of acne was related to acne-related QoL, and Cho *et al.*¹⁴ reported that pathological patterns, including Phlegm and Seven Emotions Impairment patterns, affected general QoL. Considering the relationship between the clinical severity of acne, acne-related QoL, pathological patterns, and one's general QoL, it is plausible that there will be a relationship between them. Therefore, the second purpose of our study was to examine how pathological patterns were affected by clinical acne severity and acne-related QoL; in addition, the effect of acne on general QoL was also examined.

In this study, a cross-cultural translation of the original version of the CADI in Korean was conducted to test the relationships between the clinical acne severity, pathological patterns, acne-related QoL, and general QoL.

METHODS

Subjects and data collection

A total of 254 young Korean adolescents (male:

female = 115:139) participated in this study (Group A). The average age of the male and female subjects in Group A was (16 ± 3) and (17 ± 4) years, respectively. Data from Group A were used to examine the reliability and construct validity of the K-CADI. In addition, 107 college students (male:female = 83:24) participated in this study (Group B). The average age of the male and female subjects in Group B was (26 ± 4) and (27 ± 5) years (Figure 1). Data from Group B were used to examine the face validity of the K-CADI. An informed consent form was given from the participants in both groups.

K-CADI

The CADI is consisted of five items, and each question is rated on 4-point Likert scale (0-3).⁵ On the original version of the CADI, a rating of "0" indicated a maximum effect on QoL, whereas a rating of "3" indicated a minimal effect on QoL.⁵ However, in this study, we followed the scaling on the Serbian version of the CADI; specifically, we assigned inverse anchors to each item on the K-CADI (0 = no effect on QoL; 3 = maximum effect).⁹ This procedure was followed since higher points generally indicate higher severity for items on the questionnaire. The total scores of the K-CADI were calculated by summing the items as was done in the Serbian study; total scores on the K-CADI ranged from 0 to 15 points, with higher scores indicating decreased acne-specific QoL.

Short-form phlegm pattern questionnaire (SF-PPQ) and Cold-Heat pattern questionnaire (CHPQ)

The SF-PPQ consists of 14 items,¹⁵ and the CHPQ consists of ten Heat pattern-related and ten Cold pattern-related items.¹⁶ The SF-PPQ is rated on a 7-point Likert scale (1 = disagree very strongly; 2 = disagree strongly; 3 = disagree; 4 = neither agree nor disagree; 5 = agree; 6 = agree strongly; and 7 = agree very strongly). One item on the SF-PPQ was related to drinking; since it was inappropriate for the students, this item was excluded. Therefore, a total of 13 items were presented to the participants. On the CHPQ, both Heat pattern items and Cold pattern items were considered in the pathway analysis; this procedure was followed since Heat and Cold patterns are known to be paired and reciprocal with each other.¹⁷ The CHPQ is rated on a dichotomous scale: 0 = disagree, 1 = agree. The total scores were summed on the 13-item SF-PPQ items, and the 10-item CHPQ. Higher SF-PPQ, and Heat and Cold scores of the CHPQ indicate severer conditions of the corresponding pathological patterns.

Korean version of the general health questionnaire (K-GHQ)

The K-GHQ is the Korean version of the original version of the general health questionnaire-30. The GHQ has been previously validated,¹⁸ and consists of 30 items. Each item on the K-GHQ is rated on a

Download English Version:

<https://daneshyari.com/en/article/8818236>

Download Persian Version:

<https://daneshyari.com/article/8818236>

[Daneshyari.com](https://daneshyari.com)