

Original Article

Developing an optimized cold/heat questionnaire



Youngheum Yoon, Hoseok Kim, Youngseop Lee, Jonghyang Yoo*,
Siwoo Lee*

Mibyeong Research Center, Korea Institute of Oriental Medicine, Daejeon, Korea

ARTICLE INFO

Article history:

Received 5 August 2015
Received in revised form
22 September 2015
Accepted 23 September 2015
Available online 3 October 2015

Keywords:

cold/heat
pattern identification
questionnaire
traditional Korean medicine
traditional medicine

ABSTRACT

Background: The cold/heat questionnaire is one of the most actively developed patient diagnostic tools in traditional Korean medicine (hereafter abbreviated as TKM) because of its objectivity. Unfortunately, the existing questionnaires contain too many items to hold the respondent's attention. In the current study, we aimed to develop an optimized cold/heat questionnaire to be used as a complement to the existing questionnaires.

Methods: We developed a new cold/heat questionnaire based on a domain analysis of the existing questionnaires. The questionnaire's reliability was examined via two test-retest reliability analyses involving 1890 individuals in November 2013 and February 2014. Its validity was examined using a professional cold/heat diagnosis kappa value.

Results: The new cold/heat questionnaire consisted of a total of seven items, which were created based on an analysis of the existing questionnaires. A reliability analysis performed using the study participants revealed a correlation coefficient of 0.609, 74.5% agreement with professional cold/heat diagnoses by TKM practitioners, and a kappa value of 0.487.

Conclusion: In the current study, we developed an optimized cold/heat questionnaire. The level of agreement between the questionnaire and professional cold/heat diagnoses by TKM practitioners was significant, which indicates great potential for its widespread use as a diagnostic tool in TKM.

© 2015 Korea Institute of Oriental Medicine. Published by Elsevier. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Pattern identification refers to a diagnostic system in which the patient's clinical data are analyzed based on four examination methods and are subsequently synthesized in order to determine the nature and location of the ailment and treatment options.¹ Pattern identification has been studied and developed throughout the long history of traditional

Korean medicine (hereafter abbreviated as TKM). However, because the diagnosis is mainly based on the patient's subjective expression of symptoms and the practitioner's intuitive knowledge, an objective evaluation can be difficult.² Currently, evidence-based research and objective evaluation are more important than ever in medicine. In keeping with this trend, pattern identification in TKM must evolve from the individuals' subjective evaluation to objective and quantifiable evaluation methods.³ The pattern identification

* Corresponding authors. Mibyeong Research Center, Korea Institute of Oriental Medicine, 1672 Yuseongdaero, Yuseong-gu, Daejeon 305-811, Korea.

E-mail addresses: jhyoo@kiom.re.kr (J. Yoo), bfree@kiom.re.kr (S. Lee).

<http://dx.doi.org/10.1016/j.imr.2015.09.003>

2213-4220/© 2015 Korea Institute of Oriental Medicine. Published by Elsevier. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

questionnaire is regarded as the primary answer to this demand.

Questionnaires are widely used across academic fields because their logical and systematic construction helps objectively identify the respondents' characteristics and current health status.⁴ In addition, they have a substantial influence on the field of medicine, as evidenced by their wide adoption as tools for identifying the nature of various communicable disease outbreaks.⁵

Among the pattern identification types, cold/heat is regarded as the most important scale used to survey a patient's health status in Oriental or constitutional medicine.⁶ Cold/heat is also a quintessential phenomenon studied in clinical TKM. Therefore, cold/heat questionnaires comprise an important part of TKM questionnaire development.

In Korea, questionnaires that effectively embody the characteristics of TKM have been developed and published since the late 1980s.⁷ They have been used as a tool to determine an individual's constitution⁸ and evaluate certain ailments such as back pain⁹ and static blood.¹⁰ Cold/heat questionnaire testing the agreement with Korean medicine doctor's diagnosis by using experts' surveys and the Delphi method is available.^{7,11} Another questionnaire has been designed to evaluate deficiency of heat, true cold with false heat, and cold-heat complex.² In addition, cold/heat and deficiency/excess questionnaire has been developed to survey both of them.¹² However these questionnaires have some limitations such as having too many items and including similar contents, and these limitations caused difficulty in holding respondents' attention.

2. Methods

First, a new set of subdomains was established after analyzing the existing questionnaires, and a new set of optimized domains and items was created via a discussion between the authors. Second, the reliability and validity of the questionnaire were tested on survey participants who had been recruited in 2014 for the "health impact survey for the residents of communities that house disposal facilities" (Fig. 1).

2.1. Selecting questionnaire items

2.1.1. Search for existing cold/heat questionnaire items

Using well-established nationwide academic paper search engines such as Oasis, DBPIA, and KISS, we searched for available academic papers using "cold/heat" and "questionnaire" as keywords. Of the retrieved questionnaires, those currently in wide usage were selected for the analysis. After a review of the number and nature of the items in the selected questionnaires, we established new domains and examined the reliability and validity of the items.

2.1.2. Restructuring the domains and items of the new questionnaire

Three authors performed a domain review, and eliminated items that focused on patients with diseases and domains that contained similar items. The new domains were created by extrapolating the 10 traditionally used questions (used in TKM

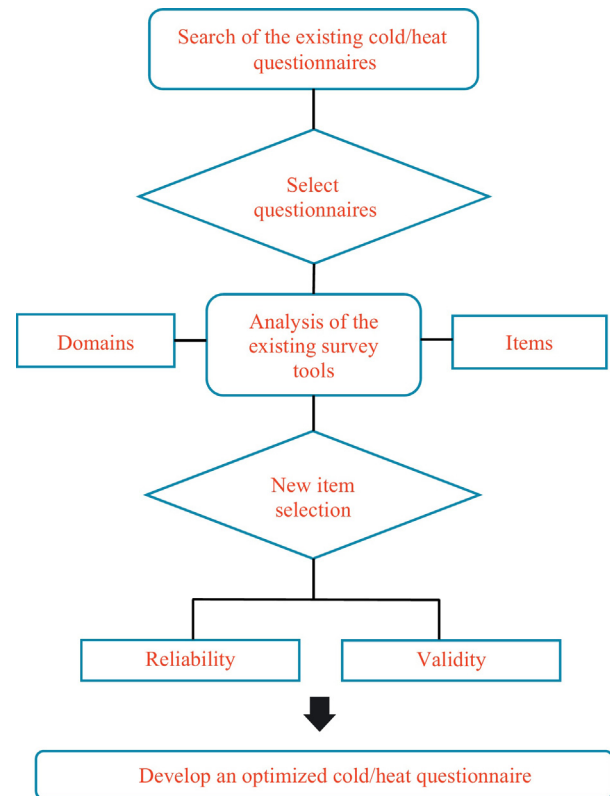


Fig. 1 – Flow diagram.

for the identification of the cold/heat pattern in the human body).¹³

2.2. Reliability and validity analysis

2.2.1. Study participants

The study participants consisted of 1890 individuals who had been recruited on two separate occasions (November 2013 and February 2014 in Gyeong-Ju, Korea) for the "Health impact survey for the residents of communities that house disposal facilities." Upon completion of the first and second surveys, the reliability of the questionnaire was tested on 1759 participants with no missing values. All 1759 participants were examined for cold/heat. The questionnaire's validity was tested on 1527 participants after eliminating 232 participants who did not belong to either the "cold" or the "heat" group.

2.2.2. Professional cold/heat diagnosis

TKM practitioners with a minimum clinical experience of 5 years performed the professional cold/heat diagnosis. The examination consisted of personal interviews of the participants regarding general health status and cold/heat diagnosis.

2.3. Statistical analysis

2.3.1. Reliability

A test-retest reliability examination that utilized the first and second surveys was performed to assess the reliability. Individual items, as well as the combined cold/heat scores of the items in the first and second surveys, were used for the kappa

Download English Version:

<https://daneshyari.com/en/article/3098227>

Download Persian Version:

<https://daneshyari.com/article/3098227>

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