



Original Article

Int Neurourol J 2021;25(4):296-309

<https://doi.org/10.5213/inj.2040316.158>

pISSN 2093-4777 · eISSN 2093-6931



Translation and Linguistic Validation of Korean Version of the Expanded Prostate Cancer Index Composite for Clinical Practice for Patients With Prostate Cancer

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Purpose: Advances in the diagnosis and treatment of prostate cancer have increased the patients' stress level and decreased the quality of life. A variety of instruments are currently available to evaluate patients with prostate cancer. However, only a few tools are available to assess Korean patients, and therefore we demonstrated a linguistic validation of Korean Expanded Prostate Cancer Index Composite for Clinical Practice (EPIC-CP).

Methods: EPIC-CP was translated into Korean and the linguistic validation was evaluated. The evaluation process includes permission for translation, forward translation, reconciliation, backward translation, cognitive debriefing, and proofreading. Two bilingual translators independently translated the original questionnaire, discussed the feasibility and naturalness of initial translation, followed by revision to the reconciled version. Another translator then performed a backward translation into English. Ten patients with prostate cancer completed the translated questionnaire and performed cognitive debriefing.

Results: The original EPIC-CP was translated into 2 Korean versions. The different wording in both versions and the ordinary words in the initial translations were changed considering the nuances and meanings of medical terms. During the backward translation, the panels made slight changes to clarify the meaning and nuances of the translated questionnaire. During cognitive debriefing, 10 patients answered the questionnaire and offered their opinions regarding comprehensibility and naturalness. Most patients agreed that the translation was comprehensible in general.

Conclusions: Our study provides a successful linguistic validation of the EPIC-CP questionnaire. The translation is a helpful diagnostic tool to ensure the quality of life of patients with prostate cancer attending crowded clinics.

Keywords: Prostate cancer; Quality of life; Questionnaires; Linguistic validation; Patient-Reported Outcome

• **Research Ethics:** This study was approved by the Institutional Review Board of Seoul National University of Hospital (approval number: H-1305-033-487).

• **Conflict of Interest:** SYC, a member of the Editorial Board of *International Neurourology Journal*, is the corresponding author of this article. However, he played no role whatsoever in the editorial evaluation of this article or the decision to publish it. No potential conflict of interest relevant to this article was reported.

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Submitted: August 26, 2020/**Accepted after revision:** October 13, 2020



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INTRODUCTION

Since survivorship of patients, diagnosed with prostate cancer, has improved because of developments in diagnosis and treatment, Health-related quality of life (HRQoL) during the treatment of prostate cancer is emphasized. A natural course of HRQoL during treatment of prostate cancer is well documented, but objective analysis of such changes during clinical practice is a challenge [1].

The 50-item Expanded Prostate Cancer Index Composite for Clinical Practice (EPIC-CP) has been used to validate questionnaires. It was designed by UCLA Prostate Cancer Index to objectively evaluate HRQoL after prostate cancer management [2,3]. The 50-item EPIC-CP was reduced into a shorter form (EPIC-26) [4]. However, it was still tedious to administer in a busy clinical setting. Therefore, Chang et al. [5] proposed a simpler version of a validated questionnaire to assess HRQoL after prostate cancer management.

The authors of previous studies developed validated Korean versions of various questionnaires such as ISC-Q (Intermittent Self-Catheterization Questionnaire), BSW (Benefit, Satisfaction, and Willingness to Continue Treatment, and OAB-SAT-q (OverActive Bladder Satisfaction with Treatment Questionnaire) [6-9]. Given the increasing prevalence and social effects of prostate cancer on Korean population, a practical tool is needed to evaluate HRQoL and patient-reported outcomes after prostate cancer treatment. However, instruments to assess them in the Korean population are limited. Therefore, we linguistically validated the Korean version of EPIC-CP, which was first proposed by Chang et al. [5].

MATERIALS AND METHODS

Original Questionnaires

Chang et al. [5] proposed a handier version of the 50-item EPIC-CP and EPIC-26 for use in clinical practice. The questionnaire is categorized by symptoms: urinary incontinence, lower urinary tract symptoms, sexual function, and hormonal problems.

Translation and Linguistic Validation

Our study was approved by the Institutional Review Board of Seoul National University Hospital (approval number: H-1305-033-487). The linguistic validation was conducted to design a Korean version of EPIC-CP questionnaire, which is conceptually similar to the original work. The validation entailed for-

ward translation, reconciliation, backward translation, and cognitive debriefing in order [6-9].

Two bilingual persons took forward translation individually and discussed the difficulties associated with describing the questionnaires in Korean with urologists (SJO and SYC). The experts provided helpful comments to resolve any challenges involving translations and suggested alternative expressions at all steps.

Permission

The panels requested the original authors who developed EPIC-CP for consent to translate and utilize the questionnaire as a Korean version [5].

Forward Translation

Both bilingual translators individually rendered the original questionnaire into Korean. They were separated until the translation was completed.

Reconciliation

The translators and the panels gathered and reviewed 2 forward translated versions and combined it into a single translated questionnaire, for meaning and nuance.

Backward Translation

The other bilingual translator rendered the reconciled Korean version of EPIC-CP into English. The 3 linguistic experts undertook forward or backward translation, and the panels reviewed the original version of the questionnaire and backward translated version, changing indigestible phrases into more digestible expressions. Finally, the revised version was generated for cognitive debriefing.

Cognitive Debriefing

The authors administered the revised version of the questionnaire to 10 patients with prostate cancer, who had different educational and regional backgrounds. They were asked to respond to the questionnaire and then notify any difficulties in completing the questionnaire. Well-trained interviewers gathered patients' opinions regarding the challenges encountered. The panels examined the patients' response and then amended the questionnaire accordingly.

Proofreading

The questionnaire after cognitive debriefing was finally proof-

read by panels to identify grammatical errors and availability to assess HRQoL after the management of prostate cancer. As a result, we developed the final Korean version of EPIC-CP.

RESULTS

Forward Translation and Reconciliation

As given in (Table 1), 10 questions of the EPIC-CP were translated into Korean. The questions can be divided into 4 domains: overall urinary problem, bowel, sexual, vitality, or hormonal domains [5]. English expression of the final questionnaires was based on “Revised Romanization of Korean,” proposed by National Academy of the Korean Language

Overall Urinary Problem

Question 1, “Overall, how much of a problem has your urinary function been for you” in the original questionnaire was translated into “*jeonbanjeogeuro gwihaui sobyeongineungi gwihaege eolmana munjega doeotseumnikka*.” The expression “urinary function” was translated into “*baenyo gineung*” and “*yorogineung*” by translator 1 and 2 respectively. “*baenyo*” or “*yoro*” was considered hard to understand for low-educational persons, so the panels agreed on “*sobyeon*.” “moderate problem” in the original questionnaire was translated into “*botong jungdoui munjaega issda*” and “*munjaega iss da*” by translator 1 and 2 respectively, and the panels accepted “*junggan jungdoui munjaega issda*” because of its nuance.

Urinary Incontinence

Question 2, “Which of the following best describes your urinary control” in the original questionnaire was translated into “*daeum jung gwihaui sobyeon jojeol jeongdoreul gajang jal seolmyeonghago inneun geoseun mueosimnikka*.” The expression “urinary control” was translated into “*baenyo jojeol jeongdoae*” and “*binyogi jeo sangtae*” by translator 1 and 2 respectively, and the panels accepted “*sobyeon jojeol jeongdo*,” considering patients’ educational status. “0 Total control” was translated “0 *wanjeonhi jojeol-doem*.” “1 Occasional dribbling” was translated into “*gakkeumsik sobyeon banguri tteoreojim*.” “2 Frequent dribbling” was translated into “2 *jaju sobyeon banguri tteoreojim*.” “4 No urinary control” was translated into “4 *jeonhyeo jojeolhal su eopseum*.”

Question 3, “How many pads or adult diapers per day have you been using for urinary leakage” in the original questionnaire was translated into “*sobyeoni saegi ttaemune gwiwaneun paedeuna seonginyong gijeogwireul harue myeot jang sayonghae*

watseumnikka.” The expression “using for urinary leakage” was translated into “*sobyeoni saeneun iyuro*” and “*binyogiui nuchul ttaemune*” by translator 1 and 2 respectively, and the panel accepted “*sobyeoni saegi ttaemune*.” “0 None /1 One pad per day/2 Two pads per day/4 Three or more pads per day” in the original questionnaire was translated into “0 *jeonhyeo sayonghaji aneum*/1 *harue han jang*/2 *harue du jang*/4 *harue se jang isang*.”

Question 4, “How big a problem, if any, has urinary dripping or leakage been for you” in the original questionnaire was translated into “*manyak sobyeon banguri tteoreojigeona saen jeogi itdameyon igeosi gwihaege eolmana keun munjeyeotseumnikka*.” The expression “if any, has urinary dripping or leakage” was translated into “*manyak sobyeon banguri tteoreojigeona saen jeogi itdameyon igeosi gwihaege eolmana keun munjeyeotseumnikka*” and “*binyogiui nuchurina bunbi deungui munjega isseotdameyon*” by translator 1 and 2 respectively, and the panels accepted “*manyak sobyeon banguri tteoreojigeona saen jeogi itdameyon*.”

“CLINICIANS: ADD the answers from questions 2–4 to calculate the Urinary Incontinence Symptom Score (out of 12)” in the original questionnaire was translated into “*uisa: yosilgeum jeungsang jeomsu (chongjeom 12jeom jung)reul gyesanhagi wihae 2beoneseo 4beonkkajiui jilmune daehan daedabeul modu deohae juseyo*.” “Clinician” was translated into “*jillyoui*” and “*imsangui*” by translator 1 and 2 respectively and the panels accepted “*uisa*.”

Urinary Irritation/Obstruction

Question 5, “How big a problem, if any, has each of the following been for you” in the original questionnaire was translated into “*manyak daeume haedanghaneun gakgagui jeungsangi itdameyon gwihaege eolmana keun munjeyeotseumnikka*.” “a. Pain or burning with urination” was translated into “*baenyoreul halttae oneun tongjeungina ttagaum*” and “*baenyojagyong jung go-tongina sseurarim*” by translator 1 and 2 respectively, and the panels accepted “*sobyeon bol ttae tongjeungina hwakkeungeorim*” since “*ttagaum*” means pricking and “*hwakkeungeorim*” means closer to burning. “b. Weak urine stream/incomplete bladder emptying” in the original questionnaire was translated into “*yakan sobyeon julgi/banggwangeul modu biuji motam (jannyogam)*” and “*yakan gannyo/baenyo*” by translator 1 and 2 respectively, and the panels accepted “*yakan sobyeon julgi/banggwangeul modu biuji motam*” since “*jannyogam*” (“incomplete bladder emptying”) can be indigestible to low-educational persons. “Need to urinate frequently” in the original questionnaire was translated into “*jaju baenyoreul haeya ham*” and “*jajeun bangnyo*” by

Table 1. Forward translation of questionnaire into Korean

US/English item	First Forward Korean Translation PLEASE CARRY FORWARD ALL FORMATTING FROM THE ORIGINAL (LYT)	Second Forward Korean Translation PLEASE CARRY FORWARD ALL FORMATTING FROM THE ORIGINAL (PSR)	Reconciled Korean Version PLEASE CARRY FORWARD ALL FORMATTING FROM THE ORIGINAL (OSJ, CSY)	Reason for Decision 1st: Comments by First Translator (LHJ) 2nd: Comments by Second Translator (HSY) Rec: Reason for recommending reconciled version
Expanded Prostate Cancer Index Composite for Clinical Practice	전립선암 진료를 위한 확장된 통합 목록	임상 실습을 위한 확대된 전립선암 지수 구성 요소	임상 진료를 위한 Expanded Prostate Cancer Index	
Patients: Please answer the following questions by checking the appropriate checkbox	환자: 보기의 질문 중 해당하는 사항에 는 체크해주세요.	환자들은 다음 질문사항에 대하여 답변 에 해당하는 박스에 체크해주시기 바랍 니다. //	환자: 다음 질문에 대하여 해당하는 네모 안에 표시해 주십시오.	
All questions are about your health and symptoms in the LAST FOUR WEEKS.	모든 질문들은 지난 4주간의 귀하의 건 강과 증상에 대한 것입니다.	모든 질문사항들은 지난 4주간의 본인 건강 상태와 증상에 해당합니다.	모든 질문들은 지난 4주간 귀하의 건 강상태와 증상에 관한 것입니다.	
Select one answer for each question.	각 질문마다 하나의 답만 선택해주세요.	한 질문 당 하나의 답변을 골라주십시오.	각 질문마다 하나의 답만 선택해주세요.	
Overall, how much of a problem has your urinary function been for you?	전체적으로 봤을 때 귀하는 배뇨 기능에 있어 어느 정도의 문제를 가지고 계십 니까?	오로 기능의 문제가 전반적으로 얼마나 심각했습니까?	전반적으로 귀하의 소변기능이 귀하 에게 얼마나 문제가 되었습니까?	urinary function은 '배뇨'기능이 라고 하기에는 학력이 낮을 환자 들이 이해가 안될 것 같아서 '소 변'으로 모두 쓰기로 함.
0 No problem/1 Very small problem/2 Small problem/ 3 Moderate problem/4 Big problem	0 아무 문제도 아니었다/1 아주 작은 문 제였다/2 작은 문제였다/3 보통 정도 의 문제였다/4 큰 문제였다	(0) 문제가 없다 (1) 아주 조금 문제가 있 다 (2) 조금 문제가 있다 (3) 문제가 있 다 (4) 문제가 심각하다	0 문제 없음/1 아주 작은 문제가 됨/ 2 작은 문제가 됨/3 중간 정도 문제 가 됨/4 크게 문제가 됨	중간 정도/꽤 문제가 됨 큰 문제가 됨/크게 문제가 됨/심각한 문제
Which of the following best describes your urinary control?	다음의 어떤 보기가 귀하의 배뇨 조절 정도를 가장 잘 설명하고 있습니까?	다음 중에서 비뇨기 제어 상태에 대하여 본인의 상태를 가장 적절하게 나타내는 사항은 무엇인가요?	다음 중 어떤 것이 귀하의 소변 조 절 정도를 가장 잘 설명하고 있 습니까?	
0 Total control/1 Occasional dribbling/2 Frequent dribbling/4 No urinary control	0 완전히 조절한다/1 가끔씩 소변 방출 이 떨어진다/2 자주 소변 방출이 떨어 진다/4 전혀 조절할 수 없다	(0) 완전히 제어 (1) 2간이 적하 (2) 자주 적 하 (3) ??? (4) 제어할 수 없음	0 완전히 조절됨/1 가끔씩 소변 방출 이 떨어짐/2 자주 소변 방출이 떨어 짐/4 전혀 조절할 수 없음.	
How many pads or adult diapers per day have you been using for urinary leakage?	소변이 새는 이유로 하루에 몇개의 패드 나 어른 기저귀를 사용하시고 계십니 까?	비뇨기의 누출 때문에 하루에 평균 몇 개 의 성인용 기저귀를 사용했 었나요?	소변이 새기 때문에 귀하는 패드나 성인용 기저귀를 하루에 몇 장 사용 해 왔습니까?	
0 None/1 One pad per day/2 Two pads per day/4 Three or more pads per day	0 전혀 사용하지 않는다/1 하루에 한 개/2 하루에 두 개/4 하루에 3개 또는 그 이상	(0) 사용하지 않음 (1) 1개 (2) 2개 (3) ?? (4) 3개 이상	0 전혀 사용하지 않음/1 하루에 한 장/2 하루에 두 장/4 하루에 세 장 이상	

(Continued)

Table 1. Forward translation of questionnaire into Korean (continued)

US/English item	First Forward Korean Translation PLEASE CARRY FORWARD ALL FORMATTING FROM THE ORIGINAL (LY)	Second Forward Korean Translation PLEASE CARRY FORWARD ALL FORMATTING FROM THE ORIGINAL (PSR)	Reconciled Korean Version PLEASE CARRY FORWARD ALL FORMATTING FROM THE ORIGINAL (OS), CSY)	Reason for Decision 1st: Comments by First Translator (LH) 2nd: Comments by Second Translator (HSY) Rec: Reason for recommending reconciled version
How big a problem, if any, has urinary dripping or leakage been for you?	만약 소변 방울이 떨어지거나 샌다면 이것이 귀하에게 얼마나 큰 문제였습니까?	비뇨기의 누출이나 분비 등의 문제가 있었다면 얼마나 심각했습니까?	만약 소변 방울이 떨어지거나 샌 적이 있다면 이것이 귀하에게 얼마나 큰 문제였습니까?	
CLINICIANS: ADD the answers from questions 2-4 to calculate the Urinary Incontinence Symptom Score (out of 12):	진료의: 2번에서 4번까지의 질문에 대한 답을 모두 더해서 배뇨를 조절할 수 없는 증상에 대한 점수를 계산해주세요. (12점 만점)	임상의: 요실금 증상 스코어를 계산하기 위해 (12개 중) 질문 2-4의 답변들을 합산하십시오	의사: 요실금 증상 점수 (총점 12점 중)를 계산하기 위해 2번에서 4번까지의 질문에 대한 대답을 모두 더해 주세요.	
How big a problem, if any, has each of the following been for you?	만약 보기의 증상들이 있다면 각각의 증상들이 귀하에게 얼마나 큰 문제였습니까?	다음 사항들에 대하여 문제가 있었다면 각각 얼마나 심각했습니까?	만약 다음에 해당하는 각각의 증상이 있다면 귀하에게 얼마나 큰 문제였습니까?	
Pain or burning with urination	배뇨를 할 때 오는 통증이나 따가움	배뇨작용 중 고통이나 쓰라림 소변을 볼 때 통증이나 화끈거림	'Burning'은 따가움/쓰라림과는 'pricking' 다른 의미	
Weak urine stream/incomplete bladder emptying	약한 소변 줄기/방광을 모두 비우지 못함 (진뇨감)	약한 긴노/배뇨 약한 소변 줄기/방광을 모두 비우지 못함	Incomplete bladder emptying은 '잔뇨감' 이라고 하기에는 하력이 낮은 환자들이 이해곤란 가능성으로 '덜 본 것 같은 느낌'	소변을 자주 봐야 하는 필요성 소변을 자주 보고 싶은 '욕구'
Need to urinate frequently	자주 배뇨를 해야 함	자른 방뇨	소변을 자주 봐야 함	
No problem/Very small problem/Small problem/Moderate problem/Big problem	아무 문제도 아니다/아주 작은 문제다/작은 문제다/보통 정도의 문제다/큰 문제다	전혀 문제 없다/아주 약간 문제가 있다/약간 문제가 있다/문제가 있다/심각한 문제가 있다	0 문제 없음/1 아주 작은 문제가 됨/2 작은 문제가 됨/3 중간 정도 문제가 됨/4 크게 문제가 됨	
CLINICIANS: ADD the answers from questions 5a-5c to calculate the Urinary Irritation/Obstruction Symptom Score (out of 12):	진료의: 5a번에서 5c번까지의 질문에 대한 답을 모두 더해서 배뇨 시 불편함/마킹 증상에 대한 점수를 계산해주세요. (12점 만점)	임상의: 비뇨기 과민증/폐색 증상 스코어를 계산하기 위해 (12개 중) 질문 5a-5c의 답변들을 합산하십시오.	의사: 요 자극/폐색 증상 점수 (총점 12점 중)를 계산하기 위해 5a에서 5c번까지의 질문에 대한 대답을 모두 더해 주세요.	
How big a problem, if any, has each of the following been for you?	만약 보기의 증상들이 있다면 각각의 증상들이 귀하에게 얼마나 큰 문제였습니까?	다음 사항들에 대하여 문제가 있었다면 각각 얼마나 심각했습니까?	만약 다음에 해당하는 각각의 증상이 있다면 귀하에게 얼마나 큰 문제였습니까?	
Rectal pain or urgency of bowel movements	항문의 통증이나 갑작스런 배변 활동	직장통 혹은 급한 배변운동	직장 통증 혹은 급박한 배변감	'직장' 이외의 용어가 별로 없음. 'Rectal'은 하력수준을 고려하여 '항문'으로 하지는 의견이 있었으나 실제 항문과는 다른 부위이고 통증의 부위를 원문과 다르게 해석할 여지가 있어 원래의 용어 그대로 쓰기로 함

(Continued)

Table 1. Forward translation of questionnaire into Korean (continued)

US/English item	First Forward Korean Translation PLEASE CARRY FORWARD ALL FORMATTING FROM THE ORIGINAL (LYT)	Second Forward Korean Translation PLEASE CARRY FORWARD ALL FORMATTING FROM THE ORIGINAL (PSR)	Reconciled Korean Version PLEASE CARRY FORWARD ALL FORMATTING FROM THE ORIGINAL (OSJ, CSY)	Reason for Decision 1st: Comments by First Translator (LHJ) 2nd: Comments by Second Translator (HSY) Rec: Reason for recommending reconciled version
Increased frequency of your bowel movements	배변 횟수의 증가	배변 운동의 빈도를 높이다	배변 횟수의 증가	Bowel movements는 laymen사이에서는 '배변'을 의미하는 뜻으로 쓰인다
Overall problems with your bowel habits	귀하의 배변 습관과 관련된 전체적인 문제점들	배변 습관에 대한 전반적인 문제	귀하의 배변 습관에 대한 전반적인 문제	'배변'은 '배뇨'에 비해서 자주 쓰이는 한글 용어이므로 채택
CLINICIANS: ADD the answers from questions 6a-6c to calculate the Bowel Symptom Score (out of 12):	진료의: 6a번에서 6c번까지의 질문에 대한 답을 모두 더해서 장의 증상에 대한 점수를 계산해주세요. (12점 만점)	임상의: 비뇨기 배변 운동 증상 스코어를 계산하기 위해 (12개 중) 질문 6a6c의 답변들을 합산하십시오.	의사: 배변 증상 점수 (총점 12점 중)를 계산하기 위해 6a에서 6c까지의 질문에 대한 답을 모두 더해 주세요.	
How would you rate your ability to reach orgasm (climax)?	오르가즘(정점)에 다다를 수 있는 귀하의 신체적 능력을 어떻게 평가하시겠습니까?	오르가즘에 도달하는 능력을 측정하려면 어느 정도입니까?	오르가즘(성적 절정감)에 이를 수 있는 귀하의 능력을 어떻게 평가하시겠습니까?	Climax에 '성적'이라는 말을 앞에 붙이기로 함
0 Very good/ 1 Good/ 2 Fair/ 3 Poor/ 4 Very poor to none	0 아주 좋다/ 1 좋다/ 2 보통이다/ 3 좋지 않다/ 4 아주 좋지 않거나 전혀 없다	0 매우 좋음/ 1 좋음/ 2 평균/ 3 미숙/ 매우 미숙	0 매우 좋음/ 1 좋음/ 2 보통/ 3 좋지 않음/ 4 매우 좋지 않거나 없음	Poor는 '좋지 않음'으로 표현하기로 함
How would you describe the usual quality of your erections?	귀하의 평소 발기 기능을 어떻게 설명하시겠습니까?	평소의 발기의 질이 어떻습니까?	평소 귀하의 발기의 질은 어떻습니까?	
Firm enough/ Firm enough for masturbation/ Not firm enough for any sexual activity/ None at all	충분히 단단하다/성관계시 발기가 전혀 되지 않는다/어떤 성활동을 하기에든 충분히 단단하지 않다	충분히 튼튼하다/성관계 하기에 불충분하다/어떤 성행위를 하기에 불충분하다	충분히 단단함/자위하기에 충분히 단단함/어떤 성행위를 하기에든 충분히 단단하지 않음/발기가 전혀 안됨	
Overall, how much of a problem has your sexual function or lack of sexual function been for you?	전체적으로 귀하의 성적 기능이나 부족 한 성적 기능이 귀하에게 얼마나 큰 문제입니까?	성 기능의 이상 혹은 부족한 성 기능 때문에 발생한 문제들은 얼마나 심각했습니까?	전반적으로 귀하의 성기능이나 성적 능 부족이 귀하에게 얼마나 큰 문제였습니까?	
CLINICIANS: ADD the answers from questions 7-9 to calculate the Sexual Symptom Score (out of 12):	진료의: 7번에서 9번까지의 질문에 대한 답을 모두 더해서 성 관련 증상에 대한 점수를 계산해주세요. (12점 만점)	임상의: 성적인 증상 스코어를 계산하기 위해 (12개 중) 질문 7-9의 답변들을 합산하십시오.	의사: 성 관련 증상 점수 (총점 12점 중)를 계산하기 위해 7에서 9번까지의 질문에 대한 답을 모두 더해 주세요.	
How big a problem, if any, has each of the following been for you?	만약 보기의 증상들이 있다면 각각의 증상들이 귀하에게 얼마나 큰 문제였습니까?	다음 사항들에 대하여 문제가 있었다면 각각 얼마나 심각했습니까?	만약 다음에 해당하는 각각의 증상이 있다면 귀하에게 얼마나 큰 문제였습니까?	

(Continued)

Table 1. Forward translation of questionnaire into Korean (continued)

US/English item	First Forward Korean Translation PLEASE CARRY FORWARD ALL FORMATTING FROM THE ORIGINAL (1Y)	Second Forward Korean Translation PLEASE CARRY FORWARD ALL FORMATTING FROM THE ORIGINAL (PSR)	Reconciled Korean Version PLEASE CARRY FORWARD ALL FORMATTING FROM THE ORIGINAL (OS), CSY)	Reason for Decision 1st: Comments by First Translator (LHJ) 2nd: Comments by Second Translator (HSY) Rec: Reason for recommending reconciled version
a. Hot flashes or breast tenderness/ enlargement/ b. Feeling depressed c. Lack of energy	a. 몸의 화끈거림이나 유방의 유연화/확 대/ b. 우울함/ c. 에너지 감소	a. 일과성 열감 혹은 유방 압통/확대/ b. 우울함을 느끼다/ c. 무기력함을 느끼다	a. 열골 화끈거림이나 유방을 누를 때 통증/유방 커짐/b. 우울한 느낌/ c. 무기력함	Hot flashes는 신체 전체의 화끈거 림이라기 보다는 주로 의핵용어 로 열골만을 의미하는 '안면홍조' 라는 뜻으로 주로 쓰이므로 열골 이라는 표현을 넣기로 함. Lack of energy에너지의 부족 → 무기 력함으로 하기로 함
CLINICIANS: ADD the answers from questions 10a-10c to calcu- late the Vitality/Hormonal Symp- tom Score (out of 12):	진료의: 10a번에서 10c번까지의 질문에 대한 답을 모두 더해서 정력/호르몬 관련 증상에 대한 점수를 계산해주세 요. (12점 만점)	임상의: 활력/호르몬의 증상 스코어를 게 산하기 위해(12개 중) 질문 10a-10c의 답변들을 합산하시오:	의사: 활력/호르몬 증상 점수(총점 12점 중)를 계산하기 위해 10a에서 10c번까지의 질문에 대한 대답을 모두 더해 주세요.	
A Clinical Tool to Measure Urinary, Bowel, Sexual and Vitality/Hor- monal Health	배뇨, 장, 성, 정력/호르몬 관련 건강 상 태를 잴 수 있는 임상 도구	비뇨기, 배변, 성적인 그리고 활력/호르몬 의 건강을 측정하기 위한 임상적 도구	소변, 배변, 성 관련 그리고 활력/호르 몬 건강을 측정하기 위한 임상적 도 구	성적인 → 성 관련
Date: ____/____/____	날짜: ____/____/____	날짜: ____/____/____	날짜: ____/____/____	
CLINICIANS: Add the five domain summary scores to calculate the Overall Prostate Cancer QOL Score (out of 60):	진료의: 앞의 다섯 가지 영역의 점수를 모두 더해서 전체적인 전립선 암 QOL 점수를 계산해주세요. (60점 만점)	임상의: (60개 중) 전반적인 전립선암 QOL점수를 계산하기 위해 다섯 영역 의 요약 점수를 합산하시오.	의사: 전반적인 전립선암 삶의 질 점 수(총점60점 중)를 계산하기 위해 다섯 가지 영역의 요약 점수를 모두 더해 주세요.	

translator 1 and 2 respectively, and the panels accepted “*sobyeo-neul jaju bwaya ham*.” “0 No problem/1 Very small problem/2 Small problem/3 Moderate problem 4 Big problem” in the original questionnaire was translated into “0 *munje eopseum*/1 *aju jageun munjega doem*/2 *jageun munjega doem*/3 *junggan jeongdo munjega doem*/4 *keuge munjega doem*.”

Bowel Symptoms

Question 6, “a. Rectal pain or urgency of bowel movements” in the original questionnaire was translated into “*hangmunui tongjeungina gapjakseureon baebyeon hwaldong*” and “*jikjang-tong hogeun geupan baebyeonundong*” by translator 1 and 2 respectively, and the panels accepted “*jikjang tongjeung hogeun geupbakan baebyeongam*.” “b. Increased frequency of your bowel movements” in the original questionnaire was translated into “*baebyeon hoetsuui jeungga*” and “*baebyeon undongui bindoreul nopida*” by translator 1 and 2 respectively, and the panels accepted “*baebyeon hoetsuui jeungga*.” “c. Overall problems with your bowel habits” in the original questionnaire was translated into “*baebyeon hoetsuui jeungga*” and “*baebyeon undongui bindoreul nopida*” by translator 1 and 2 respectively, and the panels accepted “*baebyeon hoetsuui jeungga*” since “*baebyeon*” is more frequently used by ordinary people.

Sexual Symptoms

Question 7, “How would you rate your ability to reach orgasm (climax)” in the original questionnaire was translated into “*oreugajeum (seongjeok jeoljeonggam)e ireul su inneun gwihaui neungnyeogeul eotteoke pyeonggahasigetseumnikka*.” “orgasm (climax)” was translated into “*oreugajeum (jeongjeom)*” and “*oreugajeume*” by translator 1 and 2 respectively, and the panels accepted “*oreugajeum (seongjeok jeoljeonggam)*.” The panels added “*seongjeok*” (“sexual”) to describe climax more detailed. “0 Very good 1 Good 2 Fair 3 Poor 4 Very poor to none” in the original questionnaire was translated into “0 *maeu joeum*/1 *joeum*/2 *botong*/3 *jochi aneum*/4 *maeu jochi ankeona eopseum*.” “Poor” was translated into “*jochi anta*” and “*misuk*” by translator 1 and 2 respectively, and the panels accepted “*jochi aneum*.”

Question 8, “How would you describe the usual quality of your erections” in the original questionnaire was translated into “*pyeongso gwihaui balgiui jireun eotteoseumnikka*.” “quality” was translated into “*jil*” and “*gineung*” by translator 1 and 2 respectively, and the panels accepted “*jil*.” “0 Firm enough/1 Firm enough for masturbation/2 Not firm enough for any sexual activity/4 None at all” in the original questionnaire was translated

into “0 *chungbunhi dandanham*/1 *jawihagie chungbunhi dandanham*/2 *eotteon seonghaengwireul hagiedo chungbunhi dandanhaji aneum*/4 *balgiga jeonhyeo andoem*.” “masturbation” was “*seonghaengwi*” (“sexual activity”) by translator 1 and 2, and the panels accepted “*jawi*” (“masturbation”).

Question 9, “Overall, how much of a problem has your sexual function or lack of sexual function been for you” in the original questionnaire was translated into “*jeonbanjeogeuro gwihaui seonggineungina seonggineung bujogi gwihaege eolmana keun munjeotseumnikka*.”

Vitality/Hormonal Symptoms

Question 10, “How big a problem, if any, has each of the following been for you” in the original questionnaire was translated into “*manyak daeume haedanghaneun gakkagui jeungsangi it-damyeon gwihaege eolmana keun munjeotseumnikka*.” “a. Hot flashes or breast tenderness/enlargement” in the original questionnaire was translated into “*eolgul hwakkeungeorimina yubangeul nureul*.” “Hot flashes” was translated into “*momui hwakkeungeorim*” and “*ilgwaseong yeolgam*,” which mean both “heating sensation of the entire body.” The panels accepted “*eolgul hwakkeungeorimina*” (“sensation of heat, especially in the face”). “b. Feeling depressed” in the original questionnaire was translated into “*uulhan neukkim*.” “c. Lack of energy” in the original questionnaire was translated into “*eneoji gamso*” and “*mugiryeokameul neukkida*” by translator 1 and 2 respectively, and the panels accepted “*mugiryeokam*.”

Backward Translation and Retranslation

As given in (Table 2), all questions in EPIC-CP questionnaire, amended by the panels, were translated in reverse (back-translated), then the panel commented on the distinctions between back-translated text and original text.

In the domain of urinary incontinence, the panels commented on the distinctions between translations of “no urinary control” in the original text and “completely out of control” in the reconciled text. The panels finally agreed to remove “*jeonhyeo*” in Korean since the phrase “*jeonhyeo*” made the translation a stronger emphasis on the extent of control.

Cognitive Debriefing and Proofreading

Ten patients with prostate cancer (aged from 58 to 76 years) completed the revised version of translated questionnaire after the forward and backward translation. Their education levels ranged from elementary school to university (Table 3).

Table 2. Back translation

Original	Forward translation	Backward translation	Comments
Patients: Please answer the following questions by checking the appropriate checkbox.	환자: 다음 질문에 대하여 해당되는 네모 안에 표시해 주십시오.	Patient: Mark the squares that apply to you for the following questions.	OK
All questions are about your health and symptoms in the LAST FOUR WEEKS.	모든 질문들은 지난 4주간 귀하의 건강상태와 증상에 관한 것입니다.	All of the questions are about your health condition and symptoms in the past 4 weeks.	OK
Select one answer for each question.	각 질문마다 하나의 답만 선택해 주세요.	Choose one answer for each question.	OK
Overall, how much of a problem has your urinary function been for you?	전반적으로 귀하의 소변기능이 귀하에게 얼마나 문제가 되었습니까?	Overall, how much of a problem has your urinary function been to you?	OK
0 No problem/1 Very small problem/2 Small problem/3 Moderate problem/4 Big problem	0 문제 없음/1 아주 작은 문제가 됨/2 작은 문제가 됨/3 중간 정도 문제가 됨/4 크게 문제가 됨	0 No problem/1 Very little problem/2 Little problem/3 Moderately problematic/4 Very problematic	OK
Which of the following best describes your urinary control?	다음 중 귀하의 소변 조절 정도를 가장 잘 설명하고 있는 것은 무엇입니까?	Which of the following best explains your ability to control urine?	OK
0 Total control/1 Occasional dribbling/2 Frequent dribbling/4 No urinary control	0 완전히 조절됨/1 가끔씩 소변 방울이 떨어짐/2 자주 소변 방울이 떨어짐/4 전혀 조절할 수 없음. New translation: 0 완전히 조절됨/1 가끔씩 소변 방울이 떨어짐/2 자주 소변 방울이 떨어짐/4 조절할 수 없음.	0 Completely under control/1 Occasional drops of urine/2 Frequent drops of urine/4 Completely out of control	Perhaps for a more direct translation of "No urinary control," omitting "전혀" may be better, because adding "전혀" is a stronger emphasis on the extent of control. LYJ: I agree to the first comment. Omitting the word "전혀" should work better here. PSR: Agreed. Let's leave out "전혀" OSJ and CSY: We removed '전혀' in the original translation.
How many pads or adult diapers per day have you been using for urinary leakage?	소변이 새기 때문에 귀하는 패드나 성인용 기저귀를 하루에 몇 장 사용했습니까?	How many pads or adult diapers a day have you used because of urine leaks?	OK
0 None/1 One pad per day/2 Two pads per day/4 Three or more pads per day	0 전혀 사용하지 않음/1 하루에 한 장/2 하루에 두 장/4 하루에 세 장 이상	0 Haven't used at all/1 One a day/2 Two a day/4 Three or more a day	OK
How big a problem, if any, has urinary dripping or leakage been for you?	만약 소변 방울이 떨어지거나 새 적이 있다면 이것이 귀하에게 얼마나 큰 문제였습니까?	If you have had urinary drops or leaks, how much of a problem was it for you?	OK
CLINICIANS: ADD the answers from questions 2-4 to calculate the Urinary Incontinence Symptom Score (out of 12);	의사: 요실금 증상 점수총점 12점 중를 계산하기 위해 2번에서 4번까지의 질문에 대한 답을 모두 더해 주세요.	Physician: Add all the answers to questions 2 to 4 to calculate the score for symptoms of urinary incontinence (total of 12 points).	OK
How big a problem, if any, has each of the following been for you?	만약 다음에 해당하는 각각의 증상이 있다면 귀하에게 얼마나 큰 문제였습니까?	If you had each of the following symptoms, how much of a problem was it?	OK
Pain or burning with urination	소변 볼 때 통증이나 화끈거림	Pain or burning sensation while urinating	OK
Weak urine stream/incomplete bladder emptying	약한 소변 줄기/방광을 모두 비우지 못함	Slow urinary stream/incomplete emptying of bladder	OK

(Continued)

Table 2. Back translation (continued)

Original	Forward translation	Backward translation	Comments
Need to urinate frequently	소변을 자주 봐야 함	Frequent urinating	OK
No problem/Very small problem/Small problem/Moderate problem/Big problem	0 문제 없음/1 아주 작은 문제가 됨/2 작은 문제가 됨/3 중간 정도 문제가 됨/4 크게 문제가 됨	0 No problem/1 Very little problem/2 Little problem/3 Moderately problematic/4 Very problematic	OK
CLINICIANS: ADD the answers from questions 5a-5c to calculate the Urinary Irritation/Obstruction Symptom Score (out of 12):	의사: 요 지극/매세 증상 점수 (총점 12점 중)를 계산하기 위해 5a에서 5c번까지의 질문에 대한 대답을 모두 더해 주세요.	Physician: Add all the answers from questions 5a to 5c to calculate the score for symptoms of urinary stimulation and blockage.	Please have a medical profession double check if the medical terms are translated correctly: Urinary Irritation/Obstruction
How big a problem, if any, has each of the following been for you?	만약 다음에 해당하는 각각의 증상이 있다면 귀하에게 얼마나 큰 문제였습니까?	If you had each of the following symptoms, how much of a problem was it?	OSJ and CSY: No change is needed. OK
Rectal pain or urgency of bowel movements	직장 통증 혹은 급박한 배변감	Onset of pain in rectum or urgent need to defecate	OK
Increased frequency of your bowel movements	배변 횟수의 증가	Increase in frequency of defecation	OK
Overall problems with your bowel habits	귀하의 배변 습관에 대한 전반적인 문제	Overall problems in your defecation habit	OK
CLINICIANS: ADD the answers from questions 6a-6c to calculate the Bowel Symptom Score (out of 12):	의사: 배변 증상 점수(총점 12점 중)를 계산하기 위해 6a에서 6c번까지의 질문에 대한 대답을 모두 더해 주세요.	Physician: Add all the answers from 6a to 6c to calculate the score for symptoms of defecation (total of 12 points).	OK
How would you rate your ability to reach orgasm (climax)?	오르기(성적 절정감)에 이를 수 있는 귀하의 능력을 어떻게 평가하시겠습니까?	How would you evaluate your ability to reach orgasm (sexual climax)?	OK
0 Very good/1 Good/2 Fair/3 Poor/4 Very poor to none	0 매우 좋음/1 좋음/2 보통/3 좋지 않음/4 매우 좋지 않거나 없음	0 Very good/1 Good/2 Normal/3 Not good/4 Very not good or none	Fair vs. normal “Fair” means normal or average, but it also has a more positive connotation than “normal,” whereas “normal” means average or in the middle. LYJ: Although I agree with the first comment, it is difficult to find another Korean word for “fair” while keeping its meaning still less positive than “good”. PSR: As the other options direct to either a positive or negative condition, I believe “보통” needs to be clearly confirm its position as neutral. Thus “Normal” would be most appropriate. OSJ and CSY: No change is needed.

(Continued)

Table 2. Back translation (continued)

Original	Forward translation	Backward translation	Comments
How would you describe the usual quality of your erections?	평소 귀하의 발기의 질은 어떻습니까?	Normally, how is the quality of your erection?	OK
Firm enough/Firm enough for masturbation/ Not firm enough for any sexual activity/ None at all	충분히 단단함/자위하기에 충분히 단단함/어떤 성행위를 하기에든 충분히 단단하지 않음/발기가 전혀 안됨	Firm enough/firm enough because of masturbation/not firm enough for any sexual activity/no erection	OK
Overall, how much of a problem has your sexual function or lack of sexual function been for you?	전반적으로 귀하의 성기능이나 성기능 부족이 귀하에게 얼마나 큰 문제였습니까?	Overall, how serious of a problem was your sexual function or the lack thereof?	OK
CLINICIANS: ADD the answers from questions 7-9 to calculate the Sexual Symptom Score (out of 12):	의사: 성 관련 증상 점수 (총점 12점 중)를 계산하기 위해 7에서9번까지의 질문에 대한 대답을 모두 더해 주세요.	Physician: Add all the answers from questions 7 to 9 to calculate the score for symptoms related to sex (total of 12 points).	OK
How big a problem, if any, has each of the following been for you?	만약 다음에 해당하는 각각의 증상이 있다면 귀하에게 얼마나 큰 문제였습니까?	If you had each of the following symptoms, how much of a problem was it?	OK
a. Hot flashes or breast tenderness/enlargement/b. Feeling depressed/c. Lack of energy	a. 얼굴 화끈거림이나 유방을 누를 때 통증/유방 커짐/b. 우울한 느낌/c. 무기력함	a. hot in the face or pain in the breast when pressed/bigger breast b. feel depressed c. feel weak	"Tenderness" is an ambiguous term. It can also be translated as being sensitive to pain.
CLINICIANS: ADD the answers from questions 10a-10c to calculate the Vitality/Hormonal Symptom Score (out of 12):	의사: 활력/호르몬 증상 점수 (총점 12점 중)를 계산하기 위해 10a에서10c번까지의 질문에 대한 대답을 모두 더해 주세요.	Physician: Add all the answers from questions 10a to 10c to calculate the score for vitality/increase in hormone	OK
A Clinical Tool to Measure Urinary, Bowel, Sexual and Vitality/Hormonal Health	소변, 배변, 성 관련 그리고 활력/호르몬 건강을 측정하기 위한 임상적 도구	Clinical means to survey urination, defecation, sex-related and vitality/hormonal health	OK
Date: ____/____/____	날짜: ____/____/____	Date: ____/____/____	OK
CLINICIANS: Add the five domain summary scores to calculate the Overall Prostate Cancer QOL Score (out of 60):	의사: 전반적인 전립선암 삶의 질 점수(총점60 점 중)를 계산하기 위해 다섯 가지 영역의 요약 점수를 모두 더해 주세요.	Physician: Add all the scores from the 5 aspects to calculate the overall score on the QOL for prostate cancer (total of 60 points).	OK

Table 3. Patient data summary sheet

Subject No.	Age	Sex	Pathology (stress/urge/mixed)	Profession/ educational level	Time to complete questionnaire (min)
1	65	Male	PPI	Middle school	4
2	74	Male	PPI	Elementary school	8
3	67	Male	PPI	University	4
4	65	Male	PPI	High school	6
5	72	Male	PPI	University	4
6	75	Male	PPI	University	4
7	58	Male	PPI	Elementary school	4
8	76	Male	PPI	University	4
9	65	Male	PPI	University	8
10	73	Male	PPI	Elementary school	6

PPI, postprostatectomy incontinence.

They took time for completing the questionnaire from 4 to 8 minutes. Most patients answered that the translated questionnaire was digestible. Two patients did not answer the question 3 because there was no exact number of pads they used. However, the original text contains only 4 choice alternatives, no change was needed. Four patients did not check on each choice alternatives of 5a, 5b, 5c so we added the phrase that “*arae gak hangmoge daehayeo ucheugui 0, 1, 2, 3, 4 jung hanaman seontaekayeo jusigi baramnida*” in Korean (“Select one of the right choice alternatives 0, 1, 2, 3, 4 for each following question”). The panel ultimately finished translations by comprehensively organizing the expression, and the final version of the translated EPIC-CP questionnaires is shown in Fig. 1.

Some patients were hard to comprehend the expressions in the revised questionnaire. For example, one patient did not understand “sobyeon gineung” and another patient did not understand “seongjeok jeoljeonggam,” but it was hard to find alternative expression and only single person did not understand each phrase, so the panels decided not to change it.

DISCUSSION

The translation of EPIC-CP questionnaires involved inconsistencies among panels and translators. In question 5, “*jikjang*” was slightly indigestible to general public and some panels suggested the use of *hangmun* (“anus”). However, *hangmun* refers to a different part of body and no alternative phrase was available to replace “*jikjang*” (“rectum”), so the panels selected “*jikjang*.” In question 7, the panel members commented on the dis-

tinction between translations of “2 fair” in the original text and “2 normal” in the reconciled text. One panel suggested that “fair” means normal or average, but it also has a more positive connotation than “normal,” whereas “normal” means average or in the middle. The other panels agreed with that suggestion to some degree but it was hard to find an alternative Korean word for “fair,” so the panels agreed not to change the reconciled text.

During the translation of multiple overactive bladder questionnaires, few words continued to show a difference between translators and the panel. The word “urgency” was translated as *gingeup* and *gingeupseong* by 2 translators, both meaning “emergency” in common. *Yojeolbak* is a popular translation used in urological publications and the panel agreed on using *Yojeolbak*. Similarly, symptom-related adjectives such as “urgent” were difficult to translate, and were not retained literally but were replaced by colloquial expressions [10].

The word “moderate” was translated as *botong* and *junggan* by 2 translators, and the word “usually” was translated as *juro* and *botong* by 2 translators [11]. The translated term *botong* was used differently by 2 translators. It generally means “normal” or “normally.” In the forward translation, the panel reached a consensus regarding the translation of “usually” as *juro*, but showed inconsistencies in translating “moderate” as *botong* in Indevus Urgency Severity Scale and *junggan* in Urgency Perception Scale. The panel reviewed this inconsistency and given the tendency to proceed in the order of “mild,” “moderate” and “severe,” the members agreed that it was natural to use *junggan* [11].

In conclusion, our study proposed reliable and suitable lin-

Expanded Prostate Cancer Index Composite for Clinical Practice (EPIC-CP)

소변, 배변, 성 관련 그리고 활력/호르몬 건강을 측정하기 위한 임상적 도구 날짜: ____/____/____

환자: 다음 질문에 대하여 해당되는 네모 안에 표시해 주십시오. 모든 질문들은 지난 4주간 귀하의 건강상태와 증상에 관한 것입니다. 각 질문마다 하나의 답만 선택해주세요.

1. 전반적으로 귀하의 소변기능이 귀하에게 얼마나 문제가 되었습니까?

☐ 문제 없음 ☐ 아주 작은 문제가 됨 ☐ 작은 문제가 됨 ☐ 중간 정도 문제가 됨 ☐ 크게 문제가 됨

2. 다음 중 귀하의 소변 조절 정도를 가장 잘 설명하고 있는 것은 무엇입니까?

0□ 완전히 조절됨 1□ 가끔씩 소변 방울이 떨어짐 2□ 자주 소변 방울이 떨어짐 4□ 조절할 수 없음.

3. 소변이 새기 때문에 귀하는 패드나 성인용 기저귀를 하루에 몇 장 사용해 왔습니까?

0□ 전혀 사용하지 않음 1□ 하루에 한 장 2□ 하루에 두 장 4□ 하루에 세 장 이상

4. 만약 소변 방울이 떨어지거나 샌 적이 있다면 이것이 귀하에게 얼마나 큰 문제였습니까?

☐ 문제 없음 ☐ 아주 작은 문제가 됨 ☐ 작은 문제가 됨 ☐ 중간 정도 문제가 됨 ☐ 크게 문제가 됨

의사: 요실금 증상 점수 (총점 12점 중)를 계산하기 위해
2번에서 4번까지의 질문에 대한 답을 모두 더해 주세요.

5. 만약 다음에 해당하는 각각의 증상이 있다면
귀하에게 얼마나 큰 문제였습니까? (아래 각 항목에
대하여 우측의 0,1,2,3,4 중 하나만 선택하여 주시기
바랍니다)

- a. 소변 볼 때 통증이나 화끈거림
b. 약한 소변 줄기 / 방광을 모두 비우지 못함
c. 소변을 자주 봐야 함

문제 없음	아주 작은 문제가 됨	작은 문제가 됨	중간 정도 문제가 됨	크게 문제가 됨
0□	1□	2□	3□	4□
0□	1□	2□	3□	4□
0□	1□	2□	3□	4□

의사: 요 자극/배설 증상 점수 (총점 12점 중)를 계산하기 위해
5a에서 5c까지의 질문에 대한 답을 모두 더해 주세요.

6. 만약 다음에 해당하는 각각의 증상이 있다면
귀하에게 얼마나 큰 문제였습니까? (아래 각 항목에
대하여 우측의 0,1,2,3,4 중 하나만 선택하여 주시기
바랍니다)

- a. 직장 통증 혹은 급박한 배변감
b. 배변 횟수의 증가
c. 귀하의 배변 습관에 대한 전반적인 문제

문제 없음	아주 작은 문제가 됨	작은 문제가 됨	중간 정도 문제가 됨	크게 문제가 됨
0□	1□	2□	3□	4□
0□	1□	2□	3□	4□
0□	1□	2□	3□	4□

의사: 배변 증상 점수 (총점 12점 중)를 계산하기 위해
6a에서 6c까지의 질문에 대한 답을 모두 더해 주세요.

7. 오르가즘 (성적 절정감)에 이를 수 있는 귀하의 능력을 어떻게 평가하시겠습니까?

0□ 매우 좋음 1□ 좋음 2□ 보통 3□ 좋지 않음 4□ 매우 좋지 않거나 없음

8. 평소 귀하의 발기의 질은 어떻습니까?

0□ 충분히 단단함 1□ 자위하기에
충분히 단단함 2□ 어떤 성행위를 하기에
충분히 단단하지 않음 4□ 발기가 전혀 안됨

9. 전반적으로 귀하의 성기능이나 성기능 부족이 귀하에게 얼마나 큰 문제였습니까?

☐ 문제 없음 ☐ 아주 작은 문제가 됨 ☐ 작은 문제가 됨 ☐ 중간 정도 문제가 됨 ☐ 크게 문제가 됨

의사: 성 관련 증상 점수 (총점 12점 중)를 계산하기 위해
7에서 9번까지의 질문에 대한 답을 모두 더해 주세요.

10. 만약 다음에 해당하는 각각의 증상이 있다면
귀하에게 얼마나 큰 문제였습니까? (아래 각 항목에
대하여 우측의 0,1,2,3,4 중 하나만 선택하여 주시기
바랍니다)

- a. 얼굴 화끈거림이나 유방을 누를 때
통증 /유방커짐
b. 우울한 느낌
c. 무기력함

문제 없음	아주 작은 문제가 됨	작은 문제가 됨	중간 정도 문제가 됨	크게 문제가 됨
0□	1□	2□	3□	4□
0□	1□	2□	3□	4□
0□	1□	2□	3□	4□

의사: 활력/호르몬 증상 점수 (총점 12점 중)를 계산하기 위해
10a에서 10c까지의 질문에 대한 답을 모두 더해 주세요.

의사: 전반적인 전립선암 삶의 질 점수 (총점60점 중)를 계산하기 위해 다섯 가지 영역의 요약 점수를 모두 더해 주세요.

EPIC-CP questionnaire. QOL, quality of life.

Fig. 1. Korean version of the Translation and Linguistic validation of Korean version of the Expanded Prostate Cancer Index Composite for Clinical Practice for patients with prostate cancer.

guistic validation of the EPIC-CP questionnaires in Korean. HRQoL was also emphasized in patients with prostate cancer. The Korean version of EPIC-CP translation can be used to evaluate the severity of symptoms in Korean patients with prostate cancer.

ACKNOWLEDGMENTS

This article was supported by the members of the Questionnaire Investigation Committee of the Korean Continence Society. Seung-Ee Kim performed previous linguistic validation study and supported this article.

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- Conceptualization: YCH, SYC, JHK, SJJ, SJO
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- Formal analysis: YCH, SYC
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- Visualization: YCH, SYC
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