Translation and Cultural Adaptation of Four EQ Bolt-Ons for the Use in the Quantitative Psychometric Investigation in Egyptian Patients with Chronic Skin Conditions

MSR225

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Introduction

Chronic skin conditions often have a substantial negative effect on patients' health-related quality of life (HRQoL)[1].

EQ-5D is the most widely used HRQoL measurement worldwide[2]. However, EQ-5D has been found to be deficient in capturing important health aspects in some chronic conditions[3]. A way of improving content validity and sensitivity of EQ-5D is to bolt-on one or more dimensions to its core descriptive system.

To date, very few studies have investigated the qualitative and quantitative psychometric properties of EQ bolt-ons in psoriasis patients, and none have evaluated these bolt-ons in patients with atopic dermatitis (AD).
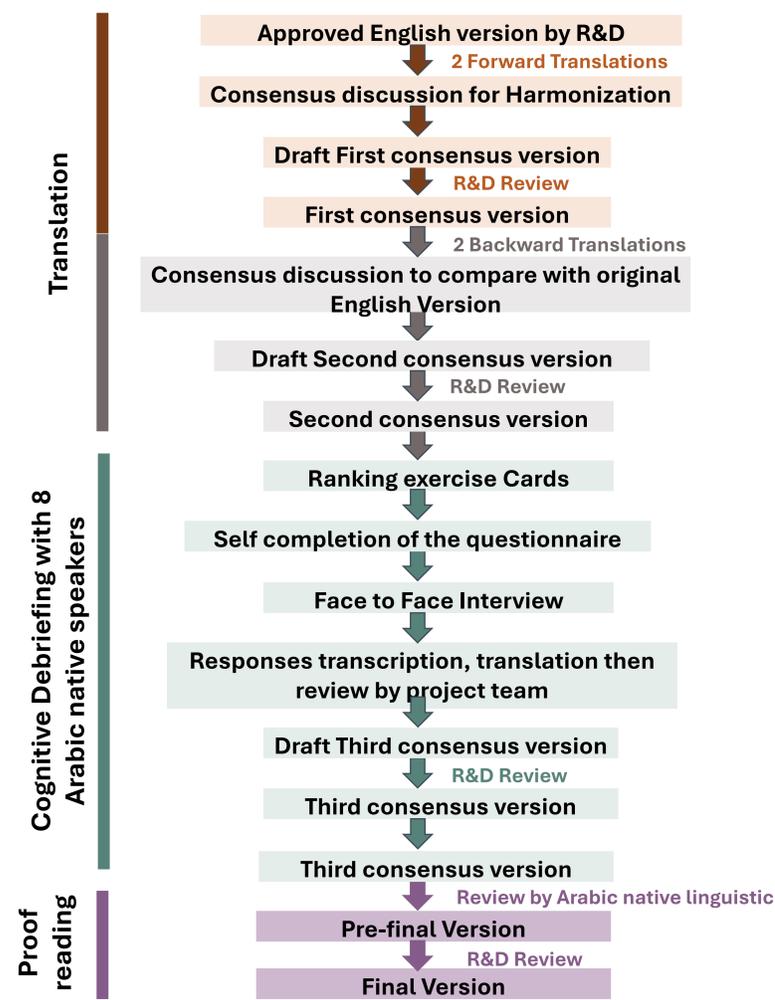
Objectives

This research aims to translate and culturally adapt four bolt-ons—**Skin Irritation**, **Self-Confidence**, **Social Relationships**, and **Sleep**—for use in Egypt. This is a crucial step toward quantitatively assessing the psychometric properties of these bolt-ons in Arabic-speaking patients with chronic skin conditions.

Methods

The four bolt-ons were selected based on either the findings from previous bolt-on studies conducted in psoriasis patients or by reviewing the impact of psoriasis and AD on patients' QoL[4,5].

Bolt-ons **questions** and **response levels** were **framed as same as the core EQ-5D-5L version.**

EQ Bolt-ons cross-cultural translation process

Translation

- Approved English version by R&D
  - → 2 Forward Translations
- Consensus discussion for Harmonization
- Draft First consensus version
  - → R&D Review
- First consensus version
  - → 2 Backward Translations
- Consensus discussion to compare with original English Version
- Draft Second consensus version
  - → R&D Review
- Second consensus version

Cognitive Debriefing with 8 Arabic native speakers

- Ranking exercise Cards
- Self completion of the questionnaire
- Face to Face Interview
- Responses transcription, translation then review by project team
- Draft Third consensus version
  - → R&D Review
- Third consensus version
- Third consensus version
  - → Review by Arabic native linguistic

Proof reading
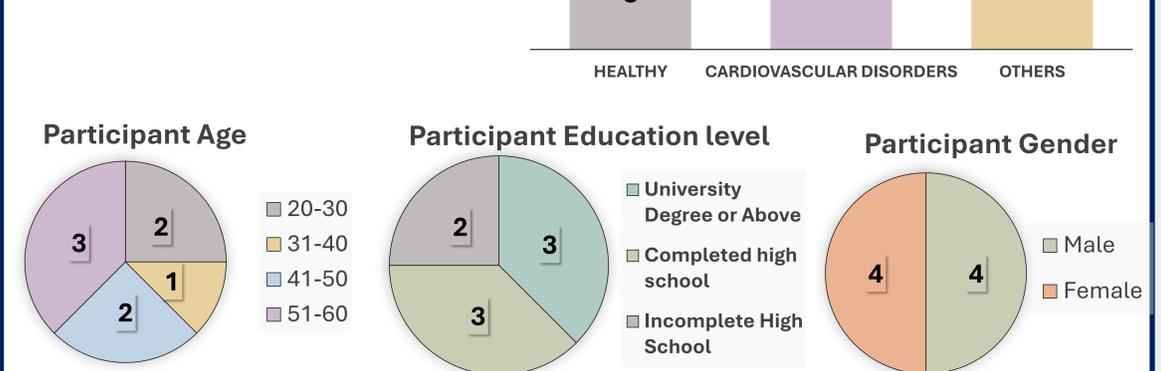
- Pre-final Version
  - → R&D Review
- Final Version

Results

Translation

- Both forward translators were largely consistent. Minor linguistic differences were resolved by team discussion.
- Deviations from the existing Arabic adult EQ-5D-5L version included changing the severity qualifier **"Extreme"**, as the existing Arabic terms for 'Severe' and 'Extreme' were found to be confusing**.**
- The backward translation did not reveal significant issues, and the project team review confirmed its equivalence to the original.

Cognitive debriefing interviews
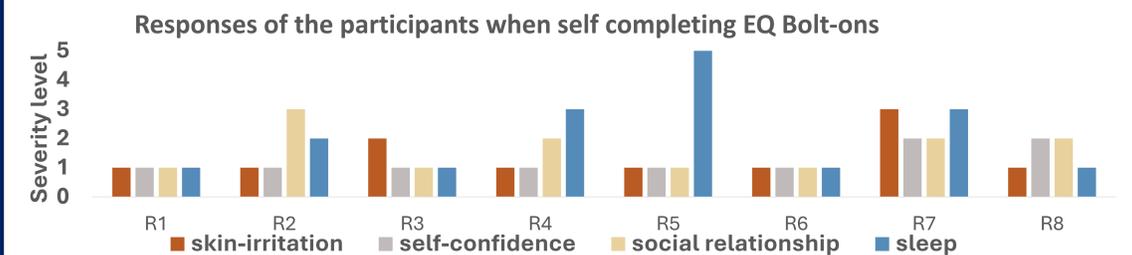
1 Participants Demographics

Participant Health conditions

HEALTHY	CARDIOVASCULAR DISORDERS	OTHERS
3	4	4

Participant Age — 20-30, 31-40, 41-50, 51-60

Participant Education level — University Degree or Above, Completed high school, Incomplete High School

Participant Gender — Male, Female

2 Ranking Cards Exercise

Out of the **160 rankings**, only **3 (1.9%)** across all dimensions were **incorrect rankings.**

3 Self-completion of questionnaire

All respondents were able to complete the questionnaire without assistance and agreed that the questionnaire was easy and well understood.

The following chart represents a summary of the descriptive health profile of the 8 respondents:

Responses of the participants when self completing EQ Bolt-ons

Legend: skin-irritation, self-confidence, social relationship, sleep

4 Face-to-face interviews

Generally, patients interpreted the five dimensions as intended.

The following table shows the most common dimension concepts perceived by respondents

Dimension	Theme	N	Example quote
Skin irritation (e.g. itching)	Skin irritation and itching have close meaning	7	R4: Skin irritation is the feeling that my skin is itchy like I have urticaria. Itching is the need to scratch, for me they are very close in meaning.
Self-confidence	Confidence in one's abilities and decisions without fear or dependence on others' opinions	8	R1: Being self-confident in all tasks I do such as being confident in my work, when dealing with people or my friends, and I am confident that I will do what is needed correctly.
Social Relationships	The ability to form and maintain relationships in various aspects of life (personal, social, professional)	8	R5: It means man's relationship with everything around him, ability to make relationships at work, with neighbors, and friends.
Sleep	Uninterrupted and sufficient sleep and rest.	7	R3: Ability to sleep at night for 7-8 hours or whenever I feel tired during the day.

Both **skin-irritation** and **Sleep** dimensions were **easy** for most respondents (75%) to imagine and to describe across the different severity levels. While for **self-confidence** and **social relationships**, 37.5% and 50% of respondents, respectively, required probing. Despite this, we did not observe any inaccurate responses.

Overlapping Dimensions

Minor conceptual overlaps were identified between **social relationships** and **self-confidence** as shown in the following table.

Dimension	Theme	N	Example quote
Self-confidence	Examples related to social relationships	2	R7 describing level 4: He/she is an introverted person, fearing to face any situation and believing that avoiding people will help avoid problems. Their life may become stuck when it comes to making decisions.
Social Relationships	Examples related to self-confidence	2	R4 describing level 5: A case of autism when someone doesn't want to deal or talk with anyone due to a marked decrease in self-confidence.

Conclusion

Arabic translation and cultural adaptation of EQ Bolt-ons has resulted in an **acceptable** and **comprehensible** version that can be used in qualitative and quantitative studies for further evaluation in the target patient group.

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