

Translation and Cultural Adaptation

The translation and cultural adaptation of the PROISCD–CG followed internationally recognized guidelines, including the COSMIN recommendations for patient-reported outcome measures and the U.S. Food and Drug Administration (FDA) guidance on the translation and cultural adaptation of PRO instruments.

First, two independent bilingual translators whose native language was the target language produced forward translations from the original Chinese version into English. One translator had a medical background, while the other had a linguistic background, ensuring both conceptual accuracy and natural language usage. The two forward translations were reconciled into a single preliminary English version through discussion and consensus.

Second, the reconciled version was back-translated into Chinese by two independent translators who were blinded to the original instrument. The back-translated versions were compared with the original Chinese version to identify discrepancies in meaning, terminology, and conceptual equivalence. Any inconsistencies were discussed and resolved by an expert panel consisting of clinicians, psychometricians, and public health researchers.

Third, the pre-final English version underwent cognitive debriefing with a small sample of patients with chronic gastritis to assess clarity, comprehensibility, and cultural relevance of the items and response options. Minor wording adjustments were made based on participant feedback to improve clarity and acceptability without altering the original meaning of the items.

Finally, the finalized English version was proofread and approved by the expert panel. Throughout the process, emphasis was placed on achieving **conceptual equivalence rather than literal translation**, ensuring that the instrument retained its measurement properties and cultural appropriateness for use in international research contexts.