|  |
| --- |
| **A scale for measuring perceived positive change after education for chronic disease self-management: initial reliability and validation testing** |
| **Background/Objectives**  People with chronic diseases can be empowered by learning self-management skills. Programs to teach those skills have been implemented worldwide, and one indicator of their effectiveness is the positive change perceived by their participants. A scale was developed to measure that Perceived Positive Change (PPC), and here we report the results of its initial psychometric testing.  **Methods**  Data were collected from 455 participants in the Chronic Disease Self-Management Program in Japan. In the program, the participants learned and practiced skills in the following areas: nutrition; exercise; evaluating new treatments; using medications; handling pain, fatigue, frustration, and isolation; and communicating better with friends, family, and healthcare professionals.  PPC was measured 6 weeks after the program ended. The PPC scale had 7 question-items. They asked about program-related changes in 1) feeling calm, 2) helping other people, 3) thinking positively in general, 4) accepting things with equanimity, 5) not rushing or pushing oneself too hard, 6) being reassured through social activities, and 7) focusing not on difficulties but on possibilities.  Psychometric testing included exploratory factor analysis and computation of scale reliability. Correlations with psychological depression and with the use of cognitive coping skills comprised the initial validation tests.  **Results**  Almost no data were missing: 1.1%. Actual scores covered the entire possible range (0 to 28), but the floor effect was only 0.2% and the ceiling effect was only 7.3%. The scree plot had a distinct “elbow” at the second factor. The first factor explained 61% of the variance. Coefficient alpha was 0.89 and it could not be increased by deleting any item. The correlation of the 7-item summary score with the use of cognitive coping skills was positive (r=.32, p<.001), while its correlation with psychological depression was negative (r=-0.36, p<.001).  **Discussion**  This scale is clearly uni-dimensional, and its scores are highly reliable. The directions and magnitudes of the correlations with indices of coping and of depression were all as expected for a valid measure of PPC. Together with the finding of virtually no missing data and no major floor or ceiling effect, these results indicate that this 7-item scale can be used to measure Perceived Positive Change after health education.  **Keywords**  Perceived Positive Change, health education, self-management |