Standard Dermatology Outcome Measures questionnaire captures improvements in dermatologic disease burden

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Background/Purpose: Patient-reported outcome (PRO) measures are important in clinical care for examining impact of disease on patients' quality of life (QoL). The Standard Dermatology Outcome Measures (SDOM) questionnaire assesses skin-related quality QoL, itch severity, disease severity, treatment adequacy, and treatment side effects. Little is known about the clinical utility of the SDOM in routine dermatologic care. The purpose of this study was to investigate changes in patient-reported quality of life, dermatologic disease burden, and treatment adequacy across up to five clinic visits using the SDOM.

Methods: The SDOM questionnaire consists of 5 validated patient-reported outcomes including the Skindex-mini (i.e., 3 items for skin-related QoL on a 0-6 scale), ItchyQuant for itch severity (0-10), patient Investigator's Global Assessment (pIGA) for disease severity (1-5), treatment adequacy (yes/no), and treatment side effects (yes/no). Patients completed the SDOM during rooming for their dermatology visit. Quantitative variables were analyzed using mixed model analyses and repeated measures ANOVA while ordinal variables were analyzed by ordinal logistic regression at significance level 0.05.

Results: A total of 248 subjects completed SDOM questionnaires at Visit 1 and Visit 2. A subset of these subjects had further data available for subsequent visits (Visit 3 (N=93); Visit 4 (N=49); Visit 5 (N=25)). There were no differences in patient demographics, time between visits, or dermatologic diagnoses represented across all visits. Skindex-mini and ItchyQuant scores were significantly affected by visit number (emotional: $p<0.0001$, functional: $p=0.0016$, symptoms: $p<0.0001$, itch: $p<0.0001$), with Skindex-mini emotional and symptom subscores as well as the itch severity score showing a downtrend with increased visits. Patient-reported disease severity changed significantly across visits, with fewer patients reporting "severe" and more patients reporting "clear" with more visits ($p<0.0001$). Treatment side effect responses also changed significantly across visits, with fewer patients indicating "not applicable" as a response as visit number increased ($p=0.0002$). Interestingly, treatment efficacy responses were more variable without a clear trend over time. Dermatologic diagnosis did not significantly affect the results of any of the above analyses.

Conclusions: Our results suggest that the SDOM can be a valuable tool in assessing PROs over time as patients engage in dermatologic care. Globally, scores for 3 of the 5 measures improved over time, suggesting that PROs capture dermatologic improvement over time as patients obtain treatment for their conditions. Interestingly, Skindex-mini functional scores and treatment efficacy were more resistant to change over time. This may reflect the increased amount of time needed for some treatments to take effect or the limited effect of dermatologic conditions on functional impairment. Further studies with larger sample sizes across visits are necessary to investigate this further. Incorporating the SDOM questionnaire into routine clinical practice allows for monitoring of clinical progress in a patient-centered manner.