K02.d. Movement Disorders: Support devices & monitoring

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COMPARISON OF PAPER AND ELECTRONIC VERSIONS OF THE EQ-5D AND PDQ-8 IN PATIENTS WITH PARKINSON’S DISEASE

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Aims

PDQ-8 and EQ-5D are instruments used to evaluate the health-related quality of life in patients with Parkinson's disease (PD). This study assessed the consistency, compliance, and usability of electronic versions compared to paper versions of these instruments.

Method

Fifteen PD patients participated in this study. For the first 7 days electronic EQ-5D (accomplished in the morning) and PDQ-8 (accomplished in the evening) were completed on an iPad, while 30 days later they were completed on an iPhone. Paper versions of both instruments were completed on Days 1, 8, 31, and 38.

Results

Wilcoxon Signed Ranks Tests were used to assess the difference between the use of each instrument comparing different modalities. For EQ-5D questions, no significant differences were observed between the iPad and paper (p>.3) or between iPhone and Paper (p>.3), except for the Health State VAS on one of the days (Day 38 z=-2.111, p=.035). For PDQ-8 questions, there was no statistically significant differences between the iPad and paper (p>.1) or between iPhone and paper (p>0.08). No statistical significance was observed in assessing the consistency between the iPad and iPhone, using one-way ANOVA and Linear Mixed Models, for either instruments. Compliance rates were higher on iPhones than on iPads, and higher in the morning than the evening, but lowered after the 4th consecutive day of testing. Patient Surveys indicated preference in the use of the iPhone due to its' portability.

Conclusion

These results suggest mobile applications, especially on an iPhone, may be a viable tool for robust outside clinic monitoring of PD.

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