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### **Patient Satisfaction with Pharmacy Diabetes Disease State Management (DSM) Services: Validation of an Instrument**

Type of abstract: Research

**Aim of Project:** To develop and validate an instrument to measure patient satisfaction with Diabetes Disease State Management services delivered by community pharmacists.

**Method:** The Diabetes Disease State Management Questionnaire (DDSM-Q) was developed on the basis of 14 in-depth, semi-structured interviews with participants, in the Pharmacy Diabetes Care Program in New South Wales<sup>1</sup>. The results of the qualitative interviews informed development of a 32 item questionnaire. The DDSM-Q was next sent to 165 participants of the pharmacy diabetes care projects. Principal Components Analysis (PCA) followed by confirmatory factor analysis (CFA) were used to assess construct validity and Cronbach's alpha for internal consistency. Concurrent validity was examined by correlation between the factor scores and change in HbA<sub>1g</sub> levels.

**Result(s):** One hundred and seventeen questionnaires were returned, a 71.3% response rate. Respondents had a mean age of 63 years and 60% were male. PCA identified 4 factors (17 items) contributing to consumer satisfaction and this was confirmed with CFA (model. fit: X<sup>2</sup>191 .68; df=115; bootstrap p=0.130). These were labelled "*impact on diabetes self management*", "*satisfaction with improvement in knowledge*" and "*affect based satisfaction with the pharmacist's service*" and "*performance of the pharmacist's service*" with Cronbach's alphas of 0.83, 0.80, 0.62 and 0.77 respectively. There was a statistically significant correlation between satisfaction scores and changes in HbA<sub>1g</sub>.

**Conclusion:** The results support the validity and reliability of the DDSM-Q as a measure of patient satisfaction with pharmacist -delivered DSM services for type 2 diabetes. Further research will be needed to validate the instrument in different populations.

1. Krass e t al. The *Pharmacy Diabetes Care Program*.[http://www.guild.org.au/public/researchdocs/2002-518 fr.pdf](http://www.guild.org.au/public/researchdocs/2002-518_fr.pdf), last accessed 8/12/06. (Funded by CDHA under the 3<sup>rd</sup> Community Pharmacy Agreement).