

42.7% were female. A 16 item instrument was developed and refined using cognitive interviews (n = 26). The new instrument is currently being evaluated for validity and sensitivity. **CONCLUSIONS:** Patient self-management of type 2 diabetes is a crucial element of successful outcomes in both research studies and clinical practice settings. The Diabetes Self-Management Profile will be useful for measuring the impact of different treatment modalities on patients' ability to manage the multiple aspects of their Type 2 diabetes.

PDB53

VALIDATION OF THE HUMAN GROWTH HORMONE PREFERENCE AND SATISFACTION QUESTIONNAIRE (HGH-PSQ)

Stephens JM¹, Gold KF², Carpiuc KT¹, Altman P³, Germack J³, Joshi AV³

¹PharMerit North America LLC, Bethesda, MD, USA, ²Harvard University, Cambridge, MA, USA, ³Novo Nordisk Inc, Princeton, NJ, USA

OBJECTIVES: To validate the Human Growth Hormone Preference and Satisfaction Questionnaire (HGH-PSQ), a new instrument for assessing preference for and satisfaction with HGH treatment modalities. **METHODS:** Following IRB approval, the initial instrument was pilot tested at 4 clinical sites specializing in pediatric endocrinology. Clinicians, patients, and parents participated in assessing the properties, overall functionality, and comprehension of the instrument. Eligible patients completing the instrument were children and adolescents 10–18 years old, and were either new or established users of HGH. Face validity, statistical validity, internal reliability, domain intercorrelations, and test-retest reliability were assessed for each domain, as well as for the entire instrument. **RESULTS:** Forty-nine patients and their parents were administered the instrument, with 48 completing the retest. Following structured feedback and statistical analysis, the final instrument was reduced to 27 items in the patient version and 30 items in the parent version, covering 5 domains of affect, non-interference, ease of administration/preparation, pain, and overall satisfaction. Structured development of the instrument with input from clinicians, psychometricians, patients and their families ensured maximum face validity. Variability and distribution in scores supported statistical validity of the instrument. Strong internal reliability was indicated, with Cronbach's alpha of 0.85 and 0.89 for the patient and parent versions, respectively. Intercorrelation coefficients for each domain with the overall instrument score demonstrated convergent and discriminant validity. The instrument also had good overall test-retest reliability, with correlations of 0.80 for patients and 0.73 for parents, with moderate to good coefficients for the individual domains. **CONCLUSIONS:** The HGH-PSQ shows good psychometric properties and appears to be a valid and reliable instrument to evaluate overall treatment satisfaction with and patient preference for HGH delivery devices. Future studies using larger samples of new users with HGH are warranted to examine the sensitivity of the instrument to detect differences among treatments.

PDB54

PSYCHOLOGICAL INSULIN RESISTANCE (PIR): PATIENT AND PHYSICIAN BELIEFS IMPACTING DIABETES MANAGEMENT

Kongsø JH¹, Brod M², Lessard S³, Christensen T⁴

¹Novo Nordisk A/S, Bagsvaerd, Denmark, ²The BROD GROUP, Mill Valley, CA, USA, ³The Brod Group, Mill Valley, CA, USA, ⁴Novo Nordisk A/S, Bagsvaerd, Denmark

OBJECTIVES: Insulin is a potent drug available to manage diabetes and avoid serious complications and disease progression.

Unfortunately, psychological insulin resistance (PIR) is not uncommon and negatively influences both initiation and compliance with insulin treatment. Thus, understanding etiologies of PIR is critical to ensure optimal diabetes management. **METHODS:** Systematic literature review of peer reviewed journals using MEDLINE database including all articles (English) from 1985–2007. The keywords and phrases used for the search included psychological insulin resistance, type 1/2 diabetes, resistance to insulin therapy, insulin side effects/complications, reluctance to treat, treatment refusal, barriers to compliance, switching, racial/ethnic/cultural/gender issues/barriers initiating insulin, patient reluctance, psychological adjustment, needle/injection anxiety/phobia/fear, psycho-social aspects, patient perceptions, acceptance/adherence and patient preference. A total of 106 articles were reviewed. **RESULTS:** Multiple etiologies of PIR were identified including patients' beliefs and knowledge about diabetes/insulin, negative self perceptions and attitudinal barriers, fear of side effects, complications from insulin use, social stigma and lifestyle adaptations required by insulin use. Gender, socio-economics and culture may modify this impact. Additionally, individual or physician beliefs that one cannot comply with treatment or cope with repeated blood tests, fear of hypoglycemia or weight gain and physicians' previous experience with insulin may also contribute to PIR. These etiological influences, both independently and in combination, constitute patients' PIR and may result in compromised glucose control. **CONCLUSIONS:** PIR is complex and multifaceted and plays an important, often ignored role in diabetes management. This presentation will review the full scope of PIR etiologies and discuss treatment implications. Assisting health care professionals to better understand PIR and tailor insulin treatment modalities accordingly (e.g., with modern insulin analogues associated with less weight gain and less hypoglycemia and/or insulin pen devices), may greatly reduce patients' PIR associated with using human-insulin in vial and syringe.

PDB55

PSYCHOMETRIC STRENGTH OF CURRENT TREATMENT SATISFACTION QUESTIONNAIRES IN NON-INSULIN TREATED TYPE 2 DIABETES

Howarth A, Speight J

AHP Research, Uxbridge, UK

OBJECTIVES: Approximately 90% of the diabetes population has type 2 diabetes, which has been predicted to become the epidemic of the 21st century. Treatment satisfaction is not only an important patient-reported outcome (PRO) but also a significant predictor of medication adherence, with implications for the prevention of long-term complications, e.g. retinopathy, neuropathy, nephropathy. The FDA has made recommendations regarding the development and use of PRO measures. Our aim was to identify treatment satisfaction questionnaires for use in non-insulin-treated type 2 diabetes and scrutinize their development history and psychometric properties. **METHODS:** We used a PICO (population, intervention, competitor and outcome) strategy to search Scopus from 2000 to present for relevant articles. Key search terms included "type 2 diabetes*" and "satisfaction*". Following screening, specific searches for instrument names and citation searches were then conducted. **RESULTS:** A total of 2154 abstracts were screened. Four treatment satisfaction instruments were identified as designed for use in non-insulin-treated type 2 diabetes: the Diabetes Treatment Satisfaction Questionnaire (DTSQ), the Diabetes Medication Satisfaction (Diab-MedSat) questionnaire, the Diabetes Tablet Treatment Questionnaire (DTTQ) and the Satisfaction with Oral Anti-Diabetic Agent Scale